



Innovations – Clamping technology

NEW

We use this symbol to tag new items
in our range of catalogue products



From page **961**
GARANT Master Chuck
SK40 with A-dimension 160



From page **1006**
GARANT PSC arbor
for indexable drill



From page **1013**
Fahrian precision ER
collets, metallic sealed



Page **1025**
GARANT
HSK coolant tube with filter



Page **1030**
HOLEX
soft scroll jaws



Page **1070**
EWS Varia VXT holders
& inserts



Page **1074**
GARANT driven tools
for BMT turrets



From page **1075**
GARANT & HOLEX
BMT toolholders



From page **1077**
GARANT eco
toolholder slim



Page **1089**
GARANT lightweight revolving
lathe centre



Page **1098**
GARANT revolving
lathe centre with pressure
indicator



Page **1113**
Fahrian CENTRO P SYNCHRO
tapping chuck



From page **1113**
Llambrich keyless
drill chuck made of stainless steel



Page **1124**
Bilz
shrink-fit unit



Page **1134**
INSIGHT
Clear View Disk



Page **1135**
GARANT
length setting gauge



Page **1139**
GARANT
digital 3D edge finder



Page **1157**
GARANT
adapter plate



Page **1164**
GARANT Xtrac
automation centring vice



Page **1182**
Allmatic
TeleCentric



Page **1185**
HOLEX
workpiece backstop



Page **1187**
GARANT HiPo Clamp
NC high-pressure vice



Page **1189**
HOLEX
NC high-pressure vice



Page **1198**
GARANT
modular NC high-pressure vice



Page **1205**
GARANT high-pressure
machine vice



Page **1220, 1223**
Kipp clamping cams, centring
clamps & wedge clamps



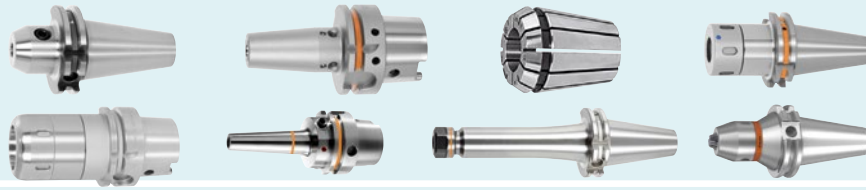
From page **1227**
HOLEX
clamping elements



Page **1253**
GARANT
lifting magnet

Clamping technology

You can obtain the whole catalogue range of these brands from the Hoffmann Group – just ask us for it!

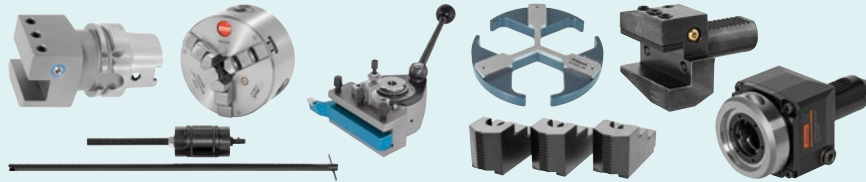


ERUGLU
Garant
WTE
FAHRION
HOLEX
REGO-FIX
VINT TOOL

Chucks, arbors,
accessories

30

939 –
1026

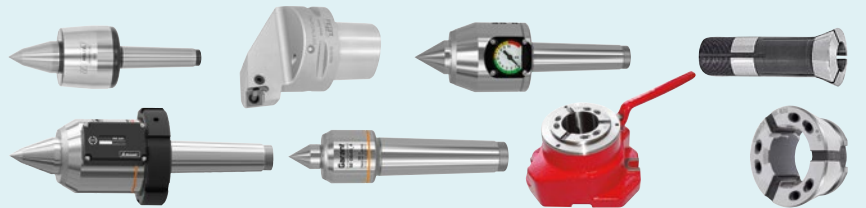


Garant
RÖHM
BISON
SCHUNK
EWS
SWISS TOOLS
HOLEX

Lathe chucks,
quick-change
toolholders,
VDI toolholders,
driven tools

31

1027 –
1080

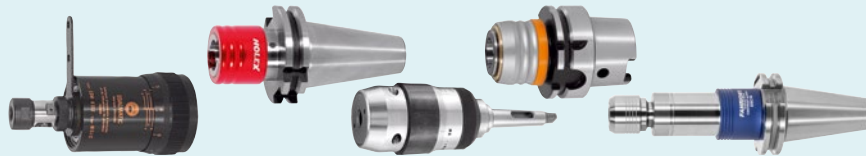


Garant
RÖHM
HOLEX
HAINBUCH
SWISS TOOLS

Lathe centres,
face drivers,
collets,
clamping heads,
toolholders for
indexable inserts

32

1081 –
1104



Garant
FAHRION
HOLEX

Tapping chucks,
quick-change chucks,
tap extensions

33

1105 –
1113



Garant
ALBRECHT
RÖHM
LLAMBRICH
HOLEX

Drill chucks,
arbors,
taper sleeves,
taper cleaners,
slitting saw arbors

34

1113 –
1121

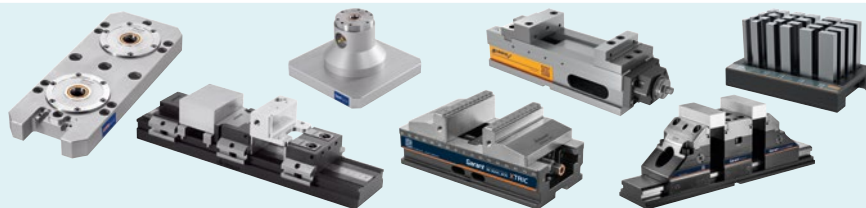


Garant
AMF
HOLEX
PUE
REGO-FIX
HALDER
bitz
ALMATIC

Edge finder, 3D edge
finder, shrink-fit unit,
pre-setting device,
data clip,
tool fitting aid,
cleaning aids

35

1122 –
1143



Garant
ALMATIC
HOLEX

Zero-point
clamping system,
NC vices, centring
vices, clamping rails,
5-axis vices, sets of
parallels

36

1144 –
1216



Garant
MUEBITE
AMF
KIPP
HALDER
KOPAL
HOLEX

Machine clamps,
toggle clamps

37

1217 –
1252



Garant
MAG
AUTOTLOK
TECHNOMAG
[SAV]
WITTE

Load lifting magnets,
permanent magnet
tables, electro-
permanent magnets,
demagnetisers,
vacuum clamping
technology

38

1253 –
1261



Garant
ARIANA
HELICOIL Plus
AMF
SCHUNK
HOLEX

Manuals,
coolant,
cleaning tools,
magnetic grippers and
bar holders

Machining
accessories

1262 –
1283

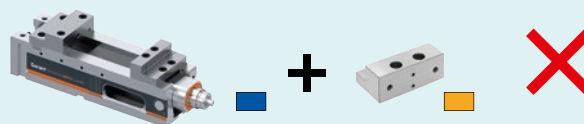
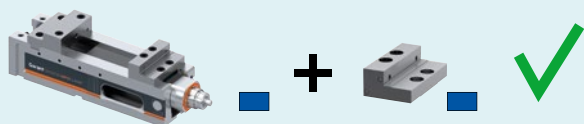
Pictograms



Standard	DIN 69871	ISO 7388-1	DIN 2080	JIS B6339	ISO 7388-2	DIN 69893	ISO 12164-1	DIN 6359	Tool arbors Shank type, Gripper groove, and inter- face correspond to this DIN.	
	DIN 6358	DIN 69882-2	ISO 26623-1	ISO 26622-1	ISO 12164-3					
	DIN 69872	ISO 7388	MAS 403	ISO 7388-3	Pull studs correspond to this DIN.					
	ISO 10897	ISO 15488-A	ISO 15488-B	DIN 2084	ER / OZ collets / clamping nuts and accessories correspond to this DIN.					
									Manufacturer's standard	
Coolant feed	Note: CS = Coolant supply / ICS = Internal coolant supply / CCB = Cooling channel bores.									
	Form A	Form E	Form F	For ISO tapers: no central coolant supply available (the arbor is not bored through). For hollow shank taper: central axial coolant supply available via a coolant pipe. Form F: no central coolant supply available, only through bored.						
	Form AD	Conforms to standard JIS B 6339-2: Form JD -> Central coolant feed through the tightening bolt. A pull stud with through-hole is required for this purpose. DIN ISO 7388-1 (formerly DIN 69871): Form AD -> Central coolant feed through the tightening bolt. A pull stud with through-hole is required for this purpose.								
	Form ADB	Conforms to the new standard DIN ISO 7388-1 (former DIN 69871): form ADF -> inner coolant feed optionally through the centre (form AD) and via the collar (form AF). Conforms to standard JIS B 6339-2: Form JD/JF -> inner coolant feed optionally through the centre (form JD) and via the collar (form JF). DIN 69871: Coolant supplied centrally (= form AD) or laterally via the collar (= form B).								
			Internal coolant supply limited to maximum 50 bar, or suitable for internal coolant supply.							
		Arbors with cooling channel bores and closable threads.				Arbors with cooling channel bores cannot be plugged.				
Radial run-out									Radial run-out of various arbors and short drill chucks.	
	Run-out of ER collets: HP = High precision ER collet (2 µm) FAHRION ER standard collet (5 µm) FAHRION ER standard collet (10 µm) HOLEX									
						System radial run-out FAHRION ER precision collet chuck Centro P (CP) and HDC in connection with FAHRION ER collets (HP or standard) or OZ collet (type 444E).				
	HP+CP	ER+CP	OZ+CP	ER+HDC	HP+HDC					
Balancing speed	G 6.3 8000 min ⁻¹	G 6.3 12000 min ⁻¹	G 6.3 15000 min ⁻¹	G 2.5 18000 min ⁻¹	G 6.3 20000 min ⁻¹	G 2.5 25000 min ⁻¹	G 2.5 30000 min ⁻¹	G 2.5 40000 min ⁻¹	G 6.3 18000 min ⁻¹	
	Balancing quality of various arbors: e.g. precision balanced to G2.5 at 25000 rpm.									
Application	HSC	Arbor suitable for High speed machining (high speed cutting)				HPC	Arbor suitable for high performance cutting.			
		Tool dust-tight and watertight.					Maximum tightening torque (M _{Dmax}).			
	Form A	For HSK arbors: – Application in machining centres. – Torque transmission by 2 drive slots at the end of the taper.				Form E	For HSK arbors: – Used for high frequency spindles (e.g. woodworking machines) – Rotationally symmetrical, without drive slots. – Torque transmission by friction.			
		Vibration damping					Prepared for zero point clamping system			
		BT arbors with double contact					Energy harvesting – battery-free tool. Power supply for the pressure indicator by rotation of the point. Power is obtained from the integral generator.			
		Hoffmann Group Connected Suite					Bluetooth interface			
		Compatible with the HCT mobile app								

Workpiece clamping

Find the right tool quickly and easily.



Lathe chucks – Group 31		Colour code	Ø in mm				Page
	RÖHM Geared scroll chucks ■ DIN 6350 / DIN 702-4 ■ DIN 55027 / DIN 702-3 ■ DIN 55029 / DIN 702-2		80	100	125		1028
			160	200	250	315	
	HOLEX Geared scroll chucks ■ DIN 6350 / DIN 702-4 ■ DIN 55027 / DIN 702-3		80	100	125	160	1031
			200	250	315	400	
	SCHUNK Self-centring lathe chucks ■ DIN 55027 / DIN 702-3 ■ DIN 6350 / DIN 702-4		160	200	250	315	1035
	RÖHM Self-centring lathe chucks ■ DIN 6350 / DIN 702-4 ■ DIN 55027 / DIN 702-3		160	200	250	315	1034

Vices – Group 36		Colour code	Width in mm				Page
	GARANT centring vice		80	120			1155
	GARANT centring vice, pneumatic		100		160		1158
	GARANT XGripp embossing station	–			150		1160
	GARANT XTric		50	80	125		1162
	HOLEX centring vice				75	120	1171
	GARANT Xpent		100	125			1173
	ALLMATIC TeleCentric ALLMATIC TeleSense		70		125		1182 1183
	ALLMATIC NC8		90	125	160	200	1186
	GARANT HiPo Clamp			125	160		1187
	GARANT LC			125			1188
	HOLEX NC vice			125	160		1189
	ALLMATIC DUO ALLMATIC DUO PLUS		90		125		1190
	ALLMATIC T-REX ALLMATIC CENTRO GRIPP			125			1192 1191
	ALLMATIC TITAN2 ALLMATIC TITANsense			125	160		1197 1196
	GARANT LCV 125G			125			1198
	ALLMATIC HD GARANT HD		100	125	160		1204 1205
				125	160		
	HOLEX high-pressure vice		113	135		160	1205
	GERARDI HOLEX MODULAR			125	150	200	1208 1209
				125	150		
	HOLEX stationary machine vice				150		1206

Colour code in Group 30, 31, 32, 33 and 35



Find the right tool quickly and easily.

A simple colour coding can be found in respective tables for a quick visual assignment and linking of tool groups across different products.

Arbors group 30, 31, 32, 33		ISO taper arbors									ISO taper arbors with double contact									
		DIN 69871			DIN 2080			MAS BT JIS B 6339			DIN 69871			MAS BT JIS B 6339			DIN 69893 (Form A, E)			
		SK 30	SK 40	SK 50	SK 30	SK 40	SK 50	BT 30	BT 40	BT 50	SK-DC 30	SK-DC 40	SK-DC 50	BT-DC 30	BT-DC 40	BT-DC 50	HSK 25	HSK 32	HSK 40	HSK 50
Taper size																				
Colour code																				
		Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page
Weldon arbor		939	939	939	○	969	○	971	971	971	○	○	○	983	983	983	-	○	○	○
Whistle Notch arbor		-	941	941	-	-	-	-	○	○	-	○	○	-	○	○	-	○	○	○
Combination arbor Weldon/ Whistle-Notch		-	941	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ER collet chuck		943	942	942	○	970	○	972	972	972	○	○	○	983	983	983	990	○	988	○
OZ collet chuck		○	946	○	○	○	○	○	○	○	○	○	○	○	○	○	-	-	-	○
Combination face mill adapter		○	947	947	○	970	970	○	976	976	○	○	○	○	984	○	-	○	○	○
Face mill arbor		948	948	948	-	○	○	976	976	977	○	○	○	984	984	○	-	-	-	○
Reducing sleeve arbor		○	950	950	○	○	○	○	975	975	-	○	○	-	○	○	-	-	-	○
Screw-in milling arbor		952	951	951	-	-	-	○	978	978	-	○	○	-	○	○	-	-	-	-
Short drill chuck		957	957	957	○	969	969	981	981	981	○	○	○	○	○	○	-	○	1001	○
Micro drill chuck		○	-	-	-	-	-	○	-	-	-	-	-	-	-	-	○	○	○	-
Hydraulic chucks		○	958	958	-	-	-	978	978	980	○	○	○	○	○	○	-	○	999	999
Heavy-duty chuck		○	946	946	-	-	-	○	975	975	-	○	○	-	○	○	-	-	○	○
Shrink-fit arbor		963	962	962	-	-	-	982	981	982	○	○	○	984	984	○	-	○	1002	1002
Toolholders for indexable inserts		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reduction / extensions		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Quick-change tapping chucks		○	1106	1106	○	○	○	1107	1107	1107	○	○	○	○	○	○	-	-	○	○
Axial / radial toolholder		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
VDI toolholder		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indexable drill arbor		-	951	951	-	-	-	-	977	977	-	○	○	-	○	○	-	-	-	-
Boring bar holder		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Parting-off toolholder		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Driven tools		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Blanking plug		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	○	1078	○

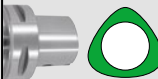
○ = available on request / - = not available

Tool clamping



Colour code examples:

 In groups 30, 31, 32, 33 and 35 these products and tool groups have SK40 tapers. This ensures that SK40 arbors, clamping fixtures in group 35 and UNIT storage systems in group 97 are compatible.

Hollow shank taper arbors												 BMT toolholders								 VDI toolholders					
DIN 69893 (Form A, E)			(Form F)	HSK-T ISO 12164-3 (Form T)			Polygonal shank ISO 26623-1													DIN 69880					
HSK 63	HSK 80	HSK 100	HSK 63	HSK 40	HSK T63	HSK T100	PSC 32	PSC 40	PSC 50	PSC 63	PSC 80	40	45	55	60	68	WT100	WT150	Size 16	Size 20	Size 25	Size 30	Size 40	Size 50	
																									
Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	Page	
986	○	986	986	-	-	-	1007	1007	1007	1007	1007	-	-	-	-	-	-	-	-	-	-	-	-	-	
987	○	987	-	-	-	-	-	○	○	○	○	-	-	-	-	-	-	-	-	-	-	-	-	-	
987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
988	○	○	989	-	-	-	1008	1008	1008	1008	1008	-	-	-	-	-	-	-	○	1062	○	1062	1062	○	
○	-	○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	○	○	○	1062	1062	○	
993	○	993	993	-	-	-	○	○	○	○	○	-	-	-	-	-	-	-	-	-	-	-	-	-	
993	○	994	993	-	-	-	○	1009	1009	1009	1009	-	-	-	-	-	-	-	-	-	-	-	-	-	
990	○	990	○	-	-	-	-	-	-	-	○	-	-	-	-	-	-	-	-	-	-	-	-	-	
997	-	997	○	-	-	-	○	○	○	1009	○	-	-	-	-	-	-	-	-	-	-	-	-	-	
1001	○	1001	1001	-	-	-	○	1010	○	1010	○	-	-	-	-	-	-	-	-	1061	○	1061	1061	○	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
998	○	999	998	-	-	-	○	○	○	1009	○	-	-	-	-	-	-	-	-	-	-	○	○	-	
992	○	992	○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1003	○	1004	1003	-	-	-	1010	1010	1010	1010	1010	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	1082	1082	○	○	1077	1077	1077	○	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	○	1079	○	-	1078	1078	1078	○	-	-	-	-	-	-	-	-	-	-	-	-	-	
1107	○	1107	○	-	-	-	○	○	○	1107	○	-	-	-	-	-	-	-	○	1060	○	1060	1060	○	
-	-	-	-	1077	1077	○	○	1079	1079	1079	1079	1076	1076	1076	1076	1076	1076	1076	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1052	1052	1052	1052	1052	1052	
996	-	996	-	○	○	○	○	○	○	1006	○	1075	1075	1075	1075	1075	1075	1075	1056	1056	1056	1056	1056	1056	
-	-	-	-	1078	1078	○	○	1080	1080	1080	○	1075	1075	1075	1075	1075	1075	1075	1056	1056	1056	1055	1055	1056	
-	-	-	-	○	1078	○	○	-	○	1081	○	○	○	○	○	○	○	○	1054	1054	1054	1054	1054	1054	
-	-	-	-	-	-	-	-	-	-	-	-	1074	1074	1074	1074	1074	1074	1074	1071	1071	1071	1071	1071	1071	
1078	○	○	-	1078	1078	○	○	1075	1075	1075	○	-	-	-	-	-	-	-	1061	1061	1061	1061	1061	1061	

○ = available on request / - = not available



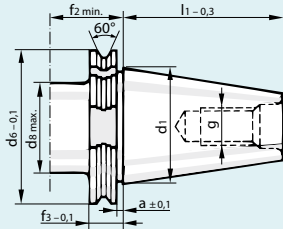
Shank versions for milling machines and machining centres



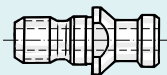
The extremely high tool quality protects the machine spindle and extends the service life of the tools.
Tolerance is tighter than required by DIN: Taper accuracy to AT 3 (max. 3 µm), surface roughness RZ < 0.001 mm.

Note: See page 985 for information on hollow shank interfaces (HSK).

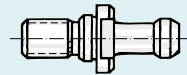
Shanks for NC machines and machining centres



- Form A:** Without through hole.
Form AD: With through hole **for central coolant feed.**
Form B/Form AF: **For lateral coolant feed** via the tool collar.
Form ADB/Form ADF: **For central and lateral coolant feed** via the tool collar.



Pull studs acc. to
DIN ISO 7388-3 (previously DIN 69872) or
ISO 7388/II type B or with snap ring groove.



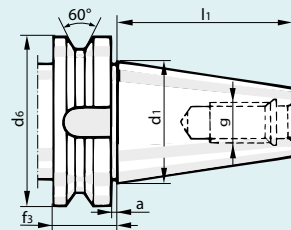
Pull studs to JIS standard.

DIN ISO 7388-1 (previously 69871)

	SK 30	SK 40	SK 50
l1	47.80	68.40	101.75
d1	31.75	44.45	69.85
d6	50.00	63.55	97.50
d8	45.00	50.00	80.00
f2	35.00	35.00	35.00
f3	19.10	19.10	19.10
a	3.20	3.20	3.20
g	M 12	M 16	M 24

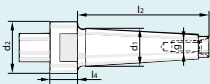
DIN ISO 7388-2 (previously JIS B 6339)

	BT 30	BT 40	BT 50
l1	48.40	65.40	101.80
d1	31.75	44.45	69.85
d6	46.00	63.00	100.00
f3	22.00	27.00	38.00
a	2.00	2.00	3.00
g	M 12	M 16	M 24



Shanks for conventional milling machines and NC machines

MT 3, MT 4 and MT 5 with
Morse taper and internal
draw thread.

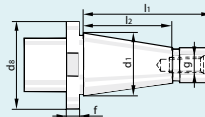


DIN 2207

	MT 3	MT 4	MT 5
l2	86	109	136
l4	18	23	28
d1	23.825	31.267	44.399
d2	36	43	60
g	M 12	M 16	M 20

SK 30 and SK 50

with internal draw thread
SK 30 – in stock at the manufacturer.

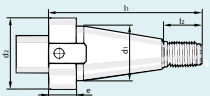


DIN 2080

	SK 30	SK 50
l1	68.40	126.80
l2	50.00	105.00
d1	31.75	69.85
d8	50.00	97.50
f	9.50	15.10
g	M 12	M 24

SK 40

for all Deckel machines with
external buttress threads.

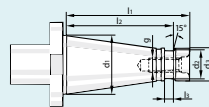


Cover

	SK 40
l1	120
l2	30
d1	44.450
d2	58
g	S 20×2

SK 40

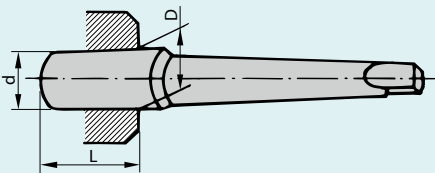
with internal draw thread **with**
manual clamping and with snap ring
groove **for automatic clamping**
(for example, Maho, Deckel, Mikron).



Similar to DIN 2080 with snap ring groove

	SK 40
l1	93.40 ± 0.15
l2	82.00 ± 0.15
l3	7
d1	44.45
d2	21.10 – 0.10
d3	25.00 – 0.08
g	M 16

Drill chuck spigots DIN 238 (June 1962 issue)



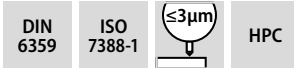
Spigot size	D mm	d mm	L mm	For combination with Morse taper	for drill chucks with clamping range	Large clamping Ø for drill chuck
B6	6.350	5.85	10.00	MT0 - MT2	≤ 3 mm	
B10	10.094	9.40	14.50	MT0 - MT2	3 mm – 4 mm	8
B12	12.065	11.10	18.50	MT0 - MT2	6 mm – 8 mm	10
B16	15.733	14.50	24.00	MT1 - MT3	10 mm – 13 mm	16
B181)	17.431	16.20	32.00	MT1 - MT3	16 mm	16
B22	21.793	19.80	40.50	MT2 - MT4	20 mm	20
B24	23.825	21.30	50.50	MT3 - MT5	26 mm – 32 mm	26

1) Shortened version.

Garant HOLEX Pull stud



Material	Material condition	Machining condition	Advantages
GARANT = chrome-nickel steel GARANT No. 30 8605 / 8615 = 18CrNiMo7 HOLEX = 16 MnCr5	– High hardness (60 HRC) – High tensile strength – Tough core	– High radial run-out accuracy/ axial run-out accuracy – Functional faces ground – Thread true to gauge	– Shock-resistance – Reduced risk of breakage – Prevents tool skewing – Good surface finish on components



Side lock arbor (Weldon) – DIN ISO 7388-1 (formerly DIN 69871)

With Balluff/RFID chip bore.

30 0048/0120/0210/0235/0271/0276/0298/0341/0346/0351/0371 –

With coolant supply holes that can be plugged.

30 0120 – Special nickel plating.

30 0048/0100/0120/0210/0230/0235/0270/0271/0275/0276/0285/0295/0298/0330/
0341/0345/0346/0350/0351/0370/0371 –

GARANT –

All shanks hard turned (for smooth cutting action!).

Balancing quality G 2.5 / G 25,000 rpm.

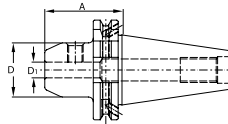
30 0050/0205/0225/0245/0255/0267/0277/0315/0325/0335/0347/0355 –

All shanks fine bead blasted. Balancing quality G 6.3 / 18,000 rpm.

30 0225/0255/0325 – **With cooling channel bores. Cannot be plugged.**

Application: For clamping tools with side flat to DIN 1835 B and
DIN 6535 HB.

Optional extras: Pull studs (PS) No. 308600 – 308806.
Pull stud wrenches No. 308820; 308835.



Form
ADB

G 2.5
25000
min⁻¹



30 0230

Form
ADB

G 2.5
25000
min⁻¹



30 0210

Form
AD

G 6,3
18000
min⁻¹



30 0205

Optimised cooling concept

- 4 cooling channel bores instead of 2
- Different approach angles of the cooling channel bores

Form
ADB

G 2.5
25000
min⁻¹



30 0120

Clamping Ø D ₁				mm	6	8	10	12	14	16	18	20	25	32	40
31A	30 0048	GARANT	Side lock arbor Form ADB with cooling channel bores	SK 30 short	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–	–	–
32A	30 0050	HOLEX	Side lock arbor Form AD	SK 30 short	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–	–	–
31A	30 0100		Side lock arbor Form ADB	SK 40 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
31A	30 0120	GARANT	Side lock arbor Form ADB with cooling channel bores, nickel-plated	SK 40 short	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–	–	–
32A	30 0205	HOLEX	Side lock arbor Form AD	SK 40 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A	30 0210	GARANT	Side lock arbor Form ADB with cooling channel bores	SK 40 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
32A	30 0225	HOLEX	Side lock arbor Form AD with cooling channel bores	SK 40 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A	30 0230		Side lock arbor Form ADB	SK 40 A = 100	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–	–
31A	30 0235	GARANT	Side lock arbor Form ADB with cooling channel bores	SK 40 A = 100	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–	–
32A	30 0245		Side lock arbor Form AD	SK 40 A = 100	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–	–
32A	30 0255	HOLEX	Side lock arbor Form AD with cooling channel bores	SK 40 A = 100	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–	–
31A	30 0270	GARANT	Side lock arbor Form ADB	SK 40 A = 130	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
32A	30 0267	HOLEX	Side lock arbor Form AD	SK 40 A = 130	eShop	eShop	eShop	eShop	–	eShop	–	eShop	eShop	eShop	–
31A	30 0271		Side lock arbor Form ADB with cooling channel bores	SK 40 A = 130	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
31A	30 0275	GARANT	Side lock arbor Form ADB	SK 40 A = 160	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
31A	30 0276		Side lock arbor Form ADB with cooling channel bores	SK 40 A = 160	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
32A	30 0277	HOLEX	Side lock arbor Form AD	SK 40 A = 160	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
31A	30 0285		Side lock arbor Form ADB	SK 40 A = 200	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–
31A	30 0295	GARANT	Side lock arbor Form ADB	SK 50 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
31A	30 0298		Side lock arbor Form ADB with cooling channel bores	SK 50 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
32A	30 0315		Side lock arbor Form AD	SK 50 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
32A	30 0325	HOLEX	Side lock arbor Form AD with cooling channel bores	SK 50 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A	30 0330	GARANT	Side lock arbor Form ADB	SK 50 A = 100	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–
32A	30 0335	HOLEX	Side lock arbor Form AD	SK 50 A = 100	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–
31A	30 0341		Side lock arbor Form ADB with cooling channel bores	SK 50 A = 100	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–
31A	30 0345	GARANT	Side lock arbor Form ADB	SK 50 A = 130	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
32A	30 0347	HOLEX	Side lock arbor Form AD	SK 50 A = 130	eShop	eShop	eShop	eShop	–	eShop	–	eShop	eShop	eShop	–
31A	30 0346		Side lock arbor Form ADB with cooling channel bores	SK 50 A = 130	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
31A	30 0350	GARANT	Side lock arbor Form ADB	SK 50 A = 160	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
31A	30 0351		Side lock arbor Form ADB with cooling channel bores	SK 50 A = 160	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–



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Clamping $\varnothing D_1$		mm	6	8	10	12	14	16	18	20	25	32	40
32A 30 0355	HOLEX	Side lock arbor Form AD	SK 50 A = 160	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
31A 30 0370		Side lock arbor Form ADB	SK 50 A = 200	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–	–
31A 30 0371	Garant	Side lock arbor Form ADB with cooling channel bores	SK 50 A = 200	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–	–
Dimension A (30 0048, 30 0050, 30 0100, 30 0120, 30 0205, 30 0210, 30 0225)			mm	50	50	50	50	50	63	63	100	100	120
Dimension A (30 0295, 30 0298, 30 0315, 30 0325)			mm	63	63	63	63	63	63	80	100	100	120
$\varnothing D$			mm	25	28	35	42	44	48	50	65	72	80
Spare clamping screw No. 30 9900			mm	6	8	10	12	12	16	16	20	25	32

DIN 6359	ISO 7388-1	Form ADB		G 2.5 25000 min ⁻¹		HPC	HSC
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Garant Performance milling chucks – DIN ISO 7388-1 (formerly DIN 69871)

- All shanks hard turned.
- Supplied with 4 table cooling channel bores.

Advantage:

- No risk of the cutter being pulled out, not even a tug.
- Optimised external contour – vibration-damping behaviour.
- Pleasant handling thanks to the differential thread.
- Breakage of the milling cutter shank is improbable.
- Precision version.

Application:

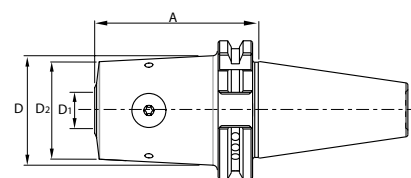
For clamping tools with side drive flats to DIN 1835 Form B and DIN 6535 Form HB. Best suited for TPC milling or high feed rate applications. No risk of the cutter being pulled out, more precise radial run-out, **process reliability!**

Optional extras:

Pull studs (PS) No. 308600 – 308806,
PS wrenches No. 308820 – 308835.



30 0395



- Spring in the base body presses the milling cutter or HB shank into the correct position.
- Contact piece on the tightening screw holds the milling cutter in the HB face.

Clamping range $\varnothing D_1$		mm	6	8	10	12	16	20
31A 30 0395	Performance milling chuck with cooling channel bore	SK 40 short	eShop	eShop	eShop	eShop	eShop	eShop
31A 30 0398	Form ADB	SK 50 short	eShop	eShop	eShop	eShop	eShop	eShop
Dimension A (30 0395)			mm	50	50	50	50	63
Dimension A (30 0398)			mm				63	63
$\varnothing D$ (30 0395)			mm	25.5	28	35	40.5	47.1
$\varnothing D$ (30 0398)			mm	26.7	29.2	36.2	41.7	50.6
$\varnothing D_2$			mm	22.5	25	32	37.5	46.5



Garant Side lock arbor (Weldon), extra-slim

Cylindrical holder with Weldon shank and a clamping screw for clamping the tool. $\varnothing 6$ mm through hole for **internal cooling** provided.

Advantage:

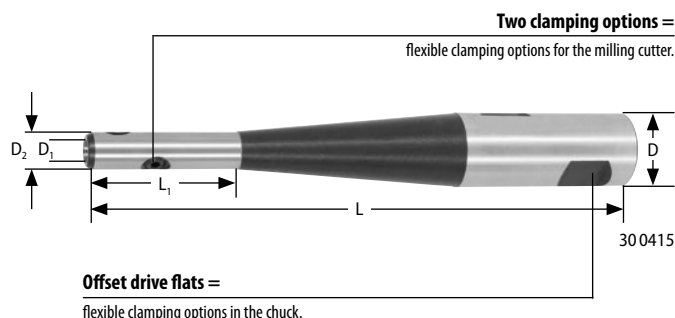
Low interference contour due to slim design and variation of the clamped lengths.

Application:

For clamping tools with side flat to DIN 1835 B and DIN 6535 HB.

Supplied with:

Including insert screw No. 300416.



30 0415

Clamping range $\varnothing D_1$		mm	6	8	10	12	14	16	18	20
31A 30 0415	Holder for Weldon shanks, cylindrical, slim		eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
$\varnothing D$			mm	20	20	20	20	25	25	32
L_1			mm	40	40	40	100	100	100	100
$\varnothing D_2$			mm	9.8	15	18	21	23	28	31
L			mm	150	150	150	150	150	156	160

DIN 6359	ISO 7388-1	Form ADB	G 2.5 25000 min ⁻¹		HPC
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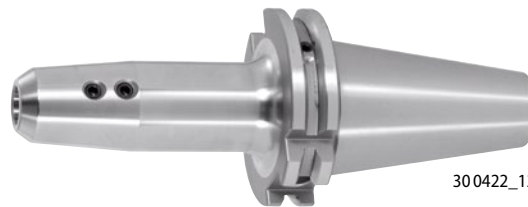
Garant Combi side lock arbor, slim version

Shanks hard turned (smooth cutting action!). With RFID/Balluffchip bore.

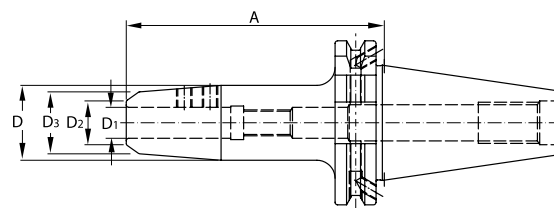
Application: For clamping tools with plain shank to DIN 1835 Form B + E and DIN 6535 Form HB + HE.

Supplied with: With ball-jointed clamping screw for Weldon and Whistle Notch systems and through drilled back stop screw.

Optional extras: Pull studs (PS) No. 308600 – 308806, PS pull stud wrenches No. 308820 – 308835, spare clamping screw 309905 M6, 309905 M8.



300422_12



Clamping range Ø D ₁		mm	6	8	10	12	14	16	18	20
31A	30 0422	Combination side lock arbor, slim Form ADB	SK 40 A = 100	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Ø D		mm	28.33	30.33	32.28	34.22	36.22	38.22	40.38	42.53
Ø D ₂		mm	13	15	16	17	19	21	23	25
Ø D ₃		mm	18	20	21	22	24	26	28	30

DIN 6359	ISO 7388-1	Form AD	G 2.5 25000 min ⁻¹	
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Garant Side lock arbor (Weldon), ultra-short – similar to ISO 7388-1

Size 25 – With only a single shorter locking screw.

Size 32 – Additionally with second locking screw in the slot.

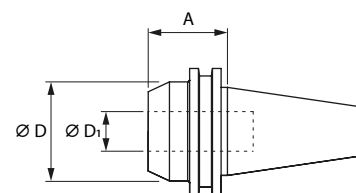
Size 16; 20 – Locking screw in tool gripper groove.

Optional extras: Pull studs (PS) No. 308600 – 308806, PS wrenches No. 308820; 308830, spare screw No. 309901.

Clamping range Ø D ₁			mm	16	20	25	32
31A	30 0410	Side lock arbor Form AD	SK 40 ultra short	eShop	eShop	eShop	eShop
Dimension A			mm	35	40	60	70
Ø D			mm	48	50	65	72



300410_16/_20



DIN 6359	ISO 7388-1	Form ADB	G 6.3 25000 min ⁻¹		HPC
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Garant Whistle-Notch arbor

With back stop screw. Shanks hard turned (smooth cutting action!).

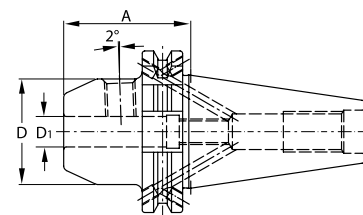
With RFID/Balluffchip bore.

Application: For clamping tools with parallel shank and whistle notch shanks (2°) to DIN 1835 E and DIN 6535 HE.

Optional extras: Pull studs (PS) No. 308600 – 308806, Pull stud wrenches No. 308820; 308835.



300430_10



Clamping range Ø D ₁		mm	6	8	10	12	14	16	18	20	25	32
31A	30 0430	Whistle Notch arbor Form ADB	SK 40 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A	30 0450		SK 50 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Dimension A (30 0430)		mm	50	50	50	50	50	63	63	63	100	100
Dimension A (30 0450)		mm	63	63	63	63	63	63	63	63	80	100
Ø D		mm	25	28	35	42	44	48	50	52	65	72
Spare clamping screw No. 30 9900			6	8	10	12	12	16	16	20	25	32

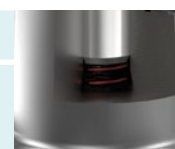
Garant Performance milling chuck

GARANT milling chucks (precision version) ensure the following advantages:

- No risk of the cutter being pulled out, not even when jerked
- Optimised external contour → vibration-damping behaviour.
- Thread self-locking, even when subjected to micro-vibrations.
- Pleasant handling thanks to the differential thread.
- Nasty surprises in the form of shank breakages are virtually fully excluded.



Contact piece on the tightening screw holds the milling cutter in the HB face.



Spring in the base body presses the milling cutter or HB shank into the correct position.

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ISO 7388-1	Form ADB	G 2.5 25000 min ⁻¹	$\leq 3\mu\text{m}$	HSC	HPC
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Garant HiRunER precision ER collet chuck – (formerly DIN 69871)

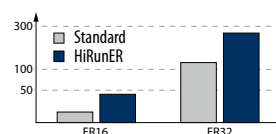
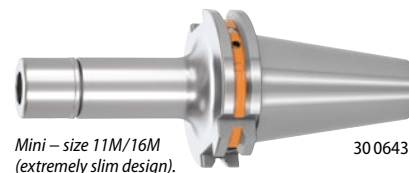
External and internal tapers are ground. All shanks are hard turned for smooth running. Including RFID/Balluffchip bore, high-performance clamping nut up to 25000 rpm.

- Advantage:**
- 3 μm radial run-out with a 2 μm clamping nut, 6 μm radial run-out with a 5 μm clamping nut.
 - **Extremely strong holding force** (up to **factor 2** better than the standard ER chuck).
 - **Vibration reduction effect** due to 2-part clamping nut (size 11M and 16M 1-piece).

Supplied with: Precision clamping nut.

Optional extras: Pull studs (PS) No. 308600 – 308806, PS wrenches No. 308820 – 308835, ER chuck keys No. 309757, 309758 (for 11M and 16M); ER collets Fahrion No. 308901 – 309434, ER collets No. 308901 – 309432, hook spanner No. 628400 or torque wrench No. 309749 or 628520.

- Note:**
- Clamps only nominal $\varnothing$ up to shank $\varnothing$ tolerance h 10.
 - Do not use the clamping nut in combination with a sealing washer.
 - Use in combination with Fahrion collets.
 - The blue design ring must be removed for Fahrion HP 2 μm ER collets.



for ER collet size		11M	16M	16	20	25	32	40
31A 30 0642	HiRunER precision ER collet chuck	SK 40 A = 70	–	–	eShop	eShop	eShop	eShop
31A 30 0643		SK 40 A = 100	eShop	eShop	eShop	–	eShop	eShop
31A 30 0645		SK 40 A = 160	eShop	eShop	–	–	–	–
31A 30 0647		SK 50 A = 100	–	–	–	eShop	eShop	eShop
Clamping range	mm	1 – 7	0.5 – 10	0.5 – 10	1 – 13	1 – 16	2 – 20	3 – 26
$\varnothing D$	mm	16	24	34	38	44	52	62
Spare ER clamping nut No. 309617		–	–	16	20	25	32	40
Spare ER clamping nut No. 309618		11M	16M	–	–	–	–	–



- Standard ER chuck
- Collet is not inserted 100 % in the chuck.



- HiRunER collet is fully seated in the chuck
- higher clamping forces!
- reduced radial run-out!

G 2.5 25000 min ⁻¹	HSC
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Collet chuck, extra slim – (formerly DIN 69871)

- Taper ground internally and externally.
- Shanks hard turned.
- With RFID/Balluffchip bore.
- The collet is clamped by a threaded connection from behind **through** the chuck, **no clamping nut required!**

Advantage: Extremely slim design permits machining of components where access is difficult, e.g. during toolmaking and mould-making.

30 0772 – Large working range and optimised contour for reduced vibration. Cooling with the collet by the tool or along the shank.

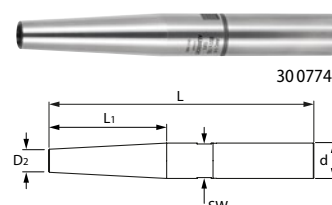
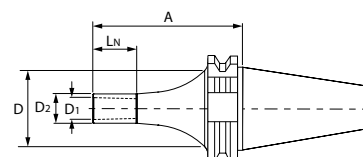
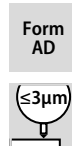
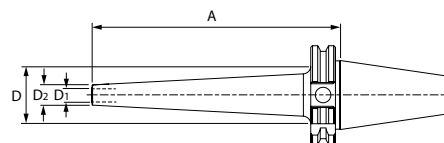
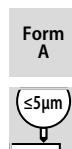
Application: For clamping tools with plain shank to DIN 6499.

Supplied with: Clamping screw and wrench with T-handle.

Optional extras: Pull studs (PS) No. 308600 – 308806, PS wrenches No. 308820 – 308835, **GARANT collets No. 309563, ALBRECHT collets No. 309572 – 309573.**

Clamping range	mm	2-6
31A 30 0782	Garant Collet chuck, extra slim	SK 40 A = 120
31A 30 0784		SK 40 A = 160
$\varnothing D_1$	mm	9.6
$\varnothing D_2$	mm	13
$\varnothing D$	mm	27

Clamping range	mm	1-6
34F 30 0772	ALBRECHT Collet chuck, extra slim, with internal cooling	SK 40 A = 120
34F 30 0774		Micro precision chuck extension with plain shank
$\varnothing D_1$ (30 0772)	mm	10.1
$\varnothing D_2$ (30 0772)	mm	13.5
$\varnothing d$ (30 0774)	mm	20
$\varnothing D$ (30 0772)	mm	42
$\varnothing D_3$ (30 0774)	mm	13
AF (30 0774)	mm	19
L (30 0774)	mm	150
L ₁ (30 0774)	mm	67
L _N (30 0772)	mm	20



ISO
7388-1≤3µm
U

HSC

ER collet chuck – DIN ISO 7388-1 (formerly DIN 69871)

Taper ground internally and externally. With Balluff/RFID chip bore.

30 0515 – Special nickel plating.

30 0463/0470/0510/0515/0525/0530/0545/0550/0570/0575/0610/0625 –

GARANT –

- Balancing quality G2.5 / 25,000 rpm
- All shanks hard turned (for smooth running!).
- GARANT precision clamping nut, fine balanced (G 2.5 / 25,000 rpm) and coated, giving high clamping force and low wear.
- Through bored.

30 0465/0475/0505/0535/0555/0585/0615 –

HOLEX –

HOLEX precision clamping nut, balanced (G6.3 / 18,000 rpm, all shanks fine bead blasted. Balancing quality G6.3 / 18,000 rpm).

For clamping tools with plain shank in collets to DIN 6499 – Form A and B.

Application:**Supplied with:** Clamping nut.

Optional extras: Pull studs (PS) No. 308600 – 308806, PS pull stud wrenches No.308820 – 308835, ER chuck key No. 309680 – 613300, ER collets No. 308901 – 309449, ER clamping nuts No. 309615 (for sealing rings), sealing rings No. 309625 – 309645 (for No. 309615).

Form
ADBG 2.5
25000
min⁻¹

30 0515

Corrosion protection

Special surface treatment

Form
ADBG 2.5
25000
min⁻¹

30 0470

Form
ADBG 2.5
25000
min⁻¹

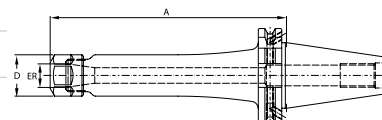
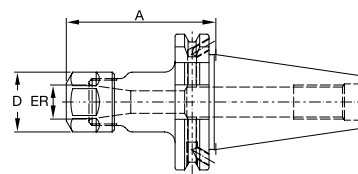
30 0530

for ER collet size

for ER collet size					16	20	25	32	40	
31A	30 0463		ER collet chuck Form ADB	SK 30 short	eShop	–	eShop	eShop	–	
32A	30 0465		ER collet chuck Form AD	SK 30 short	eShop	–	eShop	eShop	–	
31A	30 0470		ER collet chuck Form ADB	SK 40 A = 70	eShop	eShop	eShop	eShop	eShop	
32A	30 0475		ER collet chuck Form AD	SK 40 A = 70	eShop	eShop	eShop	eShop	eShop	
31A	30 0510		ER collet chuck Form ADB	SK 40 A = 100	eShop	–	eShop	eShop	eShop	
31A	30 0515		ER collet chuck Form ADB, nickel plated	SK 40 A = 70	eShop	–	eShop	eShop	eShop	
32A	30 0505		ER collet chuck Form AD	SK 40 A = 100	eShop	–	eShop	eShop	eShop	
31A	30 0525		ER collet chuck Form ADB	SK 40 A = 130	eShop	–	eShop	eShop	eShop	
31A	30 0530			SK 40 A = 160	eShop	–	eShop	eShop	eShop	
32A	30 0535		ER collet chuck Form AD	SK 40 A = 160	eShop	–	eShop	eShop	eShop	
31A	30 0545		ER collet chuck Form ADB	SK 40 A = 200	eShop	–	eShop	eShop	eShop	
31A	30 0550			SK 50 A = 70	eShop	eShop	eShop	eShop	eShop	
32A	30 0555		ER collet chuck Form AD	SK 50 A = 70	eShop	–	eShop	eShop	eShop	
31A	30 0570		ER collet chuck Form ADB	SK 50 A = 100	eShop	eShop	eShop	eShop	eShop	
32A	30 0585		ER collet chuck Form AD	SK 50 A = 100	eShop	–	eShop	eShop	eShop	
31A	30 0575		ER collet chuck Form ADB	SK 50 A = 130	eShop	–	eShop	eShop	eShop	
31A	30 0610			SK 50 A = 160	eShop	–	eShop	eShop	eShop	
32A	30 0615		ER collet chuck Form AD	SK 50 A = 160	eShop	–	eShop	eShop	eShop	
31A	30 0625		ER collet chuck Form ADB	SK 50 A = 200	eShop	–	eShop	eShop	eShop	
Clamping range					mm	0.5 – 10	1 – 13	1 – 16	2 – 20	3 – 26
Dimension A (30 0463, 30 0465)					mm	55	–	55	60	–
Ø D					mm	28	34	42	50	63
Spare GARANT high-speed clamping nut No. 309610						16	20	25	32	40
Spare HOLEX nut No. 309580						16	20	25	32	40

Form
ADG 6,3
18000
min⁻¹

30 0475



30 0630_16



30 0630_32

ER collet chuck sets – maximum system accuracy

Supplied with: ER collet chuck with nut (No. 300470 sizes 16, 25 or 32), ER chuck key (No. 613300 size 25 and 309680 size 32) and ER collets (No. 308901, 308941 or 308981):

ER 16 (426 E): D = 2, 3, 4, 5, 6, 7, 8, 9, and 10 mm.

ER 25 (428 E): D = 3, 4, 5, 6, 8, 10, 12, 14, and 16 mm.

ER 32 (470 E): D = 4, 6, 8, 10, 12, 14, 16, 18, and 20 mm.

Supplied in plastic case.

for ER collet size				16	25	32
37D	30 0630	ER collet chuck set	SK 40	eShop	eShop	eShop

ISO
7388-1G 2.5
25000
min⁻¹

HSC

FAHRION®
HERETOUGH PRECISION**Precision ER collet chuck – (formerly DIN 69871)**

- Taper ground internally and externally with RFID/Balluffchip bore.
- **Concentricity and repetition accuracy 3 µm** at 3xD, maximum 50 mm when using a HP precision collet.
- **HDC = Heavy Duty Chuck**, a mount specially designed for rough machining.
A reinforced chuck body ensures better stability and plenty of radial stiffness.
Taper ground internally and externally. Ball-bearing clamping nut with trapezoidal-shaped fine thread for optimum tightening torques and clamping forces, reduces vibrations that occur.
- **Very high clamping forces** due to the collet fully seated in the chuck and coated clamping nut.
- **Vibration damping** due to the element collet and mass of the chuck.
- **Alternatively for CENTRO P** -> **without seals**, with ER clamping nut CP No. 309655
or sealed system with ER clamping nut CP for HP sealing rings No. 309665 in conjunction with HP sealing rings No. 309666 – 309668 (for internal coolant supply or as a dirt trap).

Advantage: Patented optimum seating of the collet, double guides, trapezoidal thread and low-friction coated clamping nut amalgamate when clamped into a sturdy unit, thus ensuring a very high degree of rigidity and precision.

Application: For high precision clamping of tools with plain shank.
HDC especially well-suited for roughing (including TPC milling) and finishing operations and machining of high-tensile or tough materials.

Supplied with:30 0686–0689 – **Without clamping nut.**30 0694/0697 – **Supplied with ball-bearing clamping nut.**

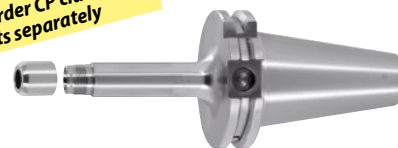
Optional extras: Pull studs (PS) No. 308600 – 308806,
PS wrenches No. 308820 – 308835,
precision ER collets for HP No. 309368 - 309381 and
for taps No. 309402 – 309419 (not for Horex).
ER clamping nuts CP No. 309655; 309665,
ER clamping nut HDC No. 309657,
HP sealing rings No. 309666 – 309668,
CP roller bearing wrench No. 309754; 309756,
HDC roller bearing wrench No. 309745; 309756.

Note:

- **Clamps only nominal Ø up to shank Ø tolerance h10.**

- Use in combination with Fahrion collets.

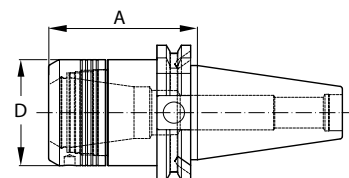
30 0694/0697 – ■ Not compatible with CP clamping nut.

Please order CP clamping
nuts separately**Mini** – size 11M / 16M
(extremely slim design!).**Tapered** – size 16C**Standard** – sizes 16, 25 and 32.HDC clamping nut
included

30 0694_32AD

HDC clamping nut
included

30 0697_32AD



for ER collets			32AD
33F	30 0694	Precision ER collet chuck	SK 40 A = 65
33F	30 0697	HDC	SK 50 A = 100
Clamping range			mm 2 – 20
Ø D			mm 53

Type CP for ER				11M	16M	16C	16	16AD	25	25AD	32	32AD	40AD
33F	30 0686	Precision ER collet chuck CENTRO P	SK 40 short	–	–	–	–	–	eShop	–	eShop	–	–
33F	30 0687		SK 40 A = 70	eShop	eShop	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop
33F	30 0688		SK 40 A = 100	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
33F	30 0689		SK 40 A = 160	eShop	eShop	(eShop)	eShop	–	(eShop)	–	eShop	–	–
Clamping range			mm	1 – 7	1 – 10	1 – 10	1 – 10	1 – 10	2 – 16	2 – 16	2 – 20	2 – 20	3 – 26
Dimension A (30 0686)			mm	–	–	–	–	–	45	–	50	–	–
Ø D			mm	16	22	24	30	30	40	40	50	50	63



ER collet chucks with mini nut, slim version

Clamping nut fine balanced **for HSC**. ER11 through bored. Shanks hard turned (smooth cutting action!).

Supplied with: High speed ER mini nut No. 309650.

Optional extras: ER collets No. 308881 – 309434, ER lock wrench No. 309740.

Detailed dimensions
can be found in the eShop.

for ER collet size				11	16	20	25
31A	30 0649	Garant	ER collet chuck mini / slim Form ADB	SK 40 A = 70	eShop	eShop	–
31A	30 0650			SK 40 A = 100	eShop	eShop	eShop
32A	30 0651	HOLEX	ER collet chuck mini / slim Form AD	SK 40 A = 100	eShop	eShop	–
31A	30 0652	Garant	ER collet chuck mini / slim Form ADB	SK 40 A = 130	eShop	eShop	eShop
31A	30 0665			SK 40 A = 160	eShop	eShop	eShop
32A	30 0661	HOLEX	ER collet chuck mini / slim Form AD	SK 40 A = 160	eShop	eShop	–
31A	30 0667	Garant	ER collet chuck mini / slim Form ADB	SK 50 A = 100	eShop	eShop	eShop
Clamping range				mm	0.5 – 7	0.5 – 10	1 – 13
Ø D				mm	16	22	28
Suitable chuck key No. 309740					11	16	20

G 2.5
25000
min⁻¹

Form
ADB



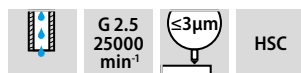
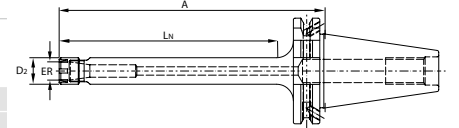
30 0665

G 6,3
18000
min⁻¹

Form
AD



30 0651



ER collet holder for extending the reach of side lock arbors or collet chucks

Through hole for internal cooling provided.

30 0682 – Fahrion CENTRO P cylindrical holder **without clamping nuts**.

30 0685/0683 – Cylindrical holder with Weldon shank and ER nut.

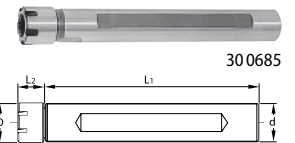
30 0684 – Cylindrical holder with ER nut.

Optional extras:

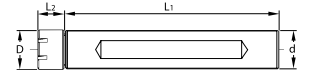
30 0685/0681/0683/0684 – ER collets No. 308878 – 309434, Spare ER nuts No. 309580; 309650.

30 0682 – ER collets No. 309365 – 309372, ER mini nut CP No. 309655; 309665.

Note: Not suitable for shrink processes.
Size 8 – No length adjustment available.



30 0685



30 0681



30 0682



30 0683



30 0684

for ER collet size				8	11	16	20	25	32	40
31A	30 0685	Garant	ER mini collet holder cylindrical	–	eShop	eShop	eShop	–	–	–
32A	30 0681	HOLEX		eShop	eShop	eShop	–	–	–	–
33F	30 0682	FAHRION®	CENTRO P ER collet holder cylindrical	eShop	eShop	eShop	–	–	–	–
32A	30 0683		ER collet holder cylindrical	–	–	–	eShop	eShop	eShop	eShop
32A	30 0684	HOLEX	ER mini collet holder cylindrical	eShop	eShop	eShop	eShop	–	–	–
Ø d (30 0685, 30 0681, 30 0683)				mm	12	16	20	25	32	40
Clamping range				mm	0.5 – 5	0.5 – 7	0.5 – 10	1 – 13	1 – 16	2 – 20
Ø D (30 0685, 30 0682)				mm	10	16	22	28	–	–
Ø D (30 0681, 30 0683)				mm	12	16	22	34	42	50
Ø D (30 0684)				mm	12	16	22	28	–	–
Ø d (30 0682)				mm	10	16	16	–	–	–
Ø d (30 0684)				mm	12	16	20	20	–	–
L ₁ (30 0685)				mm	–	150	140	140	–	–
L ₁ (30 0681, 30 0683)				mm	200	200	200	85.5	65	70
L ₁ (30 0682)				mm	138	133	117	–	–	–
L ₁ (30 0684)				mm	70	140	140	140	–	–
L ₂ (30 0685)				mm	–	19	23	24	–	–
L ₂ (30 0681, 30 0683)				mm	15.6	20.5	27.5	19.5	28	32
L ₂ (30 0682)				mm	10	17	33	–	–	–
L ₂ (30 0684)				mm	15.6	19	23	29.5	–	–



30 0683



30 0684



30

ISO 7388-1	Form AD	G 2.5 25000 min ⁻¹	$\leq 3\mu\text{m}$	HSC
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Garant ER collet chuck, ultra-short – (formerly DIN 69871)

Taper ground internally and externally. **Ultra-short type with internal precision clamping nut.**
Best suited to working in restricted working areas, with higher stability.

Application: For clamping tools with parallel shank in collets to DIN 6499 Form A and B.

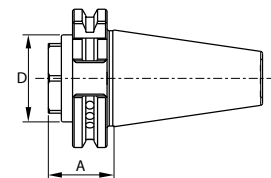
Supplied with: ER clamping nut (internal).

Optional extras: ER collets No. 308941 – 309448,
Pull studs (PS) No. 308600 – 308806,
PS wrenches No. 308820 – 308835.

Note: Matching clamping nut No. 309621.



30 0445



for ER collet size			16	25	32	40
31A	30 0445	ER collet chuck, ultra-short	SK 40	eShop	eShop	eShop
31A	30 0446		SK 50	–	eShop	eShop
Dimension A		mm	27	25	30	29
Ø D		mm	24	32	40	50

ISO 7388-1	Form ADB	G 2.5 25000 min ⁻¹	$\leq 3\mu\text{m}$
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Garant OZ collet chuck – (formerly DIN 69871)

External and internal taper ground.

Ball-bearing power-clamping nut. For higher clamping force and improved radial run-out.

GARANT – With RFID / Balluffchip bore. All shanks hard turned (for smooth running!).

Clamping nut balanced (G 2.5 / 25,000 rpm).

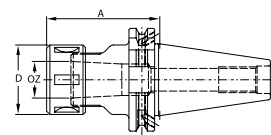
Application: For clamping tools with plain shank in collets to DIN 6388 - Form A and B.

Supplied with: Clamping nut

Optional extras: Pull studs (PS) No. 308600 – 308806, PS wrench No. 308820; 308835,
OZ collets No. 309540 – 309565, Hook spanner No. 628400.



30 0695



Clamping range		mm	2-16	2-25
31A	30 0695	OZ collet chuck Form ADB	SK 40 A = 70	eShop
Ø D		mm	43	60
Spare clamping nut No. 309670			2 – 16	2 – 25
Suitable C-hook (pin) spanner No. 628400			40 / 42	58 / 62

ISO 7388-1	Form AD	G 6.3 15000 min ⁻¹	$\leq 5\mu\text{m}$	HPC
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Heavy-duty chuck – DIN ISO 7388-1 (formerly DIN 69871)

- Low friction due to needle bearings.
 - Protected with anti-corrosion coating.
 - Dust-tight and watertight.
 - Very high clamping force prolongs tool life and improves surface quality.
 - Flexible clamping range by means of collets.
- 30 0785/0787 – ■ Centred tool clamping with optimum concentricity.

■ Internal coolant feed.

Application: For clamping tools with plain shanks.

Supplied with: Clamping nut.

Optional extras: Pull studs No. 308600 – 308806.

30 0775/0778 – Collets No. 309566 – 309570.

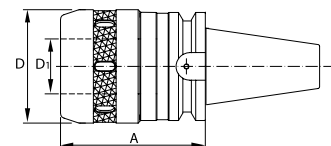
30 0785/0787 – Collets No. 309575 – 309576.



30 0775



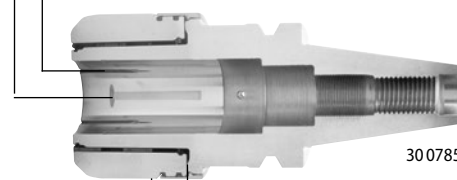
30 0785



Ø D ₁		mm	20	32
32A	30 0775	HOLEX	SK 40	eShop
32A	30 0778		SK 50	eShop
33K	30 0785	NT TOOL	SK 40	eShop
33K	30 0787		SK 50	eShop
Dimension A (30 0775, 30 0778, 30 0785)		mm	90	105
Dimension A (30 0787)		mm	105	
Ø D (30 0775, 30 0778)		mm	52	66
Ø D (30 0785, 30 0787)		mm	52	73
Clamping force up to (30 0775, 30 0778)		Nm	500	900
Clamping force up to (30 0785, 30 0787)		Nm	1000	4000
Suitable C-hook (pin) spanner No. 628400			52 / 55	68 / 75

T-slots collect the oil and grease.

Internal axial recesses effectively prevent the tool slipping.



30 0785

Absolutely smooth running of the clamping nut.

High radial stiffness due to repetition accuracy of the clamping compared to flat face contact seating.

DIN 6358 ISO 7388-1 HPC

Combination face mill adapters – DIN ISO 7388-1 (formerly DIN 69871)

Taper shank, spigot, and all contact surfaces are ground at the collar. With Balluff/RFID chip bore.
30 0835/0845/0885/0895/0910/0930/0950/0985/0990/1010 –

GARANT – All shanks hard turned (for smooth cutting action!).

30 0837/0875/0975 – All shanks fine bead blasted.

Application:

- With drive key for mills with **longitudinal keyway, e. g. DIN 841.**
- With face mill drive ring for face mills with **cross keyway, DIN 1880 and cutter heads to DIN 1830.**

Supplied with: Drive key, face mill drive ring, and lock screw.

Optional extras: Pull studs (PS) No. 308600 – 308806,
PS wrenches No. 308820 – 308835,
Special toggle spanner No. 309840.

Note: Internal cooling available only with suitable tightening screw No. 309861.

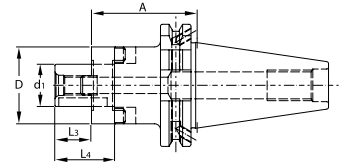


Form ADB

G 2.5
25000
min⁻¹



30 0835



Form A

G 6.3
18000
min⁻¹



30 0875

Spigot Ø d ₁			mm	13	16	22	27	32	40
31A 30 0835	GARANT	Combination face mill adapter Form ADB	SK 40 short	eShop	eShop	eShop	eShop	eShop	eShop
32A 30 0837	HOLEX	Combination face mill adapter Form A	SK 40 short	–	eShop	eShop	eShop	eShop	eShop
31A 30 0845	GARANT	Combination face mill adapter Form ADB	SK 40 A = 100	–	eShop	eShop	eShop	eShop	eShop
32A 30 0875	HOLEX	Combination face mill adapter Form A	SK 40 A = 100	–	eShop	eShop	eShop	eShop	eShop
31A 30 0885			SK 40 A = 130	–	eShop	eShop	eShop	eShop	eShop
31A 30 0895			SK 40 A = 160	–	eShop	eShop	eShop	eShop	eShop
31A 30 0910	GARANT	Combination face mill adapter Form ADB	SK 40 A = 200	–	eShop	eShop	eShop	eShop	eShop
31A 30 0930			SK 50 A = 55	–	eShop	eShop	eShop	eShop	eShop
31A 30 0950			SK 50 A = 100	–	eShop	eShop	eShop	eShop	eShop
32A 30 0975	HOLEX	Combination face mill adapter Form A	SK 50 A = 100	–	eShop	eShop	eShop	eShop	eShop
31A 30 0985			SK 50 A = 130	–	eShop	eShop	eShop	eShop	eShop
31A 30 0990	GARANT	Combination face mill adapter Form ADB	SK 50 A = 160	–	eShop	eShop	eShop	eShop	eShop
31A 30 1010			SK 50 A = 200	–	eShop	eShop	eShop	eShop	eShop
Dimension A (30 0835, 30 0837)			mm	55	55	55	55	60	60
Ø D			mm	27	32	40	48	58	70
L ₃			mm	18	17	19	21	24	27
L ₄			mm	23	27	31	33	38	41
Spare milling cutter lock screw No. 309860 / 309861				13	16	22	27	32	40
Spare drive ring No. 309870				13	16	22	27	32	40
Suitable toggle spanner No. 309840				13	16	22	27	32	40

DIN 6357



HOLEX Face mill arbor extension

Mounting spigot, bore and all contact surfaces are ground at the collar.

Application: For flexible extensions of face mill arbors.
Economy alternative to expensive custom-made arbors.
3 options for use: short (45 mm) or long (70 mm) extension or maximum extension by combining two short extensions (2×45 mm).

Supplied with: Suitable lock screw.

Optional extras: Special toggle spanner No. 309840.

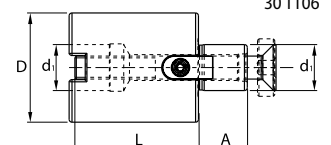
30 1105 – Replacement screw No. 301107.



30 1105

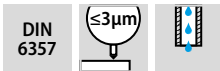


30 1106



Spigot Ø d ₁		mm	16	22	27	32	40
32B 30 1105	Face mill arbor extension short		eShop	eShop	eShop	eShop	eShop
32B 30 1106	Face mill arbor extension long		eShop	eShop	eShop	eShop	eShop
Ø D		mm	38	48	60	78	89
L (30 1105)		mm			45		
L (30 1106)		mm			70		
A		mm	17	19	21	24	27

30



Garant Adapter face mill / collet ER

Bore, contact face at collar and ER collet seat ground, body hard turned for best radial run-out and balancing characteristics. For the shortest possible overhang with internal clamping nut (optionally for use with a sealing washer). Through-bored tightening screw for through-coolant supply.

Application: Very flexible and economical solution, turns any face mill arbor into a collet chuck.

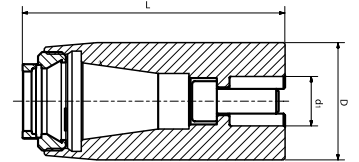
Supplied with: Supplied with ER clamping nut (internal), tightening screw.

Optional extras: Sealing rings No. 309630; 309635.

Note: Matching clamping nut No. 309621.



30 1113



Spigot Ø d ₁	mm	16	22	27
31A 30 1113	Adapter face mill / collet ER	eShop	eShop	eShop
for ER collets		25	32	32
Ø D	mm	38	48	60
L	mm	78	92	94

DIN 6357 ISO 7388-1 HPC

Face mill arbors – (formerly DIN 69871)

- Taper shank, spigot, and all contact surfaces are ground at the collar.
- Short series.
- Increased collar contact surface.
- With RFID/Balluffchip bore.

30 1013/1015/1025/1030/1035/1070/1075/1090/1130/1135/1150/1154 –

- With 4 cooling channel bores.

- All shanks hard turned (for smooth running!).

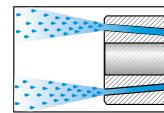
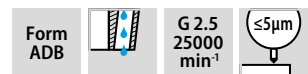
30 1017/1027/1097 – All shanks fine bead blasted.

Supplied with: Lock screw

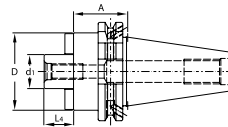
Optional extras: Pull studs (PS) No. 308600 – 308806, PS wrenches No. 308820 – 308835, Special toggle spanner No. 309840. Milling cutter lock screws No. 309860; 309861.

Note:

30 1090 Size 40/1097 Size 40; 60 – With 4 tapped holes for face mills to DIN 2079.



30 1015



30 1017

Spigot Ø d ₁	mm	16	22	27	32	40	50	60
31A 30 1013	Garant Face mill arbor Form ADB with cooling channel bore	SK 30 short	eShop	eShop	eShop	–	–	–
31A 30 1015	Garant Face mill arbor Form ADB with cooling channel bore	SK 40 short	eShop	eShop	eShop	eShop	eShop	–
32A 30 1017	HOLEX Face mill arbor Form A	SK 40 short	eShop	eShop	eShop	eShop	eShop	–
31A 30 1025	Garant Face mill arbor Form ADB with cooling channel bore	SK 40 medium	eShop	eShop	eShop	eShop	eShop	–
31A 30 1030	Garant Face mill arbor Form ADB with cooling channel bore	SK 40 A = 100	eShop	eShop	eShop	eShop	eShop	–
32A 30 1027	HOLEX Face mill arbor Form A	SK 40 A = 100	eShop	eShop	eShop	eShop	–	–
31A 30 1035	Garant Face mill arbor Form ADB with cooling channel bore	SK 40 A = 120	eShop	eShop	eShop	eShop	eShop	–
31A 30 1070	Garant Face mill arbor Form ADB with cooling channel bore	SK 40 A = 160	–	eShop	eShop	–	–	–
31A 30 1075	Garant Face mill arbor Form ADB with cooling channel bore	SK 40 A = 200	–	eShop	eShop	–	–	–
31A 30 1090	Garant Face mill arbor Form ADB with cooling channel bore	SK 50 short	eShop	eShop	eShop	eShop	eShop	eShop
32A 30 1097	HOLEX Face mill arbor Form A	SK 50 short	–	eShop	eShop	eShop	eShop	eShop
31A 30 1130	Garant Face mill arbor Form ADB with cooling channel bore	SK 50 A = 100	–	eShop	eShop	eShop	eShop	–
31A 30 1135	Garant Face mill arbor Form ADB with cooling channel bore	SK 50 A = 120	–	eShop	eShop	eShop	eShop	–
31A 30 1150	Garant Face mill arbor Form ADB with cooling channel bore	SK 50 A = 160	–	eShop	eShop	eShop	eShop	eShop
31A 30 1154	Garant Face mill arbor Form ADB with cooling channel bore	SK 50 A = 200	–	eShop	eShop	eShop	eShop	–
Dimension A (30 1013)	mm	50	50	50	–	–	–	–
Dimension A (30 1015, 30 1090)	mm	35	35	35	50	50	70	–
Dimension A (30 1017)	mm	35	35	35	50	50	–	–
Dimension A (30 1025)	mm	60	60	60	70	70	–	–
Dimension A (30 1097)	mm	–	35	35	50	50	70	70
Ø D (30 1013, 30 1015, 30 1025, 30 1030, 30 1027, 30 1035, 30 1070, 30 1075)	mm	38	48	50	78	89	–	–
Ø D (30 1017)	mm	38	48	50	78	88	–	–
Ø D (30 1090, 30 1130, 30 1135, 30 1150, 30 1154)	mm	38	48	60	78	89	120	–
Ø D (30 1097)	mm	–	48	60	78	89	128	128
L ₄	mm	17	19	21	24	27	30	40
Spare milling cutter lock screw No. 309860 / 309861		16	22	27	32	40	50	60
Suitable toggle spanner No. 309840		16	22	27	32	40	50	60

DIN
6357ISO
7388-1G 6.3
8000
min⁻¹

HPC



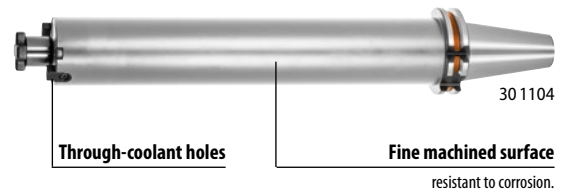
Garant Face mill arbors, vibration-damped – DIN ISO 7388-1 (formerly DIN 69871)

- Taper shank, spigot, and all contact surfaces are ground at the collar.
- With RFID / Balluffchip bore.
- Larger collar contact face.

Supplied with: Cutter lock screw and drive dog.

Optional extras: Pull studs (PS) No. 308600 – 308806,
PS wrenches No. 308820 – 308835,
Special toggle spanner No. 309840.
Milling cutter lock screws No. 309860; 309861.

Note: Further sizes on request.

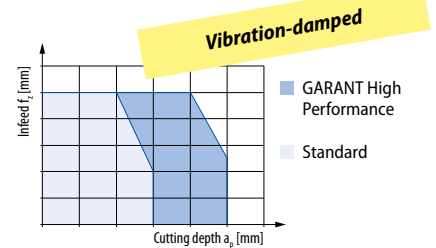


High-performance version with embedded heavy metal core

Advantage: The heavy metal core specially matched to the arbors gives optimum machining results even with long overhangs:

- Saves time, because allows use of the maximum machining parameters.
- Smooth running and thus perfect surface quality results.
- Saves costs, because tool life is increased.
- Less vibrational stress on the machine headstock.

Note: Balance quality G 6.3 dependent on the maximum operating speed.

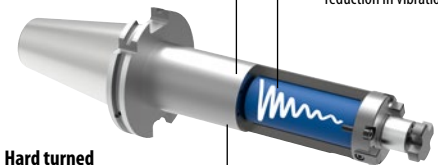


Plain shank design

for the best accessibility.

Vibration damping by absorption system

for optimum reduction in vibration.



Hard turned surface

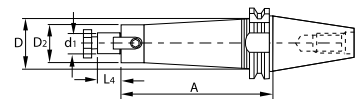
for best balance and smooth running.

Spigot $\varnothing d_1$	mm	16	22	27
3H 30 1102	SK 40 A = 300	eShop	eShop	–
3H 30 1104	SK 50 A = 300	eShop	eShop	eShop
$\varnothing D$	mm	38	48	58
L_4	mm	17	19	21
n_{max} (30 1102)	min ⁻¹	4500	3500	–
n_{max} (30 1104)	min ⁻¹	6000	5500	5000

With heavy metal core

Vibration damped version, arbor with vibration-damping core.

Advantage: Significantly lower tendency to vibrate.
Considerable increase in feed rate.



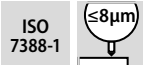
Integral heavy metal core
reduces vibrations.



Spigot $\varnothing d_1$	mm	16	22	27	32	40
31A 30 1136	SK 40 A = 200	eShop	eShop	eShop	–	–
31A 30 1137	SK 40 A = 300	eShop	eShop	eShop	–	–
31A 30 1138	SK 40 A = 200	eShop	eShop	eShop	–	–
31A 30 1139	SK 40 A = 300	eShop	eShop	–	–	–
31A 30 1143	SK 50 A = 200	eShop	eShop	eShop	–	–
31A 30 1144	SK 50 A = 300	eShop	eShop	eShop	eShop	–
31A 30 1146	SK 50 A = 200	eShop	eShop	eShop	–	–
31A 30 1147	SK 50 A = 300	eShop	eShop	eShop	eShop	eShop
31A 30 1148	SK 50 A = 400	eShop	eShop	eShop	–	–
31A 30 1151	SK 50 A = 200	eShop	eShop	eShop	–	–
31A 30 1152	SK 50 A = 300	eShop	eShop	eShop	–	–
$\varnothing D$ (30 1143, 30 1144)	mm	80	80	80	80	–
$\varnothing D_2$	mm	38	48	58	78	89
L_4	mm	17	19	21	24	28



30



Reducing adapter for tools with MT shank – DIN ISO 7388-1 (formerly DIN 69871)

- Ground internally and externally.
- With Balluff/RFID chip bore.

Optional extras: Pull studs (PS) No. 308600 – 308806,
PS wrenches No. 308820 – 308835.

For MT tools with tang

Form AD	G 6,3 12000 min ⁻¹
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30 1155/1170 – **GARANT** – All shanks hard turned (for smooth cutting action!).

30 1165/1185 – All shanks fine bead blasted.

MT internal					1	2	3	4
31A	30 1155		MT reducing adapter with tang, Form AD	SK 40 short	eShop	eShop	eShop	eShop
32A	30 1165			SK 40 short	eShop	eShop	eShop	eShop
31A	30 1170			SK 50 short	–	eShop	eShop	eShop
32A	30 1185			SK 50 short	–	eShop	eShop	eShop
Dimension A (30 1155, 30 1165)				mm	50	50	70	95
Dimension A (30 1170, 30 1185)				mm	–	60	65	95
Ø D				mm	25	32	40	48

For MT tools with draw thread

Form A	G 6,3 18000 min ⁻¹
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All shanks fine bead blasted.

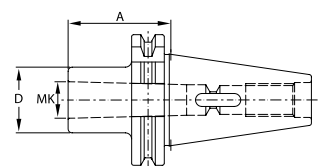
MT internal					1	2	3	4
32A	30 1245		MT reducing adapter Form A	SK 40 short	eShop	eShop	eShop	eShop
Dimension A				mm	50	50	70	95
Ø D				mm	25	32	40	48



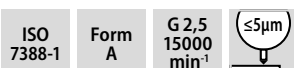
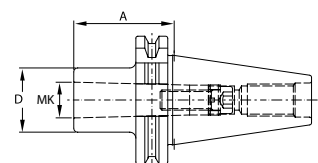
30 1155



30 1165



30 1245



Garant Intermediate sleeves / reducing adapters – DIN ISO 7388-1 (formerly DIN 69871)

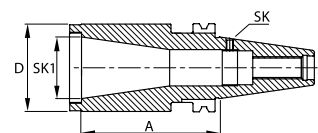
Supplied with: With built-in connecting screw for arbors according to ISO 7388-1. (Formerly DIN 69871)

Optional extras: Pull studs (PS) No. 308600 – 308806.
Pull stud wrenches No. 308820; 308835.

Short taper SK / SK 1			40/40	50/40	50/50
31A	30 1272	Intermediate sleeve	SK 40	eShop	–
31A	30 1273		SK 50	–	eShop
Dimension A		mm	100	70	120
Ø D		mm	63	70	97



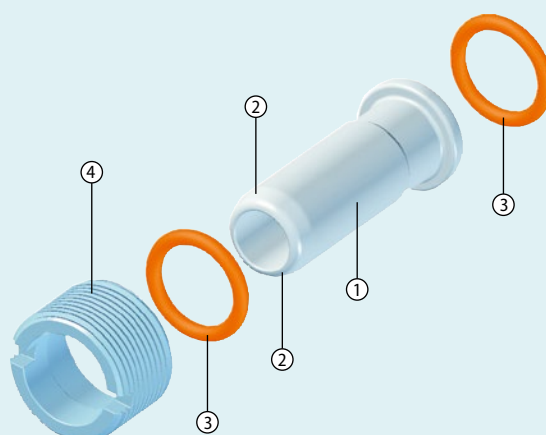
30 1272



Garant Accessories for HSK arbors

HSK coolant pipe – a small component with a big effect!

When tools are changed thousands of times per day it is important that the interface between coolant pipe and machine spindle seal remains clean and, above all, that it maintains process reliability.



No. 30 9880 can be found on page 1025.

- ① Fine polished surface, hardened and burnished.
- ② Two polished transition radii.
- ③ Full freedom of movement thanks to **two coolant-resistant Viton® O-rings**.
- ④ Hardened threaded sleeve **with rolled, high-compression thread flanks**.

ISO 7388-1	Form ADB	G 2.5 25000 min ⁻¹
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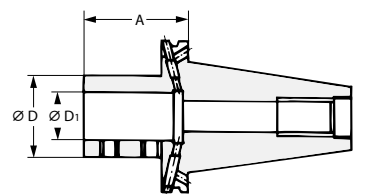
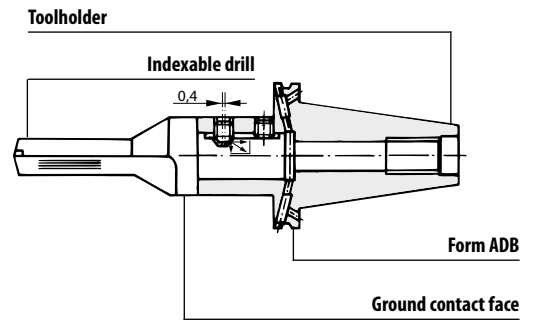
Garant Arbor for indexable drill – DIN ISO 7388-1 (formerly DIN 69871)

- Position of the grub screw for countersinking in the indexable drill offset by 0.4 mm.
- **When tightening** the increased contact face Ø is clamped against the front face of the arbor.
- **Better support**, allowing **higher feed rates**.
- **High concentricity** thanks to the mating surface being ground flat to 3µm.
- With RFID/Balluffchip bore.

Suitable for: All indexable drills with parallel shank to DIN 6595, Part 1.

Application: For mounting all standard indexable drills to DIN 6595, Part 1.

Optional extras: Pull studs (PS) No. 308600 – 308806,
PS wrenches No. 308820 – 308835,
replacement screws No. 309907, 309908.



for shank Ø D ₁	mm	20	25	32	40
31A 30 1285	Arbor for indexable drills	SK 40	eShop	eShop	eShop
31A 30 1287	Form ADB	SK 50	eShop	eShop	eShop
Dimension A (30 1285)	mm	65	70	75	115
Dimension A (30 1287)	mm	70	70	75	80
Ø D (30 1285)	mm	40	45	52	60
Ø D (30 1287)	mm	40	45	52	60

ISO 7388-1	Form A
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HOLEX Boring bar blanks for making special tools – DIN ISO 7388-1 (formerly DIN 69871)

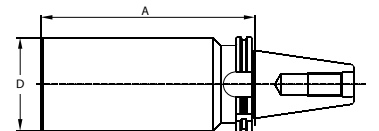
Taper arbor and collar hardened and ground.

Material: 16 MnCr5

Optional extras: Pull studs (PS) No. 308600 – 308806.
Pull stud wrenches No. 308820; 308835.



A dimension	mm	250	315
32A 30 1301	Boring bar blank	SK 40	eShop
32A 30 1302	Form A	SK 50	eShop
Ø D	mm	63	97



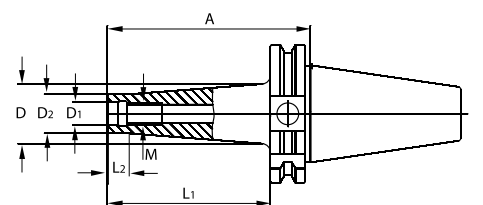
ISO 7388-1	Form AD	G 2.5 25000 min ⁻¹	≤3µm	HSC	
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Garant Arbors for threaded copy milling cutter – DIN ISO 7388-1 (formerly DIN 69871)

Vibration damped version, arbor with vibration-damping core.

Application: To take screw-in milling cutters with thread.

Optional extras: Pull studs (PS) No. 308600 – 308806,
PS wrenches No. 308820 – 308835.



Thread Mxlength L1	31A 30 1313	31A 30 1314	Dimension A	Ø D ₁	Ø D ₂	Ø D	L ₁	L ₂
	Arbor for screw-in milling cutters with thread							
	SK 40	SK 50	mm	mm	mm	mm	mm	mm
M10x181	eShop	–	200	10.5	18	35	181	7
M10x231	eShop	–	250	10.5	18	41	231	7
M12x181	eShop	–	200	12.5	21	38	181	7.5
M12x231	eShop	–	250	12.5	21	44	231	7.5
M16x231	eShop	–	250	17	29	48	231	7.5
M12x281	–	eShop	300	12.5	21	49	281	7.5
M16x281	–	eShop	300	17	29	57	281	7.5



30

ISO
7388-1Form
ADBG 2.5
25000
min⁻¹

HSC

Garant Arbors for threaded copy milling cutter – DIN ISO 7388-1 (formerly DIN 69871)

30 1307 – **Vibration damped version, arbor with vibration-damping core.**

30 1309 – Plain design.

30 1303–1307 – Tapered design.

Application: To take screw-in milling cutters with thread.

Optional extras: Pull studs (PS) No. 308600 – 308806,
PS wrenches No. 308820 – 308835.

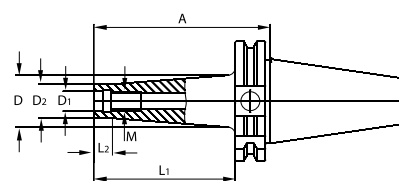
Vibration-damped



30 1307

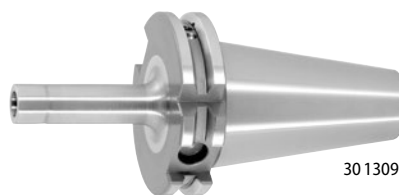


30 1303

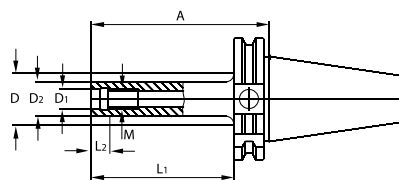


Thread M×length L ₁	31A 30 1307	31A 30 1303	31A 30 1304	Dimension A	Ø D ₁ tolerance IT6	Ø D ₂	Ø D	L ₁	L ₂	
	Arbor for screw-in milling cutters with thread								30 1307 30 1303	30 1304
	vibration damped									
	SK 40	SK 40	SK 50	mm	mm	mm	mm	mm	mm	mm
M6×25	—	eShop	—	44	6.5	10	13	25	5	—
M8×25	—	eShop	—	44	8.5	13	15	25	5	—
M8×50	—	eShop	eShop	69	8.5	13	23	50	5	5
M8×75	eShop	eShop	—	94	8.5	13	23	75	5	—
M8×100	eShop	eShop	—	119	8.5	13	25	100	5	—
M10×5	—	eShop	—	25	10.5	18	18	5	5	—
M10×25	—	eShop	—	44	10.5	18	20	25	5	—
M10×50	—	eShop	eShop	69	10.5	18	23	50	5	5
M10×75	—	eShop	—	94	10.5	18	27	75	5	—
M10×100	eShop	eShop	eShop	119	10.5	18	32	100	5	10
M10×150	eShop	eShop	eShop	169	10.5	18	36.5	150	5	10
M12×5	—	eShop	—	25	12.5	21	21	5	5	—
M12×25	—	eShop	—	44	12.5	21	24	25	5	—
M12×50	—	eShop	eShop	69	12.5	21	24	50	5	5
M12×75	—	eShop	—	94	12.5	21	31	75	5	—
M12×100	eShop	eShop	eShop	119	12.5	21	33	100	5	10
M12×150	eShop	eShop	eShop	169	12.5	21	40	150	5	10
M16×5	—	eShop	—	25	17	29	29	5	5	—
M16×25	—	eShop	—	44	17	29	29	25	5	—
M16×50	—	eShop	eShop	69	17	29	34	50	5	5
M16×75	—	eShop	—	94	17	29	34	75	5	—
M16×100	—	eShop	eShop	119	17	29	36	100	5	10
M16×150	eShop	eShop	eShop	169	17	29	42.5	150	5	10
M16×200	eShop	—	—	219	17	29	45	200	5	—

Thread M × Length L ₁	31A 30 1309	Dimension A	Ø D ₁ tolerance IT6	Ø D ₂	Ø D	L ₁	L ₂
	Arbor for screw-in milling cutters with thread						
	SK 40	mm	mm	mm	mm	mm	mm
M5×25	eShop	44	5.5	10	13	25	5
M6×25	eShop	44	6.5	10	13	25	5
M8×25	eShop	44	8.5	13	15	25	5
M8×50	eShop	69	8.5	13	23	50	5
M8×75	eShop	94	8.5	13	23	75	5
M10×25	eShop	44	10.5	18	20	25	5
M10×50	eShop	69	10.5	18	23	50	5
M10×75	eShop	94	10.5	18	28	75	5
M10×100	eShop	119	10.5	18	32	100	5
M10×125	eShop	144	10.5	18	34	125	5
M10×150	eShop	169	10.5	18	36.5	150	5
M12×25	eShop	44	12.5	21	24	25	5
M12×50	eShop	69	12.5	21	24	50	5
M12×75	eShop	94	12.5	21	31	75	5
M12×100	eShop	119	12.5	21	33	100	5
M12×125	eShop	144	12.5	21	34	125	5
M12×150	eShop	169	12.5	21	40	150	5
M16×25	eShop	44	17	29	29	25	5
M16×50	eShop	69	17	29	34	50	5
M16×75	eShop	94	17	29	34	75	5
M16×100	eShop	119	17	29	36	100	5
M16×150	eShop	169	17	29	42.5	150	5



30 1309



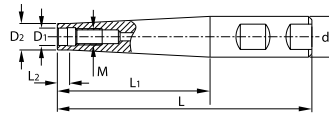


HOLEX Arbors for threaded copy mills

Shank tolerance h6.

Application: For mounting in side lock arbors (Weldon).

Weldon arbors



30 1347

Thread M × Length L ₁	32A	30 1346	32A	30 1347	32A	30 1349	Ø D ₁	Ø D ₂	L	L ₁	L ₂
	Weldon arbor for screw-in milling cutters with internal coolant supply										
		Ø d = 16 mm		Ø d = 20 mm		Ø d = 25 mm	mm	mm	mm	mm	mm
M6×25		—		eShop		—	6.5	10	75	25	5
M8×40		eShop		—		—	8.5	13	88	40	6
M10×25		—		eShop		—	10.5	18	80	25	20.2
M10×97		—		eShop		—	10.5	18	152	97	81.4
M12×40		—		—		eShop	12.5	21	101	40	24
M12×109		—		—		eShop	12.5	21	170	109	67

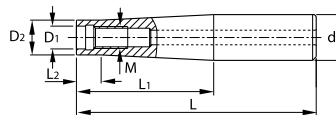


HOLEX Arbors for threaded copy mills

Plain arbor

Shank tolerance h6.

Application: For mounting shrink-fit chucks.



30 1353

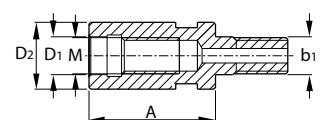
Thread M × Length L ₂	32A	30 1353	32A	30 1354	32A	30 1357	Ø D ₁	Ø D ₂	L	L ₁	L ₂
	Plain arbor for screw-in milling cutters										
		Ø d = 20 mm		Ø d = 25 mm		Ø d = 32 mm	mm	mm	mm	mm	mm
M10×67		eShop		—		—	10.5	18	160	68.7	67
M12×54		—		—		eShop	12.5	21	160	54	23
M12×77		—		eShop		—	12.5	21	240	87.5	77
M12×134		—		—		eShop	12.5	21	300	134	59.5
M16×66		—		—		eShop	17	29	160	68.7	66
M16×146		—		—		eShop	17	29	300	148.7	146

Extension and reducing adapters

Thread M × A dimension	32A	30 1358	Dimension A		Ø D	Ø D ₁
	Extension for screw-in milling cutters		mm		mm	mm
M8×30		eShop	30		13.5	8.5
M10×35		eShop	35		18	10.5
M12×40		eShop	40		21	12.5
M16×40		eShop	40		29	17



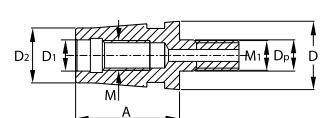
30 1358



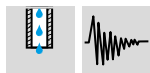
Thread M / Thread M1	32A	30 1359	Dimension A		Ø D	Ø D ₁	Ø D _p	Ø D ₂
	Reducer for screw-in milling cutters		mm		mm	mm	mm	mm
M5/M8		eShop	30		13	5.5	8.5	10
M8/M10		eShop	30		18	8.5	10.5	13.5
M10/M12		eShop	35		21	10.5	12.5	18.5
M10/M16		eShop	60		29	10.5	17	18.5
M12/M16		eShop	60		29	12.5	17	21



30 1359



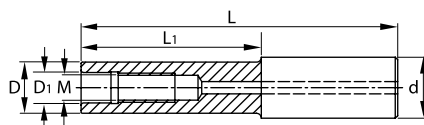
30



Garant Densimet® tool arbors for screw-in milling cutters

- Vibration-damping characteristics.
- Shank tolerance h6.

Application: Particularly for use in shrink-fit chucks.



30 1376

Thread M × L _{tot}	31A 30 1374	31A 30 1376	31A 30 1378	31A 30 1379	Ø D ₁	Ø D ₂	L ₁
Densimet® arbor for screw-in milling cutters							
	Ø d = 16 mm	Ø d = 20 mm	Ø d = 25 mm	Ø d = 32 mm	mm	mm	mm
M8×88	eShop	—	—	—	8.5	14	40
M8×128	eShop	—	—	—	8.5	14	80
M8×168	eShop	—	—	—	8.5	14	120
M10×110	—	eShop	—	—	10.5	18	60
M10×150	—	eShop	—	—	10.5	18	100
M10×190	—	eShop	—	—	10.5	18	140
M12×131	—	—	eShop	—	12.5	22	75
M12×181	—	—	eShop	—	12.5	22	125
M12×231	—	—	eShop	—	12.5	22	175
M16×160	—	—	—	eShop	17	30	100
M16×260	—	—	—	eShop	17	30	200
M16×360	—	—	—	eShop	17	30	300



Garant Solid carbide extensions for screw-in milling cutters

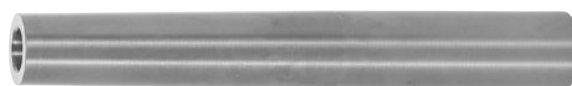
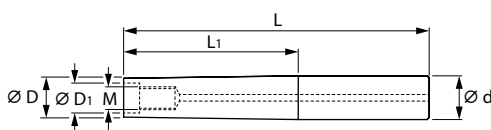
Solid carbide extension with vibration-damping properties, shank tolerance h6, long and slim version.

Application: Particularly for use in shrink-fit chucks. Perfect combination of standard steel extensions and Densimet® extensions.

tapered extensions



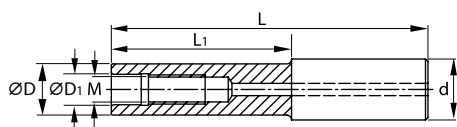
Combination example:
Threaded copy milling cutter – extension – shrink-fit chuck



30 1364

Thread M × L	31Z 30 1361	31Z 30 1362	31Z 30 1364	31Z 30 1366	31Z 30 1368	Ø D	Ø D ₁	L ₁
Solid carbide extension for screw-in milling cutters								
	Ø d = 12 mm	Ø d = 16 mm	Ø d = 20 mm	Ø d = 25 mm	Ø d = 32 mm	mm	mm	mm
M5×100	eShop	—	—	—	—	9.8	5.5	60
M6×70	eShop	—	—	—	—	9.8	6.5	21
M6×90	eShop	—	—	—	—	9.8	6.5	40
M6×110	eShop	—	—	—	—	9.8	6.5	60
M8×95	—	eShop	—	—	—	12.8	8.5	40
M8×115	—	eShop	—	—	—	12.8	8.5	60
M8×135	—	eShop	—	—	—	12.8	8.5	80
M8×155	—	eShop	—	—	—	12.8	8.5	100
M8×175	—	eShop	—	—	—	12.8	8.5	120
M10×100	—	—	eShop	—	—	17.8	10.5	40
M10×120	—	—	eShop	—	—	17.8	10.5	60
M10×140	—	—	eShop	—	—	17.8	10.5	80
M10×160	—	—	eShop	—	—	17.8	10.5	100
M10×180	—	—	eShop	—	—	17.8	10.5	120
M12×136	—	—	—	eShop	—	23	12.5	80
M12×156	—	—	—	eShop	—	23	12.5	100
M12×176	—	—	—	eShop	—	23	12.5	120
M12×196	—	—	—	eShop	—	23	12.5	140
M12×216	—	—	—	eShop	—	23	12.5	160
M16×160	—	—	—	—	eShop	29	17	100
M16×210	—	—	—	—	eShop	29	17	150
M16×260	—	—	—	—	eShop	29	17	200
M16×310	—	—	—	—	eShop	29	17	250
M16×360	—	—	—	—	eShop	29	17	300

cylindrically offset extensions



30 1381

Thread M × L	31Z 30 1381	31Z 30 1383	31Z 30 1386	Ø D	Ø D ₁	L ₁
Solid carbide extension for screw-in milling cutters						
	Ø d = 12 mm	Ø d = 16 mm	Ø d = 25 mm	mm	mm	mm
M6×70	eShop	—	—	9.8	6.5	20
M6×90	eShop	—	—	9.8	6.5	40
M8×75	—	eShop	—	12.8	8.5	20
M8×95	—	eShop	—	12.8	8.5	40
M8×115	—	eShop	—	12.8	8.5	60
M8×135	—	eShop	—	12.8	8.5	80
M12×125	—	—	eShop	20.8	12.5	60
M12×145	—	—	eShop	20.8	12.5	80
M12×165	—	—	eShop	20.8	12.5	100



TAPMATIC – high-speed tapping with reversing kinematics



Characteristics

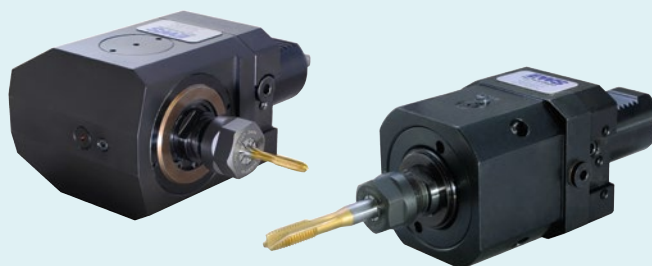
- Automatic reversal of direction of rotation
- Length compensation in tension
- Constant cutting speed

Advantages

- Reduces the machining time by up to 50 %
- Increases the production capacity
- Increases the working life of the tap 3-fold
- Protects the machine (avoiding spindle changeover)
- Saves around 75 % power consumption of the machine due to elimination of braking and starting up

Availability

- **RSR radial tapping heads**
Tapping range M4.5 – M12
Speed 2500 rpm (i = 1.5: 1)



ASR axial tapping heads

Tapping range M4.5 – M12
Speed 2500 rpm (i = 1: 1)

Garant VG1 pre-setting device



Pre-setting device VG1 (No. 35 4760)



Base body with
granite cover

Functional storage plates

Tidy pipe routing



30

Garant

HOLEX

High-performance clamping nuts for ER collet chucks



Only the perfect interaction of collet chuck, collet and **high-quality clamping nut** can ensure good system concentricity.

- High-quality processing of clamping nuts.
- Optimum hardness to reduce wear.
- Ground thread.
- Balanced nuts.
- Extremely simple handling: quickly clicking collets in and out.



HSC

Garant

Screw-in adapter

For clamping tools with plain shanks.

Suitable for: Tool arbors for threaded copy mills.

Supplied with: Clamping nut

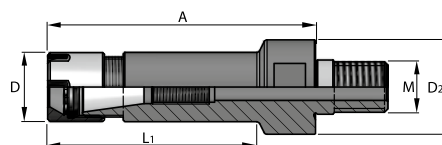
Optional extras: ER collets No. 308901 – 309430.
ER collet clamping nuts No. 309650; 309652.

Note: Suitable extension and reducer under No. 301358; 301359.



30 1382

Screw-in adapter with mini clamping nut



Thread M × A dimension	31Z	30 1382	31Z	30 1387	Ø D		Ø D ₂	L ₁
	Screw-in adapter for collets				30 1382	30 1387		
		ER16		ER25	mm	mm	mm	mm
M12×45		eShop		—	22	—	23	28
M16×50		eShop		eShop	22	35	30	30
M16×85		eShop		—	22	—	30	65
M16×90		—		eShop	—	35	30	70



Garant

Screw-in shrink adapter

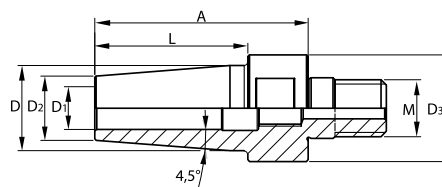
High-temperature steel, integral length adjustment of the tools, extra slim design, for HSS and carbide.

Application: Flexible use on the most demanding applications for accuracy and balancing speed, e.g. in combination with extensions.

Slim version



30 1397



Thread M × clamping Ø D ₁		M10×6	M10×8	M12×6	M12×8	M12×10	M12×12	M16×8	M16×10	M16×12
31Z	30 1397	Screw-in shrink adapter slim								
		eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Dimension A	mm	55	55	60	60	60	60	60	60	60
Ø D	mm	21	21	21	21	24	24	21	24	24
Ø D ₂	mm	15	15	15	15	18	18	15	18	18
Ø D ₃	mm	18.5	18.5	23	23	23	23	30	30	30
L	mm	37	37	42	42	38	38	42	42	42
maximum tightening torque	Nm	40	40	60	60	60	60	80	80	80

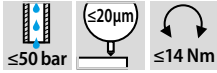
ISO
7388-1

Short drill chucks – with chuck key operation – DIN ISO 7388-1 (formerly DIN 69871)

For clockwise and anticlockwise rotation.

Optional extras: Pull studs (PS) No. 308600 – 308806.
Pull stud wrenches No. 308820; 308835.

GARANT - Precision short drill chucks

With Balluff/RFID chip bore. Maximum radial run-out $\leq 20 \mu\text{m}$.30 1465 Size 0,3-10 – Slim design for the most popular $\varnothing$ up to 10.2 mm.

30 1425/1435 – Sandblasted and ground.

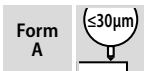
- Slim design.
- Targeted coolant transfer to tools with IC.
- Optimum holding torques at the tool.

30 1465/1467 – Glass bead blasted.

Supplied with:30 1425/1435 – **Torx® chuck key** with T-handle **for high clamping force**.30 1465/1467 – **Clamping wrench** with T-handle.

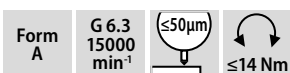
Clamping range			mm	0,3-8	0,3-10	0,5-13	1-16	0,5-16	
31B	30 1425	Garant	Short drill chuck Form AD	SK 40	eShop	–	eShop	eShop	–
31B	30 1435		SK 50	–	–	–	eShop	–	
31B	30 1465	Garant	Short drill chuck Form AD/B	SK 40	–	eShop	–	–	eShop
31B	30 1467		SK 50	–	–	–	–	eShop	
Type				slim	slim	slim	slim	Standard	
Dimension A (30 1425, 30 1435, 30 1465)				mm	70	73	76	80	90
Dimension A (30 1467)				mm	–	–	–	–	106
Ø D				mm	35	38	43	50	57
Spare Torx® chuck key No. 625220					TX25	–	TX25	TX25	–
Spare chuck key No. 627425					–	4 AF	–	–	SW 6

WTE – short drill chuck

**Supplied with:** Hexagon screwdriver with T-handle.

Clamping range				mm	0,3-8	0,5-13	2,5-16
33W	30 1478	 Short drill chuck Form A	SK 30	–	eShop	–	
33W	30 1490		SK 40	eShop	eShop	eShop	
Dimension A (30 1478)				mm	–	111	–
Dimension A (30 1490)				mm	70	90	95
Ø D				mm	36	50	57
Spare chuck key No. 627425					SW4	6AF	SW6

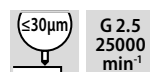
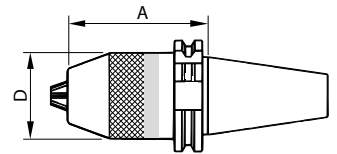
HOLEX – Short drill chuck



Burnished. With Balluff/RFID chip bore.

Supplied with: **Torx® chuck key** with T-handle **for high clamping force**.

Clamping range		mm	2,5-16	
32K	30 1565	 Short drill chuck Form A	SK 40	eShop
32K	30 1575		SK 50	eShop
Dimension A		mm	80	
Ø D		mm	50	
Spare Torx® chuck key No. 625220			TX25	



ISO
7388-1G 2.5
25000
min⁻¹

≤3μm

HPC

HSC

Garant Slim hydraulic chuck 3° – (formerly DIN 69871)

- **Extremely slim design** (3° contour)
- Processed surface structure.
- With RFID/Balluffchip bore.
- Axial length adjustment possible.
- Shanks hard turned.
- Reducing adapters can be used.

Application: Especially for tool and mould making.
Wherever reduced interference contours are required.
 For drilling, reaming, and milling.
 For clamping tools with shank tolerance h6.

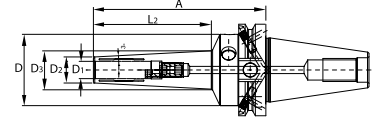
Supplied with: Hexagon socket drive with T-handle.

Optional extras: Pull studs (AB) No. 308600 – 308806,
 AB pull stud wrenches No. 308820 / 308835,
 Reducing adapters No. 302135 – 302187.

Detailed dimensions
 can be found in the eShop.

Form
ADB

30 2093

Form
ADB

30 2095

Clamping $\varnothing D_1$	mm	3	4	5	6	8	10	12	16	20
31A 30 2089	SK 40 A = 80	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A 30 2093	SK 40 A = 120	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A 30 2095	SK 40 A = 160	–	–	–	eShop	eShop	eShop	eShop	–	–
$\varnothing D_2$ (30 2089)	mm	–	10	11	12	14	16	18	24	28
$\varnothing D_2$ (30 2093)	mm	9	10	11	16	14	20	18	24	28
$\varnothing D_2$ (30 2095)	mm	–	–	–	16	18	20	22	–	–
$\varnothing D_3$ (30 2089)	mm	–	14.2	15.3	16.3	18.3	20.4	22.4	28.2	32.7
$\varnothing D_3$ (30 2093)	mm	17.4	18.4	19.4	20.4	22.4	24.5	26.6	32.3	36.4
$\varnothing D_3$ (30 2095)	mm	–	–	–	34.4	35.4	37.1	38.7	–	–
$\varnothing D$	mm	49.5								

ISO
7388-1Form
ADB

≤3μm

HSC

HPC

Hydraulic chuck, version HT (High Torque) – (formerly DIN 69871)

- Very high total rigidity due to optimised design.
- With RFID/Balluffchip bore.
- Axial length adjustment (adjustment 10 mm) available.
- Flexible due to use of reducing sleeves.

Application: ■ For drilling, reaming and for **light and heavy-duty machining** when milling.
 ■ Maximum transmissible torque **550 Nm**, version HT (High Torque).
 ■ **Ideal damping characteristics**, resulting in optimum surface finishes, increased tool life and spindle protection.

Optional extras: Pull studs (PS) No. 308600 – 308806,
 PS wrenches No. 308820 – 308835,
 Reducing adapters No. 302135 – 302187.

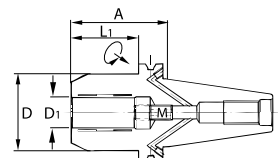
Note: Caution in the case of extra-long tools and TPC machining.

G 2.5
25000
min⁻¹

30 2028

G 2.5
20000
min⁻¹

30 2027



Clamping range $\varnothing D_1$	mm	12	16	20	32
31H 30 2028	SK 40	eShop	–	eShop	–
31H 30 2029	SK 50	eShop	–	eShop	eShop
31H 30 2031	SK 40	eShop	eShop	eShop	–
32A 30 2027	SK 40	–	–	eShop	–
32A 30 2037	SK 50	–	–	eShop	–
Dimension A	mm	50	64.5	64.5	81
$\varnothing D$ (30 2028, 30 2029, 30 2031)	mm	42	46	49	72
$\varnothing D$ (30 2027, 30 2037)	mm	–	–	49.5	–
L_1	mm	31	45.5	45.5	62

Slotted reducing adapter with cooling – for HD chuck

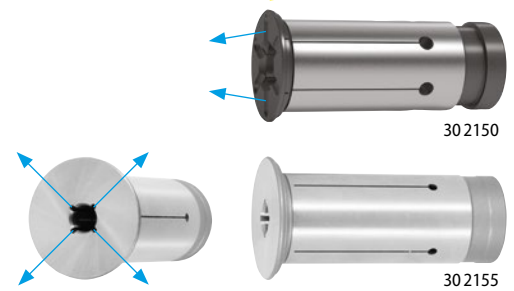
With cooling channel slots.

30 2150 – Flexible length pre-setting possible through movable intermediate piece.

Application:

- For drilling, reaming, milling, and tool sharpening.
- Very high flexibility due to reduction in clamping diameter.
- Very high torque guarantees a higher volume of metal removal compared to direct clamping.
- Concentricity $\pm 5 \mu\text{m}$ (system accuracy at $3 \times D$).
- Concentricity $\pm 2 \mu\text{m}$ (for reducing adapter).
- Can be used in all commercially available hydraulic chucks.

Detailed dimensions
can be found in the eShop.



Clamping range $\varnothing D_1$		mm	3	4	5	6	8	10	12	14	16	18	20	25
31G	30 2135	Garant	$\varnothing 12 \text{ mm}$	eShop	eShop	eShop	eShop	eShop	–	–	–	–	–	–
33T	30 2145	SCHUNK	$\varnothing 12 \text{ mm}$	eShop	eShop	eShop	eShop	eShop	–	–	–	–	–	–
33T	30 2150	Slotted reducing adapter with cooling	$\varnothing 20 \text{ mm}$	eShop	eShop	eShop	eShop	eShop	eShop	–	eShop	–	–	–
31G	30 2155		$\varnothing 20 \text{ mm}$	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–	–
31G	30 2175	Garant	$\varnothing 32 \text{ mm}$	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
33T	30 2177	SCHUNK	$\varnothing 32 \text{ mm}$	–	–	–	eShop	eShop	eShop	eShop	–	eShop	–	eShop

Slotted reducing adapter – for HD chuck

Sealed (rubber plug).

30 2165 – Flexible length pre-setting possible through movable intermediate piece.

Application:

- For drilling, reaming, milling, and tool sharpening.
- Very high flexibility due to reduction in clamping diameter.
- High torque guarantees a greater metal removal rate than with direct clamping.
- Concentricity $\pm 5 \mu\text{m}$ (system accuracy at $3 \times D$).
- Concentricity $\pm 2 \mu\text{m}$ (for reducing adapter).
- Can be used in all commercially available hydraulic clamping chucks.



Clamping range $\varnothing D_1$		mm	3	4	5	6	8	10	12	14	16	18	20	25
33D	30 2140	Slotted reducing adapter sealed	$\varnothing 12 \text{ mm}$	eShop	eShop	eShop	eShop	eShop	–	–	–	–	–	–
33T	30 2147		$\varnothing 12 \text{ mm}$	eShop	eShop	eShop	eShop	eShop	–	–	–	–	–	–
33D	30 2160	Slotted reducing adapter sealed	$\varnothing 20 \text{ mm}$	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–	–
33T	30 2165		$\varnothing 20 \text{ mm}$	eShop	eShop	eShop	eShop	eShop	eShop	–	eShop	–	–	–
33D	30 2180	Slotted reducing adapter sealed	$\varnothing 32 \text{ mm}$	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
33T	30 2187		$\varnothing 32 \text{ mm}$	–	–	–	eShop	eShop	eShop	eShop	–	eShop	–	eShop



Pull-out wrench for reducing adapters – for HD chucks

Suitable for:

Reducing adapters $\varnothing 12, 20$ and 32 mm No. 30 2135 – 30 2187.

Application:

For easy removal of the reducing adapters from hydraulic chucks. Can be used for all popular HD reducing adapters.



for reducing adapters $\varnothing$		mm	12-32
30N	30 2183	Pull-out wrench for reducing adapters	–



Hydraulic chuck extension

With axial length adjustment. Flexible due to use of reducing sleeves.

Application:

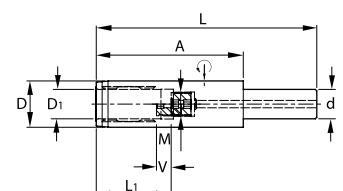
Suitable for hydraulic chucks and collet chucks.

Optional extras:

Reducing sleeves No. 30 2135 – 30 2187.



Shank $\varnothing d$ / Clamping range $\varnothing D_1$		mm	20/12	20/20	32/20
33W	30 2375	Hydraulic chuck extension L = 150 mm	eShop	eShop	eShop
Dimension A		mm	100	100	90
$\varnothing D$		mm	25	31.5	31.5
L_1		mm	46	51	51
M			M10x1	M16x1	M16x1
V		mm		10	



30



Hydraulic chuck (HD chuck) – (formerly DIN 69871)

- Radial run-out $\leq 3 \mu\text{m}$.
- With RFID / Balluffchip bore.
- Axial length adjustment possible, 10 mm adjustment track.
- Flexible due to use of reducing sleeves.
- Coolant pressure up to 80 bar.

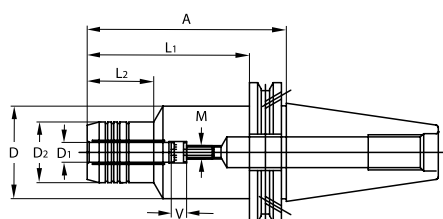
Application: For drilling, reaming and finish milling.

Supplied with:

30 2026/3038/3032/2045/2085/2058/2052 – Hexagon socket drive with T-handle.

Optional extras: Pull studs (PS) No. 308600 – 308806, PS wrenches No. 308810 – 308830, size 12; 20; 32: Reducing adapter No. 302135 – 302187.

30 2026/3038/3032/2043/2053/2052 – Back stop screws for direct clamping / use of reducing sleeves on request.



Clamping range $\varnothing D_1$				mm	6	8	10	12	16	20	25	32
33W	30 2026		Hydraulic chuck ultra-short form AD	SK 40 A=24.5	–	–	–	–	–	eShop	–	–
31A	30 2038		Hydraulic chuck short, slim, Form ADB	SK 40	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
33W	30 2032		Hydraulic chuck short, slim, Form ADB	SK 40	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A	30 2043		Hydraulic chuck BASIC short, slim, Form ADB	SK 40	eShop	eShop	eShop	eShop	eShop	eShop	–	eShop
32A	30 2045		Hydraulic chuck short, slim, Form ADB	SK 40	eShop	eShop	eShop	eShop	eShop	eShop	–	–
32A	30 2085		Hydraulic chuck short, slim, Form ADB	SK 40	eShop	eShop	eShop	eShop	eShop	eShop	–	–
32A	30 2005		Hydraulic chuck short, heavy, Form ADB	SK 40	–	–	–	–	–	eShop	–	–
31A	30 2053		Hydraulic chuck BASIC short, slim, Form ADB	SK 50	–	–	–	eShop	eShop	eShop	–	eShop
32A	30 2058		Hydraulic chuck short, slim, Form ADB	SK 50	–	–	eShop	eShop	eShop	eShop	eShop	–
33W	30 2052		Hydraulic chuck short, slim, Form ADB	SK 50	(eShop)	eShop	eShop	eShop	eShop	eShop	eShop	eShop
32A	30 2025		Hydraulic chuck short, heavy, Form ADB	SK 50	–	–	–	–	–	–	–	eShop
Dimension A (30 2038, 30 2032, 30 2043, 30 2045, 30 2058)				mm	80.5							
Dimension A (30 2085)				mm	110	110	110	110	110	110	–	–
Dimension A (30 2005, 30 2025)				mm	–	–	–	–	–	64.5	–	81
Dimension A (30 2053)				mm	–	–	–	80.5	80.5	80.5	–	103.2
Dimension A (30 2052)				mm	80.5	80.5	80.5	80.5	80.5	80.5	100	100
$\varnothing D_1$ (30 2026, 30 2038, 30 2032, 30 2043, 30 2045, 30 2085, 30 2058, 30 2052)				mm	26	28	30	32	38	42	55	63
$\varnothing D_2$ (30 2053)				mm	–	–	–	32	38	42	–	64
$\varnothing D$ (30 2026, 30 2045, 30 2085, 30 2005, 30 2058, 30 2025)				mm	49.5	49.5	49.5	49.5	49.5	49.5	49.5	72
$\varnothing D$ (30 2038, 30 2032, 30 2053, 30 2052)				mm	49.5	49.5	49.5	49.5	49.5	49.5	63	70
$\varnothing D$ (30 2043)				mm	49.5	49.5	49.5	49.5	49.5	49.5	–	73
V (30 2026, 30 2038, 30 2032, 30 2043, 30 2045, 30 2085, 30 2053, 30 2058, 30 2052)				mm	10							
M (30 2026, 30 2038, 30 2032, 30 2043, 30 2045, 30 2085, 30 2053, 30 2058, 30 2052)					M5	M6	M8×1	M10×1	M12×1	M16×1	M16×1	M16×1

Detailed dimensions
can be found in the eShop.

Form
AD

G 2.5
25000
min⁻¹



30 2026

Form
ADB

G 2.5
25000
min⁻¹



30 2038

Form
ADB

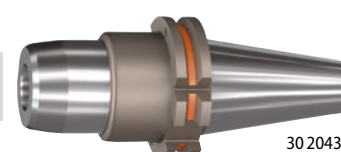
G 2.5
20000
min⁻¹



30 2045

Form
ADB

G 2.5
25000
min⁻¹



30 2043

ISO 7388-1	Form ADB		G 2.5 25000 min ⁻¹		HPC	HSC
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Garant GARANT Master Chuck hydraulic chuck slim – (formerly DIN 69871)

- **Slim design** (4.5° contour, 1 to 1 shrinking contour according to DIN 69882-8).
- With RFID/Balluffchip bore.
- Axial length adjustment, adjustment travel 10 mm.
- Reducing adapters can be used.
- **Temperature resistant up to 120°C for 4 hours.**
- **Allows for up to 10x more clamping operations compared with a standard hydraulic chuck.**
- Very low tightening torque of the clamping screw – easy handling.
- **Patented new hydraulic clamping system – reliable, durable premium concentricity.**

Application: Especially for tool and mould making.
Wherever reduced interference contours are required.
 For drilling, reaming and milling. For clamping tools with shank tolerance h6.

Supplied with: Hexagon socket drive with T-handle.

Optional extras: Pull studs (AB) No. 308600 – 308806,
 AB pull stud wrenches No. 308820 / 308835,
 Reducing sleeves No. 302135 – 302187.



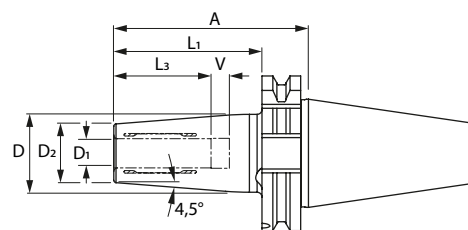
30 2070

Same properties as shrink-fit chucks

- Accuracy
- Extremely slim, identical interference contour

Advantages over shrink-fit chucks

- Better damping
- Simpler to use
- Flexibility (through reducing adapters)
- No shrink-fit units required (costs, energy consumption)



Clamping ØD ₁	mm	6	8	10	12	14	16	18	20	25	32
31A 30 2070	Hydraulic chuck, slim Master Chuck	SK 40 A = 80	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A 30 2073		SK 40 A = 120	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–
31A 30 2074		SK 40 A = 160	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–
Ø D ₁	mm	6	8	10	12	14	16	18	20	25	32
Dimension A (30 2070)	mm	80									
Dimension A (30 2073)	mm	120	120	120	120	120	120	120	120	–	–
Dimension A (30 2074)	mm	160	160	160	160	–	160	–	160	–	–
Ø D ₂	mm	21	21	24	24	27	27	33	33	44	44
Ø D	mm	27	27	32	32	34	34	42	42	53	53

NEW

ISO 7388-1	Form ADB		G 2.5 25000 min ⁻¹		HPC	HSC
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Garant GARANT Master Chuck hydraulic chuck performance – (formerly DIN 69871)

- Particularly suitable for highly dynamic milling applications.
- **Optimised outer contour using FEM** (finite element method) → robustness thanks to max. rigidity, longer tool life, higher metal removal rate, suitable for all machining strategies.
- With RFID/Balluffchip bore.
- Axial length adjustment, adjustment travel 10 mm.
- Reducing adapters can be used.
- **Resistant to temperatures up to 170°C for 4 hours.**
- **Allows for up to 10x more clamping operations compared with a standard hydraulic chuck.**
- Very low tightening torque for the clamping screw – easy handling.
- **Patented new hydraulic clamping system – reliable, durable premium concentricity.**

Application: Universally designed for roughing and finishing work.
 For clamping tools with shank tolerance h6.

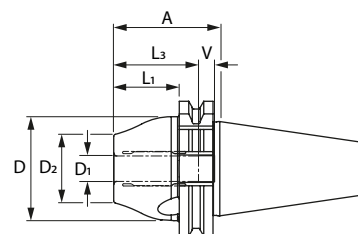
Supplied with: Hexagon socket drive with T-handle.

Optional extras: Pull studs (AB) No. 308600 – 308806,
 AB pull stud wrenches No. 308820 / 308835,
 Reducing sleeves No. 302135 – 302187.

Maximum metal removal rate,
with maximum precision!



30 2195



Clamping ØD ₁	mm	6	8	10	12	16	20	25	32
31A 30 2195	Hydraulic chuck performance Master Chuck	SK 40 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Ø D ₁	mm	6	8	10	12	16	20	25	32
Dimension A	mm	50	50	50	50	64.5	64.5	110	115
Ø D ₂	mm	26	28	30	32	38	38	48	58.5
Ø D	mm	42	42	42	49	49	49	57	62.5

30

ISO
7388-1

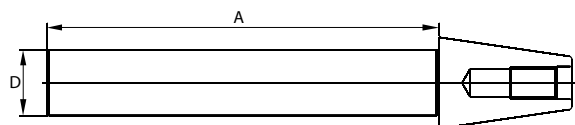
Garant Checking mandrels – (formerly DIN 69871)

Application: For acceptance of machine tools according to ISO recommendation R230.

Supplied with: Wooden box and test certificate.



30 2396



A dimension		mm	300	Ø D
31A	30 2396	Checking mandrel	SK 40	40
31A	30 2397	ISO 7388-1	SK 50	50

ISO
7388-1Form
ADBG 2.5
25000
min⁻¹

HPC

HSC



Garant Shrink-fit chuck, vibration damped – (formerly DIN 69871)

- High-temperature steel.
- Integrated length adjustment of the tools.
- For HSS and solid carbide tools.
- Shanks hard turned (smooth cutting action!).
- With RFID / Balluffchip bore.
- With coolant channel bores and threads that can be sealed.
- With tapped holes on each side for balancing screws.
- **Reinforced version/contour.**
- **Polished surface.**
- **Specially mounted carbide core in the shrink-fit chuck body.**

Advantage:

- **Vibration-damping.**
- **Better workpiece surface finish.**
- **Optimised tool life.**
- **Increased process reliability.**
- **Lower corrosion tendency due to polished surface.**

Application: For clamping tools with plain shank (h6 shank tolerance). Suitable for inductive, contact and hot air shrink-fit units.

Optional extras: Pull studs (PS) No. 308600 – 308800.
PS wrenches No. 308820 – 308835.
Shrink-fit chuck extensions No. 302410 – 302419.
Shrink-fit units, accessories No. 354210 – 354450.
Balancing screws set No. 309906 size 180.



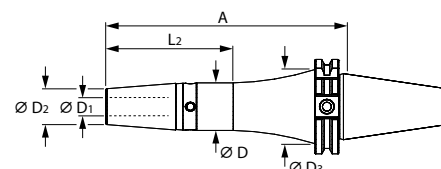
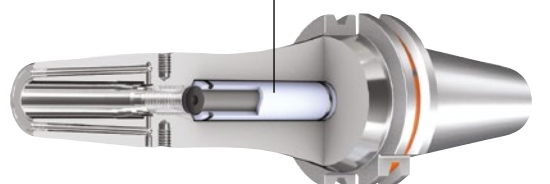
30 2207_6

Vibration damping



30 2210

Carbide core drilled through,
mounted in an aluminium cylinder –
optimum damping characteristics!



Clamping range Ø D ₁		mm	6	8	10	12	16
31A	30 2207	SK 40 A = 120	eShop	eShop	eShop	eShop	eShop
31A	30 2210	SK 40 A = 160	eShop	eShop	eShop	eShop	eShop
31A	30 2214	SK 50 A = 120	eShop	eShop	eShop	eShop	eShop
31A	30 2216	SK 50 A = 160	eShop	eShop	eShop	eShop	eShop
Ø D ₁		mm	6	8	10	12	16
Ø D		mm	27	27	32	32	34
Ø D ₂		mm	21	21	24	24	27
Ø D ₃ (30 2207, 30 2210)		mm			50		
Ø D ₃ (30 2214, 30 2216)		mm			80		
L ₁ (30 2207)		mm	60.9	60.9	65.9	65.9	65.9
L ₁ (30 2210)		mm	75.9	75.9	85.9	85.9	85.9
L ₁ (30 2214)		mm	50.9	50.9	58.9	62.9	65.9
L ₁ (30 2216)		mm	50.9	50.9	75.9	75.9	75.9

ISO 7388-1	Form ADB	G 2.5 25000 min ⁻¹		HSC	HPC
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Shrink-fit chuck 4.5° – DIN ISO 7388-1 (formerly DIN 69871)

- High-temperature steel.
- Size 3 -5 for carbide, from size 6 for HSS and carbide.
- All shanks hard turned (for smooth running!).
- With RFID / Balluffchip bore.

30 2230 – **Ultra-short version** for more stability and less vibration.

30 2230/2252/2257/2259/2267/2292/2308/2313 – With **coolant hole bores** tapped for plugging.

Coolant hole bores at clamping Ø D1: 3, 4 and 5 mm cannot be plugged.

30 2237/2261/2287 – Premium version: nickel-plated version with 4 pluggable **cooling channel bores**.

Integral tool length adjustment (adjustment track 10 mm).

30 2251/2254 – Glass bead blasted.

Application: For clamping tools with parallel shank to h6 tolerance.
Suitable for inductive, contact and hot-air shrink units.

Supplied with:

30 2237/2261/2287 – 4 × M3 nozzle screws.

Optional extras: Pull studs (PS) No. 308600 – 308800.

PS wrenches No. 308820 – 308835,

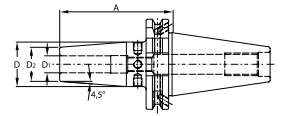
Shrink-fit chuck extensions No. 302410 – 302419.

Shrink-fit units, accessories No. 354210 – 354450,

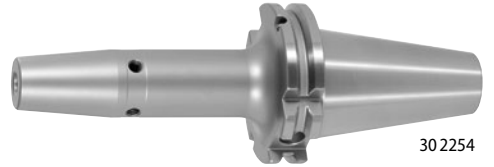
balancing screws set No. 309906 size 180.

Note:

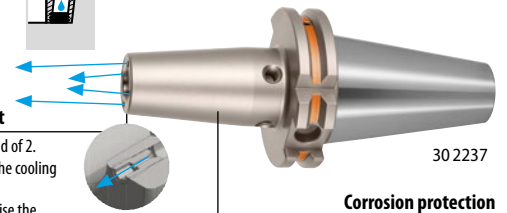
30 2230 – No length adjustment available.



30 2252



30 2254



30 2237

Optimised cooling concept

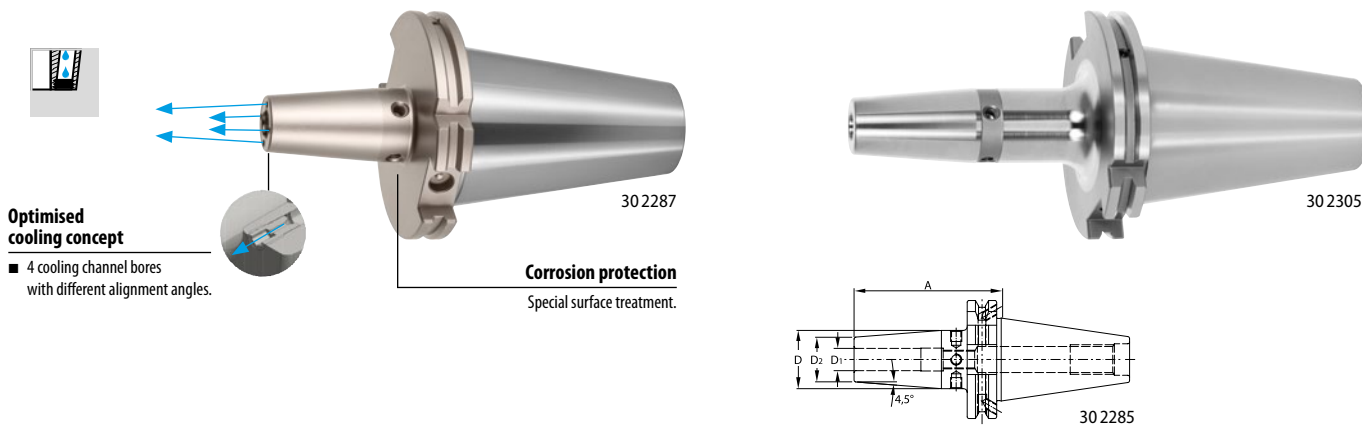
- 4 cooling channel bores instead of 2.
- Different approach angles of the cooling channel bores.
- With 4 nozzle screws to optimise the coolant pressure and alignment of the coolant stream.

Corrosion protection
Special surface treatment.

Clamping range Ø D ₁				mm	3	4	5	6	8	10	12	14	16	18	20	25	32	
31A	30 2225	Garant	Shrink-fit chuck	SK 30 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	(eShop)	eShop	(eShop)	(eShop)	–	–	
31A	30 2230		Shrink-fit chuck with cooling channel bores	SK 40 ultra short	–	–	–	–	–	eShop	eShop	–	eShop	–	eShop	eShop	–	
31A	30 2235	WTE WORLDWIDE TOOL EQUIPMENT	Shrink-fit chuck	SK 40 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	
33W	30 2251			SK 40 short	eShop	eShop	(eShop)	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	(eShop)	eShop	eShop
31A	30 2237	Garant	Shrink-fit chuck with 4 cooling channel bores, nickel-plated	SK 40 short	–	–	–	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–	–	
31A	30 2252		Shrink-fit chuck with cooling channel bores	SK 40 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
33W	30 2254	WTE WORLDWIDE TOOL EQUIPMENT	Shrink-fit chuck	SK 40 A = 120	(eShop)	(eShop)	(eShop)	eShop	eShop	eShop	eShop	eShop	eShop	(eShop)	(eShop)	(eShop)	(eShop)	
31A	30 2256			SK 40 A = 120	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
31A	30 2257	Garant	Shrink-fit chuck with cooling channel bores	SK 40 A = 120	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–	
31A	30 2261		Shrink-fit chuck with 4 cooling channel bores, nickel-plated	SK 40 A = 120	–	–	–	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–	–	
31A	30 2266	Garant	Shrink-fit chuck	SK 40 A = 130	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	
31A	30 2267		Shrink-fit chuck with cooling channel bores	SK 40 A = 130	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–	–	
31A	30 2258	Garant	Shrink-fit chuck	SK 40 A = 160	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	
31A	30 2278		Shrink-fit chuck	SK 40 A = 200	–	–	–	eShop	eShop	eShop	eShop	–	(eShop)	–	eShop	eShop	–	
31A	30 2259	Garant	Shrink-fit chuck with cooling channel bores	SK 40 A = 160	–	–	–	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–	–	
Dimension A (30 2225, 30 2235, 30 2251, 30 2237, 30 2252)				mm	80	80	80	80	80	80	80	80	80	80	80	100	100	
Dimension A (30 2230)				mm	–	–	–	–	–	65	65	–	65	–	65	75	–	
Ø D (30 2225, 30 2251, 30 2237, 30 2256, 30 2261, 30 2258, 30 2278, 30 2259)				mm	17	22	22	27	27	32	32	34	34	42	42	53	53	
Ø D (30 2230)				mm	–	–	–	–	–	33	33	–	37	–	43	50	–	
Ø D (30 2235, 30 2252)				mm	17	17	17	27	27	31.4	31.4	34	34	41	41	53	–	
Ø D (30 2254)				mm	20	22	22	27	27	32	32	34	34	42	42	53	53	
Ø D (30 2257)				mm	–	–	–	26.7	26.7	30.5	31.4	34	34	40.9	41.2	–	–	
Ø D (30 2266, 30 2267)				mm	17	17	17	27	27	32	32	34	34	42	42	53	53	
Ø D ₁ (30 2225, 30 2251, 30 2237, 30 2254, 30 2256, 30 2257, 30 2261, 30 2258, 30 2278, 30 2259)				mm	10	15	15	21	21	24	24	27	27	33	33	44	44	
Ø D ₂ (30 2230)				mm	–	–	–	–	–	26	26	–	29	–	35	45	–	
Ø D ₂ (30 2235, 30 2252, 30 2266, 30 2267)				mm	12	12	12	21	21	24	24	27	27	33	33	44	44	



30



Clamping range Ø D ₁				mm	6	8	10	12	14	16	18	20	25	32
31A	30 2285	Garant	Shrink-fit chuck	SK 50 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A	30 2287		Shrink-fit chuck with 4 cooling channel bores, nickel-plated	SK 50 short	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–	–
31A	30 2292		Shrink-fit chuck with cooling channel bores	SK 50 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A	30 2305		Shrink-fit chuck	SK 50 A = 120	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A	30 2308		Shrink-fit chuck with cooling channel bores	SK 50 A = 120	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–
31A	30 2310		Shrink-fit chuck	SK 50 A = 160	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A	30 2313		Shrink-fit chuck with cooling channel bores	SK 50 A = 160	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–	–
31A	30 2355		Shrink-fit chuck	SK 50 A = 200	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Ø D ₁				mm	6	8	10	12	14	16	18	20	25	32
Dimension A (30 2285, 30 2287, 30 2292)				mm	80	80	80	80	80	80	80	80	100	100
Ø D (30 2285, 30 2292, 30 2305, 30 2308, 30 2310, 30 2313, 30 2355)				mm	27	27	31.4	31.4	34	34	41	41	53	53
Ø D (30 2287)				mm	27	27	32	32	–	34	–	42	–	–
Ø D ₂				mm	21	21	24	24	27	27	33	33	44	44

ISO 7388-1	Form ADB	G 2.5 25000 min ⁻¹	$\leq 3\mu\text{m}$	HSC	HPC
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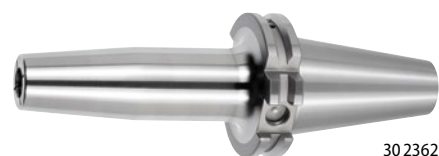
Garant Shrink-fit chuck 4.5°, slotted – (formerly DIN 69871)

- High-temperature steel.
- With 4 cooling channel slots on the clamping hole.
- All shanks hard turned (for smooth running!).
- With RFID/Balluffchip bore.

Advantage: Improved cooling directly on the tool shank.
Facilitates the removal of small tool diameters.

Application: For holding end mills and drills with parallel shank to h6 tolerance. Suitable for inductive, contact and hot air shrink-fitting units.

Optional extras: Pull studs (PS) No. 308600 – 308800, PS wrenches No. 308820 – 308835.



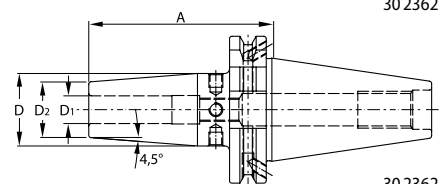
30 2362



30 2364

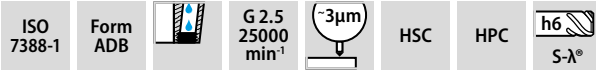


30 2362



30 2362

Clamping ØD ₁			mm	3	4	5
31A	30 2362	Shrink-fit chuck with cooling channel slots	SK 40 short	eShop	eShop	eShop
31A	30 2364		SK 40 A = 130	eShop	eShop	eShop
Ø D ₁			mm	3	4	5
Dimension A (30 2362)			mm	80		
Ø D ₂			mm	12		
Ø D			mm	17		



Shrink-fit chuck Power Shrink Chuck with SAFE-LOCK® – (formerly DIN 69871)

Shrink-fit chuck for very high metal removal rates during high-performance cutting (HPC). The optimised design combines excellent stiffness with vibration damping. This protects the machine, spindle and tool.

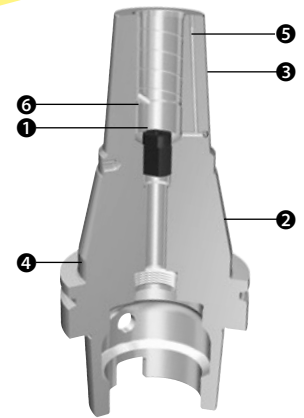
- **Safe-Lock tool pull-out protection** prevents the tool being pulled out accidentally.
- Higher metal removal rate due to higher speeds, higher feed rates and greater cutting depth.
- Shorter machining times.
- Runs more smoothly, which improves the surface quality and protects the tool, spindle and machine.
- With tapped holes for balancing with screws.
- With pluggable Cool Jet holes.
- With length adjustment screw (adjustment path 10 mm).

Application: For clamping tools with parallel shank to h6 tolerance with **Safe-Lock ground surface**. Suitable for all types of shrink-fit unit such as inductive, contact and hot air shrink-fit units.

Optional extras: Pull studs (PS) No. 308600 – 308800, PS wrenches No. 308820 – 308835. Shrink-fit units, accessories No. 354210 – 354450, balancing screws set No. 309906 size 180. For milling cutters with Safe-Lock clamping flat, see solid carbide milling cutters.

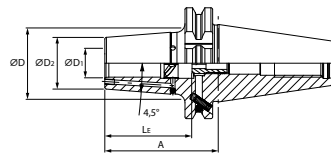
Note: Other shrink-fit chucks with **Safe-Lock** available on request.

Detailed information on Safe-Lock can be found under milling.



Key characteristics:

- ① High concentricity (< 0.003 mm).
- ② Low tendency to vibrate due to optimised outer contour.
- ③ Slim design at the tip.
- ④ Very rigid shank.
- ⑤ Cool-Jet as standard (can be re-locked).
- ⑥ Safe-Lock.



Clamping range Ø D ₁		mm	6	8	10	12	14	16	18	20	25	32
341 30 2303	Shrink-fit chuck Power Shrink Chuck with Safe-Lock	SK 40 ultra short	—	—	—	—	—	—	—	—	—	—
341 30 2307		SK 50 short	—	—	—	—	—	—	—	—	—	—
Dimension A (30 2303)		mm	65	65	65	65	65	65	65	65	75	80
Dimension A (30 2307)		mm	80	80	80	80	80	80	80	80	100	—
Ø D (30 2303)		mm	29.5	29.5	34	34	37	37	43	43	50	50
Ø D (30 2307)		mm	70	70	55	55	43	43	54.5	54.5	78	—
Ø D ₂ (30 2303)		mm	22	22	26.5	26.5	29.5	29.5	35.5	35.5	45.5	45.5
Ø D ₂ (30 2307)		mm	21	21	27	27	33.3	33.3	44.7	44.7	44	—
maximum clamping depth L _z		mm	36	36	42	47	47	50	50	52	58	58

Haimer pre-setting devices available from the Hoffmann Group.



Precision and productivity in production.

Other models on request.



UNO range



VIO range

ISO 7388-1	Form ADB	G 2.5 25000 min ⁻¹		HSC	HPC
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Garant Shrink-fit chucks (extra-slim design) 4.5° – (formerly DIN 69871)

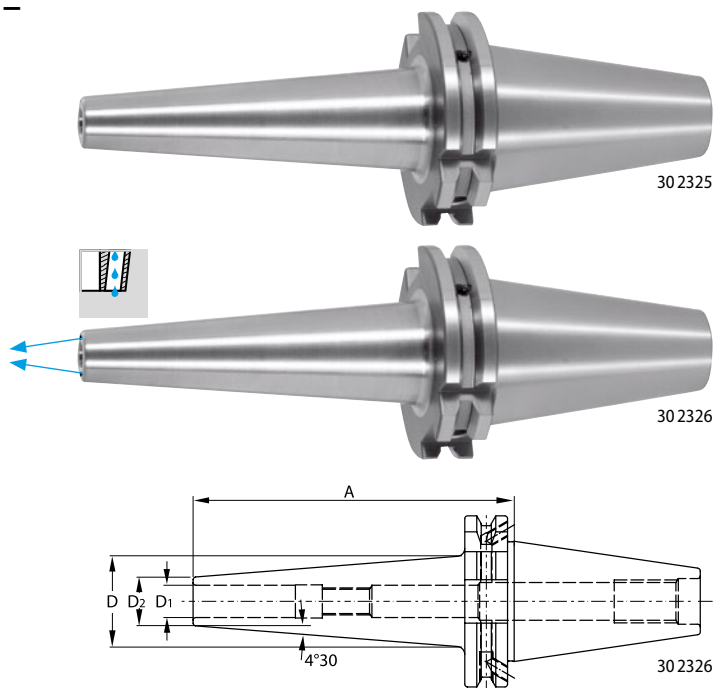
- All shanks hard turned (for smooth running!).
- With RFID / Balluffchip bore.
- Integral tool length adjustment, range 10 mm available only **from size 6 upwards!**

■ Extra slim design(reduced interference contour).

30 2326 – ■ With cooling channel bores.

- Application:**
- Cutting operations in tool and mould making.
 - For clamping tools with parallel shank to h6 tolerance.

Optional extras: Pull studs (PS) No. 308600 – 308806.
PS wrenches No. 308820 – 308835,
Shrink-fit chuck extensions No. 302410 – 302419.
Shrink-fitting units No. 354210 – 354450.



Clamping range Ø D ₁			mm	3	4	5	6	8	10	12
31A	30 2326	Shrink-fit chuck slim, with cooling channel bore	SK 40 A = 120	–	–	–	eShop	eShop	eShop	eShop
31A	30 2325		SK 40 A = 120	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A	30 2333		SK 40 A = 160	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A	30 2342		SK 50 A = 120	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A	30 2344		SK 50 A = 160	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Ø D ₁			mm	3	4	5	6	8	10	12
Ø D (30 2326)			mm	–	–	–	30.9	31.9	33.9	35.9
Ø D (30 2325, 30 2333, 30 2342, 30 2344)			mm	25	25	25	30.9	30.9	33.9	33.9
Ø D ₂ (30 2326)			mm	–	–	–	15	16	18	20
Ø D ₂ (30 2325, 30 2333, 30 2342, 30 2344)			mm	9	9	9	15	15	18	18

ISO 7388-1	Form ADB	G 2.5 25000 min ⁻¹		HSC
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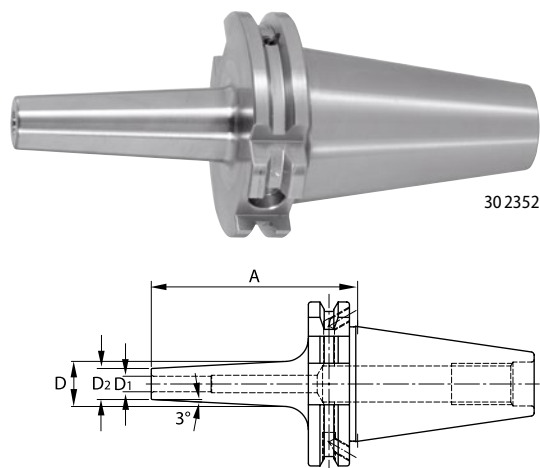
Garant Shrink-fit chucks 3° (for tool and mould making) – (formerly DIN 69871)

- All shanks hard turned (for smooth running!).
- With RFID / Balluffchip bore.
- Extra slim design (3° contour).

- Application:**
- Especially for tool and mould making.
 - Wherever reduced interference contours are required.
 - For clamping tools with shank tolerance h6.

Optional extras: Pull studs (PS) No. 308600 – 308806.
PS wrenches No. 308820 – 308835.
Shrink-fit chuck extensions No. 302410 size 12/3 and 12/4.
Shrink-fitting units No. 354210 – 304450.

Note: No length adjustment available!



Clamping range Ø D ₁		mm	3	4	5	6	8	10	12
31A	30 2352	Shrink-fit chuck 3°	SK 40 A = 80	eShop	eShop	eShop	eShop	eShop	eShop
31A	30 2356		SK 40 A = 120	eShop	eShop	eShop	eShop	eShop	eShop
Ø D		mm	14	15	16	23	21	27	25
Ø D ₂		mm	9	10	11	12	14	16	18

Garant Shrink-fit chuck extensions 4.5°

Bored through for internal coolant supply (IC).

30 2410 – **Without** length adjustment screw, **short**.

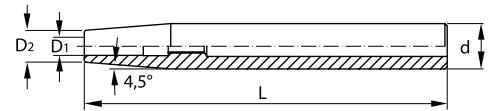
30 2412 – **With** length adjustment screw, **short**.

30 2413 – **Without** length adjustment screw, **medium**.

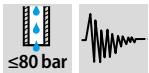
30 2416 – **Without** length adjustment screw, **long**.

Application: For use in shrink-fit chucks, hydraulic chucks, and ER collet chucks.

Note: Maximum permissible speed 8,000 rpm.



$\emptyset d / \emptyset D_1$	31A 30 2410	31A 30 2412	31A 30 2413	31A 30 2416	$\emptyset D_2$
	Shrink-fit chuck extension 4.5°				
mm	without length adjustment screw L = 160 mm	with length adjustment screw L = 160 mm	without length adjustment screw L = 210 mm	without length adjustment screw L = 300 mm	mm
12/3	eShop	—	eShop	—	8
12/4	eShop	—	eShop	—	8
12/6	eShop	—	—	—	8
16/3	eShop	—	eShop	—	10
16/4	eShop	—	eShop	—	10
16/5	eShop	—	—	—	10
16/6	eShop	eShop	eShop	—	10
20/5	eShop	—	—	—	14
20/6	eShop	eShop	eShop	eShop	14
20/8	eShop	eShop	eShop	eShop	14
25/8	(eShop)	eShop	—	eShop	19
25/10	eShop	eShop	—	eShop	20
25/12	eShop	eShop	—	eShop	20
25/14	eShop	eShop	—	eShop	20
25/16	eShop	eShop	—	eShop	22
32/10	eShop	eShop	—	eShop	24
32/12	eShop	eShop	—	eShop	24
32/14	eShop	eShop	—	(eShop)	27
32/16	eShop	eShop	—	eShop	27
32/18	(eShop)	eShop	—	—	27
32/20	eShop	eShop	—	eShop	27



Garant Vibration-damped shrink-fit chuck extension 3°

Shank bored through for internal coolant supply (ICS) up to maximum 80 bar.

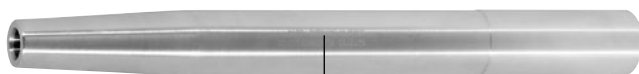
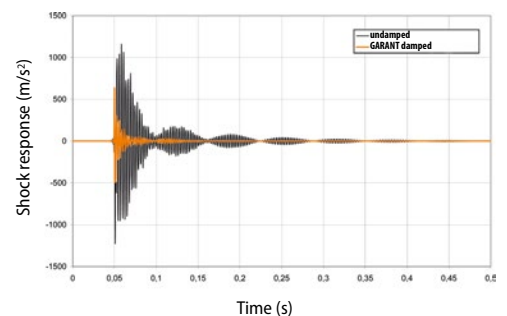
Including length adjustment backstop screw.

A **carbide core embedded** in the adapter damps the tendency to vibrate.

Maximum permissible speed 8,000 rpm.

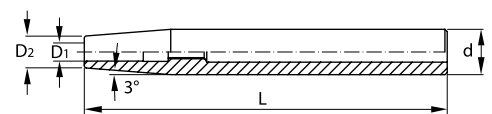
Advantage:

- Avoid vibrations in the clamping system.
- Better workpiece surface finishes.
- Increased tool service lives.



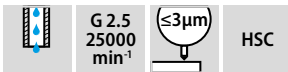
Carbide core embedded in polymer.

30 2415_20/8



30

$\emptyset d / \emptyset D_1$	mm	20/6	20/8	20/10	20/12
31P 30 2415	Shrink fit chuck extension 3°, vibration-damped	eShop	eShop	eShop	eShop
$\emptyset D_2$	mm	12	14	16	18

SCHUNK **TRIBOS-Mini SVL polygonal clamping extension**


By using TRIBOS SVL extensions, standard cutting tools can be used instead of expensive special tools. The extension with concentricity of < 0.003 mm and a slender interference contour can be combined with a wide variety of chucks. The TRIBOS SVL extensions have already been proven for use in the medical, watch and jewellery industries, as well as in the automotive and electronics industries.

Function: The TRIBOS SVP clamping devices make the polygon-shaped clamping diameter of the extension round and the tool shank can be easily inserted. If the pressure on the clamping diameter decreases, it becomes polygonal again and clamps the inserted tool shank reliably and accurately.

Advantage:

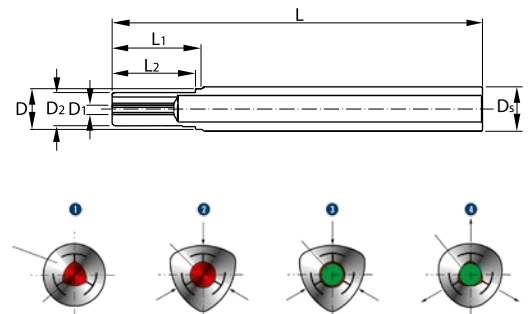
- **Optimised interference contour** – ideal for bores in low-lying areas, e.g. in fixture construction.
- **Axial length adjustment** – length adjustment in the range of 0.01 mm accuracy, with adjustment travel of 10 mm.
- **For the smallest diameters from 0.3 mm** – economical for the most delicate machining operations without special tools.
- **Flexible to use** – suitable for hydraulic chucks and ER collet chucks.
- **All commercially available shank types can be mounted (HA, HB, HE).**
- **Excellent vibration damping** – avoidance of micro break-outs, top workpiece surfaces, less stress on the headstock, increase to tool life and thus reduction in costs.
- **High speeds possible** – up to 52,000 rpm.

Supplied with:

30 2381 – 5 × extension No. 302383 (size of your choice),
1 × clamping device No. 302384 size 9,
1 × HOLEX activation wrench No. 627501 size 6.



30 2381


1 Clamping diameter similar to polygon.

The polygon-shaped clamping diameter of the toolholder is rounded due to the clamping device TRIBOS SVP and the appropriate application of pressure.

2 Clamping diameter becomes round.

The tool shank can now be inserted easily.

3 Insert shank.

If the pressure on the clamping diameter is released, it takes on its polygonal shape again.

4 Tool clamped.

The inserted tool shank is clamped reliably and with repetition accuracy.

Clamping $\varnothing D_1$	mm	1	2	3	4	5	6
30 2381	TRIBOS-Mini SVL Set cylindrical	–	–	eShop	eShop	–	eShop
30 2383	TRIBOS-Mini-SVL extension cylindrical	eShop	eShop	eShop	eShop	eShop	eShop
$\varnothing D$	mm	11					
$\varnothing D_2$	mm	9					
$\varnothing D_3$	mm	12					
Length L	mm	100					
L_1	mm	24					
L_2	mm	22.5					

Application: Clamping device for clamping/releasing the tool in the TRIBOS extension.

Note: Screw in the actuating screw (hexagon, 6 mm AF) to the stop as a maximum (tightening torque max. 5 Nm).

Clamping $\varnothing D_2$	mm	9
30 2384	TRIBOS-Mini SVP clamping device	(eShop)



30 2384

Application: Assembly jig for mounting on a workbench. For horizontal or vertical use of the TRIBOS-Mini SVP clamping device.

Type	1
30 2386	TRIBOS-Mini SVP assembly jig



30 2386

Garant GARANT MASTER CHUCK

With the GARANT Master Chuck, we have expanded the possible application areas enormously. Here is an overview of the new features and improvements in both versions.

GARANT Master Chuck Performance.

**Maximum performance.
With extra long service life.**

- **Even easier to use.**
Thanks to the new position of the clamping screw.
- **Higher temperature resistance.**
The new, patented bushing technology reduces the oil volume, improving stability and safety when subject to high temperature influences.
- **Improved application/distribution of the forces.**
Thanks to new, patented bushing technology.
- **Significantly less manual tightening force required.**
Thanks to special mechanics, less torque is required whilst simultaneously achieving the highest possible clamping force.
- **Longer tool life.**
Up to 10 x more clamping cycles than conventional chucks.



GARANT Master Chuck Slim.

**Top form.
For best accessibility.**

- **Very easy to operate.**
No shrink-fit unit required.
- **Better surface quality.**
As vibrations are minimal.
- **Quicker machining.**
- **Higher clamping force.**
Compared to conventional hydraulic chucks.
- **Protect your employees.**
No injuries caused by the shrink fitting process.
- **Higher temperature resistance.**
Thanks to new, patented bushing technology.

G 2.5
18000
min⁻¹

HSC

Garant MicroClamp drill chuck

- For clockwise and anticlockwise rotation.
 - Concentricity ≤ 0.005 mm.
 - Transmissible torque 7 Nm.
 - Maximum speed 60,000 rpm.
 - Operated from the side.
 - Permissible tightening torque 2 Nm.
- 30 2406 – ■ **Clamping range 0.2 – 3.4 mm.**
30 2407 Size 0,2-3 – ■ **Clamping range 0.2 – 3.4 mm.**
Size 0,2-6 – ■ **Clamping range 0.2 – 6.4 mm.**

Supplied with: Clamping wrench with T-handle size 2.

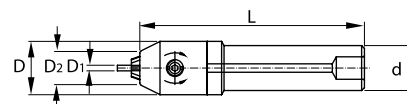
Type		0,2-3	0,2-6
31H 30 2406	MicroClamp drill chuck plain, L = 80	eShop	—
31H 30 2407	MicroClamp drill chuck plain, L = 100	eShop	eShop
Shank tolerance		h6	
Ø d	mm	16	20
Ø D ₁	mm	0.2 – 3.4	0.2 – 6.4
Ø D	mm	19	25
Ø D ₂	mm	12	16



30 2406



30 2407



DIN
6359

DIN
2080



MOLEX Side lock arbors (Weldon) – DIN 2080

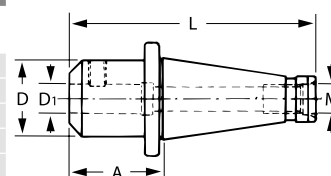
Internal thread for manual clamping.

Application: For clamping tools with side flat to DIN 1835 B and DIN 6535 HB.



30 2425

Clamping range Ø D ₁	mm	6	8	10	12	16	20
32A 30 2425	Side lock arbor SK 40	eShop	eShop	eShop	eShop	eShop	eShop
Dimension A	mm	50	50	50	50	63	63
Ø D	mm	25	28	35	42	48	52
L	mm	143	143	143	143	156	156
M		M16					
Spare clamping screw No. 30 9900		6	8	10	12	16	20



DIN 2080	Form A	G 6.3 15000 min ⁻¹	≤50µm	≤14 Nm
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HOLEX Short drill chucks – DIN 2080

For clockwise and anticlockwise rotation. Internal thread for manual clamping.

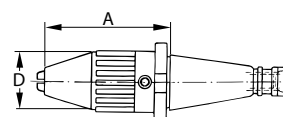
Application: For clamping drills, countersinks, and reamers on milling machines.

Supplied with: Supplied with Torx® chuck key with T-handle, for optimum clamping force.



30 2565

Clamping range	mm	2,5-16
32K 30 2565	Short drill chuck	SK 40
32K 30 2575	Form A	SK 50
Dimension A	mm	85
Spare chuck key		SW6
Ø D	mm	56



DIN 2080	≤3µm
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HOLEX Collet chucks – DIN 2080

Application: For clamping tools with plain shank in ER / ESX collets to ISO 15488-B.

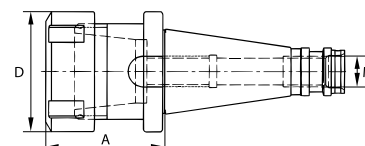
Optional extras: ER collets No. 308981 – 309040,
ER sets No. 309024 – 309320,
ER clamping wrenches No. 309680 – 309740.

ER collet chuck

for ER collet size		25	32	40
32A 30 2485	ER collet chuck	SK 40	eShop	eShop
Clamping range	mm	1 – 16	2 – 20	4 – 26
Dimension A (30 2465)	mm	–	50	80
Dimension A (30 2485)	mm	50	60	80
Ø D	mm	42	50	63
M			M16	
Spare ER clamping nut		25	32	40



30 2485



DIN 6358	DIN 2080	≤6µm
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HOLEX Face mill adapters – DIN 2080

Internal thread for manual clamping.

Application: With drive key for milling cutters with longitudinal groove, e.g. DIN 841.
With face mill drive ring for milling cutters with transverse slots, DIN 1880.

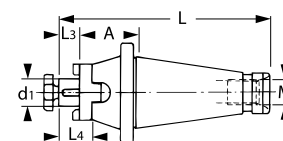
Supplied with: Drive key, face mill drive ring, and lock screw.

Optional extras: Special toggle spanner No. 309840.



30 2505

Spigot Ø d ₁	mm	16	22	27	32	40
32A 30 2505	Combination face mill adapter	SK 40 A = 52	eShop	eShop	eShop	eShop
32A 30 2515		SK 50 A = 55	eShop	eShop	eShop	eShop
L (30 2500, 30 2505)	mm	162	164	166	169	172
L (30 2515)	mm	199	201	203	206	209
L ₃	mm	17	19	21	24	27
L ₄	mm	27	31	33	38	41
M (30 2500, 30 2505)				M16		
M (30 2515)				M24		
Spare milling cutter lock screw No. 309860 / 309861		16	22	27	32	40
Spare drive ring No. 309870		16	22	27	32	40
Suitable toggle spanner No. 309840		16	22	27	32	40





Side lock arbors Weldon – JIS B 6339 (MAS-BT)

30 2593/2591/2596/2606/2650/2655 – All shanks hard turned (for smooth running). Balancing quality G2.5 / 25,000 rpm.

With coolant supply holes that can be plugged.

30 2597/2607/2617/2657/2667 – All shanks fine bead blasted. Balancing quality G6.3 / 18,000 rpm.

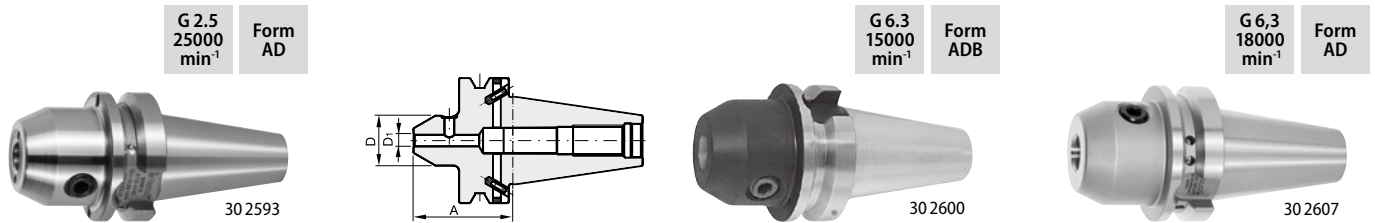
30 2600–2605/2610/2615/2660/2670 – All shanks burnished.

30 2605/2615 – Coolant channel bore can be plugged with an O-ring.

Application: For clamping tools with side flats to DIN 1835 B and DIN 6535 HB.

Optional extras: Pull studs (PS) No. 308760 – 308802. Pull stud wrenches No. 308820; 308835.

Side lock arbors, Weldon



Clamping Ø D ₁			mm	6	8	10	12	14	16	18	20	25	32
31A 30 2593	Garant	Side lock arbor Form AD with cooling channel bore	BT 30 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–
32A 30 2597	HOLEX	Side lock arbors Form AD	BT 30 short	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–	–
31A 30 2591	Garant	Side lock arbor Form AD with cooling channel bore	BT 30 A = 100	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–	–
31A 30 2596		Side lock arbor Form ADB with cooling channel bore	BT 40 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
32A 30 2607	HOLEX	Side lock arbor Form AD	BT 40 short	eShop	eShop	eShop	eShop	–	eShop	–	eShop	eShop	eShop
36E 30 2600	EROGLU	Side lock arbor Form ADB	BT 40 short	–	–	–	–	–	–	–	–	–	–
36E 30 2605		Side lock arbor Form ADB with cooling channel	BT 40 short	–	–	–	–	–	–	–	–	–	–
31A 30 2606	Garant	Side lock arbor Form ADB with cooling channel bore	BT 40 A = 100	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–
32A 30 2617	HOLEX	Side lock arbor Form AD	BT 40 A = 100	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–	–
36E 30 2610	EROGLU	Side lock arbor Form ADB	BT 40 A = 100	–	–	–	–	–	–	–	–	–	–
36E 30 2615		Side lock arbor Form ADB with cooling channel	BT 40 A = 100	–	–	–	–	–	–	–	–	–	–
31A 30 2650	Garant	Side lock arbor Form ADB with cooling channel bore	BT 50 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
32A 30 2657	HOLEX	Side lock arbor Form AD	BT 50 short	eShop	eShop	eShop	eShop	–	eShop	–	eShop	eShop	eShop
36E 30 2660	EROGLU	Side lock arbor Form ADB	BT 50 short	–	–	–	–	–	–	–	–	–	–
31A 30 2655	Garant	Side lock arbors Form ADB with cooling channel bore	BT 50 A = 100	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–
32A 30 2667	HOLEX	Side lock arbor Form AD	BT 50 A = 100	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–	–
36E 30 2670	EROGLU	Side lock arbor Form ADB	BT 50 A = 160	–	–	–	–	–	–	–	–	–	–
Dimension A (30 2593, 30 2597)			mm	50	50	50	55	55	63	63	70	–	–
Dimension A (30 2591)			mm	100	100	100	100	–	100	–	–	–	–
Dimension A (30 2596, 30 2607, 30 2600, 30 2605)			mm	50	50	63	63	63	63	63	90	100	100
Dimension A (30 2650, 30 2657)			mm	63	63	70	80	55	80	63	80	100	105
Dimension A (30 2660)			mm	63	63	63	80	80	80	–	80	100	105
Ø D			mm	25	28	35	42	44	48	50	52	65	72
Spare clamping screw No. 30 9900				6	8	10	12	12	16	16	20	25	32



30

JIS
B6339ISO
7388-2

HSC

ER collet chuck – JIS B6339 (MAS-BT)

External and internal taper ground.

30 2745/2752/2755/2765/2828 –

- All shanks hard turned (for smooth running!). Balancing quality G2.5/25,000 rpm.
- Clamping nut balanced for HSM (G2.5/25,000 rpm).
- Optimum wear characteristics and torque transmission due to the coated precision clamping nut.

30 2747/2757/2767/2817/2827 –

- All shanks fine bead blasted. Balancing quality G6.3 / 18,000 rpm.
- High-quality precision clamping nut.

30 2750/2760/2780/2800/2830 – All shanks burnished.

Application: For clamping tools with parallel shank in collets to **DIN 6499 Form A and B**.

Supplied with: ER clamping nut.

Optional extras: ER collets No. 308881 – 309434,
ER chuck keys No. 309680 – 309745 or No. 613300.
Pull studs (PS) No. 308760 – 308802.
Pull stud wrenches No. 308820; 308835.

Note: Matching clamping nut No. 309580 or 309610.

G 2.5
25000
min⁻¹

Form
AD



30 2745

G 2.5
25000
min⁻¹

Form
ADB



30 2755

G 2.5
25000
min⁻¹

Form
ADB



30 2765

G 6.3
18000
min⁻¹

Form
AD



30 2757

G 6.3
20000
min⁻¹

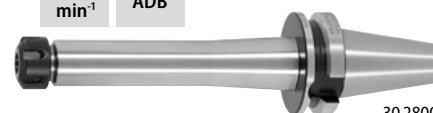
Form
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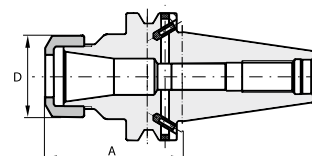
30 2760

G 6.3
20000
min⁻¹

Form
ADB



30 2800



for ER collet size				16	20	25	32	40	
31A	30 2745		ER collet chuck Form AD	BT 30 A = 60	eShop	eShop	eShop	eShop	—
32A	30 2747			BT 30 A = 60	eShop	eShop	eShop	eShop	—
36E	30 2750			BT 30 A = 70	—	—	—	—	—
31A	30 2752			BT 30 A = 100	eShop	eShop	eShop	eShop	—
31A	30 2755		ER collet chuck Form ADB	BT 40 short	eShop	eShop	eShop	eShop	eShop
32A	30 2757		ER collet chuck Form AD	BT 40 short	eShop	eShop	eShop	eShop	eShop
36E	30 2760		ER collet chuck Form ADB	BT 40 short	—	—	—	—	—
31A	30 2765			BT 40 A = 100	eShop	eShop	eShop	eShop	eShop
32A	30 2767		ER collet chuck Form AD	BT 40 A = 100	eShop	—	eShop	eShop	eShop
36E	30 2780		ER collet chuck Form ADB	BT 40 A = 100	—	—	—	—	—
36E	30 2800			BT 40 A = 160	—	—	—	—	—
32A	30 2817		ER collet chuck Form AD	BT 50 short	eShop	—	eShop	eShop	eShop
31A	30 2828		ER collet chuck Form ADB	BT 50 A = 100	eShop	eShop	eShop	eShop	eShop
32A	30 2827		ER collet chuck Form AD	BT 50 A = 100	eShop	—	eShop	eShop	eShop
36E	30 2830		ER collet chuck Form ADB	BT 50 A = 160	—	—	—	—	—
Clamping range				mm	0.5 – 10	1 – 13	1 – 16	2 – 20	3 – 26
Dimension A (30 2745, 30 2747)				mm	60	60	60	60	—
Dimension A (30 2760)				mm	63	—	60	70	80
Dimension A (30 2817)				mm	80	—	80	80	80
Ø D				mm	28	34	42	50	63
Spare ER clamping nut					16	20	25	32	40
ER chuck key					16	20	25	32	40

ISO 7388-2	JIS B6339	Form ADB	G 2.5 25000 min ⁻¹		HSC	HPC
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Garant HiRunER Precision ER collet chuck – JIS B6339 (MAS-BT)

External and internal tapers are ground. All shanks are hard turned for smooth running. Including RFID / Balluffchip bore, high-performance clamping nut (up to 25000 rpm).

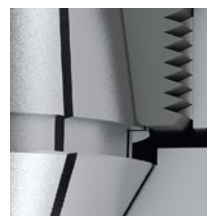
- Advantage:**
- **Excellent concentricity in the system** (chuck + collet + clamping nut), 3µm radial run-out with a 2µm collet, 6µm radial run-out with a 5µm collet.
 - **Extremely strong holding force** (up to **factor 2** better than the standard ER chuck).
 - **Vibration reduction effect** due to 2-part clamping nut.

Application: For clamping tools with plain shank in collets to DIN 6499 – Form A and B.

Supplied with: Precision clamping nut.

Optional extras: Pull studs (PS) No. 308760 – 308802, PS wrenches No. 308820 – 308835, ER chuck keys No. 309757, 309758 (for 11M and 16M); ER collets Fahrion No. 308901 – 309434, ER collets No. 308901 – 309432, hook spanner 628400 or torque wrench 309749 or 628520.

- Note:**
- Clamps only nominal Ø up to shank Ø tolerance h 10.
 - Do not use the clamping nut in combination with a sealing washer.
 - Use it in only combination with Fahrion collets.
 - The blue design ring must be removed for Fahrion HP 2µm ER collets.



HiRunER → the collet is fully seated in the chuck → higher retention forces! → better concentricity!



Standard ER chuck → Collets are not inserted 100% into the chuck.



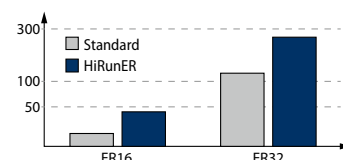
Slide-optimised surface of the clamping nut.

Ball-bearing clamping nut higher tightening torques.



for ER collet size			11M	16M	16	20	25	32	40	
31A	30 2839	HiRunER precision ER collet chuck	BT 30 A = 60	eShop	eShop	eShop	–	eShop	–	–
31A	30 2843		BT 40 A = 70	–	–	eShop	eShop	eShop	eShop	eShop
31A	30 2844		BT 40 A = 100	eShop	eShop	–	–	–	–	–
Clamping range			mm	1 – 7	1 – 10	0.5 – 10	1 – 13	1 – 16	2 – 20	3 – 26
Ø D			mm	16	24	34	38	44	52	62
Spare ER clamping nut			309618 11M	309618 16M	–	–	–	–	–	–
Spare ER clamping nut No. 309617			–	–	16	20	25	32	40	

Mini – size 11M/ 16M (extremely slim design).



ISO 7388-2	JIS B6339	Form AD	G 2.5 25000 min ⁻¹		HSC
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Garant ER collet chuck, ultra-short – JIS B6339 (MAS-BT)

Taper ground internally and externally. **Ultra-short type with internal precision clamping nut.** Best suited to working in restricted working areas, with higher stability.

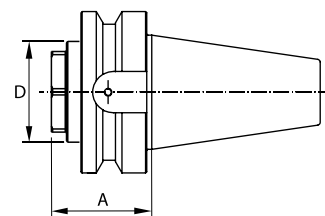
Application: For clamping tools with parallel shank in collets to DIN 6499 – Form A and B.

Supplied with: ER clamping nut (internal).

Optional extras: ER collets No. 308881 – 309434, pull studs (PS) No. 308760 – 308802, PS wrenches No. 308820 – 308835.

Note: Matching clamping nut No. 309621.

for ER collet size			25	32
31A	30 2875	ER collet chuck, ultra-short	BT 40 eShop	eShop
Dimension A			mm	33
Ø D			mm	27



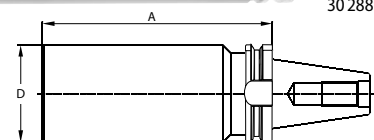
JIS B6339	ISO 7388-2	Form A
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HOLEX Boring bar blanks for making special tools – JIS B6339 (MAS-BT)

Taper with collar, hardened and ground. Soft shank for further machining.

Optional extras: Pull studs (PS) No. 308760 – 308802.

Dimension A			mm	250	315
32A	30 2889	Boring bar blank	BT 40	eShop	–
32A	30 2891	Form A	BT 50	–	eShop
Ø D			mm	63	97



30

ISO 7388-2	JIS B6339	G 2.5 25000 min ⁻¹	$\lambda \leq 6\mu\text{m}$ ER+CP	$\lambda \leq 3\mu\text{m}$ HP+CP	$\lambda \leq 6\mu\text{m}$ ER+HDC	$\lambda \leq 3\mu\text{m}$ HP+HDC	HSC
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FAHRION® Precision ER collet chuck – JIS B6339 (MAS-BT)

- Taper ground internally and externally with RFID/Balluffchip bore.
- **Concentricity and repetition accuracy** 3 µm at 3×D, maximum 50 mm when using a HP precision collet.
- **HDC = Heavy Duty Chuck**, a mount specially designed for rough machining. A reinforced chuck body ensures better stability and plenty of radial stiffness. Taper ground internally and externally. Ball-bearing clamping nut with trapezoidal-shaped fine thread for optimum tightening torques and clamping forces, reduces vibrations that occur.
- **Very high clamping forces** due to the collet fully seated in the chuck and coated clamping nut.
- **Vibration damping** due to the element collet and mass of the chuck.
- **Alternatively for CENTRO P -> without seals**, with ER clamping nut CP No. 309655 or **sealed system** with ER clamping nut CP for HP sealing rings No. 309665 in conjunction with HP sealing rings No. 309666 – 309668 (for internal coolant supply or as a dirt trap).

Advantage: Patented optimum seating of the collet, double guides, trapezoidal thread and low-friction coated clamping nut amalgamate when clamped into a sturdy unit, thus ensuring a very high degree of rigidity and precision.

Application: For high precision clamping of tools with plain shank. HDC especially well-suited for roughing (including TPC milling) and finishing operations and machining of high-tensile or tough materials.

Supplied with:

30 2896 – Supplied with ball-bearing clamping nut.

30 2884–2888 – Without clamping nut.

Optional extras: Pull studs (PS) No. 308600 – 308806, PS wrenches No. 308820 – 308835, precision ER collets for HP No. 309368 - 309381 and for taps No. 309402 – 309419 (not for Holes). ER clamping nuts CP No. 309655; 309665, ER clamping nut HDC No. 309657, HP sealing rings No. 309666 – 309668, CP roller bearing wrench No. 309754; 309756, HDC roller bearing wrench No. 309745; 309756.

Note: ■ Clamps only nominal Ø up to shank Ø tolerance h10.

■ Use in combination with Fahrion collets.

30 2896 – ■ Not compatible with CP clamping nut.

Please order
CP clamping nut separately



Mini – size 11M (extremely slim design!)



Tapered – size 16C

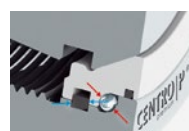


Standard – sizes 16AD, 25AD and 32AD

Please order
CP clamping nut separately

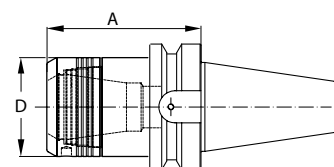


30 2896_32AD



Inclined ball bearing HDC

Force flow is transferred by the balls when tensioning (red) and by the safety ring when loosening (blue).



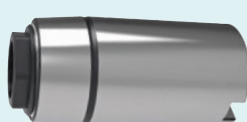
for ER collets			32AD					
33F	30 2896	Precision ER collet chuck HDC	BT 40 A = 90	eShop				
Clamping range			mm	2 – 20				
Ø D			mm	53				
Type CP for ER			11M	16C	16AD	25AD	32AD	
33F	30 2884	Precision ER collet chuck CENTRO P	BT 40 A = 75	–	–	eShop	eShop	eShop
33F	30 2886		BT 40	eShop	eShop	eShop	eShop	eShop
33F	30 2888		BT 40 A = 160	(eShop)	(eShop)	–	–	–
Clamping range			mm	1 – 7	1 – 10	1 – 10	2 – 16	2 – 20
Dimension A (30 2886)			mm	100	100	90	90	90
Ø D			mm	16	24	30	40	50

Pure flexibility

If you're looking for adapters, extensions and problem solvers:



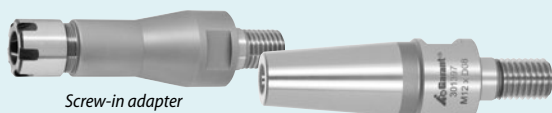
Face mill arbor extension



Adapter face mill / ER collet



Reducer



Screw-in adapter



Hydraulic chuck extension

...and much more.

JIS B6339	ISO 7388-2	Form AD	G 6.3 15000 min ⁻¹		HPC
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Heavy-duty chuck – JIS B6339 (MAS-BT)

- Low friction due to needle bearings.
- Protected with anti-corrosion coating.
- Dust-tight and watertight.
- Very high clamping force prolongs tool life and improves surface quality.
- Flexible clamping range by means of collets.
 - 30 2861 – ■ **Clamping force up 1000 Nm at Ø 20, 4000 Nm at Ø 32.**
 - 30 2865/2870 – ■ **Clamping force up to 1000 Nm.**

Advantage:

- 30 2861 – ■ Long tool life.
- Vibration damping properties.
- High stability due to strengthened clamping nut.

Application: For clamping tools with plain shanks.

Supplied with: Clamping nut

Optional extras: C wrench No. 628400.
Pull studs No. 308760 – 308795.

30 2861 – Collets No. 309575 – 309576.

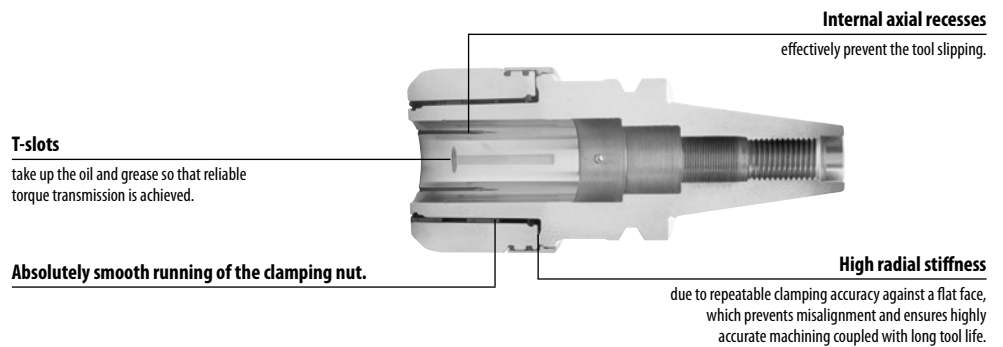
30 2865/2870 – Collets No. 309566 – 309570.



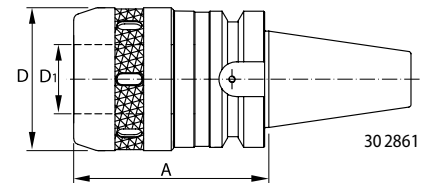
30 2861



30 2865



Ø D ₁		mm	20	32
33K 30 2861	NT TOOL	BT 40	eShop	eShop
32A 30 2865	HOLEX	BT 40	eShop	eShop
32A 30 2870		BT 50	eShop	eShop
Dimension A		mm	90	105
Ø D (30 2861)		mm	52	73
Ø D (30 2865, 30 2870)		mm	52	66
Suitable C-hook (pin) spanner No. 628400			52 / 55	68 / 75



30 2861

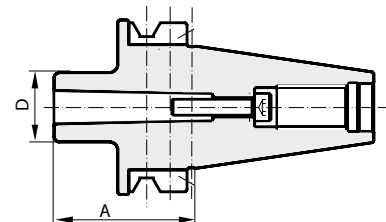
DIN 6383	JIS B6339	ISO 7388-2	Form AD	G 6.3 15000 min ⁻¹	
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HOLEX Reducing adapters for tools with MT shank – JIS B 6339 (MAS-BT)

Ground internally and externally.

Application: For clamping tools with MT shank.

Optional extras: Pull studs (PS) No. 308760 – 308806.



For MT tools with tang to DIN 228-B

MT internal			1	2	3	4
32A 30 3082	Reducing adapter SK / MT for tangs, form AD	BT 40	eShop	eShop	eShop	eShop
32A 30 3087		BT 50	eShop	eShop	eShop	eShop
Dimension A (30 3082)		mm	50	50	70	95
Dimension A (30 3087)		mm	45	60	65	95
Ø D		mm	25	32	40	48



30 3082



30

ISO
7388-2JIS
B6339

HPC

Face mill adapter – JIS B 6339 (MAS-BT)

Taper shank, spigots, and contact surfaces ground on collar.

Optional extras: Pull studs (PS) No. 308760 – 308802. Special toggle spanner No. 309840.

Combination face mill adapters

DIN
6358

30 2895/2905 – All shanks hard turned (for smooth running!). Balancing quality G2.5 / 25,000 rpm. Form ADB.

30 2897/2917/2957 – All shanks fine bead blasted. Balancing quality G6.3 / 18,000 rpm. Form A.

Application: **With drive key** for face mills with longitudinal slot, e.g. DIN 841.

With drive ring for face mills with crosswise slot DIN 1880 and cutter heads DIN 1830.

Supplied with: Drive key, face mill drive ring, and lock screw.

Note: Internal cooling available only with suitable tightening screw No. 309861.

G 2.5
25000
min⁻¹

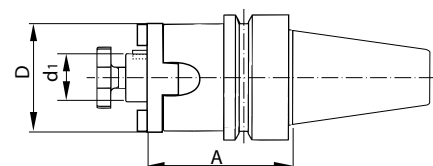
30 2895

G 2.5
25000
min⁻¹

30 2905

G 6.3
18000
min⁻¹

30 2897



Spigot Ø d ₁			mm	13	16	22	27	32	40
31A 30 2895	Garant	Combination face mill adapter Form ADB	BT 40 short	eShop	eShop	eShop	eShop	eShop	eShop
32A 30 2897	HOLEX	Combination face mill adapter Form A	BT 40 short	–	eShop	eShop	eShop	eShop	eShop
31A 30 2905	Garant	Combination face mill adapter Form ADB	BT 40 A = 100	–	eShop	eShop	eShop	eShop	eShop
32A 30 2917	HOLEX	Combination face mill adapter Form A	BT 40 A = 100	–	eShop	eShop	eShop	eShop	–
32A 30 2957	HOLEX	Combination face mill adapter Form A	BT 50 A = 100	–	eShop	eShop	eShop	eShop	–
Dimension A (30 2895, 30 2897)			mm	55	55	55	55	60	70
Ø D			mm	27	32	40	48	58	70
Spare milling cutter lock screw No. 309860 / 309861				13	16	22	27	32	40
Spare drive ring No. 309870				13	16	22	27	32	40
Suitable toggle spanner No. 309840				13	16	22	27	32	40

Face mill arbors

DIN
6357

30 3007/3017/3027/3037 – All shanks fine bead blasted. Balancing quality G6.3 / 18,000 rpm. Form A.

30 3010–3015/3025/3035 – All shanks hard turned (for smooth running!). Balancing quality G2.5 / 25,000 rpm. Form ADB.

With 4 cooling channel bores.

30 3020/3045 – All shanks burnished.

Supplied with: Lock screw.

G 2.5
25000
min⁻¹

30 3015

G 2.5
25000
min⁻¹

30 3012

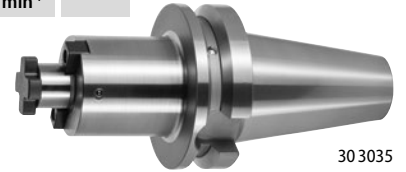
G 6.3
18000
min⁻¹

30 3017

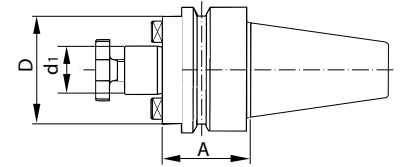
Spigot Ø d ₁			mm	16	22	27	32	40
31A 30 3010	Garant	Face mill arbor with cooling channel bore Form ADB	BT 30 short	eShop	eShop	eShop	–	–
32A 30 3007	HOLEX	Face mill arbor Form A	BT 30 short	eShop	eShop	eShop	–	–
31A 30 3012	Garant	Face mill arbor with cooling channel bore Form ADB	BT 30 A = 100	eShop	eShop	eShop	–	–
31A 30 3015	Garant	Face mill arbor with cooling channel bore Form ADB	BT 40 short	eShop	eShop	eShop	eShop	eShop
32A 30 3017	HOLEX	Face mill arbor Form A	BT 40 short	eShop	eShop	eShop	eShop	eShop
36E 30 3020	EROGLU	Face mill arbor with cooling channel bore Form ADB	BT 40 short	–	–	–	–	–
31A 30 3025	Garant	Face mill arbor with cooling channel bore Form ADB	BT 40 A = 100	eShop	eShop	eShop	eShop	eShop

Spigot Ø d ₁			mm	16	22	27	32	40
32A 30 3027	HOLEX	Face mill arbor Form A	BT 40 A = 100	eShop	eShop	eShop	eShop	—
31A 30 3035	Garant	Face mill arbor with cooling channel bore Form ADB	BT 50 A = 100	—	eShop	eShop	eShop	eShop
32A 30 3037	HOLEX	Face mill arbor Form A	BT 50 A = 100	—	eShop	eShop	eShop	eShop
36E 30 3045	ERUGLU	Face mill arbor with cooling channel bore Form ADB	BT 50 A = 100	—	—	—	—	—
Dimension A (30 3010, 30 3007, 30 3020)			mm	35	40	40	50	50
Dimension A (30 3015, 30 3017)			mm	35	35	35	50	50
Ø D (30 3010, 30 3007, 30 3012, 30 3015, 30 3017, 30 3025, 30 3027)			mm	38	48	50	78	89
Ø D (30 3020)			mm	—	48	60	78	88
Ø D (30 3035, 30 3037)			mm	—	48	60	78	89
Ø D (30 3045)			mm	—	48	58	78	88
Spare milling cutter lock screw No. 309860 / 309861				16	22	27	32	40
Suitable toggle spanner No. 309840				16	22	27	32	40

G 2.5
25000
min⁻¹



30 3035



DIN 6357	DIN 69882-3	ISO 7388-2	JIS B6339	Form A	G 6.3 8000 min ⁻¹	≤6µm U	HPC	
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Garant Face mill arbors, vibration damped

- Cylindrical form.
 - Taper shank, spigot, and all contact surfaces are ground at the collar.
 - With RFID/Balluffchip bore.
 - Larger collar contact face.
 - **Vibration damped version, arbor with vibration-damping core.**
- Advantage:** Significantly lower tendency to vibrate. Considerable increase in feed rate.
- Supplied with:** Cutter lock screw and drive dog.
- Optional extras:** Special toggle spanner No. 309840.

Note: Further sizes on request.



30 3050

Spigot Ø d ₁		mm	16	22	27	32
31A	30 3050	BT 40 A = 200	eShop	eShop	eShop	–
31A	30 3051	BT 40 A = 300	eShop	eShop	–	–
31A	30 3054	BT 50 A = 200	eShop	eShop	eShop	–
31A	30 3055	BT 50 A = 300	eShop	eShop	eShop	eShop
31A	30 3056	BT 50 A = 400	eShop	eShop	eShop	–
Ø D		mm	38	48	58	78
L ₁		mm	17	19	21	24



ISO 7388-2	JIS B6339	Form ADB	G 2.5 25000 min ⁻¹	HPC
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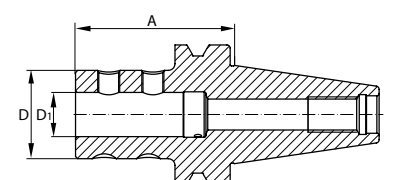
Garant Arbor for indexable drill - JIS B 6339 (MAS-BT)

- All shanks hard turned.
 - Position of the grub screw for countersinking in the indexable drill offset by 0.4 mm.
 - **When tightening** the increased contact face Ø is clamped against the front face of the arbor.
 - **Better support**, allowing **higher feed rates**.
 - **High concentricity** thanks to the mating surface being ground flat to 3µm.
- Suitable for:** All indexable drills with parallel shank to DIN 6595, Part 1.
- Application:** For mounting all standard indexable drills to DIN 6595, Part 1.
- Optional extras:** Pull studs (PS) No. 308760 – 308802. Replacement screws No. 309907; 309908.



30 3128

for shank Ø D ₁		mm	20	25	32	40
31A 30 3128	Arbor for indexable drills Form ADB	BT 40	eShop	eShop	eShop	eShop
31A 30 3129		BT 50	eShop	eShop	eShop	eShop
Dimension A (30 3128)		mm	72	76	80	100
Dimension A (30 3129)		mm	90	90	90	100
Ø D		mm	40	45	52	60



JIS B6339	ISO 7388-2	Form ADB	G 2.5 25000 min ⁻¹		HSC
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Garant Arbors for threaded copy mills – JIS B 6339 (MAS-BT)

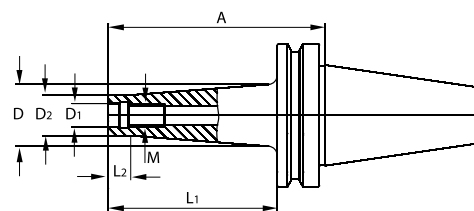
All shanks hard turned.

Application: To take screw-in milling cutters with thread.

Optional extras: Pull studs (PS) No. 308760 – 308802.



30 3139



Thread M × Usable length L ₁	31A	30 3139	31A	30 3141	Dimension A		∅ D ₁ tolerance IT6	∅ D ₂	∅ D	L ₁	L ₂	
	Arbor for screw-in milling cutters with thread				30 3139	30 3141					30 3139	30 3141
		BT 40		BT 50	mm	mm	mm	mm	mm	mm	mm	mm
M6×25		eShop		–	52	–	6.5	10	13	25	5	–
M6×50		eShop		–	77	–	6.5	10	20	50	5	–
M6×75		eShop		–	102	–	6.5	10	23	75	5	–
M8×25		eShop		–	52	–	8.5	13	15	25	5	–
M8×50		eShop		eShop	77	88	8.5	13	23	50	5	5
M8×75		eShop		–	102	–	8.5	13	23	75	5	–
M10×25		eShop		–	52	–	10.5	18	20	25	5	–
M10×50		eShop		eShop	77	88	10.5	18	23	50	5	5
M10×100		eShop		eShop	127	138	10.5	18	32	100	5	10
M12×25		eShop		–	52	–	12.5	21	24	25	5	–
M12×50		–		eShop	–	88	12.5	21	24	50	–	10
M12×75		eShop		–	102	–	12.5	21	31	75	5	–
M12×100		–		eShop	–	138	12.5	21	33	100	–	10
M12×125		eShop		–	152	–	12.5	21	36	125	5	–
M16×25		eShop		–	52	–	17	29	29	25	5	–
M16×50		–		eShop	–	88	17	29	29	50	–	10
M16×75		eShop		–	102	–	17	29	34	75	5	–
M16×100		–		eShop	–	138	17	29	36	100	–	10
M16×125		eShop		–	152	–	17	29	40	125	5	–
M16×150		–		eShop	–	188	17	29	42.5	150	–	10

ISO 7388-2	JIS B6339		G 2.5 25000 min ⁻¹		HSC
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Garant Hydraulic chuck (HD chuck) – JIS B6339 (MAS-BT)

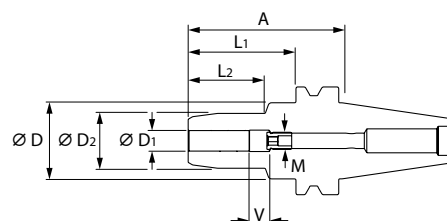
- Radial run-out ≤ 3 µm.
- With RFID/Balluffchip bore.
- Axial length adjustment possible (adjustment range V = 10 mm).
- Flexibility thanks to the use of reducing adapters.
- Coolant pressure up to 80 bar.

Application: For drilling, reaming and finish milling.

Optional extras: Pull studs (PS) No. 308760 – 308802, reducing sleeves No. 302135 – 302187.



30 3473



Clamping ∅ D ₁		mm	6	8	10	12	16	20
31A	30 3471	BASIC hydraulic chuck short, slim, Form AD	BT 30	eShop	eShop	eShop	eShop	eShop
31A	30 3473	BASIC hydraulic chuck short, slim, Form ADB	BT 40	eShop	eShop	eShop	eShop	eShop
Dimension A (30 3471)		mm	55	55	55	55	90	90
Dimension A (30 3473)		mm				90		
∅ D ₂		mm	26	28	30	32	38	42
∅ D (30 3471)		mm	46	46	46	46	45	45
∅ D (30 3473)		mm				44.5		
M (30 3471)			M5	M6	M8×1	M10×1	M12×1	M8×1
M (30 3473)			M5	M6	M8×1	M10×1	M12×1	M16×1

ISO 7388-2	JIS B6339	Form AD	G 2.5 25000 min ⁻¹	 $\leq 3\mu\text{m}$	HSC	HPC
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Garant Slim hydraulic chuck 3° – JIS B6339 (MAS-BT)

- **Extremely slim design** (3° contour).
- Ideal damping characteristics.
- Axial length adjustment facility.
- Shanks hard turned.

Application:

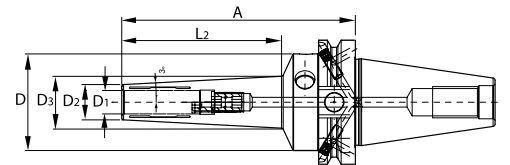
- Especially for tool and mould making.
- **Wherever reduced interference contours are required.**
- For drilling, reaming and milling.
- For clamping tools with shank tolerance h6.

Supplied with: Hexagon socket drive with T-handle.

Optional extras: Pull studs (PS) No. 308760 – 308802, slotted reducing sleeves No. 302135 – 302187.



30 3465



Clamping $\varnothing D_1$	mm	3	4	5	6	8	10	12	16	20
31A 30 3446	BT 30 A = 85	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–
31A 30 3465	BT 40 A = 120	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
$\varnothing D_2$ (30 3446)	mm	10	12	13	14	16	18	20	–	–
$\varnothing D_2$ (30 3465)	mm	9	10	11	12	14	16	18	24	28
$\varnothing D_3$ (30 3446)	mm	14.7	16.7	17.7	18.8	20.8	22.9	24.9	–	–
$\varnothing D_3$ (30 3465)	mm	16.5	17.5	18.5	19.5	21.5	23.7	25.8	31.4	35.5
$\varnothing D$ (30 3446)	mm	40	40	40	40	40	40	40	–	–
$\varnothing D$ (30 3465)	mm					49.5				
L_1 (30 3446)	mm	45	45	45	46	46	47	47	–	–
L_1 (30 3465)	mm	71	71	71	73	74	74	75	79	80

ISO 7388-2	JIS B6339	 $\leq 3\mu\text{m}$	G 2.5 25000 min ⁻¹	HPC	HSC
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Form AD	Form ADB
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Garant GARANT Master Chuck hydraulic chuck slim – JIS B6339 (MAS-BT)

- **Slim design** (4.5° contour, 1 to 1 shrinking contour according to DIN 69882-8).
- With RFID/Balluffchip bore.
- Axial length adjustment, adjustment travel 10 mm.
- Reducing adapters can be used.
- **Temperature resistant up to 120 °C** for 4 hours.
- **Up to 10x more clamping operations** possible compared to a standard hydraulic chuck.
- Very low tightening torque of the clamping screw – easy handling.
- **Patented new hydraulic clamping system** – reliable, durable premium concentricity.

Application: Especially for tool and mould making. Wherever **reduced interference contours** are required. For drilling, reaming and milling. For clamping tools with shank tolerance h6.

Supplied with: Hexagon socket drive with T-handle.

Optional extras: Pull studs (AB) No. 308600 – 308802, AB pull stud wrenches No. 308820 / 308835, Reducing sleeves No. 302135 – 302187.



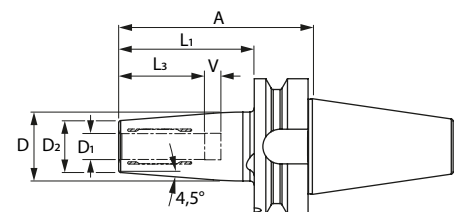
30 3438

Same properties as shrink-fit chucks:

- Accuracy.
- Extremely slim, identical interference contour.

Advantages over shrink-fit chucks:

- Better damping.
- Simpler to use.
- Flexibility (through reducing adapters).
- No shrink-fit units required (costs, energy consumption).



Clamping $\varnothing D_1$	mm	6	8	10	12	16	20
31A 30 3435	Hydraulic chuck, slim Master Chuck, form AD	BT 30 A = 85	eShop	eShop	eShop	eShop	eShop
31A 30 3438	Hydraulic chuck, slim Master Chuck, form ADB	BT 40 A = 90	eShop	eShop	eShop	eShop	eShop
$\varnothing D_2$	mm	21	21	24	24	27	33
$\varnothing D$	mm	27	27	32	32	34	42

JIS B6339	ISO 7388-2	Form ADB	G 2.5 25000 min ⁻¹		HSC	HPC
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Hydraulic chuck – version HT (High Torque) – JIS B6339 (MAS-BT)

- Very high overall stiffness due to optimised design.
- Axial length adjustment, adjustment travel 10 mm.

Advantage:

- **Maximum transmissible torque 550 Nm**, version HT (High Torque), for high process reliability.
- **Ideal damping characteristics**, resulting in optimum surface finishes, increased tool life and spindle protection.
- **Temperature resistance up to 120 °C.**

Application: Especially for heavy-duty milling.

Supplied with: Hexagon cross-bar wrench.

Optional extras: Pull studs (PS) No. 308760 – 308802.

Note: Caution in the case of extra-long tools and TPC machining.



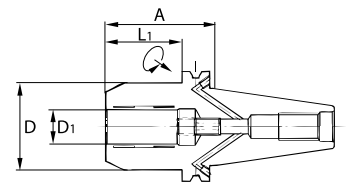
30 3450



30 3451



30 3459



Clamping range Ø D ₁			mm	12	16	20	32
31H	30 3450	 HT chuck	BT 40 short	eShop	—	eShop	—
31H	30 3451		BT 40 short	eShop	eShop	eShop	—
32A	30 3459	 HT chuck	BT 40 short	—	—	eShop	—
31H	30 3452		BT 50 short	—	—	eShop	eShop
32A	30 3469		BT 50 short	—	—	eShop	—
Dimension A (30 3450, 30 3451, 30 3459)			mm	58	72.5	72.5	—
Dimension A (30 3452, 30 3469)			mm	—	—	83.5	90
Ø D (30 3450, 30 3451, 30 3452)			mm	42	46	49	72
Ø D (30 3459, 30 3469)			mm	—	—	49.25	—
L ₁ (30 3450, 30 3459)			mm	31	—	45	—
L ₁ (30 3451, 30 3452, 30 3469)			mm	31	45.5	45.5	52
suitable reducing adapter				302140; 302135	—	302160; 302155; 302150; 302165	302180; 302175

ISO 7388-2	JIS B6339	Form ADB	G 2.5 25000 min ⁻¹		HSC	HPC
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GARANT Master Chuck hydraulic chuck performance – JIS B6339 (MAS-BT)

- Particularly suitable for highly dynamic milling applications.
- **Optimised outer contour using FEM** (finite element method) → robustness thanks to max. rigidity, longer tool life, higher metal removal rate, suitable for all machining strategies.
- With RFID/Balluffchip bore.
- Axial length adjustment, adjustment travel 10mm.
- Reducing adapters can be used.
- **Temperature resistant up to 170°C for 4 hours.**
- **Allows for up to 10x more clamping operations compared with a standard hydraulic chuck.**
- Very low tightening torque of the clamping screw – easy handling.
- **Patented new hydraulic clamping system – reliable, durable premium concentricity.**

Application: Universally designed for roughing and finishing operations. For clamping tools with shank tolerance h6.

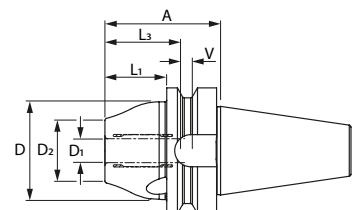
Supplied with: Hexagon socket drive with T-handle.

Optional extras: Pull studs (AB) No. 308600 – 308802, AB pull stud wrenches No. 308820 / 308835, Reducing sleeves No. 302135 – 302187.

Maximum metal removal rate,
with maximum precision!



30 3480



Clamping Ø D ₁		mm	6	8	10	12	16	20
31A	30 3480	Hydraulic chuck performance Master Chuck, form ADB	BT 40 short	eShop	eShop	eShop	eShop	eShop
Dimension A		mm	58	58	58	58	72.5	72.5
Ø D ₂		mm	26	28	30	32	38	38
Ø D		mm	42	42	42	49	49	49

ISO
7388-2

JIS
B6339

Short drill chucks – with chuck key operation – JIS B6339 (MAS-BT)

For clockwise and anticlockwise rotation.

- 30 3165–3172 – ■ Slim design.
 - Specific coolant transfer to tools with IC.
 - Optimum holding torques at the tool.
- 30 3171–3176 – Concentricity $\leq 20 \mu\text{m}$.

Supplied with: Clamping wrench.

Optional extras: Pull studs (PS) No. 308760 – 308806.
Pull stud wrenches No. 308820; 308835.



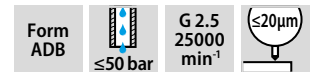
30 3171_0,5-13



30 3171_1-16

Clamping range			mm	0,3-10	0,5-13	0,5-16	1-16	2,5-16
31B	30 3171	Garant	Short drill chuck Form AD	BT 40	–	eShop	–	eShop
31B	30 3172			BT 50	–	–	–	eShop
31B	30 3175		Short drill chuck Form ADB	BT 40	eShop	–	eShop	–
31B	30 3176			BT 50	–	–	eShop	–
32K	30 3165	HOLEX	Short drill chuck Form A	BT 40	–	–	–	eShop
32K	30 3166			BT 50	–	–	–	eShop
Dimension A (30 3171, 30 3175, 30 3165)			mm	73	92	98	95	95
Dimension A (30 3172, 30 3176, 30 3166)			mm	–	–	110	106	106
Ø D			mm	38	43	57	50	50
Spare Torx® chuck key No. 625220				–	TX25	–	TX25	TX25
Spare chuck key No. 627425				4 AF	–	6 AF	–	–

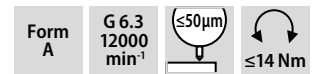
Clamping range			mm	0,3-8	0,5-13	2,5-16
33W	30 3196	WTE	Short drill chuck Form A	BT 30	–	eShop
33W	30 3197			BT 40	eShop	eShop
Dimension A (30 3196)			mm	–	96	–
Dimension A (30 3197)			mm	78	98	103
Ø D			mm	36	50	57
Spare chuck key No. 627425				SW 4	6 AF	6 AF



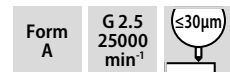
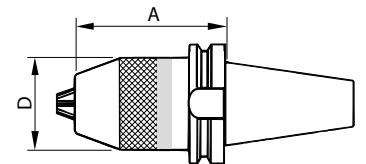
30 3175_0,5-16



30 3175_0,3-10



30 3165



30 3197

JIS
B6339

ISO
7388-2

Form
ADB

G 2.5
25000
min⁻¹

≤30 μm

HSC

HPC

Garant Shrink-fit chucks 3° (for tool-making and mould-making) – JIS B6339 (MAS-BT)

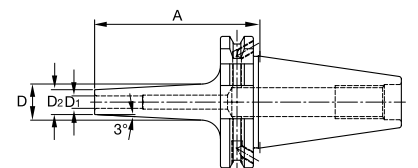
- All shanks hard turned.
 - Extra slim design (3° contour).
- Application:** ■ Especially for tool and mould making.
- Wherever reduced interference contours are required.
 - For clamping tools with shank tolerance h6.

Optional extras: Pull studs (PS) No. 308760 – 308806,
shrink-fit chuck extensions No. 302410, sizes 12/3 and 12/4,
shrink-fit units No. 354210 – 304450,
PS wrenches No. 308820 – 308835.

Note: No length adjustment available!



30 3443



Clamping range Ø D ₁		mm	3	4	5	6	8	10	12
31A	30 3443	Shrink-fit chuck 3°	BT 40 A = 90	eShop	eShop	eShop	eShop	eShop	eShop
Ø D		mm	14	15	16	19	21	23	25
Ø D ₂		mm	9	10	11	12	14	16	18

JIS B6339	ISO 7388-2	G 2.5 25000 min ⁻¹		HSC	HPC
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Garant Shrink-fit chucks 4.5° – JIS B6339 (MAS-BT)

- Integral tool length adjustment, range 10 mm (from Ø 6).
- Size 3-5 for carbide, from size 6 for HSS and carbide.

Standard: Similar to E-DIN 69882-8, form G.

Application: For clamping tools with parallel shank to h6 tolerance.

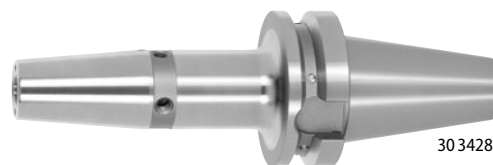
Optional extras: Pull studs (PS), No. 308760 – 308806, shrink-fit chuck extension No. 302410 – 302417, shrink-fit units No. 354210 – 354400.



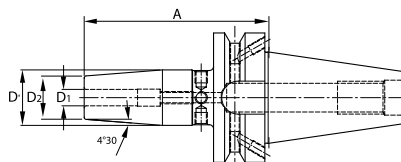
Form
ADB



30 3405



30 3428



30 3410

Clamping range Ø D ₁		mm	3	4	5	6	8	10	12	14	16	18	20	25
31A 30 3405	Shrink-fit chuck Form AD	BT 30 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
31A 30 3406	Shrink-fit chuck Form AD with cooling channel bore	BT 30 short	–	–	–	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–
31A 30 3410	Shrink-fit chuck Form ADB	BT 40 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A 30 3415	Shrink-fit chuck Form ADB with cooling channel bore	BT 40 short	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A 30 3425	Shrink-fit chuck Form ADB	BT 40 A = 120	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A 30 3427		BT 40 A = 130	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A 30 3428	Shrink-fit chucks Form ADB with cooling channel bore	BT 40 A = 130	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
31A 30 3430	Shrink-fit chuck Form ADB	BT 40 A = 160	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A 30 3445		BT 50 A = 100	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A 30 3437	Shrink-fit chuck Form ADB with cooling channel bore	BT 50 A = 100	–	–	–	eShop	eShop	eShop	eShop	–	eShop	–	eShop	eShop
31A 30 3461	Shrink-fit chuck Form ADB	BT 50 A = 160	–	–	–	eShop	eShop	eShop	eShop	–	eShop	–	eShop	eShop
Dimension A (30 3405, 30 3406)		mm	80	80	80	80	80	80	80	80	80	90	90	–
Dimension A (30 3410, 30 3415)		mm	90	90	90	90	90	90	90	90	90	90	90	100
Ø D		mm	17	17	17	27	27	32	32	34	34	42	42	53
Ø D ₂		mm	12	12	12	21	21	24	24	27	27	33	33	44

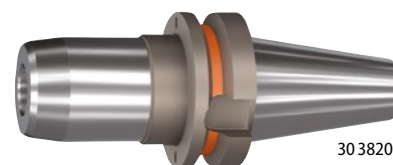
ISO 7388-2	JIS B6339		G 2.5 25000 min ⁻¹		HSC	
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Garant Hydraulic chuck (HD chuck) – JIS B6339 (MAS-BT) with double contact

- Radial run-out ≤ 3 µm.
- Balluffchip bore.
- Axial length adjustment up to 10 mm available.
- Flexibility thanks to the use of reducing adapters.
- Coolant pressure up to 80 bar.

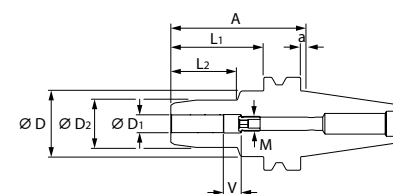
Application: For drilling, reaming and finish milling.

Optional extras: Pull studs (PS) No. 308760 – 308806, reducing sleeves No. 302135 – 302187.



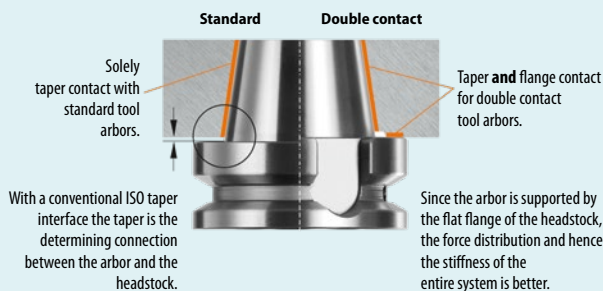
30 3820

Clamping Ø D ₁		mm	12	20
31A 30 3820	BASIC hydraulic chuck slim, Form AD	BT 30 short	eShop	eShop
31A 30 3825	BASIC hydraulic chuck slim, Form ADB	BT 40 short	eShop	eShop
Dimension A (30 3820)		mm	55	90
Dimension A (30 3825)		mm	90	
a		mm	1	
Ø D (30 3820)		mm	46	44.5
Ø D (30 3825)		mm	44.5	
Ø D ₂		mm	32	42



Garant

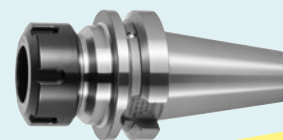
Tool arbors JIS B 6339 (MAS-BT) with double contact



The double contact between the taper and the flat flange creates a more stable and precise clamping situation.

The result:

- Better surface quality.
- Longer tool life times.
- Consistent seating in the headstock, even at high speeds.
- Smaller radial run-out.



Send us your enquiry or ask your contact person.

DIN 6359	ISO 7388-2	JIS B6339	Form AD	G 2.5 25000 min ⁻¹	≤3μm	HPC	BT-DC
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Garant Side lock arbor (Weldon) – JIS B6339 (MAS-BT) with double contact

All shanks hard turned (for smooth running!).

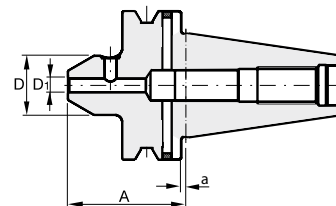
Application: For clamping tools with side flats to DIN 1835 B and DIN 6535 HB.

Optional extras: Pull studs (PS) No. 308760 – 308806.
Pull stud wrenches No. 308820; 308835.



30 3640

Clamping range Ø D ₁		mm	6	8	10	12	16	20	25
31A 30 3610	Side lock arbor Form AD	BT 30 short	eShop	eShop	eShop	eShop	eShop	eShop	–
31A 30 3640		BT 40 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A 30 3650		BT 40 A = 100	eShop	eShop	eShop	eShop	eShop	eShop	–
31A 30 3670		BT 50 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Dimension A (30 3610)		mm	50	50	50	55	63	70	–
Dimension A (30 3640)		mm	50	50	63	63	63	63	90
Dimension A (30 3670)		mm	63	63	70	80	80	80	100
a (30 3610, 30 3640, 30 3650)		mm	1						
a (30 3670)		mm	1.5						
Ø D		mm	25	28	35	42	48	52	65
Spare clamping screw No. 30 9900			6	8	10	12	16	20	25



JIS B6339	ISO 7388-2	Form AD	G 2.5 25000 min ⁻¹	≤3μm	HSC	BT-DC
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Garant ER collet chuck – JIS B6339 (MAS-BT) with double contact

Taper ground internally and externally. All shanks hard turned (for smooth running!).
With RFID/Balluffchip bore.

- High-quality precision clamping nut.
- Clamping nut balanced for HSM (G2.5/25,000 rpm).
- Optimum wear characteristics and torque transmission due to the coated precision clamping nut.

Application: For clamping tools with parallel shank in collets to DIN 6499 Form A and B.

Supplied with: ER clamping nut.

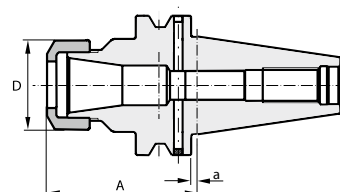
Optional extras: ER collets No. 308881 – 309434,
ER chuck keys No. 309680 – 309720 or 613300,
ER clamping nut 309610.
Pull studs (PS) No. 308760 – 308806.
Pull stud wrenches No. 308820; 308835.

Note: Matching clamping nut No. 309580 or 309610.



30 3710

for ER collet size			16	20	25	32	40	
31A 30 3690	ER collet chuck Form AD	BT 30 short	eShop	eShop	eShop	eShop	–	
31A 30 3710		BT 40 short	eShop	–	eShop	eShop	eShop	
31A 30 3720		BT 40 A = 100	eShop	–	eShop	eShop	eShop	
31A 30 3740		BT 50 short	eShop	–	eShop	eShop	eShop	
Clamping range		mm	0.5 – 10	1 – 13	1 – 16	2 – 20	3 – 26	
Dimension A (30 3690)		mm	60	60	60	70	–	
Dimension A (30 3710)		mm	70	–	70	70	80	
Dimension A (30 3740)		mm	80	–	80	80	80	
a (30 3690, 30 3710, 30 3720)		mm	1					
a (30 3740)		mm	1.5	–	1.5	1.5	1.5	
Ø D		mm	28	34	42	50	63	
Spare ER clamping nut No. 309580			16	20	25	32	40	
ER chuck key No. 309680			16	20	25	32	40	



30

DIN 6358	JIS B6339	ISO 7388-2	Form AD	G 2.5 25000 min ⁻¹	≤5μm	HPC	BT-DC
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Garant Combination face mill adapter – JIS B6339 (MAS-BT) with double contact

Taper shank, spigots, and contact surfaces ground on collar.
All shanks hard turned (for smooth running!). With RFID/Balluffchip bore.

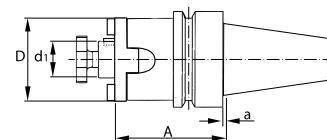
Application: With drive key for face mills with longitudinal slot, e.g. DIN 841.
With drive ring for face mills with crosswise slot DIN 1880 and cutter heads DIN 1830.

Supplied with: Drive key, face mill drive ring, and lock screw.

Optional extras: Pull studs (PS) No. 308760 – 308806.
Special toggle spanner No. 309840.



303760



Spigot Ø d ₁			mm	16	22	27	32
31A	30 3760	Combination face mill adapter Form AD	BT 40 short	eShop	eShop	eShop	eShop
Dimension A			mm	55	55	55	60
a			mm	1			
Ø D			mm	32	40	48	58
Spare milling cutter lock screw No. 309860 / 309861				16	22	27	32
Spare drive ring No. 309870				16	22	27	32
Suitable toggle spanner No. 309840				16	22	27	32

DIN 6357	JIS B6339	ISO 7388-2	Form AD	G 2.5 25000 min ⁻¹	≤5μm	HPC	BT-DC
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Garant Face mill arbors – JIS B6339 (MAS-BT) with double contact

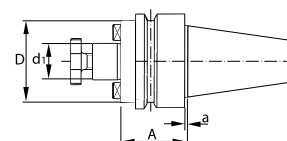
All shanks hard turned (for smooth running!).
With RFID/Balluffchip bore and cooling channel bores.

Supplied with: Lock screw.

Optional extras: Pull studs (PS) No. 308760 – 308806.
Special toggle spanner No. 309840.



303810



Spigot Ø d ₁		mm	16	22	27	32
31A 30 3780	Face mill arbor Form AD	BT 30 short	eShop	eShop	eShop	–
31A 30 3800		BT 40 short	eShop	eShop	eShop	eShop
31A 30 3810		BT 40 A = 100	eShop	eShop	eShop	eShop
Dimension A (30 3780)		mm	35	40	40	–
Dimension A (30 3800)		mm	35	35	35	50
a		mm	1			
Ø D		mm	38	48	50	78
Spare milling cutter lock screw No. 309860 / 309861			16	22	27	32
Suitable toggle spanner No. 309840			16	22	27	32

JIS B6339	ISO 7388-2	Form AD	G 2.5 25000 min ⁻¹	≤3μm	HSC	HPC	BT-DC
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Garant Shrink-fit chucks 4.5° – JIS B6339 (MAS-BT) with double contact

- High-temperature steel.
- Integral tool length adjustment, adjustment track 10 mm.
- Suitable for shrink fitting of HSS and carbide tools.
- All shanks hard turned (for smooth running!).
- With RFID/Balluffchip bore.

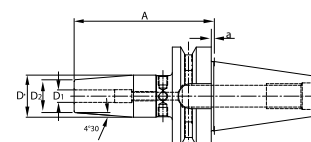
Standard: Similar to E-DIN 69882-8, form G.

Application: For clamping tools with parallel shank to h6 tolerance.

Optional extras: Pull studs (PS), No. 308760 – 308806,
Shrink-fit chuck extension No. 302410 – 302417,
Shrink-fit units No. 354210 – 354400.



303860



Clamping range Ø D ₁	mm	6	8	10	12	16	20	25
31A 303830	Shrink-fit chuck Form AD	BT 30 short	eShop	eShop	eShop	eShop	eShop	–
31A 303850		BT 40 short	eShop	eShop	eShop	eShop	eShop	eShop
31A 303860		BT 40 A = 120	eShop	eShop	eShop	eShop	eShop	eShop
Dimension A (303830)	mm	80	80	80	80	80	90	–
Dimension A (303850)	mm	90	90	90	90	90	90	100
a	mm				1			
Ø D	mm	27	27	32	32	34	42	53
Ø D ₂	mm	21	21	24	24	27	33	44

The hollow shank interface HSK – Forms and features



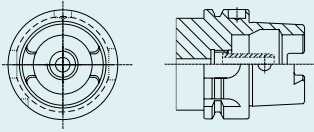
► Note: See page 938 for information on ISO taper (SK) – interfaces.

Taper hollow shanks for automatic tool change

With tool gripper groove

ISO 12164-1 (DIN 69893-1 Form A and Form T)

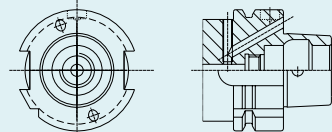
DIN
69893



- Used for machining centres, milling machines, special machines with automatic tool change.
- **Pipe for central axial coolant feed.**
- Torque transmission by **2 driving slots** at the end of the taper.
For Form T, the tolerance (dimension b5) is narrowed.
- **2 collar grooves** for tool magazine, positioning notch.
- Bore for data carrier DIN 69 873 in the collar.

DIN 69893-2 Form B

DIN
69893

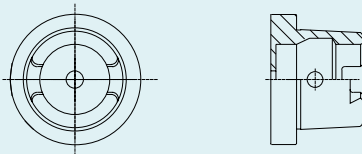


- Used for machining centres, heavy duty milling machines, lathes.
- With enlarged collar and position notch.
- **Decentralised coolant supply via the collar or central supply via the coolant pipe.**
- Torque transmission by **2 collar grooves.**
- Bore for data carrier DIN 69 873 in the collar.

Taper hollow shanks for manual tool change

ISO 12164-1 (DIN 69893-1 Form C)

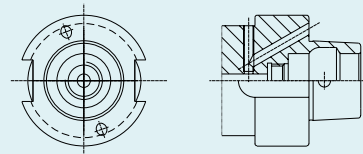
DIN
69893



- Preferred for use on spindles in transfer lines and special machines without automatic tool change or stub drill spindles and tool extensions / reducers.
- **Central axial coolant feed.**
- Torque transmission by **2 driving slots** at the end of the taper.

DIN 69893-2 Form D

DIN
69893



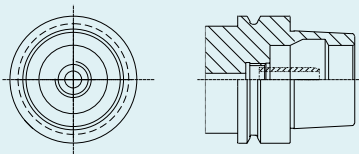
- Used in all areas which require a large flat face for even better support during manual tool changing.
- With enlarged collar.
- **Decentralised coolant supply via the collar or central supply via the coolant pipe.**
- Torque transmission by **2 collar grooves.**

Taper hollow shanks for higher speeds (HSC)

With tool gripper groove

Prelim standard (DIN 69893-5 Form E)

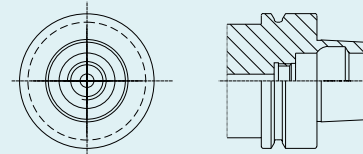
DIN
69893



- Used for high frequency spindles, woodworking machines.
- Rotationally symmetrical, **without any driving slot.**
- Torque transmission by friction.
- **Pipe for central coolant feed.**

E-DIN 69893-6 Form F

DIN
69893



- With reduced taper.
- Central coolant supply possible via a through hole – no thread for coolant pipe

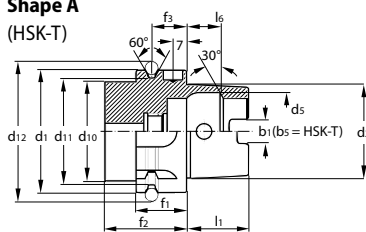
The HSK interface has the following advantages compared to the ISO taper:

- High repetition accuracy when changing tools.
- Fixed axial positioning due to flat face.
- Suitable for high-speed cutting.
- No pull-studs required.

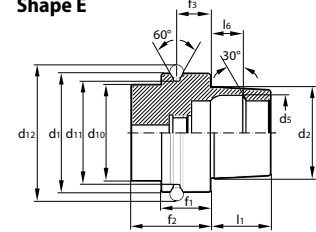
Material:

- Special steel for highly stressed components.
- Surface hardness: 58 – 62 HRC.
- **Tensile strength at core at least 1000 N/mm².**

Shape A
(HSK-T)



Shape E



	b ₁	b ₅	d ₁ *)	d ₂	d ₅	d ₁₀	d ₁₁	d ₁₂	f ₁	f ₂	f ₃	l ₁	l ₆
HSK	± 0.04	± 0.035	h10		H11	max.	-0.1	-0.1	-0.1	min.	± 0.1	-0.2	JS10
32	7.05	6.932	32	24.007	20.5	26	26.5	37	20	35	16	16	8.92
40	8.05	7.932	40	30.007	25.5	34	34.8	45	20	35	16	20	11.42
50	10.54	10.425	50	38.009	32	42	43	59.30	26	42	18	25	14.13
63	12.54	12.425	63	48.010	40	53	55	72.30	26	42	18	32	18.13
80	16.04	15.93	80	60.012	50	68	70	88.80	26	42	18	40	22.85
100	20.02	19.91	100	75.013	63	88	92	109.75	29	45	20	50	28.56

*) Nominal Ø d₁ = collar Ø



30

ISO 12164-1	DIN 69882-4	DIN 69893		HSC	HPC
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Side lock arbor – ISO 12164 (DIN 69893)

- With RFID/Balluffchip bore.
- HSK mating faces machined.

30 4270/4272/4305/4306/4309/4315/4328/4335/4336/4390/4392/4402/4410/4411 –

GARANT: All shanks hard turned (for smooth cutting action!).

30 4272/4392 – Special nickel plating.

30 4278/4272/4305/4328/4319/4336/4398/4392/4402/4411 –

With coolant supply holes that can be plugged.

Application: For clamping tools with Weldon shank to DIN 1835 Form B and DIN 6535 Form HB.

Optional extras: Coolant pipe No. 309880, coolant pipe wrench No. 309890

Note: HSK 40 and 50, Form A and E available ex works by the manufacturer.

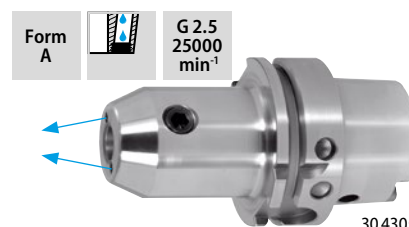
30 4306 – Without a thread for the coolant pipe.



30 4270
30 4309



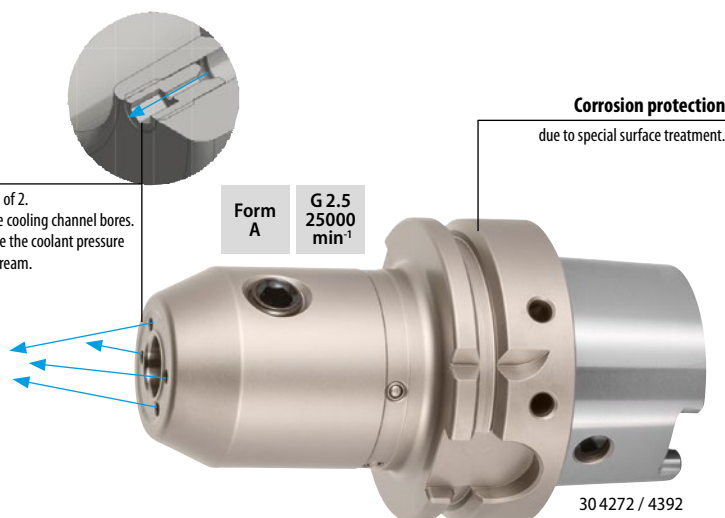
30 4277



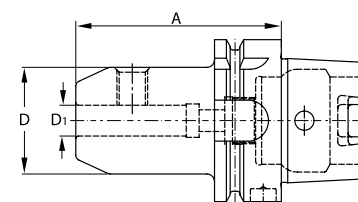
30 4305

Optimised cooling concept

- 4 cooling channel bores instead of 2.
- Different approach angles of the cooling channel bores.
- With 4 nozzle screws to optimise the coolant pressure and alignment of the coolant stream.



Corrosion protection
due to special surface treatment.



Clamping range Ø D,				mm	6	8	10	12	14	16	18	20	25	32	40
31A	30 4270	Garant	Side lock arbor	HSK-A 63 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
32A	30 4277			HSK-A 63 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
32A	30 4278	HOLEX	Side lock arbor with cooling channel bore	HSK-A 63 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	—
31A	30 4272	Garant	Side lock arbor Nickel-plated, with cooling channel bore	HSK-A 63 short	eShop	eShop	eShop	eShop	—	eShop	—	eShop	—	—	—
31A	30 4305		Side lock arbor with cooling channel bore	HSK-A 63 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	—
31A	30 4306		Side lock arbor	HSK-F 63 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	—
31A	30 4309			HSK-A 63 A = 100	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	—	—	—
31A	30 4315			HSK-A 63 A = 120	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	—	—	—
32A	30 4317			HOLEX	HSK-A 63 A = 120	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	—	—
31A	30 4328	Garant	Side lock arbor with cooling channel bore	HSK-A 63 A = 120	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	—	—	—
32A	30 4319	HOLEX		HSK-A 63 A = 120	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	—	—	—
31A	30 4335	Garant	Side lock arbor	HSK-A 63 A = 160	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	—
31A	30 4336		Side lock arbor with cooling channel bore	HSK-A 63 A = 160	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	—	—	—
32A	30 4337		HOLEX	HSK-A 63 A = 160	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	—	—	—
31A	30 4390	Garant	Side lock arbor	HSK-A 100 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
32A	30 4397			HSK-A 100 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
32A	30 4398	HOLEX	Side lock arbor with cooling channel bore	HSK-A 100 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	—

Clamping range Ø D ₁		mm	6	8	10	12	14	16	18	20	25	32	40
31A 30 4392	Side lock arbor Nickel-plated, with cooling channel bore	HSK-A 100 short	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–	–	–
31A 30 4402	Garant Side lock arbor with cooling channel bore	HSK-A 100 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
31A 30 4410	Side lock arbor	HSK-A 100 A = 160	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
32A 30 4417	HOLEX Side lock arbor	HSK-A 100 A = 160	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–	–
31A 30 4411	Garant Side lock arbor with cooling channel bore	HSK-A 100 A = 160	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–	–
Dimension A (30 4270, 30 4277, 30 4278, 30 4272, 30 4305, 30 4306)		mm	65	65	65	80	80	80	80	80	110	110	125
Dimension A (30 4309)		mm	100	100	100	100	100	100	100	100	–	–	–
Dimension A (30 4315, 30 4317, 30 4328, 30 4319)		mm	120	120	120	120	120	120	120	120	–	–	–
Dimension A (30 4335, 30 4336, 30 4337, 30 4410, 30 4417, 30 4411)		mm	160	160	160	160	160	160	160	160	160	160	–
Dimension A (30 4390, 30 4397, 30 4398, 30 4392, 30 4402)		mm	80	80	80	80	80	100	100	100	100	100	120
Ø D		mm	25	28	35	42	44	48	50	52	65	72	80
Spare clamping screw No. 30 9900			6	8	10	12	12	16	16	20	25	32	32

ISO 12164-1	DIN 69893	Form A	G 2.5 25000 min ⁻¹	(≤3µm)	HSC	HPC
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Garant Combi side lock arbors – slim version – ISO 12164 (DIN 69893-1)

- With ball-jointed clamping screw for Weldon and Whistle Notch systems (clamping flat inclination 2°).
- With RFID/Balluffchip bore.
- All shanks hard turned (for smooth running!).
- HSK mating faces machined.

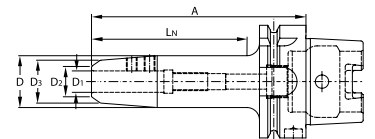
Application: For clamping tools with parallel shank to DIN 1835 Form B + E and DIN 6535 Form HB + HE.

Supplied with: Ball-jointed clamping screw and through-drilled back stop screw.

Optional extras: Coolant tube No. 309880, socket wrench No. 309890, spare screw No. 309905 size M6 / M8.



30 4705



Clamping range Ø D ₁		mm	6	8	10	12	14	16	18	20
31A 30 4705	Combination side lock arbor, slim	HSK-A 63	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A 30 4715		HSK-A 63 A = 160	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Dimension A (30 4705)		mm	100	100	100	120	120	120	120	120
Dimension A (30 4715)		mm	160							
Ø D		mm	24	26	28	29	32	34	36	38
Ø D ₂		mm	13	15	16	17	19	21	23	25
Ø D ₃		mm	18	20	21	22	24	26	28	30
L _N (30 4705)		mm	67	67	67	87	87	87	89	89
L _N (30 4715)		mm	85	85	85	85	85	85	85	129

ISO 12164-1	DIN 69882-5	DIN 69893	Form A	G 6.3 12000 min ⁻¹	(≤3µm)	HSC	HPC
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Garant Whistle Notch arbors – ISO 12164 (DIN 69893-1)

Feature:

The tool is firmly clamped at the side with the clamping screw and supported at the back with the back stop screw. Clamping free of play, giving low vibration running.

- With back stop screw.
- With RFID/Balluffchip bore.

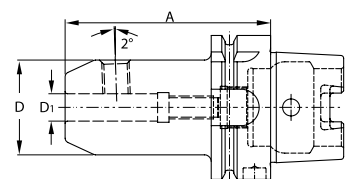
Application: For clamping tools with parallel shank and inclined clamping flat (2°) to DIN 1835 E and DIN 6535 HE.

Tool can be adjusted axially. Specially for clamping solid carbide drills. The length adjustment due to regrinding the ends of drills can be corrected by axial adjustment backscrew in the toolholder.

Optional extras: Coolant pipe No. 309880, coolant pipe wrench No. 309890



30 4870



Clamping range Ø D ₁		mm	6	8	10	12	14	16	18	20	25	32
31A 30 4870	Whistle Notch arbor	HSK-A 63	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A 30 4970		HSK-A 100	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Dimension A (30 4870)		mm	80	80	80	90	90	100	100	100	110	110
Dimension A (30 4970)		mm	90	90	90	100	100	100	100	110	120	120
Ø D		mm	25	28	35	42	44	48	50	52	65	72
Spare clamping screw No. 30 9900			6	8	10	12	12	16	16	20	25	32



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ISO 12164-1	DIN 69882-4	DIN 69893	Form A		G 2.5 25000 min ⁻¹		HSC	HPC
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Garant Performance milling chuck – ISO 12164 (DIN 69893-1)

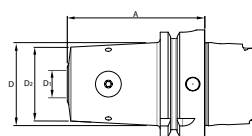
- With RFID/Balluffchip bore.
- All shanks hard turned.
- Supplied with 4 table cooling channel bores.

Advantage:

- No risk of the cutter being pulled out, not even a tug.
- Optimised external contour – vibration-damping behaviour.
- Pleasant handling thanks to the differential thread.
- Breakage of the milling cutter shank is improbable.
- Precision version.

Application: For clamping tools with side drive flats to DIN 1835 Form B and DIN 6535 Form HB. Best suited for TPC milling or high feed rate applications. No risk of the cutter being pulled out, more precise radial run-out, **process reliability!**

Optional extras: Coolant pipe No. 309880, coolant pipe wrench No. 309890



30 4450



- Spring in the base body presses the milling cutter or HB shank into the correct position.
- Contact piece on the tightening screw holds the milling cutter in the HB face.

Clamping Ø D ₁		mm	6	8	10	12	16	20
31A 30 4450	Performance milling chuck with cooling channel bores	HSK-A 63 short	eShop	eShop	eShop	eShop	eShop	eShop
31A 30 4460		HSK-A 100 short	eShop	eShop	eShop	eShop	eShop	eShop
Dimension A (30 4450)		mm	65	65	70	80	80	80
Dimension A (30 4460)		mm	80	80	80	85	100	100
Ø D (30 4450)		mm	26.5	29	36.5	43	48.5	52
Ø D (30 4460)		mm	27.5	30	37	43	50	53.5
Ø D ₂		mm	22.5	25	32	37.5	43	46.5

DIN 69893	ISO 12164-1	Form A	G 2.5 25000 min ⁻¹		HSC	HPC	
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Garant HiRunER Precision ER collet chuck – ISO 12164 (DIN 69893)

External and internal tapers are ground. All shanks are hard turned for smooth running. Including RFID/Balluffchip bore, high-performance clamping nut up to 25000 rpm.

Advantage:

- **Excellent concentricity in the system** (chuck + collet + clamping nut), 3 µm radial run-out with a 2 µm collet, 6 µm radial run-out with a 5 µm collet.
- **Extremely strong holding force** (up to **factor 2** better than the standard ER chuck).
- **Vibration reduction effect** due to 2-part clamping nut (one part for mini version).

Application: For clamping tools with plain shank in collets to DIN 6499 - Form A and B.

Supplied with: Precision clamping nut.

Optional extras: Coolant tube No. 309880, Socket wrench No. 309890, ER collets Fahrion No. 308901 and 309432. Hook wrench No. 628400, or torque wrench No. 309749 or No. 628520.

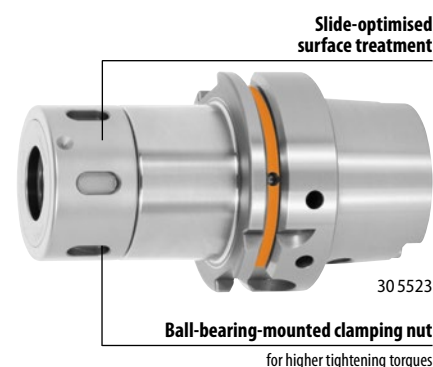
- Note:**
- Clamps only nominal Ø up to shank Ø tolerance h 10.
 - Do not use the clamping nut in combination with a sealing washer.
 - Use the precision collet chuck always in conjunction with the precision clamping nut No. 309617; 309618.
 - Use in combination with Fahrion collets.
 - The blue design ring must be removed for Fahrion HP 2µm ER collets.



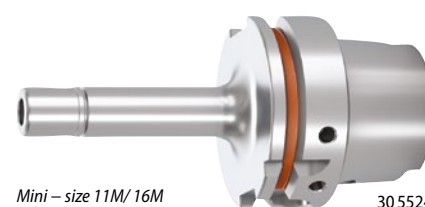
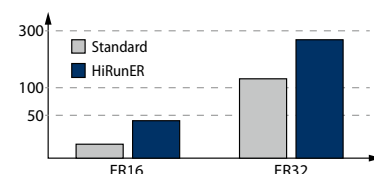
- HiRunER**
- Collet is fully seated in the chuck
 - Higher clamping forces!
 - Improved radial run-out!



- Standard ER chuck**
- Collet is not inserted 100 % in the chuck.



30 5523



30 5524

for ER collet size				11M	16M	16	20	25	32	40
31A 30 5518	HiRunER precision ER collet chuck	HSK-E 40 short	eShop	eShop	–	–	–	–	–	–
31A 30 5523		HSK-A 63 short	–	–	eShop	eShop	eShop	eShop	eShop	eShop
31A 30 5524		HSK-A 63 medium	eShop	eShop	eShop	–	eShop	eShop	eShop	eShop
31A 30 5527		HSK-A 63 A = 160	eShop	eShop	–	–	–	–	–	–
Clamping range		mm	1 – 7	1 – 10	0.5 – 10	1 – 16	1 – 16	2 – 20	3 – 26	
Dimension A (30 5518, 30 5523)		mm	70	70	75	75	75	75	85	
Dimension A (30 5524)		mm	100	100	100	–	100	100	120	
Ø D		mm	16	24	34	38	44	52	62	
Spare ER clamping nut No. 309617			–	–	16	20	25	32	40	
Spare ER clamping nut No. 309618			11M	16M	–	–	–	–	–	

ER collet chuck and ER set – ISO 12164 (DIN 69893)

- All shanks hard turned (for smooth running!).
- Through bored (without adjustment screw).
- HSK mating faces machined.

30 5394/5486 – Nickel-plated to prevent corrosion.

Application: For clamping tools with plain shanks in ER collets to DIN 6499 – Form A and B.

Supplied with: Coated high-speed clamping nut.

Optional extras: Coolant tube No. 309880, socket wrench for coolant tubes No. 309890,
ER collets No. 308881 – 309434,
ER chuck key No. 309680 or 613300.

Note:

30 5155–5100/5426/5391/5436 – Without RFID/Balluffchip bore.

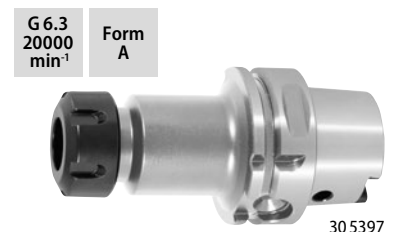
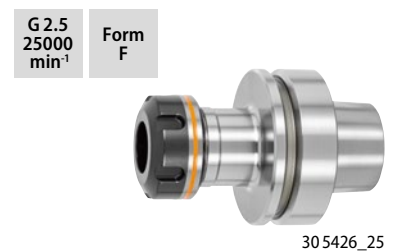
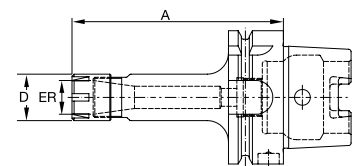
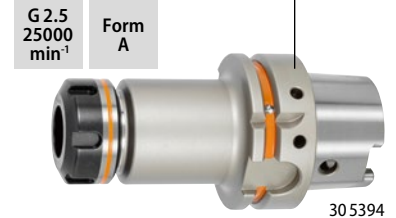
30 5426/5391/5436 – Without a thread for the coolant pipe.

for ER collet size				11	16	20	25	32	40		
31A	30 5150	Garant	ER collet chuck	HSK-E 40 short	eShop	eShop	–	eShop	–	–	
31A	30 5100			HSK-A 40	eShop	eShop	–	eShop	–	–	
31A	30 5155			HSK-E 50 short	eShop	eShop	–	eShop	–	–	
31A	30 5425			HSK-A 63 ultra short	–	eShop	–	eShop	eShop	eShop	
32A	30 5427	HOLEX	ER collet chuck	HSK-A 63 ultra short	–	eShop	–	eShop	eShop	eShop	
31A	30 5426	Garant		HSK-F 63 ultra short	–	eShop	–	eShop	eShop	eShop	
31A	30 5390			HSK-A 63 long	–	eShop	eShop	eShop	eShop	eShop	
31A	30 5394	ER collet chuck nickel-plated		HSK-A 63 long	–	eShop	–	eShop	eShop	eShop	
32A	30 5397	HOLEX		HSK-A 63 long	–	eShop	eShop	eShop	eShop	eShop	
31A	30 5391	Garant		HSK-F 63 A = 100	–	eShop	–	eShop	eShop	eShop	
31A	30 5437			HSK-A 63 A = 130	–	eShop	–	eShop	eShop	eShop	
32A	30 5434	HOLEX		HSK-A 63 A = 130	–	eShop	–	eShop	eShop	eShop	
31A	30 5435	Garant		HSK-A 63 A = 160	–	eShop	–	eShop	eShop	eShop	
32A	30 5439	HOLEX		HSK-A 63 A = 160	–	eShop	–	eShop	eShop	eShop	
31A	30 5436	Garant		HSK-F 63 A = 160	–	eShop	–	eShop	eShop	eShop	
31A	30 5438			HSK-A 63 A = 200	–	eShop	–	eShop	eShop	–	
31A	30 5485			HSK-A 100 long	–	eShop	–	eShop	eShop	eShop	
31A	30 5486			ER collet chuck nickel-plated	HSK-A 100 long	–	eShop	–	eShop	eShop	eShop
32A	30 5487	HOLEX		ER collet chuck	HSK-A 100 long	–	eShop	–	eShop	eShop	eShop
31A	30 5488	Garant			HSK-A 100 A = 130	–	eShop	–	eShop	eShop	eShop
31A	30 5515		HSK-A 100 A = 160		–	eShop	–	eShop	eShop	eShop	
32A	30 5517	HOLEX	HSK-A 100 A = 160		–	eShop	–	eShop	eShop	eShop	
Clamping range				mm	0.5 – 7	0.5 – 10	1 – 13	1 – 16	2 – 20	3 – 26	
Dimension A (30 5150)				mm	60	60	–	80	–	–	
Dimension A (30 5100)				mm	80	80	–	80	–	–	
Dimension A (30 5155)				mm	60	60	–	70	–	–	
Dimension A (30 5425, 30 5427)				mm	–	75	–	75	75	85	
Dimension A (30 5426)				mm	–	60	–	75	75	75	
Dimension A (30 5390, 30 5394, 30 5397, 30 5485, 30 5486, 30 5487)				mm	–	100	100	100	100	120	
Ø D				mm	19	28	34	42	50	63	

ISO 12164-1	DIN 69882-6	DIN 69893	≤3µm	HSC
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Corrosion protection

due to special surface treatment.



Maximum system accuracy

ER collet chuck sets – HSK-A63

Advantage: Longer working life due to system run-out ≤ 10 µm.

Supplied with: ER chuck (with nut) No. 305390, including a plastic case.

Size 16 – ER lock wrench No. 613300 size 25, ER collets No. 308901
ER 16 (426 E): D = 2, 3, 4, 5, 6, 7, 8, 9 and 10 mm.

Size 32 – ER lock wrench No. 309680 – 32, ER collet No. 308981
ER 32 (470 E): D = 4, 6, 8, 10, 12, 14, 16, 18 and 20 mm.

Size 25 – ER lock wrench No. 628400 size 16/20, ER collet No. 308941
ER 25 (430 E): D = 3, 4, 5, 6, 8, 10, 12, 14 and 16 mm.

for ER collet size			16	25	32
37D	30 5450	ER collet chuck set	HSK-A 63	eShop	eShop



30

ISO 12164-1	DIN 69893	Form A	G 2.5 25000 min ⁻¹	$\sqrt{\leq 6\mu\text{m}}$ ER+CP	$\sqrt{\leq 3\mu\text{m}}$ HP+CP	$\sqrt{6\mu\text{m}}$ ER+HDC	$\sqrt{3\mu\text{m}}$ HP+HDC	HSC
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FAHRION®
FOR HIGH PRECISION

Precision ER collet chuck – ISO 12164-1 (DIN 69893-1)

- Ground externally and internally with RFID / Balluffchip bore.
- **Concentricity and repetition accuracy 3 μm** at 3xD, maximum 50 mm when using a HP precision collet.
- **HDC = Heavy Duty Chuck**, a mount specially designed for rough machining.
A reinforced chuck body ensures better stability and plenty of radial stiffness.
Ball-bearing clamping nut with trapezoidal-shaped fine thread for optimum tightening torques and clamping forces reduces vibration.
- **Very high clamping forces** due to the collet fully seated in the chuck and coated clamping nut.
- **Vibration damping** due to the element collet and mass of the chuck.

Application: For high precision clamping of tools with plain shank.

30 5912–5954 – **HDC** especially well-suited for roughing (including TPC milling) and finishing operations and machining of high-tensile or tough materials.

Supplied with:

30 5910–8436 – Without clamping nut.

30 5912–5954 – Supplied with ball-bearing clamping nut.

Optional extras: Coolant pipe No. 309880, socket wrench No. 309890, precision ER collets for HP No. 309368 – 309381, and for taps No. 309402 – 309419 (not for Holes), ER CP clamping nuts No. 309655; 309665, ER HDC clamping nuts No. 309657, HP sealing rings No. 309666 – 309668, CP roller bearing wrenches No. 309754; 309756, HDC roller bearing wrenches No. 309745/309756.

Note:

- **Clamps only nominal Ø up to shank Ø tolerance h10.**

- Use in combination with Fahrion collets.

30 5912–5954 – ■ Not compatible with Centro P clamping nut.



*Mini – size 11M
(extremely slim design!).*

**Please order
CP clamping nut
separately!**



Tapered – size 16C



Tapered – size 16C

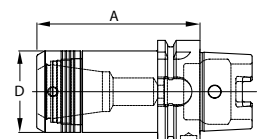


30 5912_32

**HDC clamping nut
included!**



30 5954_32



for ER collets			32
33F 30 5912	Precision ER collet chuck HDC	HSK-A 63 A = 70	eShop
33F 30 5914		HSK-A 63 A = 100	eShop
33F 30 5954		HSK-A 100 A = 100	eShop
Clamping range		mm	2 – 20
Ø D		mm	53

Type CP for ER			11M	16M	16C	16	25	32	40	
33F	30 5910	Precision ER collet chuck CENTRO P	HSK-A 63 short	–	–	–	eShop	eShop	eShop	eShop
33F	30 5920		HSK-A 63 A = 100	eShop	–	eShop	eShop	eShop	eShop	–
33F	30 5925		HSK-A 63 A = 130	eShop	–	–	eShop	eShop	eShop	–
33F	30 5930		HSK-A 63 A = 160	eShop	–	eShop	eShop	eShop	eShop	–
33F	30 5950		HSK-A 100 A = 100	–	–	–	eShop	eShop	eShop	–
33F	30 8423		HSK-E 25 A = 45	–	eShop	–	–	–	–	–
33F	30 8436		HSK-E 40 A = 55	–	eShop	–	–	–	–	–
Clamping range			mm	1 – 7	1 – 10	1 – 10	1 – 10	2 – 16	2 – 20	3 – 26
Dimension A (30 5910, 30 8423)			mm	–	45	–	55	60	70	80
Ø D			mm	16	22	24	30	40	50	63

ISO 12164-1	DIN 69893	Form A	G 2.5 25000 min ⁻¹	$\sqrt{\leq 8\mu\text{m}}$	HSC
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Garant Reducing adapters for tools with MT shank – ISO 12164 (DIN 69893)

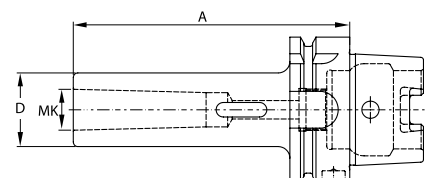
- Precision ground internal and external taper.
- With RFID/Balluffchip bore.
- Shanks hard turned (smooth cutting action!).
- HSK mating faces machined.

Optional extras: Coolant pipe No. 309880, coolant pipe wrench No. 309890

MT internal			1	2	3	4
31A 30 6930	MT reducing adapter with tang	HSK-A 63	eShop	eShop	eShop	eShop
31A 30 6970		HSK-A 100	eShop	eShop	eShop	eShop
Dimension A (30 6930)		mm	100	120	140	160
Dimension A (30 6970)		mm	110	120	150	170
Ø D		mm	25	32	40	48



30 6930



ISO 12164-1	DIN 69893	Form A		HSC
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ER collet chuck with mini nut, slim version – ISO 12164-1 (DIN 69893-1)

- All shanks hard turned (for smooth running!).
- With RFID/Balluffchip bore.
- Bored open (= ER11).
- HSK mating faces machined.

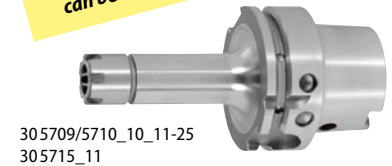
30 5707/5717 – Balancing quality G6.3 / 20,000 rpm.

Supplied with: High Speed ER mini nut, precision balanced (G2.5 / 25,000 rpm).

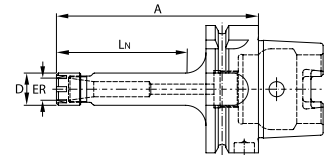
Optional extras: Coolant tube No. 309880,
coolant tube socket wrench No. 309890,
ER collets No. 308881 – 309430,
ER mini clamping wrench No. 309740.

for ER collet size				11	16	20	25	
31A	30 5709	    	ER collet chuck Mini slim	HSK-A 63 A = 70	eShop	eShop	–	–
31A	30 5710			HSK-A 63 A = 100	eShop	eShop	eShop	eShop
32A	30 5707			HSK-A 63 A = 100	eShop	eShop	–	–
31A	30 5712			HSK-A 63 A = 130	eShop	eShop	eShop	eShop
31A	30 5715			HSK-A 63 A = 160	eShop	eShop	eShop	eShop
32A	30 5717			HSK-A 63 A = 160	eShop	eShop	–	–
31A	30 5723			HSK-A 100 A = 160	eShop	eShop	–	eShop
Ø D				mm	16	22	28	35
Spare ER mini nut No. 309650					11	16	20	25

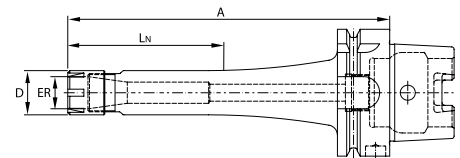
Detailed dimensions
can be found in the eShop!



30 5709/5710_10_11-25
30 5715_11



30 5715_16-25



ISO 12164-1	DIN 69893	Form A	G 2.5 25000 min ⁻¹	HSC
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Collet chuck, extra slim – ISO 12164 (DIN 69893-1)

- HSK mating faces machined.
- Shanks hard turned.
- With RFID/Balluffchip bore.
- The collet is clamped by a threaded connection from behind **through** the chuck,
no clamping nut required.

Advantage: Extremely slim design permits machining of components where access is difficult,
e.g. during toolmaking and mould-making.

30 4982 – Large working range and optimised contour for reduced vibration.
Cooling with the collet by the tool or along the shank.

Application: For clamping tools with plain shank to DIN 6499.

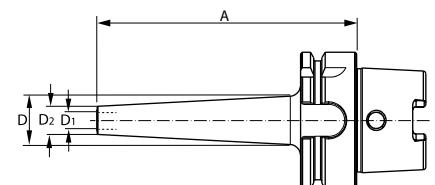
Supplied with: Clamping screw and wrench with T-handle.

Optional extras: Plug-in socket No. 309890, **GARANT collets No. 309563.**

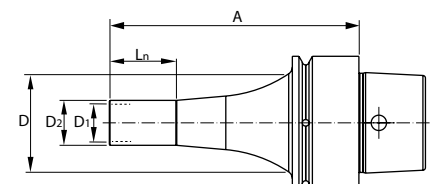
30 4982 – **ALBRECHT collets No. 309572 and 309573.**



30 4972



30 4982/4981



Clamping range			mm	2-6
31A	30 4972	Garant Collet chuck, extra slim	HSK-A 63 A = 120	eShop
31A	30 4974		HSK-A 63 A = 160	eShop
Ø D ₁			mm	9.6
Ø D ₂			mm	13
Ø D (30 4972)			mm	22.854
Ø D (30 4974)			mm	27

Clamping range			mm	1-6
34F	30 4982	ALBRECHT Präzisions Spannfutter Collet chuck, extra slim, with internal cooling	HSK-A 63 A = 120	eShop
Ø D ₁			mm	10.1
Ø D ₂			mm	13.5
Ø D			mm	44
L ₀			mm	30

ISO 12164-1	DIN 69893	Form A	G 6.3 15000 min ⁻¹		HPC
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Heavy-duty chuck – ISO 12164-1 (DIN 69893-1)

- Low friction due to needle bearings.
- Protected with anti-corrosion coating.
- Dust-tight and watertight.
- Very high clamping force prolongs tool life and improves surface quality.
30 5535/5538 – ■ Centred tool clamping with optimum concentricity.
■ **Internal coolant feed.**

Advantage:

30 5535/5538 – Long tool life. Vibration damping properties. High stability due to strengthened clamping nut.

Application: For clamping tools with plain shanks.

Supplied with: Clamping nut

Optional extras: Coolant pipe No. 309880, Collets No. 309566 – 309570 and No. 309575 – 309576.

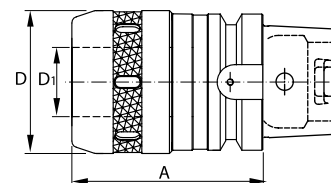


30 5535



30 5525

Ø D ₁		mm	20	32
33K	30 5535	HSK-A 63	eShop	eShop
33K	30 5538	HSK-A 100	(eShop)	(eShop)
32A	30 5525	HSK-A 63	eShop	eShop
32A	30 5528	HSK-A 100	eShop	eShop
Dimension A (30 5535)				
		mm	90	105
Dimension A (30 5538)		mm	105	
Dimension A (30 5525)		mm	90	135
Dimension A (30 5528)		mm	100	135
Ø D (30 5535, 30 5538)		mm	52	73
Ø D (30 5525, 30 5528)		mm	52	66
Clamping force up to (30 5535, 30 5538)		Nm	1000	4000
Clamping force up to (30 5525, 30 5528)		Nm	500	900
Suitable C-hook (pin) spanner No. 628400			52 / 55	68 / 75

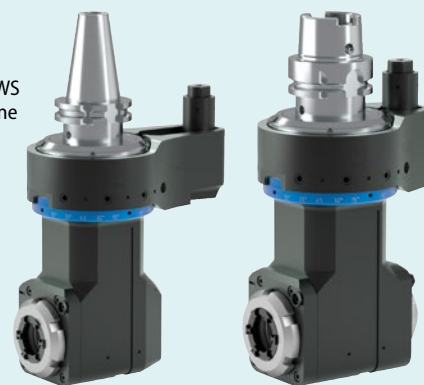


Angle heads

i

EWS
Tool Technologies

Premium partner EWS
with the EWS.millLine



When is an angle head recommended?

1. Milling or drilling work on hard-to-reach components.
2. When extending the machine tool with an additional axis.
3. Internal machining of workpieces (if they cannot be accessed with a normal machine spindle).

What aspects should you pay attention to when selecting an angle head?

1. Drive of the machine spindle (e.g. SK or HSK)
2. Version of the angle head
 - Standard variant
 - Double spindle (for machining on both sides)
 - Set-back variant (for hard-to-reach areas)
3. Torque forces supported at headstock or machine spindle
4. Tool interface (e.g. collet, Weldon, etc.)
5. Design of the angle head (e.g. slim variant, offset)
6. Cooling (version etc.)

Choose from a wide
range from the
Hoffmann Group.

GERARDI



ISO
12164-1DIN
69882-3DIN
69893

HPC

Combination face mill adapters – face mill arbor – ISO 12164 (DIN 69893)

Combination face mill adapters HSK

With RFID/Balluffchip bore. HSK mating faces machined.

30 6137/6277 – Balancing quality G 6.3 at 20000 rpm.

Application: For clamping shell end mills and milling cutter heads with longitudinal or transverse groove.

Supplied with: Including drive key, face mill drive ring, and milling cutter lock screw No. 309860.

Optional extras:

30 6121 – Toggle spanner No. 309840, locking screw for internal coolant supply No. 309861.

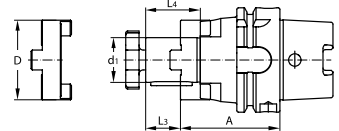
30 6110/6130/6137/6170/6270/6277/6290 – Coolant tube No. 309880, socket wrench No. 309890, toggle spanner No. 309840, milling cutter lock screw for internal coolant supply No. 309861.

Note: Internal cooling available only with suitable tightening screw No. 309861.

30 6121 – Without a thread for the coolant pipe.

Form
AG 2.5
25000
min⁻¹

30 6110



Spigot Ø d ₁		mm	13	16	22	27	32	40
31A 30 6110		HSK-A 63 short	eShop	eShop	eShop	eShop	eShop	eShop
31A 30 6121	Garant	HSK-F 63 short	–	eShop	eShop	eShop	eShop	eShop
31A 30 6130		HSK-A 63 A = 100	–	eShop	eShop	eShop	eShop	–
32A 30 6137	HOLEX	HSK-A 63 A = 100	–	eShop	eShop	eShop	eShop	–
31A 30 6170		HSK-A 63 A = 160	–	eShop	eShop	eShop	eShop	eShop
31A 30 6270	Garant	HSK-A 100 A = 100	–	eShop	eShop	eShop	eShop	eShop
32A 30 6277	HOLEX	HSK-A 100 A = 100	–	eShop	eShop	eShop	eShop	eShop
31A 30 6290	Garant	HSK-A 100 A = 160	–	eShop	eShop	eShop	eShop	eShop
Dimension A (30 6110)		mm	60	60	60	60	60	70
Dimension A (30 6121)		mm	–	60	60	60	65	70
Ø D		mm	28	32	40	48	58	70
L ₃		mm	13	17	19	21	24	27
L ₄		mm	23	27	31	33	38	41
Spare milling cutter lock screw No. 309860 / 309861			13	16	22	27	32	40
Spare drive ring No. 309870			13	16	22	27	32	40

Face mill arbor HSK

■ Clamping Ø 40 with 4 tapped holes for drive blocks to DIN 2079.

■ With RFID/Balluffchip bore.

■ Increased collar contact surface.

■ HSK mating faces machined.

30 6541/6530/6537/6531 – With **cooling channel bores**.

Application: For clamping shell end mills and milling cutter heads.

Supplied with: Lock screw

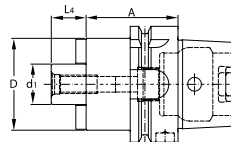
Optional extras:

30 6531 – Toggle spanner No. 309840, locking screw for internal coolant supply No. 309861.

30 6541–6537 – Coolant tube No. 309880, socket wrench No. 309890, toggle spanner No. 309840, milling cutter lock screw for internal coolant supply No. 309861.

Note:

30 6531 – Without a thread for the coolant pipe.

G 2.5
25000
min⁻¹

30 6510

G 6.3
20000
min⁻¹

30 6537

Spigot Ø d ₁		mm	16	22	27	32	40
31A 30 6510	Garant	Face mill arbor	HSK-A 63 short	eShop	eShop	eShop	eShop
31A 30 6530			HSK-A 63 short	eShop	eShop	eShop	eShop
32A 30 6537	HOLEX	Face mill arbor	HSK-A 63 short	eShop	eShop	eShop	eShop
31A 30 6531	Garant	with cooling channel bore	HSK-F 63 short	eShop	eShop	eShop	eShop
31A 30 6541			HSK-A 63 medium	eShop	eShop	eShop	eShop
Dimension A (30 6510, 30 6530, 30 6537)		mm	50	50	60	60	60
Dimension A (30 6531)		mm	45	50	55	60	65
Dimension A (30 6541)		mm	75	75	80	80	80
Ø D (30 6510, 30 6530)		mm	38	48	60	78	88
Ø D (30 6537)		mm	38	50	60	78	88
Ø D (30 6531)		mm	38	48	58	78	88
Ø D (30 6541)		mm	38	48	60	78	89
L ₄		mm	17	19	21	24	27
Spare milling cutter lock screw No. 309860 / 309861			16	22	27	32	40



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ISO 12164-1	DIN 69882-3	DIN 69893		HPC
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Face mill arbor – ISO 12164 (DIN 69893)

- Clamping Ø 40 with 4 tapped holes for drive blocks to DIN 2079.
- With Balluff/RFID chip bore.
- Increased collar contact surface.
- HSK mating faces machined.

30 6562–6677/6687/6684/6686/6691 – With **cooling channel bores**.

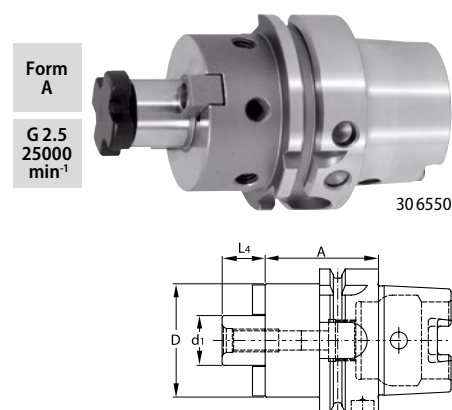
Application: For clamping shell end mills and milling cutter heads.

Supplied with: Lock screw.

Optional extras:

30 6563 – Special toggle spanner No. 309840.

30 6550–6557/6566–6691 – Coolant tube No. 309880, socket wrench for coolant tubes No. 309890, toggle spanner No. 309840.



Spigot Ø d ₁		mm	16	22	27	32	40	50	60
31A 30 6550	Face mill arbor	HSK-A 63 A = 100	eShop	eShop	eShop	eShop	–	–	–
31A 30 6562	Garant	HSK-A 63 A = 100	eShop	eShop	eShop	eShop	eShop	–	–
32A 30 6557	HOLEX	HSK-A 63 A = 100	eShop	eShop	eShop	eShop	eShop	–	–
31A 30 6563	Face mill arbor	HSK-F 63 A = 100	eShop	eShop	eShop	eShop	eShop	–	–
31A 30 6566	Face mill arbor with cooling channel bore	HSK-A 63 A = 130	eShop	eShop	eShop	eShop	eShop	–	–
31A 30 6575	Garant	HSK-A 63 A = 160	eShop	eShop	eShop	eShop	–	–	–
31A 30 6675	Face mill arbor	HSK-A 100 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop
32A 30 6677	HOLEX	HSK-A 100 short	eShop	eShop	eShop	eShop	eShop	eShop	–
31A 30 6678	Face mill arbor	HSK-A 100 A = 100	eShop	eShop	eShop	eShop	eShop	eShop	–
32A 30 6687	HOLEX	HSK-A 100 A = 100	eShop	eShop	eShop	eShop	eShop	–	–
31A 30 6684	Face mill arbor with cooling channel bore	HSK-A 100 A = 100	eShop	eShop	eShop	eShop	eShop	–	–
31A 30 6686	Garant	HSK-A 100 A = 130	eShop	eShop	eShop	eShop	eShop	–	–
31A 30 6690	Face mill arbor	HSK-A 100 A = 160	eShop	eShop	eShop	eShop	eShop	–	–
31A 30 6691	Face mill arbor with cooling channel bore	HSK-A 100 A = 160	eShop	eShop	eShop	eShop	eShop	–	–
Dimension A (30 6675, 30 6677)			50	50	50	50	60	70	70
Ø D (30 6550, 30 6562, 30 6557, 30 6566, 30 6575, 30 6675, 30 6678, 30 6684, 30 6686, 30 6690, 30 6691)			38	48	60	78	89	120	140
Ø D (30 6563)			38	48	58	78	88	–	–
Ø D (30 6677, 30 6687)			38	50	60	78	89	120	–
L ₄			17	19	21	24	27	30	40
Spare milling cutter lock screw No. 309860 / 309861			16	22	27	32	40	50	60

RÖHM Lubritool® lubrication device for HSK machine headstocks

For regular lubrication and maintenance of clamping systems in the machine spindle of HSK machines. Automatic and fast lubrication of the HSK clamping set by inserting the lubrication device from the magazine into the machine spindle.

Suitable for: Machine tools with HSK clamping sets – form A, form T, form E.

- Advantage:**
- The right lubricant, at the right time, in the right quantity.
 - No manual lubrication necessary – and you never have to remember.
 - Reduced maintenance time (just 5 seconds).
 - Compact design.

Application: HSK tool clamping systems should be maintained **regularly and as instructed by the manufacturer**. One cartridge provides approx. 50 lubrication cycles.

Note: Grease cartridge not included in scope of delivery.

Exclusively available
in the following countries:
DE, CH, GB, NL, IT, ES, PT, FR,
BE, DK, FI, SE, PL, CZ, SK, HU.



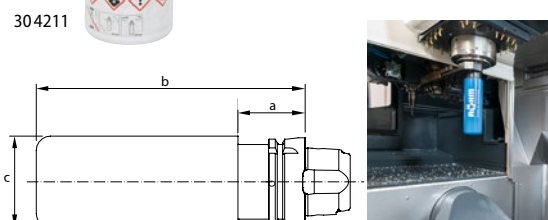
Lubrication pulse
when inserted or
exchanged.



HSK size	63	100
30W 30 4210 Lubritool® lubrication device	–	–
a	mm 48	51
Shoulder length b	mm 191.5	194
c	mm 65	
Net weight	kg 1.6	2.7

Suitable for: Lubrication device No. 304210.

number	1
30W 30 4211 Grease cartridge	–



DIN
6357DIN
69882-3DIN
69893ISO
12164-1Form
A

HPC



Garant Face mill arbors, vibration damped

- Taper shank, spigot, and all contact surfaces are ground at the collar.
- With Balluff/RFID chip bore.
- Increased collar contact surface.

Supplied with: Cutter lock screw and drive dog.

High-performance version with embedded heavy metal core



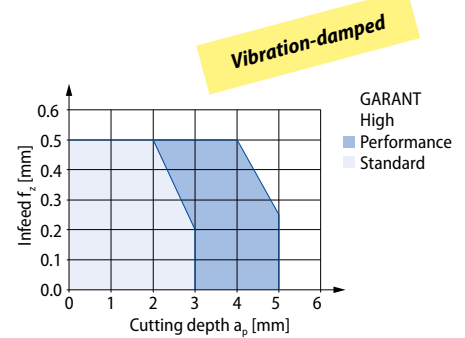
Advantage:

The heavy metal core specially matched to the arbors gives optimum machining results even with long overhangs:

- Saves time, because allows use of the maximum machining parameters.
- Smooth running and thus perfect surface quality results.
- Saves costs, because tool life is increased.
- Less vibrational stress on the machine headstock.

Optional extras: Special coolant pipe wrench No. 309840, coolant pipe No. 309880.

Note: Balance quality G 6.3 dependent on the maximum operating speed.



Plain shank design

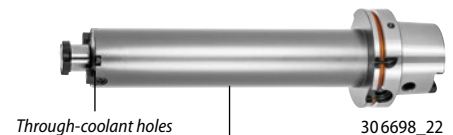
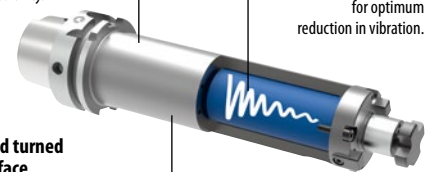
for the best accessibility.

Vibration damping by absorption system

for optimum reduction in vibration.

Hard turned surface

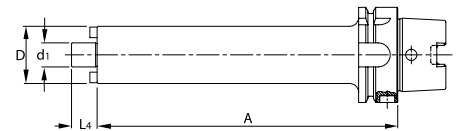
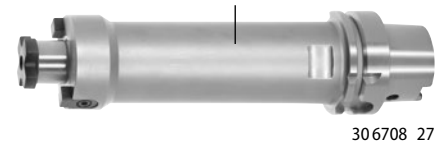
for perfect balance and smooth running.



Fine machined surface, resistant to corrosion



Integral heavy metal core reduces vibration



Spigot Ø d ₁		mm	16	22	27
31H 30 6692	High-Performance face mill arbor vibration-damped, cylindrical, with cooling channel bores	HSK-A 63 A = 200	eShop	eShop	—
31H 30 6693		HSK-A 63 A = 300	eShop	eShop	—
31H 30 6698		HSK-A 100 A = 300	eShop	eShop	eShop
Ø D		mm	38	48	58
L ₄		mm	17	19	21
n _{max} (30 6692)		min ⁻¹	8000	8000	—
n _{max} (30 6693)		min ⁻¹	5000	5500	—
n _{max} (30 6698)		min ⁻¹	5800	6000	6000

With heavy metal core

G 6.3
8000
min⁻¹

Vibration damped version, arbor with vibration-damping core.

Advantage: Significantly lower tendency to vibrate.
Considerable increase in feed rate.

Optional extras: Special coolant pipe wrench No. 309840, coolant pipe No. 309880.

Spigot Ø d ₁		mm	16	22	27	32	40
31A 30 6705	Face mill arbor vibration-damped, cylindrical	HSK-A 63 A = 200	eShop	eShop	eShop	—	—
31A 30 6712	Face mill arbor vibration-damped, cylindrical, with cooling channel bore	HSK-A 63 A = 200	eShop	eShop	—	—	—
31A 30 6708	Face mill arbor vibration-damped, cylindrical	HSK-A 100 A = 200	eShop	eShop	eShop	—	—
31A 30 6714	Face mill arbor vibration-damped, cylindrical, with cooling channel bore	HSK-A 100 A = 200	eShop	eShop	eShop	—	—
31A 30 6709	Face mill arbor vibration-damped, cylindrical	HSK-A 100 A = 300	eShop	eShop	eShop	eShop	eShop
31A 30 6715	Face mill arbor vibration-damped, cylindrical, with cooling channel bore	HSK-A 100 A = 300	eShop	eShop	eShop	eShop	—
Ø D ₂		mm	38	48	58	78	89
L ₄		mm	17	19	21	24	27



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ISO 12164-1	DIN 69893	Form A	G 2.5 25000 min ⁻¹	HPC
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Garant Arbor for indexable drill – ISO 12164-1 (DIN 69893-1)

Position of the threaded pin for countersinking in the indexable drill offset by 0.4 mm.

Tightening the lock screw clamps the indexable drill collar against the front face of the holder.

In addition the contact face Ø is larger than for conventional toolholders.

Suitable for: All indexable drills with parallel shank to DIN 6595, Part 1.

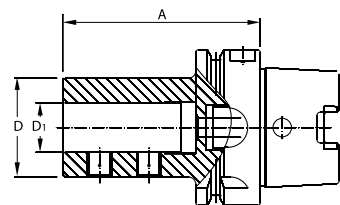
Application: For mounting all standard indexable drills to DIN 6595, Part 1.

Optional extras: Coolant tube No. 309880, socket wrench No. 309890, spare screws No. 309907 and 309908.

for shank Ø D ₁	mm	20	25	32	40
31A 30 7005	Arbor for indexable drills	HSK-A 63	eShop	eShop	eShop
31A 30 7007		HSK-A 100	eShop	eShop	eShop
Dimension A (30 7005)	mm	80	90	90	105
Dimension A (30 7007)	mm	90	95	100	110
Ø D	mm	40	45	52	60



30 7005



ISO 12164-1	DIN 69893	Form A
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HOLEX Boring bar blanks, making special tools, ISO 12164 (DIN 69893)

■ Taper and collar hardened and ground.

■ Shank soft for further machining.

Material: 16MnCr5.

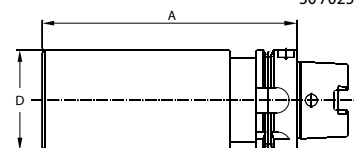
Application: For making special tools.

Optional extras: Coolant pipe No. 309880, coolant pipe wrench No. 309890

A dimension	mm	160	250
32A 30 7025	Boring bar blank	HSK-A 63	eShop
32A 30 7027		HSK-A 100	eShop
Ø D	mm	63	97



30 7025



ISO 12164-1	DIN 69893	(≤3µm)
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Garant Checking mandrel – ISO 12164 (DIN 69893)

Application: For accepting tool machines to ISO recommendation R 230.

Supplied with: Wooden box and test certificate.

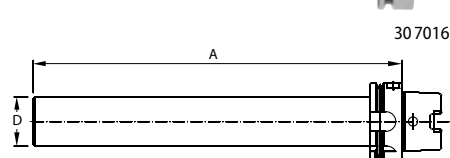
A dimension	mm	300	Ø D mm
31A 30 7012	Checking mandrel	HSK-A 63	40
31A 30 7014	DIN 69893	HSK-A 100	50
31A 30 7016		HSK-F 63	40



30 7012



30 7016



Garant Vibration damping during milling

In order to reduce vibrations and oscillations during milling, the Hoffmann Group offers a wide variety of solutions for a wide variety of machine interfaces.

Select the right arbor for the respective tool type.

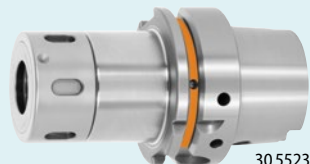
- Face mill arbor
- Screw-in milling cutter arbor
- Carbide/Densimet extensions
- Shrink-fit chuck
- Hydraulic clamping technology
- Precision collet chucks and many more.



30 2095



30 8344



30 5523



30 6698



30 1376



30 1307



ISO 12164-1	DIN 69893	Form A	G 2.5 25000 min ⁻¹		HSC
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Garant Arbor – for threaded copy mills – ISO 12164-1 (DIN 69893-1)

With Balluff/RFID chip bore.

30 7042 – Plain design.

30 7044/7046 – Tapered design.

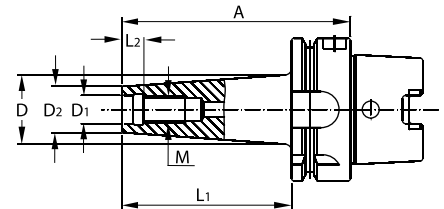
Application: To take screw-in milling cutters with thread.

Optional extras: Extensions No. 301358, reducers No. 301359, coolant pipe No. 309880, socket for coolant pipe No. 309890.

Note: Solid carbide arbors and extensions for screw-in milling cutters No. 301374 – 301379 and No. 301361 – 301368.

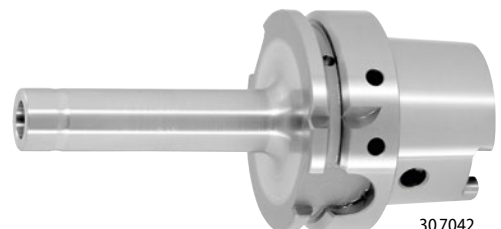


30 7044

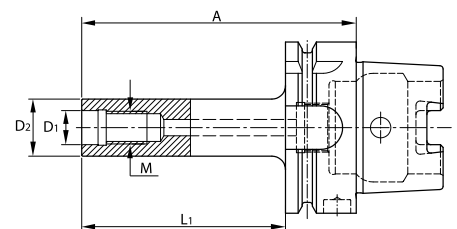


Thread M × Length L ₁	31A	30 7044	31A	30 7046	Dimension A		Ø D ₁	Ø D ₂	Ø D	L ₁	L ₂	
	Arbor for screw-in milling cutters with thread											
	tapered form				30 7044	30 7046					30 7044	30 7046
	HSK-A 63				mm	mm	mm	mm	mm	mm	mm	mm
M5×25		eShop		–	51	–	5.5	10	13	25	5	–
M6×25		eShop		–	51	–	6.5	10	13	25	5	–
M8×25		eShop		–	51	–	8.5	13	15	25	5	–
M8×50		eShop		eShop	76	79	8.5	13	23	50	5	5
M8×75		eShop		–	101	–	8.5	13	23	75	5	–
M10×25		eShop		–	51	–	10.5	18	20	25	5	–
M10×50		eShop		eShop	76	79	10.5	18	23	50	5	5
M10×75		eShop		–	101	–	10.5	18	23	75	5	–
M10×100		eShop		eShop	126	129	10.5	18	32	100	5	10
M10×150		eShop		eShop	176	179	10.5	18	36.5	150	5	10
M12×25		eShop		–	51	–	12.5	21	24	25	5	–
M12×50		eShop		eShop	76	79	12.5	21	24	50	5	5
M12×75		eShop		–	101	–	12.5	21	31	75	5	–
M12×100		eShop		eShop	126	129	12.5	21	33	100	5	10
M12×150		eShop		eShop	176	179	12.5	21	40	150	5	10
M16×25		eShop		–	51	–	17	29	29	25	5	–
M16×50		eShop		eShop	76	79	17	29	34	50	5	5
M16×75		eShop		–	101	–	17	29	34	75	5	–
M16×100		eShop		eShop	126	129	17	29	36	100	5	10
M16×150		eShop		eShop	176	179	17	29	42.5	150	5	10

Thread M × Length L ₁	31A	30 7042	Dimension A	Ø D ₁	Ø D ₂	L ₁	L ₂
	Arbor for screw-in milling cutters with thread						
	cylindrical form						
	HSK-A 63		mm	mm	mm	mm	mm
M5×25		eShop	51	5.5	10	25	5
M6×25		eShop	51	6.5	10	25	5
M8×25		eShop	51	8.5	13	25	5
M8×50		eShop	76	8.5	13	50	5
M8×75		eShop	101	8.5	13	75	5
M8×100		eShop	126	8.5	13	100	5
M10×25		eShop	51	10.5	18	25	5
M10×50		eShop	76	10.5	18	50	5
M10×75		eShop	101	10.5	18	75	5
M10×100		eShop	126	10.5	18	100	5
M10×125		eShop	151	10.5	18	125	5
M10×150		eShop	176	10.5	18	150	5
M12×25		eShop	51	12.5	21	25	5
M12×50		eShop	76	12.5	21	50	5
M12×75		eShop	101	12.5	21	75	5
M12×100		eShop	126	12.5	21	100	5
M12×125		eShop	151	12.5	21	125	5
M12×150		eShop	176	12.5	21	150	5
M16×25		eShop	51	17	29	25	5
M16×50		eShop	76	17	29	50	5
M16×75		eShop	101	17	29	75	5
M16×100		eShop	126	17	29	100	5
M16×150		eShop	176	17	29	150	5



30 7042



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Garant Arbor – for threaded copy mills – ISO 12164-1 (DIN 69893-1)

With RFID/Balluffchip bore. Tapered design.

Vibration damped version, arbor with vibration-damping core.

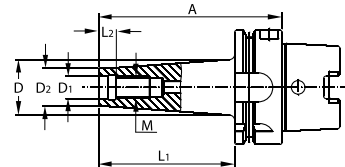
Application: To take screw-in milling cutters with thread.

Optional extras: Extensions No. 301342, reducers No. 301344, coolant tube No. 309880, coolant tube socket wrench No. 309890.

Note: Solid carbide arbors and extensions for screw-in milling cutters No. 301374 – 301379 and No. 301361 – 301368.



307037



Thread M×length L ₁	31A 30 7037	31A 30 7038	Dimension A	Ø D ₁	Ø D ₂	Ø D	L ₁	L ₂
	Arbor for screw-in milling cutters with thread vibration-damped, tapered form							
	HSK-A 63	HSK-A 63	mm	mm	mm	mm	mm	mm
M8×75	eShop	–	101	8.5	13	23	75	5
M8×100	eShop	–	126	8.5	13	23	100	5
M10×100	eShop	–	126	10.5	18	32	100	5
M10×150	eShop	–	176	10.5	18	36.5	150	5
M12×100	eShop	–	126	12.5	21	33	100	5
M12×150	eShop	–	176	12.5	21	40	150	5
M16×150	eShop	–	176	17	29	42.5	150	5
M16×200	eShop	–	226	17	29	45	200	5
M10×174	–	eShop	200	10.5	18	40	174	5
M10×224	–	–	250	10.5	18	40	224	5
M12×174	–	eShop	200	12.5	21	40	174	5
M12×224	–	–	250	12.5	21	40	224	5
M16×224	–	–	250	17	29	40	224	5



Hydraulic chuck (HD chuck) – ISO 12164 (DIN 69893)

■ Axial length adjustment, adjustment travel 10 mm.

■ With RFID/Balluffchip bore.

Application: ■ For drilling, reaming, and milling.

Optional extras: Reducing sleeves No. 302135 – 302187, coolant tube No. 309880, socket wrench No. 309890, parallel wipers No. 343720.



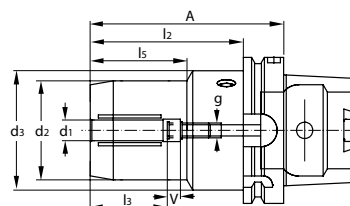
307507



307512



307513



Detailed dimensions
can be found in the
eShop.

Clamping range Ø D ₁	mm	6	8	10	12	16	20	25	32
32A 30 7507	MOLEX Hydraulic chuck BASIC short, slim	HSK-A 63	eShop	eShop	eShop	eShop	eShop	–	–
31A 30 7513	Garant	HSK-A 63	eShop	eShop	eShop	eShop	eShop	eShop	eShop
33W 30 7508	WTE Hydraulic chuck short, slim	HSK-A 63	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A 30 7512	Garant	HSK-A 63	eShop	eShop	eShop	eShop	eShop	–	–
31A 30 7516	Garant Hydraulic chuck BASIC short, slim	HSK-F 63	–	–	–	eShop	–	–	–
Ø D ₁	mm	6	8	10	12	16	20	25	32
Dimension A	mm	70	70	80	85	90	90	120	125
Ø D ₂	mm	26	28	30	32	38	42	57	63
Ø D	mm	50	50	50	50	50	50	53	59
L ₂ (30 7513, 30 7508, 30 7516)	mm	24	25	35	40	46	48	61	63
L ₁ (30 7507, 30 7508, 30 7512)	mm	24	24	32	40	45	48	62	60
L ₃ (30 7513, 30 7516)	mm	37	37	41	46	49	51	57	61
V	mm	10							
M		M5	M6	M8×1	M10×1	M12×1	M16×1	M16×1	M16×1
suitable reducing adapter		–	–	–	302135; 302140; 302145; 302147	–	302155; 302160; 302165; 302150	–	302175; 302180; 302177; 302187

Clamping range $\varnothing D_1$			mm	6	8	10	12	16	20	25	32
31A 30 7523	Garant	Hydraulic chuck BASIC	HSK-A 100	—	—	—	eShop	eShop	eShop	—	eShop
32A 30 7517	HOLEX	short, slim	HSK-A 100	eShop	eShop	eShop	eShop	eShop	eShop	—	—
33W 30 7525	WTE	Hydraulic chuck short, slim	HSK-A 100	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Dimension A			mm	75	75	90	95	100	105	110	110
$\varnothing D_2$			mm	26	28	30	32	38	42	57	63
$\varnothing D$			mm	50	50	50	50	50	50	63	67
V			mm	10							
M				M5	M6	M8×1	M10×1	M12×1	M16×1	M16×1	M16×1
suitable reducing adapter				—	—	—	302135; 302140; 302145; 302147	—	302155; 302160; 302165; 302150	—	302175; 302180; 302177; 302187

DIN 69893	ISO 12164-1	Form A	G 2.5 25000 min ⁻¹		HPC	HSC
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Garant Slim hydraulic chuck 3° – ISO 121641 (DIN 69893-1)

- **Extremely slim design** (3°-contour).
- With RFID/Balluffchip bore.
- Axial length adjustment possible.
- Shanks hard turned.
- Reducing adapters can be used.

Advantage: ■ **Temperature-resistant** due to completely enclosed system, i.e. no soldered pressure chambers.

- Ideal damping characteristics.
- High transmissible torques, providing high process reliability.

Application: Especially in operations in toolmaking and mould making.

Wherever reduced interference contours are required.

For drilling, reaming and milling.

For clamping tools with shank tolerance h6.

Supplied with: Hexagon socket drive with T-handle.

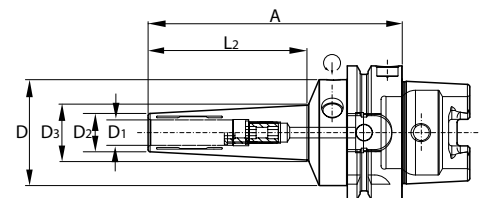
Optional extras: Reducing sleeves No. 302135 – 302165.



30 7533



30 7536



Clamping $\varnothing D_1$		mm	3	4	5	6	8	10	12	16	20
31A 30 7526	Slim hydraulic chuck	HSK-E 40 A = 85	eShop	eShop	eShop	eShop	eShop	eShop	eShop	—	—
31A 30 7528		HSK-E 50 A = 70	—	eShop	eShop	eShop	eShop	eShop	eShop	—	—
31A 30 7531		HSK-A 63	—	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A 30 7533		HSK-A 63 A = 120	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A 30 7536		HSK-A 63 A = 160	—	—	—	eShop	eShop	eShop	eShop	—	—
31A 30 7543		HSK-A 100 A = 120	—	—	—	eShop	eShop	eShop	eShop	eShop	eShop
$\varnothing D_2$ (30 7526, 30 7528, 30 7531, 30 7533, 30 7543)		mm	9	10	11	12	14	16	18	24	28
$\varnothing D_2$ (30 7536)		mm	—	—	—	16	18	20	22	—	—
$\varnothing D_3$ (30 7526)		mm	13.7	14.7	15.7	16.8	18.8	20.9	22.9	—	—
$\varnothing D_3$ (30 7528)		mm	—	13.88	14.88	15.99	17.99	20.1	20.1	—	—
$\varnothing D_3$ (30 7531)		mm	—	13.46	14.46	15.57	17.57	20.1	22.72	28.93	33.45
$\varnothing D_3$ (30 7533)		mm	16.7	17.7	18.7	20.4	22.4	24.5	26.6	31.5	35.5
$\varnothing D_3$ (30 7536)		mm	—	—	—	33.5	29.63	31.84	33.84	—	—
$\varnothing D_3$ (30 7543)		mm	—	—	—	19.34	21.45	23.45	25.55	31.13	35.24
$\varnothing D$ (30 7526)		mm	34	34	34	34	34	34	34	—	—
$\varnothing D$ (30 7528)		mm	—	42	42	42	42	42	42	—	—
$\varnothing D$ (30 7531, 30 7533, 30 7536, 30 7543)		mm	50								
L_2 (30 7526)		mm	45	45	45	46	46	47	47	—	—
L_2 (30 7528)		mm	—	37	37	38	38	39	39	—	—
L_2 (30 7531)		mm	—	33	33	34	34	39	45	47	52
L_2 (30 7533)		mm	73	73	73	73	74	74	75	71.5	72
L_2 (30 7536)		mm	—	—	—	111	111	113	113	—	—
L_2 (30 7543)		mm	—	—	—	70	71	71	72	68	69



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ISO 12164-1	DIN 69893	Form A	G 2.5 25000 min ⁻¹		HSC	HPC
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Hydraulic chuck – version HT (High Torque) – ISO 12164-1 (DIN 69893-1)

- Very high total rigidity due to optimised design.
- With RFID/Balluffchip bore.
- Axial length adjustment, adjustment travel 10 mm.
- Flexible due to use of reducing sleeves.

Advantage:

- **Very high transmitted torque (550 Nm)**, providing high process reliability.
- **Ideal damping characteristics**, resulting in optimum surface finishes, increased tool life and spindle protection.

Application:

- **Especially for heavy-duty milling.**
- For clamping tools with shank tolerance h6.

Supplied with: Hexagon cross-bar wrench.

Optional extras: Coolant tube No. 309880, socket wrench No. 309890, reducing adapters No. 302135 – 302187.

Note: Caution in the case of extra-long tools and TPC machining.

Clamping range Ø D ₁			mm	12	16	20	32
31H	30 7550	Garant	Hydraulic chuck HT	HSK-A 63 short	eShop	–	eShop
32A	30 7552	HOLEX		HSK-A 63 short	–	eShop	–
31H	30 7553	Garant	Hydraulic chuck HT with cooling channel bores	HSK-A 63 short	eShop	eShop	eShop
31H	30 7555		Hydraulic chuck HT	HSK-A 100 short	eShop	–	eShop
32A	30 7557	HOLEX		HSK-A 100 short	–	eShop	–
Dimension A (30 7550, 30 7552, 30 7553)			mm	80	80	80	–
Dimension A (30 7555)			mm	85	–	85	100
Dimension A (30 7557)			mm	–	–	90	–
Ø D			mm	52.5	52.5	52.5	72
L ₁ (30 7550, 30 7552, 30 7553)			mm	54	54	54	–
L ₁ (30 7555)			mm	56	–	56	71
L ₁ (30 7557)			mm	–	–	61	–



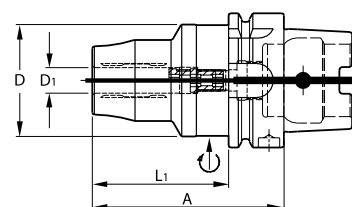
30 7550_20



30 7552_20



30 7553_20



ISO 12164-1	DIN 69893	Form A		G 2.5 25000 min ⁻¹		HPC	HSC
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Garant GARANT Master Chuck hydraulic chuck slim – ISO 12164-1 (DIN 69893-1)

- **Slim design** (4.5° contour, identical to shrink contour according to DIN 69882-8)
- With RFID/Balluffchip bore.
- Axial length adjustment, adjustment travel 10 mm.
- Reducing adapters can be used.
- **Temperature resistant up to 120°C for 4 hours.**
- **Up to 10x more clamping operations possible compared to a standard hydraulic chuck.**
- Very low tightening torque of the clamping screw – easy handling.
- **Patented new hydraulic clamping system – reliable and durable premium radial run-out.**

Application: Particularly for use in tool and mould making where a reduced interference contour is required. For drilling, reaming and milling. For clamping tools with shank tolerance h6.

Supplied with: Hexagon socket drive with T-handle.

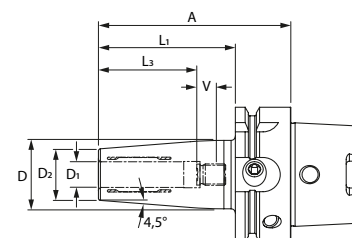
Optional extras: Coolant tube No. 309880, socket wrench No. 309890, reducing adapters No. 302140; 302135 302145 302147 each size 12 and No. 302150; 302155; 302160; 302165 each size 20.



30 7502

Same properties as shrink-fit chucks:

- Accuracy.
 - Extremely slim, identical interference contour.
- Advantages over shrink-fit chucks:**
- Better damping.
 - Simpler to use.
 - Flexibility (through reducing adapters).
 - No shrink-fit units required (costs, energy consumption).



Clamping Ø D ₁			mm	6	8	10	12	14	16	18	20	25	32
31A	30 7502	Slim hydraulic chuck Master Chuck	HSK-A 63 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A	30 7503		HSK-A 63 long	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–
31A	30 7506		HSK-A 63 long	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–	–
31A	30 7504		HSK-A 100 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A	30 7509		HSK-A 100 long	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–	–
Dimension A (30 7502)			mm	80	80	85	90	90	95	95	100	115	120
Dimension A (30 7503)			mm	120	120	120	120	120	120	120	120	–	–
Dimension A (30 7506, 30 7509)			mm	160	160	160	160	–	160	–	160	–	–
Dimension A (30 7504)			mm	85	85	90	95	95	100	100	105	115	120
Ø D ₂			mm	21	21	24	24	27	27	33	33	44	44
Ø D			mm	27	27	32	32	34	34	42	42	52.5	52.5

NEW

NEW

ISO 12164-1	DIN 69893	Form A	G 2.5 25000 min ⁻¹		HSC	HPC
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Garant GARANT Master Chuck hydraulic chuck performance – ISO 12164-1 (DIN 69893-1)

- Particularly suitable for highly dynamic milling applications.
- **Optimised outer contour due to FEM** (finite element method) – robustness due to maximum rigidity, longer tool lives, higher metal removal rate, suitable for all machining strategies.
- With RFID/Balluffchip bore.
- Axial length adjustment, adjustment travel 10mm.
- Reducing adapters can be used.
- **Temperature resistant up to 170°C for 4 hours.**
- **Up to 10x more clamping operations possible compared to a standard hydraulic chuck.**
- Very low tightening torque of the clamping screw – easy handling.
- **Patented new hydraulic clamping system – reliable, durable premium radial run-out.**

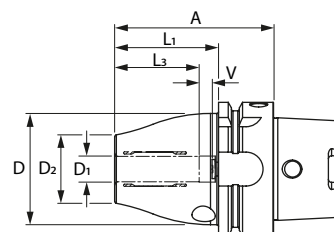
Application: Universally designed for roughing and finishing operations. For clamping tools with shank tolerance h6.

Supplied with: Hexagon socket drive with T-handle.

Optional extras: Coolant tube No. 309880. socket wrench No. 309890, reducing adapters No. 302140; 302135 302145 302147 each size 12 and No. 302150; 302155; 302160; 302165 each size 20.



Clamping ØD ₁		mm	6	8	10	12	16	20	25	32
31A 30 7630	Hydraulic chuck performance Master Chuck	HSK-A 63 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A 30 7635		HSK-A 100 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Dimension A (30 7630)		mm	65	65	75	75	79	79	95	110
Dimension A (30 7635)		mm	73	73	83	83	87	87	95	100
Ø D ₂ (30 7630)		mm	26	28	30	32	38	38	48	58.5
Ø D ₂ (30 7635)		mm	26	28	30	32	38	38	56	60
Ø D (30 7630)		mm	50	50	50	52.5	52.5	52.5	57	62.5
Ø D (30 7635)		mm	50	50	50	52.5	52.5	52.5	70	75



Short drill chucks with chuck key operation – ISO 12164-1 (DIN 69893-1)

- For clockwise and anticlockwise rotation.
- With RFID/Balluffchip bore.

30 7725/7735/7765/7775 –

- **Slim design.**
- Specific coolant transfer to tools with IC.
- Optimum holding torques at the tool.

30 7681–7684/7725/7735 – With through coolant feed up to max. 50 bar.

Supplied with: Clamping wrench with T-handle.

Optional extras:

30 7681–7684/7725–7775 – Socket wrench No. 309890. Coolant tube No. 309880.

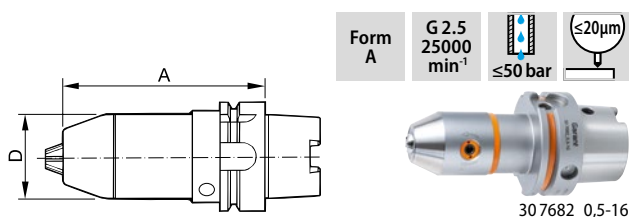
Form A	G 2.5 25000 min ⁻¹			
		≤20 µm	≤14 Nm	≤50 bar



30 7725_0,5-13
slim



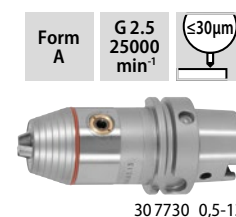
30 7725_1-16
slim



30 7682_0,5-16



30 7765_2,5-16



30 7730_0,5-13

Clamping range		mm	0,3-8	0,3-10	0,5-13	0,5-16	1-16	2,5-16
31B 30 7681	Short drill chuck Form E	HSK-E 40	–	eShop	–	–	–	–
31B 30 7682		HSK-A 63	–	eShop	–	eShop	–	–
31B 30 7684	Garant Short drill chuck Form A	HSK-A 100	–	–	–	eShop	–	–
31B 30 7725		HSK-A 63	eShop	–	eShop	–	eShop	–
33W 30 7705	Short drill chuck Form F	HSK-F 63	–	–	–	eShop	–	–
32K 30 7765	HOLEX	HSK-A 63	–	–	–	–	–	eShop
33W 30 7730	WTE	HSK-A 63	eShop	–	eShop	–	–	eShop
31B 30 7735	Garant	HSK-A 100	–	–	–	–	eShop	–
32K 30 7775	HOLEX	HSK-A 100	–	–	–	–	–	eShop
Type (30 7681, 30 7682, 30 7684, 30 7725, 30 7705, 30 7765, 30 7735, 30 7775)			slim	slim	slim	standard	slim	slim
Type (30 7730)			standard	–	standard	–	–	standard
Dimension A (30 7681, 30 7682, 30 7725, 30 7765)		mm	93	91	101	111	104	104
Dimension A (30 7682, 30 7730, 30 7735)		mm	96	96.5	104	104	110	109
Dimension A (30 7705, 30 7775)		mm	–	–	–	102	–	110
Ø D (30 7681, 30 7682, 30 7684, 30 7725, 30 7705, 30 7765, 30 7735, 30 7775)		mm	35	38	43	57	50	50
Ø D (30 7730)		mm	36	–	50	–	–	57



30



Shrink-fit chuck Power Shrink Chuck with SAFE-LOCK® – ISO 12164-1 (DIN 69893-1)

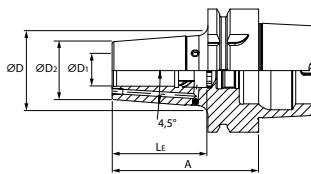
Shrink-fit chuck for very high metal removal rates during high-performance cutting (HPC). The optimised design combines excellent stiffness with vibration damping. This protects the machine, spindle and tool.

- **Safe-Lock tool pull-out protection** prevents the tool being pulled out accidentally.
- Higher metal removal rate due to higher speeds, higher feed rates and greater cutting depth.
- Shorter machining times.
- Runs more smoothly, which improves the surface quality and protects the tool, spindle and machine.
- With tapped holes for balancing with screws.
- With pluggable Cool Jet holes.
- With length adjustment screw (adjustment path 10 mm).

Application: For clamping tools with parallel shank to h6 tolerance with **Safe-Lock ground surface**. Suitable for all types of shrink-fit unit such as inductive, contact and hot air shrink-fit units.

Optional extras: For milling cutters with Safe-Lock clamping flat, see solid carbide milling cutters. Coolant pipe No. 309880, socket wrench No. 309890, shrink-fit units No. 354210 – 354450, balancing screw set No. 309906 size 180.

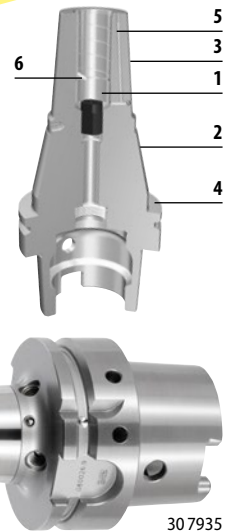
Note: Other shrink-fit chucks with **Safe-Lock** available on request.



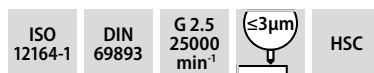
Detailed information on Safe-Lock can be found under milling.

The main features:

1. High concentricity (< 0.003 mm).
2. Low tendency to vibrate due to optimised outer contour.
3. Slim design at the tip.
4. Very deep shank.
5. Cool-Jet as standard (can be locked).
6. Safe-Lock.



Clamping range Ø D,	mm	6	8	10	12	14	16	18	20	25	32
34l 30 7935	Shrink-fit chuck Power Shrink Chuck with Safe-Lock	HSK-A 63 ultra short	–	–	–	–	–	–	–	–	–
34l 30 7940		HSK-A 100 short	–	–	–	–	–	–	–	–	–
Dimension A (30 7935)	mm	70	70	70	70	75	75	75	75	85	85
Dimension A (30 7940)	mm	85	85	90	95	95	100	100	105	115	–
Ø D (30 7935)	mm	29	29	33.5	33.5	37.5	37.5	43.5	43.5	51	51
Ø D (30 7940)	mm	60	60	53	73	60	78	76	85	85	–
Ø D₂ (30 7935)	mm	22	22	26.5	26.5	29.5	29.5	35.5	35.5	45	45
Ø D₂ (30 7940)	mm	21	21	27	27	33	33	44	44	44	–
maximum clamping depth Lₑ (30 7935)	mm	38	38	43	46	48	49	49	49	57	59
maximum clamping depth Lₑ (30 7940)	mm	36	36	42	47	47	50	50	52	58	–



Garant Shrink-fit chucks 4.5° – ISO 12164-1 (DIN 69893-1)

- High-temperature steel.
- Integral tool length adjustment, adjustment track 10 mm.
- Sizes 3 – 5 for carbide, from size 6 for HSS and carbide.
- All shanks hard turned (for smooth running!).
- With RFID/Balluffchip bore.

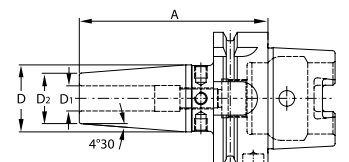
GARANT: – HSK mating faces machined.

Application: For holding end mills and drills with parallel shank to h 6 tolerance. Suitable for inductive, contact and hot air shrink-fitting units.

Optional extras: Coolant feed pipe No. 309880. Plug-in socket No. 309890. Shrink-fit chuck extension No. 302410 – 302416. Shrink-fit units No. 354210 – 304755.

Note: 30 8028 Size 12; 16 – Not prepared for coolant pipe.

Versions with cooling channel bores on request!



Clamping range Ø D,	mm	3	4	5	6	8	10	12	16
31A 30 7950	Shrink-fit chuck	HSK-A 40	eShop	eShop	eShop	eShop	eShop	eShop	–
31A 30 8028		HSK-E 40	–	–	eShop	eShop	eShop	eShop	eShop
31A 30 8030		HSK-E 40	eShop	eShop	eShop	eShop	eShop	eShop	–
31A 30 8035		HSK-E 50	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Dimension A (30 7950, 30 8030)	mm	60	60	60	80	80	80	90	–
Dimension A (30 8028)	mm	–	–	–	60	60	60	60	60
Dimension A (30 8035)	mm	60	60	60	80	80	85	90	95
Ø D	mm	17	17	17	27	27	32	32	32
Ø D₂	mm	12	12	12	21	21	24	24	27

ISO 12164-1	DIN 69893	G 2.5 25000 min ⁻¹		HSC	HPC
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Shrink-fit chucks 4.5° – ISO 12164-1 (DIN 69893-1)

- High-temperature steel.
- Sizes 3 – 5 for carbide, from size 6 for HSS and carbide.
- With RFID/Balluffchip bore.

30 8165 – **Ultra short:** More stability and stiffness, less vibration.

This ensures longer tool life and better surface quality. No length adjustment available.

30 8165/8170/8183/8187/8189/8191/8192/8193/8195/8196/8205/8206/8208/8235/8265/8277/8282/8285/8283/8284/8286/8294 –

From clamping Ø D₁ 6 mm with tapped holes for balancing screws.

30 8170/8183/8184/8187/8189/8191/8192/8193/8195/8196/8205/8206/8208/8235/8265/8277/8282/8285/8283/8284/8286/8294 – Integral length adjustment of the tool from clamping Ø D₁ 6 mm (adjustment travel 10 mm).

30 8187/8196/8286 – With **cooling channel bores** tapped for plugging. Ø D₁: 3 mm, 4 mm, 5 mm cannot be plugged.

30 8165/8192/8206/8277/8283/8284 – With **cooling channel bores** tapped for plugging.

30 8165/8170/8184/8187/8189/8192/8193/8195/8196/8205/8206/8235/8265/8277/8282/8285/8283/8284/8286/8294 – **GARANT:** HSK mating faces machined.

All shanks hard turned (for smooth running!).

30 8172/8194/8267 – Premium version: Nickel plated version with 4 pluggable **cooling channel bores**. Integral tool length adjustment (adjustment track 10 mm).

30 8184/8193 – Without tapped holes for balancing screws and **without thread for coolant pipe**.

Application: ■ For holding end mills and drills with parallel shank to h6 tolerance.

■ Suitable for inductive, contact and hot air shrink-fit units.

Supplied with: For chucks with length adjustment including a length adjustment screw (from clamping Ø D₁ 6 mm).

30 8172/8194/8267 – 4 × M3 nozzle screws.

Optional extras: Coolant tube No. 309880, socket wrench No. 309890, shrink-fit chuck extension No. 302410 – 302416, shrink-fit units No. 354210 – 354450, balancing screw set No. 309906 180.



Form A



30 8165



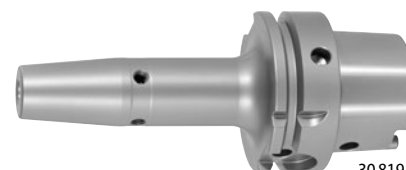
Form A



30 8170



Form A



30 8191



Form F



30 8193

Optimised cooling concept

- 4 cooling channel bores instead of 2.
- Different approach angles of the cooling channel bores.
- With 4 nozzle screws to optimise the coolant pressure and alignment of the coolant stream.

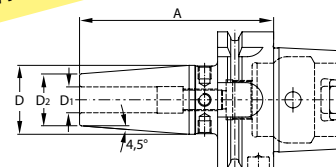


No corrosion

due to special surface coating
(HSK ground)



Premium version



Clamping range Ø D ₁			mm	3	4	5	6	8	10	12	14	16	18	20	25	32
31A	30 8165	Shrink-fit chuck with cooling channel bore	HSK-A 63 ultra short	–	–	–	–	–	eShop	eShop	–	eShop	–	eShop	eShop	–
31A	30 8170	Garant Shrink-fit chuck	HSK-A 63 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
31A	30 8172	Shrink-fit chuck with 4 cooling channel bores, nickel-plated	HSK-A 63 short	–	–	–	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–	–
33W	30 8183	WTE Shrink-fit chuck	HSK-A 63 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A	30 8184	Shrink-fit chuck	HSK-F 63 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–
31A	30 8187	Garant Shrink-fit chuck with cooling channel bore	HSK-A 63 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
31A	30 8189	Shrink-fit chuck	HSK-A 63 A = 120	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
33W	30 8191	WTE Shrink-fit chuck	HSK-A 63 A = 120	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	(eShop)	(eShop)	–
31A	30 8192	Garant Shrink-fit chuck with cooling channel bore	HSK-A 63 A = 120	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–
31A	30 8193	Shrink-fit chuck	HSK-F 63 A = 120	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Dimension A (30 8165)			mm	–	–	–	–	–	70	70	–	75	–	75	85	–
Dimension A (30 8170, 30 8172, 30 8183, 30 8184, 30 8187)			mm	80	80	80	80	80	85	90	90	95	95	100	115	120
Ø D (30 8165)			mm	–	–	–	–	–	33	33	–	37	–	43	50	–
Ø D (30 8170, 30 8172, 30 8187, 30 8189, 30 8192)			mm	17	17	17	27	27	32	32	34	34	42	42	53	–
Ø D (30 8183)			mm	15	22	22	27	27	32	32	34	34	42	42	53	53
Ø D (30 8184, 30 8193)			mm	20	22	22	27	27	31	31	34	34	40	40	53	53
Ø D (30 8191)			mm	20	22	22	27	27	32	32	34	34	42	42	53	–
Ø D ₂ (30 8165)			mm	–	–	–	–	–	26	26	–	29	–	35	45	–
Ø D ₂ (30 8170, 30 8172, 30 8187, 30 8189, 30 8192)			mm	12	12	12	21	21	24	24	27	27	33	33	44	–
Ø D ₂ (30 8183, 30 8191)			mm	10	15	15	21	21	24	24	27	27	33	33	44	44
Ø D ₂ (30 8184, 30 8193)			mm	10	15	15	20	20	24	24	27	27	33	33	44	44



30

Clamping range $\varnothing D_1$		mm	3	4	5	6	8	10	12	14	16	18	20	25	32
31A 30 8194	Garant	Shrink-fit chuck with 4 cooling channel bores, nickel-plated	HSK-A 63 A = 120	–	–	–	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–
31A 30 8195		Shrink-fit chuck	HSK-A 63 A = 130	eShop	eShop	eShop	eShop	eShop	eShop	(eShop)	eShop	eShop	eShop	(eShop)	eShop
31A 30 8196		Shrink-fit chuck with cooling channel bore	HSK-A 63 A = 130	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A 30 8205		Shrink-fit chuck	HSK-A 63 A = 160	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
31A 30 8206	WTE	Shrink-fit chuck with cooling channel bore	HSK-A 63 A = 160	–	–	–	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–
33W 30 8208			HSK-A 63 A = 160	eShop	eShop	eShop	eShop	(eShop)	eShop	eShop	(eShop)	eShop	(eShop)	eShop	–
31A 30 8235		Shrink-fit chuck	HSK-A 63 A = 200	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
31A 30 8265			HSK-A 100 short	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A 30 8267	Garant	Shrink-fit chuck with 4 cooling channel bores, nickel-plated	HSK-A 100 short	–	–	–	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–
31A 30 8277		Shrink-fit chucks with cooling channel bore	HSK-A 100 short	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A 30 8282		Shrink-fit chuck	HSK-A 100 A = 120	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
31A 30 8285			HSK-A 100 A = 160	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A 30 8283		Shrink-fit chucks with cooling channel bore	HSK-A 100 A = 120	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
31A 30 8284			HSK-A 100 A = 130	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
31A 30 8286			HSK-A 100 A = 160	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
31A 30 8294			HSK-A 100 A = 200	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Dimension A (30 8265, 30 8267, 30 8277)		mm	–	–	–	85	85	90	95	95	100	100	105	115	120
$\varnothing D$ (30 8194, 30 8195, 30 8196, 30 8205, 30 8206, 30 8235, 30 8265, 30 8267, 30 8277, 30 8282, 30 8285, 30 8283, 30 8284, 30 8286, 30 8294)		mm	17	17	17	27	27	32	32	34	34	42	42	53	53
$\varnothing D_1$ (30 8208)		mm	20	22	22	27	27	32	32	34	34	42	42	53	–
$\varnothing D_2$ (30 8194, 30 8195, 30 8196, 30 8205, 30 8206, 30 8235, 30 8265, 30 8267, 30 8277, 30 8282, 30 8285, 30 8283, 30 8284, 30 8286, 30 8294)		mm	12	12	12	21	21	24	24	27	27	33	33	44	44
$\varnothing D_2$ (30 8208)		mm	10	15	15	21	21	24	24	27	27	33	33	44	–

ISO 12164-1	DIN 69893	Form A		G 2.5 25000 min ⁻¹		HPC	HSC
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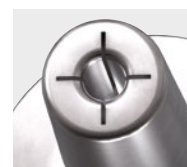
Garant Shrink-fit chucks 4.5° slotted – ISO 12164-1 (DIN 69893-1)

- High-temperature steel.
- With 4 cooling channel slots on the clamping hole.
- All shanks hard turned (for smooth running!).
- With RFID/Balluffchip bore.

Advantage: Improved cooling directly on the tool shank.
Facilitates the removal of small tool diameters.

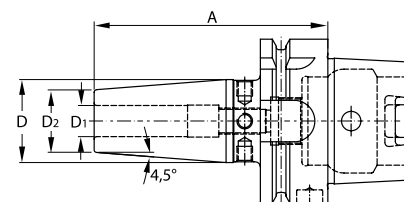
Application: For holding end mills and drills with parallel shank to h6 tolerance.
Suitable for inductive, contact and hot air shrink-fitting units.

Optional extras: Coolant feed pipe No. 309880.
Plug-in socket No. 309890,
Shrink-fit chuck extension No. 302410 – 302416.
Shrink-fit units No. 354210 – 304755.



30 8311

Clamping $\varnothing D_1$		mm	3	4	5
31A 30 8309	Shrink-fit chuck with cooling channel slots	HSK-A 63 short	eShop	eShop	eShop
31A 30 8311		HSK-A 63 A = 130	eShop	eShop	eShop
$\varnothing D_1$		mm	3	4	5
Dimension A (30 8309)		mm		80	
Dimension A (30 8311)		mm		130	
$\varnothing D$		mm		17	
$\varnothing D_2$		mm		12	



DIN 69893	ISO 12164-1		HSC
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Garant Shrink-fit chucks 3° (for tool and mould making) – ISO 12164-1 (DIN 69893-1)

- All shanks hard turned (for smooth running!).
- HSK mating faces machined.
- **Slim design (3° contour).**
308302–8314 – **Balancing quality 2.5 / 40,000 rpm.**
308316–8322 – **Balancing quality 2.5 / 25,000 rpm.** With RFID/Balluffchip bore.

Application: ■ **Especially in tool and mould making.**

- For clamping tools with shank tolerance h6.

Optional extras: Coolant tube No. 309880. Socket No. 309890.
Shrink-fit chuck extensions No. 302410 sizes 12/3 and 12/4.
Shrink-fitting units No. 354210 – 354450.

G 2.5
40000
min⁻¹

Form
E



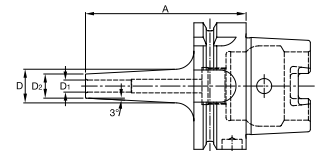
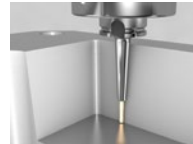
308302

G 2.5
25000
min⁻¹

Form
A



308318



Further HSK-E holders
are available on request.

Clamping range Ø D ₁		mm	3	4	5	6	8	10	12
31A	308302	HSK-E 40 A = 60	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A	308304	HSK-E 40 A = 70	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A	308306	HSK-E 40 A = 80	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A	308308	HSK-E 50 A = 70	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A	308314	HSK-E 50 A = 100	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A	308316	HSK-A 63 A = 80	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A	308318	HSK-A 63 A = 120	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31A	308322	HSK-A 100 A = 120	—	eShop	—	eShop	eShop	eShop	eShop
Ø D (308302, 308308)		mm	14	15	16	17	19	21	23
Ø D (308304, 308316)		mm	15	16	17	18	20	22	24
Ø D (308306)		mm	16	17	18	19	21	23	25
Ø D (308314)		mm	17	18	19	20	22	24	26
Ø D (308318, 308322)		mm	19	20	21	22	24	26	28
Ø D ₂		mm	9	10	11	12	14	16	18

DIN 69893	ISO 12164-1	Form A	G 2.5 25000 min ⁻¹		HSC
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Garant Shrink-fit chucks 4.5°, long version – ISO 12164-1 (DIN 69893-1)

- External taper 4°30'.
 - With RFID/Balluffchip bore.
 - HSK mating faces machined.
 - 308329/8337 – With **cooling channel bores.**
- Application:** ■ **For working in places where access is difficult.**

- For clamping tools with parallel shank to h6 tolerance.

Optional extras: Coolant pipe No. 309880, Plug-in socket No. 309890,
Shrink-fit extension No. 302410 size 12/3 and 12/4.
Shrink-fitting units No. 354210 – 354450.



308328

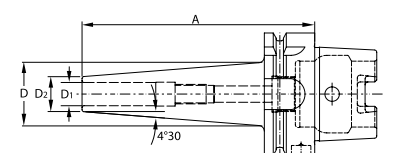


308329



308339

Clamping range Ø D ₁			mm	6	8	10	12
31A	30 8328	Shrink-fit chuck, slim, long 4°30'	HSK-A 63 A = 120	eShop	eShop	eShop	eShop
31A	30 8329	Shrink-fit chuck, slim, long 4°30', with cooling channel bores	HSK-A 63 A = 120	eShop	eShop	eShop	eShop
31A	30 8334	Shrink-fit chuck, slim, long 4°30'	HSK-A 63 A = 160	eShop	eShop	eShop	eShop
31A	30 8337	Shrink-fit chuck, slim, long 4°30', with cooling channel bores	HSK-A 63 A = 160	eShop	eShop	eShop	eShop
31A	30 8339	Shrink-fit chuck, slim, long 4°30'	HSK-A 100 A = 120	eShop	eShop	eShop	eShop
Ø D			mm	30	30	33	33
Ø D ₂ (30 8328, 30 8334, 30 8339)			mm	15	15	18	18
Ø D ₂ (30 8329, 30 8337)			mm	15	16	18	18



30



Garant Shrink-fit chuck, vibration-damped – ISO 12164-1 (DIN 69893-1)

- High-temperature steel.
- Integrated length adjustment of the tools.
- For HSS and solid carbide tools.
- Shanks hard turned (smooth cutting action!).
- With RFID/Balluffchip bore.
- With coolant channel bores and threads that can be sealed.
- With tapped holes on each side for balancing screws.
- **Reinforced version/contour.**
- **Polished surface.**
- **Specially mounted carbide core in the shrink-fit chuck body.**

Advantage:

- **Vibration-damping.**
- **Better workpiece surface finish.**
- **Optimised tool life.**
- **Increased process reliability.**
- **Lower corrosion tendency due to polished surface.**

Application: For clamping tools with plain shank (h6 shank tolerance). Suitable for inductive, contact and hot air shrink-fitting units.

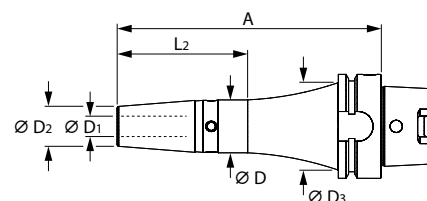
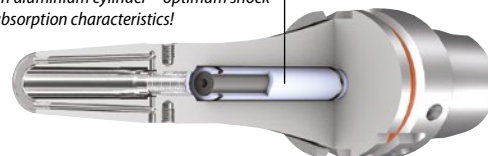
Optional extras: HSK coolant tube No. 309880, Socket wrench No. 309890, Shrink-fit unit, accessories No. 354210 – 354440, Balancing screws set No. 309906 size 180.

Vibration damping

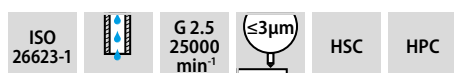


30 8344

Carbide core drilled through, mounted in an aluminium cylinder – optimum shock absorption characteristics!



Clamping range Ø D ₁	mm	6	8	10	12	16
31A 30 8342	HSK-A 63 A = 120	eShop	eShop	eShop	eShop	eShop
31A 30 8344	Shrink-fit chuck vibration-damped, with cooling channel bores	eShop	eShop	eShop	eShop	eShop
31A 30 8346	HSK-A 100 A = 120	eShop	eShop	eShop	eShop	eShop
31A 30 8348	HSK-A 100 A = 160	eShop	eShop	eShop	eShop	eShop
Ø D ₁	mm	6	8	10	12	16
Ø D ₂	mm	21	21	24	24	27
Ø D ₃ (30 8342, 30 8344)	mm			53		
Ø D ₃ (30 8346, 30 8348)	mm			88		
L ₂ (30 8342)	mm	57	57	62	62	65
L ₂ (30 8344)	mm	70	70	79	79	79
L ₂ (30 8346)	mm	50	50	60	63	68
L ₂ (30 8348)	mm	60	60	70	70	70



Garant Arbor for indexable drill with polygonal shank (PSC) – ISO 26623-1

- Position of the grub screw for countersinking in the indexable drill offset by 0.4 mm.
- **When tightening** the increased contact face Ø is clamped against the front face of the arbor.
- **Better support**, allowing **higher feed rates**.
- **High concentricity** due to 3 µm ground flat contact face.
- With RFID/Balluffchip bore.

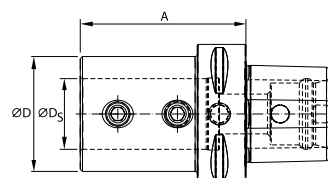
Suitable for: All indexable drills with parallel shank to DIN 6595, Part 1.

Application: For mounting all standard indexable drills to DIN 6595, Part 1.

Optional extras: Coolant tube No. 309885; socket No. 309893.



30 8585



for shank Ø D ₁	mm	16	20	25	32	40
31A 30 8583	PSC 40 short	eShop	eShop	eShop	–	–
31A 30 8584	Arbor for indexable drills PSC 50 short	eShop	eShop	eShop	eShop	–
31A 30 8585	PSC 63 short	–	eShop	eShop	eShop	eShop
Dimension A (30 8583)	mm	56	60	77	–	–
Dimension A (30 8584)	mm	65	60	71	75	–
Dimension A (30 8585)	mm	–	40	45	52	63
Ø D (30 8583, 30 8584)	mm	36	40	45	52	–
Ø D (30 8585)	mm	–	70	72	75	85

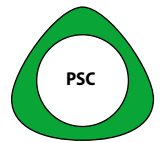
ISO
26623-1G 2.5
25000
min⁻¹

HSC

HPC

Garant Tool arbors with polygonal shank (PSC) – ISO 26623-1

- With RFID/Balluffchip bore.
- All shanks hard turned (for smooth running!).
- Mating faces of the PSC internal contour machined.



Sidelock arbors (Weldon)

Application: For clamping tools with Weldon shank to DIN 1835 Form B and DIN 6535 Form HB.

Optional extras:

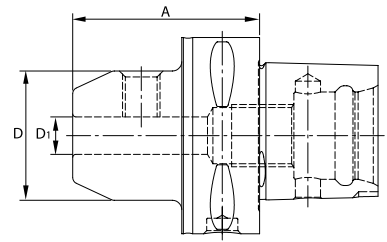
30 8497–8503 – Coolant pipe No. 309885, coolant pipe wrench No. 309893.

Note:

Suitable reduction from PSC 63 to PSC 40 or PSC 50 No. 318892.
 Suitable reducing adapter from SK 40 or HSK 63 to PSC32, PSC 40 or PSC 50 on request.
 Suitable reducing adaptor from SK 50 or HSK 100 to PSC 63 or PSC 80 on request.
 Suitable extensions can be found under No. 318894, No. 318895 and No. 318896.



30 8502



Clamping $\varnothing D_1$	mm	6	8	10	12	14	16	18	20	25	32
31A 30 8496	Side lock arbor	PSC 32 short	eShop	eShop	eShop	eShop	–	–	–	–	–
31A 30 8497	Side lock arbor	PSC 40 short	eShop	eShop	eShop	eShop	eShop	eShop	–	–	–
31C 30 8498	Side lock arbor with cooling channel bores	PSC 50 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
31C 30 8502	Side lock arbor	PSC 63 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31C 30 8506	Side lock arbor with cooling channel bores	PSC 63 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31C 30 8504	Side lock arbor	PSC 63 A = 100	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–
31C 30 8509	Side lock arbor with cooling channel bores	PSC 63 A = 100	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–
31C 30 8508	Side lock arbor	PSC 63 A = 130	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–
31C 30 8503	Side lock arbor	PSC 80 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Dimension A (30 8496)	mm	45	45	50	55	–	–	–	–	–	–
Dimension A (30 8497)	mm	50	50	50	55	55	55	–	–	–	–
Dimension A (30 8498)	mm	50	50	55	60	60	60	60	60	80	–
Dimension A (30 8502, 30 8506)	mm	55	55	60	60	60	65	65	65	80	90
Dimension A (30 8504, 30 8509)	mm	100	100	100	100	100	100	100	100	–	–
Dimension A (30 8508)	mm	130	130	130	130	–	130	–	130	–	–
Dimension A (30 8503)	mm	70	70	70	70	70	70	70	70	80	80
$\varnothing D$	mm	25	28	35	42	44	48	50	52	65	72

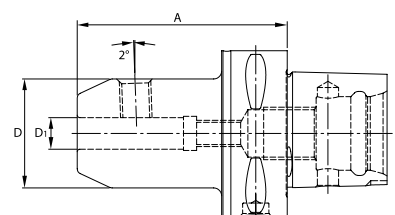
Whistle-Notch

Application: For clamping tools with suitable clamping flat (2°) to DIN 1835 Form E and DIN 6535 Form HE (= Whistle Notch).

Optional extras: Coolant pipe No. 309885, coolant pipe wrench No. 309893.



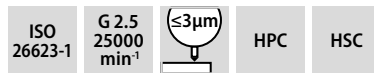
30 8510



Clamping range $\varnothing D_1$	mm	6	8	10	12	14	16	18	20	25	32
31C 30 8510	Whistle-Notch arbor	PSC 63 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Dimension A	mm	75	75	75	80	80	80	80	85	90	95
$\varnothing D$	mm	25	28	35	42	44	48	50	52	65	72



30



Garant HiRunER precision ER collet chuck - ISO26623-1

External and internal tapers are ground. All shanks are turned for smooth running. Including RFID/Balluffchip bore, high-performance clamping nut up to 25000 rpm.

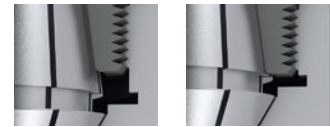
- Advantage:**
- **Excellent concentricity in the system** (chuck + collet + clamping nut), 3 µm radial run-out with a 2 µm clamping nut, 6 µm radial run-out with a 5 µm clamping nut.
 - **Extremely strong holding force** (up to **factor 2** better than the standard ER chuck).
 - **Vibration reduction effect** due to 2-part clamping nuts.

Application: For clamping tools with plain shank in collets to DIN 6499 – Form A and B.

Supplied with: Supplied with **precision clamping nut**.

Optional extras: Coolant tube No. 309885, assembling key No. 309893, ER collets No. 308901 – 309432, hook spanner No. 628400 or torque wrench No. 309749 or 628520.

- Note:**
- Clamps only nominal Ø up to shank Ø tolerance h 10.
 - Do not use the clamping nut in combination with a sealing washer.
 - Use the precision collet chuck always in conjunction with the precision clamping nut No. 309617.
 - Use in combination with Fahrion collets.
 - The blue design ring must be removed for Fahrion HP 2µm ER collets



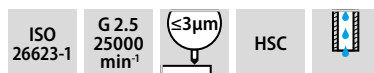
Standard ER chuck -> Collets are not inserted 100 % into the chuck.

HiRunER -> the full surface of the collet is seated in the chuck -> higher retention forces! -> reduced radial run-out!



30 8542

for ER collet size				16	25	32
31C	30 8542	HiRunER precision ER collet chuck	PSC 63 A = 100	eShop	eShop	eShop
Clamping range				0.5 – 10	1 – 16	2 – 20
Ø D				34	44	52
Spare ER clamping nut No. 309617				16	25	32



Garant Tool arbors with polygonal shank (PSC) – ISO 26623-1

- With RFID/Balluffchip bore.
- All shanks hard turned (for smooth running!).
- Mating faces of the PSC internal contour machined.

Application: For clamping tools with plain shank in ER collets to DIN 6499 Form A and B.

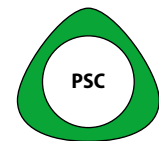
Supplied with: Coated High-Speed clamping nut.

Optional extras:

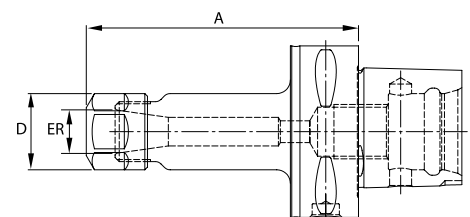
30 8512 – ER collets No. 308881 – 309434, ER chuck key No. 309680 or 613300.

30 8513–8539 – ER collets No. 308881 – 309434, ER chuck key No. 309680 or 613300, coolant pipe No. 309885 and socket No. 309893.

Coolant tube and assembling key for coolant tubes No. 309885 and 309893.



308513_25



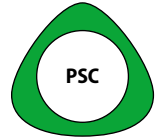
for ER collet size			16	20	25	32	40	
31A	30 8512	PSC 32 short	eShop	eShop	–	–	–	
31C	30 8513	PSC 40 short	eShop	–	eShop	eShop	–	
31C	30 8514	PSC 50 short	eShop	–	eShop	eShop	–	
31C	30 8515	PSC 63 short	eShop	–	eShop	eShop	eShop	
31C	30 8522	PSC 63 A = 100	eShop	–	eShop	eShop	eShop	
31C	30 8530	PSC 63 A = 130	–	–	eShop	eShop	–	
31C	30 8535	PSC 63 A = 160	eShop	–	eShop	–	–	
31C	30 8539	PSC 80 short	eShop	–	eShop	eShop	eShop	
Clamping range			mm	0.5 – 10	1 – 13	1 – 16	2 – 20	3 – 26
Dimension A (30 8512, 30 8530)			mm	50	50	130	130	–
Dimension A (30 8513)			mm	70	–	55	55	–
Dimension A (30 8514)			mm	55	–	55	60	–
Dimension A (30 8515)			mm	60	–	60	60	65
Dimension A (30 8522)			mm	100	–	100	100	100
Dimension A (30 8535)			mm	160	–	160	–	–
Dimension A (30 8539)			mm	65	–	70	70	70
Ø D			mm	28	34	42	50	63
Spare GARANT high-speed clamping nut No. 309610				16	20	25	32	40

ISO
26623-1

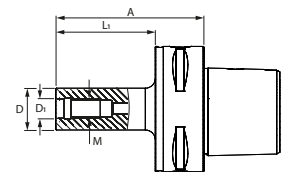
HPC

Garant Tool arbors with polygonal shank (PSC) – ISO 26623-1

- With RFID/Balluffchip bore.
- All shanks hard turned (for smooth running!).
- Mating faces of the PSC internal contour machined.

**Arbor for screw-in milling cutter, cylindrical**

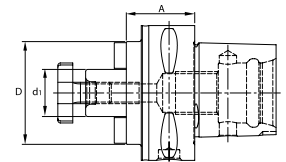
Application: To take screw-in milling cutters with thread.



Thread size M			M8×50	M10×50	M12×50	M16×50
31A	308553	Arbor for screw-in milling cutter, cylindrical	PSC 63	eShop	eShop	eShop
Dimension A			74.5			
Ø D ₁			8.5	10.5	12.5	17
Ø D			13	18	21	29
L ₁			50			

Face mill arbors

Application: For holding shell end mills and face mills with cross keyway.
Supplied with: Lock screw.
Optional extras: Toggle spanner No. 309840, cutter lock screw No. 309860.
 Coolant tube and assembling key for coolant tubes No. 309885; 309893.



Spigot Ø d ₁		mm	16	22	27	32	40
31C	308543	Face mill arbor with cooling channel bores	PSC 40 short	eShop	eShop	–	–
31C	308544		PSC 50 short	eShop	eShop	–	–
31C	308547		PSC 63 A = 65	eShop	eShop	eShop	–
31C	308551		PSC 80 short	eShop	eShop	eShop	eShop
Dimension A (308543)		mm	32	25	–	–	–
Dimension A (308544)		mm	35	25	25	–	–
Dimension A (308547)		mm	65	65	65	65	–
Dimension A (308551)		mm	50	50	50	60	60
Ø D (308543)		mm	38	40	–	–	–
Ø D (308544, 308547, 308551)		mm	38	48	60	63	89

ISO
26623-1ISO
26623-1G 2.5
25000
min⁻¹

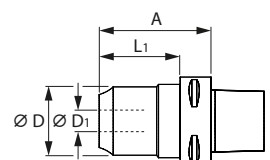
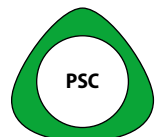
HSC

HPC

Garant Hydraulic chucks, version HT (High Torque) – ISO26623-1

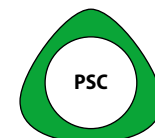
- With RFID/Balluffchip bore.
- Axial length adjustment (adjustment 10 mm) available.
- Flexible due to use of reducing sleeves.

Application: Maximum transmissible torque **550 Nm**, version HT (High Torque).
Optional extras: Boring bar shanks No. 302150, 302155, 302160 and 302165.



Clamping range Ø D ₁		mm	20
31C	308556	Hydraulic chuck HT short	PSC 63
Dimension A		mm	80
Ø D		mm	49
L ₁		mm	41

30

ISO
26623-1

Garant Tool arbors with polygonal shank (PSC) – ISO 26623-1

- With RFID/Balluffchip bore.
- All shanks hard turned (for smooth running!).
- Mating faces of the PSC internal contour machined.

Shrink-fit chucks 4° 30'

G 2.5
25000
min⁻¹

HSC

HPC

30 8559/8562/8573/8574 – With coolant channel bores and threads that can be sealed.

Application: For clamping tools with shank tolerance h6.

Optional extras:

30 8559 – Balancing screws set No. 309906 size 180.

Shrink-fit chuck extensions No. 302410 – 302416. Shrink-fitting units No. 354210 – 354400.

30 8560–8575 – Shrink-fit chuck extensions No. 302410 – 302417. Shrink-fitting units No. 354210 – 354450.

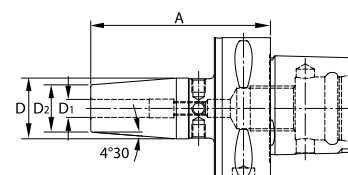
Coolant tube No. 309885; socket No. 309893 and balancing screw set No. 309906 size 180.

Note:

30 8568 Size 3; 4; 5 – No length adjustment available.



30 8568



Clamping Ø D ₁		mm	3	4	5	6	8	10	12	14	16	18	20	25	32
31A 30 8559	Shrink-fit chucks with cooling channel bore	PSC 32 short	–	–	–	eShop	eShop	eShop	eShop	–	–	–	–	–	–
31A 30 8560		PSC 40 short	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–
31A 30 8562		PSC 50 short	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
31C 30 8568	Shrink-fit chuck	PSC 63 short	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31C 30 8571		PSC 63 A = 120	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–
31C 30 8573	Shrink-fit chuck with cooling channel bore	PSC 63 short	–	–	–	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–	–
31C 30 8574		PSC 63 A = 120	–	–	–	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–	–
31C 30 8575	Shrink-fit chuck	PSC 80 short	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Dimension A (30 8559)		mm	–	–	–	65	65	70	75	–	–	–	–	–	–
Dimension A (30 8560, 30 8562)		mm	–	–	–	75	75	75	75	80	80	80	85	90	–
Dimension A (30 8568, 30 8573, 30 8575)		mm	80	80	80	80	80	80	80	85	85	85	85	90	95
Ø D (30 8559)		mm	–	–	–	27	27	32	32	–	–	–	–	–	–
Ø D		mm	17	17	17	27	27	32	32	34	34	42	42	53	53
Ø D ₂		mm	12	12	12	21	21	24	24	27	27	33	33	44	44

Precision short drill chucks with polygonal shank (PSC)

G 2.5
18000
min⁻¹

- For clockwise and anticlockwise rotation.
- Sand-blasted.

Supplied with:

30 8587 – Clamping wrench.

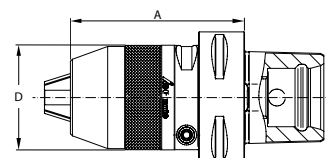
30 8595 – Torx® clamping wrench.

Optional extras: Coolant tube No. 309885; socket No. 309893.

Clamping range		mm	0,3-10	1-16
31B 30 8587	Short drill chuck	PSC 40	eShop	–
31B 30 8595		PSC 63	–	eShop
Dimension A		mm	74	93.1
Ø D		mm	36	50
Spare Torx® chuck key No. 625220			–	TX25
Spare chuck key No. 627425			4 AF	–



30 8595



Wrench for pull studs

Single-piece wrench.

Advantage: Unlike conventional clamping wrenches it cannot slip, no risk of injury!**Application:** For safe tightening of pull studs.

suitable for ISO taper size			30	40	50	
37D	30 8820	Wrench for pull studs DIN ISO 7388-1 (formerly DIN 69872)	—	eShop	eShop	
31Z	30 8825		—	eShop	eShop	
37D	30 8830	Wrench for pull studs ISO 7388	—	eShop	eShop	
31Z	30 8835		eShop	eShop	—	
Width across flats AF (30 8820, 30 8825, 30 8835)			mm	13	19	30
Width across flats AF (30 8830)			mm	—	18	30



30 8820



30 8825

See pages 1005 – 1006
for suitable pull studs.

Pull studs (PS) for tool arbors – accessories

- Application:**
- For tools with taper shanks see also **DIN 69871 and JIS B 6339** (MAS-BT).
 - In machining centres (machines **with** automatic tool changers).
 - In NC machines (machines **without** automatic tool changers).

Note: When installing the pull stud, cheque the correct tightening torque.

Pull stud

Note: ISO 7388-3 meets the old standard DIN 69872.

suitable for steep tapers				30	40	50
31Z	30 8600	 Pull stud Form A	with bore	—	eShop	eShop
31Z	30 8605	 Pull stud, 18CrNiMo7 Form A	with bore	—	eShop	eShop
32Z	30 8613	 Pull stud sealed, form A	with bore	eShop	eShop	eShop
31Z	30 8615	 Pull stud, 18CrNiMo7 sealed, form B	without bore	—	eShop	eShop
31Z	30 8620	Pull stud sealed, form B	without bore	—	eShop	eShop
32Z	30 8623	 Pull stud	with bore Ø 7 mm	—	eShop	—
32Z	30 8633	 Mori-Seiki, sealed, form A	with bore Ø 7 mm	—	eShop	—
Ø D			mm	17	23	36
Ø D ₁			mm	13	19	28
L			mm	44	54	74
L ₁ (30 8600, 30 8605, 30 8613, 30 8615, 30 8620, 30 8623)			mm	24	26	34
L ₁ (30 8633)			mm	—	29	—
M				M12	M16	M24
Angle A			degrees	15		
maximum tightening torque			Nm	20	50	150
suitable for taper arbors with colour code						

Suitable for:

30 8635 – FADAL, similar to ISO 7388, 3 mm, extended.

suitable for steep tapers				40	
32Z	30 8635	 Pull stud sealed	with bore	eShop	
Ø D				mm	22
Ø D ₁				mm	18.95
L				mm	47.5
L ₁				mm	19.25
M					M16
maximum tightening torque				Nm	50
suitable for taper arbors with colour code					

suitable for steep tapers				40	50	
31Z	30 8640		Pull stud Form B	with bore	eShop	eShop
32Z	30 8650		Pull stud sealed, form B	with bore	eShop	eShop
31Z	30 8660		Pull stud sealed	without bore	eShop	eShop
Ø D				mm	22.5	36
Ø D ₁				mm	18.95	29.1
L				mm	44.5	65.5
L ₁				mm	16.25	25.55
M					M16	M24
maximum tightening torque				Nm	50	150
suitable for taper arbors with colour code						

Pull studs - Mazak (with end face ground flat)

- End face turned flat.
- Size 50M – Not sealed.
- Size 40M; 40M7 – Sealed.

suitable for steep tapers				40M	40M7	50M	
32Z	30 8670		Pull stud Mazak, form A	with bore	eShop	eShop	eShop
Ø D				mm	21.8	21.8	35.56
Ø D ₁				mm	18.79	18.79	28.95
L				mm	41.25	41.25	65.4
L ₁				mm	16.25	16.25	25.4
M					M16	M16	M24
maximum tightening torque				Nm	50	50	150
suitable for taper arbors with colour code							
Bore Ø				mm	6	7	10

Colour code: SK 30 SK 40 SK 50

ISO
7388-3



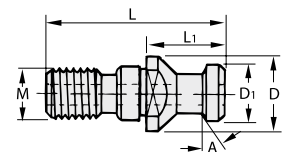
30 8600 / 8605



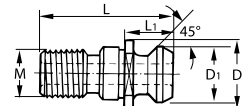
30 8613_40



30 8615 / 8620



30 8635



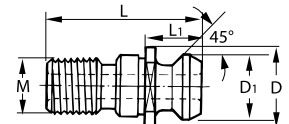
ISO
7388



30 8640



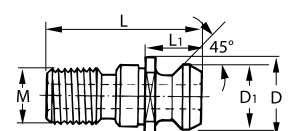
30 8660



CAT



30 8670_40M



30

HOLEX Pull studs (PS) for tool arbors – accessories

Note: When installing the pull stud, cheque the correct tightening torque.

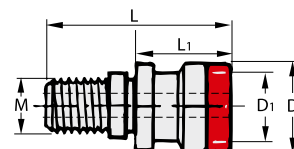
Special pull stud with snap ring groove

Application: For tools with taper shanks see also **DIN 69871 / ISO 7388-1**.

suitable for steep tapers				40	50
32Z	30 8700	Special pull stud with no internal thread sealed	without bore	eShop	–
32Z	30 8740	Special pull stud with internal thread	with bore	eShop	eShop
Ø D		mm		25.1	39.3
Ø D ₁		mm		21.1	32
L		mm		53	65
L ₁		mm		25.1	
M				M16	M24
Internal thread (30 8740)				M16	M24
Internal thread depth (30 8740)		mm		17	17.5
maximum tightening torque		Nm		50	150
suitable for taper arbors with colour code					



308700_40



308740_40

Pull studs 45°, 60°, 90°

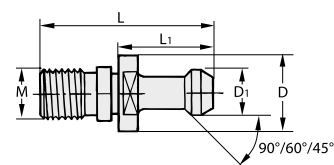
Application: For tools with taper shanks see also **JIS B 6339 (MAS-BT) / ISO 7388-2**.

MAS
403

suitable for steep tapers				30	40	50
32Z	30 8760	Pull stud 45° sealed	without bore	eShop	eShop	eShop
32Z	30 8765		with bore	eShop	eShop	eShop
32Z	30 8785	Pull stud 60° sealed	with bore	eShop	eShop	eShop
32Z	30 8790	Pull stud 90° sealed	without bore	–	eShop	eShop
32Z	30 8795		with bore	–	eShop	eShop
Ø D		mm		16.5	23	38
Ø D ₁		mm		11	15	23
L		mm		43	60	85
L ₁		mm		23	35	45
M				M12	M16	M24
maximum tightening torque		Nm		20	50	150
suitable for taper arbors with colour code						



308760_40



Application: For tools with taper shanks see also **DIN 69871 / ISO 7388-1**.

suitable for steep tapers				40
32Z	30 8801	Hurco 45° pull stud with 4-mm bore and fit sealed		eShop
32Z	30 8802	Pull stud Hurco 45° with fit sealed		eShop
32Z	30 8680	Pull stud Haas-Mikron R 3 / 45° with bore and fit sealed		eShop
32Z	30 8685	Pull stud Haas-Mikron R 3 / 45° without bore sealed		eShop
Ø D		mm		23
Ø D ₁		mm		15
L (30 8801, 30 8802)		mm		57.15
L (30 8680, 30 8685)		mm		57
L ₁		mm		32
M				M16
maximum tightening torque		Nm		50
suitable for taper arbors with colour code				



30 8803



30 8680

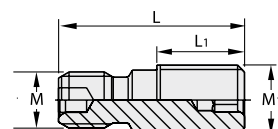
Pull studs with buttress thread S20×2

suitable for steep tapers				40
32Z	30 8800	Special pull stud S20×2		eShop
L		mm		53
L ₁		mm		25
M				M16
M ₁				S20×2
maximum tightening torque		Nm		50
suitable for taper arbors with colour code				

Colour code: SK 40 SK 50 SK 30



30 8800



FAHRION® Precision ER collets – for ER collet chucks – accessories


Through hardened and ground.

Corrosion protection: Collets fully coated with FAHRION Protect, including the functional faces.

30 8907/8917/8947/8987/8993 – Metallic sealed.

Advantage: The coating increases the service life of the collet and ensures full functionality and precision.

Note:

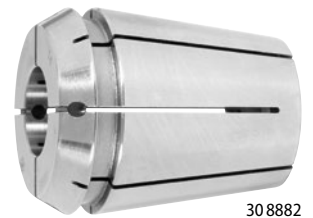
308882/308947 Size 3; 4; 5 / 308987 Gr. 3; 4; 5 / 309993 Size 6 – with rubber seal (can be used up to 60 bar).

308878–8881/8901/8911/8941/8981/8990 – The **collet clamping Ø range** is **always up to 1 mm less than nominal**, e.g. Ø 10 – 9 mm, **except for Ø 1, 1.5 and 2 (where it is only 0.5 mm).**

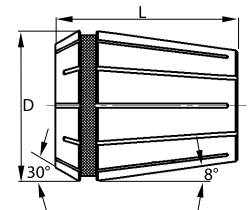
308882/8907/8917/8947/8987/8993 – With **seal** for through-coolant only the nominal size can be clamped.

Similar to ISO 15488-A.

Nominal clamping Ø d	39Y 30 8878	39Y 30 8881	39Y 30 8882	39Y 30 8901	NEW 39Y 30 8907	39Y 30 8911	NEW 39Y 30 8917
	ER collet						
mm	ER 8	ER 11	with seal ER 11	ER 16	with seal ER 16	ER 20	with seal ER 20
1	eShop	eShop	–	eShop	–	eShop	–
1,5	eShop	eShop	–	eShop	–	eShop	–
2	eShop	eShop	–	eShop	–	eShop	–
2,5	eShop	eShop	–	eShop	–	eShop	–
3	eShop	eShop	eShop	eShop	eShop	eShop	eShop
3,5	eShop	eShop	–	–	–	–	–
4	eShop	eShop	eShop	eShop	eShop	eShop	eShop
4,5	eShop	eShop	–	–	–	–	–
5	eShop	eShop	eShop	eShop	eShop	eShop	(eShop)
5,5	–	eShop	–	–	–	–	–
6	–	eShop	eShop	eShop	eShop	eShop	eShop
6,5	–	eShop	–	–	–	–	–
7	–	eShop	–	eShop	eShop	eShop	(eShop)
8	–	–	–	eShop	eShop	eShop	eShop
9	–	–	–	eShop	eShop	eShop	(eShop)
10	–	–	–	eShop	eShop	eShop	eShop
11	–	–	–	–	–	eShop	(eShop)
12	–	–	–	–	–	eShop	eShop
13	–	–	–	–	–	eShop	–
Type	4004 E	4008 E	4012 E	426 E	425 E	428 E	427 E
Ø D mm	8.5	11.3	11.2	17	16.7	21	20.7
L mm	13.6	18	18	27.5	27.5	31.5	31.5



30 8882



Nominal clamping Ø d	39Y 30 8941	NEW 39Y 30 8947	39Y 30 8981	NEW 39Y 30 8987	39Y 30 8990	NEW 39Y 30 8993
	ER collet					
mm	ER 25	with seal ER 25	ER 32	with seal ER 32	ER 40	with seal ER 40
2	eShop	–	–	–	–	–
2,5	eShop	–	–	–	–	–
3	eShop	eShop	eShop	eShop	–	–
4	eShop	eShop	eShop	eShop	eShop	–
5	eShop	eShop	eShop	eShop	eShop	–
6	eShop	eShop	eShop	eShop	eShop	eShop
7	eShop	eShop	eShop	eShop	eShop	–
8	eShop	eShop	eShop	eShop	eShop	eShop
9	eShop	eShop	eShop	eShop	eShop	–
10	eShop	eShop	eShop	eShop	eShop	eShop
11	eShop	eShop	eShop	eShop	eShop	–
12	eShop	eShop	eShop	eShop	eShop	eShop
13	eShop	eShop	eShop	eShop	eShop	–
14	eShop	eShop	eShop	eShop	eShop	eShop
15	eShop	eShop	eShop	(eShop)	eShop	–
16	eShop	eShop	eShop	eShop	eShop	eShop
17	–	–	eShop	(eShop)	eShop	–
18	–	–	eShop	eShop	eShop	eShop
19	–	–	eShop	eShop	eShop	–
20	–	–	eShop	eShop	eShop	eShop
21	–	–	–	–	eShop	–
22	–	–	–	–	eShop	eShop
23	–	–	–	–	eShop	–
24	–	–	–	–	eShop	–
25	–	–	–	–	eShop	eShop
26	–	–	–	–	eShop	–
Type	430 E	429 E	470 E	469 E	472 E	471 E
Ø D mm	26	25.7	33	32.7	41	40.7
L mm	34	34	40	40	46	46

ISO
15488-B



30 8981

ISO
15488-A



30 8987



30

Recommended tightening torque (MA) ER collets



Type	Shank Ø [mm]	MA [Nm]	Shank Ø [mm]	MA [Nm]	Shank Ø [mm]	MA [Nm]	Shank Ø [mm]	MA [Nm]
ER 11	1.0 - 2.5	7	3.0 - 7.0	10	—	—	—	—
ER 16	1.0	10	1.5 - 3.5	25 - 30	4.0 - 10.0	50 - 55	—	—
ER 20	1.0 - 3.0	15 - 20	3.0 - 5.5	30 - 35	6.0 - 9.0	50 - 55	9.5 - 13.0	70 - 75
ER 25	1.0 - 3.0	25 - 30	3.5 - 6.5	35 - 40	7.0 - 10.0	55 - 60	10.5 - 16.0	80 - 90
ER 32	2.0 - 3.0	30 - 35	3.5 - 6.5	55 - 60	7.0 - 15.5	110 - 120	16.0 - 20.0	130 - 140
ER 40	3.0 - 7.0	60 - 70	8.0 - 11.0	100 - 110	12.0 - 17.0	140 - 150	18.0 - 26.0	190 - 200

30 9017 – Metallic sealed.

Supplied with:

30 9013 Size ER8; ER11 – In a wooden box, 0.5 mm increments.

30 9013 Size ER16–ER32 – In a wooden box, 1 mm increments.



30 9013



30 9017_ER32

Collet size		ER8	ER11	ER16	ER20	ER25	ER32	ER40
30 9013	ER collet set	eShop	eShop	eShop	eShop	eShop	eShop	eShop
30 9017	ER collet set with seal	—	—	eShop	eShop	eShop	eShop	—
sizes included (30 9013)	mm	1 – 5	1 – 7	1 – 10	2 – 13	2 – 16	3 – 20	4 – 26
sizes included (30 9017)	mm	—	—	3; 4; 5; 6; 8; 10	3; 4; 5; 6; 8; 10; 12	6; 8; 10; 12; 14; 16	6; 8; 10; 12; 14; 16; 20	—



ER collets – for ER collet chucks – accessories

Through hardened and ground. Polished.

30 8924/8964/9004 – Sealed versions with spray nozzles only for nominal Ø.

Note:

30 8913 – The collet clamping Ø range is always up to 0.5 mm less than nominal.

30 8923/8933/8963/9003/9043 – The **collet clamping Ø range** is **always up to 1 mm less than nominal**, e.g. Ø 10 – 9 mm, **except for Ø 1, 1.5 and 2 (where it is only 0.5 mm)**.

30 8923/8963/9003 – Collets ER16, ER25 and ER32 without a seal also available in inch sizes via the eShop.

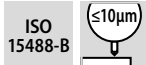


30 8924



30 9003

Nominal clamping Ø d	30 8913	30 8923	30 8924	30 8933	30 8963	30 8964	30 9003	30 9004	30 9043
	ER collet								
	ER 11	ER 16	with seal and spray nozzles ER 16	ER 20	ER 25	with seal and spray nozzles ER 25	ER 32	with seal and spray nozzles ER 32	ER 40
1	eShop	eShop	—	eShop	—	—	—	—	—
2	eShop	eShop	—	eShop	eShop	—	—	—	—
3	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	—
4	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
5	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
6	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
7	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
8	—	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
9	—	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
10	—	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
11	—	—	—	eShop	eShop	eShop	eShop	eShop	eShop
12	—	—	—	eShop	eShop	eShop	eShop	eShop	eShop
13	—	—	—	eShop	eShop	eShop	eShop	eShop	eShop
14	—	—	—	—	eShop	eShop	eShop	eShop	eShop
15	—	—	—	—	eShop	eShop	eShop	eShop	eShop
16	—	—	—	—	eShop	eShop	eShop	eShop	eShop
17	—	—	—	—	—	—	eShop	eShop	eShop
18	—	—	—	—	—	—	eShop	eShop	eShop
19	—	—	—	—	—	—	eShop	eShop	eShop
20	—	—	—	—	—	—	eShop	eShop	eShop
21	—	—	—	—	—	—	—	—	eShop
22	—	—	—	—	—	—	—	—	eShop
23	—	—	—	—	—	—	—	—	eShop
24	—	—	—	—	—	—	—	—	eShop
25	—	—	—	—	—	—	—	—	eShop
26	—	—	—	—	—	—	—	—	eShop
Type	4008 E	426 E	425 E	428 E	430 E	430 E	470 E	469 E	472 E
Ø D mm	11.3	17	16.7	21	26	25.7	33	32.7	41
L mm	18	27.5	27.5	31.5	34	34	40	40	46



HOLEX ER collet set

Through hardened and ground. Polished.

30 9166 – Form A. Sealed versions with spray nozzles only for nominal Ø.

Size ER16 – Ø 1 mm and 2 mm are without spray nozzles and are not sealed.

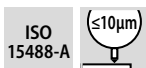
Size ER25 – Ø 2 mm without spray nozzles and not sealed.

Supplied with: In a case with rigid foam inlay, 1 mm increments.



30 9161

Collet size		ER11	ER16	ER20	ER25	ER32	ER40
32Z 30 9161	ER collet set	eShop	eShop	eShop	eShop	eShop	eShop
32Z 30 9166	ER collet set with seal and spray nozzles	–	eShop	–	eShop	eShop	–
sizes included	mm	1 – 7	1 – 10	2 – 13	2 – 16	3 – 20	4 – 26



HOLEX ER collets, sealed - for ER collet chucks

Ø 2 mm without seal.

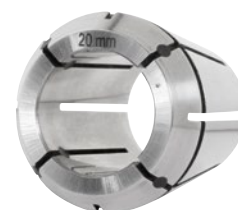
30 9164 – Ø 1 mm and 2 mm are without seal.

30 9244 – Ø 2 mm without seal.

Supplied with:

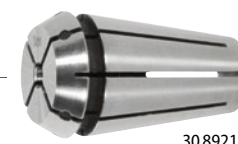
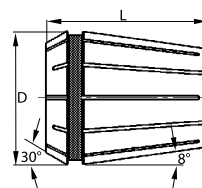
30 9164–9284 – In a case with rigid foam inlay, 1 mm increments.

Collets ER16, ER25 and ER32 with seal also available in inch sizes via the eShop.



Sealed variant, no sealing washer necessary.

Nominal clamping Ø d	32Z 30 8921	32Z 30 8959	32Z 30 9001
	ER16	ER25 with seal	ER32
mm			
3	eShop	eShop	eShop
4	eShop	eShop	eShop
5	eShop	eShop	eShop
6	eShop	eShop	eShop
7	eShop	eShop	eShop
8	eShop	eShop	eShop
9	eShop	eShop	eShop
10	eShop	eShop	eShop
11	–	eShop	eShop
12	–	eShop	eShop
13	–	eShop	eShop
14	–	eShop	eShop
15	–	eShop	eShop
16	–	eShop	eShop
17	–	–	eShop
18	–	–	eShop
19	–	–	eShop
20	–	–	eShop
Type	425 E	429 E	469 E
Ø D mm	17	26	33
L mm	27.5	34	40



30 8921



30 9001

32Z 30 9164	32Z 30 9244	32Z 30 9284
ER collet set 10 pieces 1–10 mm	ER collet set 15 pieces 2–16 mm	ER collet set 18 pieces 3–20 mm
ER16 eShop	with seal ER25 eShop	ER32 eShop



30 9164



30



ISO
15488-A

ISO
15488-B

FAHRION® HP precision ER collets for CENTRO P – accessories

System concentricity and repetition accuracy **3 µm** (3×D, maximum = 50 mm), in conjunction with FAHRION CENTRO P chucks.

Corrosion protection: Collets fully coated with FAHRION Protect, including the functional faces.

Suitable for: Precision ER collet chuck CENTRO P.

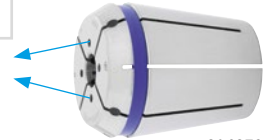
Advantage: The coating increases the service life of the collet and ensures full functionality and precision.

Note: ■ Optimum concentricity only when used in CENTRO P chucks.

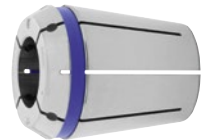
■ Clamping range h10 (nominal size only).

309369/9371/9374/9377 – With **seal** for through-coolant feed (for use up to 60 bar). **Similar to ISO 15488-A**.

309372/9375/9378 – With **seal** for through-coolant feed (for use up to 60 bar) and **spray nozzles**. **Similar to ISO 15488-A**.



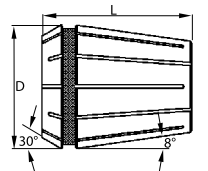
309378



309377



309376



309365



309365

High concentricity and repetition accuracy due to optimum design.



309396

Nominal clamping Ø d	39Y 30 9365	39Y 30 9368	33F 30 9369	39Y 30 9370	33F 30 9371	33F 30 9372	39Y 30 9373	33F 30 9374	33F 30 9375
	ER collet HP								
			with seal		with seal	with seal and spray nozzles		with seal	with seal and spray nozzles
mm	ER 8	ER 11	ER 11	ER 16	ER 16	ER 16	ER 25	ER 25	ER 25
1	eShop	eShop	—	eShop	—	—	—	—	—
2	eShop	eShop	—	eShop	—	—	eShop	—	—
3	eShop	eShop	eShop	eShop	eShop	—	eShop	eShop	—
4	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
5	eShop	eShop	eShop	eShop	eShop	—	eShop	eShop	—
6	—	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
7	—	eShop	—	eShop	eShop	—	eShop	(eShop)	—
8	—	—	—	eShop	eShop	eShop	eShop	eShop	eShop
9	—	—	—	eShop	eShop	—	eShop	eShop	—
10	—	—	—	eShop	eShop	—	eShop	eShop	eShop
11	—	—	—	—	—	—	eShop	(eShop)	—
12	—	—	—	—	—	—	eShop	eShop	eShop
13	—	—	—	—	—	—	(eShop)	(eShop)	—
14	—	—	—	—	—	—	eShop	eShop	(eShop)
15	—	—	—	—	—	—	eShop	(eShop)	—
16	—	—	—	—	—	—	eShop	eShop	—
Type	4004 E	4008 E	4012 E	426 E	425 E	425 E	430 E	429 E	429 E
Ø D mm	8.5	11.5	11.2	17	16.7	16.7	26	25.7	25.7
L mm	13.6	18	18	27.5	27.5	27.5	34	34	34

Nominal clamping Ø d	39Y 30 9376	33F 30 9377	33F 30 9378	39Y 30 9379
	ER collet HP			
		with seal	with seal and spray nozzles	
mm	ER 32	ER 32	ER 32	ER 40
2	eShop	—	—	—
3	eShop	eShop	—	eShop
4	eShop	eShop	eShop	(eShop)
5	eShop	eShop	—	(eShop)
6	eShop	eShop	eShop	(eShop)
7	(eShop)	eShop	—	(eShop)
8	eShop	eShop	eShop	(eShop)
9	eShop	eShop	—	(eShop)
10	eShop	eShop	eShop	eShop
11	eShop	eShop	—	(eShop)
12	eShop	eShop	eShop	(eShop)
13	(eShop)	(eShop)	—	(eShop)
14	eShop	eShop	eShop	(eShop)
15	(eShop)	(eShop)	—	(eShop)
16	eShop	eShop	eShop	eShop
17	(eShop)	(eShop)	—	(eShop)
18	eShop	eShop	eShop	(eShop)
19	(eShop)	eShop	—	(eShop)
20	eShop	eShop	eShop	eShop
21	—	—	—	(eShop)
22	—	—	—	(eShop)
23	—	—	—	(eShop)
24	—	—	—	(eShop)
25	—	—	—	eShop
26	—	—	—	(eShop)
Type	470 E	469 E	469 E	472 E
Ø D mm	33	32.7	32.7	41
L mm	40	40	40	46

39Y 30 9390	33F 30 9391	39Y 30 9393	33F 30 9394	39Y 30 9396	33F 30 9397
ER collet set HP					
(3; 4; 5; 6; 8; 10mm), 426 E	with seal (3; 4; 5; 6; 8; 10mm), 425 E	(4; 6; 8; 10; 12; 14; 16mm) 430 E	with seal (4; 6; 8; 10; 12; 14; 16mm) 429 E	(4; 6; 8; 10; 12; 14; 16; 20mm), 470 E	with seal (4; 6; 8; 10; 12; 14; 16; 20mm), 469 E
ER 16	ER 16	ER 25	ER 25	ER 32	ER 32
(eShop)	eShop	(eShop)	eShop	(eShop)	eShop

ISO
15488-B

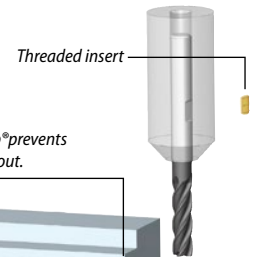
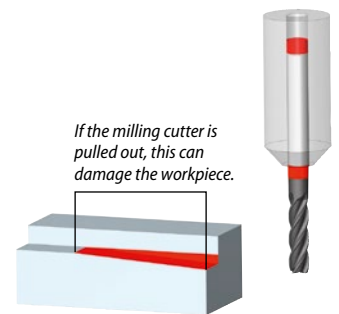
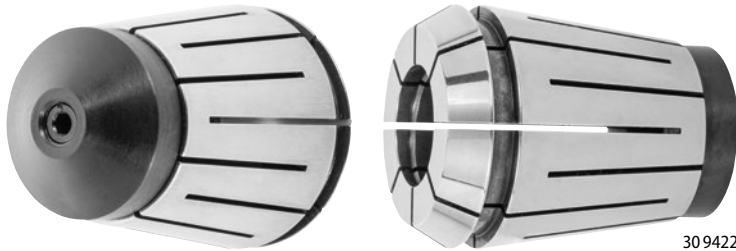
REGO-FIX▲ secuRgrip® ER collet system with pull-out protection

Collets with secuRgrip® have a contour similar to the thread in the clamping bore. By inserting the threaded insert into the ground HB flat (Weldon) of the milling cutter, the combination of milling cutter + threaded insert can be screwed in the collet, thus preventing the tool pulling out.

- Advantage:**
- Process reliability when working – 100% pull-out protection for the tools.
 - Longer tool life times.
 - Vibration-damping effect of the collet.
 - Complete flexibility due to the ER collet system.
 - User-friendly handling – no need to modify the collet chuck.

Application: The secuRgrip® system transforms a conventional collet chuck into a chuck with pull-out protection, whilst retaining the advantages of the flexible ER collet system.

Note: Only clamps the nominal diameter. Ensure correct seating in the collet chuck: if used, for example, in ultra-short collet chucks, remove the length compensation disc on the underside of the collet if necessary.



secuRgrip® prevents tool pull-out.

Process reliability thanks to REGO-FIX secuRgrip®.

secuRgrip® ER collet with pull-out protection

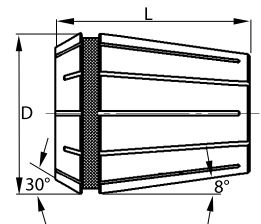
Through hardened and ground.
The length can be roughly pre-set using an integrated screw at the bottom of the collet.

Suitable for: All carbide milling cutters with standard Weldon flat.

Application: First, click the collet into the clamping nut. Then screw in the milling cutter to the desired length (if not already done: the length adjustment screw must lightly lie against the milling cutter).

Optional extras: Threaded insert No. 309426.

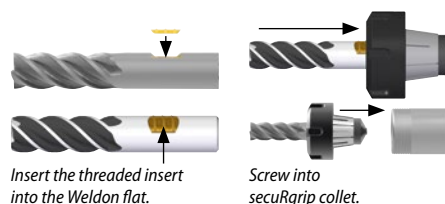
Clamping Ø d	mm	10	12	16	20	25	Ø D mm	L mm
33B 30 9422	ER 32 collet secuRgrip pull-out protection	eShop	eShop	eShop	–	–	33	50.4
33B 30 9423	ER 40 collet secuRgrip pull-out protection	–	–	eShop	eShop	eShop	41	57.5



Threaded insert for secuRgrip® collet

Threaded insert made of metal, TiN-coated.

Suitable for: ER collet secuRgrip® No. 309422 and 309423.



30

for clamping dia. d	mm	10	12	16	20	25
33B 30 9426	Threaded insert for ER collet secuRgrip pull-out protection	eShop	eShop	eShop	eShop	eShop

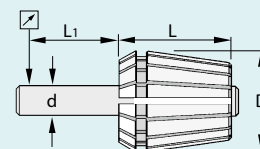
ER collets – Quality features

DIN
6499 B

d mm		L ₁ mm	DIN classes		HOLEX	FAHRION quality	
via	to		2	1		Standard	HP
1.0	1.6	6	0.015	0.010	0.010	0.005	0.002
1.6	3.0	10					
3.0	7.0	16					
7.0	10.0	25					
10.0	18.0	40	0.020	0.015	0.010	0.012	—
18.0	25.0	50					
25.0	34.0	60	0.025	0.020	0.010	0.012	—

Advantage „super finish“ and polished:

- Better corrosion resistance.
- More contact area.
- Increased rigidity and clamping force.
- Higher precision and system concentricity.
- FAHRION with corrosion protection FAHRION protect for all types.



Standard collets for tapping – with axial compensation

Collet for thread tapping, similar to DIN 6499 / ISO 15488, Form CET-GB, concentricity 20 µm.

Suitable for: All standard ER collet chucks.

30 9425

Note: Clamps only the nominal Ø. **Not compatible with the CENTRO P precision ER collet chuck.**

Nominal clamping Ø d		34F	30 9425	34F	30 9430	34F	30 9432
		ET collet for thread tapping, with axial compensation					
mm		ET 16		ET 25		ET 32	
2,8		(eShop)		(eShop)		—	
3,5		eShop		eShop		—	
4,5		eShop		eShop		(eShop)	
6		(eShop)		eShop		(eShop)	
7		—		eShop		eShop	
8		—		eShop		(eShop)	
9		—		eShop		(eShop)	
10		—		(eShop)		eShop	
11		—		—		eShop	
12		—		—		eShop	
Type		4033 E		4285 E		4538 E	
Ø D	mm	17		26		33	
L	mm	27		34		43	
Axial range	mm	7		8		10	

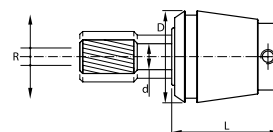


Standard collet for tapping and reaming – with radial compensation

Hardened and ground.

Suitable for: All standard ER collet chucks.**Note:** Clamps only the nominal Ø. **Not compatible with the CENTRO P precision ER collet chuck.**

30 9447



Nominal clamping Ø d		32Z	30 9445	32Z	30 9447	32Z	30 9448
		ET collet with radial compensation for tapping and reaming					
mm		ET 16		ET 25		ET 32	
2		eShop		—		—	
2,8		eShop		—		—	
3		eShop		eShop		—	
3,5		eShop		eShop		—	
4		eShop		eShop		eShop	
4,5		eShop		eShop		eShop	
5		eShop		eShop		eShop	
6		eShop		eShop		eShop	
7		—		eShop		eShop	
8		—		eShop		eShop	
9		—		eShop		eShop	
10		—		eShop		eShop	
11		—		—		eShop	
12		—		—		eShop	
14		—		—		eShop	
Ø D	mm	17		26		33	
L	mm	29		35		42.5	
Axial compensation	mm	0.1		0.1		0.1	
Radial compensation R thread tapping	mm	0.3		0.4		0.5	
Radial compensation R reaming	mm	0.05		0.05		0.1	



ER collets for thread tapping – with square socket drive

With square socket drive for positive engagement of the tap.

30 9402/9404/9406/9409/9413/9414/9418/9419 – **FAHRION® corrosion protection:**

- Collet completely coated, including the mating faces.
- This increases the service life of the collet and ensures full functionality and precision.

30 9402/9406/9409/9414 – With sealing plugs for through coolant supply (up to 60 bar!).

30 9399/9407/9421/9427 – With sealing plugs for through coolant supply (up to 70 bar!).

30 9419 – With sealing plugs for through coolant supply (up to 100 bar!).

30 9404/9413/9418 – With sealing plugs for through coolant supply (up to 60 bar!) and spray nozzles.

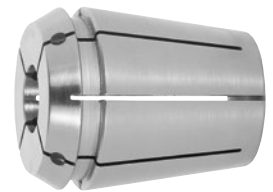
Suitable for: All standard ER collet chucks, FAHRION collets also for the Centro P precision ER collet chuck.

Note:

30 9399/9407/9421/9427 – **HOLEX® ER collets are incompatible with Centro P and HiRunER collet chucks.**

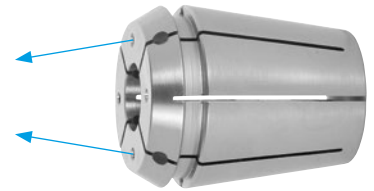
30 9399 Size 2,5; 2,8 – Without seal.

30 9402–9406/9409–9419 – **FAHRION®** collets similar to ISO 15488-A.



FAHRION®

30 9414



FAHRION®

30 9418



HOLEX®

30 9407

Nominal clamping Ø d		mm	2,5	2,8	3,5	4	4,5	6	7	8	9	10	Type	Ø D mm	L mm
32Z	30 9399	HOLEX®	ER collet for machine taps		ER11	eShop	eShop	eShop	eShop	eShop	eShop	eShop	4031 E	11.3	18
39Y	30 9402	FAHRION®	ER collet for machine taps with seal		ER 16	–	eShop	eShop	eShop	eShop	eShop	eShop	4031 E	16.7	27.5
32Z	30 9407	HOLEX®			ER 16	–	eShop	eShop	eShop	eShop	eShop	eShop	4031 E	16.7	27.5
39Y	30 9406	FAHRION®			ER 20	–	–	eShop	eShop	eShop	eShop	eShop	4276 E	20.7	31.5
39Y	30 9409	FAHRION®			ER 25	–	–	–	–	eShop	eShop	eShop	4282 E	25.7	34
32Z	30 9421	HOLEX®			ER 25	–	–	–	–	eShop	eShop	eShop	4282 E	25.7	34
39Y	30 9414	FAHRION®			ER 32	–	–	–	–	eShop	eShop	eShop	4537 E	32.7	40
32Z	30 9427	HOLEX®			ER 32	–	–	–	–	eShop	eShop	eShop	4537 E	32.7	40
39Y	30 9419	FAHRION®			ER 40	–	–	–	–	eShop	eShop	eShop	4716 E	40.7	46
39Y	30 9404	FAHRION®			ER 16	–	–	eShop	–	eShop	eShop	eShop	4031 E	16.7	27.5
39Y	30 9413	FAHRION®			ER 25	–	–	–	–	eShop	eShop	eShop	4282 E	25.7	34
39Y	30 9418	FAHRION®			ER 32	–	–	–	–	eShop	eShop	eShop	4537 E	32.7	40

Nominal clamping Ø d			mm	11	12	14	16	18	20	22	25	Type	Ø D mm	L mm	
39Y	30 9409		ER collet for machine taps with seal	ER 25	eShop	eShop	eShop	eShop	–	–	–	–	4282 E	25.7	34
32Z	30 9421			ER 25	eShop	eShop	eShop	eShop	–	–	–	–	4282 E	25.7	34
39Y	30 9414			ER 32	eShop	eShop	eShop	eShop	eShop	eShop	–	–	4537 E	32.7	40
32Z	30 9427			ER 32	eShop	eShop	eShop	eShop	eShop	eShop	–	–	4537 E	32.7	40
39Y	30 9419			ER 40	eShop	eShop	eShop	eShop	eShop	eShop	eShop	4716 E	40.7	46	
39Y	30 9413		ER collet for machine taps with seal and spray nozzles	ER 25	eShop	eShop	eShop	–	–	–	–	–	4282 E	25.7	34
39Y	30 9418			ER 32	eShop	eShop	eShop	eShop	eShop	eShop	–	–	4537 E	32.7	40



30

HOLEX ER collets for thread tapping – with quick-release chuck

- The tap is clamping by a recirculating ball clamping mechanism.
- Integral quick-change device.
- Collets for thread tapping, similar to DIN 6499 / ISO 15488.

Suitable for: All standard ER collet chucks.

Advantage: Quick locking/unlocking by spring mechanism.
No screw clamping required on the square drive flats of the tap.

Note: Clamps only the nominal $\varnothing$.
Not compatible with the CENTRO P precision ER collet chuck.



30 9457

Nominal clamping $\varnothing$ d	mm	3,5	4	4,5	6	7	8	9	10	11	12	14	$\varnothing$ D mm	L mm
32Z 30 9455	ER 16	eShop	eShop	eShop	eShop	–	–	–	–	–	–	–	16	32.5
32Z 30 9457	ER 25	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–	–	25	40
32Z 30 9458	ER 32	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	32	49

Collets, extra slim (micro-machining, for toolmaking and mould-making)

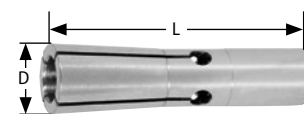
Through hardened and ground. Extremely slim design. The collet is drawn into the taper seating by a **threaded connection** from behind through the chuck. **Reduced distortion** due to elimination of the clamping nut.

30 9572 – With special coating for higher holding torque.

Suitable for:

30 9563 – Extra-slim collet chucks No. 300782; 300784; 304972; 304974.

30 9572 – Extra-slim collet chucks No. 300772; 304981; 304982; 309571.



30 9563



30 9572

Nominal clamping $\varnothing$ d	mm	1	2	3	4	5	6	$\varnothing$ D mm	L mm
31A 30 9563	Garant Extra slim collet	–	eShop	eShop	eShop	eShop	eShop	9.6	36
34F 30 9572	ALBRECHT Extra slim collet Through-coolant	eShop	eShop	eShop	eShop	eShop	eShop	10.1	50

ALBRECHT ER collet adaptor/extra slim collet

Through hardened, ground and pre-balanced.

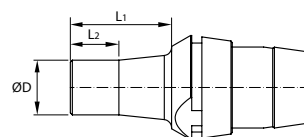
Adaption of standard ER collets to extra slim collets No. 309572 and 309573.

Advantage: **Reduced interference contours** permit machining even where access to the component is difficult. Coolant transfer by the tool or along the shank.

Application: For use on lathes with static or driven tools, and also on ER collet chucks.



30 9571



for ER collet		25	32	$\varnothing$ D mm	L ₁ mm
34F 30 9571	ER adapter / extra-slim collet	eShop	eShop	13.5	25
L ₂	mm	12			

Collet for heavy-duty chuck

Cylindrical collet or reducing adapter.

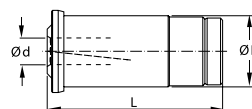
30 9566/9570 – For **Holex** heavy-duty chucks No. 300775, 300778, 302865, 302870, 305525, 305528.
With length adjustment.

30 9575/9576 – For **NT** heavy-duty chucks No. 300785, 300787, 302861, 302862, 305535, 305538.

Sealed system, suitable for internal coolant feed.



30 9566

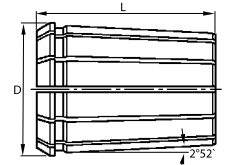
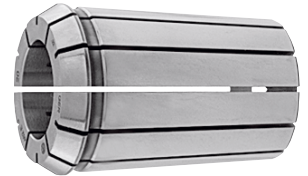
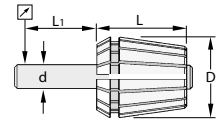


Nominal clamping $\varnothing$ d	mm	6	8	10	12	14	16	18	20	25
33K 30 9575	$\varnothing$ 20 mm	eShop	eShop	eShop	eShop	–	eShop	–	–	–
33K 30 9576	$\varnothing$ 32 mm	eShop	eShop	eShop	eShop	–	eShop	–	eShop	eShop
32A 30 9566	$\varnothing$ 20 mm	eShop	eShop	eShop	eShop	eShop	eShop	–	–	–
32A 30 9570	$\varnothing$ 32 mm	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop

ISO
10897**FAHRION® OZ collets – accessories**

Spring steel, through hardened and ground. The through bore (longer clamping range than DIN collets) increases the clamping force. More slits than DIN collets, giving a greater insertion depth in the collet chuck. Suitable for jobber drills, for clamping on the guide land **Clamping range = Nominal size down to minus 0.5 mm**. 5 or 6 slits each end.

Nominal clamping Ø d	39Y	30 9540	39Y	30 9550	39Y	30 9560
mm		2 - 16 mm		OZ collet for chuck 2 - 25 mm		4 - 32 mm
4		eShop		eShop		—
5		eShop		eShop		—
6		eShop		eShop		—
7		eShop		eShop		—
8		eShop		eShop		—
9		eShop		eShop		—
10		eShop		eShop		eShop
11		(eShop)		eShop		—
12		eShop		eShop		eShop
13		(eShop)		eShop		—
14		eShop		eShop		eShop
15		eShop		eShop		—
16		eShop		eShop		eShop
17		—		eShop		—
18		—		eShop		eShop
19		—		eShop		—
20		—		eShop		eShop
21		—		eShop		—
22		—		eShop		eShop
23		—		eShop		—
24		—		eShop		—
25		—		eShop		eShop
28		—		—		—
30		—		—		eShop
32		—		—		eShop
Type		415 E		462 E		467 E
Ø D	mm	25.5		35.05		43.7
L	mm	40		52		60



30 9562

OZ collet set for OZ collet chucks

Supplied with: OZ collets (No. 309550) Ø 5–16 mm (in 1 mm increments) and Ø 18, 20, and 25 mm, in a wooden box.

39Z	30 9562	OZ collet set type 462 E 15 pieces, for chucks 5–25 mm	eShop
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ALBRECHT
Präzisions Spannfutter**Balancing screws set**

Application: For manual (re-)balancing. 9 different sizes in fine increments, colour-coded. Suitable for all type of chuck with tapped hole for balancing screws.

Supplied with: 20 pieces each of 9 screw sizes, screwdriver for Torx® TX15.

Number of screws		180
34F	30 9906	Balancing screws set
Thread size		M6



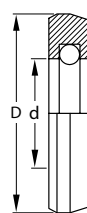
30 9906

REGO-FIX▲ Sealing rings for ER clamping nuts

Suitable for: ER clamping nuts No. 309616; 309621.

Note:

- Clamping range = nominal size – 0.5 mm.
- Clamping Ø in 1 mm increments
- Please specify required clamping Ø with order.
- Suitable for up to 80 bar.
- Installation situation: Labelling on the inner face of clamping nuts.



30 9628



30 9628_SATZ

Clamping Ø d	mm	3...10	11...16	17...20	21...26	SATZ	Set contents	Ø D mm
39Z	30 9622	ER 16	eShop	—	—	eShop	7	13
39Z	30 9624	ER 25	eShop	eShop	—	eShop	13	21
39Z	30 9628	ER 32	eShop	eShop	eShop	eShop	17	27
39Z	30 9632	ER 40	eShop	eShop	eShop	eShop	23	33.5

Sealing ring for ER clamping nuts

Accessories for toolholders – clamping nuts

ER clamping nuts

DIN
6499 D

Thread and taper ground in a single setup for highest concentricity.

30 9595 Size 11 – **With hexagon** 17 AF.

30 9612 – With plain bearings, delivering lower friction and higher clamping force.

30 9617 – Surface smoothly coated, ball-bearing mounted. Low coefficient of friction, high clamping forces.

30 9618 – Slim, symmetrical design.

30 9619 – 6 screws allow the radial run-out to be reduced to zero.

30 9621 – Internal clamping nut with an external thread.

30 9585/9595/9616/9621 Size 16; 20 – **With hexagon** 25 AF.

30 9585/9595/9612/9616/9617/9621 Size 25–40 – **With slots**.

30 9595/9616 – Nut coated for: lower friction and **increased clamping force** coupled with high wear resistance and corrosion resistance.

Suitable for:

30 9617 – HiRunER precision ER collet chuck No. 300642; 300643; 300647; 302839; 302843; 302844; 305523; 305524; 305532.

30 9618 – HiRunER mini precision ER collet chuck. No. 300643 11M, 16M; 302839 11M, 16M; 302844 11M, 16M; 305518 11M, 16M; 305524 11M, 16M; 305527 11M, 16M.

30 9619 – Ideally suitable for lathes, both for stationary and driven tools.

30 9621 – ER collet chucks with internal thread.

30 9585–9616/9619 – All standard ER collet chucks.

Optional extras:

30 9617 – Hook wrench No. 628400, or torque wrench No. 309749 or No. 628520.

30 9618 – ER chuck key No. 309757; 309758.

30 9621 – Single open ended spanner (for size 16), No. 613300 size 25.

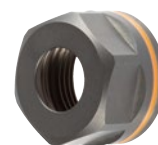
30 9585–9616/9619 – ER clamping wrenches, No. 309680 – 309740.

Single open ended spanner (for size 16), No. 613300 size 25.

30 9616/9621 – Sealing rings No. 309622; 309624; 309628; 309632.

Note: Collet chuck and clamping nut are balanced separately!

30 9619 – Up to 6000 rpm.

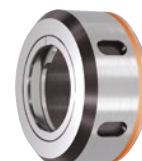
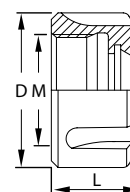


30 9595_11-20



30 9595_25-40

G 2.5
25000
min⁻¹



30 9612



30 9617

G 6.3
15000
min⁻¹



30 9585_25-40



30 9585_16-20



30 9619



30 9618



30 9616



30 9621_25

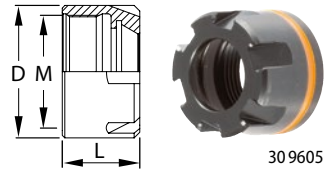
for ER			11	16	20	25	32	40	11M	16M	
32Z	30 9585	 ER clamping nut	–	eShop	eShop	eShop	eShop	eShop	–	–	
31Z	30 9595	 ER clamping nut High Speed	eShop	eShop	eShop	eShop	eShop	eShop	–	–	
31Z	30 9612	ER plain bearing clamping nut	–	eShop	–	eShop	eShop	eShop	–	–	
39Z	30 9616	 ER clamping nut for sealing rings	–	eShop	eShop	eShop	eShop	eShop	–	–	
31Z	30 9617	 ER clamping nut for HiRunER collet chucks	–	eShop	eShop	eShop	eShop	eShop	–	–	
31Z	30 9618	ER mini mono-nut for HiRunER mini collet chuck	–	–	–	–	–	–	eShop	eShop	
33E	30 9619	 ER clamping nut with radial run-out adjustment	–	eShop	–	eShop	eShop	eShop	–	–	
31Z	30 9621	 ER clamping nut Internal	–	eShop	–	eShop	eShop	eShop	–	–	
L (30 9585, 30 9595, 30 9618)			mm	12	18	19.5	21	23	26	19.1	21.6
L (30 9612)			mm	–	18	–	20.5	23	26	–	–
L (30 9616)			mm	–	22.5	19.5	25	27.5	30.5	–	–
L (30 9617)			mm	–	20.6	22.6	24	26	29	–	–
L (30 9619)			mm	–	21	–	21.8	23	27.5	–	–
L (30 9621)			mm	–	11	–	14.5	17.5	20	–	–
Ø D (30 9585, 30 9595, 30 9616, 30 9618)			mm	19	28	34	42	50	63	16	24
Ø D (30 9612)			mm	–	32	–	42	50	63	–	–
Ø D (30 9617)			mm	–	33.5	38	44	51.8	61.9	–	–
Ø D (30 9619)			mm	–	34	–	50	63	78	–	–
Ø D (30 9621)			mm	–	24	–	32	40	50	–	–
Thread (30 9585, 30 9595, 30 9616, 30 9618)				M14x0.75	M22x1.5	M25x1.5	M32x1.5	M40x1.5	M50x1.5	M20x1	M24x0.75
Thread (30 9612, 30 9619)				–	M22x1.5	–	M32x1.5	M40x1.5	M50x1.5	–	–
Thread (30 9617)				–	M24x1	M28x1	M34x1.5	M42x1	M52x1	–	–
Thread (30 9621)				–	M24x1	–	M32x1.5	M40x1.5	M50x1.5	–	–
maximum tightening torque (30 9585, 30 9595, 30 9612, 30 9618)			Nm	40	80	110	140	180	240	20	30
maximum tightening torque (30 9616)			Nm	–	80	100	140	180	240	–	–
maximum tightening torque (30 9617)			Nm	–	54	80	101	136	169	–	–
maximum tightening torque (30 9621)			Nm	–	40	–	55	70	120	–	–

Clamping nuts Mini - for ER collet chucks

DIN 6499	G 2.5 25000 min ⁻¹	HSC
-------------	-------------------------------------	-----

Small external dimensions, case-hardened and ground on all faces.

Suitable for: **ER collet chuck Mini** No. 300650; 300652; 300665; 300685; 305710; 305712; 305715; 300649; 300651; 300661; 300684; 300667; 300669; 305707; 305709; 305717; 305721; 305723.



for ER		8	11	16	20	25
31Z 30 9605	Garant ER Mini clamping nut	eShop	eShop	eShop	eShop	eShop
L	mm	11	12	18	19.5	21
Ø D	mm	12	16	22	28	35
Thread		M10×0.75	M13×0.75	M19×1	M24×1	M30×1
maximum tightening torque	Nm	12	25	35	40	45

FAHRION® Accessories for CENTRO P – ER clamping nut and sealing ring

Mini = all sizes with “M”, extremely slim design.

MiniSlim = sizes with “MS”, extremely super slim design.

Taper = all sizes with “C”.

Standard = all other sizes.

Note: **FAHRION system** ER clamping nuts type CP and sealing rings type HP **do not fit on to other systems!**
FAHRION ER clamping nut CENTRO P HDC not suitable for standard ER collet chucks CENTRO P.

30 9655 – With trapezoidal thread for high clamping forces. Extra long double guidance of the ER clamping nut.
ER clamping nuts
coated for reduction of **friction**.

30 9657 – With trapezoidal fine thread for high clamping forces. Extra long double guidance of the ER clamping nut.
Ball-bearing clamping nut for higher tightening torques.

Suitable for: FAHRION ER collet chuck CENTRO P and FAHRION ER collet chuck HDC.

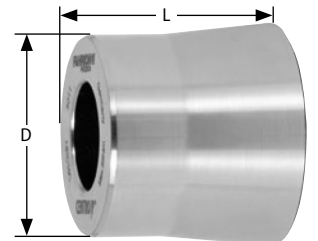
Optional extras:

30 9655 – Sealing rings No. 309666 – 309668, precision ER collets No. 308878 - 308992, clamping wrenches No. 309754 – 309756, HP collets No. 309365 - 309379.

30 9657 – Precision ER collets No. 308981 – 308986, HP No. 309376 – 309378 and for tapping collets No. 309414; 309418, roller bearing wrench HDC No. 309754; 309756.



Mini – size 11M, 16MS and 16MSDI.



Tapered – size 16C and 16CDI.

Type CP for ER		8M	11M	16MS	16C	16	25	32	40
34F 30 9655	ER clamping nut CENTRO P Standard	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Clamping range	mm	1 – 5	1 – 7	1 – 10	1 – 10	1 – 10	2 – 16	2 – 20	3 – 26
L	mm	12	16.2	20.9	23.2	23.4	25.6	26.9	31.5
Ø D	mm	10	16	22	24	30	40	50	63
maximum tightening torque	Nm	8	10	30	55	55	90	140	200
Thread		M9×0.5	Tr14×0.75	Tr20×1	Tr21×1.5	Tr22×1.5	Tr32×1.5	Tr40×1.5	Tr50×1.5

Type HDC for ER		32HDC
34F 30 9657	ER clamping nut CENTRO P HDC	eShop
Clamping range	mm	2 – 20
L	mm	27
Ø D	mm	53
maximum tightening torque	Nm	180
Thread		Tr42×1



30 9657 _32HDC

Type CP for ER		16MSDI	16CDI	16DI	25DI	32DI	40DI
34F 30 9665	ER clamping nut CENTRO P for HP sealing rings	eShop	eShop	eShop	eShop	eShop	eShop
Clamping range	mm	1 – 10	1 – 10	1 – 10	2 – 16	2 – 20	3 – 26
L	mm	23.9	26.2	26.4	28.9	30.1	34.8
Ø D	mm	22	24	30	40	50	63
maximum tightening torque	Nm	30	55	55	90	140	200
Thread		Tr20×1	Tr21×1.5	Tr22×1.5	Tr32×1.5	Tr40×1.5	Tr50×1.5



Standard – size 16, 25, 32 and 40 and size 16DI, 25DI, 32DI and 40DI.



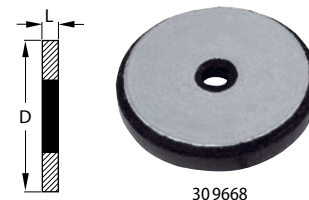
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Sealing rings HP – for ER clamping nuts CP

Vulcanised **high-pressure sealing rings** up to 80 bar.
0.5 mm clamping dia. range (+ 0.4 / – 0.1).

Note:

- Sealing rings in 0.5 mm increments on request.
- DI40 sealing rings on request.



30 9668

Clamping Ø (1 mm increments)	mm	1	2	3...10	11...16	17...20	Ø D mm	L mm
34F 30 9666	Sealing ring HP for ER clamping nut CENTRO P	DI16	eShop	eShop	eShop	–	12.6	2
34F 30 9668		DI32	–	eShop	eShop	eShop	26.2	2

Accessories for collet chucks – ER special wrenches

Chuck key for ER collet chucks

Standard

30 9680/9740 – For an **uncontrolled** tightening torque.

30 9700/9720/9745 – For a **controlled** tightening torque using a torque wrench (14×18 / 1/2 inch or 9×12)



30 9680



30 9700



30 9720



30 9740



30 9745

for ER collet chuck	8	11	16	20	25	32	40
35A 30 9680	–	–	eShop	–	eShop	eShop	eShop
35A 30 9700	–	–	eShop	–	eShop	eShop	eShop
35A 30 9720	–	–	(eShop)	–	–	–	–
33F 30 9740	eShop	eShop	eShop	eShop	eShop	–	–
39Z 30 9745	eShop	eShop	eShop	eShop	eShop	–	–
overall length (30 9680)	mm	–	163	–	203	253	285.5
Ø D (30 9740)	mm	13	17	22.5	28	36	–
Suitable torque wrench No. 656050 (30 9700, 30 9720)	–	–	200	–	200	200	200
Plug-in shank □ (30 9745)	mm	9×12	9×12	9×12	9×12	–	–

Wrench for precision ER collet chucks

Suitable for:

Size 16C – ER clamping nut CP No. 309655 size 16C and 16M.

Size 32HDC – Special chuck key for HDC clamping nut No. 309657.

30 9754/9756 – **FAHRION** ER collet chuck CENTRO P.

30 9757/9758 – HiRunER Mini GARANT precision collet chuck.

Note:

30 9757/9758 – Size M for the mini version.



30 9754



30 9754_32HDC



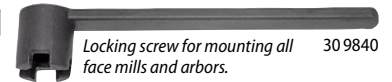
30 9756_32HDC

Type	8M	11M	16M	16MS	16C	16	25	32	32HDC	40
34F 30 9754	–	eShop	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop
34F 30 9756	eShop	eShop	–	eShop	eShop	eShop	eShop	eShop	eShop	(eShop)
31T 30 9757	–	eShop	eShop	–	–	–	–	–	–	–
31A 30 9758	–	eShop	eShop	–	–	–	–	–	–	–
Plug-in shank □	mm	9×12	9×12	9×12	9×12	14×18	14×18	14×18	14×18	14×18
Suitable torque wrench No. 656055	25	25	60	60	60	200	200	200	200	200

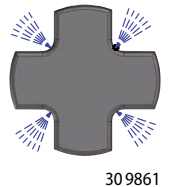
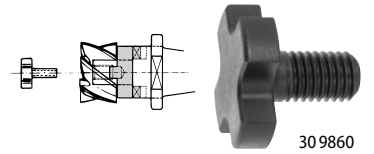
Accessories for arbors – for combination mandrels, HSK and PSC

Suitable for: HSK and combination face mill adaptors

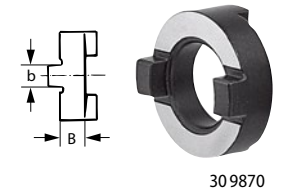
for mandrel Ø	mm	13	16	22	27	32	40	50	60
35A 30 9840	AMF Toggle spanner	DIN 6368	eShop	eShop	eShop	eShop	eShop	eShop	(eShop)
overall length	mm	160	180	200	225	250	280	315	355
suitable for cutter lock screw		M6	M8	M10	M12	M16	M20	M24	M30



for mandrel Ø	mm	13	16	22	27	32	40	50	60
39Z 30 9860	Garant Milling cutter lock screw	DIN 6367	eShop	eShop	eShop	eShop	eShop	eShop	eShop
30N 30 9861	EROTLU Milling cutter lock screw through bored	DIN 6367	–	–	–	–	–	–	–
Thread M		M6	M8	M10	M12	M16	M20	M24	M30
Thread length	mm	12	16	18	22	26	30	36	45
Head Ø	mm	17	20	28	35	42	52	63	75
Head thickness	mm	5	6	7	8	9	10	12	14



for mandrel Ø	mm	13	16	22	27	32	40
39Z 30 9870	Garant Face mill drive ring	DIN 6366	eShop	eShop	eShop	eShop	eShop
B-0.2	mm	10	10	12	12	14	14
b	mm	8	8	10	12	14	16



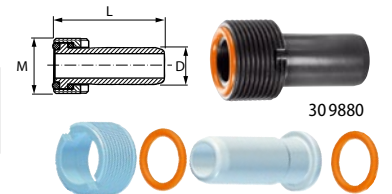
HSK – Coolant tube and socket wrench

30 9880 – Special O-ring up to 120 bar, angular movement from $\pm 1^\circ$, polished, with 2 sealing rings.
Coolant-resistant Viton® seals.

Size 40F; 63F; 100F – With filter (mesh size 100µm) for dirt particle-free cooling.

Note:

30 9880 Size 40F; 63F; 100F – Only use pressure up to a maximum of 80 bar (otherwise there is a risk that the entire mounting lock and filter will be pushed out of the tube.)



for HSK		25	32	40	40F	50	63	63F	80	100	100F
39Z 30 9880	Garant HSK coolant tube	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Thread M		M8×1	M10×1	M12×1	M12×1	M16×1	M18×1	M18×1	M20×1.5	M24×1.5	M24×1.5
Ø D	mm	5	6	8	8	10	12	12	14	16	16
L	mm	16.8	26	29	29	33	36.5	36.5	39.5	43.5	43.5

for HSK		25	32	40	50	63	80	100
39Z 30 9890	Socket wrench for coolant tubes	eShop	eShop	eShop	eShop	eShop	eShop	eShop



PSC coolant tube and assembling key

for PSC		40	50	63	80
39Z 30 9885	SWISS TOOLS PSC coolant tube	eShop	eShop	eShop	eShop
Thread M		M14×1.5	M16×1.5	M20×2	M20×2
Ø D	mm	6	7	8	10
L	mm	26	29	31.5	31.5
L ₁	mm	12	14	15	15

for PSC		40	50	63	80
39Z 30 9893	SWISS TOOLS Assembling key for coolant tubes	eShop	eShop	eShop	eShop



Garant Accessories for arbors – spare clamping screw

Suitable for: Side lock and Whistle Notch arbors.

Note:

Up to 20 mm clamping Ø with one, from 25 mm clamping Ø with 2 clamping screws.

Size 12 – suitable also for chucks with clamping Ø 14 mm.

Size 16 – suitable also for chucks with clamping Ø 18 mm.

Size 32 – suitable also for chucks with clamping Ø 40 mm.

for chucks with clamping Ø D ₁	mm	6	8	10	12	16	20	25	32
39Z 30 9900	Spare clamping screw	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Thread size		M6	M8	M10	M12	M14	M16	M18×2	M20×2
Length	mm	10	10	12	16	16	16	20	20



30

DIN
2084

Accessories for arbors – arbor spacer rings

Arbor spacer rings – narrow

0.03 to 1 mm wide. Cut from hardened strip steel. Variation from the width b_1 and its parallelism depends on the tolerance of the basic semi-finished product to DIN 1544.



30 9920

Inner Ø×thickness b1			mm	13×0,03	13×0,04	13×0,3	13×0,6	16×0,03	16×0,04	16×0,05	16×0,1	16×0,2	16×0,3	16×0,5	16×0,6	16×1
37D	30 9920	Arbor spacer ring	narrow	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
External Ø			mm	21	21	21	21	25	25	25	25	25	25	25	25	25
Inner Ø×thickness b1			mm	22×0,03	22×0,04	22×0,05	22×0,1	22×0,2	22×0,3	22×0,5	22×0,6	22×1				
37D	30 9920	Arbor spacer ring	narrow	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop				
External Ø			mm	33												
Inner Ø×thickness b1			mm	27×0,03	27×0,04	27×0,05	27×0,1	27×0,2	27×0,3	27×0,5	27×0,6	27×1				
37D	30 9920	Arbor spacer ring	narrow	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop				
External Ø			mm	39												
Inner Ø×thickness b1			mm	32×0,03	32×0,04	32×0,05	32×0,1	32×0,2	32×0,3	32×0,5	32×0,6	32×1				
37D	30 9920	Arbor spacer ring	narrow	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop				
External Ø			mm	45												
Inner Ø×thickness b1			mm	40×0,03	40×0,04	40×0,05	40×0,1	40×0,2	40×0,3	40×0,5	40×0,6	40×1				
37D	30 9920	Arbor spacer ring	narrow	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop				
External Ø			mm	54												

Arbor spacer rings – wide

2.0 – 60 mm wide. Made of case-hardening steel, hardened. External Ø ground, flat surfaces lapped. Permissible variation in parallelism for the width is IT 3, referred to bore dia. d_1 . Tolerance of the ring width ± 0.1 mm.



30 9930

Inner Ø×thickness b1		mm	13×2	13×3	13×10	16×2	16×3	16×4	16×5	16×10	16×20	16×30
37D 30 9930	Arbor spacer ring	wide	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
External Ø		mm	22	22	22	27	27	27	27	27	27	27
Inner Ø×thickness b1		mm	22×2	22×3	22×4	22×5	22×10	22×20	22×30	22×60		
37D 30 9930	Arbor spacer ring	wide	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
External Ø		mm	34									
Inner Ø×thickness b1		mm	27×2	27×3	27×4	27×5	27×10	27×20	27×30			
37D 30 9930	Arbor spacer ring	wide	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
External Ø		mm	41									
Inner Ø×thickness b1		mm	32×2	32×3	32×4	32×5	32×10	32×20	32×30			
37D 30 9930	Arbor spacer ring	wide	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
External Ø		mm	47									
Inner Ø×thickness b1		mm	40×2	40×3	40×4	40×5	40×10	40×20	40×30			
37D 30 9930	Arbor spacer ring	wide	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
External Ø		mm	55									

Arbor spacer ring sets

Supplied with: Plastic wallet.
(Ring width mm / number of rings)
No. 30 9920 size 0.03/5; 0.04/5; 0.05/5; 0.1/6; 0.2/3; 0.3/3; 0.5/3; 0.6/2; 1/2; 1.5/1.



30 9940

Internal Ø	mm	16	22	27	32	40
37D 30 9940	Arbor spacer ring set 35 pieces	eShop	eShop	eShop	eShop	eShop

Lathe chuck overview: Mounting and machine spindle noses



Lathe chucks with cylindrical centring mount to DIN 702-4.

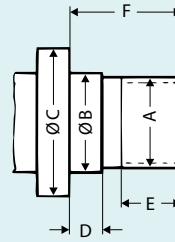
(corresponds to the old standard DIN 6350 and DIN 6350-1)

For machine spindles with cylindrical centring edge.

These lathe chucks can also be screwed to DIN 800 spindle noses using a flange.

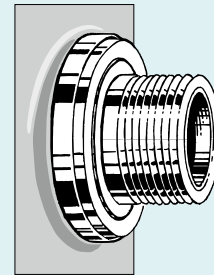
They are secured using hexagon socket head screws.

The lathe chucks are also applicable on spindle noses with a short taper, using a short taper flange. However, it is preferable to use lathe chucks with an integral short taper because of the lower overhang.

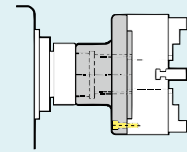


A Tolerance medium	B (g5) mm	C (smallest size) mm	D mm	E mm	F mm
M 20	21	30	6.3	10	20
M 24	25	36	8	12	24
M 33	34	50	9	14	30
M 39	40	56	10	16	35
M 45	46	67	11	18	40
M 52	55	80	12	20	45
M 60	62	90	14	22	50
M 76×6	78	112	16	30	63
M 105×6	106	150	20	40	80

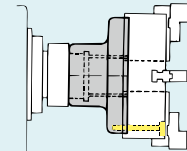
Spindle noses DIN 800



Lathe chuck DIN 6350-1



Secured from the back
for geared scroll chucks



Secured from the front
for self-centring chucks.

Lathe chucks with short taper mount to DIN 702-1.

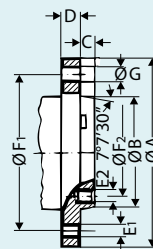
(corresponds to old standard DIN 55028A)

These lathe chucks fit directly on to DIN 55026 and DIN 55021 spindle noses (secured from the front).

They are secured with socket head screws.

Form A: Tapped holes in the outer pitch circle of the flange.

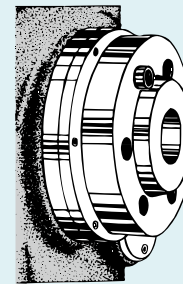
No inner pitch circle. Taper sizes 4 and upwards have 4 driving slots.



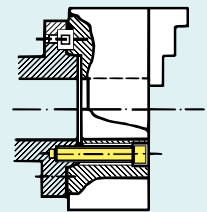
Note: DIN 55021
No longer included in the new standard.
Outer hole circle F available from lathe chuck Ø 250.

Spindle nose size	A mm	B mm	C (Form A) mm	D (Form B) mm	D mm	No. of holes on the external pitch circle (F1) E1	F1 (external pitch circle) mm	No. of holes on the internal pitch circle (F2) E2	F2 (internal pitch circle diameter) mm
3	92	53.983	11	—	16	3×M 10	70.6	—	—
4	108	63.521	11	—	20	11×M 10	82.6	—	—
5	133	82.573	13	14.288	22	11×M 10	104.8	8×M 10	61.9
6	165	106.385	14	15.875	25	11×M 12	133.4	8×M 12	82.6
8	210	139.731	16	17.462	28	11×M 16	171.4	8×M 16	111.1
11	280	196.883	18	19.050	35	11×M 20	235.0	8×M 20	165.1
15	380	285.791	19	20.638	42	12×M 14	330.2	11×M 24	247.6

Spindle noses DIN 55026



Lathe chuck DIN 55028A



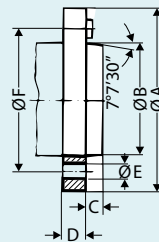
Secured with socket head screws on
the spindle nose.

Lathe chucks with short taper mount to DIN 702-3.

(corresponds to old standard DIN 55027)

These lathe chucks are secured directly on to DIN 55027 spindle noses.

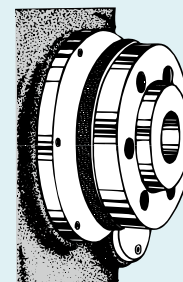
They are secured with studs, collar nuts and the bayonet plate attached to the spindle nose. With driving slots from taper size 4 upwards.



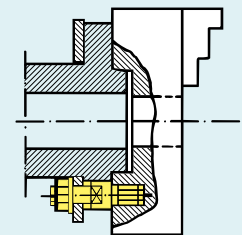
Spindle nose Size	A mm	B mm	C mm	D mm	E mm	F mm
3	102	53.985	11	16	3×21	75.0
4	112	63.525	11	20	3×21	85.0
5	135	82.575	13	22	4×21	104.8
6	170	106.390	14	25	4×23	133.4
8	220	139.735	16	28	4×29	171.4
11	290	196.885	18	35	6×36	235.0

Spindle noses DIN 55027

Most commonly used type on
new lathes.



Lathe chuck DIN 55027



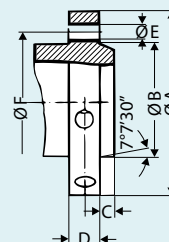
Secured with stud
and collar nut

Lathe chucks with short taper mount to DIN 702-2.

(equivalent to old standard DIN 55029 or ASA B5.9)

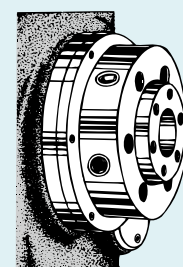
These lathe chucks are secured directly to spindle noses to DIN 55029 or ASA B5.9.

They are fastened with Camlock studs. The studs to DIN 55029 have metric threads, those to ASA B5.9 have imperial threads.

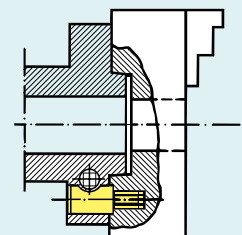


Spindle nose Size	A mm	B mm	C mm	D mm	E mm	F mm
3	92.1	53.985	11.1	31.8	3×15.1	70.66
4	117.5	63.525	11.1	33.3	3×16.7	82.55
5	146.0	82.575	12.7	38.1	6×19.8	104.80
6	181.0	106.390	14.3	44.5	6×23.0	133.40
8	225.4	139.735	15.9	50.8	6×26.2	171.40
11	298.5	196.885	17.5	60.3	6×30.1	235.00

Spindle noses DIN 55029 or ASA B5.9



Lathe chuck DIN 55029



Secured with
Camlock studs



30

RÖHM Three-jaw lathe chucks / geared scroll chucks

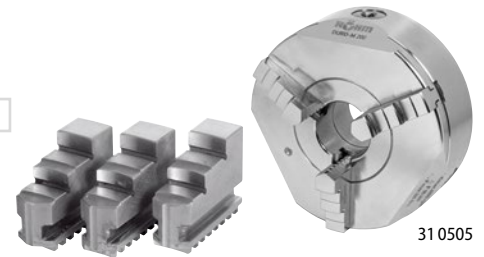
- Manual chucks with gear scroll, centrally clamping.
- Weight-reduced body of steel.
- Gear scroll drop-forged, balanced, and hardened.
- Flanks of scroll and of jaw serrations are ground.
- High concentricity.

Supplied with: 1 clamping wrench and fastening screws or studs depending on the chuck.

Optional extras: **Spare and additional jaws** see No. 314000 – 315200.

Swarf protection see No. 312800.

Note: For self-centring three-jaw lathe chucks see No. 313120 – 313140.



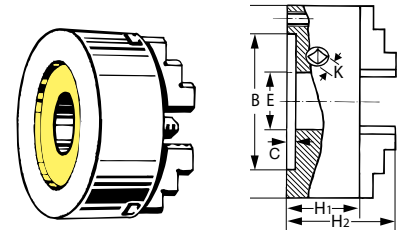
With recessed mount

Standard: DIN 702-4.

Application: For machine spindles with recessed centring mount or for mounting using a flange. Secured with screws from the rear. The flange blanks must always be fitted first to the machine and then to the chuck.

Supplied with: 1 set = 3 hard inside jaws, stepped on the outside and 1 set = 3 hard inside jaws, stepped on the inside.

Note: DIN 702-4 satisfies the old standard DIN 6350-1.



External Ø A	365	31 0505	Aperture E	Height without jaws H ₁	Height with jaws H ₂	Centring Ø B	Centring depth C	Chuck key square K	Weight	maximum speed
		Three-jaw lathe chuck steel with recessed mount								
mm		DIN 702-4	mm	mm	mm	mm	mm	mm	kg	min ⁻¹
80		eShop	19	39.5	53.5	56	3	6	1.5	7000
100		eShop	20	50	68	70	3	8	3.3	6300
125		eShop	32	56	78.5	95	4	9	5.4	5500
160		eShop	42	65	91	125	4	10	8.8	4600
200		eShop	55	73.5	106	160	4	11	15.2	4000
250		eShop	76	82	122	200	5	12	25.6	3000
315		(eShop)	103	95	141	260	5	14	51.2	2300
400		(eShop)	136	105	148	330	5	17	80.5	1800
Colour code for accessories										

With short taper mount

Standard:

31 0655 – DIN 702-2.

31 0705 – DIN 702-3.

Application: The chuck is always fitted to the spindle nose directly without an intermediate flange.

31 0655 – For spindle noses DIN 55029 with **Camlock studs**.

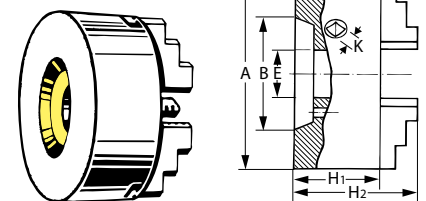
31 0705 – For spindle noses DIN 55027 **with studs and collar nuts**.

Supplied with: 1 set = 3 hard inside jaws, stepped on the outside and 1 set = 3 hard outside jaws, stepped on the inside.

Note:

31 0655 – DIN 702-2 satisfies the old standard DIN 55029.

31 0705 – DIN 702-3 satisfies the old standard DIN 55027.



Outer Ø A / taper	365	31 0655	365	31 0705	Aperture E	Height without jaws H ₁	Height with jaws H ₂	Number of studs		Centring Ø B	Size of studs		Chuck key square K	Weight	maximum speed
	Three-jaw lathe chuck steel short taper mount							31 0655	31 0705		31 0655	31 0705			
	mm	DIN 702-2	DIN 702-3	mm											
125/4		—		eShop	32	69	93	—	3	63.5	—	M10	9	6.2	5500
160/4		(eShop)		eShop	42	66	92	3	3	63.5	PG11	M10	10	9.5	4600
160/5		—		eShop	42	66	92	—	4	82.5	—	M10	10	9.5	4600
200/5		(eShop)		eShop	55	74.5	107	6	4	82.5	1/2-20	M10	11	16.7	4000
200/6		(eShop)		eShop	55	74.5	107	6	4	106.4	5/8-18	M12	11	16.7	4000
250/6		(eShop)		eShop	76	83	124	6	4	106.4	5/8-18	M12	12	28	3000
250/8		(eShop)		eShop	76	83	124	6	4	139.7	3/4-16	M16	12	28.5	3000
315/6		—		(eShop)	76	96	142	—	4	106.4	—	M12	14	52.5	2300
315/8		(eShop)		(eShop)	103	96	142	6	4	139.7	3/4-16	M16	14	54	2300
Colour code for accessories															

Colour code: Röhme geared scroll chucks and jaws

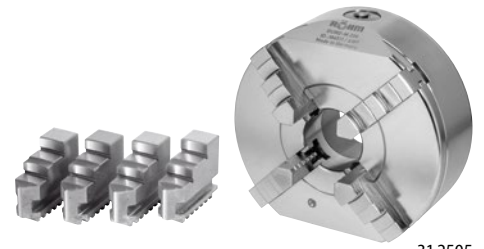
RÖHM Four-jaw lathe chuck / geared scroll chuck

- Gear scroll drop-forged, balanced, and hardened.
- Flanks of scroll and of jaw serrations are ground.
- Weight-reduced body of steel.
- High concentricity.

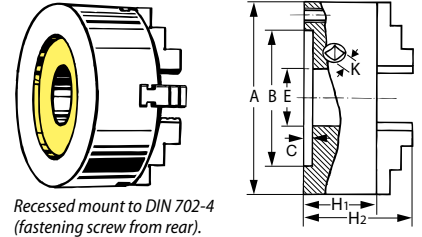
Drop-forged, resulting in a long working life and **suitability for high speed machines.**

Supplied with: 1 set = 4 hardened inside jaws, stepped on the outside.
1 set = 4 hardened outside jaws, stepped on the inside.
1 clamping wrench and fastening screws or studs depending on the chuck.

Optional extras: For spare and additional jaws see No. 314100 – 315300. For swarf protection see No. 312800.



31 2505



Recessed mount to DIN 702-4
(fastening screw from rear).

With recessed mount

Standard: DIN 702-4.

Application: For machine spindles with recessed centring mount or for mounting using a flange.

Note: DIN 702-4 satisfies the old standard DIN 6350-1.

External Ø A	365	31 2505	Aperture E	Height without jaws H ₁	Height with jaws H ₂	Centring Ø B	Centring depth C	Chuck key square K	Weight	maximum speed
		Four-jaw lathe chuck steel with recessed mount								
mm		DIN 702-4	mm	mm	mm	mm	mm	mm	kg	min ⁻¹
80		eShop	19	39.5	53.5	56	3	6	1.7	7000
100		eShop	20	50	68	70	3	8	3.3	6300
125		(eShop)	32	56	78.5	95	4	9	5.3	5500
160		eShop	42	65	91	125	4	10	9.2	4600
200		eShop	55	73.5	106	160	4	11	15.8	4000
250		eShop	76	82	122	200	5	12	26.8	3000
315		(eShop)	103	95	141	260	5	14	52.3	2300
Colour code for accessories										

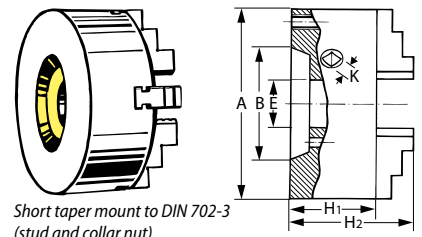
With short taper mount

Standard: DIN 702-3.

Material: Steel

Application: For spindle noses DIN 55027 with studs and collar nuts. The chuck is always fitted to the spindle nose directly without an intermediate flange.

Note: DIN 702-3 satisfies the old standard DIN 55027.



Short taper mount to DIN 702-3
(stud and collar nut).

Outer Ø A / taper	365	31 2705	Aperture E	Height without jaws H ₁	Height with jaws H ₂	Number of studs	Size of studs	Centring taper Ø B	Chuck key square K	Weight	maximum speed
		Four-jaw lathe chuck steel with short taper mount									
mm		DIN 702-3	mm	mm	mm			mm	mm	kg	min ⁻¹
125/4		(eShop)	32	69	93	3	M10	63.525	9	6.7	5500
160/4		(eShop)	42	66	92	3	M10	63.525	10	9.9	4600
160/5		eShop	42	66	92	4	M10	82.575	10	9.8	4600
200/5		(eShop)	55	74.5	107	4	M10	82.575	11	17.2	4000
200/6		eShop	55	74.5	107	4	M12	106.39	11	17.3	4000
250/6		eShop	76	83	124	4	M12	106.39	12	28.8	3000
250/8		(eShop)	76	83	124	4	M16	139.735	12	30.3	3000
Colour code for accessories											

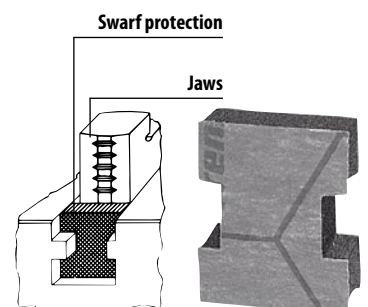
Swarf protection

Suitable for: Chuck No. 310505 – 310705 and No. 312505 – 312705.

Application: For insertion into jaw slides. Prevents ingress of swarf into chuck body.

for chuck type	160	200	250	315	500
33R 31 2800 Swarf protection piece	eShop	eShop	eShop	eShop	eShop
Length mm	23	21	27	35	41
Width mm	18	20	24	34	42
also suitable for chuck type	140	–	–	350 / 400	630

Colour code: RöhM geared scroll chucks and jaws



31

Spare and additional jaws, geared scroll chucks

31 4400/4425 – **Precision milled** contact face, **not burnished**.

Suitable for:

31 4000/4400/4425/4600/5000/5200 – **Three-jaw lathe chucks No. 310505; 310655; 310705.**

31 4100/4700/5100/5300 – **Four-jaw lathe chucks No. 312505; 312705.**

Material:

31 4400/4425/4700 – 16 MnCr5

Application:

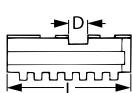
31 4000/4100 – For fitting hardened reversible jaws or soft top jaws.

31 4400/4425 – For fitting to hardened base jaws.

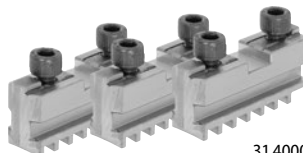
Note:

- Jaws can generally be renewed in the chuck as long as the guide in the body is not worn out.
- Top, turning, and drilling jaws **bought subsequently must be ground in the chuck** for radial and axial run-out.

Base jaws hardened



31 4000



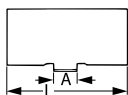
31 4000



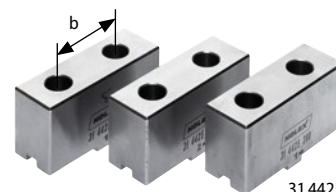
31 4100

for chuck type	mm	100	125	140	160	200	250	315	350	suitable for colour code
33R 31 4000	Base jaw set, 3 pieces, hardened	eShop	eShop	eShop	eShop	eShop	eShop	eShop	(eShop)	
33R 31 4100	Base jaw set, 4 pieces, hardened	(eShop)	–	–	(eShop)	(eShop)	eShop	(eShop)	–	
L	mm	46	55	65	65	78	92	108	127	
D +0.01	mm	9.5	12.68	12.68	12.68	12.68	19.03	19.03	19.03	
B ₁ -0.05	mm	7.94	7.94	7.94	7.94	7.94	12.7	12.7	12.7	
also suitable for chuck type	mm	–	–	–	–	–	–	–	400	
Thread		M6	M8	M8	M8	M8	M12	M12	M16	

Soft top jaws



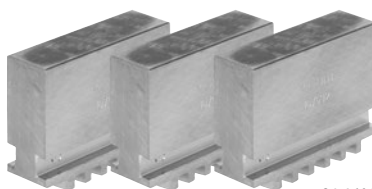
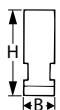
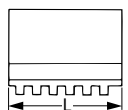
31 4400



31 4425

for chuck type	mm	100	125	140	200	250	315	350	suitable for colour code
33R 31 4400	Top jaw set, 3 pieces, soft	eShop	eShop	eShop	eShop	eShop	eShop	(eShop)	
32R 31 4425		eShop	eShop	eShop	eShop	eShop	eShop	–	
L	mm	53	62	74	87	103	120	137	
H	mm	30	38	42	43	53	58	63	
D	mm	7.96	7.96	7.96	7.96	12.72	12.72	12.72	
b	mm	24	32	38.1	44.45	53.95	63.5	76.2	
A	mm	9.49	12.67	12.67	12.67	19.02	19.02	19.02	
also suitable for chuck type	mm	–	–	160	–	–	–	400	

Scroll jaws soft

31 4600
31 470031 4625
31 4720

for chuck type	mm	80	100	125	140	160	200	250	315	350	500	suitable for colour code
33R 31 4600	Scroll jaw set, 3 pieces, soft	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	(eShop)	(eShop)	
32R 31 4625		eShop	eShop	eShop	–	eShop	eShop	eShop	eShop	–	–	
33R 31 4700		–	(eShop)	(eShop)	–	eShop	eShop	eShop	eShop	(eShop)	–	
32R 31 4720		–	–	–	–	eShop	eShop	eShop	–	–	–	
L	mm	37	48	52	61	61	69	90	130	130	190	
B	mm	12	14	18	18	18	20	24	34	34	42	
H	mm	26	33.5	41.5	41.5	47.5	53.5	67.5	79.5	79.5	95	
also suitable for chuck type	mm	–	–	–	–	–	–	–	–	400	630	

Colour code: Röhmm geared scroll chucks and jaws

HOLEX geared scroll chucks and jaws

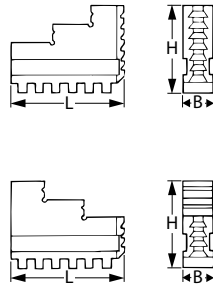
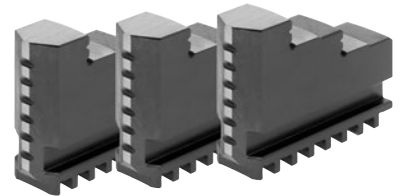
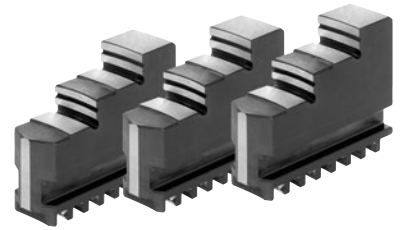
Spare inside and outside jaws, hardened



Application: Inside jaws



Application: Outside jaws

31 5000
31 510031 5200
31 5300

for chuck type		80	100	125	140	160	200	250	315	350	suitable for colour code
33R 31 5000		Inside jaw set, 3 pieces, hardened									
33R 31 5100		eShop	eShop	eShop	(eShop)	eShop	eShop	eShop	eShop	—	
33R 31 5200		Inside jaw set, 4 pieces, hardened									
33R 31 5300		—	—	—	—	(eShop)	(eShop)	(eShop)	—	—	
33R 31 5200		Outside jaw set, 3 pieces, hardened									
33R 31 5300		—	eShop	eShop	—	eShop	eShop	eShop	(eShop)	(eShop)	
33R 31 5200		Outside jaw set, 4 pieces, hardened									
33R 31 5300		—	—	—	—	—	(eShop)	(eShop)	—	—	
L	mm	37	48	52	61	61	69	90	130	130	
B	mm	12	14	18	18	18	20	24	34	34	
H	mm	26	33.5	41.5	41.5	47.5	53.5	67.5	79.5	79.5	
also suitable for chuck type	mm	—	—	—	—	—	—	—	—	400	



Three-jaw lathe chuck / additional jaws (geared scroll chucks)

With recessed mount

- Manual chucks with gear scroll, centrally clamping.
- Body made of cast iron or steel.
- Gear scroll drop-forged, balanced, and hardened.
- Flanks of scroll and of jaw serrations are ground.
- High concentricity, more precise than DIN 6386 requirement.

Standard: DIN 702-4.

Application: For machine spindles with recessed centring mount or for mounting using a flange. The chuck is secured from the rear by means of screws. The flange blanks must always be fitted first to the machine and then to the chuck.

Supplied with: Includes: 1 set = 3 hardened inside jaws, stepped on the outside.
1 set = 3 hardened outside jaws, stepped on the inside.
1 clamping wrench and fastening screws or studs depending on the chuck.

Optional extras: Spare and additional jaws No. 31 2971 – 31 2986.

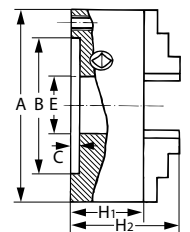


31 2906



Rear face size 100

31 2906



External Ø A	32W 31 2906	32W 31 2911	Aperture E		Height without jaws H ₁		Height with jaws H ₂		Centring Ø B	Centring depth C	Weight	maximum speed	
	Three-jaw lathe chuck cast-iron with recessed mount	Three-jaw lathe chuck steel with recessed mount	31 2906	31 2911	31 2906	31 2911	31 2906	31 2911			kg	31 2906	31 2911
mm	DIN 702-4	DIN 702-4	mm	mm	mm	mm	mm	mm	mm	mm		min ⁻¹	min ⁻¹
80	eShop	eShop	16	16	44	44	57	57	56	3	1.5	5000	7000
100	eShop	eShop	20	20	50	50	67	67	70	3	2.8	4500	6300
125	eShop	eShop	32	35.5	56	59.5	76	79.5	95	4	5	4000	5500
160	eShop	eShop	42	42	64.5	68	96.5	100	125	4	10	3600	4600
200	eShop	eShop	55	55	75	78	104	107	160	4	17.5	3000	4000
250	eShop	eShop	76	76	85	89	119	123	200	5	29	2500	3500
315	eShop	eShop	103	103	94	97.2	137	140.2	260	5	50	2000	2800
Colour code for accessories													

Colour code: Röhmm geared scroll chucks and jaws

HOLEX geared scroll chucks and jaws

Other lathe chucks



A wide variety of other chucks such as face plates, oversize geared scroll chucks or special chucks available on request from the Hoffmann Group.



i

With short taper mount

- Manual chucks with gear scroll, centrally clamping.
- Body made of cast iron or steel.
- Gear scroll drop-forged, balanced, and hardened.
- Flanks of scroll and of jaw serrations are ground.
- High concentricity.

Standard: DIN 702-3.

Application: The chuck is always fitted to the spindle nose directly without an intermediate flange.

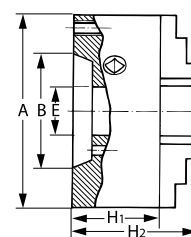
For spindle noses DIN 55027 with studs and collar nuts.

Supplied with: Includes: 1 set = 3 hardened inside jaws, stepped on the outside.
1 set = 3 hardened outside jaws, stepped on the inside.
1 clamping wrench and fastening screws or studs depending on the chuck.

Optional extras: Spare and additional jaws No. 312971 – 312986.



Rear face DIN 31 2931_200-6 702-3.

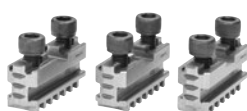


Outer Ø A / taper	31 2931	Aperture E	Height without jaws H ₁	Height with jaws H ₂	Centring Ø B	Weight	maximum speed
	Three-jaw lathe chuck steel short taper mount						
mm	DIN 702-3	mm	mm	mm	mm	kg	min ⁻¹
160/5	eShop	42	68	100	82.5	9	4600
200/5	eShop	55	78	107	82.5	19	4000
200/6	eShop	55	78	107	106.4	19	4000
250/6	eShop	76	89	123	106.4	32	3500
Colour code for accessories							

Additional jaws



31 2971



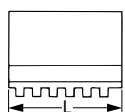
31 2976



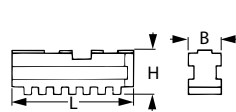
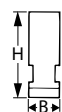
31 2981



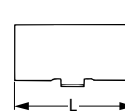
31 2986



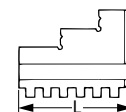
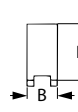
31 2971



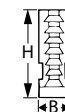
31 2976



31 2981



31 2986



for chuck type		80	100	125	160	200	250	315	suitable for colour code
32W 31 2971	Scroll jaw set, 3 pieces, soft	eShop	eShop	eShop	eShop	eShop	eShop	eShop	
32W 31 2976	Base jaw set, 3 pieces, hardened	—	—	eShop	eShop	eShop	eShop	eShop	
32W 31 2981	Top jaw set, 3 pieces, soft	—	—	eShop	eShop	eShop	eShop	eShop	
32W 31 2986	Inside jaw set, 3 pieces, hardened	eShop	eShop	eShop	eShop	eShop	eShop	eShop	
L (31 2971, 31 2986)	mm	32	42	51	70	85	105	125	
L (31 2976)	mm	—	—	54	65	79	92	110	
L (31 2981)	mm	—	—	64	78	90	106	120	
B (31 2971, 31 2976, 31 2986)	mm	11	15	20	20	25	28	32	
B (31 2981)	mm	—	—	22	25	27	32	37	
H (31 2971, 31 2986)	mm	28	32	40	53	54	63	73	
H (31 2976)	mm	—	—	28	29	33	36	40	
H (31 2981)	mm	—	—	38.5	41.5	43.5	51.5	55	
Thread (31 2976)		—	—	M8	M10	M10	M12	M12	

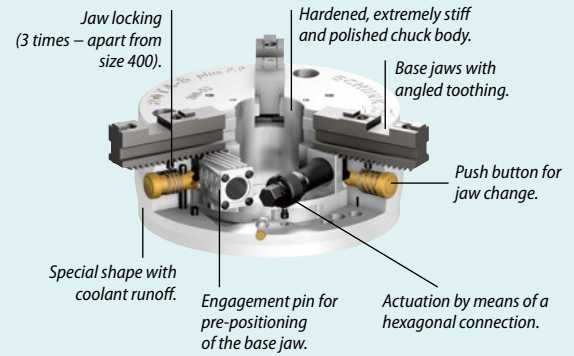
Colour code: HOLEX geared scroll chucks and jaws

ROTA-S plus 2.0 self-centring three-jaw lathe chuck

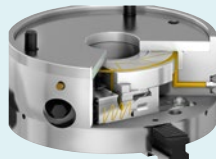


- Maximum concentricity and jaw exchange repeatability.
- Long service life with very high precision.
- Modular protective sleeve system.
- Very short set-up times.
- Chuck body case-hardened up to 315 mm Ø.
- Large aperture (dimension EI).
- Safety peg for maximum operator safety.
- **Base jaws compatible with chucks of the "F" system and "Duro" system.**
- Flexible clamping of small and large components.
- High-precision clamping of very small internal Ø.
- Entirely made of steel, thus suitable for high speeds.

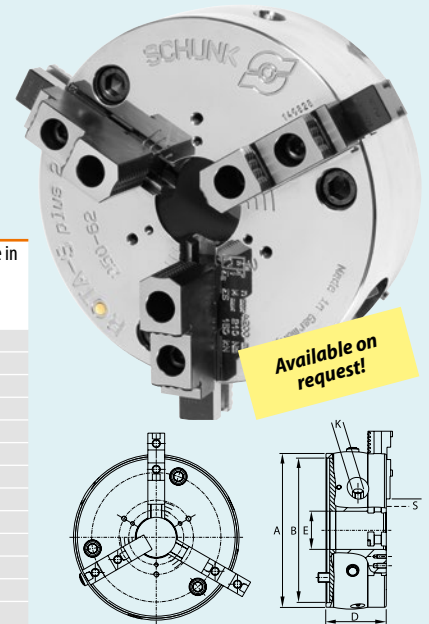
Available in different ISO / DIN connections!



Protection against ingress of dirt thanks to self-centring system with wipers



Optimised lubrication system.



Technical data:

Designation	Maximum speed	Maximum clamping force	Maximum torque	Lifting surface	Pass-through hole in chuck
	rpm	kN	Nm	mm	mm
ROTA-S plus 2.0 160-42	5400	65	80	6,5	42
ROTA-S plus 2.0 160-42/2	5400	40	55	6,5	42
ROTA-S plus 2.0 200-52	4800	100	120	7	52
ROTA-S plus 2.0 200-52/2	4800	65	80	7	52
ROTA-S plus 2.0 250-62	4200	160	210	7,5	62
ROTA-S plus 2.0 250-62/2	4200	105	140	7,7	62
ROTA-S plus 2.0 315-92	3400	180	220	9,7	92
ROTA-S plus 2.0 315-92/2	3400	120	150	9,8	92
ROTA-S plus 400-102	2200	230	280	12	102
ROTA-S plus 500-162	1500	270	320	12	162
ROTA-S plus 630-252	1000	270	350	15	252
ROTA-S plus 800-252	1000	270	350	15	252
ROTA-S plus 1000-402	900	270	350	15	402

HAINBUCH Mandrels – modern clamping technology for internal clamping



Modern alternative to a jaw chuck or to conventional mandrels with slotted clamping sleeves for complete machining work in turning and milling applications.



Technical data:

- High concentricity
- High holding forces and stability
- Easy to set up
- Workpiece can be accessed from 5 sides

Different versions:

- with draw bolt or without draw bolt for clamping blind bores
- MANDO with round clamping geometry
- MANDO Adapt as mandrel adapter for the HAINBUCH SYSTEM
- MAXXOS with hexagonal clamping geometry
- MANDO G designed specifically for gear cutting
- Micro mandrel for the smallest clamping Ø



31

RÖHM DURO self-centring three-jaw chuck

- Maximum concentricity and changeover accuracy.
- **With jaw retention, centrally clamping.**
- **Large pass-through diameter.**
- Accuracy twice that specified by DIN 6386.
- High clamping force with low force exertion.
- **Higher speeds thanks to safety blocking slide.**
- Jaws can quickly and easily be reversed or exchanged.
- **Outer contour with drop-off wedge for water.**
- **Grease nipple for greasing all sliding faces.**

Material: Entirely made of steel, fully surface-hardened.

Advantage: Wherever extremely high clamping forces, high concentricity, and reliable continuous repeatability are required.

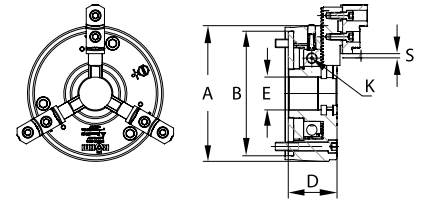
Supplied with: Includes: 1 set of jaws, 1 chuck key, 1 set fastening screws.



31 3110

With recessed mount

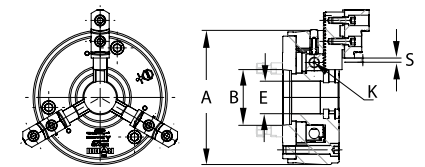
Application: For machine spindles with recessed centring mount or for mounting using a flange. Secured with screws from the front. The flange blanks must always be fitted first to the machine and then to the chuck.



Type		160	200	250	315	Colour code for accessories
33R 31 3120	Self-centring lathe chuck with base and hard top jaws DIN 702-4	(eShop)	eShop	eShop	(eShop)	■
Clamping range with external hard top jaws	mm	5 – 161	7 – 207	8 – 253	12 – 323	
Clamping range with internal hard top jaws	mm	67 – 174	71 – 214	99 – 261	102 – 319	
Clamping stroke per jaw S	mm	6.2	6.8	8	10.2	
Ø A	mm	164	206	256	322	
Aperture E	mm	42	52	62	87	
Chuck height D	mm	63	81	92	111	
Centring Ø B	mm	145	185	235	300	
Chuck key square socket K	mm	10	12	14	17	
Weight	kg	9.3	18.6	34.5	64	
maximum speed	min ⁻¹	5400	4600	4200	3300	

With short taper mount

Application: For spindle noses DIN 702-3. With studs and collar nuts. The chuck is always fitted to the spindle nose directly without an intermediate flange.

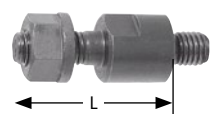


Type		160/5	200/6	250/6	250/8	315/8	Colour code for accessories
33R 31 3140	Self-centring lathe chuck with base and hard top jaws DIN 702-3	eShop	(eShop)	eShop	(eShop)	(eShop)	■
Clamping range with external hard top jaws	mm	5 – 161	7 – 207	8 – 253	8 – 253	12 – 323	
Clamping range with internal hard top jaws	mm	67 – 174	71 – 214	99 – 261	99 – 261	102 – 319	
Clamping stroke per jaw S	mm	6.2	6.8	8	8	10.2	
Ø A	mm	164	206	256	256	322	
Aperture E	mm	42	52	62	62	87	
Centring taper Ø B	mm	82.563	106.375	106.375	139.719	139.719	
Number of studs		4					
Size of studs		M10	M12	M12	M16	M16	
Chuck key square socket K	mm	10	12	14	14	17	
Weight	kg	8.7	16.5	33	33	60	
maximum speed	min ⁻¹	5400	4600	4200	4200	3300	

RÖHM Spare studs and collar nuts

Standard: DIN 55027; ISO 702-3.

Suitable for: All lathe chucks and spindle noses with short taper arbor according to DIN 702-3.



31 3050

for taper		4	5	6	8
33R 31 3050	Spare stud and collar nut	(eShop)	eShop	eShop	eShop
required quantity		3	4	4	4
Thread		M10	M10	M12	M16
Length L	mm	39	43	50	60

Colour code: ■ RöhM self-centring chucks and jaws

Spare and additional jaws – self-centring chucks

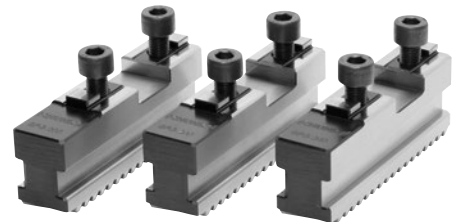
Application: As the jaws can be changed or adjusted to the required diameter **in just a few seconds**, it is useful to have several jaw sets on hand ready for use at the machine. **This minimises set-up times.** The jaw units consist for example of several sets of base jaws with soft top jaws, which can be machined out to the required diameters. This rationalisation method is not only necessary for NC machines but also important for every lathe type.

Base jaws hardened

Suitable for:

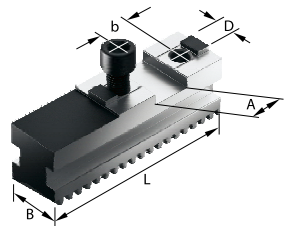
31 3200/3205 – Schunk self-centring chucks No. 313115; 313117; 313135; 313137, Röhm self-centring chucks Duro No. 313120; 313140 and other self-centring chuck systems.

Application: To accept hard or soft top jaws. Fastening screws for top jaws are supplied.



31 3205_200

for chuck type		160	200	250	315	400	suitable for colour code
33R 31 3200	Base jaw set, 3 pieces, angled serration	eShop	eShop	eShop	eShop	eShop	
33T 31 3205	Base jaw set, 3 pieces, angled serration	eShop	eShop	eShop	eShop	eShop	
33T 31 3207	Base jaw set, 3 pieces, straight serration	eShop	eShop	eShop	eShop	eShop	—
L (31 3200, 31 3205)	mm	74	90	110	125	160	
L (31 3207)	mm	65	85	104	115	125	
B (31 3200, 31 3205)	mm	20	22	26	32	45	
B (31 3207)	mm	20	22	26	32	32	
A (31 3200, 31 3205)	mm	18	20	20	26	30	
A (31 3207)	mm	18	20	20	20	26	
b (31 3200, 31 3205)	mm	32	40	40	54	60	
b (31 3207)	mm	32	40	40	40	54	
D (31 3200, 31 3205)	mm	8	10	12	12	18	
D (31 3207)	mm	8	10	12	12	12	
also suitable for chuck type (31 3205)	mm	—	—	—	—	500	



Hard top jaws

Suitable for: Schunk self-centring chucks No. 313115; 313117; 313135; 313137, Röhm self-centring chucks Duro No. 313120; 313140 and other self-centring chuck systems.

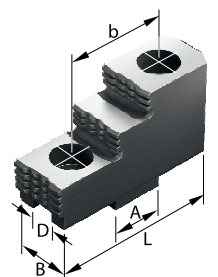
Application: For fitting to hardened base jaws. Applicable as reversible jaws in conjunction with the base jaws.

Note: ■ Hard top and stepped jaws purchased subsequently must be ground internally in the chuck for concentricity and run-out.



31 3210

for chuck type		160	200	250	315	400	suitable for colour code
33T 31 3210	Hardened top jaw set, 3 pieces	eShop	eShop	eShop	eShop	(eShop)	
33R 31 3250	Hardened top jaw set, 3 pieces	eShop	eShop	eShop	eShop	—	
L (31 3210)	mm	63	71.7	90	105	130	
L (31 3250)	mm	63	72	92	107	130	
B (31 3210)	mm	20	22	30	36	45	
B (31 3250)	mm	20	24	34	36	50	
D	mm	8	10	12	12	18	
b	mm	32	40	40	54	60	
A	mm	18	20	20	26	30	



Colour code: Röhm self-centring chucks and jaws

Schunk self-centring chucks and jaws

Soft top jaws

- 31 3220 – Unstepped, for boring out to individual clamping Ø. **Precision milled** contact face, **burnished**.
- 31 3300 – **Ground** location faces, **burnished**.
Unstepped, for boring out to individual clamping Ø. **Precision milled** contact face, **not burnished**.
- 31 3315 – Unstepped, for boring out to individual clamping Ø. **Milled** location faces, **not burnished**.

Suitable for: Schunk self-centring chucks No. 313115; 313117; 313135; 313137, Röhm self-centring chucks Duro No. 313120; 313140 and other self-centring chuck systems.

Material: Quality product made of 16MnCr5.

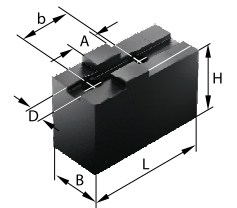
Application: For fitting to hardened base jaws. For clamping irregularly shaped or already machined components which have to be protected against damage. The jaws are machined according to the contours of the component.

Note: Aluminium top jaws **on request**.

31 3315 – **Size 400 also suitable for chuck size 500.**



31 3220



for chuck type		160	200	250	315	400	suitable for colour code
33T 31 3220		eShop	eShop	eShop	eShop	eShop	
33R 31 3300	Soft top jaw set, 3 pieces	eShop	eShop	eShop	eShop	eShop	
32R 31 3315		eShop	eShop	eShop	eShop	eShop	
Length L	mm	85	105	125	145	180	
B (31 3220, 31 3315)	mm	20	22	30	35	50	
B (31 3300)	mm	20.3	22	30	34.3	50.5	
H (31 3220)	mm	36	43	50.5	54	73	
H (31 3300, 31 3315)	mm	36.5	40	50	50	73	
D	mm	8	10	12	12	18	
b	mm	32	40	40	54	60	
A	mm	18	20	20	26	30	
also suitable for chuck type (31 3220)	mm	–	–	–	–	500	

Soft monoblock jaws

Serrations hardened and ground.

Suitable for: Schunk self-centring chucks No. 313115; 313117; 313135; 313137, Röhm self-centring chucks Duro No. 313120; 313140 and other self-centring chuck systems.

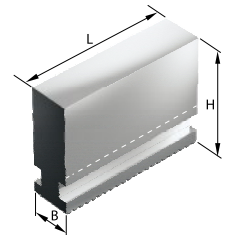
Material: C45, annealed

Note:

- 31 3227 – ■ **Hard top and stepped jaws purchased subsequently must be ground internally in the chuck for concentricity and run-out.**
■ **Please check the serrations when matching to lathe chucks.**



31 3225



for chuck type		160	200	250	315	400	suitable for colour code
33T 31 3225	Soft monoblock jaw set, 3 pieces angled serration	eShop	eShop	eShop	eShop	(eShop)	
33T 31 3227	Soft monoblock jaw set, 3 pieces straight serration	eShop	eShop	eShop	eShop	(eShop)	–
L (31 3225)	mm	79	94	115	140	176	
L (31 3227)	mm	65	84	99	121	148	
B (31 3225)	mm	20	22	26	32	45	
B (31 3227)	mm	20	22	26	32	32	
H (31 3225)	mm	45	60	70	81	93	
H (31 3227)	mm	55.5	65	84	90	100	

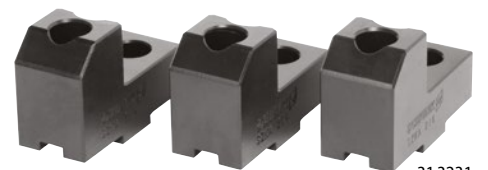
Claw jaws

Suitable for: Schunk self-centring chucks No. 313115; 313117; 313135; 313137, Röhm self-centring chucks Duro No. 313120; 313140 and other self-centring chuck systems.

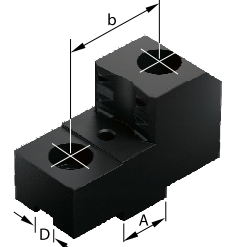
Material: Quality product made of 16MnCr5, hardened.

Application: For external clamping, ideally suited to clamping blanks.

Note: Example of clamping range of No. 313115 - 313137. Depth of the clamping step 25 mm.



31 3231



Type		1	2	3	4	D mm	b mm	A mm	suitable for colour code
33T 31 3231	Claw jaws set, 3 pieces, for chucks Ø 200 mm	eShop	eShop	–	eShop	10	40	20	
33T 31 3232	Claw jaws set, 3 pieces, for chucks Ø 250 mm	eShop	eShop	–	eShop	12	40	20	
33T 31 3233	Claw jaws set, 3 pieces, for chucks Ø 315 mm	eShop	–	eShop	–	12	54	26	
Clamping range (31 3231)	mm	34 – 99	64 – 175	–	144 – 210				
Clamping range (31 3232)	mm	31 – 101	78 – 234	–	186 – 267				
Clamping range (31 3233)	mm	44 – 211	–	119 – 320	–				

Colour code: Röhm self-centring chucks and jaws

Schunk self-centring chucks and jaws

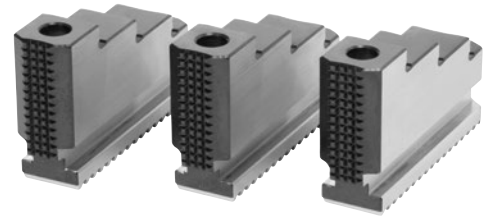
Stepped block jaws, hardened

Suitable for: Schunk self-centring chucks No. 313115; 313117; 313135; 313137, Röhm self-centring chucks Duro No. 313120; 313140 and other self-centring chuck systems.

Application: For turning or drilling.

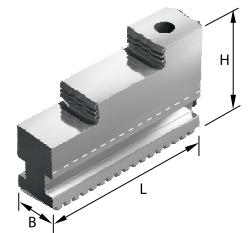
Note:

- **Hard top and stepped jaws purchased subsequently must be ground internally in the chuck for concentricity and run-out.**
- **Please check the serrations when matching to lathe chucks.**



31 3237

for chuck type		160	200	250	315	suitable for colour code
33T 31 3235	Stepped jaws set, 3 pieces, angled serration	eShop	eShop	eShop	eShop	
33T 31 3237	Stepped jaws set, 3 pieces, straight serration	(eShop)	eShop	eShop	eShop	—
Length L (31 3235)	mm	79	94	114	129	
Length L (31 3237)	mm	66.6	84.8	107.4	116.3	
B	mm	20	22	26	32	
H (31 3235)	mm	45	60	70	81	
H (31 3237)	mm	46	54	65	66	
Version		3-step	3-step	2-step	2-step	



Clamping jaws with sharp serration 1/16 inch × 90°

Suitable for: Heavy-duty chucks from Schunk, Röhm and other heavy-duty chuck manufacturers.

Optional extras: T-nuts No. 313505 – 313605.

Note:

- **When fitting to a chuck, please check serrations, slot width (D), and hole spacing (a, b).**
- **Aluminium top jaws on request.**



31 3415_210

Soft top jaws, standard, serration 90°

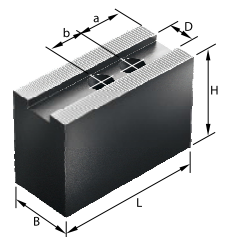
31 3400 – **Precision milled** slots and serrations, **burnished**.

31 3405 – **Precision milled** slots and serrations, **not burnished**.

Clamping jaws with sharp serrations 1/16 inch × 90°.

31 3415 – **Precision milled** slots and **precision ground** serrations, **burnished**.

Material: Quality product made of 16MnCr5.



for chuck type		160	165	200	210	250	400
33R 31 3400	Top jaws set, 3 pieces	eShop	—	eShop	—	eShop	—
33T 31 3415	Top jaws set, 3 pieces	—	eShop	—	eShop	eShop	—
32R 31 3405	Top jaws set, 3 pieces	eShop	—	eShop	—	eShop	eShop
Length L (31 3400, 31 3405)	mm	67	—	75	—	95	130
Length L (31 3415)	mm	—	70	—	90	120	—
B (31 3400, 31 3405)	mm	36	—	36	—	45	50
B (31 3415)	mm	—	40	—	40	50	—
H (31 3400, 31 3405)	mm	53	—	53	—	54	80
H (31 3415)	mm	—	60	—	60	80	—
a (31 3400, 31 3405)	mm	12	—	12	—	15	20
a (31 3415)	mm	—	15	—	25	30	—
b (31 3400, 31 3405)	mm	19	—	19	—	25	31
b (31 3415)	mm	—	22	—	22	28	—
D	mm	17	17	17	17	21	25.5
for thread DIN 912		M12	M12	M12	M12	M16	M20
also suitable for chuck type	mm	—	—	—	—	315	500/630

Colour code: Röhm self-centring chucks and jaws

Schunk self-centring chucks and jaws

Soft top jaws, long, serration 90°

Bevelled for small clamping Ø.

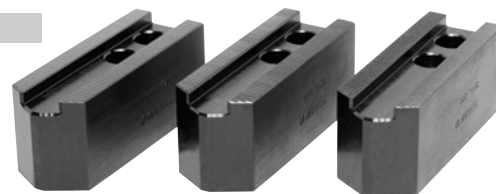
31 3450 – **Precision milled** slots and serrations, **burnished**.

31 3455 – **Precision milled** slots and **precision ground** serrations, **burnished**.

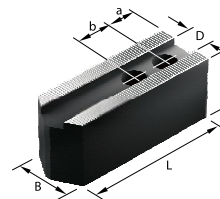
31 3475 – **Precision milled** slots and serrations, **not burnished**.

Clamping jaws with sharp serrations 1/16 inch × 90°.

Material: Quality product made of 16MnCr5.



31 3455_210



for chuck type		160	165	200	210	250	315
33R	31 3450 Top jaws set, 3 pieces	(eShop)	–	eShop	–	eShop	eShop
33T	31 3455 Top jaws set, 3 pieces	–	eShop	–	eShop	eShop	eShop
32R	31 3475 Top jaws set, 3 pieces	eShop	–	eShop	–	eShop	–
Length L	mm	78	80	98	98	120	140
B	mm	35	35	35	35	50	50
H	mm	40	40	40	40	50	50
a	mm	15	15	15	15	20	30
b	mm	22	20	22	22	28	28
D	mm	17	14	17	17	21	21
for thread DIN 912		M12	M10	M12	M12	M16	M16

Hard stepped top jaws, serration 90°

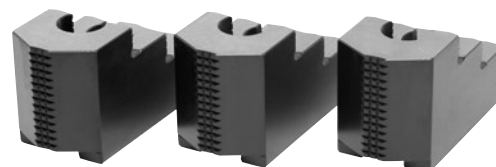
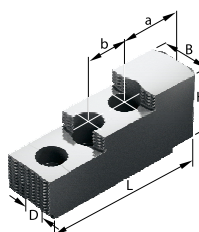
Precision milled slots and **precision ground** serrations, **burnished**.

Hardened.

Material: Quality product made of 16MnCr5.

Application: For external and internal clamping.

Note: **Hard top and stepped jaws purchased subsequently must be ground internally in the chuck for concentricity and runout.**



31 3470_210

for chuck type		165	210	250	315
33T	31 3470 Stepped top jaws set, 3 pieces	eShop	eShop	eShop	(eShop)
L	mm	72.5	84.3	103.5	128
B	mm	40	40	50	50
H	mm	49	49	58	58
a	mm	18	28.7	34	46
b	mm	19	19	25	30
D	mm	17	17	21	21

Soft segment jaws, serration 90°

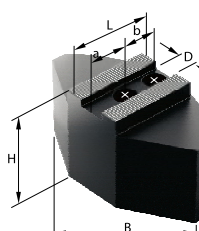
Precision milled slots and **precision ground** serrations, **burnished**.

Material:

31 3435 – Quality product made of 16MnCr5.

31 3437 – Aluminium

Application: All-round low-distortion clamping.



31 3435_210

for chuck type		165	210	250	315
33T	31 3435 Segment jaws set, 3 pieces, Steel	eShop	eShop	eShop	(eShop)
33T	31 3437 Segment jaws set, 3 pieces, Aluminium	eShop	eShop	eShop	(eShop)
L (31 3435)	mm	59.5	69.5	80	110
L (31 3437)	mm	59.5	72.5	87.5	117
B	mm	120	140	180	240
H (31 3435)	mm	60	60	70	70
H (31 3437)	mm	58	58	78	78
a (31 3435)	mm	25	35	30	60
a (31 3437)	mm	22	35	40	70
b	mm	22	22	28	28
D	mm	17	17	21	21

Soft top jaws with sharp serration 1.5 mm×60°

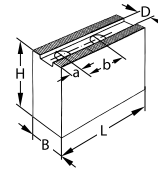
Suitable for: Heavy-duty chucks from Schunk, Röhm and other heavy-duty chuck manufacturers.

Optional extras: T-nuts No. 313505 – 313605.

- Note:**
- When fitting to a chuck, please check serrations, slot width (D), and hole spacing (a, b).
 - Aluminium top jaws on request.



31 3715_210



Soft top jaws, standard, serration 1.5×60°

31 3700 – Precision milled slots and serration, **burnished**.

31 3715 – Precision milled slots and **precision ground** serration, **burnished**.

31 3725 – Precision milled slots and serration, **not burnished**.

Material: Quality product made of 16MnCr5.

for chuck type		165	170	210	250	254	315	315/21	suitable for colour code
33R 31 3700		–	eShop	eShop	–	eShop	–	–	
33T 31 3715		eShop	–	eShop	eShop	–	eShop	eShop	
32R 31 3725		–	eShop	eShop	–	eShop	eShop	eShop	
Length L (31 3700, 31 3715)	mm	72	72	95	110	110	130	129	
Length L (31 3725)	mm	–	72	95	–	110	130	130	
B	mm	32	32	35	40	50	50	50	
H (31 3700, 31 3725)	mm	–	40	45	–	45	50	58	
H (31 3715)	mm	32	–	40	42	–	50	60	
a	mm	15	15	24	30	30	40	39	
b	mm	20	20	25	30	30	30	30	
D	mm	12	12	14	16	16	18	21	
for thread DIN 912		M10	M10	M12	M12	M12	M14	M16	

Soft top jaws, long, serration 1.5×60°

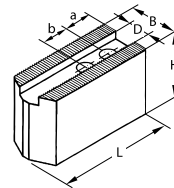
Bevelled for small clamping Ø.

31 3745 – Precision milled slots and serration, **not burnished**.

31 3750 – Precision milled slots and serration, **burnished**.

31 3755 – Precision milled slots and **precision ground** serrations, **burnished**.

Material: Quality product made of 16MnCr5.



31 3755_210

for chuck type		165	170	210	250	254	315	315/21	suitable for colour code
33R 31 3750		–	eShop	eShop	–	eShop	(eShop)	–	
33T 31 3755		eShop	–	eShop	eShop	–	eShop	eShop	
32R 31 3745		–	eShop	eShop	–	eShop	eShop	–	
Length L	mm	82	82	102	125	125	145	145	
B	mm	32	31	35	42	40	50	50	
H	mm	32	32	40	40	40	50	50	
a	mm	15	15	20	30	30	30	30	
b	mm	20	20	25	30	30	30	30	
D	mm	12	12	14	16	16	18	21	
for thread DIN 912		M10	M10	M12	M12	M12	M14	M16	

Soft segment jaws, serration 1.5 × 60°

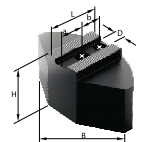
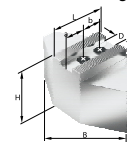
31 3737 – Precision milled slots and **precision ground** serrations.

31 3738 – Precision milled slots and **precision ground** serrations, **burnished**.

Material:

31 3738 – Quality product made of 16MnCr5.

Application: All-round low-distortion clamping.



for chuck type		165	210	250	315	suitable for colour code
33T 31 3737		eShop	eShop	eShop	(eShop)	
33T 31 3738		eShop	eShop	eShop	(eShop)	
Length L (31 3737)	mm	59.5	72.5	87.5	117	
Length L (31 3738)	mm	60	70	80	117	
B	mm	120	140	180	240	
H (31 3737)	mm	58	80	80	78	
H (31 3738)	mm	50	80	80	70	
a (31 3737)	mm	25	35	40	45	
a (31 3738)	mm	25	30	30	45	
b	mm	20	25	30	30	
D	mm	12	14	16	21	

Colour code: Schunk heavy-duty chucks and jaws

Hard stepped top jaws, serration 1.5 × 60°

Precision milled slots and precision ground serration, burnished.

Hardened.

Material: Quality product made of 16MnCr5.**Application:** For external and internal clamping.**Note:** Hard top and stepped jaws purchased subsequently must be ground internally in the chuck for concentricity and runout.

31 3770_210

for chuck type		165	210	250	315	suitable for colour code
33T 31 3770	SCHUNK Stepped top jaws set, 3 pieces	eShop	eShop	eShop	(eShop)	
Length L	mm	67	87	101.5	104	
B	mm	28	35	40	50	
H	mm	36	51	54	52	
a	mm	14	15.5	25.5	20	
b	mm	20	25	30	30	
D	mm	12	14	16	21	
for thread DIN 912		—	—	—	M16	

Fastening screws for hard and soft top jaws

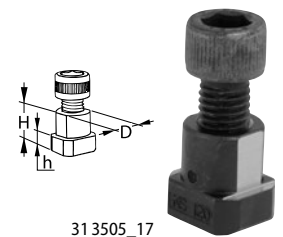
for chuck type		160/200	250	315	suitable for colour code
33R 31 3420	Fastening screw for hard and soft top jaws	eShop	eShop	eShop	
Thread		M8x1	M12x1.5	M12x1.5	
Length	mm	20	30	35	



31 3420

T-nuts

Precision ground, quenched, and tempered.

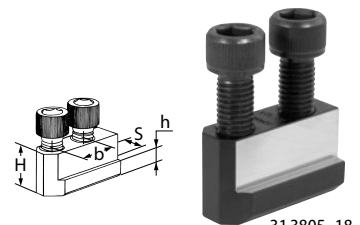
Suitable for: All popular heavy-duty chucks manufactured by Schunk, Forkardt, Röhm, and SMW (with sharp serration).**Supplied with:** Socket head screws DIN 912 - 12.9!**Note:** Other T-nuts available ex works.

31 3505_17

Slot width D	mm	17	21	25,5	Suitable for:
33T 31 3505	SCHUNK	eShop	—	—	Forkardt: NH 160-200, NHF 160-200 Schunk: TH/THF 165-210, HSL 165-210 SMW: HFKS 160-200, HFK 160-200
33R 31 3520	RÖHM	eShop	—	—	Röhm: KFD 160-200
33T 31 3555	SCHUNK T-nut annealed	—	eShop	—	Forkardt: NH 250-315, NHF 250-315 Schunk: TH/THF 250-315, HSL 250-315 SMW: HFKS 250-315, HFK 250-315
33R 31 3570	RÖHM	—	eShop	—	Röhm: KFD 250-315, KFH 250-315
33T 31 3605	SCHUNK	—	—	eShop	Forkardt: NH 400-500, NHF 400-500 Schunk: TH/THF 380-500, HSL 400 SMW: HFKS 400, HFK 400-500
maximum tightening torque	Nm	70	150	220	
Thread G		M12	M16	M20	
H (31 3505, 31 3555, 31 3605)	mm	23	27	29	
H (31 3520, 31 3570)	mm	21.7	25.5	—	
h (31 3505, 31 3555, 31 3605)	mm	9	11.5	11	
h (31 3520, 31 3570)	mm	9.5	11	—	

SCHUNK T-nuts suitable for Schunk and Röhm chucks

Precision ground, quenched, and tempered.

Supplied with: Socket head screws DIN 912 - 12.9!**Note:** Other T-nuts available ex works.

31 3805_18

Slot width S	mm	12	14	16	18	21
33T 31 3805	T-nut annealed	eShop	eShop	eShop	eShop	eShop
maximum tightening torque	Nm	50	70	70	130	150
Thread G		M10	M12	M12	M14	M16
b	mm	20	25	30	30	30
S	mm	12	14	16	18	21
H	mm	18.5	20.5	21.5	33.5	28
h	mm	7.5	8.5	8.5	13.5	11.5
suitable for Röhm KFD-HE		170	210	254	315	315 / 21

Colour code: Schunk heavy-duty chucks and jaws

Schunk self-centring chucks and jaws

Röhm self-centring chucks and jaws



Claw jaws for chucks / accessories

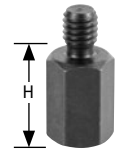
Hardened clamping jaws. For external clamping of blanks, with serration $1.5 \times 60^\circ$.

Note: Suitable for BISON – 2405K; Kitagawa B 200 / BA / HOB / NL / N / NA; Matsumoto H / HA / ZA.



31 3953

Type			1	2	3	4	5		
33T 31 3953	Claw jaws set, 3 pieces, for chucks	Ø 200 mm	eShop	eShop	eShop	eShop	eShop		
33T 31 3955		Ø 250 mm	eShop	eShop	eShop	eShop	eShop		
Clamping range (31 3953)		mm	35 – 63	62 – 90	92 – 121	122 – 151	144 – 173		
Clamping range (31 3955)		mm	43 – 81	84 – 123	128 – 167	173 – 212	202 – 260		
Slot width n (31 3953)		mm	14						
Slot width n (31 3955)		mm	16						
Height H		mm	5	10	15	20	25	Thread M	Width across flats mm
33T 31 3981	Mounting bolt M6 (piece)		eShop	eShop	eShop	eShop	–	M6	10
33T 31 3983	Mounting bolt M8 (piece)		eShop	eShop	eShop	eShop	eShop	M8	14



31 3981



Magnetic workpiece backstop - for lathe chuck

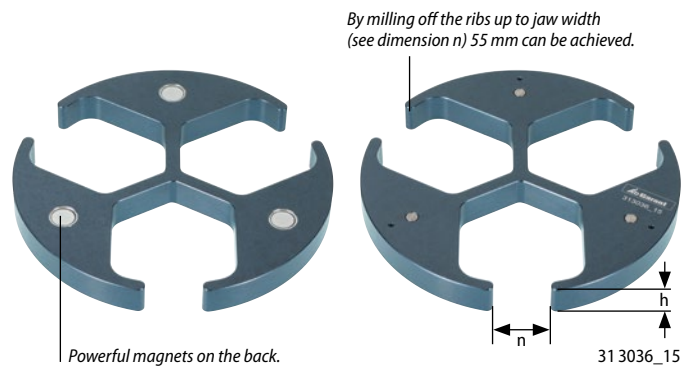
Stop with 3 magnets at the rear. Steel blue anodised.

Suitable for: Three-jaw lathe chucks with jaw width up to 55 mm.

Application:

- For clamping short components.
- For component Ø 15-150 mm.
- Flexible extension of the height by attaching the magnetic height elements No. 313037 5.

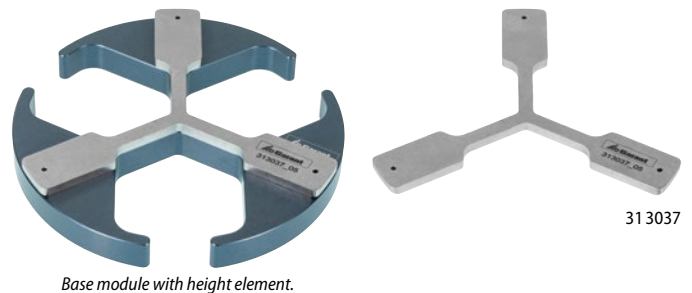
Height h	mm	15
31W 31 3036	Workpiece back-stop, base module	eShop
n	mm	25
Material	Aluminium	



Height element

- Centrifugal force protection (positive locking).
- Magnetic attraction by means of 3 magnets.

Height h	mm	5
31W 31 3037	Height element, star support	eShop
Material	Steel	



Magnetic workpiece backstop - for lathe chuck

31 3033 – Stop with 3 magnets at the rear. Red anodised.

31 3034 – 9 replacement studs.

Suitable for:

31 3033 – Three-jaw lathe chucks with jaw width up to 55 mm.

31 3034 – Workpiece back-stop No. 313033 15.

Application:

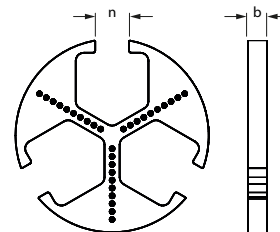
- 31 3033 –
- For clamping short components.
 - For component Ø 15-150 mm.
 - Flexible extension of the height by screwing in the height elements supplied.

Supplied with:

31 3033 – 9-piece height support set No. 313034 9.

Contents: 3×10 mm, 3×15 mm and 3×20 mm.

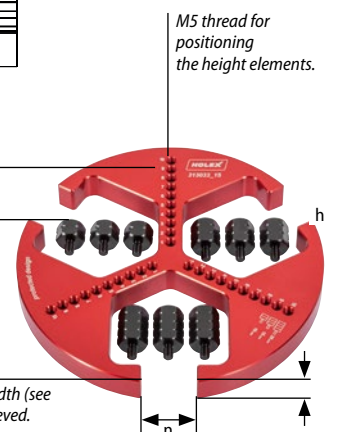
Height h	mm	15
31V 31 3033	Workpiece backstop	eShop
n	mm	25
Material	Aluminium	
Number of pins	9	
31V 31 3034	Stud set	eShop



Numbered 1–10 as an aid to positioning.

9-piece height support set with M5 thread and height orientation notch.

By milling off the ribs up to jaw width (see dimensions n) 55 mm can be achieved.



Clamping devices: Grease regularly

Why?

Regular lubrication maintains the clamping force and ensures reliable operation of the lathe chuck. Reduction in maintenance and repair costs.

Risks!

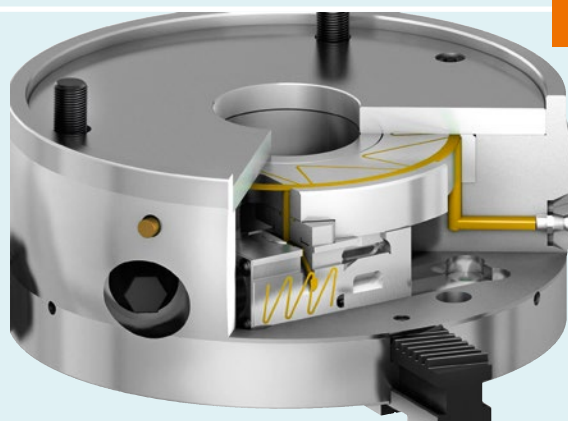
- Clamping force is up to 50% less when the chuck is dry.
- The workpiece may fly out whilst being machined.

What must be complied with?

- Maintenance and lubrication intervals specified by the chuck manufacturer (to DIN EN 1550) must be strictly complied with. This instruction can be found in the instruction manuals.
- Ensure equal distribution of the lubricant to avoid imbalances.

Manufacturers recommend:

- | | |
|--------------|--|
| Linomax: | Particularly suitable for manual chucks |
| Linomax 200: | Particularly suitable for heavy-duty chucks |
| F 80: | Suitable for manual chucks and heavy-duty chucks |



Central lubrication system of a ROTA S Plus 2.0



LINOMAX plus 500 g cartridge

For delivery exclusively within Germany!

Chuck jaws finder – Powered by Schunk and the Hoffmann Group

Easily find the right jaws.

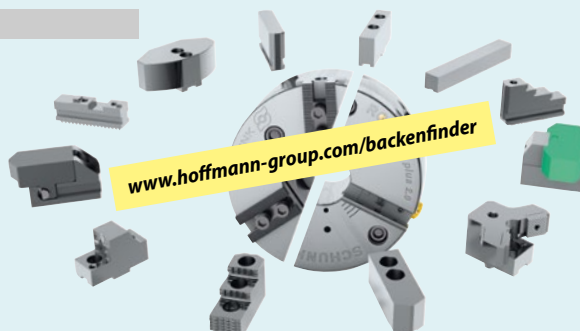
SCHUNK offers the largest range of standard chuck jaws in the world. With just 4 clicks here you can choose the right jaws from more than 1200 standard jaws.

Large selection of jaws for geared scroll chucks, self-centring chucks or heavy-duty chucks from a wide range of manufacturers.



Chucks range

- Schunk
- Kitagawa
- Berg
- Forkard
- Howa
- Röhm
- Samchully
- SMW



Jaws ranges

- Base jaws
- Top jaws
- Stepped jaws
- Lathe jaws
- Stepped jaws
- Reversible jaws
- Claw jaws
- Segment jaws
- and much more

Quickly and easily find the right jaws for your lathe chuck. Just 4 steps take you to the right jaw, using our online Jaws Pilot.

www.hoffmann-group.com/backfinder

Select

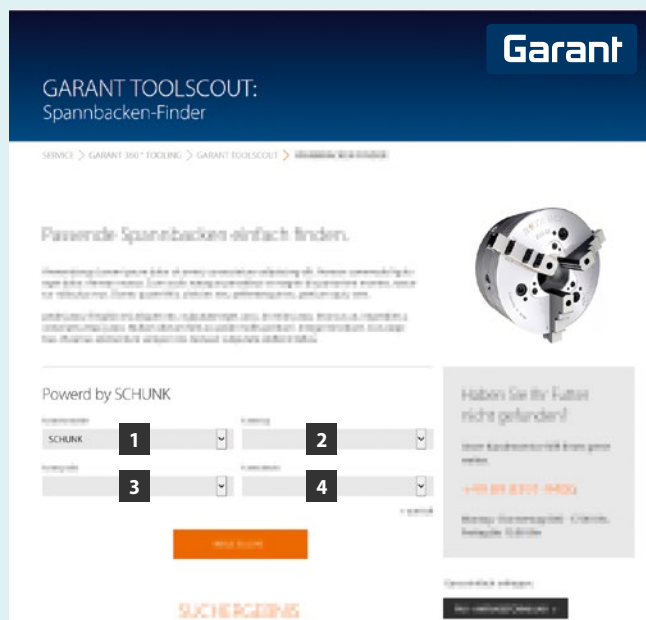
- 1 Chuck manufacturer
- 2 Chuck type
- 3 Chuck size
- 4 Chuck details



Chucks range

- Huge selection of standard clamping jaws for many manufacturers and chuck types.
- Quick and easy.
- No incorrect ordering.
- Mostly available ex stock.

Take advantage of the Hoffmann Group Jaws Pilot and send us a request for a quote without obligation.





Lubricating grease LINOMAX plus

Partially synthetic high-performance grease for regular lubrication of manual chucks and heavy-duty chucks. High bonding capability and water resistance permit constant clamping forces with regular application. The special grease adheres even in the event of rotation in the lathe chuck.

Supplied with: 500 g grease cartridge.

Note: Note the dimensions of the grease gun! Cartridge dimensions: Ø 55 mm × 237 mm.

Available exclusively in the following countries:
DE, ESP, PT, FR, IT, CZ



31 3190

Weight	g	500
30W 31 3190	Lubricating grease LINOMAX plus	—



Combination four-jaw lathe chucks – with individual and centric jaw adjustment

Standard:

31 5635 – **DIN 702-4.**

31 5645 – **DIN 702-3.**

Material: Cast iron

Application: Combined clamping option due to two different jaw adjustments:

a) Self-centring adjustment of the base jaws (geared scroll);

b) Individual adjustment of top jaws.

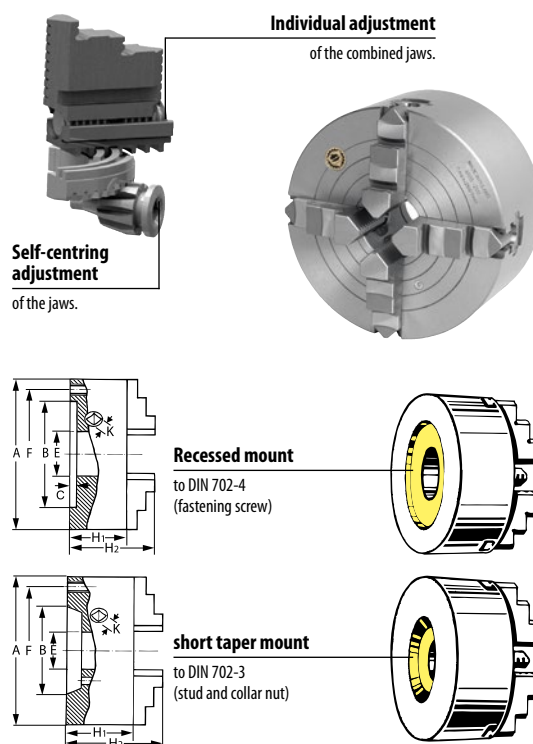
This allows irregularly shaped components to be clamped as if to a face plate. The gear scroll for jaw adjustment is **through-hardened**, the flanks of the scroll and of the bottom jaw teeth are **ground on both sides**.

31 5635 – **With cylindrical centring mount to DIN 702-4.** The chuck is fitted to a flange from the rear by means of screws and this flange is then mounted on to the lathe spindle.

31 5645 – **With short taper mount to DIN 702-3** with studs and collar nuts for spindle noses to DIN 55027. (DIN 55027 and international standard ISO 702/III are identical to DIN 55022 (old standard)). The chuck is fitted to the spindle nose directly, without an intermediate adaptor.

Supplied with:

- 1 set = 4 hardened base jaws,
- 1 set = 4 hardened reversible jaws (internally and externally applicable)
- 1 chuck key,



Outer Ø A / taper	30B 31 5635	30B 31 5645	Aperture E	Height without jaws H ₁	Height with jaws H ₂	Pitch circle diameter F	Number of studs	Size of studs	Centring Ø B	Centring taper B	Centring depth C	Chuck key square K	Weight
	Combination four-jaw lathe chucks												
	recessed mount	short taper mount											
mm	DIN 702-4	DIN 702-3	mm	mm	mm	mm			mm	mm	mm	mm	kg
125	eShop	—	38	75	95	108	—	—	95	—	4	9	6
160	eShop	—	42	84	116	140	—	—	125	—	4	11	11
200	eShop	—	55	96	127	176	—	—	160	—	5	11	19
200/5	—	(eShop)	55	112	143	104.8	4	M10	—	82.575	—	11	19
200/6	—	(eShop)	55	112	143	133.4	4	M10	—	106.39	—	11	19
250	eShop	—	76	102	135	224	—	—	200	—	6	14	31

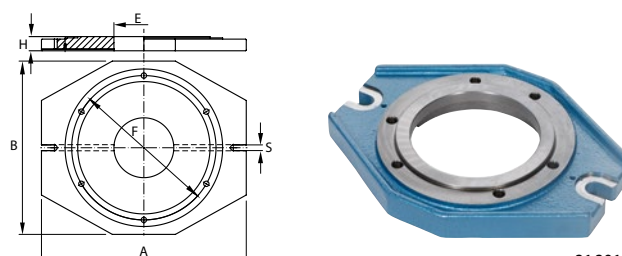


Base plates

Swivel base with longitudinal tenon slot for fast and exact alignment of the vice. Clamping slots for easy fitting to the machine table.

Application: For attachment of lathe chucks with recessed mount to DIN 6350.

Supplied with: T-nuts, fastening screws.



31 3910

for chuck type	30B 31 3910	Length A	Width B	Height H	Slot width S	Pitch circle diameter F	Aperture E	Total weight
mm	Base plate	mm	mm	mm	mm	mm	mm	kg
160	eShop	250	190	28	14	140	90	4.8
200	eShop	300	234	32	18	176	130	7.5
250	eShop	354	292	32	18	224	147	11.5

1043



RotoRi jaw turning out ring set with RotoFix premium bolts

The special patented design of the turning out rings with **curved segments** permits stepless adjustment of the jaws to achieve the required diameter. The patented flexible RotoFix clamping bolts in the set make it possible to compensate for the large counter-bore tolerances in the clamps of different manufacturers by means of a 2-mm adjustment range. No reworking of screw counterbores is necessary.

Application: The rings made from high-strength special steel allow soft clamping jaws to be bored precisely under clamping pressure or hard clamping jaws to be ground. Can be used on internal or external machining of the jaws.

Supplied with: Sheet metal stand, RotoFix premium bolts and RotoFix rings.

Size S – 20 rings and 3 bolts each M8 / M10.

Size LX – 29 rings and 3 bolts each M10 / M12 / M16.

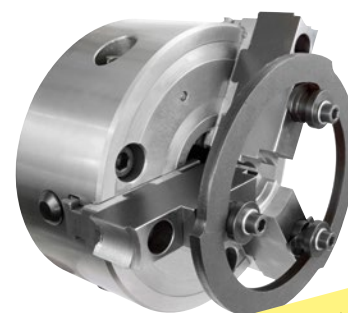
Size XL – 10 rings and 3 bolts each M16 / M20.

Note: On request also available for 4 and 6-jaw chucks.

Type		S
30N 31 5910	RotoRi jaw turning out ring set	eShop
Internal clamping Ø	mm	25 – 121
External clamping Ø	mm	39 – 153
suitable for chuck dia.	mm	80 – 200
suitable for counterbore for outside jaws		M8; M10

Type		LX
30N 31 5910	RotoRi jaw turning out ring set	eShop
Internal clamping Ø	mm	25 – 213
External clamping Ø	mm	39 – 249
suitable for chuck dia.	mm	80 – 315
suitable for counterbore for outside jaws		M10; M12; M16

Type		XL
30N 31 5910	RotoRi jaw turning out ring set	eShop
Internal clamping Ø	mm	195 – 315
External clamping Ø	mm	249 – 369
suitable for chuck dia.	mm	315 – 630
suitable for counterbore for outside jaws		M16; M20



Suitable for 3-jaw, manual chucks or heavy-duty chucks!



31 5910_S



31 5910_LX



31 5910_XL



Operation of RotoFix premium bolts and clamping options

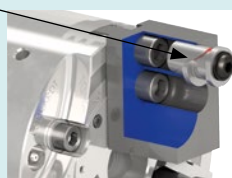
1. RotoFix clamping bolt is open. RotoFix clamping bolt is used in the screw countersink up to the shoulder.



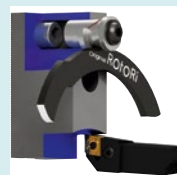
2. Rotating the screw adapts the diameter of the RotoFix clamping bolt to the countersink.



3. The RotoFix clamping bolt is now fixed in the bore and the RotoRi ring can be used in the mounting groove of the bolt.



External clamping with RotoFix



External clamping with ROTORI



Internal clamping with RotoFix



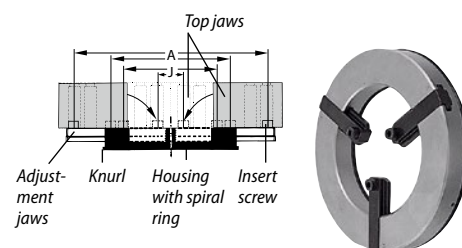
Internal clamping with ROTORI



ROHM Jaw cutting attachment – for three-jaw chucks

Within the body is a **drop-forged gear scroll**, which is rotated via a knurl ring on the periphery of the body. This gear scroll moves 3 **reversible** adjustment jaws steplessly inwards or outwards. For turning, the clamping screws of the adjustment jaws are positioned in the bore of the lathe chuck top jaws and the chuck is tightened. **During turning the chuck is in the same condition (preloaded) as for the subsequent workpiece machining.**

Application: For precision machining **internal and external diameters of soft top jaws** on lathe chucks. **Also suitable for external and internal re-grinding** of hardened top jaws to **correct radial runout.**



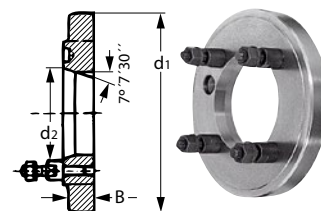
Outer / inner Ø	mm	153/110	176/110	215/135	244/162	290/208	342/260
38L 31 5900 Jaw cutting attachment		eShop	eShop	eShop	eShop	(eShop)	(eShop)
Insert area Ø position J	mm	50 – 115	35 – 125	70 – 140	100 – 175	145 – 215	160 – 270
Insert area Ø position A	mm	150 – 215	170 – 260	215 – 285	240 – 360	290 – 360	330 – 440
Weight	kg	1.5	3.5	5	6	7	8
suitable for chucks up to Ø	mm	250	200	250	250	315	400
suitable for chuck dia.	mm	80 – 200	–	–	–	–	–

ROHM Short taper adapters

Finish machined on all sides.

Material: C45 steel

Application: For retrofitting to lathe chucks with recessed mount to DIN 6350 A. **Lathe chucks with incorporated short tapers are preferable due to shorter overhang.**
For spindle noses **DIN 55027** and ISO 702/III (equals the old standard **DIN 55022**) with studs and collar nuts.



Ø d ₁ / taper	mm	160/5	200/5	200/6	250/6	250/8	315/6	315/8	400/11
33R 31 7500 Short taper chuck flange DIN 55027		eShop	(eShop)	eShop	eShop	eShop	(eShop)	(eShop)	eShop
Taper Ø d ₂	mm	82.575	82.575	106.39	106.39	139.735	106.39	139.735	196.885
Thickness B	mm	21	21	23	23	26	26	26	31
Number of studs		4	4	4	4	4	4	4	6

ROHM Spare chuck key

31 7810 – **With spring-mounted sleeve** to prevent the key being inadvertently left in the chuck.

Application: For chucks No. 310100 – 312700.

Note: For chuck size 74, see hexagon key No. 626000.



for chuck Ø	mm	80	100	125	160	200	250	315	350	400
33R 31 7800 Standard chuck key		eShop	eShop	eShop	eShop	eShop	eShop	eShop	(eShop)	(eShop)
33R 31 7810 Safety chuck key sprung, with ejector.		–	(eShop)	eShop	eShop	eShop	eShop	eShop	(eShop)	(eShop)
Square	mm	6	8	9	10	11	12	14	14	17
also suitable for chuck Ø	mm	–	–	140	–	–	–	–	–	–

HOLEX Length stop for lathes (hollow spindle stop)

Function: Twisting the clamping stud tightens the 4 integral jaws against the inner wall.

Application: Optimum aid for axial locking to any point on the hollow spindle.

Supplied with: Including special wrench for the clamping pin.

Note: Not suitable for automatic chucks with a clamping tube.

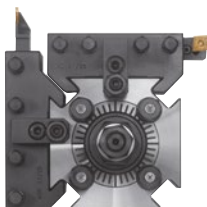


Type		1	2	3	4	5	6	7	8	9	10	11
32Z 31 3145 Length stop for lathe		eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
for spindle Ø	mm	20 – 23	23 – 27	27 – 31	31 – 39	39 – 47	47 – 57	57 – 65	65 – 78	78 – 94	94 – 110	110 – 130
Length of clamping wrench	mm	600	600	600	600	600	750	750	750	750	750	750

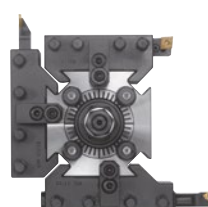
Quick-change toolholders and clamping sleeves



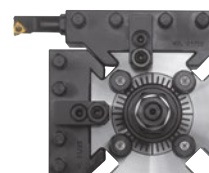
WD universal



WDR / WD combined



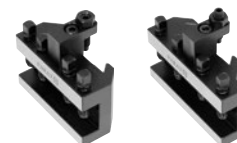
WDR external turning



WDL internal machining

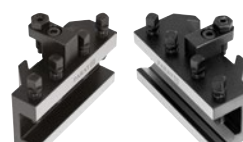
Quick-change toolholder

Type			1/12	1/20	2/25	3/32	3/40	4/40	4/50
33P 31 6120		WD quick-change holder Universal	eShop	eShop	eShop	eShop	eShop	eShop	eShop
33P 31 6140		WDL quick-change holder Internal machining	(eShop)	(eShop)	eShop	eShop	eShop	(eShop)	(eShop)
33P 31 6160		WDR quick-change holder External machining	(eShop)	(eShop)	eShop	eShop	eShop	(eShop)	(eShop)
33P 31 6180		WDPL quick-change holder for round lathe tools	eShop	—	eShop	eShop	—	(eShop)	—
Type / Internal Ø R	mm		1/30	2/40	3/40	3/50	4/60		
33P 31 6200		WB quick-change holder internal machining	(eShop)	eShop	eShop	eShop	(eShop)		



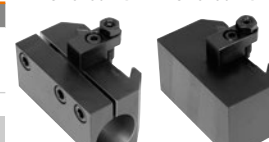
31 6120 WD

31 6140 WDL



31 6160 WDR

31 6180 WDPL



31 6200 WB

31 6220 WBW

Clamping sleeves

Application: For use with quick-change toolholder WB.
For holding tools with **MT shank**.

Type			2/3	2/4	3/3	3/4	4/4	4/5
33P 31 6240		Clamping sleeve For MT shank	eShop	eShop	eShop	eShop	(eShop)	(eShop)
Suitable for No. 316200			2/40; 3/40	2/40; 3/40	3/50	3/50	4/60	4/60
L	mm		112	135	112	135	138	138
Ø	mm		40	40	50	50	60	60
Suitable for Morse taper			MK3	MK4	MK3	MK4	MK4	MK5



31 6240

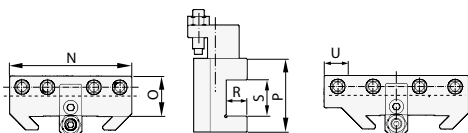
Application: For holding tools with **plain shank**.

Note: Please specify required clamping Ø with order.

Type / Clamping Ø	mm	1/8	2/10	3/20	4/25
33E 31 6260		(eShop)	(eShop)	(eShop)	(eShop)
specify required clamping Ø	mm	8; 10; 12; 15; 16; 20; 25	10; 12; 15; 16; 20; 25; 32	20; 25; 32; 40	25; 32; 40; 50
Suitable for No. 316200		1/30	2/40; 3/40	3/50	4/60
L	mm	50	78	88	88
Ø	mm	30	40	50	60
Collar thickness	mm	4			



31 6260



Type	Size	N	O	P	R	S	U	kg
WD	1/12	84	24	47	14	22	—	0.7
WDL/WDR	1/12	100	24	47	14	22	16	0.8
WD	1/20	84	33	52	20	22	—	0.8
WDL/WDR	1/20	100	33	52	20	22	16	0.9
WDPL	1/12	100	28	47	16	22	16	0.9
WB/WBW	1/30	84	39	47	Ø 30	—	—	0.8
WD	2/25	110	36	66	19	33	—	1.9
WDL/WDR	2/25	130	36	66	19	33	20	2.1
WDPL	2/25	130	51	62	31	33	20	2.3
WB/WBW	2/40	110	51	63	Ø 40	—	—	1.8

Type	Size	N	O	P	R	S	U	kg
WD	3/32	140	44	76	25	33	—	3.0
WDL/WDR	3/32	165	44	76	25	33	25	3.4
WDPL	3/32	165	53	66	Ø 31	33	25	3.6
WD	3/40	140	44	76	25	43	—	3.1
WDL/WDR	3/40	165	44	76	25	43	—	3.4
WB/WBW	3/40	140	53	76	Ø 40	—	—	2.7
WB/WBW	3/50	140	60	76	Ø 50	—	—	3.5
WD	4/40	160	53	96	30	44	—	5.0
WDL/WDR	4/40	190	53	96	30	44	30	5.8
WDPL	4/40	190	63	96	40	52	30	6.5
WD	4/50	160	63	96	40	54	—	5.5
WDL/WDR	4/50	190	63	96	40	54	30	6.0
WB/WBW	4/60	160	77	94	Ø 60	—	—	6.0

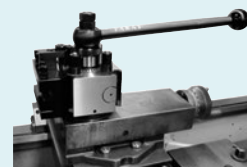
4-way turrets (RD) available on request



PSC on request.



Assembly service on bracket
or top support available
for sizes RD1 – RD5.





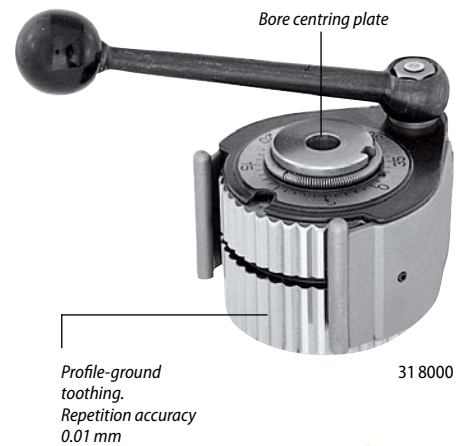
Quick-change toolholders

Quick-change lathe tool post with eccentric clamping

Application: Place the lathe tool post with its surface-ground face on to the cross slide in a horizontal position and clamp it. To do this, the bore of the centring plate must have been turned beforehand. Alignment is performed with the boring bar and boring bar holder clamped in position, aligned at right angles to the face plate. Then adjust the pointer to the zero mark of the cover disc and tighten the T-bolt securely. For precision lathe work or heavy roughing cuts, it is advisable to secure the post with two dowel pins. The holes are pre-drilled.

Supplied with: 1 eccentric lever for No. 318000, 1 tool post key for No. 318100; 318200.

Type		AA	A	B	C	E
36A 31 8000	Quick-change lathe tool post	eShop	eShop	eShop	eShop	eShop
maximum drive power of lathe	kW	1.104	1.472	5.888	11.04	5
maximum cross slide width SB	mm	80	100	150	180	120
maximum turning tool height h	mm	12	20	32	45	25
Bore Ø of the head	mm	13	20	32	40	20
Bore Ø of the centering plate	mm	10	10	16	16	10
Width	mm	70	100	150	200	137
Height	mm	37	54	75	105	66
maximum reach A	mm	30	48	71	100	69



Version and further applications can be found in the table on page 1044

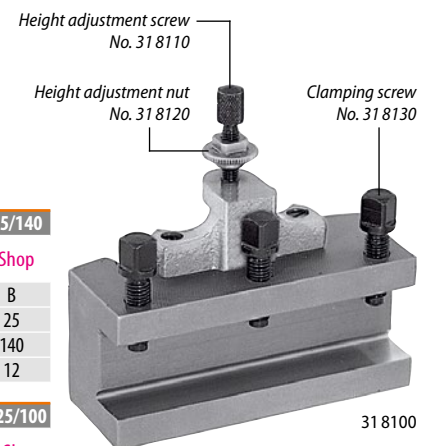
Quick-change turning toolholder

With flat tool base. Equipped with locking height adjustment screw and 3 tool clamping screws.

Note: When ordering spare parts No. 318110 – 318130 please state the spare part number and the size of the quick-change lathe tool post A, B C or E.

Type		AA12/50	A16/75	A16/90	A20/75	A20/90	B25/120	B25/140
36A 31 8100	Quick-change turning toolholder	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Suitable for No. 318000		AA	A	A	A	A	B	B
Height of the toolholder	mm	12	16	16	20	20	25	25
Length	mm	50	75	90	75	90	120	140
Thickness of tool support W	mm	6	8.75	8.75	10	10	12	12

Type		B32/120	B32/140	C32/150	C32/170	C40/150	C40/170	E20/100	E25/100
36A 31 8100	Quick-change turning toolholder	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Suitable for No. 318000		B	B	C	C	C	C	E	E
Height of the toolholder	mm	32	32	32	32	40	40	20	25
Length	mm	120	140	150	170	150	170	100	100
Thickness of tool support W	mm	14	14	17	17	17	18	10	12



Quick-change boring bar holder with prism

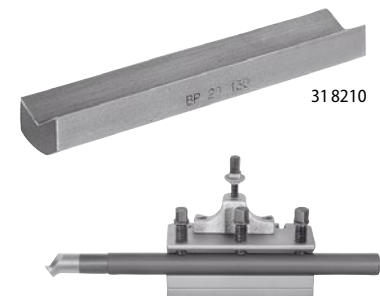
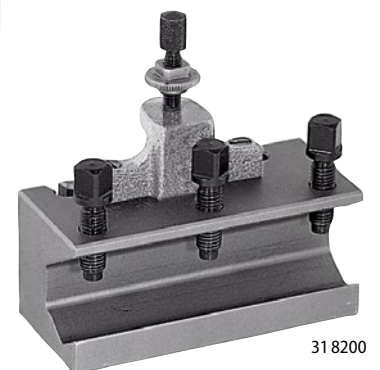
Application: For holding boring bars and other tools with a cylindrical shank. Equipped with locking height adjustment screw and 3 tool clamping screws.

Type		AA	A	B	C40	C50	E
36A 31 8200	Quick-change boring bar holder	eShop	eShop	eShop	eShop	eShop	eShop
Suitable for No. 318000		AA	A	B	C	C	E
for boring bar Ø	mm	12	20	32	40	50	20
Length	mm	50	85	130	160	160	100

Vee block base

Application: For boring bar holder No. 318200 size B. For holding small boring bars and boring heads.

36A 31 8210	Vee block base	eShop
Suitable for No. 318200		B
Length	mm	130



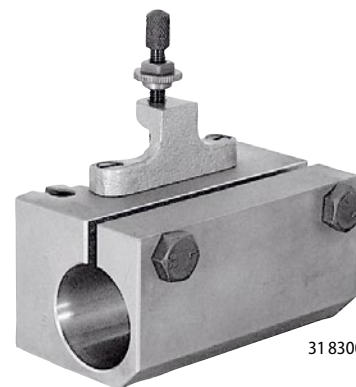
31

Quick-change toolholder with plain bore

Equipped with locking height adjustment screw and 2 clamping screws.

Application: For mounting Morse taper sleeves No. 318400.

Type		A	B	C40	C50	E
36A 31 8300	Quick-change toolholder with plain bore	eShop	eShop	eShop	eShop	eShop
Suitable for No. 318000		A	B	C	C	E
Bore Ø	mm	30	40	40	50	40
Length	mm	80	120	160	160	100



31 8300

Morse taper sleeves

Morse taper sleeve with release screw for quick-change toolholder No. 318300. The sleeve is cylindrical on the outside.

Application: For tools with Morse taper shank (e.g. drills, countersinks, reamers etc.).

Type		A1	A2	B3	B4	C3	C4
36A 31 8400	MT sleeve for quick-change toolholder	(eShop)	eShop	eShop	eShop	eShop	eShop
Suitable for No. 318300		A	A	B; C40	B; C40	C50	C50
Shank MT		1	2	3	4	3	4
External Ø	mm	30	30	40	40	50	50



31 8400

Quick-change parting-off toolholder

Rigid toolholder for parting-off tools.

The parting-off tool projection is especially short and non-vibrating, and the side of the tool is flush with the toolholder.

Type		A	B
36A 31 8600	Quick-change parting-off toolholder without tool	eShop	eShop
Suitable for No. 318000		A	B
suitable for blade height	mm	26	32



31 8600

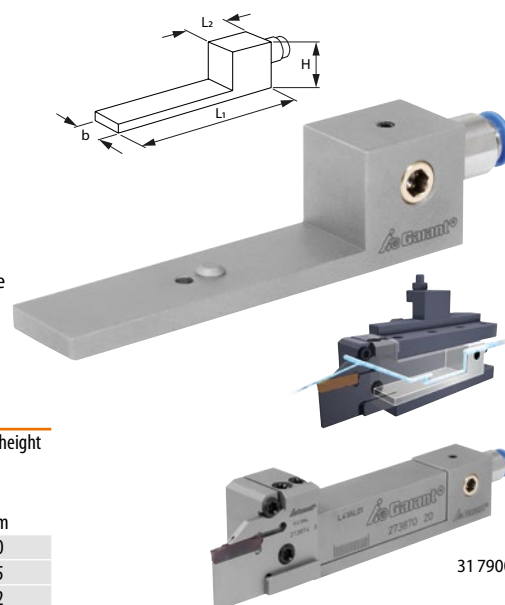


Garant Eco retrofit kit for square toolholder

- For coolant transfer to Eco system screw-on toolholders and grooving toolholders.
- **Suitable for AXA quick-change lathe toolholder no. 318100 and PARAT change toolholders no. 316120 – 316160.**
- The coolant feed is performed via a hose coupling from the left, right or rear.

Supplied with: Includes a screw plug and quick-change coupling (G 1/8 inch) for connection of a hose with external Ø 6 mm. Coupling length 17.4 mm.

Shank width b	31V 31 7900	for shank height H ₁	Overall length L ₁	Length L ₂	Overall height H
	Eco retrofit kit				
mm		mm	mm	mm	mm
16	eShop	16	79	25	20
20	eShop	20	94	25	25
25	eShop	25	109	25	32



31 7900

Garant Eco shim

Shim made from heat treatable steel, hardened. Insert height ± 0.05 mm for precise mounting of the clamping toolholder. With side markings with regard to the coolant transfer.

Application: For use of Eco screw-on toolholders with shank dimension 20 mm, also VDI40 and VDI50 holders.

Type		25/20
31V 31 7903	Eco shim	eShop
Length	mm	85
Width	mm	22
Height	mm	5



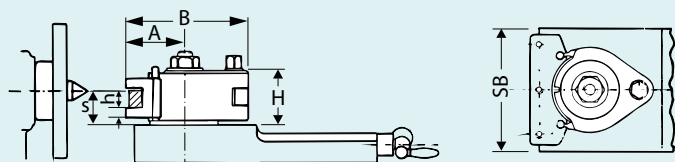
31 7903

Quick-change lathe toolholders



Size determination for tool post No. 31 8000 and turning toolholder No. 318100.

1. Cross slide width SB.
The length L of the turning toolholder No. 31 8100 should be about equal to the cross slide width SB.
2. Minimum cutting edge height S when using turning tool height h.



Example for size determination:

- Existing: Cross slide width "SB" = 145 mm
height of cutting edge "S" = 33 mm
- Required:
1. Turning toolholder No. 31 8100 size B25/140
140 – for cross slide width SB 145
B25 – for cutting edge height 33
(maximum turning tool height h = 20 mm).
 2. Tool post No. 31 8000 size B.

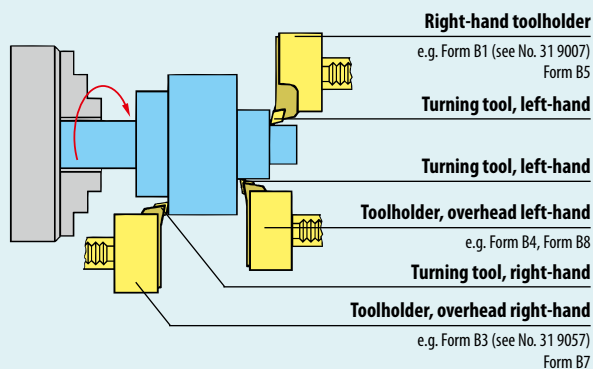
Tool height h	Turning toolholder size														
	AA		A		E		B		C		D				
	12	16	20	20	25	25	32	32	40	1/40	1/50	1/63	2/50	2/63	
mm	Necessary minimum cutting edge height S (mm)														
6	12														
8	14	17													
10	16	19	20	20	22										
12	18	21	22	22	24	24									
(14)		23	24	24	26	26									
16		25	25	26	28	28									
20			29	30	32	32	33								
25					37	37	38	40,5							
32							45	47,5	47,5	52			52		
40									55,5	60	60		60	65	
50											70	70	70	75	
63												83		88	

Information on the operation of VDI arbors to DIN 69880, Part 1

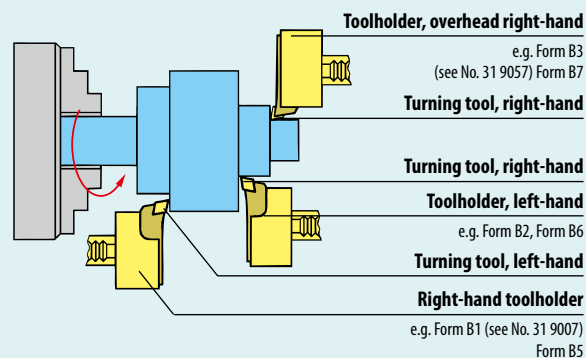


Application of radial toolholders

for **anti-clockwise** headstock rotation

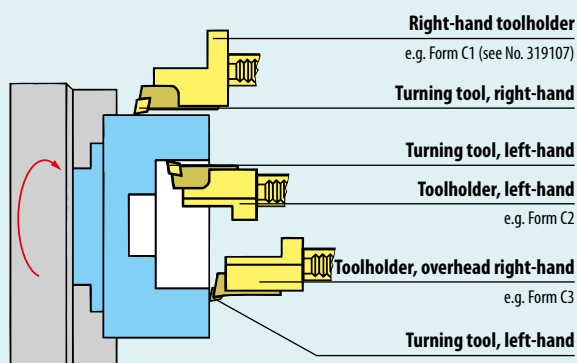


for **clockwise** headstock rotation

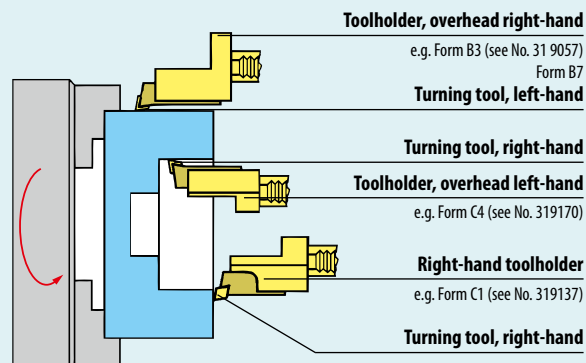


Application of axial toolholders

for **anti-clockwise** headstock rotation



for **clockwise** headstock rotation



Driven tools for disc turrets and radial turrets

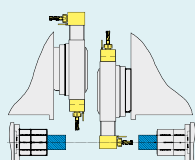
Optimise your machining processes.

The use of EWS precision tools makes your production process more efficient due to:

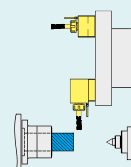
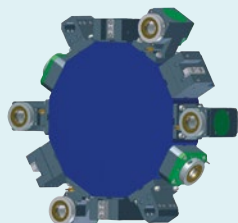
- More flexible use of your machine.
- Complete machining of complex workpieces.
- Rationalisation of former operations.



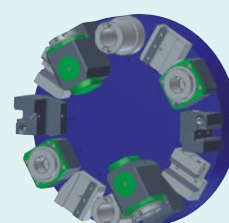
VDI radial turret



BMT radial turret



VDI disc turret



Turret interface



DIN 5480



DIN 5482



DIN 1809

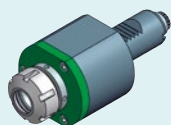


DIN TOEM

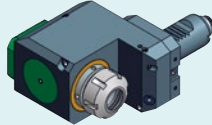


Okuma LB

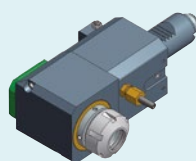
Tool overview for radial turrets



Axial drilling and milling head



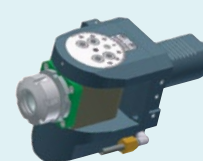
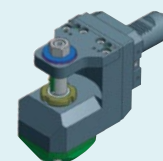
Radial drilling and milling head, recessed



Radial drilling and milling head



Radial drilling and milling head, double-sided

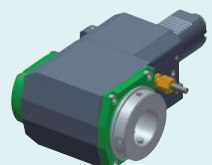
Pivot head $\pm 90^\circ$ 

Disc milling head

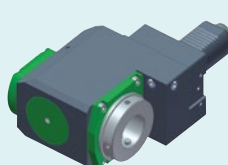
EWS VARIA quick-change system



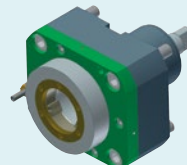
Axial drilling and milling head, VARIA



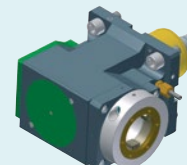
Radial drilling and milling head, VARIA



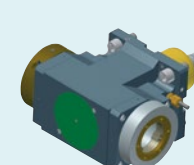
Radial drilling and milling head, VARIA, recessed



Axial drilling and milling head, VARIA



Radial drilling and milling head, VARIA

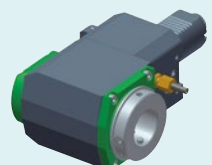


Radial drilling and milling head, double-sided VARIA

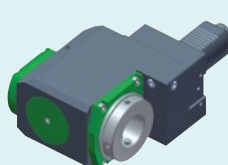
Driven tools VARIA – BMT



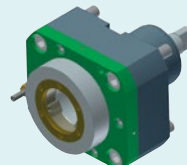
Axial drilling and milling head, VARIA



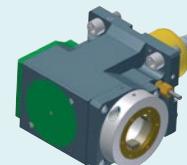
Radial drilling and milling head, VARIA



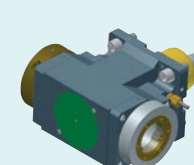
Radial drilling and milling head, VARIA, recessed



Axial drilling and milling head, VARIA



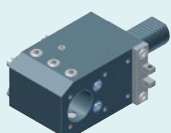
Radial drilling and milling head, VARIA



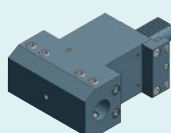
Radial drilling and milling head, double-sided VARIA

Overview tool range – Stationary tools for radial turrets

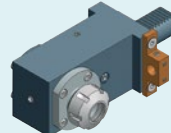
VDI arbor: DIN 69880



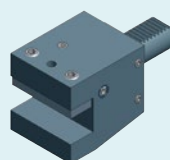
Fixed boring bar holder



Boring bar holder, double face, fixed



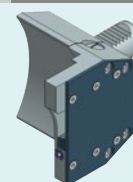
ER collet chuck



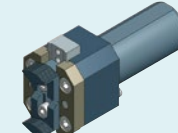
Square transverse toolholder



Offset toolholder VDI / VDI



Parting-off toolholder



Bar holder

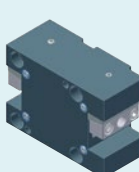
BMT stationary tools



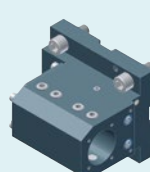
Square transverse toolholder



Square longitudinal toolholder



Multiple toolholders



Boring bar holder

All tools alternatively also available with e.g. ER collet, Weldon arbor or milling mandrel arbor, VARIA or VARIA VX/VXT also available with internal (IC) or external (EC) coolant supply, and step-up or step-down gearing.

Garant

EWS
Tool Technologies

HOLEX

Overview of the tool range – disc turrets / radial turrets



B = Square transverse toolholders



GARANT eco B1,
right-hand, short (No. 31 9006)



GARANT eco B2,
left-hand, short/No. 31 9016



GARANT eco B3,
overhead right-hand, short (No. 31 9026)



GARANT eco B4,
overhead left-hand, short (No. 31 9036)



HOLEX B1,
right-hand, short (No. 31 9007)



HOLEX B2,
left-hand, short (No. 31 9017)



HOLEX B3,
overhead right-hand, short (No. 31 9027)



HOLEX B4,
overhead left-hand, short (No. 31 9037)



HOLEX B5,
right-hand, long (No. 31 9047)



HOLEX B6,
left-hand, long (No. 31 9057)



GARANT B7,
overhead right-hand, long (No. 31 9066)



GARANT B8,
overhead left-hand, long (No. 31 9076)

C = Square longitudinal toolholders



GARANT eco C1,
right-hand (No. 31 9106)



GARANT eco C2,
left-hand (No. 31 9116)



GARANT eco C3,
overhead right-hand (No. 31 9126)



GARANT eco C4,
overhead left-hand (No. 31 9136)



HOLEX C1,
right-hand (No. 31 9107)



HOLEX C2,
left-hand (No. 31 9117)



HOLEX C3,
overhead right-hand (No. 31 9127)



HOLEX C4,
overhead left-hand (No. 31 9137)

E = Toolholders with plain shank



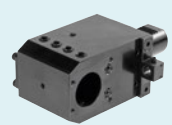
HOLEX E1,
Indexable drill holder
(No. 31 9205)



HOLEX E2,
Boring bar holder
(No. 31 9330)



GARANT E2,
Slotted boring bar holder
(No. 31 9276)



EWS E2,
Boring bar holder
(No. 31 9733 / 9735)



HOLEX E3,
OZ collet chuck
(No. 31 9501 / 9505)



HOLEX E4,
ER collet chuck
(No. 31 9510 / 9512 / 9515)

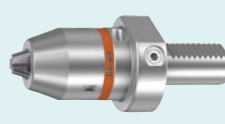
D = Multiple toolholders



HOLEX D1,
Multiple toolholder
(No. 31 9185)



HOLEX D2,
Multiple toolholder, overhead
(No. 31 9190)



GARANT drill chuck,
(No. 31 9715 / 9725_1-16)

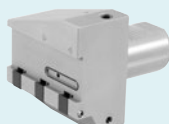


Z2,
Blanking plug (No. 31 9770)

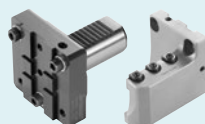


GARANT eco,
Double-sided (No. 31 9191)

Parting-off toolholders, bar holders, blanks



GARANT eco,
Parting-off toolholder (No. 31 9133)



Base toolholder (No. 31 9135)
and parting-off toolholder (No. 31 9140)



EWS parting-off toolholder
(No. 31 9149)



Bar holder
(No. 31 9711 ff.)



A2,
Cylindrical blank



31

GARANT Master Eco VDI toolholders

Form B1, B2, B3, B4, B5, B6, B7 and B8

Form
B

- Case-hardened HRC 58 ± 2.
- All functional faces ground.
- With ball spray nozzles.

Standard: ISO 10889 / DIN 69880 / VDI 3425, sheet 2.

Application: Mainly for external machining.

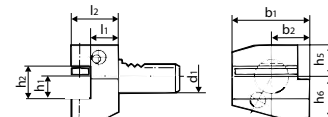
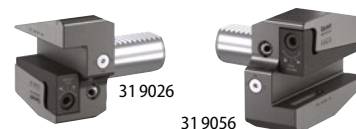
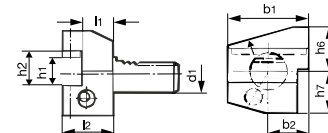
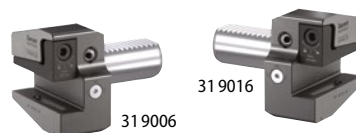
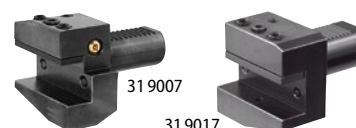
Size 20-40:
with screw-in coolant nozzle
up to 80 bar

Coolant
transfer
Garant eco

Conventional
cooling

Shank Ø d ₁	mm	16	20	25	30	40	50
31V 31 9006	Garant	GARANT Master Eco VDI toolholder, Form B1 radial right-hand, short	—	eShop	eShop	eShop	eShop
32V 31 9007	HOLEX	Toolholder, form B1 radial right-hand, short	eShop	eShop	—	eShop	eShop
31V 31 9016	Garant	GARANT Master Eco VDI toolholder, Form B2 radial left-hand, short	—	eShop	eShop	eShop	eShop
32V 31 9017	HOLEX	Toolholder form B2 radial left-hand, short	eShop	eShop	—	eShop	eShop
31V 31 9026	Garant	GARANT Master Eco VDI toolholder, Form B3 radial right-hand, short	—	eShop	eShop	eShop	eShop
32V 31 9027	HOLEX	Toolholder form B3 radial right-hand, short	eShop	eShop	—	eShop	eShop
31V 31 9036	Garant	GARANT Master Eco VDI toolholder, Form B4 radial left-hand, short	—	eShop	eShop	eShop	eShop
32V 31 9037	HOLEX	Toolholder form B4 radial left-hand, short	eShop	eShop	—	eShop	eShop
31V 31 9046	Garant	GARANT Master Eco VDI toolholder, Form B5 radial right-hand, long	—	—	—	eShop	eShop
32V 31 9047	HOLEX	Toolholder form B5 radial right-hand, long	—	—	—	eShop	eShop
31V 31 9056	Garant	GARANT Master Eco VDI toolholder, Form B6 radial left-hand, long	—	—	—	eShop	eShop
32V 31 9057	HOLEX	Toolholder form B6 radial left-hand, long	—	—	—	eShop	eShop
31V 31 9066	Garant	GARANT Master Eco VDI toolholder, Form B7 radial right-hand, long	—	—	—	eShop	eShop
31V 31 9076	Garant	GARANT Master Eco VDI toolholder, Form B8 radial left-hand, long	—	—	—	eShop	eShop
h ₁ (31 9006, 31 9016, 31 9026, 31 9036, 31 9046, 31 9047, 31 9056, 31 9057, 31 9066, 31 9076)	mm	—	16	16	20	25	25
h ₂ (31 9007, 31 9017, 31 9027, 31 9037)	mm	12	16	—	20	25	32
h ₃ (31 9007, 31 9017, 31 9027, 31 9037, 31 9047, 31 9057)	mm	17	22	—	29	25	41
b ₁ (31 9006, 31 9007, 31 9016, 31 9017, 31 9026, 31 9027, 31 9036, 31 9037)	mm	42	55	55	70	85	100
b ₂ (31 9046, 31 9047, 31 9056, 31 9057, 31 9066, 31 9076)	mm	—	—	—	100	118	—
b ₃ (31 9006, 31 9007, 31 9016, 31 9017, 31 9026, 31 9027, 31 9036, 31 9037)	mm	23	30	30	35	42.5	50
b ₄ (31 9046, 31 9047, 31 9056, 31 9057, 31 9066, 31 9076)	mm	—	—	—	65	75.5	—
h ₆ (31 9006, 31 9007, 31 9016, 31 9017, 31 9026, 31 9027, 31 9036, 31 9037, 31 9046, 31 9056, 31 9066, 31 9076)	mm	30	30	30	38	48	60
l ₁	mm	13	16	16	22	22	30
l ₂	mm	24	30	30	40	44	55

Colour code for VDI shanks



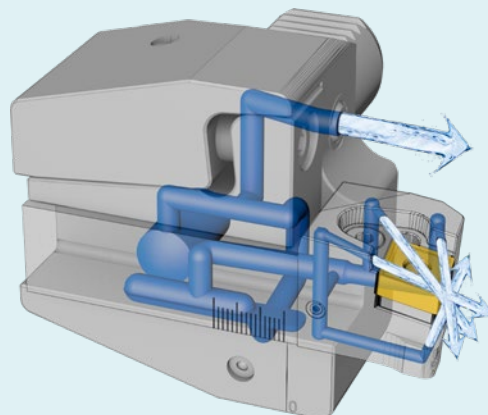
Garant Master eco

Reliable and precise:

GARANT Master eco includes the latest generation of our tried-and-tested GARANT toolholders with internal coolant feed. Our performance promise is efficient cooling of your machining processes.



Direct coolant transfer from the machine to the GARANT Master eco VDI toolholder, to the toolholder. Perfect cooling and chip evacuation at the cutting edge.



Colour code: VDI 16 VDI 20 VDI 25 VDI 30 VDI 40 VDI 50

The new GARANT Master eco-VDI toolholder family form B and C



Novel coolant adjustment.



3 different coolant supply variants via coolant switch using adjusting screw:

Internal: eco cooling by the toolholder.

External: cooling via ball spray nozzle.

Mix: internal + external

Very easy to operate.



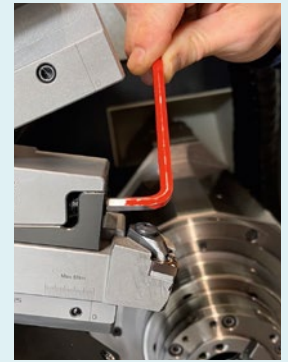
The toolholder is fixed to the GARANT Master eco VDI holder by means of only **one** fastening screw.

Optimised accessibility.

The toolholder can be changed directly on the turret in the machine using the front mounting concept.



Before



Afterwards:
GARANT Master eco

Form C1, C2, C3, and C4

Form C

- Case-hardened HRC 58 ± 2.
- All functional faces ground.
- With ball spray nozzles.

Standard: ISO 10889 / DIN 69880 / VDI 3425, sheet 2.

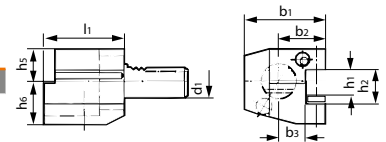
Application: For face cutting in.

Size 20-40:
with screw-in coolant nozzle
up to 80 bar



31 9106

31 9107



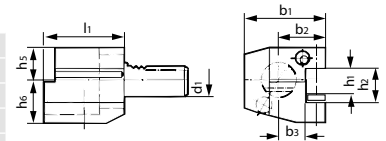
31 9117

31 9127



31 9116

31 9126



31 9136

31 9137

Shank Ø d ₁		mm	16	20	25	30	40	50
31V	31 9106	 GARANT Master Eco VDI toolholder, Form C1 axial, right hand	–	eShop	eShop	eShop	eShop	eShop
32V	31 9107	 Toolholder form C1 axial, right hand	eShop	eShop	–	eShop	eShop	eShop
31V	31 9116	 GARANT Master Eco VDI toolholder, Form C2 axial, left-hand	–	eShop	eShop	eShop	eShop	eShop
32V	31 9117	 Toolholder form C2 axial, left-hand	eShop	eShop	–	eShop	eShop	eShop
31V	31 9126	 GARANT Master Eco VDI toolholder, Form C3 axial, right hand	–	eShop	eShop	eShop	eShop	eShop
32V	31 9127	 Toolholder form C3 axial, right hand	eShop	eShop	–	eShop	eShop	eShop
31V	31 9136	 GARANT Master Eco VDI toolholder, Form C4 axial, left-hand	–	eShop	eShop	eShop	eShop	eShop
32V	31 9137	 Toolholder form C4 axial, left-hand	eShop	eShop	–	eShop	eShop	eShop
h ₁ (31 9106, 31 9116, 31 9126, 31 9136)		mm	–	16	16	20	25	25
h ₁ (31 9107, 31 9117, 31 9127, 31 9137)		mm	12	16	–	20	25	32
h ₂ (31 9106, 31 9116, 31 9126, 31 9136)		mm	–	22	–	29	34	41
h ₂ (31 9107, 31 9117, 31 9127, 31 9137)		mm	17	22	–	29	34	34
b ₁		mm	43	52	58	70	85	100
b ₂		mm	24	27	33	35	42.5	50
b ₃ (31 9106, 31 9107, 31 9116, 31 9117, 31 9126, 31 9127, 31 9136)		mm	13	13	19	17	20.5	26
b ₃ (31 9137)		mm	13	13	–	23	25.5	30
h ₃		mm	20	25	25	28	32.5	50
h ₄		mm	22	30	30	38	48	60
l ₁		mm	44	55	55	70	85	100
Colour code for VDI shanks								

Colour code: VDI 16 VDI 20 VDI 25 VDI 30 VDI 40 VDI 50

Double-sided axial toolholder

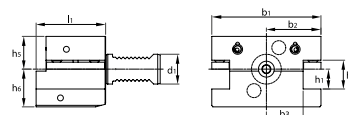
- Case-hardened HRC 58 ±2.
- All functional faces ground.
- With ball type coolant nozzles.

Standard: DIN ISO 10889 / DIN 69880 / VDI 4325, sheet 2.

Application:

31 9191 – Double serrations allow normal use or overhead use.

Shank $\varnothing d_1$	mm	25	30	40	50
32V 31 9185	HOLEX VDI multiple toolholder	—	eShop	eShop	(eShop)
32V 31 9190	VDI multiple toolholder, overhead	—	eShop	eShop	(eShop)
31V 31 9191	Garant Eco VDI double-sided axial toolholder	eShop	eShop	eShop	—
h_1	mm	16	20	25	32
h_2	mm	22	29	34	41
b_1 (31 9185, 31 9190)	mm	—	76	90	105
b_1 (31 9191)	mm	66	110	130	—
b_2 (31 9185, 31 9190)	mm	—	35	42.5	50
b_2 (31 9191)	mm	33	55	65	—
b_3 (31 9185, 31 9190)	mm	—	17	20.5	25.5
b_3 (31 9191)	mm	19	37	43	—
h_3 (31 9185, 31 9190)	mm	—	28	32.5	35
h_3 (31 9191)	mm	25	33	43.5	—
h_4	mm	46	38	48	60
l_1 (31 9185, 31 9190)	mm	—	60	72	85
l_1 (31 9191)	mm	70	70	85	—
Colour code for VDI shanks					

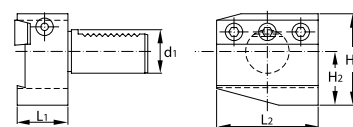
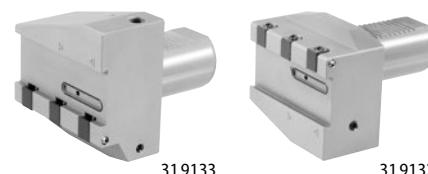


Parting-off toolholder

- With special adjustable ball type coolant nozzle for optimum cooling of the cutting edge, irrespective of the groove depth.
- This reduces the temperature both at the main cutting edge and the auxiliary cutting edge, and permits a **significant increase in cutting speed**.
- Rigid toolholder for parting-off tools.
- Blade clamped using clamping plate.

Application: Allows parting-off tools of different makes to be used.

Note: Screw plug for ball spray nozzle included. If conventional grooving tools are used, the lateral coolant transfer is blocked by the grooving tool. Suitable clamping claws No. 279840 2 and suitable screws No. 279815 14. See spare parts list.



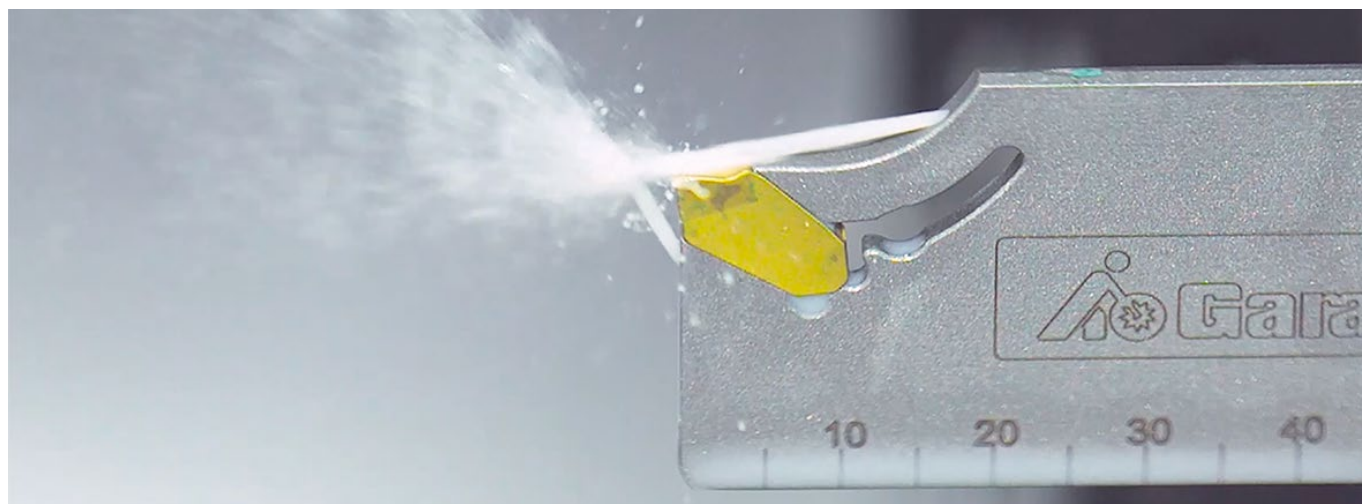
Shank $\varnothing d_1$	mm	16	20	25	30	40	50
31V 31 9132	Garant Eco parting-off toolholder with ICS	eShop	eShop	eShop	eShop	eShop	eShop
31V 31 9133	Eco parting-off toolholder overhead with ICS	eShop	eShop	eShop	eShop	eShop	eShop
suitable for blade height	mm	19	26	26	32	32	32
L_1	mm	29	36	36	47	54	62
L_2	mm	42	55	60	70	85	100
Height H_1	mm	42	47	47	57.4	73	75.5
H_2	mm	20	29	29	37	47	47
Colour code for VDI shanks							

Advantages with GARANT eco:

Flat helical swarf for outstanding chip evacuation, instead of long and tangled coiled swarf

Hardly any traces of wear after the test run.

Surface roughness measurement shows smooth surfaces.



Colour code: VDI 20 VDI 30 VDI 40 VDI 50 VDI 16 VDI 25

EWS Tool Technologies VDI parting-off toolholder

For use on DMG Gildemeister CTX CNC lathes with radial turrets.

- With double serrations on the VDI shank for left-handed and right-handed use.
- With ball spray nozzle for optimum cooling of the cutting edge.
- Clamping the grooving tool by means of a clamping strip.
- Height adjustment range ± 1 mm.

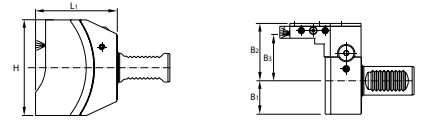
Suitable for: DMG Gildemeister CTX.

Application: Allows parting-off tools of different makes to be used.

Note: Sizes 30-UEK and 40-UEK as overhead versions.

Shank $\varnothing d_1$	mm	30	30-UEK	40	40-UEK
33E 31 9148	VDI parting-off toolholder blade height 26	eShop	eShop	eShop	eShop
33E 31 9149	VDI parting-off toolholder blade height 32	eShop	eShop	eShop	eShop
B_1	mm			35	
B_2	mm			60	
B_3	mm			48	
L_1	mm	85.5	85.5	88.5	88.5
H	mm			100	
Colour code for VDI shanks					

319148_30



31 9149_30-UEK



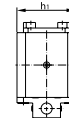
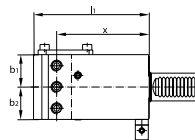
EWS Tool Technologies VDI boring bar toolholder

For use on DMG Gildemeister CTX CNC lathes with radial turrets. Combination toolholder with capability for internal and external cooling.

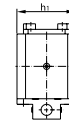
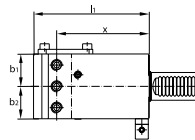
Suitable for: DMG Gildemeister CTX.

Application: For clamping boring bars.

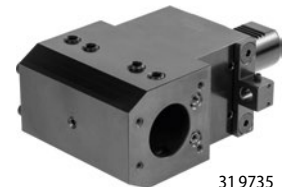
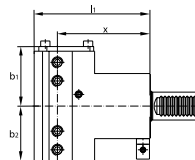
Supplied with: Including **standard pin strip** for alignment.



31 9733



31 9734



31 9735

Type		30-32-100	40-40-100	30-40-100	40-32-100	D30-32-100	D40-40-100
33E 31 9733	Combination toolholder for boring bar	eShop	eShop	—	—	—	—
33E 31 9734	Combination toolholder for boring bar, slotted	eShop	eShop	eShop	eShop	—	—
33E 31 9735	Combination double toolholder for boring bar	—	—	—	—	eShop	eShop
x	mm	100					
l_1	mm	125	130	125	125	125	140
b_1	mm	35	42.5	35	35	64	63
b_2	mm	35	42.5	35	35	59	58
h_1	mm	64	85	64	64	64	76
Cooling		internal / external					
VDI		30	40	30	30	30	40

Colour code: VDI 30 VDI 40



31

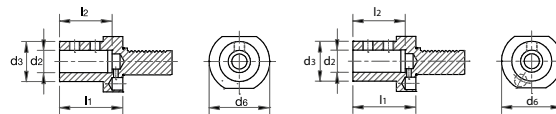
Form
E

VDI toolholders

Form E1

Standard: DIN 69880 / VDI 3425, sheet 2.**Application:** For drilling with indexable drill with internal coolant supply.

31 9155_16



Bore d_2 (H6)	mm	16	20	25	32	40	50	d_6 mm	Colour code for VDI shanks
31 9155	VDI 20	eShop	eShop	eShop	—	—	—	50	
31 9165	VDI 25	eShop	eShop	eShop	—	—	—	58	
31 9175	VDI 30	eShop	eShop	eShop	eShop	eShop	—	68	
31 9205	VDI 40	eShop	eShop	eShop	eShop	eShop	—	83	
31 9215	VDI 50	—	eShop	eShop	eShop	eShop	eShop	98	
$\varnothing d_3$ (31 9205, 31 9215)	mm	36	40	45	52	65	75		
$l_1 - 0.2$ (31 9215)	mm	—	67	75	71	90	100		
l_2	mm	54	54	59	63	73	83		

Garant

The new GARANT Master Eco VDI toolholders in form E2

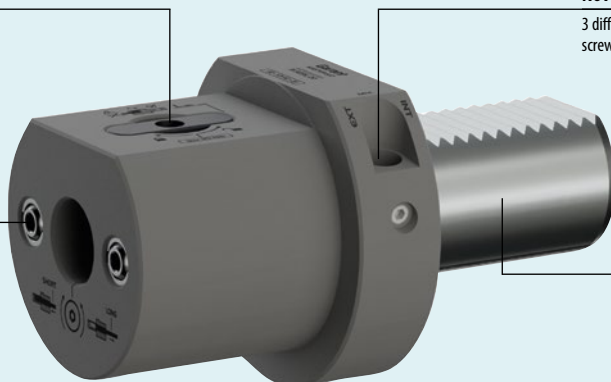


Very easy to operate.

The boring bar is fixed in the GARANT Master Eco VDI holder by means of only **one** fastening screw.

Full cooling performance.

Two adjustable coolant spray nozzles as standard for optimum cooling of the cutting edge up to 70 bar.



Novel coolant adjustment.

3 different coolant supply variants via coolant switch using adjusting screw:

- **Internal:** Eco cooling through the boring bar.
- **External:** cooling via ball spray nozzle.
- **Mix:** internal + external.

Through-bored VDI shank.

With individually adjustable stop/length adjustment screw.

Advantages:

- Longer boring bars can be inserted.
- Position the boring bars with excellent repetition accuracy.

Form E2 GARANT Master Eco

- Case-hardened HRC 58+/-2.
- All functional faces ground.
- Through-bored VDI shank.
- With two ball spray nozzles.

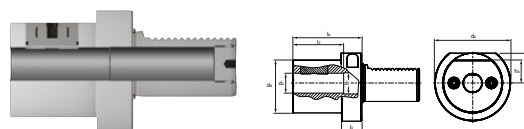
Advantage: ■ Also suitable for longer boring bars.
■ Individual length adjustment for the boring bars.

Application: For internal machining with boring bar holder.

Comprehensive dimensions see eShop



31 9235



Bore dia. d_2 (H7)	mm	8	10	12	16	20	25	32	40	50	d_7 mm	Colour code for VDI shanks
31 9225	VDI 30	eShop	eShop	eShop	eShop	eShop	eShop	eShop	—	—	16.5	
31 9235	VDI 40	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	20.5	
$\varnothing L_1$	mm	22										
$\varnothing L_6$ (31 9225)	mm	65	65	65	65	65	70	80	—	—		
$\varnothing L_6$ (31 9235)	mm	75	75	75	75	75	75	75	90	100		
$\varnothing L_7$ (31 9225)	mm	92.5	92.5	92.5	92.5	51	51	51	—	—		
$\varnothing L_7$ (31 9235)	mm	110.5	110.5	110.5	110.5	110.5	61	61	76	86		

Colour code: ■ VDI 20 ■ VDI 25 ■ VDI 30 ■ VDI 40 ■ VDI 50

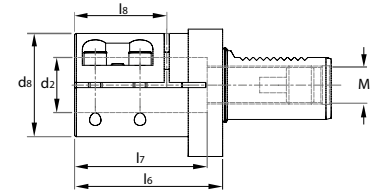
Form E2, slotted

- Wrapping around the boring bar, generates vibration damping and avoids vibration.
- Internal and external cooling available.
- 31 9275 – The boring bar can be inserted through when using shanks size 10 and 12.
- 31 9276 – The boring bar can be inserted through when using shanks size 10 and 20.

Note: Spare parts No. 319287 - 319288 can be found in the spare parts list.



31 9275



Bore d_2 (H7)	mm	10	12	16	20	25	32	40	Colour code for VDI shanks
31V 31 9275	mm	eShop	eShop	eShop	eShop	eShop	eShop	–	
31V 31 9276	mm	eShop	eShop	eShop	eShop	eShop	eShop	eShop	
l_6	mm	90	90	90	108	108	130	160	
l_7 (31 9275)	mm	90	90	80	100	100	120	–	
l_7 (31 9276)	mm	95	95	95	100	100	120	150	
l_8	mm	50	50	50	63	63	80	100	
Thread M (31 9275)		M14×1.5	M14×1.5	M14×1.5	M14×1.5	M14×1.5	M14×1.5	–	
Thread M (31 9276)					M22×1.5				

Form E2

- 31 9305 – ■ Case-hardened HRC 58+/-2.
 ■ All functional faces ground.
 ■ Through-bored VDI shank.
 ■ With two ball spray nozzles.

Standard: DIN 69880 / VDI 3425, sheet 2.

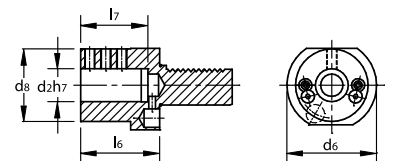
Advantage:

- 31 9305 – ■ Also suitable for longer boring bars.
 ■ Individual length adjustment for the boring bars.

Application: For internal machining with boring bar holder.



31 9305



Bore d_2 (H7)	mm	6	8	10	12	16	20	25	32	40	50	d_6 mm	Colour code for VDI shanks
32U 31 9305	mm	eShop	eShop	eShop	eShop	eShop	–	–	–	–	–	40	
32U 31 9310	mm	–	eShop	eShop	eShop	eShop	eShop	eShop	–	–	–	50	
32U 31 9315	mm	–	eShop	eShop	eShop	eShop	eShop	eShop	–	–	–	58	
32U 31 9320	mm	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–	–	68	
32U 31 9330	mm	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	83	
32U 31 9335	mm	–	–	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	98	
l_6 (31 9305)	mm	44	44	44	44	44	–	–	–	–	–		
l_6 (31 9310, 31 9315)	mm	–	50	50	50	50	50	60	–	–	–		
l_6 (31 9320)	mm	–	60	60	60	60	60	60	75	–	–		
l_6 (31 9330)	mm	–	75	75	75	75	75	75	75	90	100		
l_6 (31 9335)	mm	–	–	–	90	90	90	90	90	90	100		
l_7 (31 9305)	mm	34	34	34	34	34	–	–	–	–	–		
l_7 (31 9310, 31 9315)	mm	–	41	41	41	41	41	51	–	–	–		
l_7 (31 9320)	mm	–	51	51	51	51	51	51	61	–	–		
l_7 (31 9330)	mm	–	61	61	61	61	61	61	61	76	86		
l_7 (31 9335)	mm	–	–	–	76	76	76	76	76	76	86		

Colour code: VDI 16 VDI 20 VDI 25 VDI 30 VDI 40 VDI 50



Coolant nozzles

For targeted cooling and lubrication on the cutting edge/evacuation of chips.

RIHETEC

Stainless steel version, the flexible pipe can be bent towards the cutting edge. Maximum pressure of up to 10 bar.

31 9470 – Designed specially for compact VDI and BMT toolholders **with coolant hole**.

31 9471 – Designed specially for compact VDI and BMT toolholders **with threaded connector**.

Note: See 319476 or 319477 for suitable thread adapters and extensions.



31 9470



31 9471

Type × pipe length		M5×50	10×50	M6×50	10×70	10×100	11×50	11×70	11×100	12×50	12×70	12×100	Pipe feed-through Ø mm
33C 31 9470	MiniKD coolant nozzle with ball connection	–	eShop	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	4
33C 31 9471	MiniKD coolant nozzle with threaded connection	eShop	–	eShop	–	–	–	–	–	–	–	–	4
Length of pipe	mm	50	50	50	70	100	50	70	100	50	70	100	
Connection thread		M5	–	M6	–	–	–	–	–	–	–	–	
Contact point Ø	mm	–	10	–	10	10	11	11	11	12	12	12	

Primarily developed for use on driven tools. Simple installation using a threaded connector.

The flexible and swivelling pipe can be turned or bent towards the cutting edge and locked using a galvanised union nut. Maximum pressures of up to 10 bar.



31 9472

Note: See 319476 or 319477 for suitable thread adapters and extensions.

Thread × pipe length		M8×50	M8×70	M8×100	M10×50	M10×70	M10×100	G1/8×50	G1/8×70	G1/8×100	Pipe feed-through Ø mm
33C 31 9472	DriveKD coolant nozzle with threaded connection	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	4
Length of pipe	mm	50	70	100	50	70	100	50	70	100	
Connection thread		M8×1	M8×1	M8×1	M10×1	M10×1	M10×1	G1/8	G1/8	G1/8	

High-pressure nozzle – sturdy coolant nozzle suitable for high pressures, direction can be adjusted manually, large adjustment range of up to 45° in any direction and a pipe feed-through dia. of 4 mm.

Application: For use on static and driven toolholders via threaded connector.

Note: See 319476 or 319477 for suitable thread adapters and extensions.



31 9473

Thread × nozzle length		M8×12	M8×20	M10×12	M10×20	G1/8×12	G1/8×20	Pipe feed-through Ø mm
33C 31 9473	JetKD-A coolant nozzle with threaded connection	eShop	eShop	eShop	eShop	eShop	eShop	4
Length of nozzle	mm	12	20	12	20	12	20	
Connection thread		M8×1	M8×1	M10×1	M10×1	G1/8	G1/8	

Stainless steel ball in combination with a pipe made of a flexible composite material. Securing of the pipe with a union nut.

Application: Insert the coolant nozzle into the coolant hole and then align the pipe with the cutting edge.

Note: See 319476 or 319477 for suitable thread adapters and extensions.



31 9478

Type × pipe length		14×70	15×70	Pipe feed-through Ø mm
33C 31 9478	SmartKD coolant nozzle with ball connection	eShop	eShop	4
Length of nozzle	mm		70	
Contact point Ø	mm	14	15	

Piranha clamp

High-pressure nozzle – specially designed for high pressures up to 80 bar. Adjustable nozzle angle position.

Sturdy and durable version made of aluminium.

31 9474 – Straight round nozzle, multi-hole version 5 (holes) × dia. 1 mm.

31 9475 – 60° angled nozzle, multi-hole version 7 (holes) × dia. 1 mm.

Application: For use on static and driven toolholders via a threaded connector.

Thread		M8×1	M10×1	M12×1	G1/8	Pipe feed-through Ø mm
33C 31 9474	HighPressure coolant nozzle straight	eShop	eShop	eShop	eShop	1
33C 31 9475	HighPressure coolant nozzle angled 60°	eShop	eShop	eShop	eShop	1
Connection thread		M8×1	M10×1	M12×1	G1/8	



31 9474



31 9475

Coolant pipe for VDI arbors

Application: In VDI arbors in ball type coolant nozzles with metric threads.

Type		3,5×50	5×50	5×100	6×50	6×100
36D 31 9115	VDI coolant pipe, copper	eShop	eShop	eShop	eShop	eShop
36D 31 9118	VDI coolant pipe, stainless steel	eShop	eShop	eShop	eShop	eShop
Thread size		M3.5	M5	M5	M6	M6
Overall length	mm	50	50	100	50	100
Colour code for VDI shanks						



31 9115



31 9118



Garant Boring bar stabiliser

Base body of high-quality tool steel, surface and functional faces hardened.

Suitable for: All popular boring bars.

Advantage: Reduces oscillation and vibration when used with all types of boring bars.

Note: To determine the right type of boring bar stabiliser, it is essential to perform a collision check using the Hoffmann e-Tool data from the eShop or via the ToolScout!
We recommend a maximum overhang length of 3×D of the types of boring bar used.

31 9454/9458 – Maximum overhang, stabiliser incl. boring bar 6×D.

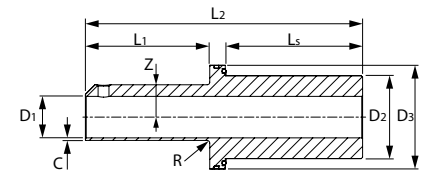
31 9461–9465 – Maximum overhang, stabiliser incl. boring bar 8×D.

31 9467/9469 – Maximum overhang, stabiliser incl. boring bar 10×D.

Comprehensive dimensions see eShop



31 9458



Type		10R	10L	12R	12L	16R	16L	20R	20L
31V 31 9454	Boring bar stabiliser 3×D mini	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31V 31 9458	Boring bar stabiliser 3×D maxi	–	–	–	–	eShop	eShop	eShop	eShop
Cutting direction		right-hand	left-hand	right-hand	left-hand	right-hand	left-hand	right-hand	left-hand
Ø D ₁	mm	10	10	12	12	16	16	20	20
Ø D ₂	mm					32			
Ø D ₃	mm					40			
L ₁	mm	30	30	36	36	48	48	60	60
L _s	mm	53	53	53	53	53	53	60	60
Overall length L ₂	mm	89	89	95	95	107	107	126	126
Radius R	mm					1.2			

Type		10R	10L	12R	12L	16R	16L	20R	20L
31V 31 9461	Boring bar stabiliser 5×D mini	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31V 31 9463	Boring bar stabiliser 5×D midi	eShop	eShop	eShop	eShop	eShop	eShop	–	–
31V 31 9465	Boring bar stabiliser 5×D maxi	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Cutting direction		right-hand	left-hand	right-hand	left-hand	right-hand	left-hand	right-hand	left-hand
Ø D ₁	mm	10	10	12	12	16	16	20	20
Ø D ₂	mm					32			
Ø D ₃	mm					40			
L ₁	mm	50	50	60	60	80	80	100	100
L _s	mm	53	53	53	53	53	53	60	60
Overall length L ₂	mm	109	109	119	119	139	139	166	166
Radius R	mm					1.2			

Type		10R	10L	12R	12L	16R	16L	20R	20L
31V 31 9467	Boring bar stabiliser 7×D mini	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31V 31 9469	Boring bar stabiliser 7×D maxi	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Cutting direction		right-hand	left-hand	right-hand	left-hand	right-hand	left-hand	right-hand	left-hand
Ø D ₁	mm	10	10	12	12	16	16	20	20
Ø D ₂	mm					32			
Ø D ₃	mm					40			
L ₁	mm	70	70	84	84	112	112	140	140
L _s	mm	53	53	53	53	53	53	60	60
Overall length L ₂	mm	129	129	143	143	171	171	206	206
Radius R (31 9467)	mm					2			
Radius R (31 9469)	mm					1.2			

Colour code: VDI 20 VDI 30 VDI 40



31

VDI toolholders

VDI stop damper

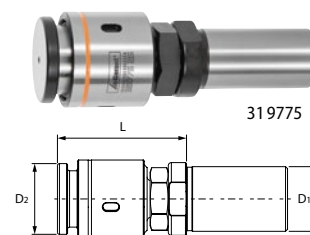
Application: Sturdy bar stop with spring damping, ground back-stop disc. Damping compensation of maximum 3 mm.

31 9775 – **Cylindrical version** suitable for all types of turret.

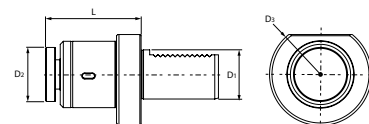
Plain shank with length adjustment.

31 9777 – **VDI variant** primarily for disc turrets.

Shank $\varnothing D_1$	mm	25	32	30	40
31V 31 9775	Stop damper with spring cylindrical	eShop	eShop	—	—
31V 31 9777	Stop damper with spring VDI	—	—	eShop	eShop
$\varnothing D_2$	mm	35	35	35	44
$\varnothing D_3$	mm	—	—	68	83
L	mm	62	65	75	78
L _{max}	mm	100	115	—	—
Colour code for VDI shanks		—	—		



31 9775



31 9777

Quick-change tapping chuck for right- and left-hand threads

Resilient length compensation, smooth action due to ball bearing sleeve.

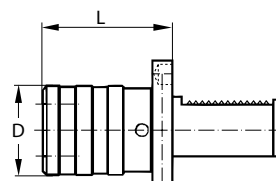
Standard: DIN ISO 10889 / DIN 69880 and VDI 3425, sheet 2.

Optional extras: Quick-change tapping collets No. 335420 – 335620.

Shank $\varnothing d$	mm	20	30	40	Length compensation by compression	Length compensation by tension	$\varnothing D$
32P 31 9445	Quick-change tapping chuck M3 – M12	eShop	eShop	eShop	7	7	38
32P 31 9447	Quick-change tapping chuck M6 – M20	—	eShop	eShop	12	12	54
L (31 9445)	mm	56	61.5	61.5			
L (31 9447)	mm	—	86	86			
Colour code for VDI shanks							



31 9445



Die toolholder

Robust toolholder, all functional faces hardened and ground. Length compensation by compression and tension for cutting external threads exactly true to gauge size. To take standard DIN dies (round version).

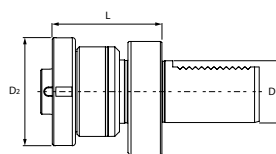
Application: Cutting external threads by means of a die. For use primarily on lathes, but also suitable for milling machines.

Optional extras: Die adapter no. 31 9795.

Shank $\varnothing D_1$	mm	25	30	40
31V 31 9790	Die toolholder with length compensation cylindrical	eShop	—	—
31V 31 9793	Die toolholder with length compensation VDI	—	eShop	eShop
$\varnothing D_2$	mm	71	70	70
Length compensation by compression	mm		4	
Length compensation by tension	mm		12	
L	mm	47.2	71	73
Colour code for VDI shanks		—		



31 9790



31 9793

Die adapter

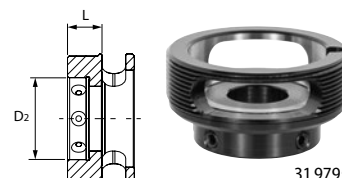
Adapter to take dies to DIN EN 22568 (round version).

Suitable for: Die toolholder No. 31 9790; 31 9793.

Note: Maximum thread depth 47 mm.

for threads	M3-M6	M7-M9	M10	M12-M14
31V 31 9795	eShop	eShop	eShop	eShop
$\varnothing D_2$	mm	20	25	30
L	mm		16	38

Colour code: VDI 30 VDI 40 VDI 20



31 9795

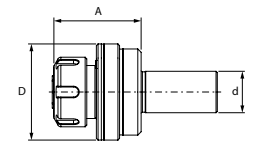
Compensating holder



Compensating holder with ER collet adaption. **Adjustable radial and angular compensation.**
With through coolant feed.

Application: Optimum for compensating alignment errors between workpiece and tool, for instance when reaming or tapping (without tension / compression compensation).
For use primarily on lathes, but also suitable for milling machines.

Type		20-16	25-25	25-32	30	40
31V 31 9780	Garant ER compensating floating holder Cylindrical	eShop	eShop	eShop	—	—
31V 31 9785	ER compensating floating holder VDI	—	—	—	eShop	eShop
Ø d	mm	20	25	25	30	40
Dimension A	mm	44	53	58	64	68
Ø D	mm	42	57	69	68	83
Radial compensation suitable for ER size	mm	1	1	1.5	1	1.5
Colour code for VDI shanks		—	—	—	■	■

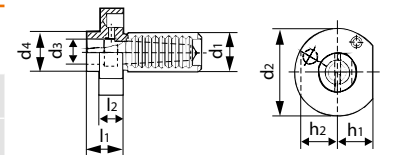


Toolholder Form F

Form
F

Application: For tools with MT shank.

for MT shank		1	2	3	4	Colour code for VDI shanks
32V 31 9741	HOLEX Toolholder with taper arbor Form F VDI 30	eShop	eShop	eShop	—	■
32V 31 9744	VDI 40	—	eShop	eShop	eShop	■
d ₂ (31 9741)	mm	68	68	68	—	
d ₂ (31 9744)	mm	—	83	83	83	
d ₃	mm	12.065	17.78	23.825	31.267	
Ø d ₄ (31 9744)	mm	—	55	58	68	
l ₁ (31 9741)	mm	27	27	66	—	
l ₁ (31 9744)	mm	—	36	36	80	



Blanking plug Form Z2

Ø d ₁	mm	16S	20S	25S	30S	40S	50S	16K	20K	25K	30K	40K
36A 31 9770	HOLEX VDI blanking plug Form Z2	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Material		Steel						Plastic, glass fibre reinforced				
Colour code for VDI shanks		■	■	■	■	■	■	■	■	■	■	■

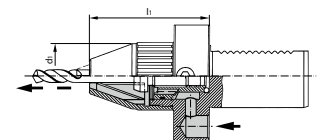
Garant VDI toolholders

- Coolant supply via indexing bore.
 - Maximum coolant pressure 50 bar.
 - **GARANT type** with Torx® clamping wrench for high clamping force.
- Standard:** DIN ISO 10889 / DIN 69880 / VDI 3425, sheet 2.
Application: On NC turning machines and machining centres.

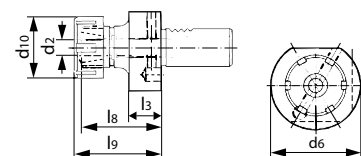
Precision short drill chuck for clockwise and anticlockwise rotation

Clamping range	mm	1-16	Colour code for VDI shanks
31B 31 9715	VDI 30	eShop	■
31B 31 9725	VDI 40	eShop	■
d ₁	mm	50.5	
l ₁	mm	90	
Chuck key		TX25	

Colour code: ■ VDI 30 ■ VDI 40 ■ VDI 16 ■ VDI 20 ■ VDI 25 ■ VDI 50



31

Form
E**HOLEX** VDI toolholders**Standard:** ISO 10889 / DIN 69880 / VDI 3425, sheet 2.**Application:** Mainly for drilling and centring.**Collet chucks form E3 and E4**

Type			1,5-16	1,5-25	3,5-32	Colour code for VDI shanks
32U 31 9501	OZ collet chuck	VDI 30	eShop	eShop	—	
32U 31 9505	Form E3	VDI 40	—	eShop	eShop	
suitable collets			415 E	462 E	467 E	
Clamping range d_2	mm		2 – 16	2 – 25	4 – 32	
$\varnothing d_6$ (31 9501)	mm		68	68	—	
$\varnothing d_6$ (31 9505)	mm		—	83	83	
l_9	mm		57	75	90	



31 9501

for ER collet size			16	25	32	40	Colour code for VDI shanks
32U 31 9510	ER collet chuck	VDI 20	eShop	eShop	—	—	
32U 31 9512	Form E4	VDI 30	—	eShop	eShop	—	
32U 31 9515		VDI 40	—	—	eShop	eShop	
suitable collets			426 E (ER16)	430 E (ER 25)	470 E (ER 32)	472 E (ER 40)	
Clamping range d_2	mm		1 – 10	1 – 16	2 – 20	3 – 26	
d_6 (31 9510, 31 9515)	mm		50	50	83	83	
d_6 (31 9512)	mm		—	68	68	—	
l_9 (31 9510, 31 9515)	mm		37	50	62	75	
l_9 (31 9512)	mm		—	57	62	—	

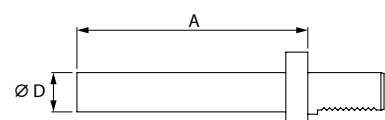


31 9510

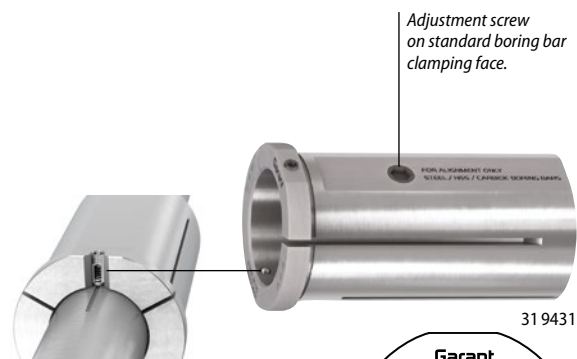
Garant Checking mandrel**Application:** For accepting machine tools to ISO recommendation R230, checking of tool spindle/turret position.**Supplied with:** Wooden box and test certificate.

31 9755

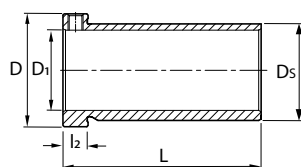
A dimension	mm		200
31V 31 9755	Checking mandrel	VDI 30	eShop
31V 31 9757	ISO 10889	VDI 40	eShop

**Garant** GARANT Master Mute reducing adapter

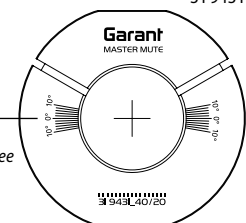
Suitable for all kinds of boring bar holders. Optimal in combination with vibration-damped boring bars such as GARANT Master Mute, and also beneficial when using other boring bars (e.g. carbide boring bars).

Advantage: Due to the slotted version, the reducing adapter wraps around 100% of the boring bar, i.e. vibrations are reduced. Simple and fast alignment of the boring bar via ball or screw is possible.**Application:** For $\varnothing$ reduction for tools with plain shanks.

31 9431



Individual adjustment of the centre height via degree scale possible.



Shank $\varnothing D_1$ / clamping $\varnothing D_2$	mm	32/6	32/8	32/10	32/12	32/16	32/20	32/25	40/6	40/8	40/10	40/12	40/16	40/20	40/25	40/32
31V 31 9431	GARANT Master Mute reducing adapter Master Mute	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
l_2	mm								5							
$\varnothing D$	mm	36	36	36	36	36	36	36	44	44	44	44	44	44	44	44
L	mm	65	65	65	65	65	65	65	75	75	75	75	75	75	75	75

Colour code: VDI 30 VDI 40 VDI 20

HOLEX Reducing sleeves for tools with plain shank

Suitable for VDI arbors form E2 (No. 319275 – 319405).

31 9426 – Suitable for internal cooling, not slotted. Tool is fixed and clamped with 2 clamping screws.

31 9428 – Slotted version - alignment of the tool via fixing screws, clamping via the boring bar holder.

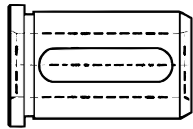
Application: For $\varnothing$ reduction for tools with plain shanks.



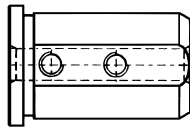
31 9426_25/12



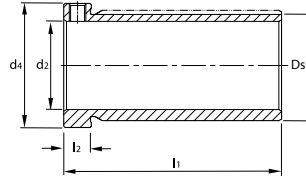
31 9428



Slot



Clamping pin



Shank $\varnothing d_1$ / clamping $\varnothing d_2$	mm	25/4	25/5	25/6	25/8	25/10	25/12	25/14	25/16	25/18	25/20
31 9426 Reducing adapter		eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31 9428 Split bush		—	—	—	eShop	eShop	eShop	eShop	eShop	eShop	eShop
$\varnothing d_1$ (31 9426)	mm	29									
$\varnothing d_2$ (31 9428)	mm	—	—	—	30	30	30	30	30	30	30
l_1 (31 9426)	mm	50									
l_1 (31 9428)	mm	—	—	—	60	60	60	60	60	60	60
l_2 (31 9426)	mm	4									
l_2 (31 9428)	mm	—	—	—	10	10	10	10	10	10	10
Version (31 9426)		Clamping pin	Clamping pin	Clamping pin	Clamping pin	Clamping pin	Clamping pin	Slot	Slot	Slot	Slot

Shank $\varnothing d_1$ / clamping $\varnothing d_2$	mm	32/5	32/6	32/8	32/10	32/12	32/14	32/16	32/18	32/20	32/25
31 9426 Reducing adapter		eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31 9428 Split bush		—	—	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
$\varnothing d_1$ (31 9426)	mm	40									
$\varnothing d_2$ (31 9428)	mm	—	—	37	37	37	37	37	37	37	37
l_1 (31 9426)	mm	58									
l_1 (31 9428)	mm	—	—	69	69	69	69	69	69	69	69
l_2 (31 9426)	mm	5									
l_2 (31 9428)	mm	—	—	10	10	10	10	10	10	10	10
Version (31 9426)		Clamping pin	Clamping pin	Clamping pin	Clamping pin	Clamping pin	Slot	Slot	Slot	Slot	Slot

Shank $\varnothing d_1$ / clamping $\varnothing d_2$	mm	40/6	40/8	40/10	40/12	40/14	40/16	40/18	40/20	40/25	40/32
31 9426 Reducing adapter		eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31 9428 Split bush		—	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
$\varnothing d_1$ (31 9426)	mm	44									
$\varnothing d_2$ (31 9428)	mm	—	45	45	45	45	45	45	45	45	45
l_1 (31 9426)	mm	58									
l_1 (31 9428)	mm	—	79	79	79	79	79	79	79	79	79
l_2 (31 9426)	mm	5									
l_2 (31 9428)	mm	—	10	10	10	10	10	10	10	10	10
Version (31 9426)		Clamping pin	Clamping pin	Clamping pin	Clamping pin	Slot	Slot	Slot	Slot	Slot	Slot

Shank $\varnothing d_1$ / clamping $\varnothing d_2$	mm	50/12	50/14	50/16	50/18	50/20	50/25	50/32	50/40
31 9426 Reducing adapter		eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31 9428 Split bush		eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
$\varnothing d_1$ (31 9426)	mm	54							
$\varnothing d_2$ (31 9428)	mm	55							
l_1 (31 9426)	mm	75							
l_1 (31 9428)	mm	90							
l_2 (31 9426)	mm	5							
l_2 (31 9428)	mm	10							
Version (31 9426)		Clamping pin	Slot	Slot	Slot	Slot	Slot	Slot	Slot



31

Garant Quick-change boring bar system

Note: Pre-setting e.g. using GARANT No. 354760 VG1 or 355010 VGBASIC with reducer No. 354773 (sleeve No. 313291 size 25 with additional reducing adapter No. 319426; 319428 each in size 40/32).

Quick change adapter

For direct adaption the quick-change toolholder is screwed into the cylindrical clamping sleeve or VDI toolholder by a clamping nut with an external thread.

Suitable for: Boring bars with 1, 2 or 3 drive flats.

Supplied with: Blanking screws for cooling channel holes, blind nuts.

Clamping Ø		mm	4	6	8	10	12	16	20	25
31V 31 9283	Quick-change toolholder ER16	d=35	eShop	eShop	eShop	eShop	–	–	–	–
31V 31 9285	Quick-change toolholder ER25	d=42.5	–	–	eShop	eShop	eShop	eShop	–	–
31V 31 9286	Quick-change toolholder ER32	d=42.5	–	–	eShop	eShop	eShop	eShop	eShop	–
31V 31 9289	Quick-change toolholder ER40	d=64.5	–	–	–	–	eShop	eShop	eShop	eShop

Cylindrical clamping sleeve

To accept the external diameter in a standard boring bar holder or indexable drill holder.

Supplied with: Including clamping nut with an external thread.

Note: ER collets can also be clamped directly.

ER collet		16	25	32	40
31V 31 9291	Clamping sleeve, cylindrical	eShop	eShop	eShop	eShop
Ø d ₁	mm	25	32	40	50
Ø d ₂	mm	32.5	41.5	49.5	64
l ₁ with exchangeable adapter	mm	40	49.5	53	60.5
l ₁ with ER collet	mm	18	21	25.5	28

Axial toolholder for direct adaptation

Quick-change toolholders No. 319285; 319286; 319289 are screwed directly into the holder. A very stable combination with minimum overhang.

Supplied with: Including clamping nut with an external thread.

Note: ER collets can also be clamped directly.

ER collet		25	32	40
31V 31 9292	VDI toolholder	eShop	eShop	eShop
Ø d ₁	mm	30	40	40
Ø d ₂	mm	52	58	65
Ø d ₃	mm	68	83	83
l ₁ with exchangeable adapter	mm	64.5	65.7	101
l ₁ with ER collet	mm	36	39	69
x with exchangeable adapter	mm	116	125	158
x with ER collet	mm	87	98	125

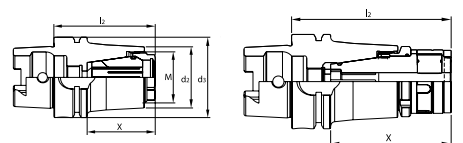
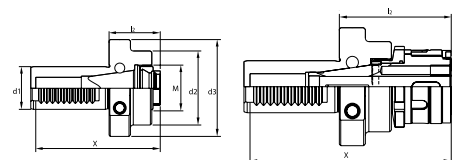
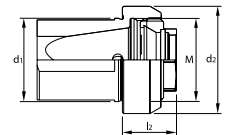
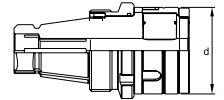
ER collet		32
31V 31 9294	Milling and turning chuck HSK-T 63	eShop
31V 31 9295	Milling and turning chuck PSC 63	eShop
Ø d ₂	mm	48
Ø d ₃	mm	63
l ₁ with exchangeable adapter (31 9294)	mm	107
l ₁ with exchangeable adapter (31 9295)	mm	103
l ₁ with ER collet (31 9294)	mm	80
l ₁ with ER collet (31 9295)	mm	76
x with exchangeable adapter (31 9294)	mm	81
x with exchangeable adapter (31 9295)	mm	89
x with ER collet (31 9294)	mm	54
x with ER collet (31 9295)	mm	62

Assembly block

For easy assembly the quick-change toolholders are placed in an assembly block. For mounting in a pre-setting device with an SK50 spindle.

Note: A suitable fitting jig 319299 can be found in the spare parts list.

ER collet		16	25	32	40
31V 31 9293	Quick-change toolholder mounting block	eShop	eShop	eShop	eShop



Garant Hydraulic arbors

Unique clamp bridging, clamps h6 and h7 shanks. Laser finished on the end face and alignment screw on the bracket, for simple and clear orientation of the boring bar. Including length adjustment backstop screw. Suitable for through-coolant.

- Advantage:**
- Ideal damping characteristics, resulting in optimum component surfaces. and increased tool life.
 - Quick and easy handling.
 - Flexible use of reducing adapters.
 - Perfect centring.

Application: Suitable for drilling, reaming, countersinking and also for use of boring bars.

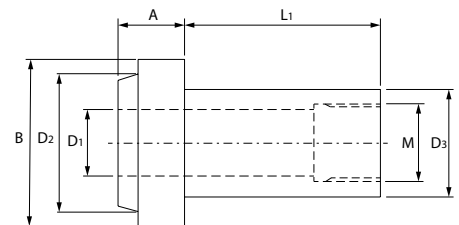
Hydraulic arbor with plain shank

Flexible use on all types of turret.

$\varnothing D_1$	mm	16	20	25
31M 31 9751	Hydraulic arbor Shank $\varnothing$ 32 mm	eShop	eShop	—
31M 31 9752	Hydraulic arbor Shank $\varnothing$ 40 mm	eShop	eShop	eShop
$\varnothing D_1$	mm	16	20	25
Dimension A	mm		19.5	
$\varnothing D_2$ (31 9751)	mm	41	41	—
$\varnothing D_2$ (31 9752)	mm		46	
$\varnothing D_3$ (31 9751)	mm	32	32	—
$\varnothing D_3$ (31 9752)	mm		40	
L_1 (31 9751)	mm	59	59	—
L_1 (31 9752)	mm		69	
B (31 9751)	mm	50	50	—
B (31 9752)	mm		56	
M		M22×1	M22×1	M27×1



31 9752



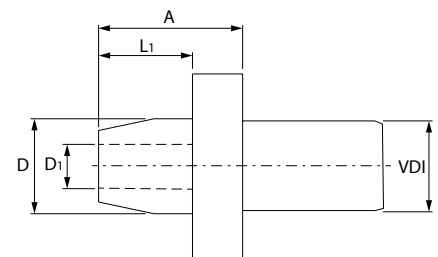
Hydraulic arbor with VDI shank

Two attachment screws for the best accessibility, be it at the headstock or tailstock. Supplied with ball spray nozzle.

$\varnothing D_1$	mm	20
31M 31 9753	Hydraulic arbor VDI 30	eShop
31M 31 9754	Hydraulic arbor VDI 40	eShop
$\varnothing D_1$	mm	20
Dimension A	mm	64
$\varnothing D$	mm	42
L_1	mm	42



31 9754



Garant ER collet closure

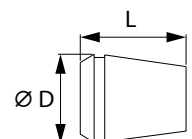
Plastic collet made of POM.

Application: For sealing driven tools with ER collet interface.

for ER collet		25	32
31M 31 9518	ER collet closure	eShop	eShop
$\varnothing D$		26 mm	33 mm
L		34 mm	40 mm



31 9518_25



31

CoolSpeed® High-speed spindle

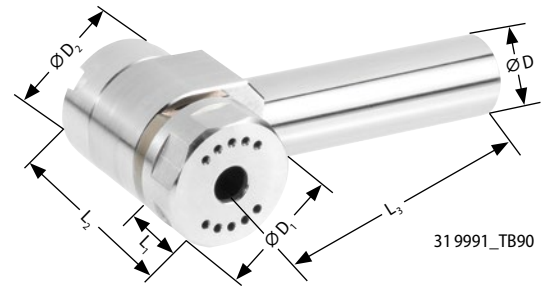
31 9991 – High-speed spindle, driven by coolant (10 – 60 bar), speeds up to 75,000 rpm.

Suitable for:

31 9993 Size UNI – Tool shank diameter with Ø 3, 4 and 6 mm.

Application:

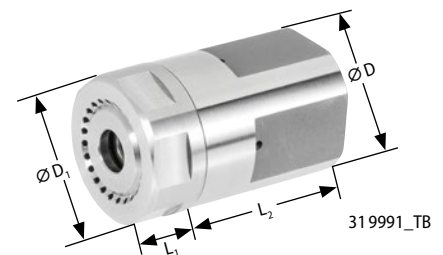
31 9991 – Increased feed rate and cutting speed, for use above all with small-diameter tools (shank Ø 3 – 6 mm). For use for drilling, deburring, engraving, and milling to a restricted degree.



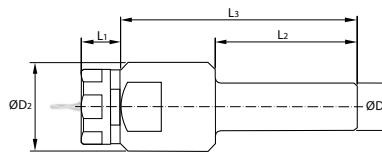
31 9991_TB90



31 9991_TBL

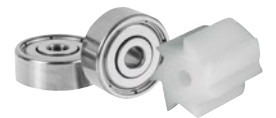


31 9991_TB



Type		TB	TBL	TB90
36D 31 9991	High-speed spindle housing	eShop	eShop	eShop
Ø D	mm	25	16	16
Ø D ₁	mm	25.5	25	25.5
L ₁	mm	10	13.5	13.5
L ₂	mm	30	48	40
L ₃	mm	–	80	70
Ø D ₂	mm	–	30	25

Tool shank diameter	mm	3	4	6
36D 31 9992	Bearing/turbine set for spindles of type TB	eShop	eShop	eShop



31 9992

Tool shank diameter	mm	UNI
36D 31 9993	Assembly set for spindles of type TB	eShop



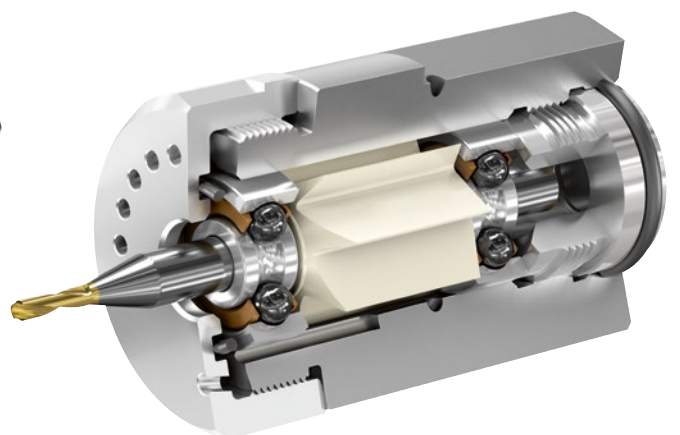
31 9993

Note: Necessary for determination of the pressure at the spindle or turret, to determine the desired speed.

Type	PK25
36D 31 9994	Pressure gauge for spindles of type TB



31 9994



REGO-FIX▲ reCool® coolant supply system for driven tools

- **Easy conversion** of driven tools with external cooling to internal cooling.
- Precise cooling on the cutting edge and improved chip evacuation.
- Particularly suitable for deep pockets and cavities.
- Excellent surface quality.

Advantage:

- Cost-effective conversion of existing driven tool systems to internal cooling.
- Suitable for use with emulsion and oil.
- Coolant pressure up to 100 bar (150 bar with high-pressure hose, available on request).
- Low-maintenance bearings.
- For internal cooling (with sealing rings No. 309630 and 309635).

Size ER25 – Speeds up to 12,000 rpm.

Size ER32 – Speeds up to 40,000 rpm.

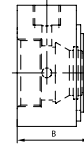
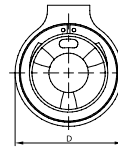
Application: Suitable for driven tools with ER thread and G1/8 inch coolant connection, as well as for ER collets to DIN 6499 / ISO 15488.

Supplied with: 1 pc. reCool® clamping nut, 1 pc. spiral spring and hose Ø 6 mm, 400 mm long, 2 pcs. screw connection G1/8 inch BSP straight, 2 pcs. screw connection G1/8 inch BSP 90° angled.

Note:

When using the coolant supply system with internal cooling, the suitable sealing ring No. 309630 and 309635 must be used! Coolant flushing rings for peripheral cooling available on request.

On driven tools with a hole in the spindle to the gearbox (e.g. length adjustment screw), it is essential to seal the hole!



31 9704



External cooling becomes internal cooling via the tool.

for ER collet	33B 31 9704	Ø D	B
	reCool® coolant supply system	mm	mm
ER25	eShop	50	27
ER32	eShop	62.5	29.5

Adapter for M8 coolant connection

Thread adapter for mounting the reCool® coolant supply system for driven tools with M8 coolant connection.

Supplied with: 2 pcs. adapter M8×1.

Type	mm	M8×1
33B 31 9706	Adapter	eShop



31 9706

EWS Tool Technologies Static holder for axial and radial use – VARIA VX

Size 32/VX3; 32/VX4 – Version with cylindrical shank.

Standard:

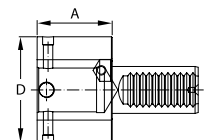
Size 30/VX3; 40/VX4 – DIN ISO 10889 / DIN 69880 / VDI 4325, sheet 2.

Suitable for: Inserts VARIA No. 319801 – 319838, 319872 – 319874.



31 9853_32/VX3

VDI / VARIA		30/VX3	40/VX4	32/VX3	32/VX4
33E 31 9853	Axial holder static VARIA VX	(eShop)	(eShop)	(eShop)	(eShop)
External Ø D	mm	68	83	64.8	74.8
Dimension A	mm	64	71	40	46
Shank Ø	mm	—	—	32	32
Colour code for VDI shanks				—	—



EWS Tool Technologies VARIA VX inserts

Application: For mounting EWS-VARIA VX inserts.

suitable for arbor	VX3	VX4
33E 31 9877	eShop	eShop
Mounting block VARIA VX		
suitable for arbor	VX3	VX4

Colour code: VDI 30 VDI 40



31 9877



31



Garant ER quick-change toolholder for driven tools

- Two-part design consisting of base body and precision clamping nut.
- Made from high quality tool steel; all functional faces hardened and reworked.

Advantage: Extremely easy-to-use quick-change system for driven tools. Prepare the quick-change adapter with a tool and change it using a driven tool. The clamping nut is ball-bearing mounted.

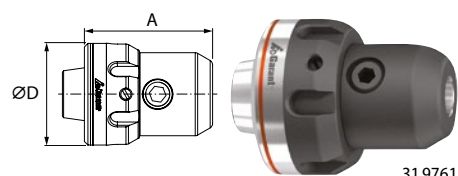
Multi-flexible use:

- Quick and easy exchange of adapters for the driven tool used.
- Suitable for all driven tools from various manufacturers with ER collet connection.

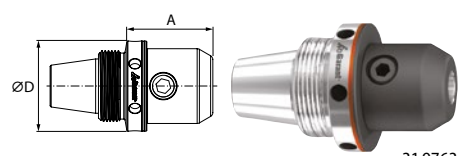
Application: For drilling and milling with driven tools with ER collet connection.

Quick-change toolholder, Weldon

Clamping Ø	31V 31 9761	31V 31 9762	31V 31 9763	31V 31 9764	Dimension A			
	Quick-change toolholder, Weldon with external nut		Quick-change toolholder, Weldon for internal nut		31 9761	31 9762	31 9763	31 9764
mm	ER 25	ER 32	ER 25	ER 32	mm	mm	mm	mm
6	eShop	eShop	eShop	eShop	52.5	46.5	32.4	30
8	eShop	eShop	eShop	eShop	52.5	46.5	32.4	30
10	eShop	eShop	eShop	eShop	52.5	50	35.9	33.5
12	eShop	eShop	eShop	eShop	52.5	50	39.9	37.5
16	—	eShop	—	eShop	—	56	—	39.5
Ø D mm	41.7	49	41	45				



31 9761



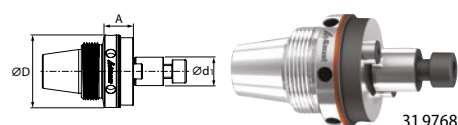
31 9764

Quick-change toolholder, face mill

Spigot Ø d ₁	31V 31 9766	31V 31 9767	31V 31 9768	31V 31 9769	Dimension A		
	Quick-change toolholder, face mill with external nut		Quick-change toolholder, face mill for internal nut		31 9766 31 9769	31 9767	31 9768
mm	ER 25	ER 32	ER 25	ER 32	mm	mm	mm
16	eShop	eShop	eShop	—	34.5	34	17.2
22	—	—	—	eShop	22	—	—
Ø D mm	41.7	49	41	48			



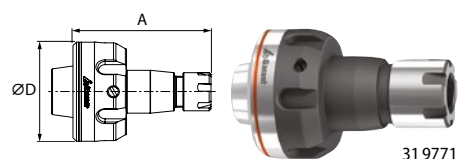
31 9766



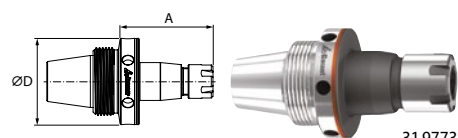
31 9768

Quick-change toolholder, ER-mini

for ER collet size	31V 31 9771	31V 31 9772	31V 31 9773	31V 31 9774	Dimension A			
	Quick-change toolholder, ER-mini with external nut		Quick-change toolholder, ER-mini for internal nut		31 9771	31 9772	31 9773	31 9774
	ER 25	ER 32	ER 25	ER 32	mm	mm	mm	mm
11	eShop	eShop	eShop	eShop	58	61	44.9	43.5
16	eShop	—	eShop	—	61	—	48.4	—
Ø D mm	41.7	49	41	45				



31 9771



31 9773



Inserts VARIA and VARIA VX

Advantage:

- Quick change using a single clamping point, therefore tool change without risk of injury.
- Cutter tools lie pre-set at the machine.
- Compact design - low unit costs.

ER collet inserts – VARIA / VARIA VX – with internal cooling

31 9802/9804 – **VX** – Three-point clamping of the integral segment ring, free of transverse forces. **Polygon torque resistance up to 200 Nm.**

Application: Mainly for drilling and centring.

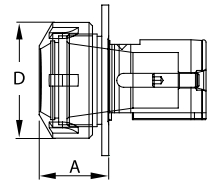
Note: Maximum tightening torque for VX3 and VX4 is 5.7 Nm, which can be achieved using the appropriate torque screwdriver No. 211750 size 5.7. Maximum tightening torque for V5 is 10 Nm. When releasing the deposits, do not travel beyond the stop. We recommend the EWS Clean and cleaning set for cleaning the Varia toolholders and replaceable inserts.



31 9802



31 9805



for ER collet size			16	20	25	32	40
33E 31 9802	Varia collet chuck VARIA VX3	VX3	eShop	eShop	eShop	eShop	–
33E 31 9804	Varia collet chuck VARIA VX4	VX4	(eShop)	(eShop)	eShop	eShop	eShop
33E 31 9805	ER collet chuck VARIA	V5	–	–	eShop	eShop	eShop
Dimension A (31 9802)	mm		27	27	30	63	–
Dimension A (31 9804)	mm		30	25	30	30	57
Dimension A (31 9805)	mm		–	–	30	30	30
Ø D	mm		28	34	42	50	63

Weldon / Whistle Notch inserts – VARIA / VARIA VX – with internal cooling

31 9823/9827 – **VX** – Three-point clamping of the integral segment ring, free of transverse forces. **Polygon torque resistance up to 200 Nm.**

Application: For clamping tools with drive flats.

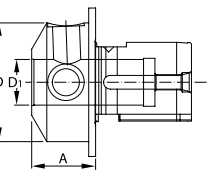
Note: Maximum tightening torque for VX3 and VX4 is 5.7 Nm, which can be achieved using the appropriate torque screwdriver No. 211750 size 5.7. Maximum tightening torque for V5 is 10 Nm. When releasing the deposits, do not travel beyond the stop. Extra short version available on request. We recommend the EWS Clean and cleaning set for cleaning the Varia toolholders and replaceable inserts.



31 9823



31 9829



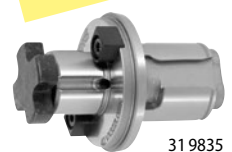
Clamping range Ø D ₁	mm		6	8	10	12	14	16	20	25	32
33E 31 9823	Indexable drill toolholder VARIA VX3	VX3	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
33E 31 9827	Indexable drill toolholder VARIA VX4	VX4	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	–
33E 31 9829	Indexable drill toolholder VARIA V5	V5	eShop	(eShop)	eShop	eShop	–	eShop	(eShop)	eShop	eShop
Dimension A (31 9823)	mm		16	17	26	26	28	28	58	60	–
Dimension A (31 9827)	mm		16	19	26	28	28	28	28	33	–
Dimension A (31 9829)	mm		19	22	29	31	–	31	31	36	56
Ø D (31 9823)	mm		25	25	42	42	46	48	34	42	–
Ø D (31 9827)	mm		25	25	42	42	42	48	52	42	–
Ø D (31 9829)	mm		25	28	35	42	–	48	52	65	72

Milling cutter spigot inserts – VARIA VX

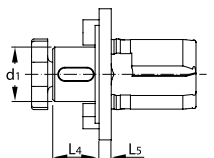
VX – Three-point clamping of the integral segment ring, free of transverse forces. **Polygon torque resistance up to 200 Nm.**

Note: Maximum tightening torque for VX3 and VX4 is 5.7 Nm, which can be achieved using the appropriate torque screwdriver No. 211750 size 5.7. Maximum tightening torque for V5 is 10 Nm. When releasing the deposits, do not travel beyond the stop. We recommend the EWS Clean and cleaning set for cleaning the Varia toolholders and replaceable inserts.

With through coolant feed on request



31 9835



Spigot Ø d ₁	mm		16	22	27
33E 31 9835	Axial milling cutter spigot VARIA VX3	VX3	(eShop)	(eShop)	eShop
33E 31 9838	Axial milling cutter spigot VARIA VX4	VX4	(eShop)	(eShop)	(eShop)
L ₄	mm		25	27	29
L ₅ (31 9835)	mm		4	4	4.5
L ₅ (31 9838)	mm			4	



VARIA VXT inserts

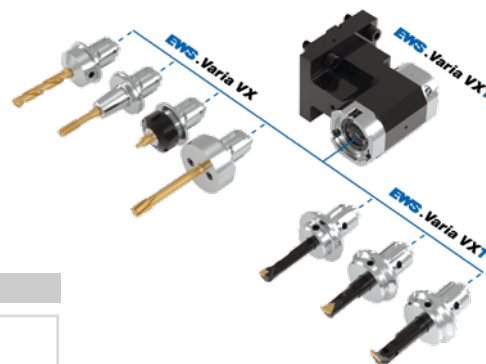
VXT – double cone flex system. **Polygon torque resistance up 200 Nm.**

Advantage:

- Optimised stability and dampening
- Tool change, flexibility and modularity.
- Highest precision and repeatability (+/- 0.002).
- Backward compatibility with VARIA VX

Application:

Quick-change system for static rotary applications.

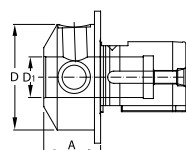


Boring bar inserts - VARIA VXT

Note:

Maximum tightening torque for VXT3 and VXT4 is 5.4 Nm, which can be achieved using the appropriate torque wrench No. 211750 size 5.7. When releasing the inserts, do not travel beyond the stop. We recommend the EWS Clean and cleaning set for cleaning the Varia toolholders and replaceable inserts.

Clamping Ø D ₁	mm	6	8	10	12	16	20
33E 31 9845	Indexable drill toolholder VARIA VXT3	(eShop)	(eShop)	(eShop)	(eShop)	(eShop)	—
33E 31 9846	Indexable drill toolholder VARIA VXT4	(eShop)	(eShop)	(eShop)	(eShop)	(eShop)	(eShop)
Dimension A	mm	18	18	20	20	20	23
Ø D (31 9845)	mm	32	32	36	36	46	—
Ø D (31 9846)	mm	36	36	42	42	46	55



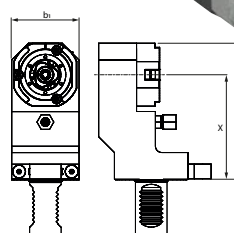
VARIA VXT VDI holders

Suitable for:

Size: 30 – 100 inserts VARIA No. 319845.

Size: 40 – 100 inserts VARIA No. 319846

VDI / X dimension		30-100	40-100
33E 31 9847	VDI toolholder VARIA VXT	(eShop)	(eShop)
L ₁	mm	130	135
b ₁	mm	64	76
suitable for arbor		VXT3	VXT4



Other sizes available on request.

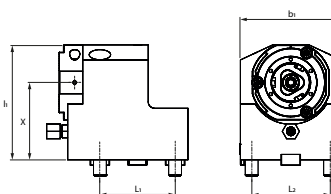
VARIA VXT BMT holders

Suitable for:

Size: 40-95; 55-70; 55-100 inserts, VARIA No. 319845.

Size: 60-80; 65-72 inserts VARIA No. 319846

BMT / X dimension		40-95	55-70	55-100	60-90	65-72
33E 31 9848	VDI toolholder VARIA VXT	(eShop)	(eShop)	(eShop)	(eShop)	(eShop)
L ₁	mm	70	64	64	94	70
L ₂	mm	62	64	64	84	73
L ₁	mm	125	100	100	125	107
b ₁	mm	76.8	85	85	108	94
suitable for arbor		VXT3	VXT3	VXT3	VTX4	VTX4



Other sizes available on request.



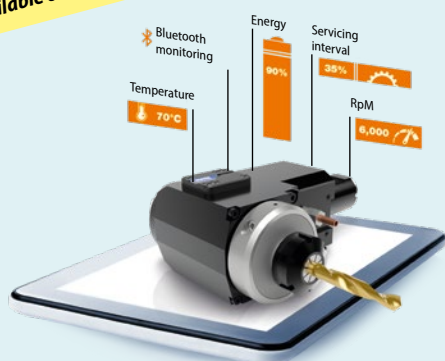
Driven tools with "CyberCon4" sensor system

The digital view for capturing kinematic processes. System monitoring via Bluetooth of powered tools.

- Rotational speed and temperature: Live mode display.
- Statistical values are stored on the tool chip.
- Displays whether the tool is flooded with coolant if the seal is defective.
- Switching on and off (overall cycles counter).
- Displays the total operating hours.
- Records the longest machining cycle.
- Intelligent service counter.

The data can be visualised on a mobile device (such as a mobile phone or tablet) in conjunction with an app suitable for the purpose.

Available on request



Garant Driven tools (AGW)

For use on all **DMG Gildemeister CTX** CNC lathes with **Sauter** turret and drive coupling **DIN 5480** or machines with **BMT turret** with drive coupling **DIN 1809**. Clamping of tools in driven tool using ER collet with external/internal nut or VARIA VX quick-change system under license from EWS. External cooling via innovative coolant management, internal cooling through the tool centrally through the spindle.

Suitable for: DMG Gildemeister CTX. In some cases, Emco, Hardinge, Monforts, Scherer etc. with DIN 5480 or BMT turret with DIN 1809.

Advantage:

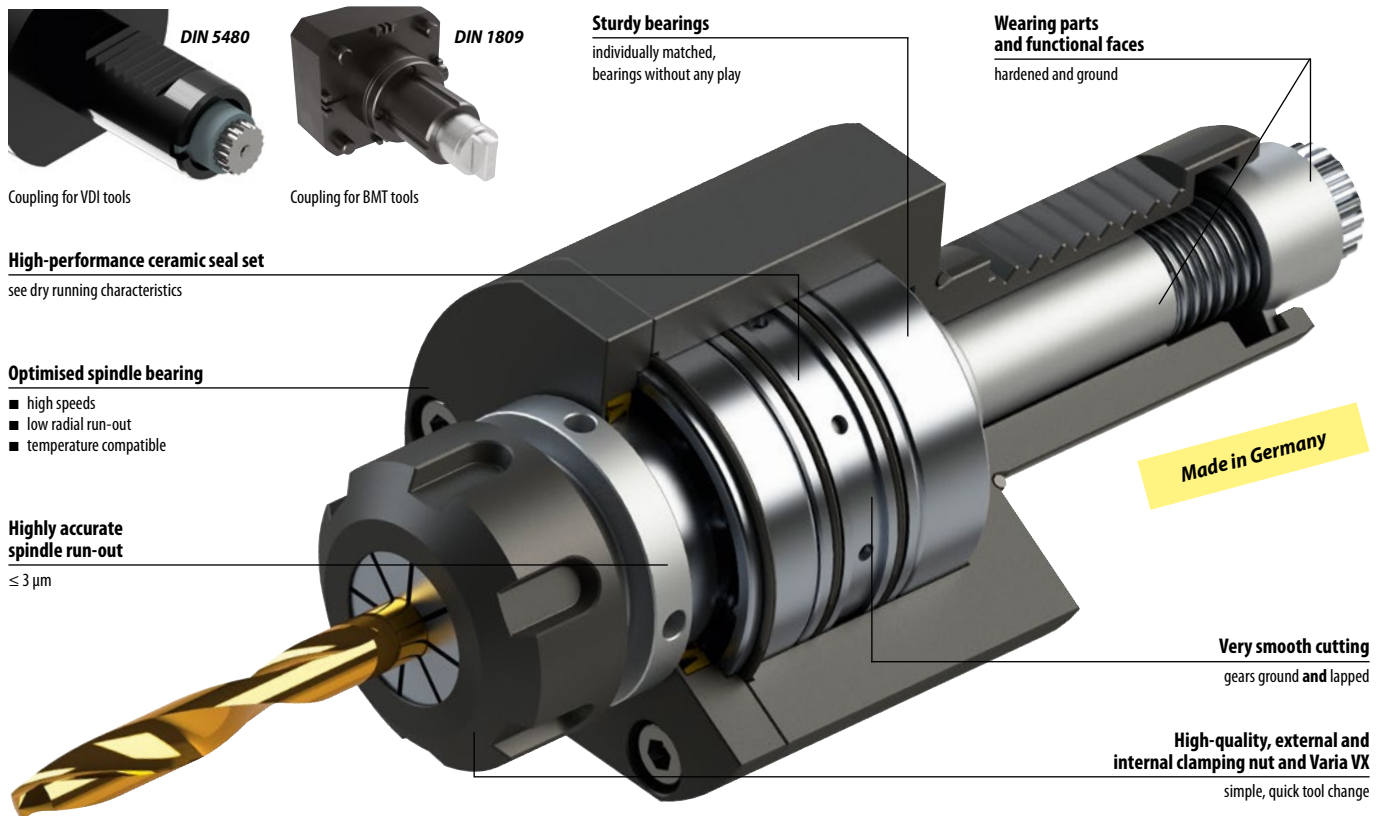
- Design optimised for weight and geometry.
- Process reliability thanks to high-quality components, long working life.
- Transmission of high torques.
- 100% inspection – every driven tool undergoes a run-in program.
- Through cooling: specially developed and patented seal.

Application: As many machining steps as possible in one clamping set-up. Where space (available clamping positions) in the revolver is at a premium.

Supplied with: Driven tool for collet: including clamping nut and hook spanner. Driven tool VARIA VX: including chuck key.

Note:

- Other drive types (such as DIN 5482), ratios, dimensions, BMT etc. on request, see: www.hoffmann.ews-tools.com
- IC tools (internal cooling), can run dry, coolant filtering < 50 µm.
- Recommendation: operate version VARIA VX with a torque tool (max. 6 Nm).
- For heavy-duty milling work, a variant with tapered roller bearings is recommended on request.



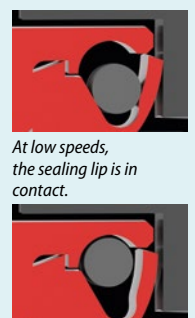
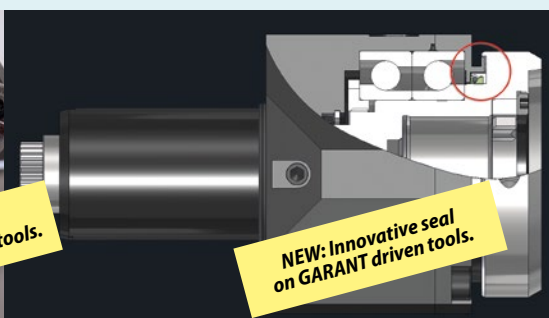
Garant Driven tools:

Butterfly seal and coolant management.

New **type of butterfly seal**, which prevents dirt and coolant from penetrating into the inside of the driven tool → significantly **less maintenance** and almost **wear-free**.

Robust and general-purpose **coolant management**.

- Quick and easy to use.
- Coolant flow adjustable.
- Targeted cooling on the cutting edge.



At low speeds, the sealing lip is in contact.

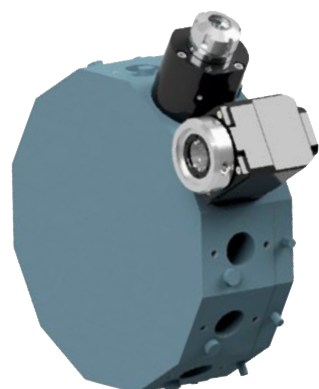
At high speeds, the sealing lip lifts off.



Driven tools - axial version - for DMG CTX

Version IK – with ceramic seal set, pressures up to 70 bar, with full dry-run capability.
Version IM – with internal clamping nut.
For use on both disc and radial turrets.
Ratio 1:1. Version with internal cooling (internal) max. 70 bar.

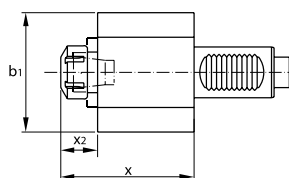
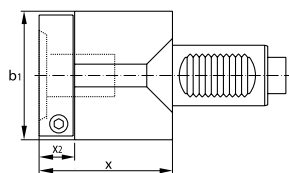
Special IK seal for high pressures and dry machining



Radial turret



Disc turret



31 9962_30-ER25



31 9962_30-ER25-IM



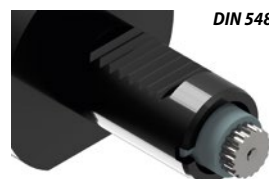
31 9964_30-VX3

Type		30-ER25	30-ER25-IK	30-ER25-IM	30-25IM-IK	30-VX3	30-VX3-IK	VDI	
31W 31 9962	Driven tool, axial	ER25	eShop	eShop	eShop	—	—	30	
31W 31 9964		VX3	—	—	—	eShop	(eShop)	30	
b ₁	mm	68							
x	mm	93.5	93.5	74.9	74.9	75	75		
x ₁	mm	—	—	—	—	79	79		
x ₂	mm	35	35	16.4	16.4	58.5	58.5		
Cooling		external	internal	external	internal	external	internal		
maximum pressure	bar	70							

Type		40-ER32	40-ER32-IK	40-ER32-IM	40-32IM-IK	40-VX4	40-VX4-IK	VDI	
31W 31 9965	Driven tool, axial	ER32	eShop	eShop	eShop	—	—	40	
31W 31 9966		VX4	—	—	—	eShop	(eShop)	40	
b ₁	mm	85							
x	mm	102	102	79.1	79.1	80	80		
x ₁	mm	—	—	—	—	84	84		
x ₂	mm	39.4	39.4	16.2	16.2	62.6	62.6		
Cooling		external	internal	external	internal	external	internal		
maximum pressure	bar	70							

Driven tools - radial version disc turret - for DMG CTX

Version IK – with ceramic seal set, pressures up to 70 bar, with full dry-run capability.
Version IM – with internal clamping nut.
For use on **disc turrets**. Right-hand version. Ratio 1:1.
Version with internal cooling (internal) max. 70 bar. Alignment using **standard-pin bar**.
31 9975/9977/9985/9986 – Recessed version for more machining space.



DIN 5480

Special IK seal for high pressures and dry machining



Standard pin strip

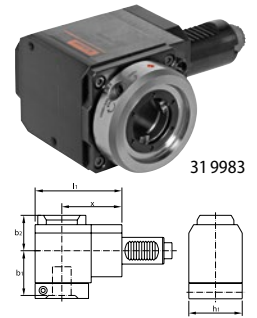
Type		30-25-R	30-25-R-IK	30-25-R-IM	30-25RIMIK	30-VX3-R	30-VX3-RIK	VDI	
31W 31 9971	Driven tool, radial	ER25	eShop	eShop	eShop	—	—	30	
31W 31 9973		VX3	—	—	—	eShop	eShop	30	
l ₁	mm	89							
b ₁	mm	84	84	62.4	62.4	65.5	65.5		
b ₂	mm	43	50	43	50	43	50		
h ₁	mm	68							
x	mm	55							
Cooling		external	internal	external	internal	external	internal		

Type		Z30-25-R	Z30-25R-IK	Z30-25R-IM	Z3025RIMIK	Z30-VX3-R	Z30-VX3RIK	VDI	
31W 31 9975	Driven tool, radial recessed	ER25	eShop	eShop	eShop	—	—	30	
31W 31 9977		VX3	—	—	—	eShop	eShop	30	
l ₁	mm	103.5							
b ₁	mm	41.5	41.5	19.9	19.9	23	23		
b ₂	mm	85.5	92.5	85.5	92.5	85.5	92.5		
h ₁	mm	64	64	64	64	68	68		
x	mm	70							
Cooling		external	internal	external	internal	external	internal		

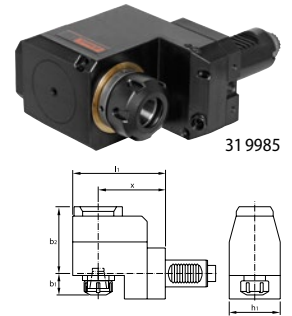


31 9971

Type			40-32-R	40-32-R-IK	40-32-R-IM	40-32RIMIK	40-VX4-R	40-VX4-RIK	VDI	
31W 31 9981	Driven tool, radial	ER32	eShop	eShop	(eShop)	eShop	–	–	40	
31W 31 9983		VX4	–	–	–	–	eShop	eShop	40	
l₁	mm	138								
b₁	mm	96	96	71.1	71.1	72.5	72.5			
b₂	mm	52	58	52	58	52	58			
h₁	mm	76								
x	mm	100								
Cooling			external	internal	external	internal	external	internal		



Type		Z40-32-R	Z40-32R-IK	Z40-32R-IM	Z4032RIMIK	Z40-VX4-R	Z40-VX4RIK	VDI		
^{31W} 31 9985	Driven tool, radial recessed	ER32	(eShop)	eShop	(eShop)	eShop	–	–	40	
^{31W} 31 9986		VX4	–	–	–	–	eShop	eShop	40	
l_1	mm	138								
b_1	mm	48.5	48.5	23.6	23.6	25	25			
b_2	mm	99.5	105.5	99.5	105.5	99.5	105.5			
h_1	mm	76								
x	mm	100								
Cooling		external	internal	external	internal	external	internal			

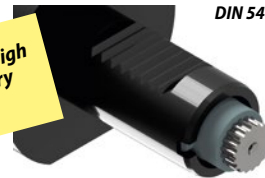


Driven tools - radial version radial turret - for DMG CTX

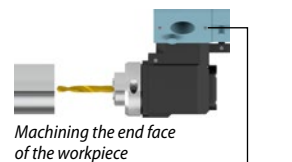
For use on **radial turrets**. Left-hand version, i.e. machining in the direction of the main spindle.
Ratio 1:1. Version with internal cooling (internal) max. 70 bar.
Version IK – with ceramic seal set, pressures up to 70 bar, with full dry-run capability. Standard alignment rail (pin).

Special IK seal for high pressures and dry machining

DIN 5480

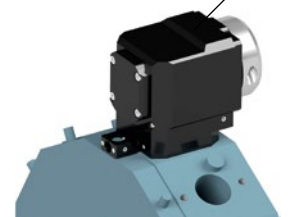


Type		30-25-L	30-25-LIK	30-VX3-L	30-VX3-LIK	30-25-L-IM	30-25LIMIK	VDI	
31W 31 9987	Driven tool, radial, standard pin	ER25	eShop	(eShop)	–	–	eShop	eShop	30
31W 31 9988		VX3	–	–	eShop	eShop	–	–	30
l_1	mm	134							
b_1	mm	84	84	65.5	65.5	62.4	62.4		
b_2	mm	43	50	43	50	43	50		
h_1	mm	68							
x	mm	100							
Cooling		external	internal	external	internal	external	internal		



Machining the end face of the workpiece

Type		40-32-L	40-32-LIK	40-VX4-L	40-VX4-LIK	40-32-L-IM	40-32LIMIK	VDI	
31W 31 9989	Driven tool, radial, standard pin	ER32	eShop	eShop	–	–	eShop	eShop	40
31W 31 9998		VX4	–	–	(eShop)	eShop	–	–	40
l_1	mm	138							
b_1	mm	85	85	76.5	72.5	71.1	71.1		
b_2	mm	53	72	53	58	52	58		
h_1	mm	76							
x	mm	100							
Cooling		external	internal	external	internal	external	internal		



Pin rail

Garant

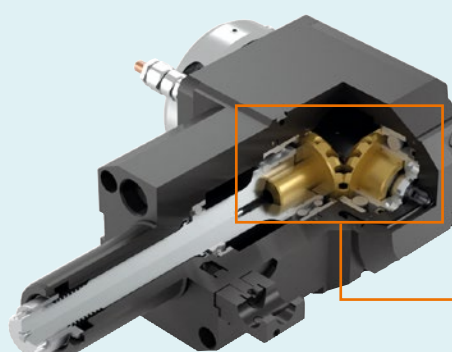
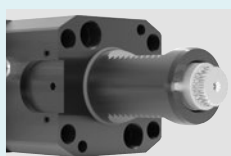
Driven tools:

Polygon connection and VDI double toothing

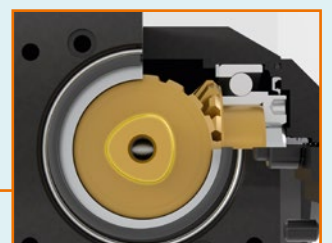
Unique power and speed transmission through **new polygon connection** (drive/output shaft to gear pinion). Compared to conventional groove-spring connection:

- Significantly less maintenance.
- Better torque transmission.

Significantly more flexible use of radial driven tools, thanks to **VDI double-tooth**ing -> one tool for the main **spindle** and counterspindle.



NEW: Polygon connection in all radial GARANT driven tools.



i



31

Driven tools - axial version - for BMT turret

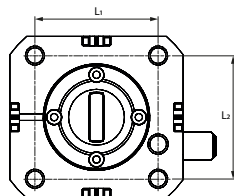
Version IK – with ceramic seal set, pressures up to 70 bar, with full dry-run capability.
Version IM – with internal clamping nut.



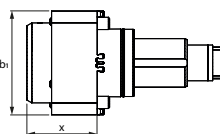
Radial turret



DIN 1809



Special IK seal for high pressures and dry machining



31 9929_55-25-1K



31 9929_55-VX3-1K

Type			55-25	55-25-1K	55-VX3	55-VX3-1K	60-40	60-40-1K	60-V5	60-V5-1K
31V 31 9929	Driven tool, axial	BMT55	eShop	eShop	eShop	eShop	—	—	—	—
31V 31 9930		BMT60	—	—	—	—	eShop	eShop	eShop	eShop
Tool clamping			ER25	ER25	VX3	VX3	ER40	ER40	V5	V5
L ₁	mm		64	64	64	64	94	94	94	94
L ₂	mm		64	64	64	64	84	84	84	84
b ₁	mm		84	84	84	84	108	108	108	108
x	mm		58.9	58.9	57	57	98	98	83.5	83.5
Cooling			external	internal	external	internal	external	internal	external	internal

Type			65-32	65-32-1K	65-VX4	65-VX4-1K
31V 31 9932	Driven tool, axial	BMT65	eShop	eShop	eShop	eShop
Tool clamping			ER32	ER32	VX4	VX4
L ₁	mm				70	
L ₂	mm				73	
b ₁	mm				97	
x	mm		61.1	61.1	57	57
Cooling			external	internal	external	internal



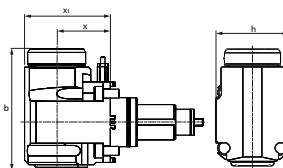
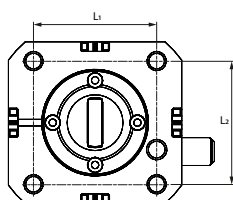
31 9930_60-40-1K

Driven tools - radial version - for BMT turret

Version IK – with ceramic seal set, pressures up to 70 bar, with full dry-run capability.
For use on BMT turrets. Ratio 1:1.
Version with internal cooling (internal) max. 70 bar.



DIN 1809



Special IK seal for high pressures and dry machining



31 9934_55-25-1K

Type			55-25	55-25-1K	55-VX3	55-VX3-1K	60-40	60-40-1K	60-V5	60-V5-1K
31V 31 9934	Driven tool, radial	BMT55	eShop	eShop	eShop	eShop	—	—	—	—
31V 31 9936		BMT60	—	—	—	—	eShop	eShop	eShop	eShop
Tool clamping			ER25	ER25	VX3	VX3	ER40	ER40	V5	V5
L ₁	mm		64	64	64	64	94	94	94	94
L ₂	mm		64	64	64	64	84	84	84	84
x	mm		60	60	60	60	90	90	90	90
x ₁	mm		96	96	96	96	139	139	136	136
b	mm		132.4	139.4	134.5	141.5	206	207.5	160.5	160.5
h	mm		84	84	84	84	108	108	89	89
Cooling			external	internal	external	internal	external	internal	external	internal

Type			65-32	65-32-1K	65-VX4	65-VX4-1K
31V 31 9938	Driven tool, radial	BMT65	eShop	eShop	eShop	eShop
Tool clamping			ER32	ER32	VX4	VX4
L ₁	mm				70	
L ₂	mm				73	
x	mm				72	
x ₁	mm				113	
b	mm		154.6	159.6	152.5	157.5
h	mm				94	
Cooling			external	internal	external	internal



31 9936_60-40-1K

BMT toolholders

High-precision arbors adapted to the specific machine, for flexible use on main and counter-spindle machines. Contact face and functional face ground. Perfectly matched for the respective lathe.

Suitable for: CNC lathes with BMT tool turret.

Advantage:

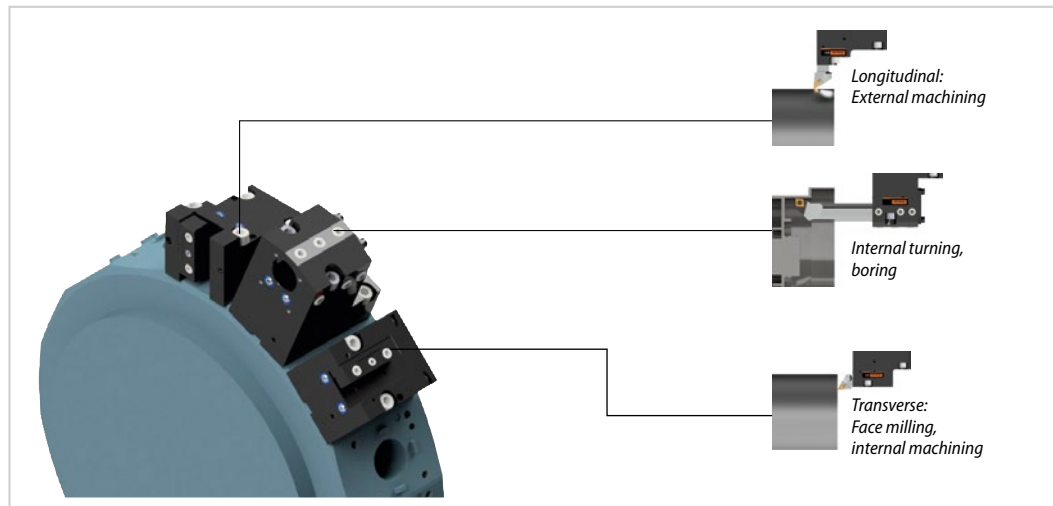
- Design optimised for weight and geometry.
- Process reliability thanks to high-quality materials, long working life.
- Burnished for better corrosion protection.
- With secured ball injection nozzles up to 80 bar.

Application: Internal and external machining in CNC lathes with BMT tool turrets.

Note: Other BMT holders with different sizes and dimensions are available on request.



319888_60



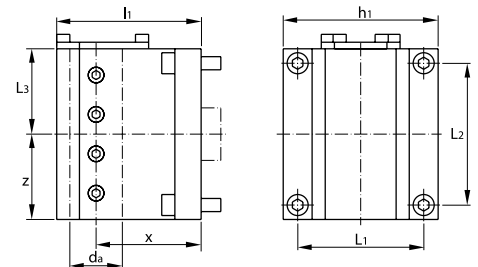
319887_60

Boring bar / combination holder

For internal and external cooling.

319888 – Suitable for efficient cooling systems such as GARANT eco, but also for other systems. Optimised outer contour.

Application: For internal machining with boring bar holder or indexable drills.



			NEW	NEW	NEW	NEW	NEW		
BMT			40	55-70	55-100	60	65-72	65-100	68-95
31V	31 9888	 BMT boring bar toolholder	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Z	mm		65	62	60	70	77	77	64
x	mm		100	70	100	80	72	100	95
l ₁	mm		125	100	130	110	106	131	123
d _a	mm		32	40	40	40	40	40	40
L ₁	mm		62	64	64	84	73	73	68
L ₂	mm		70	64	64	94	70	70	110
L ₃	mm		10	18	20	30	40	7	21
h ₁	mm		78	85	85	108	96	96	84



319888_68

			40	45-65	45-85	55	60	65-72	65-100	68	WT100-75	WT100-92,5	WT150
NEW 32U 319887	HOLEX	BMT boring bar toolholder	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Z	mm		65	45	45	56	70	64	64	64	31	31	40
x	mm		100	65	85	70	80	72	100	95	75	92.5	75
l_1	mm		125	90	110	90	120	105	132	132	92	110	100
d_a	mm		32	32	32	40	40	40	40	40	25	25	32
L_1	mm		62	58	58	64	84	73	73	68	55	55	60
L_2	mm		70	58	58	64	94	70	70	110	40	40	50
L_3	mm		13	40	40	45	25	51	51	26	31	31	40
h_1	mm		78	75	75	85	108	95	95	85	80	80	80



31

Longitudinal and transverse toolholders

Suitable for conventional toolholders.

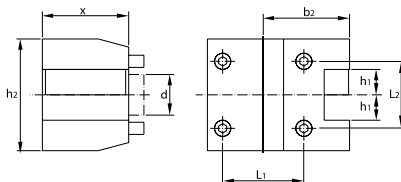
- 31 9884/9886 – Suitable for efficient cooling systems such as GARANT eco, but also for other systems.
Optimised outer contour. Scale to optimally adjust the machining tool.
Spring-mounted pressure pad for uniform clamping of the turning tools.
For internal and external cooling.

Application:

- 31 9886 – Primarily for facing and internal machining.
31 9884/9885 – Mainly for external machining.



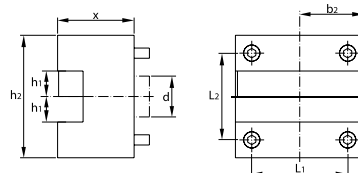
Highly efficient cooling directly at the cutting edge with GARANT eco



31 9884_60



31 9885_60



31 9886_68

BMT		40	45	55	60	65	68	WT100	WT150
31V 31 9884	Garant Eco BMT longitudinal toolholder	eShop	—	eShop	eShop	eShop	eShop	—	—
32U 31 9885	HOLEX BMT longitudinal toolholder	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31V 31 9886	Garant Eco BMT transverse toolholder	eShop	—	eShop	eShop	eShop	eShop	—	—
x (31 9884)	mm	70	—	60	70	75	75	—	—
x (31 9885)	mm	70	65	60	70	80	80	62	65
x (31 9886)	mm	80	—	95	100	60	98	—	—
L ₁ (31 9884, 31 9885)	mm	70	58	64	94	70	110	40	50
L ₁ (31 9886)	mm	70	—	64	94	64	100	—	—
L ₂ (31 9884, 31 9885)	mm	62	58	64	84	73	68	55	60
L ₂ (31 9886)	mm	62	—	64	84	64	68	—	—
b ₂ (31 9884)	mm	65	—	70.5	65	—	64	—	—
b ₂ (31 9885)	mm	65	62	81	65	80	64	52	40
b ₂ (31 9886)	mm	65	—	45	70	70.5	64	—	—
h ₁ (31 9884)	mm	20	—	20	25	25	25	—	—
h ₁ (31 9885)	mm	20	20	25	25	25	25	20	20
h ₁ (31 9886)	mm	20	—	20	25	20	25	—	—
h ₂ (31 9884)	mm	78	—	90	70	97	94	—	—
h ₂ (31 9885)	mm	78	75	97	108	95	95	80	80
h ₂ (31 9886)	mm	78	—	91	108	85	94	—	—

Choosing the right size for our BMT tools:

Hole pattern for screws:



Size 40



Size 45



Size 55



Size 60



Size 65



Size 68



WT100



WT150

Suitable machines:

MORI NL/NLX
MORI NTX
MORI NT
MORI NZ
MORI ALX
MORI DuraTurn
GANESH ASL
TAKISAWA

DN SOLUTIONS/
DOOSAN PUMA
DN SOLUTIONS/
DOOSAN LYNX
EMCO
HYUNDAI WIA
HARDINGE
HWACHEON
HAAS
Spinner
SMEC
TAKAMAZ
TAKISAWA
VICTOR VTurn

ACCURWAY
ALEX-TECH
DN SOLUTIONS/
DOOSAN PUMA
DN SOLUTIONS/
DOOSAN LYNX
EMAG VL
EMCO
HYUNDAI WIA
HARDINGE
HWACHEON
SMEC
TAKAMAZ
TAKISAWA
VICTOR VTurn
YCM

MORI NL/NLX
MORI NTX
MORI NT
FOCUS CNC
TAKISAWA TS

DN SOLUTIONS/
DOOSAN PUMA
EMAG
EMCO
ECOCA
FOCUS CNC
GANESH
GOODWAY
HAAS
HARDINGE
HWACHEON
HYUNDAI WIA
JOHNFORN
SMEC
SPINNER
TAKISAWA
Tongtai
VICTOR

QT Smart
QT Compact
QTE
QT-Ez
QTU

Nakamura-Tome
NA44A
Nakamura-Tome
WT-100
Nakamura-Tome
NTJ-100
Nakamura-Tome SC
CMZ TTS
Muratec MT

Nakamura-Tome WT-150
Nakamura-Tome SC
Nakamura-Tome Super
Nakamura-Tome NA55A
Nakamura-Tome NTY²
Nakamura-Tome AS
Nakamura-Tome TW
Nakamura-Tome JX
CMZ TA
CMZ TD

See eShop for exact machine specifications

ISO
12164-3

Toolholder with hollow taper shank (HSK) – Form T for turning / milling centres

Application: For use on lathes and milling centres.

Toolholder for square shanks



With adjustable cooling nozzle with internal thread.

31 8602–8606/8622/8624 – Slim contour for better accessibility.

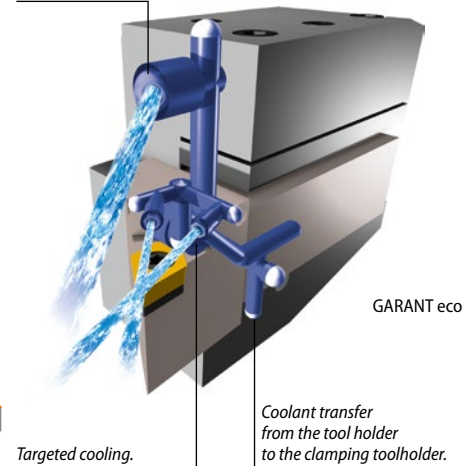
31 8620–8628 – **GARANT** - Optimisation of tool life, better surface finishes, increased process reliability and increased productivity due to GARANT Eco.

Application: For mounting ISO toolholders with square shanks.

Note:

31 8628 – With pass-through shim. Suitable for toolholders with shank 20 and 25 mm.

Additional cooling using a high-pressure spherical spray nozzle.

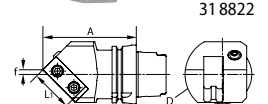
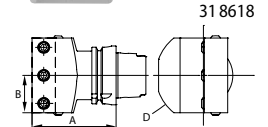
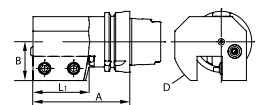


GARANT eco

Adapted mating face for strong grip.



With pass-through shim. Suitable for toolholders with shank 20 and 25 mm.



31

1077

for toolholder square			mm	20	25
36D	31 8602	Toolholder axial, single, right-hand	HSK-T 40	eShop	–
36D	31 8606	Toolholder axial, single, left-hand	HSK-T 40	eShop	–
36D	31 8618	Toolholder radial	HSK-T 40	(eShop)	–
31G	31 8620	Eco toolholder axial single, right-hand	HSK-T 63	–	eShop
31G	31 8621	Eco toolholder axial single, left-hand	HSK-T 63	–	eShop
31G	31 8622	Eco toolholder axial single, right-hand	HSK-T 63	–	eShop
31G	31 8624	Eco toolholder axial single, left-hand	HSK-T 63	–	eShop
36D	31 8802	Toolholder axial, single, right-hand	HSK-T 63	eShop	–
36D	31 8806	Toolholder axial, single, left-hand	HSK-T 63	eShop	–
31G	31 8623	Eco toolholder axial double, right-hand	HSK-T 63	–	eShop
36D	31 8814	Toolholder axial, triple, right-hand	HSK-T 63	eShop	(eShop)
31G	31 8625	Eco toolholder radial	HSK-T 63	–	eShop
36D	31 8818	Toolholder radial	HSK-T 63	eShop	eShop
31G	31 8627	Eco toolholder diagonal 45°, right-hand	HSK-T 63	–	eShop
31G	31 8628	Eco toolholder diagonal 45°, left-hand	HSK-T 63	–	eShop
36D	31 8822	Toolholder diagonal 45°, right-hand	HSK-T 63	(eShop)	(eShop)
36D	31 8826	Toolholder diagonal 45°, left-hand	HSK-T 63	(eShop)	(eShop)

Dimension A (31 8602, 31 8606, 31 8620, 31 8621, 31 8622, 31 8623, 31 8624)

mm 80 130

Dimension A (31 8618, 31 8625)

mm 75 90

Dimension A (31 8802, 31 8806, 31 8627, 31 8628)

mm 90 112.7

Dimension A (31 8814)

mm 90 100

Dimension A (31 8818)

mm 90

Dimension A (31 8822, 31 8826)

mm 100

L₁ (31 8602, 31 8606, 31 8620, 31 8621, 31 8622, 31 8624, 31 8802, 31 8806, 31 8623, 31 8625)

mm 45 88

L₁ (31 8814, 31 8822, 31 8826)

mm 45 58

L₁ (31 8627, 31 8628)

mm – 80

B (31 8602, 31 8606, 31 8618, 31 8620, 31 8621, 31 8802, 31 8806,

mm 30 40

31 8623, 31 8814, 31 8625, 31 8818, 31 8627, 31 8628, 31 8822, 31 8826)

mm – 25

B (31 8622, 31 8624)

mm – 25

Ø D (31 8602, 31 8606, 31 8618, 31 8620, 31 8621, 31 8802, 31 8806,

mm 80 102

31 8623, 31 8625, 31 8818, 31 8822, 31 8826)

mm – 78

Ø D (31 8622, 31 8624)

mm 90 102

Ø D (31 8814)

mm – 94

Ø D (31 8627, 31 8628)

mm – 12.7

f (31 8627, 31 8628)

mm – 15

f (31 8822, 31 8826)

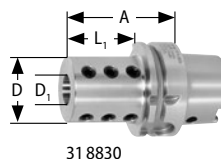
mm – 15

Boring bar holder

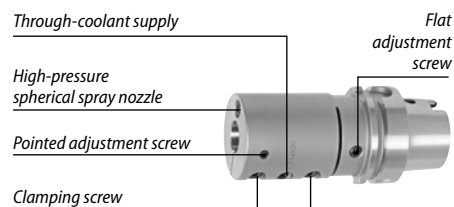


31 8831 – **GARANT** - more stability and vibration damping effect due to wrapping around the boring bar.

Application: For mounting boring bars.



31 8830



31 8831

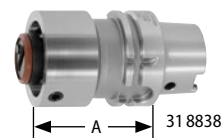
Clamping range $\varnothing D_1$		mm	6	8	10	12	16	20	25	32	40
36D 31 8829	SWISS TOOLS	Boring bar holder	HSK-T 40	eShop	eShop	eShop	eShop	eShop	—	—	—
36D 31 8830			HSK-T 63	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31G 31 8831	Garant	Boring bar holder slotted	HSK-T 63	—	—	eShop	eShop	eShop	eShop	eShop	—
Dimension A (31 8829)		mm	55	55	55	55	70	—	—	—	—
Dimension A (31 8830)		mm	60	60	60	60	75	75	75	90	90
Dimension A (31 8831)		mm	—	—	105	105	105	105	105	105	—
$\varnothing D$ (31 8829, 31 8830)		mm	34	34	34	36	40	44	50	56	63
$\varnothing D$ (31 8831)		mm	—	—	45	45	45	55	55	65	—
L_1 (31 8829)		mm	35	35	35	35	50	—	—	—	—
L_1 (31 8830)		mm	34	34	34	34	49	49	49	64	64
L_1 (31 8831)		mm	—	—	79.05	79.05	79.05	79.05	79.05	80	—

Extensions



Application: For extension of HSK interfaces.

A dimension		mm	80	120
36D 31 8838	SWISS TOOLS	Extension HSK-T63 / HSK-T63	HSK-T 63	eShop
$\varnothing D$		mm	63	

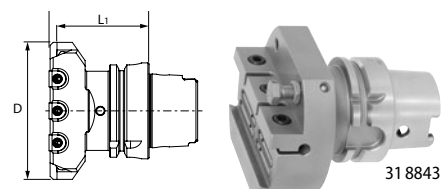


31 8838

Parting-off toolholder



Application: To take parting-off blades with coolant delivery from all popular manufacturers. Transfer holes not used can be closed off using the screws supplied. Supplied with ball spray nozzle.

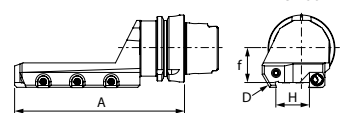


31 8843

for blade height H		mm	32
36D 31 8843	Garant	Eco parting-off toolholder, radial	HSK-T 63
36D 31 8844		Eco parting-off toolholder, axial, right-hand	HSK-T 63
36D 31 8845		Eco parting-off toolholder, axial, left-hand	HSK-T 63
Dimension A (31 8843)		mm	65
Dimension A (31 8844, 31 8845)		mm	160
L_1 (31 8843)		mm	60
$\varnothing D$ (31 8843)		mm	90
$\varnothing D$ (31 8844, 31 8845)		mm	75
f (31 8844, 31 8845)		mm	32



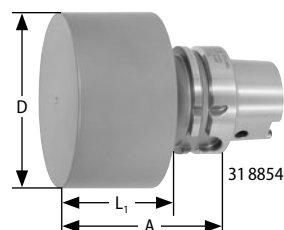
31 8844



Blanks

Application: For making special tools.

$\varnothing D \times A$ dimension		mm	63×200	102×100
36D 31 8854	SWISS TOOLS	Blank	HSK-T 63	eShop
L_1		mm	174	74

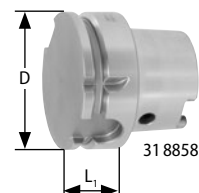


31 8854

Blanking plug

Application: For closing off unused HSK clamping units.

HSK-T		40	63
36D 31 8858	SWISS TOOLS	HSK-T - blanking plug	HSK-T 63
Adapter		HSK-T 40	HSK-T 63
$\varnothing D$		mm	40
L_1		mm	20



31 8858

ISO
26623-1

Toolholder with polygonal shanks (PSC) – for turning / milling centres

Application: For use on lathes and milling centres.

Note: PSC clamping stud on request.

Toolholder for square shanks

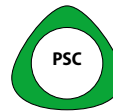


GARANT - Optimisation of tool life, better surface finishes, increased process reliability and increased productivity due to GARANT eco.

31 8851/8852/8861/8862/8855/8856/8857/8859 –

GARANT - Optimisation of tool life, better surface finishes, increased process reliability and increased productivity due to GARANT Eco.

Application: For mounting ISO toolholders with square shanks.



High-pressure
spherical
spray nozzles

Use of clamping toolholders
with shank
20 and 25 mm using
shims included in the scope
of delivery.

Clamping toolholder
alignment

GARANT eco

Coolant
transfer

for toolholder square		mm	20	25	32
36D	31 8901	Toolholder axial single, right-hand	PSC 40	(eShop)	–
36D	31 8902	Toolholder axial single, left-hand	PSC 40	(eShop)	–
36D	31 8905	Toolholder radial	PSC 40	eShop	–
36D	31 8921	Toolholder axial single, right-hand	PSC 50	eShop	–
36D	31 8922	Toolholder axial single, left-hand	PSC 50	(eShop)	–
36D	31 8926	Toolholder radial	PSC 50	eShop	–
31G	31 8851	Eco toolholder axial single, right-hand	PSC 63	–	eShop
31G	31 8852	Eco toolholder axial single, left-hand	PSC 63	–	eShop
NEW 31G	31 8861	Arbor axial, single, right-hand	PSC 63	–	eShop
NEW 31G	31 8862	Arbor axial, single, left-hand	PSC 63	–	eShop
36D	31 8860	Toolholder axial single, right-hand	PSC 63	eShop	–
36D	31 8864	Toolholder axial single, left-hand	PSC 63	eShop	–
31G	31 8855	Eco toolholder axial double, right-hand	PSC 63	–	eShop
36D	31 8872	Toolholder axial triple, right-hand	PSC 63	eShop	(eShop)
31G	31 8856	Eco toolholder radial	PSC 63	–	eShop
36D	31 8876	Toolholder radial	PSC 63	(eShop)	eShop
31G	31 8857	Eco toolholder diagonal 45°, right-hand	PSC 63	–	eShop
31G	31 8859	Eco toolholder diagonal 45°, left-hand	PSC 63	–	eShop
36D	31 8941	Toolholders axial single, right-hand	PSC 80	–	eShop
36D	31 8942	Toolholders axial single, left-hand	PSC 80	–	(eShop)
36D	31 8946	Toolholders radial	PSC 80	–	(eShop)

Dimension A (31 8901, 31 8902, 31 8857, 31 8859)

Dimension A (31 8905)

Dimension A (31 8921, 31 8922)

Dimension A (31 8926)

Dimension A (31 8851, 31 8852, 31 8861, 31 8862, 31 8860, 31 8864, 31 8855, 31 8941, 31 8942)

Dimension A (31 8872)

Dimension A (31 8856, 31 8876, 31 8946)

L₁ (31 8901, 31 8902, 31 8861, 31 8862)

L₁ (31 8921, 31 8922, 31 8851, 31 8852, 31 8860, 31 8864, 31 8855, 31 8941, 31 8942)

L₁ (31 8872)

B (31 8901, 31 8902, 31 8905, 31 8921, 31 8922, 31 8926, 31 8851, 31 8852, 31 8860, 31 8864, 31 8855, 31 8872, 31 8856, 31 8876, 31 8857, 31 8859, 31 8941, 31 8942, 31 8946)

B (31 8861, 31 8862)

Ø D (31 8901, 31 8902, 31 8905, 31 8921, 31 8922, 31 8926, 31 8851, 31 8852, 31 8860, 31 8864, 31 8855, 31 8856, 31 8876, 31 8941, 31 8942)

Ø D (31 8861, 31 8862)

Ø D (31 8872)

Ø D (31 8857, 31 8859, 31 8946)

f (31 8857, 31 8859)

mm

80

110

–

mm

55

–

–

mm

98

–

–

mm

58

–

–

mm

100

130

140

mm

125

130

–

mm

60

71

85

mm

60

88

–

mm

75

102

98

mm

95

102

–

mm

30

40

55

mm

–

25

–

mm

80

102

110

mm

–

78

–

mm

90

102

–

mm

–

94

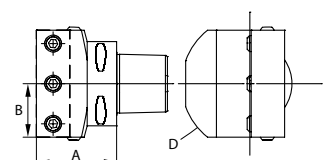
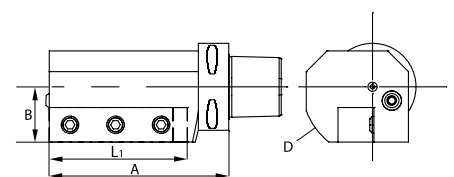
132

mm

–

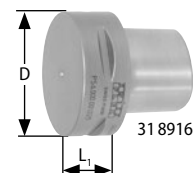
12.7

–



Blanking plug

Application: For closing off unused PSC clamping units.



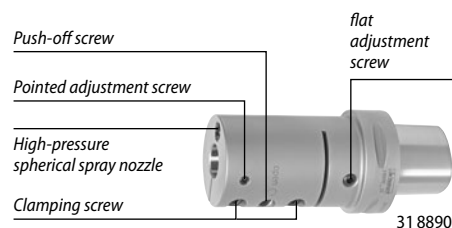
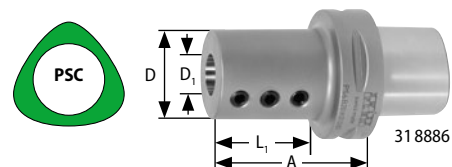
Type		40	50	60
36D 31 8916	SWISS TOOLS PSC - blanking plug	eShop	eShop	eShop
Adapter		PSC 40	PSC 50	PSC 63

Boring bar holder



31 8890 – **GARANT** - more stability and vibration damping effect due to wrapping around the boring bar.

Application: For mounting boring bars.

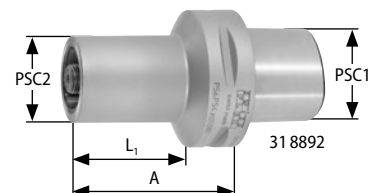


Clamping range $\varnothing D_1$	mm	6	8	10	12	16	20	25	32	40
36D 31 8886	PSC 40	eShop	eShop	(eShop)	eShop	eShop	eShop	—	—	—
36D 31 8887	SWISS TOOLS Boring bar holder	(eShop)	(eShop)	eShop	eShop	eShop	eShop	eShop	—	—
36D 31 8888	PSC 63	(eShop)	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31G 31 8890	Garant Boring bar holder slotted	—	—	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Dimension A (31 8886)	mm	65	65	65	65	65	65	—	—	—
Dimension A (31 8887)	mm	70	70	70	70	70	70	70	—	—
Dimension A (31 8888)	mm	80	80	80	80	80	80	100	100	105
Dimension A (31 8890)	mm	—	—	105	105	105	105	105	105	105
$\varnothing D$ (31 8886, 31 8887, 31 8888)	mm	34	34	34	36	40	44	50	56	63
$\varnothing D$ (31 8890)	mm	—	—	45	45	45	55	55	65	75
L1 (31 8886)	mm	43	43	43	43	43	43	—	—	—
L1 (31 8887)	mm	48	48	48	48	48	48	48	—	—
L1 (31 8888)	mm	58	58	58	58	58	58	78	78	83
L1 (31 8890)	mm	—	—	83	83	83	83	83	85	85

Reduction



Application: For reduction of PSC interfaces.

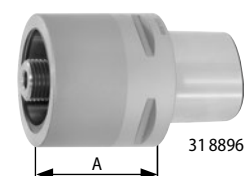


PSC1 / PSC2		63/40	63/50
36D 31 8892	SWISS TOOLS PSC - reduction	eShop	(eShop)
Dimension A	mm	80	—
L1	mm	58	51.5

Extensions



Application: For extending PSC interfaces.

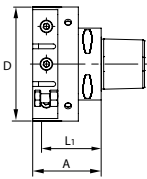


Dimension A	mm	60	80	100
36D 31 8894	Extension PSC-40 / PSC-40	PSC 40	eShop	—
36D 31 8895	SWISS TOOLS Extension PSC-50 / PSC-50	PSC 50	—	eShop
36D 31 8896	Extension PSC-63 / PSC-63	PSC 63	eShop	—
Dimension A	mm	60	80	100

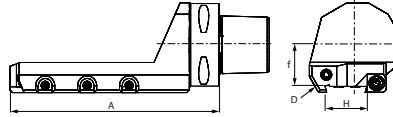
Parting-off toolholder



Application: To take parting-off blades with coolant delivery from all popular manufacturers. Transfer holes not used can be closed off using the screws supplied. Supplied with ball spray nozzle.



31 8906



31 8907

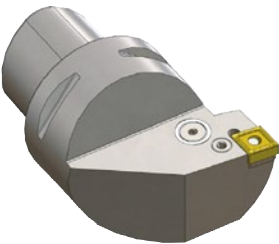
for blade height H		mm	32
360° 31 8906	Eco parting-off toolholder, radial	PSC 63	(eShop)
360° 31 8907	Garant Eco parting-off toolholder, axial, right-hand	PSC 63	(eShop)
360° 31 8909	Eco parting-off toolholder, axial, left-hand	PSC 63	eShop
Dimension A (31 8906)		mm	50
Dimension A (31 8907, 31 8909)		mm	160
L ₁ (31 8906)		mm	45.5
Ø D (31 8906)		mm	107
Ø D (31 8907, 31 8909)		mm	96
f (31 8907, 31 8909)		mm	32.5

SWISS TOOLS High-pressure cooling nozzle (HP) for screw-on / lever-lock toolholders

Optimum cooling using a High Pressure (HP) cooling nozzle.

Application: Attachment to a screw-on / lever-lock toolholder with a HP channel.

Supplied with: 1 attachment screw, O-ring, plug screw for the standard cooling channel.



1. Plug the standard cooling channel with a screw plug.



2. Attach the HP nozzle to the appropriate hole.



3. The HP function is immediately ready for use.



32 0001

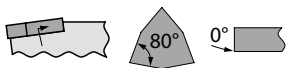
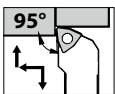
Type	63
360° 32 0001	High-pressure cooling nozzle (HP)
	eShop



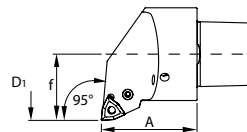
SWISS TOOLS Toolholder for indexable inserts

Note: Order the suitable **HP nozzle** No. 320001 separately. Spare parts No.320610 – 320626 can be found in the spare parts list. PSC clamping stud on request.

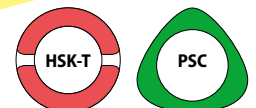
PWLN R/L 95° lever lock toolholder for WN.. 0804..



ISO 26623-1



PSC32 and PSC80 available on request



32 0005



32 0305

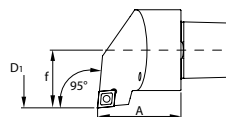
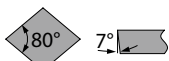
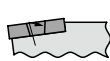
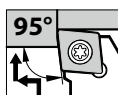
Shank Ø / insert size	360° 32 0005	360° 32 0006	360° 32 0305	360° 32 0306	Dimension A		Ø D ₁ min	f	suitable indexable insert	Spare part
	Lever-lock toolholder				32 0005	32 0305				
					32 0006	32 0306				
mm	right-hand	left-hand	right-hand	left-hand	mm	mm	mm	mm		
40/08HP	HSK-T (eShop)	HSK-T (eShop)	PSC (eShop)	PSC (eShop)	55	50	50	27	WN.. 0804..	P04
50/08HP	—	—	eShop	(eShop)	—	60	63	35	WN.. 0804..	P04
63/08HP	eShop	(eShop)	(eShop)	(eShop)	70	65	80	45	WN.. 0804..	P04

ISO 12164-3

ISO 26623-1

31

SCLC R/L 95° screw-on toolholder for CC.. 1204..



ISO 12164-3



32 0010

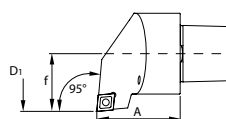
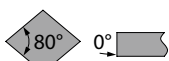
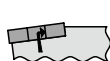
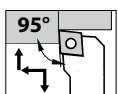
Shank Ø / insert size	36D 32 0010	36D 32 0011	36D 32 0310	36D 32 0311	Dimension A		Ø D ₁ min	f	suitable indexable insert	Spare part
	Screw-on toolholder				32 0010	32 0310				
	right-hand	left-hand	right-hand	left-hand	32 0011	32 0311				
mm	HSK-T	HSK-T	PSC	PSC	mm	mm	mm	mm		
40/12HP	(eShop)	(eShop)	eShop	eShop	55	50	50	27	CC.. 1204..	S01
50/12HP	—	—	eShop	(eShop)	—	60	63	35	CC.. 1204..	S01
63/12HP	(eShop)	(eShop)	(eShop)	(eShop)	70	65	80	45	CC.. 1204..	S01

ISO 26623-1

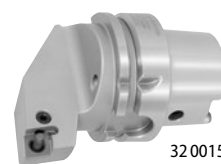


32 0310

PCLN R/L 95° lever-lock toolholder for CN..



ISO 12164-3



32 0015

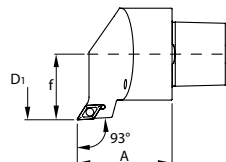
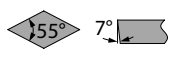
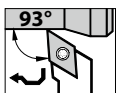
Shank Ø / insert size	36D 32 0015	36D 32 0016	36D 32 0315	36D 32 0316	Dimension A		Ø D ₁ min	f	suitable indexable insert	Spare part
	Lever-lock toolholder				32 0015	32 0315				
	right-hand	left-hand	right-hand	left-hand	32 0016	32 0316				
mm	HSK-T	HSK-T	PSC	PSC	mm	mm	mm	mm		
40/12HP	(eShop)	eShop	(eShop)	eShop	55	50	50	27	CN.. 1204..	P01
50/12HP	—	—	(eShop)	eShop	—	60	63	35	CN.. 1204..	P01
63/12HP	(eShop)	eShop	eShop	(eShop)	70	65	80	45	CN.. 1204..	P01
63/16HP	(eShop)	(eShop)	(eShop)	(eShop)	70	65	80	45	CN.. 1606..	P02

ISO 26623-1

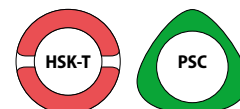


32 0315

SDJC R/L 93° screw-on toolholder for DC.. 11T3..



ISO 12164-3



32 0030

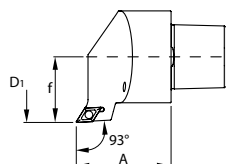
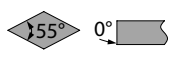
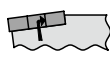
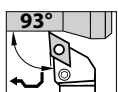
Shank Ø / insert size	36D 32 0030	36D 32 0031	36D 32 0330	36D 32 0331	Dimension A		Ø D ₁ min	f	suitable indexable insert	Spare part
	Screw-on toolholder				32 0030	32 0330				
	right-hand	left-hand	right-hand	left-hand	32 0031	32 0331				
mm	HSK-T	HSK-T	PSC	PSC	mm	mm	mm	mm		
40/11HP	(eShop)	eShop	(eShop)	(eShop)	55	50	50	27	DC.. 11T3..	S05
50/11HP	—	—	eShop	eShop	—	60	63	35	DC.. 11T3..	S05
63/11HP	(eShop)	eShop	eShop	eShop	70	65	80	45	DC.. 11T3..	S05

ISO 26623-1



32 0330

PDJN R/L 93° lever-lock toolholder for DN.. 1506..



ISO 12164-3



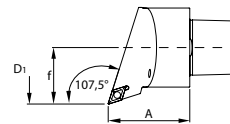
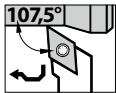
32 0035

Shank Ø / insert size	36D 32 0035	36D 32 0036	36D 32 0335	36D 32 0336	Dimension A		Ø D ₁ min	f	suitable indexable insert	Spare part
	Lever-lock toolholder				32 0035	32 0335				
	right-hand	left-hand	right-hand	left-hand	32 0036	32 0336				
mm	HSK-T	HSK-T	PSC	PSC	mm	mm	mm	mm		
40/15HP	(eShop)	(eShop)	eShop	(eShop)	55	50	50	27	DN.. 1506..	P05
50/15HP	—	—	eShop	(eShop)	—	60	63	35	DN.. 1506..	P05
63/15HP	(eShop)	eShop	(eShop)	(eShop)	70	65	80	45	DN.. 1506..	P05

ISO 26623-1



32 0335

SDHC R/L 107.5° screw-on toolholder for DC.. 11T3..

ISO 12164-3



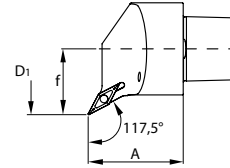
32 0040

ISO 26623-1



32 0340

Shank Ø / insert size	360 32 0040	360 32 0041	360 32 0340	360 32 0341	Dimension A		Ø D ₁ min	f	suitable indexable insert	Spare part
	Screw-on toolholder				32 0040 32 0041	32 0340 32 0341				
	right-hand	left-hand	right-hand	left-hand						
mm	HSK-T	HSK-T	PSC	PSC	mm	mm	mm	mm		
40/11HP	(eShop)	(eShop)	(eShop)	(eShop)	55	50	50	27	DC.. 11T3..	S05
50/11HP	—	—	(eShop)	(eShop)	—	60	63	35	DC.. 11T3..	S05
63/11HP	(eShop)	(eShop)	(eShop)	(eShop)	70	65	80	45	DC.. 11T3..	S05

SVPB R/L 117.5° screw-on toolholder for VB.. 1604..

ISO 12164-3



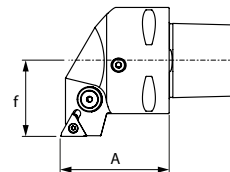
32 0050

ISO 26623-1

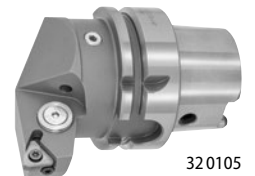


32 0350

Shank Ø / insert size	360 32 0050	360 32 0051	360 32 0350	360 32 0351	Dimension A		Ø D ₁ min	f	suitable indexable insert	Spare part
	Screw-on toolholder				32 0050 32 0051	32 0350 32 0351				
	right-hand	left-hand	right-hand	left-hand						
mm	HSK-T	HSK-T	PSC	PSC	mm	mm	mm	mm		
40/16HP	(eShop)	(eShop)	(eShop)	(eShop)	55	50	50	27	VB.. 1604..	S07
50/16HP	—	—	(eShop)	(eShop)	—	60	63	35	VB.. 1604..	S07
63/16HP	(eShop)	(eShop)	(eShop)	(eShop)	70	65	80	45	VB.. 1604..	S07

R/L external thread screw-on toolholder, radial, for 16E...

ISO 12164-3



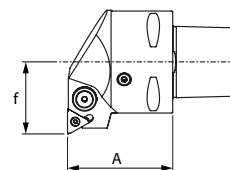
32 0105

ISO 26623-1

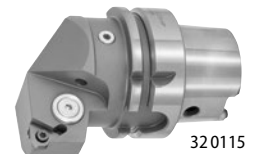


32 0415

Shank Ø / insert size	360 32 0105	360 32 0106	360 32 0415	360 32 0416	Dimension A		f	suitable indexable insert
	Screw-on toolholder				32 0105 32 0106	32 0415 32 0416		
	right-hand	left-hand	right-hand	left-hand				
mm	HSK-T	HSK-T	PSC	PSC	mm	mm	mm	
40/16HP	(eShop)	(eShop)	(eShop)	(eShop)	55	50	27	16E..
50/16HP	—	—	(eShop)	(eShop)	—	60	35	16E..
63/16HP	(eShop)	(eShop)	(eShop)	(eShop)	70	65	45	16E..

R/L external thread screw-on toolholder, axial, for 16E...

ISO 12164-3



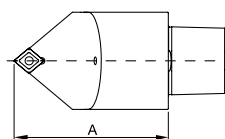
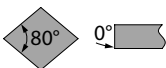
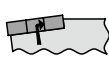
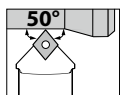
32 0115

ISO 26623-1



32 0420

Shank Ø / insert size	360 32 0115	360 32 0116	360 32 0420	360 32 0421	Dimension A		f	suitable indexable insert
	Screw-on toolholder				32 0115 32 0116	32 0420 32 0421		
	right-hand	left-hand	right-hand	left-hand				
mm	HSK-T	HSK-T	PSC	PSC	mm	mm	mm	
40/16HP	(eShop)	(eShop)	(eShop)	(eShop)	55	50	27	16E..
50/16HP	—	—	(eShop)	(eShop)	—	60	35	16E..
63/16HP	(eShop)	(eShop)	(eShop)	(eShop)	70	65	45	16E..

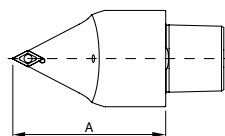
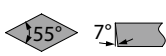
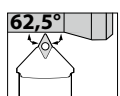
PCMN N 50° lever-lock toolholder for CN..ISO
12164-3

32 0065

ISO
26623-1

32 0365

Shank Ø / insert size – A dimension	36D 32 0065	36D 32 0365	Dimension A	suitable indexable insert	Spare part
	Lever-lock toolholder neutral				
mm	HSK-T	PSC	mm		
4012-80HP	(eShop)	—	80	CN.. 1204..	P01
6312-100HP	(eShop)	(eShop)	100	CN.. 1204..	P01
6312-130HP	(eShop)	(eShop)	130	CN.. 1204..	P01
6316-100HP	(eShop)	(eShop)	100	CN.. 1606..	P02
6316-130HP	(eShop)	(eShop)	130	CN.. 1606..	P02

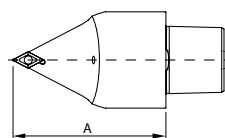
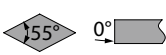
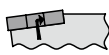
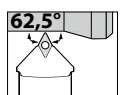
SDNC N 62.5° screw-on toolholder for DC.. 11T3ISO
12164-3

32 0070

ISO
26623-1

32 0370

Shank Ø / insert size – A dimension	36D 32 0070	36D 32 0370	Dimension A	suitable indexable insert	Spare part
	Screw-on toolholder neutral				
mm	HSK-T	PSC	mm		
4011-80HP	(eShop)	—	80	DC.. 11T3..	S05
6311-130HP	(eShop)	(eShop)	130	DC.. 11T3..	S05
6311-100HP	(eShop)	(eShop)	100	DC.. 11T3..	S05

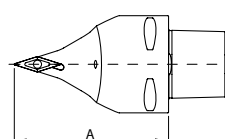
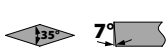
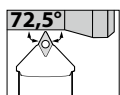
PDNN N 62.5° lever-lock toolholder for DN.. 1506..ISO
12164-3

32 0075

ISO
26623-1

32 0375

Shank Ø / insert size – A dimension	36D 32 0075	36D 32 0375	Dimension A	suitable indexable insert	Spare part
	Lever-lock toolholder neutral				
mm	HSK-T	PSC	mm		
4015-80HP	(eShop)	—	80	DN.. 1506..	P06
6315-100HP	(eShop)	(eShop)	100	DN.. 1506..	P06
6315-130HP	(eShop)	(eShop)	130	DN.. 1506..	P06

SVVC N 72.5° screw-on toolholder for VC.. 1604..ISO
12164-3

32 0081

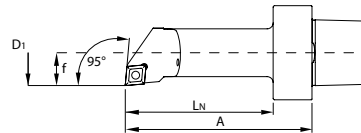
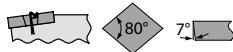
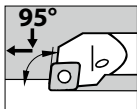
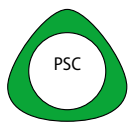
ISO
26623-1

32 0381

Shank Ø / insert size – A dimension	36D 32 0081	36D 32 0381	Dimension A	suitable indexable insert	Spare part
	Screw-on toolholder neutral				
mm	HSK-T	PSC	mm		
4016-80HP	(eShop)	—	80	VC.. 1604..	S07
6316-100HP	(eShop)	(eShop)	100	VC.. 1604..	S07
6316-130HP	(eShop)	(eShop)	130	VC.. 1604..	S07


SWISS TOOLS Toolholder / boring bars for indexable inserts

Note: Order the suitable **HP nozzle** No. 320001 separately. Spare parts No. 320610 – 320626 can be found in the spare parts list. PSC clamping stud on request.

SCLC R/L 95° boring bar for CC.. 1204..


Shank Ø / insert size — A dimension	36D	32 0085	36D	32 0086	36D	32 0385	36D	32 0386	Dimension A	Ø D ₁ min		f	suitable indexable insert	Spare part
	Screw-on boring bar									32 0085	32 0385			
	right-hand	left-hand	right-hand	left-hand						32 0086	32 0386			
mm	HSK-T	HSK-T	PSC	PSC	mm	mm	mm	mm	mm	mm	mm	mm		
40/12-90	—	—	eShop	eShop	90	—	32	17	90	—	32	17	CC.. 1204..	S01
40/12-110	eShop	eShop	eShop	eShop	110	32	40	22	110	32	40	22	CC.. 1204..	S01
40/12-140	eShop	eShop	—	—	140	32	—	17	140	32	—	17	CC.. 1204..	S01
50/12-90	—	—	eShop	(eShop)	90	—	32	17	90	—	32	17	CC.. 1204..	S01
50/12-110	—	—	eShop	eShop	110	—	40	22	110	—	40	22	CC.. 1204..	S01
63/12-125	(eShop)	eShop	(eShop)	eShop	125	40	40	22	125	40	40	22	CC.. 1204..	S01
63/12-140	eShop	(eShop)	eShop	eShop	140	50	50	27	140	50	50	27	CC.. 1204..	S01
63/12-160	eShop	eShop	eShop	(eShop)	160	40	40	22	160	40	40	22	CC.. 1204..	S01
63/12-180	eShop	(eShop)	eShop	eShop	180	50	50	27	180	50	50	27	CC.. 1204..	S01

ISO 12164-3

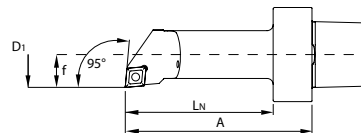
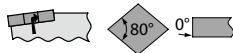
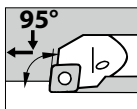


32 0085

ISO 26623-1



32 0385

PCLN R/L 95° boring bar for CN.. 1204..


Shank Ø / insert size — A dimension	36D	32 0090	36D	32 0091	36D	32 0390	36D	32 0391	Dimension A	Ø D ₁ min	f	suitable indexable insert	Spare part
	Lever-lock boring bar												
	right-hand	left-hand	right-hand	left-hand									
mm	HSK-T	HSK-T	PSC	PSC	mm	mm	mm						
40/12-110	—	—	eShop	(eShop)	110	40	22		CN.. 1204..				P01
50/12-110	—	—	eShop	(eShop)	110	40	22		CN.. 1204..				P01
63/12-140	(eShop)	(eShop)	(eShop)	(eShop)	140	50	27		CN.. 1204..				P01
63/12-180	(eShop)	eShop	eShop	eShop	180	50	27		CN.. 1204..				P01

ISO 12164-3

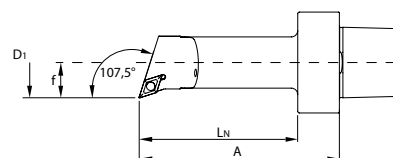
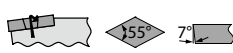
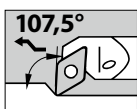


32 0090

ISO 26623-1



32 0390

SDQC R/L 107.5° boring bar for DC.. 11T3..


Shank Ø / insert size — A dimension	36D	32 0095	36D	32 0096	36D	32 0395	36D	32 0396	Dimension A	Ø D ₁ min		f	suitable indexable insert	Spare part
	Screw-on boring bar													
	right-hand	left-hand	right-hand	left-hand	mm	mm	mm	mm						
mm	HSK-T	HSK-T	PSC	PSC	mm	mm	mm	mm						
40/11-90	—	—	eShop	(eShop)	90	—	32	17	DC.. 11T3..					S05
40/11-110	eShop	eShop	(eShop)	(eShop)	110	32	40	22	DC.. 11T3..					S05
40/11-140	(eShop)	eShop	—	—	140	32	—	17	DC.. 11T3..					S05
50/11-90	—	—	eShop	eShop	90	—	32	17	DC.. 11T3..					S05
50/11-110	—	—	eShop	eShop	110	—	40	22	DC.. 11T3..					S05
63/11-125	(eShop)	(eShop)	eShop	eShop	125	40	40	22	DC.. 11T3..					S05
63/11-140	(eShop)	(eShop)	eShop	eShop	140	50	50	27	DC.. 11T3..					S05
63/11-160	(eShop)	eShop	eShop	(eShop)	160	40	40	22	DC.. 11T3..					S05
63/11-180	(eShop)	(eShop)	(eShop)	eShop	180	50	50	27	DC.. 11T3..					S05

ISO 12164-3



32 0095

ISO 26623-1



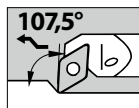
32 0395

1085



32

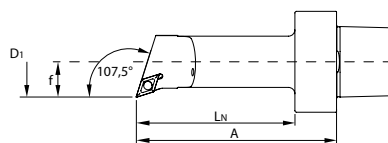
PDQN R/L 107.5° boring bar for DN.. 1506..


ISO
12164-3


32 0100

ISO
26623-1


32 0405



Shank Ø / insert size – A dimension	36D 32 0100	36D 32 0101	36D 32 0405	36D 32 0406	Dimension A	Ø D ₁ min	f	suitable indexable insert	Spare part
	Lever-lock boring bar								
	right-hand HSK-T	left-hand HSK-T	right-hand PSC	left-hand PSC					
mm					mm	mm	mm		
40/15-110	–	–	eShop	eShop	110	40	22	DN.. 1506..	P05
50/15-110	–	–	eShop	eShop	110	40	22	DN.. 1506..	P05
63/15-140	(eShop)	(eShop)	eShop	eShop	140	50	27	DN.. 1506..	P05
63/15-180	(eShop)	(eShop)	(eShop)	eShop	180	50	27	DN.. 1506..	P05



SWISS TOOLS ST boring bar shanks for exchangeable heads

- For efficient turning.
- For left-hand and right-hand turning.

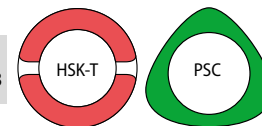
Advantage:

- 32 0104/0409 – ■ Productivity gain - thanks to suppression of vibration the cutting data can be significantly increased.
- Improved surface quality.
- Improved process reliability.
- Improved chip clearance.

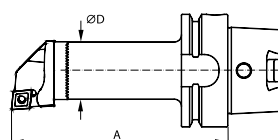
Application: For mounting exchangeable cutting heads.

Note: For suitable interchangeable heads see No. 264826 – 264827.

ISO
26623-1

ISO
12164-3


Suitable SwissTools interchangeable cutting heads can be found in the Turning section.

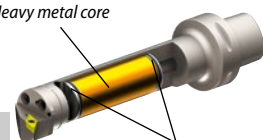


32 0102



32 0104

Heavy metal core



Axial bearing by means of rubber elements

Boring bar shanks for HP ready

Shank Ø / Ø D - A dimension	36D 32 0102	36D 32 0407
	Boring bar shank	
	HSK-T	PSC
mm		
40/25-90	eShop	(eShop)
40/25-110	eShop	–
40/32-110	–	eShop
40/32-115	eShop	–
40/40-120	eShop	(eShop)
50/25-90	–	eShop
50/32-110	–	eShop
50/40-140	–	eShop
63/25-100	–	(eShop)
63/25-105	eShop	–
63/32-125	eShop	(eShop)
63/32-160	eShop	(eShop)
63/40-140	eShop	eShop
63/40-180	eShop	(eShop)

Ø D – A dimension	36D 32 0410
	Plain boring bar shank
mm	
25-200	(eShop)
32-218	eShop
40-283	eShop



32 0410

Shank Ø / Ø D - A dimension	36D 32 0104	36D 32 0409
	Boring bar shank vibration-damped	
	HSK-T	PSC
mm		
63/25-161	(eShop)	–
63/32-186	(eShop)	–
63/40-226	(eShop)	–
63/25-167	–	(eShop)
63/32-194	–	(eShop)
63/40-238	–	(eShop)

Garant Revolving lathe centres for inserts

- Sprung version for axial length compensation whilst machining.
- Fully hardened and ground. Maintenance-free due to lifetime lubrication.
- Special seal prevents ingress of dirt and coolant.

32 0615 Size 20/0617 Size 20–40 – Plain shank for clamping in boring bar holders, collet chucks or hydraulic chucks; for mounting in the second turret.

Size 32; 40 – For machining heavy components.

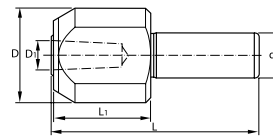
Application: Flexible application thanks to exchangeable inserts. For general use on turrets and counter-spindles on CNC machines.

Supplied with:

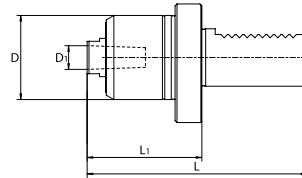
32 0615 – Including chuck removal tool for releasing the inserts.

Optional extras: Exchangeable inserts No. 320625.

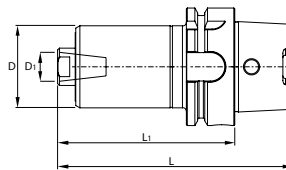
Size 32; 40 – Exchangeable inserts No. 320629.



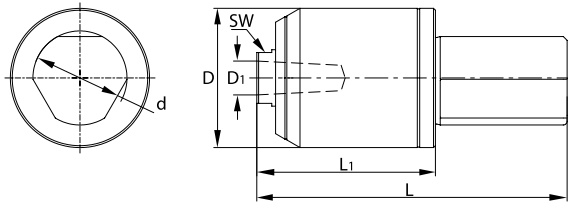
32 0615_20



32 0617_VDI30



32 0617_HSK63



32 0617_40



32 0617_50/3

Type		20	25	32	40	VDI30	VDI40	HSK40	HSK50	HSK63
31Z 32 0615	Revolving lathe centre for insert	eShop	—	—	—	—	—	—	—	—
31Z 32 0617		eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Adapter		Shank Ø 20 mm	Shank Ø 25 mm	Shank Ø 32 mm	Shank Ø 40 mm	VDI 30	VDI 40	HSK 40	HSK 50	HSK 63
Body Ø D (32 0615)	mm	40	—	—	—	—	—	—	—	—
Body Ø D (32 0617)	mm	44	44	66	74	44	44	44	44	44
Ø D ₁	mm	12	12	18	18	12	12	12	12	12
for workpiece weight (32 0615)	kg	200	—	—	—	—	—	—	—	—
for workpiece weight (32 0617)	kg	300	300	500	550	300	300	300	300	300
L (32 0615)	mm	90	—	—	—	—	—	—	—	—
L (32 0617)	mm	118	118	155	165	115	123	115	120	127
L ₁ (32 0615)	mm	41	—	—	—	—	—	—	—	—
L ₁ (32 0617)	mm	51	51	95	95	60	60	95	95	95
Sprung travel (32 0615)	mm	2.4	—	—	—	—	—	—	—	—
Sprung travel (32 0617)	mm	3	3	4	4	3	3	3	3	3
maximum speed (32 0615)	min ⁻¹	4000	—	—	—	—	—	—	—	—
maximum speed (32 0617)	min ⁻¹	3000	3000	5000	4000	3000	3000	3000	3000	3000
Radial run-out	mm	0.01								
suitable for colour code		■	■	■	■	■	■	■	■	■

Garant Exchangeable inserts for the revolving lathe centres

- High flexibility due to range of geometries on the same carrier tool.
- Fully hardened and ground.
- Quick and efficient exchange of worn tools.

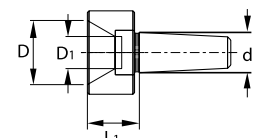
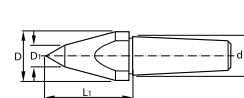
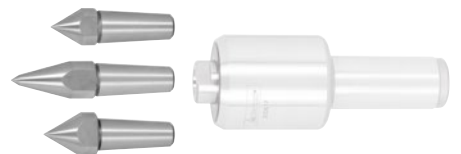
Suitable for:

32 0625 – Lathe centre No. 320615, No. 320617, No. 320659 size 2, No. 321265 size 3, No. 321335 size 2.

32 0627 – Lathe centre No. 320659 size 3, No. 321265 size 4, No. 321335 size 3.

32 0629 – Lathe centre No. 320617 size 32, 40, 50/3; No. 320659 size 4; No. 321265 size 5; No. 321335 size 4.

32 0631 – Lathe centre No. 320659 size 5, No. 321335 size 5.



Colour code: ■ K12 ■ K18



Type		1	2	3	4	5	6	suitable for colour code
31Z 32 0625	Insert for the revolving lathe centre	eShop	eShop	eShop	eShop	eShop	eShop	
Ø D	mm	14	14	17	28	20	14	
Ø D ₁	mm	4	—	—	13	10	4	
Ø d	mm	12						
L ₁	mm	32	20	23	23	17	15	
Point angle	degrees	60; 30	60	60	60	60	60	
Width across flats	mm	12	12	14	17	22	12	



Type		1	2	3	4	suitable for colour code
31Z 32 0627	Insert for the revolving lathe centre	eShop	eShop	eShop	eShop	
Ø D	mm	18	16	25	44	
Ø D ₁	mm	8	—	—	24	
Ø d	mm	14				
L ₁	mm	35	21	31	28	
Point angle	degrees	60; 30	60	60	60	
Width across flats	mm	14	14	22	19	

Type		1	2	3	4	suitable for colour code
31Z 32 0629	Insert for the revolving lathe centre	eShop	eShop	eShop	eShop	
Ø D	mm	22	22	32	55	
Ø D ₁	mm	8	—	—	30	
Ø d	mm	18				
L ₁	mm	43	27	40	34	
Point angle	degrees	60; 30	60	60	60	
Width across flats	mm	19	19	27	22	

Type		1	2	3	4	suitable for colour code
31Z 32 0631	Insert for the revolving lathe centre	eShop	eShop	eShop	eShop	
Ø D	mm	28	28	38	68	
Ø D ₁	mm	10	—	—	36	
Ø d	mm	24				
L ₁	mm	52	34	45	41	
Point angle	degrees	60; 30	60	60	60	
Width across flats	mm	24	24	32	27	

Garant Extremely slim revolving lathe centres - SlimLine

■ Precision version with additional stiffness in the bearings.

- Precision roller bearings for high concentricity.
- Maintenance-free due to lifetime lubrication.
- Special seal prevents ingress of dirt and coolant.
- MT shank hardened and ground.

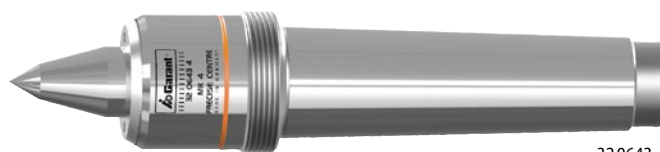
■ With extended centre, point angle 60° / 30°.

- With push-off thread and push-off nut.
- outstandingly suitable for cutting threads and splining.

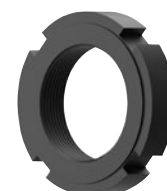
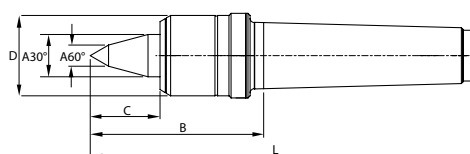
Advantage: Push-off nut can be removed forwards thus eliminating any obstruction to the machining process.

Application: Machining small and very small parts such as thread machining with optimum access to the flat face.

Supplied with: Including draw-off nut.



32 0643



Draw-off nut included

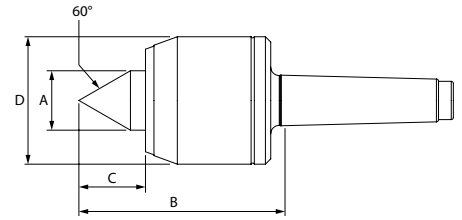
Morse taper		2	3	4	5
31Z 32 0643	SlimLine revolving lathe centre 60°/30°	eShop	eShop	eShop	eShop
Body Ø D	mm	26	30	38	50
L	mm	123	149	185	223
Reach B	mm	59	68	82	93
largest centre point Ø 60° A	mm	6	7	10	12
largest centre point Ø 30° A	mm	12	14	20	25
maximum radial run-out	mm	0.005			
Centre point length C	mm	21	24	33	41.5
maximum speed	min ⁻¹	6000	5000	4000	3000
for workpiece weight	kg	850	1000	1400	1600

Colour code: K12 K14 K18 K24

Garant Revolving lathe centres – shock-absorbing

- Point angle 60°.
- **Sprung live centre to compensate pressure and length, shock-absorbing.**
- Live centre of through hardened tool steel precision ground to match the bearing.
- Precision roller bearing, lubricated for life.
- Shaft seal prevents ingress of dirt and coolant.
- Extremely rigid version with additional shaft bearing.
- Entire tool is hardened and ground.

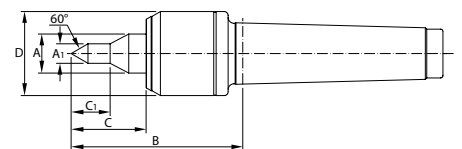
Morse taper		3	4	5
3/2 32 1405	Revolving lathe centre shock absorbing	eShop	eShop	eShop
Body Ø D	mm	60	68	92
Reach B	mm	95	111	146
largest centre point Ø A	mm	25	35	40
maximum radial run-out	mm		0.005	
maximum speed	min ⁻¹	5000	4000	3500
for workpiece weight	kg	300	600	1000



Garant Lightweight revolving lathe centres

- **Lightweight version with slim body.**
 - Precision roller bearings for high concentricity.
 - Maintenance-free due to lifetime lubrication.
 - Special seal prevents ingress of dirt and coolant.
 - MT shank hardened and ground.
- 32 0649 – Extremely slim, cylindrical tip geometry for maximum accessibility on the flat face.
- Application:** Mainly used for machining small and smallest parts on all types of lathes.
- 32 0647 – Extended point allows unobstructed access for the turning tool on the end face of the component. Particularly suitable for copy turning.
- 32 0649 – Particularly suitable for the production of even smaller external threads directly on the face side (space for the threading chaser). Allows clamping on internal (recessed) centring.

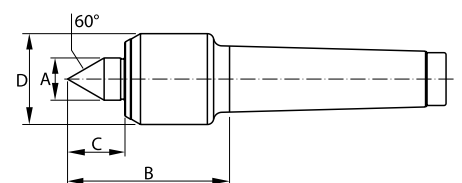
Morse taper		2	3	4	5
3/2 32 0645	Revolving lathe centre 60°	eShop	eShop	eShop	eShop
3/2 32 0647	Revolving lathe centre 60° / 30°	eShop	eShop	eShop	eShop
3/2 32 0649	Revolving lathe centre 60°	eShop	eShop	eShop	eShop
Body Ø D (32 0645, 32 0647)	mm	32	34	43	58
Reach B (32 0645)	mm	64	64	77	105
Reach B (32 0647)	mm	74	74	86	116
Reach B (32 0649)	mm	73	74	88	119
largest centre point Ø 60° A (32 0645, 32 0647)	mm	15	15	20	30
largest centre point Ø 30° A (32 0647)	mm	8	8	10	12
smallest tip Ø 60° A1 (32 0649)	mm	6	8	10	12
maximum radial run-out (32 0645, 32 0647)	mm		0.005		
Centre point length C (32 0645)	mm	19.5	19.5	27	37
Centre point length C (32 0647)	mm	29	29	36	48
Centre point length C (32 0649)	mm	29	30	38	49
Tip length C1 (32 0649)	mm	12	16	20	26
maximum speed (32 0645, 32 0647)	min ⁻¹	6000	6000	6000	4000
for workpiece weight (32 0645)	kg	200	400	800	1600
for workpiece weight (32 0647)	kg	150	300	700	1400
for workpiece weight (32 0649)	kg	130	280	680	1380



HOLEX Lightweight revolving lathe centres

- Tip angle 60°.
- **Lightweight version with slim body.**
- Precision roller bearings for high concentricity.
- Maintenance-free due to lifetime lubrication.
- Special seal prevents ingress of dirt and coolant.

Morse taper		2	3	4	5
3/2 32 0652	Lightweight revolving lathe centre	eShop	eShop	eShop	eShop
Body Ø D	mm	49	49	54	69
Reach B	mm	79	79	85.5	103
largest centre point Ø 60° A	mm	25	25	25	32
maximum radial run-out	mm		0.006		
Centre point length C	mm	29.5	29.5	29.5	40
maximum speed	min ⁻¹	5000	5000	5000	3800
for workpiece weight	kg	500	500	500	800



32

Lightweight revolving lathe centres

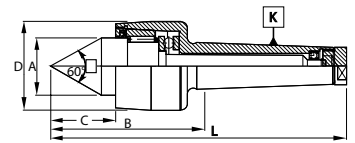
- Point angle 60°.
- **Lightweight version.**
- Precision roller bearings for high concentricity.
- maintenance-free.

Application: Mainly used for machining small and smallest parts on all types of lathes.



32 0655

Morse taper		2	3	4	5
36C 32 0655 BISON Lightweight revolving lathe centre		eShop	eShop	eShop	eShop
Body Ø D	mm	44	48	60	75
Overall length L	mm	137.5	166	196.5	246
Reach B	mm	73	85	94.5	116.5
largest centre point Ø 60° A	mm	24	28	38	50
maximum radial run-out	mm	0.006			
Centre point length C	mm	26.5	32.5	43.5	55.5
maximum speed	min ⁻¹	8000	6000	4500	4000
for workpiece weight	kg	100	200	400	650



Morse taper		2	3	4	5
35R 32 0650 ROHM Lightweight revolving lathe centre		eShop	eShop	eShop	eShop
Body Ø D	mm	32	34	42	58
Reach B	mm	62	62	75.5	104
largest centre point Ø 60° A	mm	15	15	20	30
maximum radial run-out	mm	0.005	0.005	0.005	0.01
for workpiece weight	kg	200	400	800	1600



32 0650

Garant Revolving lathe centres

- Punch axis of through-hardened steel mounted on shank bearings.
- Live centre through hardened, multiple regrinding possible.
- Precision roller bearings for high concentricity.
- Maintenance-free due to lifetime lubrication.
- Special seal prevents ingress of dirt and coolant.
- Complete tool hardened and ground.

Application:

32 0659 – Flexible application thanks to exchangeable inserts. For general use on turrets and counter-spindles on CNC machines.

32 0657/0659 – For all types of lathe, equally suitable for roughing and finish turning.

Optional extras:

32 0659 – Exchangeable inserts No. 320625 - 320631

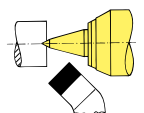
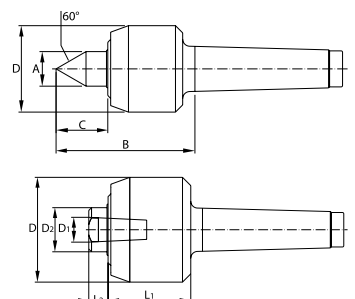
Note:

32 0659 – Changing the inserts in the key surfaces by counter-rotation.

32 0657
With 60° point.32 0658
With extended
point 60°/30°.

32 0659

Morse taper		2	3	4	5	6
31Z 32 0657 Revolving lathe centre 60°		eShop	eShop	eShop	eShop	eShop
31Z 32 0658 Revolving lathe centre 60°/30°		eShop	eShop	eShop	eShop	eShop
31Z 32 0659 Revolving lathe centre for interchangeable heads.		eShop	eShop	eShop	eShop	—
Body Ø D (32 0657, 32 0658)	mm	45	60	60	78	110
Body Ø D (32 0659)	mm	45	60	76	96	—
Reach B (32 0657)	mm	76	95	97	118	155
Reach B (32 0658)	mm	87	106	107	132	178
largest centre point Ø 60° A (32 0657, 32 0658)	mm	20	24	24	32	52
largest centre point Ø 30° A (32 0658)	mm	8	10	10	12	20
maximum radial run-out	mm	0.005				—
Centre point length C (32 0657)	mm	26	36	36	47	62
Centre point length C (32 0658)	mm	37	47	47	61	86
maximum speed (32 0657, 32 0658)	min ⁻¹	5000	4300	4300	3200	2000
maximum speed (32 0659)	min ⁻¹	5000	4300	3200	2600	—
for workpiece weight (32 0657)	kg	200	400	800	2000	4500
for workpiece weight (32 0658)	kg	140	400	500	1200	2500
for workpiece weight (32 0659)	kg	100	300	350	1100	—
L ₁ (32 0659)	mm	43	50	58	72	—
L ₂ (32 0659)	mm	10	12	13	14	—
Ø D ₁ (32 0659)	mm	12	14	18	24	—
Ø D ₂ (32 0659)	mm	20	24	32	42	—
suitable for colour code (32 0659)		■	■	■	■	—



Extended point for unobstructed access to the turning tool.

Colour code: ■ K12 ■ K14 ■ K18 ■ K24

HOLEX Revolving lathe centres

- Body and live centre hardened.
- Live centre through hardened, multiple regrinding possible.
- Precision roller bearings for high concentricity.
- Maintenance-free due to lifetime lubrication.
- Special seal prevents ingress of dirt and coolant.

32 0672 – ■ Point angle 60°.

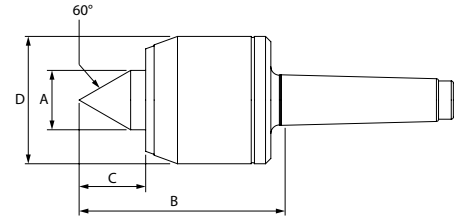
32 0673 – ■ **With extended centre**, point angle 60° / 30°.

Application: For all types of lathe, equally suitable for roughing and finish turning.

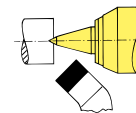
32 0673 – The extended point allows the turning tool unobstructed access to the end face of the component. Particularly suitable for copy turning.



32 0672



32 0673



Extended point for unobstructed access to the turning tool.

Morse taper		2	3	4	5	6
32L	32 0672 Revolving lathe centre 60°	eShop	eShop	eShop	eShop	eShop
32L	32 0673 Revolving lathe centre 60° / 30°	eShop	eShop	eShop	eShop	eShop
Body Ø D	mm	50	50	69	88	105
Reach B (32 0672)	mm	79	79	103	128.5	150
Reach B (32 0673)	mm	89.5	94.5	116	143	169
largest centre point Ø 60° A	mm	25	25	32	40	50
largest centre point Ø 30° A (32 0673)	mm	12	12	14	18	30
maximum radial run-out	mm	0.006	0.006	0.006	0.006	0.01
Centre point length C (32 0672)	mm	29.5	29.5	40	50.5	58.2
Centre point length C (32 0673)	mm	40	45	53	65	77.5
for workpiece weight (32 0672)	kg	500	500	800	2000	3500
for workpiece weight (32 0673)	kg	500	500	500	1500	2500

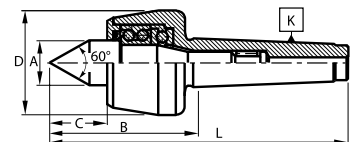
BISON Revolving lathe centres

- Point angle 60°.
- Lightweight version, maintenance-free.

Application: For roughing and precision turning on lathes.



Morse taper		3	4	5
36C	32 0675 Lightweight revolving lathe centre	eShop	eShop	eShop
Body Ø D	mm	50	70	90
Overall length L	mm	151	204	257.5
Reach B	mm	70	101.5	128
largest centre point Ø 60° A	mm	22	32	40
maximum radial run-out	mm		0.005	
Centre point length C	mm	27.5	40	49.5
maximum speed	min ⁻¹	6300	3800	3000
for workpiece weight	kg	400	800	2000



32

ROHM Revolving lathe centres

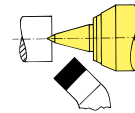
- Body and live centre hardened.
- Live centre through hardened, multiple regrinding possible.
- Precision roller bearings for high concentricity.
- Maintenance-free due to lifetime lubrication.
- Special seal prevents ingress of dirt and coolant.

32 0660 – ■ Point angle 60°.

32 0670 – ■ **With extended centre**, point angle 60° / 30°.

Application: For all types of lathe, equally suitable for roughing and finish turning.

32 0670 – Extended point allows unobstructed access for the turning tool on the end face of the component. Particularly suitable for copy turning.



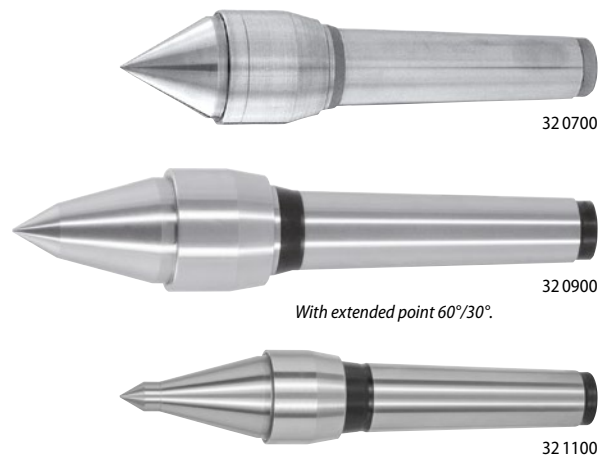
Extended point for unobstructed access to the turning tool.

Morse taper		1	2	3	4	5	6
35R	32 0660 Revolving lathe centre 60°	eShop	eShop	eShop	eShop	eShop	eShop
35R	32 0670 Revolving lathe centre with extended point 60°/30°	eShop	eShop	eShop	eShop	eShop	(eShop)
	Body Ø D (32 0660)	mm	34.5	43	48.5	68.5	102.5
	Body Ø D (32 0670)	mm	34.5	43	58.5	68.5	102.5
	Reach B (32 0660)	mm	60.5	65	70.5	102.5	152
	Reach B (32 0670)	mm	70.5	75	95.5	114.5	172.5
	largest centre point Ø 60° A (32 0660)	mm	15	20	22	32	50
	largest centre point Ø 60° A (32 0670)	mm	15	20	25	32	50
	largest centre point Ø 30° A (32 0670)	mm	9	10	12	14	18
	maximum radial run-out	mm	0.005	0.005	0.005	0.005	0.01
	Centre point length C (32 0670)	mm	27	34	47	53	78
	for workpiece weight (32 0660)	kg	100	200	400	800	3500
	for workpiece weight (32 0670)	kg	80	140	400	500	2500

GG POINTTECH Revolving lathe centres – precision version with slim body

- **Extremely slim body and high concentricity.**
- Precision needle and thrust bearings result in a maximum variation of 0.003 mm and a very small body Ø.
- Taper and chamfered parts are made of hardened bearing steel (61 – 63 Rockwell).

Application: For turning and grinding **where a small head Ø and high accuracy are required.**



With extended point 60°/30°.

Morse taper		2	3	4	5
34D	32 0700 Revolving lathe centre high precision version Point angle 60°	eShop	eShop	eShop	eShop
34D	32 0900 Revolving lathe centre high precision version	eShop	eShop	eShop	eShop
34D	32 1100 Point angle 60°/30°	—	eShop	eShop	—
Body Ø D	mm	28	32.5	45	62
Reach B (32 0700)	mm	23	28	38	51
Reach B (32 0900)	mm	35	45	65	90
Reach B (32 1100)	mm	—	50	80	—
largest centre point Ø 60° A (32 0700)	mm	24	28	40	54
largest centre point Ø 60° A (32 0900)	mm	12	12	14	18
largest centre point Ø 60° A (32 1100)	mm	—	10	12.5	—
largest centre point Ø 30° A (32 0900, 32 1100)	mm	23	28	40	54
maximum radial run-out	mm	0.003			
for workpiece weight (32 0700)	kg	200	400	700	1300
for workpiece weight (32 0900)	kg	120	320	560	1000
for workpiece weight (32 1100)	kg	—	280	500	—

Garant Revolving lathe centre – for particularly high loads – with draw-off nut

■ With extended centre and draw-off nut, specially for CNC machines.

■ Complete tool hardened and ground.

- Special roller bearings for high loads and speeds.
- Live centre through hardened, can be reground many times.
- Maintenance-free due to lifetime lubrication.
- Special seal prevents ingress of dirt and coolant.

32 1255 – Point angle 60°.

32 1260 – Point angle 60°/30°

32 1266 – Extremely slim casing, flattened on one side, for optimum access; very high concentricity due to high-end bearing; also suitable for grinding applications.

Application:

For high loads and speeds, specially for NC machines.

32 1260 – Extended point allows unobstructed access for the turning tool on the end face of the component. Particularly suitable for copy turning.

32 1265/1266 – Flexible application thanks to exchangeable inserts. For general use on turrets and counter-spindles on CNC machines.

Optional extras:

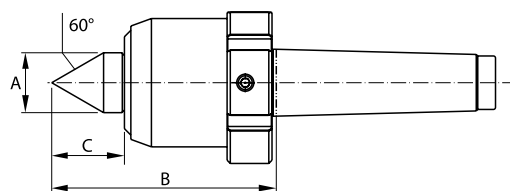
32 1265/1266 – Exchangeable inserts No. 320627 - 320631

Note: Draw-off nut for NC machines to remove tip from tailstock sleeve.

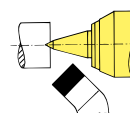
32 1265/1266 – Changing the inserts in the key surfaces by counter-rotation.



32 1255



32 1260



Extended point for unobstructed access to the turning tool.



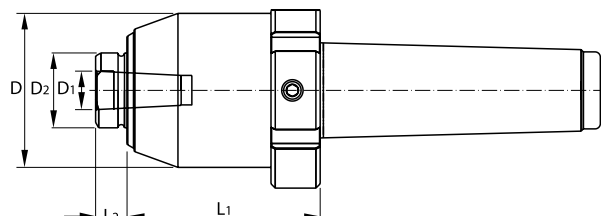
32 1265



Flattened casing for optimum access – even for grinding applications!



32 1266



Morse taper		3	4	5	
3/2	32 1255 Revolving lathe centre 60°	–	eShop	eShop	
3/2	32 1260 Revolving lathe centre 60° / 30°	eShop	eShop	eShop	
3/2	32 1265 Revolving lathe centre for interchangeable heads	eShop	eShop	eShop	
3/2	32 1266 Revolving lathe centre, flattened for interchangeable heads	–	eShop	–	
Body Ø D (32 1255, 32 1260, 32 1266)		mm	52	60	72
Reach B (32 1255)		mm	–	106	136
Reach B (32 1260)		mm	104	116	146
Reach B (32 1266)		mm	–	85	–
largest centre point Ø 60° A (32 1255)		mm	–	28	35
largest centre point Ø 60° A (32 1260)		mm	8	8	10
largest centre point Ø 30° A (32 1260)		mm	25	28	35
maximum radial run-out (32 1255, 32 1260, 32 1266)		mm	0.003		
maximum radial run-out (32 1265)		mm	0.005		
Centre point length C (32 1255)		mm	–	35	43
Centre point length C (32 1260)		mm	40	45	53
maximum speed		min ⁻¹	12000	10000	8000
for workpiece weight (32 1255)		kg	–	1200	2200
for workpiece weight (32 1260)		kg	500	1000	2000
for workpiece weight (32 1265)		kg	400	800	1400
for workpiece weight (32 1266)		kg	–	400	–
L ₁ (32 1265)		mm	56	63	82
L ₁ (32 1266)		mm	–	74	–
L ₂ (32 1265, 32 1266)		mm	10	10	14
Ø D ₁ (32 1265, 32 1266)		mm	12	14	18
Ø D ₂ (32 1265)		mm	25	28	35
suitable for colour code (32 1265, 32 1266)					

Colour code: ■ K12 ■ K14 ■ K18

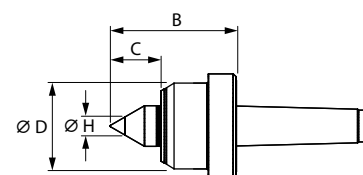
Garant Revolving lathe centres with draw-off nut and carbide insert

- Punch axis with carbide insert for applications with a high abrasive influence on the centring.
- Point angle 60°.
- Draw-off nut flattened at the side.
- High-precision bearing for high concentricity.
- Maintenance-free due to lifetime lubrication.
- Special seal prevents ingress of dirt and coolant.

Application: For machining thin workpieces at high speeds and in high quantities with automatic loading in series production.
Designed for high axial forces during heavy-duty machining thanks to special bearing arrangement.



32 1240

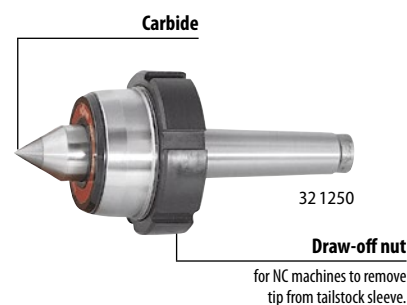


Morse taper (MK)		3	4	5
3/2 32 1240	Revolving lathe centre with carbide insert and draw-off nut	eShop	eShop	eShop
Body Ø D	mm	60	76	96
Reach B	mm	95	112	134
Carbide Ø H	mm	14	14	18
maximum radial run-out	mm	0.005		
Centre point length C	mm	36	43	49
maximum speed	min ⁻¹	4300	3200	2600
for workpiece weight	kg	400	750	2000
Axial force	kN	2.55	4.3	6.6

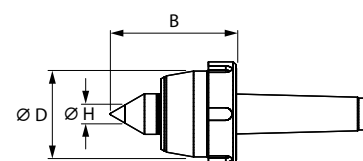
RÖHM Revolving lathe centres with draw-off nut and carbide insert

- Tip angle 60°.
- **With carbide tip for small centres and draw-off nut.**
- Body and live centre are hardened (multiple regrinding possible).
- Precision roller bearings for high concentricity.
- Maintenance-free due to lifetime lubrication.
- Special seal prevents ingress of dirt and coolant.

Application: For machining **thin components at high speeds.**



32 1250



Morse taper		2	3	4	5
3/8 32 1250	Revolving lathe centre with carbide insert and draw-off nut	(eShop)	(eShop)	(eShop)	(eShop)
Body Ø D	mm	45	74	70	90
Reach B	mm	65	79.4	102.5	129
Carbide Ø H	mm	11	14	14	18
maximum radial run-out	mm	0.005			
for workpiece weight	kg	120	360	500	1000

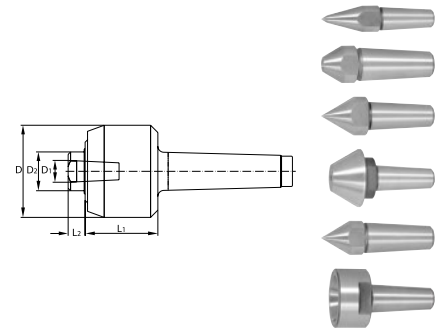
Garant Universal revolving lathe centres – with exchangeable inserts

- **Complete tool hardened and ground.**
- With interchangeable inserts.
- Body and live centre are die-forged and hardened.
- Precision roller bearings guarantee high concentricity.
- Special seal prevents ingress of dirt and coolant.
- Maintenance-free due to lifetime lubrication.

Supplied with: 1 lathe centre No. 320659, 1x each copying punch 60° / 30°, small centre punch 60°, large centre punch 60°, point 60°, hollow point 60°, hollow punch 60°.
With modular box with foam inlay.



Morse taper		2	3	4	5
31Z 32 1335	Revolving lathe centre with inserts	eShop	eShop	eShop	eShop
Body Ø D	mm	45	60	76	96
maximum radial run-out	mm	0.005	0.005	0.007	0.01
maximum speed	min ⁻¹	5000	4300	3200	2600
for workpiece weight	kg	50	200	300	800
L ₁	mm	43	50	58	72
L ₂	mm	10	12	13	14
Ø D ₁	mm	12	14	18	24
Ø D ₂	mm	20	24	32	42
suitable for colour code		Red	Blue	Green	Yellow

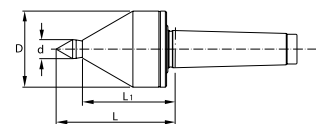


Garant Revolving combination lathe centres 60°/60°

- Tool fully hardened and ground.
 - Bearings designed to take high axial forces.
 - Maintenance-free greased for life.
 - Shaft seal prevents ingress of dirt and cooling fluids.
- Application:**
- Combi tool for standard centring and machining pipes.
 - Perfect all-purpose tip for general use on manual and CNC machines.



very large Ø / Morse taper		54/2	54/3	64/3	64/4	86/4	86/5
31Z 32 1360	Precision revolving lathe centre with extended point	eShop	eShop	eShop	eShop	eShop	eShop
smallest Ø d	mm	13	13	16	16	19	19
reduced head length L ₁	mm	68.5	68.5	78	78	93.5	93.5
Head length L	mm	86.5	86.5	100	100	121.5	121.5
maximum radial run-out	mm	0.005					
maximum speed	min ⁻¹	4200	4200	3800	3800	3200	3200
for workpiece weight	kg	170	170	330	330	550	550
Taper angle α	degrees	60					



HOLEX Solid lathe centres

Point angle 60°, surfaces ground.

32 3400 – Full point of tool steel, through hardened.

32 3600 – Full point with deep inserted **carbide centre**.

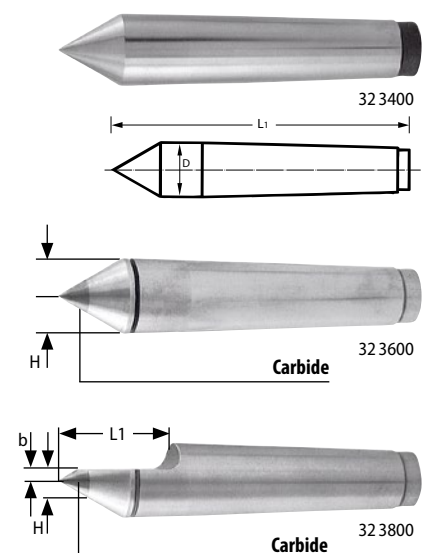
32 3800 – **Half point** with deep inserted **carbide centre**. This offers particularly good access for the turning tool to the end face of the component.

32 3600/3800 – The carbide tipped lathe centres are marked with a groove to indicate maximum regrinding allowance.

Standard: DIN 806

Morse taper		1	2	3	4	5
32L 32 3400	Solid lathe centre WS	eShop	eShop	eShop	eShop	eShop
32L 32 3600	Solid lathe centre with carbide insert	eShop	eShop	eShop	eShop	eShop
32L 32 3800	Solid half centre with carbide insert	–	eShop	eShop	eShop	–
External Ø D	mm	12.2	18	24.1	31.6	44.7
Overall length L	mm	80	100	125	160	200
Carbide Ø H (32 3600, 32 3800)	mm	7	7	11	14	18
Face length L ₁	mm	–	30	38	50	–
Face-point distance b	mm	–	2	3	5	–

Colour code: Red K12 Blue K14 Green K18 Yellow K24



Garant Fixed solid carbide lathe centre

- High-precision solid carbide tip. Close-fitting carbide design for optimum stability and freedom from breakage, **no additional safety equipment required.**
- Tip angle 60°.
- High surface quality on the shank for optimum fit.
- Complete tool hardened and ground.
- With carbide tips for applications with high wear.

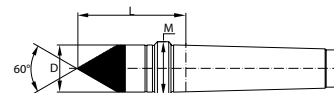
Application: For grinding high-precision components.

Optional extras: Draw-off nut No. 323230.

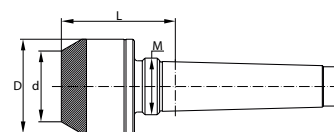
Note: Order the draw-off nut separately. Geometric dimensions to DIN 806 E.



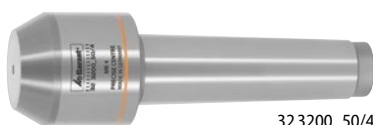
32 3200_32/4



32 3210_50/4



32 3210_32/4



32 3200_50/4

very large Ø / Morse taper		18/2	24/3	40/3	50/3	60/3	70/3
31Z 32 3200	Fixed solid carbide lathe centre 60°	eShop	eShop	eShop	eShop	eShop	eShop
Head length L	mm	36	44	44	44	44	44
External Ø D	mm	18	24.1	40	50	60	70
Ø d	mm	—	—	25	35	45	55
maximum radial run-out	mm	0.001					

very large Ø / Morse taper		32/4	40/4	50/4	60/4	70/4	80/4	44/5
31Z 32 3200	Fixed solid carbide lathe centre 60°	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Head length L	mm	57.5	57.5	57.5	57.5	57.5	57.5	70.5
External Ø D	mm	31.6	40	50	60	70	80	44.7
Ø d	mm	—	25	35	45	55	65	—
maximum radial run-out	mm	0.001						

very large Ø / Morse taper		18/2	24/3	40/3	50/3
31Z 32 3210	Fixed solid carbide lathe centre 60° with push-off thread	eShop	eShop	eShop	eShop
Head length L	mm	48	57	57	57
External Ø D	mm	18	24.1	40	50
Ø d	mm	—	—	25	35
maximum radial run-out	mm	0.001			
Thread M		M22×1.5	M27×1.5	M27×1.5	M27×1.5

very large Ø / Morse taper		32/4	40/4	60/4	70/4	80/4	44/5
31Z 32 3210	Fixed solid carbide lathe centre 60° with push-off thread	eShop	eShop	eShop	eShop	eShop	eShop
Head length L	mm	72.5	72.5	72.5	72.5	72.5	87.5
External Ø D	mm	31.6	40	60	70	80	44.7
Ø d	mm	—	25	45	55	65	—
maximum radial run-out	mm	0.001					
Thread M		M36×1.5	M36×1.5	M36×1.5	M36×1.5	M36×1.5	M48×1.5

Garant Draw-off nuts

Dimensions to DIN 807.

Suitable for: No. 323210.

Application: For drawing off tools with draw-off threads. Specially for CNC machines without through-bored sleeves.

Type	M27	M36	M48
31Z 32 3230	eShop	eShop	eShop
Thread	M27×1.5	M36×1.5	M48×1.5
Width	mm	21	23
Width across flats AF	41	55	75
for MT	3	4	5



32 3230

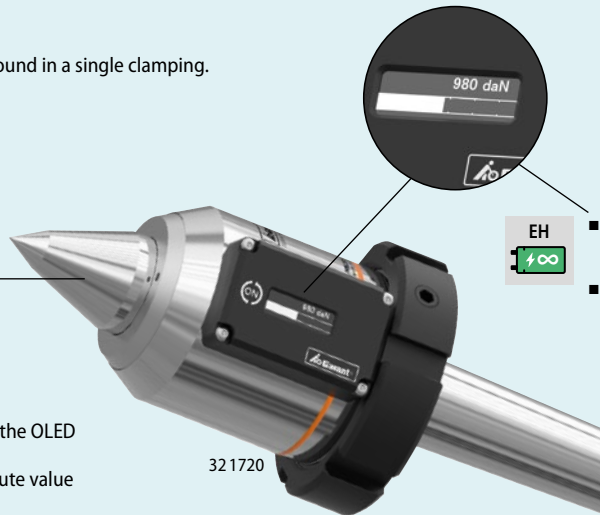
Garant**Digital lathe centre**

- Top quality "Made in Germany".
- Precise and long-lived.
- Tool through hardened, internally and externally ground in a single clamping.
- Lubricated for life.
- Punch axis of through-hardened steel.
- Shaft seal prevents ingress of dirt and coolant.

Very high concentricity

Point is not ground until it is mounted.

- Simple visual display of the axial clamping force via the OLED display on the outer body of the housing.
- Digital real-time pressure indicator both as an absolute value and as a bar in the display.
- Bright display with high contrast for optimum legibility during the machining process.
- Splash-proof to IP55.



32 1720

No batteries required!

- **Energy harvesting** (tool with no battery) power supply for the pressure indicator generated by rotation of the lathe centre.
- Power is obtained from the integral generator.



reddot design award
winner 2019

**Garant****Revolving lathe centres with analogue or digital pressure indicator and draw-off nut**

- The momentary clamping pressure is directly readable on the analogue or digital display on the base body.
- The live centre is supported by a disc spring pack with a spring travel of approx. 3.7 mm analogue and 2.6 mm or 2.8 mm digital.
- Short sturdy design with active longitudinal axis. Live centre through hardened and finish ground.
- **Maximum accuracy due to precision roller bearings.**
- With push-off thread and push-off nut.
- With special seal against dirt and coolant ingress, maintenance-free due to lifetime lubrication.

With extended centre, point angle 60°/40°.

Application: Whenever **the clamping force should be kept within certain limits**, either to prevent deformation of the component or to ensure secure clamping with sufficient pressure.

- As a **tailstock centre in conjunction with hydro-mechanical face drivers** No. 327451 – 327541 because the drive teeth have to dig into the component.
- For components that expand significantly due to high machining heat.
- For clamping **long slender components to prevent lateral displacement.**
- For clamping **heavy components where a controlled clamping force is required.**

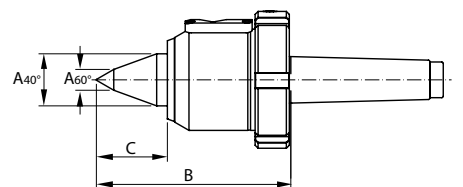


32 1720

Morse taper		3	4	5
3/2	32 1720	Revolving lathe centre with digital pressure indicator and extended point	eShop	eShop
3/2	32 1740	Revolving lathe centre with analogue pressure indicator and extended point	—	eShop
	Body Ø (32 1720)	mm	70	96
	Body Ø (32 1740)	mm	—	92
	Reach B (32 1720)	mm	150	179
	Reach B (32 1740)	mm	—	162
	largest centre point Ø 60° A (32 1720)	mm	35	50
	largest centre point Ø 60° A (32 1740)	mm	—	18
	largest centre point Ø 40° A (32 1720)	mm	12	18
	largest centre point Ø 40° A (32 1740)	mm	—	50
	maximum radial run-out	mm	0.005	
	Centre point length C (32 1720)	mm	46	64
	Centre point length C (32 1740)	mm	—	67
	for workpiece weight (32 1720)	kg	300	900
	for workpiece weight (32 1740)	kg	—	800
	maximum axial clamping force (32 1720)	daN	1080	1270
	maximum axial clamping force (32 1740)	daN	—	1430



32 1740

**32**

Garant Revolving lathe centres with pressure indicator

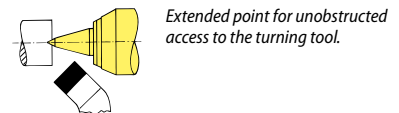
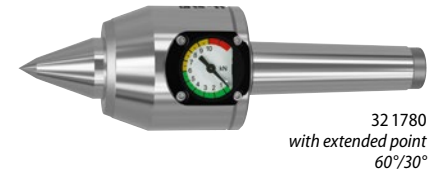
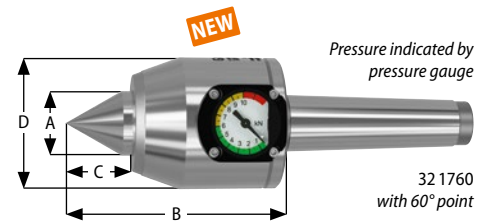
- The pressure (clamping force) to be adjusted can be read off in kN directly on the manometer sight glass.
- Short sturdy design with active longitudinal axis. Tool is through hardened and finish ground.
- **Precision bearing for high axial loads and high concentricity.**
- With special seal against dirt and coolant ingress, maintenance-free due to lifetime lubrication.
- Length adjustment by means of spring package.

32 1760 – Point angle 60°.

32 1780 – **With extended centre**, point angle 60° / 30°.

Application: **Whenever the clamping pressure has to be kept within certain limits**, either to prevent deformation of the component or to ensure secure clamping with sufficient pressure.

- As a **tailstock centre in conjunction with face drivers** No. 327400 – 327403, 327455 – 327465 because the drive teeth have to dig into the component.
- For components that expand significantly due to high machining heat.
- For clamping **long slender components to prevent lateral displacement.**
- **For clamping heavy components where a controlled clamping force is required.**



Morse taper		3	4	5
3/2 32 1760	Revolving lathe centre with pressure indicator	eShop	eShop	eShop
3/2 32 1780	Revolving lathe centre with pressure indicator and extended point	eShop	eShop	eShop
Body Ø D	mm	66	72	92
Reach B (32 1760)	mm	112	124	152
Reach B (32 1780)	mm	124	140	178
largest centre point Ø 60° A	mm	12	16	20
largest centre point Ø 30° A	mm	28	35	50
maximum radial run-out	mm		0.01	
Centre point length C (32 1760)	mm	31	37	50
Centre point length C (32 1780)	mm	43	53	77
for workpiece weight (32 1760)	kg	450	850	1650
for workpiece weight (32 1780)	kg	300	600	1200
maximum axial clamping force	daN	650	1000	1650
Sprung travel	mm	2	1.7	2.8

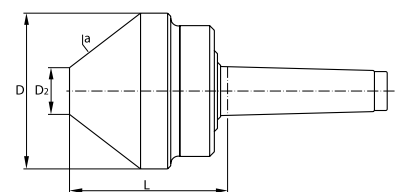
Garant Revolving centering taper, truncated cone

- **Centering taper with truncated cone.**
- Particularly sturdy design **with oversize bearings.**
- The bearings have a special lubricant and require no maintenance.
- The centering taper and tapered arbor are made of high quality material, through hardened and finish ground.

Application: For machining **hollow parts, tubes** etc. Particularly suitable for heavy machining where at the same time high accuracy is required.

very large Ø / Morse taper		60/2	80/3	100/3	100/4	125/4
3/2 32 3000	Revolving centering taper, truncated cone	eShop	eShop	eShop	eShop	eShop
smallest Ø	mm	20	30	30	30	50
Head length L	mm	73	86	100	101	91
maximum radial run-out	mm	0.005	0.005	0.005	0.005	0.007
maximum speed	min ⁻¹	4000	3500	3000	3000	3000
for workpiece weight at D	kg	200	450	500	650	800
for workpiece weight at D1	kg	140	250	250	300	500
Taper angle a	degrees	60	60	75	75	75

very large Ø / Morse taper		125/5	150/5	200/5	150/6	200/6
3/2 32 3000	Revolving centering taper, truncated cone	eShop	eShop	eShop	eShop	eShop
smallest Ø	mm			50		
Head length L	mm	92	112	136	112	136
maximum radial run-out	mm	0.007	0.007	0.01	0.01	0.01
maximum speed	min ⁻¹	3000	2800	1800	2800	1800
for workpiece weight at D	kg	1800	1900	2000	2800	2800
for workpiece weight at D1	kg	1400	1200	1000	2000	1800
Taper angle a	degrees			75		



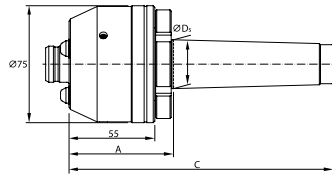
Garant Constant face driver for lathes

Face driver sets

- Constant face driver head with 60° tip angle for use in turning and grinding.
- Face driver with spring-loaded, clampable centring point for a backlash-free, stable clamping situation.
- **High concentricity** thanks to fully ground mechanical components.
- Perfect in combination with our lathe centres No. 321720, 311750 or 321770.
- Conveniently in the GARANT system box 630320.

Supplied with:

- 1 pc. face driver base body No. 327465 (suitable for clockwise and anti-clockwise rotation).
- 2 pcs. centring point No. 327488.
- 2 pcs. driver heads No. 327470.



Application example:
The drive heads are compensated
by synchronised, mechanical support rams.



327455

Fast changeover of attachable driver heads. These heads and the exchangeable centres fit all base body sizes.



327465_3

Face drivers, basic body

Face driver with spring-loaded centring point. The clamping of the centring point when the driver head makes flat surface contact ensures a backlash-free, stable clamping situation. High concentricity thanks to fully ground mechanical components, without centring point and driver heads, suitable for clockwise and anti-clockwise operation. Fully mechanical design with spring force. No leakages from hydraulic fluid. Option for direct clamping on the head on raised collar in soft shaped jaws.

Suitable for: Lathe centres No. 321720, 321750 and 321770.

Optional extras: Driver heads No. 327470 - 327486 and old version No. 327601 - 327651, centring point No. 327488, taper sleeves No. 327492.

Type		3	4	5	D32
31G 327465	Face driver With morse taper / cylindrical	eShop	eShop	eShop	eShop
maximum body Ø	mm	75			
Ø D ₁	mm	67	67	67	55
Length C	mm	148	170	197	148
Weight	kg	2.6	2.7	3.6	2.3
Version		Morse taper	Morse taper	Morse taper	cylindrical

Driver head

327470/7472 – Driver heads made of high-alloy tool steel, **direct tooling** with defined ground tooth geometry. This ensures precisely defined edge radii for a longer tool life and optimum grip.

327480/7482 – Driver heads including **interchangeable carbide drive teeth**.

Suitable for: Face driver base body No. 327455, 327465.

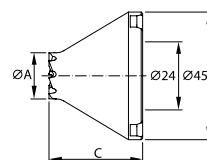
Note: Driver heads compatible with old No. 327601/7611/7641/7651 RöhM CoAE system.



327470_17_32



327470_9-16



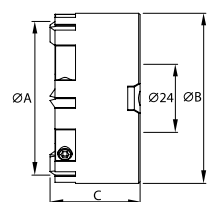
327472



327480_25



327480_60



327482_25



327482_25



327482_60

Working range Ø	mm	9-16	11-20	13-24	17-32	21-40	26-50	33-64
31G 327470	Direct toothed driver head, ground Right-hand	eShop	eShop	eShop	eShop	eShop	eShop	eShop
31G 327472	Direct toothed driver head, ground Left-hand	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Clamping Ø A	mm	8	10	12	16	20	25	32
Length C	mm	38	38	36	33	30	30	30
for which suitable centre point Ø D	mm	4	4	6	10	12	16	16

Type		25	45	60
31G 327480	Driver head with carbide inserts Right-hand	eShop	eShop	eShop
31G 327482	Driver head with carbide inserts Left-hand	eShop	eShop	eShop
Clamping Ø A	mm	25	44	58
External Ø B	mm	45	45	60
Length C	mm	33	30	30
for which suitable centre point Ø D	mm	10	16	16
Number of inserts		3	6	6

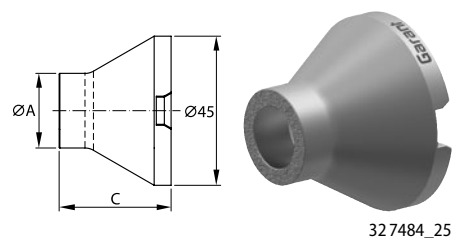
Driver heads for grinding applications

Driver heads with special coating for friction-lock drive on workpieces during grinding and hard turning.

Suitable for: Base body No. 327455, 327465.

Note: Driver heads compatible with Röhms CoAE system.

		25	35
31G 32 7484	Driver head For grinding applications	eShop	eShop
Clamping $\varnothing A$	mm	25	35
External $\varnothing B$	mm		45
Length C	mm		33
for which suitable centre point $\varnothing D$	mm		10



327484_25

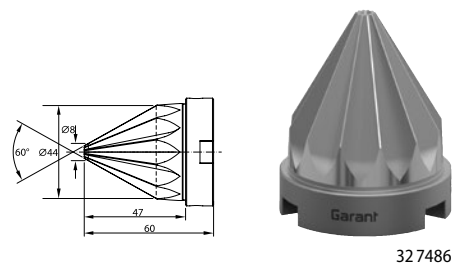
Rotary gripper with external teeth 60°

Ideal for use during turning work on centreless and tubular workpieces. Large clamping range can be covered.

Suitable for: Face driver base body No. 327455; 327465 and Röhms CoAE.

Note: Use with face driver base body without using the centring point.

Clamping range	mm	8-44
31G 32 7486	Rotary gripper 60° external toothing	eShop
L	mm	60



327486

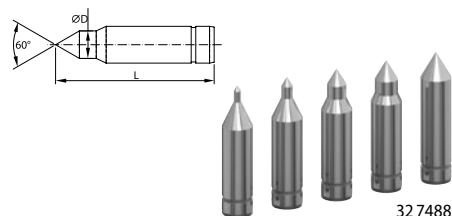
Centring points

Suitable for: Face driver base body No. 327455, 327465.

Advantage: Quick change of centring point without tools.

Note: Not suitable for the old system Röhms CoA and CoAE.

Centring tip $\varnothing D$	mm	4	6	10	12	16
31G 32 7488	Centring point for face driver	eShop	eShop	eShop	eShop	eShop



327488

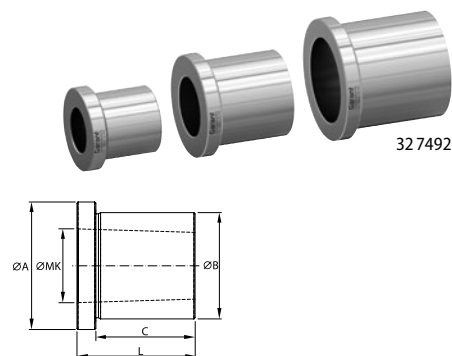
Cylindrical taper sleeves, with collar and internal taper

Ground tapered sleeves for adapting the Morse taper shank to cylindrical clamping in the lathe chuck or collet chuck. The collar prevents axial displacement in the chuck.

Suitable for: Face driver base body No. 327455; 327465 and Röhms CoAE.

Note: When used in lathe chucks, it is recommended to turn/grind the clamping jaws.

MT/external $\varnothing B$		3/35	4/45	5/55
31G 32 7492	Cylindrical taper sleeve With inner taper	eShop	eShop	eShop
A	mm	44	54	64
Length C	mm	32	42	52
L	mm	40	50	60



327492

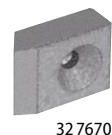
Carbide driving plate

Suitable for: Driver heads No. 327480 and 327482.

Supplied with: 3 pieces carbide driving plates.

Note: Compatible with Röhms driver heads No. 327651 21-40, 26-50 and 33-64.

Type		3	
31G 32 7670	Carbide driving plate for driver head	eShop	1
Side length	mm	6	
Thickness	mm	3.2	



327670

Garant

Face driver applications

i



HOLEX Constant face drivers

- Tip angle 60°, clamping Ø 17 mm – 54 mm.
- Clockwise and anti-clockwise rotation.
- Outstandingly suitable for use on lathes and when hobbing.

Suitable for: Lathe centres No. 321405, No. 321720, No. 321730 and 321740.

Application: For mounting in the headstock taper of the lathe.

Supplied with: Face driver with centring points 327410 and driver 327412.

Optional extras: No. 327410 centring point, No. 327412 driver, No. 327414 damping elements.

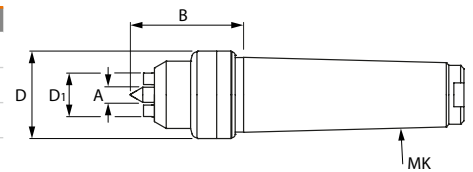
Note: Suitable taper sleeves for adapting in lathe chucks available on request.



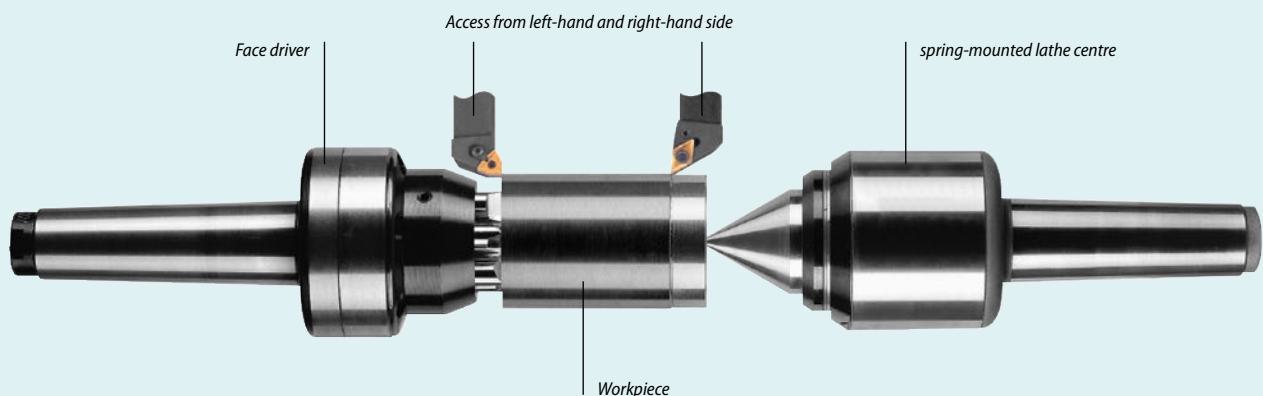
327400

Face driver with working range Ø 19 - 100 mm

Morse taper (MK)		4	5
32P 32 7400	Face driver with Morse taper	eShop	–
32P 32 7401		eShop	eShop
32P 32 7402		eShop	eShop
32P 32 7403		eShop	eShop
Overall length (32 7402)	mm	190	218
Working range Ø (32 7400)	mm	19 – 34	–
Working range Ø (32 7401)	mm		28 – 50
Working range Ø (32 7402)	mm		40 – 72
Working range Ø (32 7403)	mm		55 – 100
Clamping Ø D1 (32 7400)	mm	17	–
Clamping Ø D1 (32 7401)	mm		26
Clamping Ø D1 (32 7402)	mm		38
Clamping Ø D1 (32 7403)	mm		54
Reach B (32 7400)	mm	62	–
Reach B (32 7401)	mm		70.3
Reach B (32 7402)	mm		89
Reach B (32 7403)	mm		104.1
Workpiece weight (32 7400)	kg	50	–
Workpiece weight (32 7401)	kg		55
Workpiece weight (32 7402)	kg		65
Workpiece weight (32 7403)	kg		100
External Ø (32 7400)	mm	42	–
External Ø (32 7401)	mm		52
External Ø (32 7402)	mm		70
External Ø (32 7403)	mm		82
largest centre point Ø 60° A (32 7400)	mm	5	–
largest centre point Ø 60° A (32 7401)	mm		9
largest centre point Ø 60° A (32 7402)	mm		14
largest centre point Ø 60° A (32 7403)	mm		20



HOLEX Face driver in use



i



32



Push-out and draw-in collets

Collets, round profile in 1 mm increments. Please specify required clamping Ø with order.

Accuracy: Concentricity tolerances: D = 1 to 10 mm = 0.02 mm D = 10 to 30 mm = 0.03 mm D = 30 to 60 mm = 0.04 mm

Note: Other diameters and profiles (e.g. square or hexagon) on request!

Push-out collets

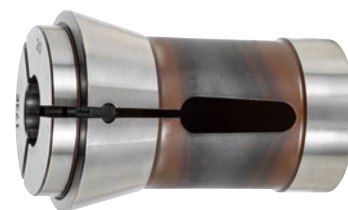
Standard: DIN 6343

Note:

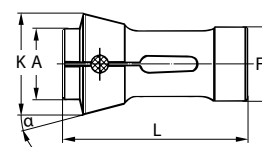
32 9560 – Profile Ø 1.0 – 8.0 mm smooth. From Ø 8.5 mm with transverse serrations.

32 9565 – Profile Ø 4.0 – 8.0 mm smooth. From Ø 9.0 mm with transverse serrations.

Clamping Ø	mm	3...42	4...60
32Z 32 9560	173 E	eShop	—
32Z 32 9565	185 E	—	eShop
F	mm	48	66
A	mm	50	73
K	mm	60	84
Overall length L	mm	94	110
Angle α	degrees	15	20



32 9560



Draw-in collets

32 9705 – Saw thread

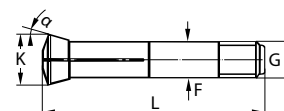
32 9755 – Trapezoidal thread

Standard: DIN 6341

Clamping Ø	mm	3...18	3...29
32B 32 9705	355 E	eShop	—
32B 32 9755	386 E	—	eShop
F	mm	20	32
K	mm	28	45
Overall length L	mm	123	115
Buttress thread G	mm	S20×2	—
Trapezoidal thread G	mm	—	Tr32×1.5
Angle α	degrees	17.5	20



32 9755



HAINBUCH Manual stationary chuck MANOK

32 9810 – Stationary chuck of solid cast. High clamping force, precision and rigidity.

32 9832 – Changeover device for manual clamping head change.

Suitable for:

32 9835 – Clamping head for boring out No. 329916; 329926; 329936; 329946; 329976.

Application:

32 9810/9832 – Versatile application, e.g. machining centres, measuring machines, pillar drills.

Supplied with:

32 9810 – Including 1 chuck key.

Note:

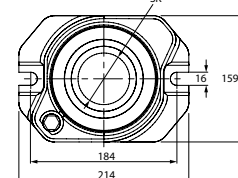
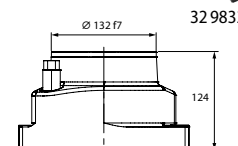
32 9810/9832 – For suitable clamping heads see No.329910–329946.



Ground f7 for front stop option.

32 9835

32 9832



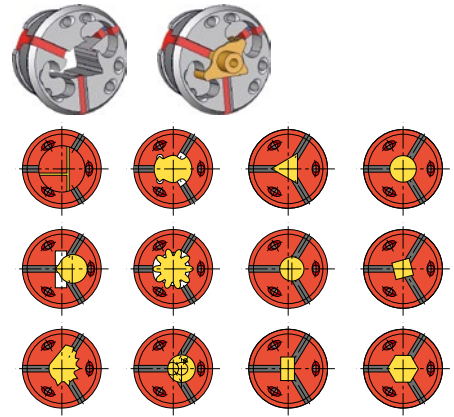
Note for No. 32 9810 size 80:
For dimensions, see eShop

Clamping head (SK)	42	52	42/52	65	80
33H 32 9810 Stationary chuck MANOK	(eShop)	(eShop)	—	(eShop)	(eShop)
33H 32 9832 Manual changeover device for MANOK	—	—	(eShop)	(eShop)	(eShop)
33H 32 9835 Twist-out ring for clamping heads	—	—	—	(eShop)	(eShop)
Weight (32 9810)	kg	15	14	—	13

HAIBUCH Clamping heads version RD

Clamping heads, **round profile**, in 0.5 mm or 1 mm increments. Please specify the required clamping Ø **when ordering**.

Note: Clamping heads for special profiles to your individual requirements on request. Other taper sizes and shapes (e.g. square) and machinable blanks **on request!**



Clamping Ø (0.5 mm increments)			mm	4...42				
33H	32 9910	Clamping head smooth	SK 42	(eShop)				
Clamping Ø (0.5 mm increments)			mm	11...42				
33H	32 9914	Clamping head with transverse and longitudinal serrations.	SK 42	(eShop)				
Initial bore Ø			mm	8	15	30		
33H	32 9916	Clamping head soft	SK 42	(eShop)	(eShop)	(eShop)		
Clamping Ø (0.5 mm increments)			mm	4...52				
33H	32 9920	Clamping head smooth	SK 52	(eShop)				
Clamping Ø (0.5 mm increments)			mm	11...52				
33H	32 9924	Clamping head with transverse and longitudinal serrations.	SK 52	(eShop)				
Initial bore Ø			mm	8	15	30		
33H	32 9926	Clamping head soft	SK 52	(eShop)	(eShop)	(eShop)		
Clamping Ø (0.5 mm increments)			mm	3...65				
33H	32 9930	Clamping head smooth	SK 65	(eShop)				
Clamping Ø (0.5 mm increments)			mm	8...10				
33H	32 9932	Clamping head with transverse serrations.	SK 65	(eShop)				
Clamping Ø (0.5 mm increments)			mm	11...65				
33H	32 9934	Clamping head with transverse and longitudinal serrations	SK 65	(eShop)				
Initial bore Ø			mm	5	8	20	40	
33H	32 9936	Clamping head soft	SK 65	(eShop)	(eShop)	(eShop)	(eShop)	
Clamping Ø (1 mm increments)			mm	5...80				
33H	32 9940	Clamping head smooth	SK 80	(eShop)				
Clamping Ø (1 mm increments)			mm	11...80				
33H	32 9944	Clamping head with transverse and longitudinal serrations.	SK 80	(eShop)				
Initial bore Ø			mm	8	20	40	60	
33H	32 9946	Clamping head soft	SK 80	(eShop)	(eShop)	(eShop)	(eShop)	
Clamping Ø (1 mm increments)			mm	15...100				
33H	32 9950	Clamping head smooth	SK 100	(eShop)				
Clamping Ø (1 mm increments)			mm	15...24				
33H	32 9952	Clamping head with transverse serrations	SK 100	(eShop)				
Clamping Ø (1 mm increments)			mm	25...100				
33H	32 9954	Clamping head with transverse and longitudinal serrations	SK 100	(eShop)				
Initial bore Ø			mm	15	30	45	65	90
33H	32 9956	Clamping head soft	SK 100	(eShop)	(eShop)	(eShop)	(eShop)	(eShop)

Clamping head **smooth**, for boring out.



Clamping head with **transverse serrations**, for small Ø raw material.



Clamping head with **transverse and longitudinal serrations**, for raw material.



Clamping head **soft**, for boring out.



32

HAINBUCH Manual stationary chuck MANOK plus

Stationary chuck of solid cast. High clamping force, precision, and stiffness.
Ground face for horizontal mounting, integral stop.

Suitable for:

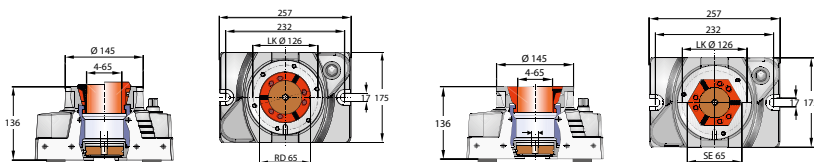
Size RD65 – Clamping heads No. 329910 – 329946.

Size SE65 – Clamping heads No. 329970 – 329976.

Application: Versatile application e. g. machining centres, measuring machines, pillar drills etc.

Supplied with: Including 1 chuck key.

Note: Use changing device No. 329832 size 65.



Type / size		RD65	SE65
33H 32 9960	Stationary chuck MANOK plus	(eShop)	(eShop)
Weight	kg	23.5	

32 9960

HAINBUCH Clamping heads – SE version (Top 52/65)

Clamping heads, **round profile, in 0.5 mm increments. Please specify required clamping Ø with order.**

32 9974 – With transverse and longitudinal serrations for raw material.

32 9976 – Soft (reduced hardness of 40 HRC in the bore) for boring out.

32 9966/9970 – Smooth version for precision machining.

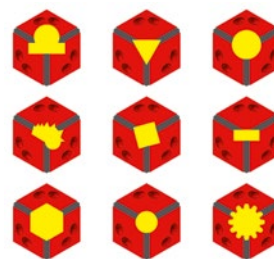
Advantage:

- **25% greater clamping force** than clamping head RD.
- No radial movement between clamping head and clamping element mounting, therefore immune to dirt.
- **Unique stiffness due to large seating area of the clamping segments.**

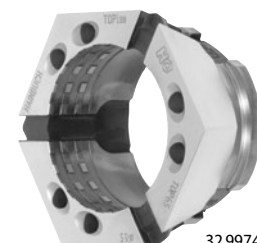
Application: Versatile application range, machining centres, measuring machines or pallet clamping.

Recommendation: Clamping heads for special profiles to your individual requirements on request.

Note: Other taper sizes and shapes (e.g. square) and machinable blanks on request!



32 9966/9970



32 9974



32 9976

Clamping Ø (0.5 mm increments)		mm	3...52				
33H	32 9966	Clamping head smooth	Top 52	(eShop)			
Clamping Ø (0.5 mm increments)		mm	4...65				
33H	32 9970	Clamping head smooth	Top 65	(eShop)			
Clamping Ø (0.5 mm increments)		mm	11...65				
33H	32 9974	Clamping head with transverse and longitudinal serrations	Top 65	(eShop)			
Initial bore Ø		mm	5	8	20	40	
33H	32 9976	Clamping head soft	Top 65	(eShop)	(eShop)	(eShop)	(eShop)

EDALMATIC tapping heads

- For machines with only one direction of rotation.
- Adjustable safety clutch protects tap from breakage.
- Length compensation by tension and compression, compensating for difference between machine feed and thread pitch.
- Automatic feed; ensures thread is true to gauge size.
- Automatic quick return traverse 1.6: 1.
- Right-hand and left-hand rotation possible without conversion.
- Accepts Rubber-Flex collets and quick-change sockets.

33 3500 – Size M3–M12 and M10–M30 with double clamping mechanism.

- Application:**
- For cutting threads **exactly true to gauge size**.
 - Can be used without changing the set up for left-hand or right-hand threads, blind and through holes.

Supplied with: Including anti-rotation arm and for No. 333500 also 2 multi-range collets (rubber-flex), 2 spanners and 1 screwdriver for hexagon socket screws to suit the tapping head!

Optional extras:

33 3500 – Multi-range collets (Rubber Flex) No 333640. For a spare clamping device No. 333630 see the spare parts list.

33 3600 – Quick-change tapping chucks No. 335420 – 335640.

Note: Suitable tapered arbors No. 342500; 342600.



Nut
for accurate adjustment of
thread depth, ± 0.1 mm.

Type		M1,4-7	M3-12	M5-20	M10-30
35D 33 3500	Rubber-Flex tapping head for tapping collet	eShop	eShop	eShop	eShop
35D 33 3600	Tapping head for quick-change inserts,	–	eShop	eShop	–
Thread range		M1.4 – M7	M3 – M12	M5 – M20	M10 – M30
Ø range of the 1st collets	mm	2.5 – 4.5	3.5 – 6.5	4.5 – 10	10 – 16
Ø range of the 2nd collets	mm	4.5 – 6.5	6.5 – 10	10 – 16	16 – 23
maximum speed, advance	min ⁻¹	1400	1100	750	350
automatic stroke length	mm	10	15	22	30
Tapered shank mount DIN 238		B 12	B 16	B 22	B 24

333600

Tapping collets (Rubber-Flex)

Suitable for: Edalmatic tapping head No. 333500.

Clamping range shank Ø	mm	2,5-4,5	4,5-6,5	2-4,5	3,5-6,5	6,5-10	4,5-10	9-15	10-16	16-23
33F 33 3640	Multi-range collet Rubber-Flex	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
suitable for equipment type		M1.4 – M7	M1.4 – M7	M3 – M12	M3 – M12	M3 – M12	M5 – M20	M5 – M20	M10 – M30	M10 – M30
ID number of the collet		J 116	J 117	J 423	J 421	J 422	J 441	J 445	J 461	J 462



Garant Tapping heads for machines with only one direction of rotation

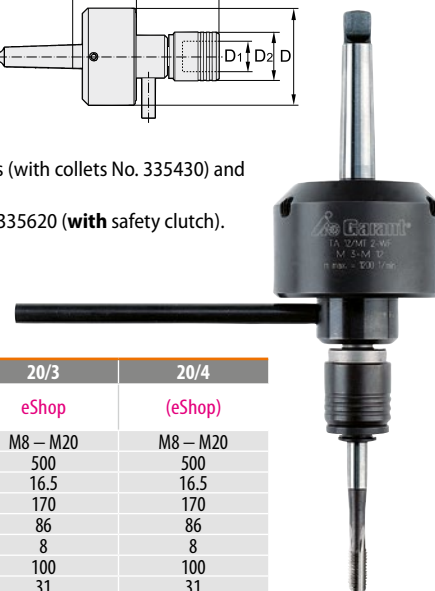
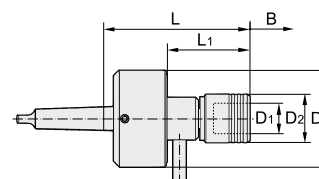
- With built-in reversing gears for automatic return. After reaching the thread depth, the unit automatically reverses by raising the machine spindle (low-wear ball system!).
- Accelerated return (approx. factor $1.8 \times n_{max}$).
- Length compensation in tension.
- With anti-rotation arm.
- Maintenance-free
- For cutting right- and left-hand threads.
- With quick-change collet system.

Application:

Size 12/1; 12/2 – For automatic tapping on non-reversing machines with manual feed. For tapping through holes (with collets No. 335420) and blind holes (with inserts No. 335610).

Size 20/2–20/4 – For automatic tapping on non-reversing machines with manual feed. For tapping through holes (with collets No. 335430) and blind holes (with inserts No. 335620).

Optional extras: For quick-change tapping collets see: No. 335420; 335430 (**without** safety clutch), No. 335610; 335620 (**with** safety clutch).



Type		12/1	12/2	20/2	20/3	20/4
31M 33 4100	Tapping head	eShop	eShop	eShop	eShop	(eShop)
Thread range		M3 – M12	M3 – M12	M8 – M20	M8 – M20	M8 – M20
maximum speed, advance	min ⁻¹	1200	1200	500	500	500
Length compensation in tension	mm	12.5	12.5	16.5	16.5	16.5
Length from the machine spindle	mm	140	140	170	170	170
L ₁	mm	60	60	86	86	86
Disengagement travel B	mm	6	6	8	8	8
External Ø D	mm	80	80	100	100	100
Ø D ₁	mm	19	19	31	31	31
Ø D ₂	mm	32	32	50	50	50
Morse taper MT		1	2	2	3	4



33

■ Tapping chucks for machines with right-hand and left-hand directions of rotation

- **Double clamping** is achieved by 3 jaws which centre the tap shank and by 4 additional jaws which clamp the tap square drive.
- When set correctly, the **safety clutch** prevents tap breakage.
- Blind hole threads can be tapped down to the bottom.
- **The self-adjustment mechanism** compensates for misalignment errors between the machine spindle and the component.
- The flexible **length compensation** is effective on compression and tension. It prevents the thread being cut incorrectly with manual or power feed.

Application: For tapping internal threads on reversible drilling machines, turret lathes. Applicable horizontally and vertically for right-handed threads.

Supplied with: 1 chuck key.

Type		12	20
33B 33 4510	Tapping chuck type DSPL with shank	eShop	eShop
Thread range		M3 – M12	M8 – M20
for Whitworth threads		G1/8 – G1/2	G1/4 – G13/16
for Whitworth pipe threads		R1/8	R1/8 – R1/2
Clamping range square	mm	0 – 8	4.7 – 12
Shank Ø range	mm	2.5 – 10	6 – 16
pivoting parallel to axis	mm	1	1.5
Length compensation in compression	mm	10	
Length compensation in tension	mm	20	20
Length from the machine spindle	mm	135	170
Body Ø	mm	58	83
Morse taper MT		2	3



Quick-change tapping chuck for right-hand and left-hand rotation

- Compact design, with flexible length compensation by compression and tension.
- Adjustable lead-in pressures for different materials and taps.

Application:

- To produce threads that are true to gauge.
- For right-hand and left-hand thread.
- For NC machines and machining centres.

Optional extras: See No. 335420 – 335660 for quick-change tapping collets.

Note:

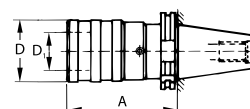
- Quick-change tapping heads in **other shank types size M14 – M33 available on request.**
- Quick-change tapping heads **not suitable for internal coolant supply.**

With parallel shank

With ball bearing-mounted sleeve for smooth no-play length compensation.

33 4620/4624 – Parallel shank to DIN 1835 – Form B and E.

Tapping range			M3-12	M6-20	M14-33
31P 33 4620	Garant	Shank Ø 20 mm	eShop	–	–
32P 33 4622	HOLEX	Shank Ø 20 mm	eShop	–	–
31P 33 4624	Garant	Shank Ø 25 mm	eShop	eShop	–
32P 33 4626	HOLEX	Shank Ø 25 mm	eShop	eShop	–
32P 33 4628	HOLEX	Shank Ø 32 mm	–	–	eShop
Length compensation by compression	mm		7.5	12.5	20
Length compensation by tension	mm		7.5	12.5	20
External Ø D	mm		38	55	78
Ø D ₁	mm		19	31	48
Dimension A (33 4620, 33 4624, 33 4628)	mm		39	64	132.5
Dimension A (33 4622, 33 4626)	mm		41	64	–



With steep taper (SK) to DIN

DIN 69871	ISO 7388-1
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33 4630/4638 – **With ball bearing-mounted sleeve for smooth no-play length compensation.**

Optional extras: Pull studs (PS) No. 308600 – 308806.
Pull stud wrenches No. 308820; 308835.

Tapping range			M3-12	M6-20	M14-33
31P 33 4630	Garant	SK 40	eShop	eShop	eShop
32P 33 4634	HOLEX	SK 40	eShop	eShop	–
31P 33 4638	Garant	SK 50	eShop	eShop	eShop
32P 33 4642	HOLEX	SK 50	eShop	eShop	–
Length compensation by compression	mm		7.5	12.5	24
Length compensation by tension	mm		7.5	12.5	24
External Ø D	mm		38	55	79
Ø D ₁	mm		19	31	48
Dimension A (33 4630, 33 4634)	mm		60	100	138
Dimension A (33 4638, 33 4642)	mm		62	83	133



With Morse taper (MT) to DIN

Morse taper DIN 228 B.

Tapping range			M3-12	M6-20	
32P	33 4644	 Quick-change tapping chuck	MT2	eShop	–
32P	33 4645		MT3	eShop	eShop
32P	33 4646		MT4	–	eShop
Length compensation by compression			mm	7,5	12,5
Length compensation by tension			mm	7,5	12,5
External Ø D			mm	38	55
Ø D ₁			mm	19	31
Dimension A			mm	46	70



33 4644

With hollow shank taper (HSK) / polygonal shank (PSC) to DIN

With ball bearing-mounted sleeve for smooth no-play length compensation.

Optional extras: Socket No. 309890.

ISO 12164-1
DIN 69893

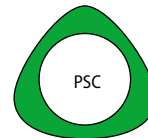
Tapping range			M3-12	M6-20	M14-33	
31P	33 4652	 Quick-change tapping chuck	HSK-A 63	eShop	eShop	
31P	33 4656		HSK-A 100	eShop	eShop	
Length compensation by compression			mm	7.5	10	17.5
Length compensation by tension			mm	7.5	12.5	17.5
External Ø D			mm	41	60	86
Ø D ₁			mm	19	31	48
Dimension A (33 4652)			mm	72	110	141
Dimension A (33 4656)			mm	80	100	144



33 4652

Tapping range				M3-12	M6-20
31M	33 4660	 Quick-change tapping chuck		eShop	eShop
Length compensation by compression			mm	7.5	10
Length compensation by tension			mm	7.5	10
External Ø D			mm	41	60
Ø D ₁			mm	19	31
Dimension A			mm	73	97

ISO 26623-1

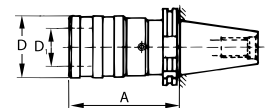


33 4660

JIS B6339
ISO 7388-2

Optional extras: Pull studs (PS) No. 308600 – 308806.
Pull stud wrenches No. 308820; 308835.

Tapping range				M3-12	M6-20	M14-33
31M	33 4662		Quick-change tapping chuck	BT 30	eShop	—
31M	33 4663			BT 40	eShop	eShop
32P	33 4665			BT 40	eShop	eShop
32P	33 4670			BT 50	eShop	eShop
Length compensation by compression				mm	7.5	12.5
Length compensation by tension			mm	7.5	12.5	20
External Ø D			mm	38	55	78
Ø D ₁			mm	19	31	48
Dimension A (33 4662)			mm	63	—	—
Dimension A (33 4663)			mm	68	93	—
Dimension A (33 4665)			mm	60	100	162.5
Dimension A (33 4670)			mm	62	83	141

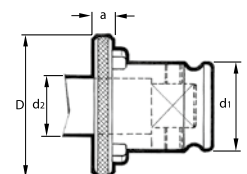


33 4665

HOLEX Reducer for quick-change inserts

Application: For reducing large tapping heads of sizes M6 – 20 or M14 – 33 to smaller M3 – 12 or M6 – 20 quick-change inserts.

Reducer Ø d ₁ / Ø d ₂		mm	31/19	48/19	48/31
32P	33 5665	Reducer quick-change inserts	eShop	eShop	eShop
Ø D		mm	46	68	68
a		mm	4.75	8.3	8.3
for thread insert (d ₁)			M3 – M12	M3 – M12	M6 – M20
for check size (d ₂)			M6 – 20	M14 – 33	M14 – 33



33 5665

33

Rigid quick-change tapping collet with or without safety slip clutch

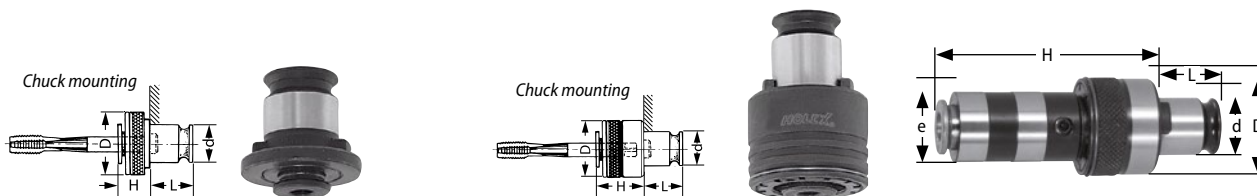
Application:

33 5645 – For GARANT extensions No. 338140 – 338142.

33 5420–5440 – For use with disengaging tapping head.

33 5610/5620/5640/5650/5660 – For blind holes.

Note: Inserts with slip clutch are supplied with the torque setting for machining steel (R_m 600 – 800 N/mm²). The setting can be modified as required by adjusting the nut.



Tap shank Ø	32H 33 5420	32H 33 5430	32H 33 5440	32H 33 5610	32H 33 5620	32H 33 5640	31M 33 5645	Shank square
	HOLEX						Garant	
	Quick-change collet without safety slip clutch			Quick-change collet with safety slip clutch			Base extension with safety slip clutch	
mm	M3 – 12	M6 – M20	M14 – M33	M3 – 12	M6 – 20	M14 – 33	M3 – 12	mm
3,5	eShop	–	–	eShop	–	–	–	2.7
4,5	eShop	–	–	eShop	–	–	eShop	3.4
6	eShop	eShop	–	eShop	eShop	–	eShop	4.9
7	eShop	eShop	–	eShop	eShop	–	(eShop)	5.5
8	eShop	eShop	–	eShop	eShop	–	eShop	6.2
9	eShop	eShop	–	eShop	eShop	–	eShop	7
10	eShop	eShop	–	eShop	eShop	–	eShop	8
11	eShop	eShop	–	eShop	eShop	–	–	9
12	–	eShop	eShop	–	eShop	eShop	–	9
14	–	eShop	–	–	eShop	eShop	–	11
16	–	eShop	eShop	–	eShop	eShop	–	12
18	–	–	eShop	–	–	eShop	–	14.5
20	–	–	eShop	–	–	eShop	–	16
22	–	–	eShop	–	–	eShop	–	18
25	–	–	eShop	–	–	eShop	–	20
28	–	–	eShop	–	–	eShop	–	22
Ø D	mm	30	46	68	50	72	32	
Ø d	mm	19	31	48	31	48	19	
L	mm	21.5	35	55.5	21.5	55.5	21.5	
H	mm	7	11	14	25	34	45	
Ø e	mm	–	–	–	–	–	23	

32H 33 5460	32H 33 5470	32H 33 5650	32H 33 5660
HOLEX			
Quick-change collet set without safety slip clutch, 8 pieces	Quick-change collet set without safety slip clutch, 9 pieces	Quick-change collet set with safety slip clutch, 8 pieces	Quick-change collet set with safety slip clutch, 9 pieces
M3 – 12	M6 – 20	M3 – 12	M6 – M20
eShop	eShop	eShop	eShop



33 5460

33 5650

FAHRION® Quick-change chuck

When the ring is moved down, the steel balls snap back into place in the sleeve.

Application: For quick change of subsequent tools.

Optional extras: Drill sleeves No. 336820.

Bore Ø D ₁ / mounting shank (mm / MT)		26MK2	34MK3	46MK4
33F 33 6800	Quick-change chuck	(eShop)	(eShop)	(eShop)
Chuck outside Ø D	mm	48	61	86
Overall length	mm	150	176	222
Length from the machine spindle	mm	75.5	82.5	104.3

Drill sleeves for quick-change chucks

Suitable for: Quick-change chuck No. 336800.

Application: For tools with Morse taper and with tang such as twist drills, countersinks etc. For tools with plain shanks, use the Morse taper clamping sleeve No. 345000.

Plug-in Ø d / internal taper (mm / MT)		26MK1	26MK2	34MK1	34MK2	34MK3	46MK1	46MK2	46MK3	46MK4
33F 33 6820	Drill sleeve	(eShop)	(eShop)	(eShop)	(eShop)	(eShop)	(eShop)	(eShop)	(eShop)	(eShop)
L	mm	78	90	80	91	108	102	98.5	109	135
Length from chuck	mm	18	30	15	26	43	20	16.5	27	53
Length from the machine spindle	mm	93.5	105.5	97.5	108.5	125.5	124.3	120.8	131.3	157.3



33 6800



33 6820

Garant Synchro insert with ER collet base body

- Tapping and thread forming on machines with synchronised spindles.
- Minimum Length Adjustment: +0.5mm / -0.2 mm.
- Compensation for synchronisation errors, hence better thread quality and clear increase in tool life.
- For collet chucks and driven tools to ISO 15488 (DIN 6499).
- Suitable for left-hand and right-hand threads.

Synchro collet

Suitable for: ER collet chuck.

for ER collets	16	25	32
31P 33 8180 Synchro collet	eShop	eShop	eShop

Synchro tool heads

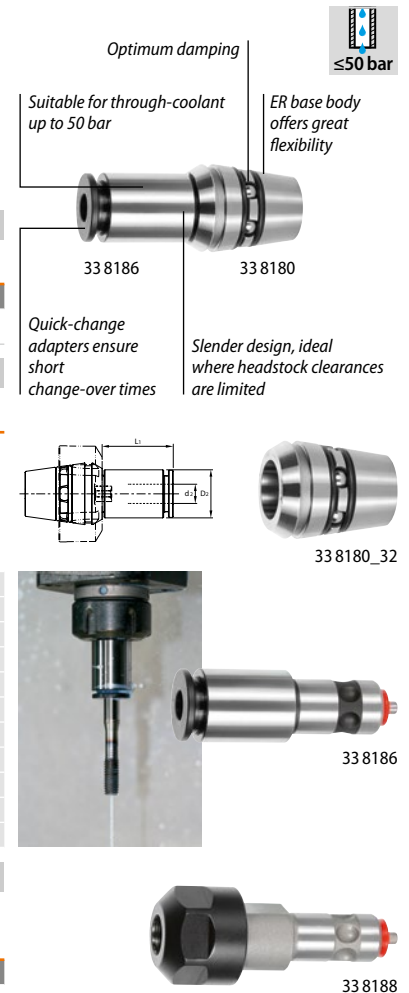
Suitable for: ER synchro collet No. 338180.

Tap shank Ø d ₂	31P 33 8183	31P 33 8185	31P 33 8186	for tap shank Ø d ₂ DIN 371	for tap shank Ø d ₂ DIN 374/376	L ₁			Shank square
	Synchro tool head					33 8183	33 8185	33 8186	
mm	for ER16	for ER25	for ER32			mm	mm	mm	mm
3,5	eShop	—	—	M3	M5	24	—	—	2.7
4,5	eShop	—	—	M4	M6	24	—	—	3.4
5	eShop	—	—	M4	M5	24	—	—	4
6	eShop	eShop	eShop	M5-6	M8	32	27	8	4.9
7	—	eShop	eShop	M7	M9-10	—	30	19	5.5
8	—	eShop	eShop	M8	M11	—	30	37	6.2
9	—	eShop	eShop	M9	M12	—	40	37	7
10	—	eShop	eShop	M10	—	—	41	37	8
11	—	—	eShop	—	M14	—	—	37	9
12	—	—	eShop	M12	M16	—	—	37	9
Ø D ₂ mm	12.7	19	25						

Synchro ER collet adapter

Application: For use on ER collets for the synchro collet No. 338180 size 25.

ER external / internal	25/16
31P 33 8188 ER adapter	eShop



HOLEX Weldon element for thread tapping

Plain toolholder, hardened and ground with **quick-release coupling**. Internal square to take taps and transmit the torque. Clamping mechanism prevents the tap being pulled out.

- Advantage:**
- Attractively priced solution.
 - Sturdy, slim version.
 - Variation in the clamping and overhang lengths.

Application: To take taps and others in a Weldon arbor.

Weldon element with minimum adjustment for thread tapping

Tensile/compression compensation each of 0.2 mm by means of compensation element. Clamping of the Weldon element either by means of the drive flats or the compensation element.

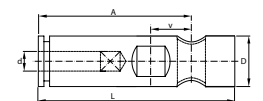
Optional extras: Compensation element No. 335730.

Note: Minimum compensation function **only** in combination with No. 300415 and 335730. The standard Weldon chuck permits only rigid clamping, see No. 335740.

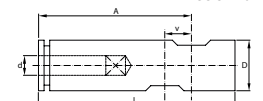
For nominal $\varnothing$ d	mm	3,5	4,5	6	7	8	9	10	11	12
32P 33 5720 Weldon element with compensation, short		eShop	eShop	eShop	—	eShop	eShop	eShop	eShop	eShop
32P 33 5725 Weldon element with compensation, long		eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
$\varnothing D$	mm	12	12	14	16	16	18	18	20	20
A (33 5720)	mm	36	36	37	—	39.5	41.5	45.5	52	52
A (33 5725)	mm	136	136	137	139	139.5	141.5	145.5	152	152
Adjustment travel V	mm					10				
L (33 5720)	mm	45	45	45	—	48	48	48	50	50
L (33 5725)	mm	145	145	145	148	148	148	148	150	150



33 5720



33 5740



Rigid Weldon element for thread tapping

Two drive flats, offset by 180° and 10 mm.

For nominal $\varnothing$ d	mm	3,5	4	4,5	6	7	8	9	10	11	12	14	16
32P 33 5740 Rigid Weldon element		eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
$\varnothing D$	mm	12	12	12	14	16	16	18	18	20	20	25	25
A	mm	36	36	36	37.5	39.5	39.5	41.5	45.5	52	52	56.5	56.5
Adjustment travel V	mm							10					
L	mm	49	49	49	49	52	52	52	52	54	54	69	69



Garant

Quick-change tapping heads for synchronised spindles

- With **minimum length adjustment (MLA)**, by means of a damping element.
- Increases tool life of taps/thread formers by up to 300 %.
- Internal coolant supply up to 50 bar.
- Secure clamping for ER collets in quick-change tapping collets.
- Radial run-out of shank taper to the tapping collet taper < 3 µm.

Application: On **machining centres with synchronised spindles**.

- For compensating the difference in pitch between tap and synchronised spindle.
- For compensating the pitch tolerances of taps.

Optional extras: See No. 308600 - 308806 for pull studs.

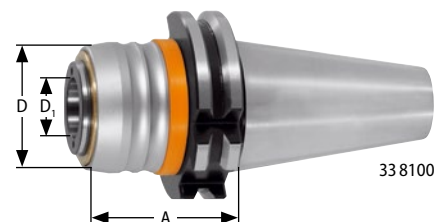
Coolant feed pipes for HSK, see No. 309880.

See No. 309890 for plug-in sockets for HSK.

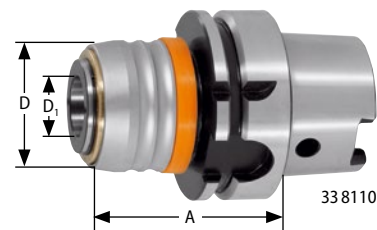
Quick-change tapping collets and extensions, see No. 338120 – 338142.

Form

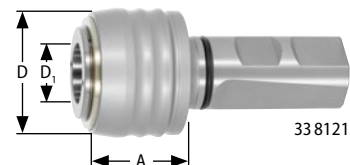
AD

DIN
69871ISO
7388-1

338100

Form
ADIN
69893

338110



338121

Tapping range			M1-12	M6-20
31M	33 8100	Tapping head MLA IC 50 bar	eShop	eShop
31M	33 8105		eShop	eShop
31M	33 8106		eShop	—
31M	33 8107		eShop	eShop
31M	33 8110		eShop	eShop
31M	33 8115		eShop	eShop
31M	33 8121	Shank Ø 25 mm	eShop	eShop
Length compensation by compression			0.2	
Length compensation by tension			1	
External Ø D			43	60
Ø D ₁			20	32
Dimension A (33 8100)			53	90
Dimension A (33 8105)			53	74
Dimension A (33 8106)			57	—
Dimension A (33 8107)			61	82
Dimension A (33 8110)			64	97
Dimension A (33 8115)			70	91
Dimension A (33 8121)			34	56
suitable for ER size			11 / 16	25

Garant

Quick-change tapping collets and extensions (ER system!)

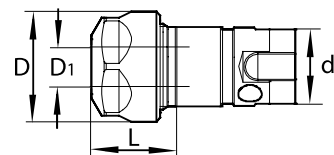
Suitable for: MLA quick-change tapping heads with minimum length adjustment No. 338100 – 338121.

Optional extras: ER tapping collets, see No. 309399 – 309447.

for ER collet size		11	16	25
31M	33 8120	eShop	eShop	eShop
Tapping collet for tapping head MLA				
for cutting range		M1 – M5	M3 – M12	M6 – M20
L	mm	17	24	27
Ø D	mm	19	28	42
Ø D ₁	mm	2 – 6	2 – 10	2 – 16
Ø d	mm	20	20	32
Spare GARANT high-speed clamping nut No. 309610		11	16	25
maximum tightening torque		20	60	70



338120



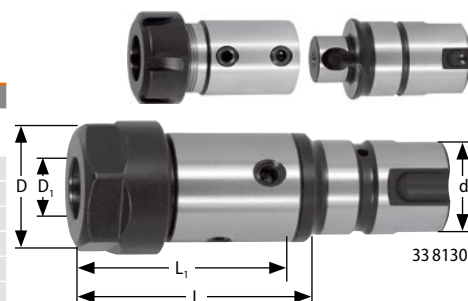
Extended quick-change tapping collets for synchronous tapping heads

MLA

Application: For tapping in places that are difficult to access.

Optional extras: ER tapping collets, see No. 309399 – 309447.

for ER collet size		16	25
31M	33 8130	eShop	eShop
Base extension MLA			
for cutting range		M3 – M12	M6 – M20
L	mm	55	84
Ø D	mm	28	42
Ø D ₁	mm	2 – 10	2 – 16
Ø d	mm	20	32
L ₁	mm	38	63



338130



Intermediate sections for basic extension

Suitable for: Base extensions **MLA**, No. 338130.

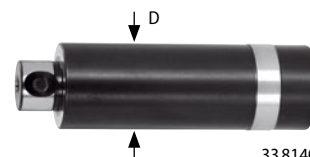
33 8140 – Quick-change tapping chuck **ER16**.

33 8142 – Quick-change tapping chuck **ER25**.

Application: For extending the base extension for inaccessible places.



338140



338140

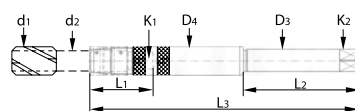
Length		mm	25	50	100	External Ø D mm
31M	33 8140	Intermediate section M3 – 12	eShop	eShop	–	23
31M	33 8142	MLA M6–20	–	(eShop)	(eShop)	35

Tap extensions

- Long and extra long version.
 - The **front end** of the extension acts as a collet. The collet is clamped to the tap by hand-tightening the knurled clamping nut.
 - The drive torque is provided by the square drive.
 - The **rear part** of the extension is to DIN, so that the extension can be mounted in quick-change tapping collets or ER tapping collets with a square drive.
- 33 8425 – h6 shank with Weldon flat for use in Weldon/shrink-fit chucks or hydraulic chucks.

33 8435 – With internal coolant supply.

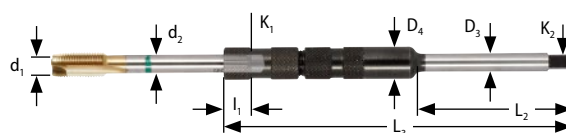
Application: For tapping in confined places, such as recesses, offsets, sharp edges on jigs, extremely deep internal threads, or directly into casting walls.



Note: Alternative hexagon collet for fixing the tap available on request.



338405



Type	32H	33 8405	32H	33 8425	32H	33 8435	for thread nominal Ø d ₁ DIN 371	for thread nominal Ø d ₁ DIN 374/376	for thread shank Ø d ₂	Ø D ₃		Ø D ₄		L ₂		L ₃
	Tap extension			33 8405 33 8435	33 8425	33 8405 33 8435				33 8405 33 8435	33 8425	33 8405 33 8435	33 8425	33 8405 33 8435		
		with HB flat	with through-coolant													
1	eShop	eShop	eShop	M2 – M2.6	M4	2.8	6	6	6.1	60	60	130				
1L	eShop	—	—	M2 – M2.6	M4	2.8	6	—	6.1	70	—	230				
2	eShop	eShop	eShop	M3	M4.5 – M5	3.5	6	6	7.5	60	60	130				
2L	eShop	—	—	M3	M4.5 – M5	3.5	6	—	7.5	70	—	230				
3	eShop	eShop	eShop	M4	M6	4.5	6	6	8.4	60	60	130				
3L	eShop	—	—	M4	M6	4.5	6	—	8.4	70	—	230				
4	eShop	eShop	eShop	M4.5 – M6	M8	6	7	8	12.1	60	60	130				
4L	eShop	eShop	eShop	M4.5 – M6	M8	6	7	8	12.1	70	70	230				
5	eShop	eShop	eShop	M7	M9 – M10	7	7	8	12.1	60	60	130				
5L	eShop	eShop	eShop	M7	M9 – M10	7	7	8	12.1	70	70	230				
6	eShop	eShop	eShop	M8	M11	8	8	8	13	60	60	130				
6L	eShop	eShop	eShop	M8	M11	8	8	8	13	80	80	230				
7	eShop	eShop	eShop	M9	M12	9	9	10	15	60	60	130				
7L	eShop	eShop	eShop	M9	M12	9	9	10	15	80	80	230				
8	eShop	eShop	eShop	M10	—	10	10	10	15	60	60	130				
8L	eShop	eShop	eShop	M10	—	10	10	10	15	80	80	230				
9	eShop	eShop	eShop	—	M14	11	11	12	18	90	90	130				
9L	eShop	eShop	eShop	—	M14	11	11	12	18	90	90	230				
10	eShop	eShop	eShop	—	M16	12	12	12	18	90	90	130				
10L	eShop	eShop	eShop	—	M16	12	12	12	18	90	90	230				
11	eShop	eShop	eShop	—	M18	14	14	14	22	90	90	200				
11L	eShop	eShop	eShop	—	M18	14	14	14	22	90	100	330				
12	eShop	eShop	eShop	—	M20	16	16	16	22	90	90	200				
12L	eShop	eShop	eShop	—	M20	16	16	16	22	90	100	330				
13	eShop	eShop	eShop	—	M22 – M24	18	18	18	26	100	100	200				
13L	eShop	eShop	eShop	—	M22 – M24	18	18	18	26	100	100	330				



HOLEX ER synchro tapping chuck, one piece

- With **minimum length adjustment (MLA)**, by means of a damping element.
- Internal coolant supply up to 50 bar.
- Increases the tool life of taps/thread formers.

Application:

- On machining centres with **synchronised spindles**.
- For compensating the difference in pitch between tap and synchronised spindle.
- For compensating the pitch tolerances of taps.

Optional extras: ER collets for machine taps No. 309399 and 309447.

33 8190 – Pull studs No. 308600 – 308806.

33 8193 – Pull studs No. 308760 – 308806.

33 8195 – Coolant feed pipe for HSK No. 309880.

Form
AD

ISO
7388-1



33 8190

Form
AD

ISO
7388-2

JIS
B6339



33 8193

Form
A

DIN
69893



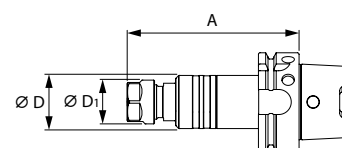
33 8195

DIN
1835
B, E



33 8198

for ER collet size			16	25	
32P	33 8190	Tapping chuck, ER synchro	SK 40	eShop	eShop
32P	33 8193		BT 40	eShop	eShop
32P	33 8195		HSK-A 63	eShop	eShop
32P	33 8198		Shank Ø 25 mm	eShop	eShop
Tapping range			M4 – M12	M6 - M20	
Length compensation by compression			mm	0.5	
Length compensation by tension			mm	0.5	
External Ø D			mm	34	45
Ø D ₁			mm	28	42
Dimension A (33 8190, 33 8193)			mm	85	100
Dimension A (33 8195)			mm	110	130
Dimension A (33 8198)			mm	75	110



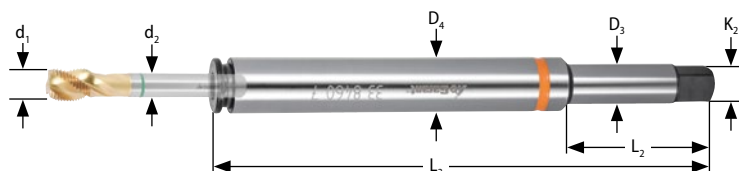
Garant Tap extensions

Suitable for: For mounting in quick-change tapping collets or ER tapping collets with a square drive.

Advantage:

- Time-saving exchange of taps with repetition accuracy and quick-change adapter.
- Almost any combination of extensions available, due to the identical diameter D₃ and drive square K₂.

Application: For tapping in confined places, such as recesses, offsets, sharp edges on jigs, extremely deep internal threads, or directly into casting walls.



Type	31M	33 8460	for thread nominal Ø d ₁ DIN 371	for thread nominal Ø d ₁ DIN 374/376	for thread shank Ø d ₂	Ø D ₃	Ø D ₄	K ₂	L ₂	L ₃
		Tap extension with quick-release chuck			mm	mm	mm	mm	mm	mm
2		eShop	M3	M4.5 – M5	3.5	12	12	9	45	145
3		eShop	M4	M6	4.5	12	12	9	45	145
4		eShop	M4.5 – M6	M8	6	12	14	9	45	145
5		eShop	M7	M9 – M10	7	12	16	9	45	145
6		eShop	M8	M11	8	12	16	9	45	145
7		eShop	M9	M12	9	12	18	9	45	145
8		eShop	M10	–	10	12	18	9	45	145
9		eShop	–	M14	11	12	20	9	45	145
10		eShop	–	M16	12	12	20	9	45	145
11		eShop	–	M18	14	18	24	14.5	49	149
12		eShop	–	M20	16	18	26	14.5	49	149
13		eShop	–	M22 – M24	18	18	29	14.5	49	149



FAHRION®
HIGH PRECISION

CENTRO|P SYNCHRO tapping chuck

- Extremely low axial forces for low flank pressure and perfect surface quality.
- Torsion damper and compensation mechanism in the circumferential direction.
- Depth of up to 150 mm can be achieved with Ø10 interference contour (for thread size M0.5-M3).
- Suitable for internal coolant supply of up to 80 bar.
- Suitable for taps and fluteless taps.
- Suitable for right-hand and left-hand threads.
- Suitable for blind and through holes.
- Minimum length compensation in push and pull direction.
- Drastically reduces the flank pressure on old and new CNC machining centres.

Advantage:

- Reliable processes thanks to smooth operation, even under torque load.
- Longer tool life for the tap and fluteless tap.
- Significantly smaller outer diameter than previously available.
- Significantly more internal cooling directly on the tool than conventional synchro chucks (for ER8).
- Concentricity is twice as good, for the lowest flank pressure.
- Damping when reversing the direction of rotation ensures fewer tool breakages.

Note:

Products No. 338131 – 338135 only when used with CENTRO/P collets (No. 309365 – 309372). The weaker the axial force, the better the quality, the lower the wear, the longer the service life, and the safer the process.

CENTRO|P SYNCHRO chucks are characterised by particularly long and precise guidance of the shaft with consistently high FAHRION quality.

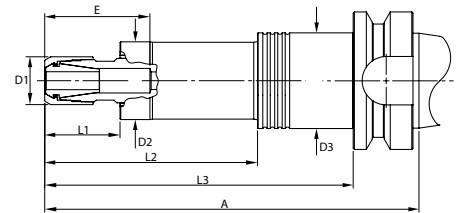


338131_11



338131_16

for ER collet size			8	11	16	
33F	33 8131	Tapping chuck, ER synchro	SK 40 short	—	eShop	eShop
33F	33 8132		SK 40 long	—	(eShop)	—
33F	33 8134		HSK-A 63 short	eShop	eShop	eShop
33F	33 8135		HSK-A 63 long	(eShop)	(eShop)	—
Tapping range (33 8131, 33 8132, 33 8135)			M0.5 - M3	M3 - M6	M5 - M8	
Tapping range (33 8134)			M0.5 - M3	M3 - M6	—	
Dimension A (33 8131)			mm	—	122	135
Dimension A (33 8132)			mm	—	247	—
Dimension A (33 8134)			mm	109	129	142
Dimension A (33 8135)			mm	191	254	—
Ø D ₁			mm	10	16	30
Ø D ₂			mm	20	26	34
Ø D ₃			mm	26	32	40
L ₁ (33 8131, 33 8134)			mm	18	25	34
L ₁ (33 8132, 33 8135)			mm	100	150	—
L ₂ (33 8131, 33 8134)			mm	55	71	84
L ₂ (33 8132, 33 8135)			mm	137	196	—
L ₃ (33 8131, 33 8134)			mm	83	103	116
L ₃ (33 8132, 33 8135)			mm	165	228	—
E			mm	25	35	37



LLAMBRICH
beyond precision

Keyless drill chuck made of stainless steel

- Self-clamping keyless drill chuck with high clamping forces.
- Very ergonomic, user-friendly.
- Ideal for the medical industry thanks to autoclave resistance.
- Made of highly corrosion-resistant steel.
- Highest quality and safety standards thanks to certification according to ISO 13485.
- Through-hole allows drills, reamers, pins and other tools to be used safely.

Application: For use in the chemical, food and beverage, medical and aviation industries.

Type		7,4-3/8	7,4-10	3,2-3/8
39Z	34 1760	Keyless drill chuck	eShop	eShop
Clamping range	mm	0.3 – 7.4	0.3 – 7.4	0.3 – 3
External Ø	mm	32	32	27
Drill head length open	mm	59	59	47
Drill head length closed	mm	66	66	51
Adapter	in	3/8-24	B10	3/8-24
Weight	kg	0.218	0.218	0.13



34 1760

33

Self-tightening drill chucks

High performance precision three-jaw drill chucks. High concentricity, keyless, self-tightening, high clamping force. Easily released by hand. Wearing parts hardened and exchangeable.

34 1000 Size 15 – With vernier for pre-setting micro drills and for micro drill adapter No. 341200.

Standard: DIN 238

Application: For bench and pillar drilling machines, milling machines, lathes, for use with arbors No. 342300 – 342850 or directly on machine spindles.

Type	31K 34 1250 Garant	33A 34 1000 ALBRECHT Präzisions Spannfutter	39R 34 1010 RÖHM	Clamping range	External Ø	Drill head length open	Drill head length closed	Drill chuck taper	largest drill chuck taper Ø
	Self-tightening drill chuck	High-performance self-tightening drill chuck	Spiro	mm	mm	mm	mm		mm
15	–	eShop	–	0.2 – 1.5	19	35	37	B 6	6.35
30	–	eShop	–	0.2 – 3	24	44	47.5	B 10	10.094
65/10	–	eShop	(eShop)	0.5 – 6.5	34	61.5	68	B 10	10.094
65/12	–	eShop	eShop	0.5 – 6.5	34	61.5	68	B 12	12.056
100/12	–	eShop	eShop	0.5 – 10	43	80	91.5	B 12	12.056
100/16	–	eShop	eShop	0.5 – 10	43	80	91.5	B 16	15.733
130	eShop	eShop	eShop	1 – 13	50	90.5	103	B 16	15.733
160/16	eShop	eShop	eShop	3 – 16	56	95.5	109	B 16	15.733
160/18	eShop	eShop	eShop	3 – 16	56	95.5	109	B 18 stub	17.431



34 1250



34 1000_15



34 1000_30-160



34 1010

Self-tightening drill chuck with diamond-coated jaws

With **diamond-coated jaws**, self-tightening.

Standard: DIN 238

Application: Especially suitable for **clamping solid carbide drills** (Group 12) and for **drills with hard shanks**. For bench and pillar drilling machines, milling machines, lathes, for use with arbors No. 342300 – 342850 or directly on machine spindles.

Note: Use high precision straight shank drill chuck arbors No. 342600.

Type	31K 34 1050 Garant	Clamping range	External Ø	Drill head length open	Drill head length closed	Drill chuck taper	largest drill chuck taper Ø
	Self-tightening drill chuck with diamond-coated jaws	mm	mm	mm	mm		mm
130	eShop	1 – 13	50	91	103	B 16	15.733



34 1050

SBF-plus self-tightening high-performance drill chucks with MT shank (single-piece)

34 1122 – **High performance** precision three-jaw drill chucks. High concentricity, keyless, self-tightening, high clamping force. Easily released by hand. Wearing parts hardened and exchangeable.

- 34 1115/1122 – ■ Drill chuck and MT shank are a single unit.
 ■ High concentricity, optimum stability.
 ■ Easy and quick change due to short design, advantageous for confined working areas.

Standard:

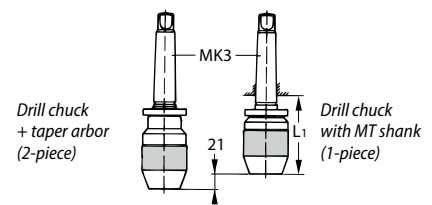
34 1122 – DIN 238

Application:

34 1122 – For bench and pillar drilling machines, milling machines, lathes, for use with arbors No. 342300 – 342850 or directly on machine spindles.

Note:
 34 1115/1122 – The self-tightening effect works only for clockwise rotation.

MT shank		2	3	4
33A 34 1115 ALBRECHT Präzisions Spannfutter	Self-tightening high-performance drill chuck with MT shank	eShop	–	–
31K 34 1122 Garant		eShop	eShop	eShop
33A 34 1120 ALBRECHT Präzisions Spannfutter		eShop	eShop	eShop
33A 34 1125 ALBRECHT Präzisions Spannfutter		eShop	eShop	eShop
Clamping range (34 1115)	mm	0.5 – 6.5	–	–
Clamping range (34 1122, 34 1120)	mm		1 – 13	
Clamping range (34 1125)	mm		3 – 16	
External Ø (34 1115)	mm	34	–	–
External Ø (34 1122, 34 1120)	mm		50	
External Ø (34 1125)	mm		56	
L ₁ open (34 1115)	mm	66	–	–
L ₁ open (34 1122, 34 1120)	mm	85	85	86.5
L ₁ open (34 1125)	mm	89	89	90
L ₁ closed (34 1115)	mm	71	–	–
L ₁ closed (34 1122, 34 1120)	mm	97.5	97.5	99
L ₁ closed (34 1125)	mm	102.5	102.5	103.5



34 1122



34 1115

Spare jaws

Suitable for:

- 34 1150 – Drill chucks No. 341000, 341250, 341120, 341122, 341125.
34 1160 – Drill chuck No. 341050.



34 1150

for drill chuck size		100	130	160
33A	34 1150	Jaws set, 3 pieces Standard	eShop	eShop
33A	34 1160	Jaws set, 3 pieces diamond coated	–	(eShop)
Length	mm	26.5	29	30



Garant Key-operated drill chucks with straight shank

- For clockwise and anticlockwise rotation.
- Slim design.
- Targeted delivery of coolant.

Advantage: ■ Very flexible applications due to the plain shank.
■ Optimum holding torques at the tool.

Supplied with: Torx chuck key with T-handle.



34 1265

Type	31B	34 1265	Clamping range	External Ø	Drill head length open	Drill head length closed	Overall length	Shaft length
		Drill chuck with straight shank	mm	mm	mm	mm	mm	mm
25		eShop	1 – 16	50	81.9	92	137.9	56
32		eShop	1 – 16	50	81.9	92	141.9	60

Self-tightening drill chucks – standard version

With drill chuck taper DIN 238

- 34 1425 – Simple, lightweight design.
34 1455 – **With clamping force protection (SKS)** for impact drills. For clockwise and anticlockwise rotation.
Application: For fitting to arbors No. 342300 - 342887 or directly on to the machine spindle.
34 1425 – Mainly for portable drills.
34 1400/1421 – For use on bench drills.



Drill chuck taper

34 1425

Type	39R	34 1400	32W	34 1425	39R	34 1455	Clamping range	External Ø			Drill head length closed			Drill chuck taper	largest drill chuck taper Ø
		ROHM		HOLEX		ROHM									
		Self-tightening drill chuck						34 1400	34 1425	34 1455	34 1400	34 1425	34 1455		
		Supra				Supra with SKS	mm	mm	mm	mm	mm	mm	mm		mm
6		eShop	–	–	–	–	0 – 6.5	32	–	–	65.6	–	–	B 10	10.094
8		eShop	–	–	–	–	0 – 8	35.8	–	–	73.4	–	–	B 12	12.065
10/12		eShop	eShop	eShop	eShop	–	0 – 10	40.2	34.3	40.2	86.1	79.4	75.7	B 12	12.065
10/16		eShop	eShop	eShop	–	–	0 – 10	40.2	43	–	89.1	92	–	B 16	15.733
13/12		eShop	eShop	eShop	eShop	–	1 – 13	42.5	42.5	42.5	90	97	90	B 12	12.065
13/16		eShop	eShop	eShop	eShop	–	1 – 13	46	42.5	42.8	101.5	101.6	89.3	B 16	15.733
16/16		eShop	eShop	eShop	–	–	3 – 16	51	50.5	–	107	106.7	–	B 16	15.733
16/18		eShop	eShop	eShop	–	–	3 – 16	51	50.5	–	107	110.9	–	B 18	17.431

Type	39Z	34 1421	Clamping range	External Ø	Drill head length closed	Drill chuck taper	largest drill chuck taper Ø
		LLAMBRICH					
		Keyless drill chuck	mm	mm	mm		mm
6		eShop	0 – 8	37	78	B 10	10.094
8		eShop	0 – 8	37	78	B 12	12.065
10/12		eShop	0 – 10	40	86	B 12	12.065
10/16		eShop	0 – 10	40	86	B 16	15.733
13/12		eShop	1 – 13	47	103	B 12	12.065
13/16		eShop	1 – 13	47	103	B 16	15.733
16/16		eShop	3 – 16	52	105	B 16	15.733
16/18		eShop	3 – 16	52	105	B 18	17.431



34 1421



34

With internal thread

Size 10-3/8; 10-1/2; 13-1/2 – **With clamping force protection** for impact drills.

Application: For use on bench drills.
For fitting to electric drilling machines.



Internal thread

34 1610

34 1615

Type	39R 34 1610 RÖHM	32W 34 1615 HOLEX	Clamping range		External Ø		Drill head length open		Drill head length closed		Adapter
	Self-tightening drill chuck		34 1610 mm	34 1615 mm	34 1610 mm	34 1615 mm	34 1610 mm	34 1615 mm	34 1610 mm	34 1615 mm	in
10-3/8	Supra eShop	eShop	0.5 – 10	0.5 – 10	40	39	66	71	73.7	83	3/8-24
10-1/2	–	eShop	–	0.5 – 10	–	39	–	71	–	83	1/2-20
13-3/8	eShop	eShop	1 – 13	2 – 13	40.2	43	76.3	79	83.6	90	3/8-24
13-1/2	eShop	eShop	1 – 13	2 – 13	42.8	43	76	79	83.3	90	1/2-20
16-5/8	eShop	–	3 – 16	–	46	–	87.5	–	97.5	–	5/8-16

ALBRECHT
Präzisions Spannfutter

Chuck removal tool for drill chucks

Application: Special tool for the removal of drill chucks from tapered arbors.



Type	33A 34 1140	suitable for drill chuck taper	Length	Width	Thickness
	Chuck removal tool for drill chucks		mm	mm	mm
1	eShop	B 6	120	20	10
2	eShop	B 10; B 12	170	30	10
3	eShop	B 16; B 18	210	40	12



Keyless drill chucks

- **Keyless drill chuck** with self-tightening locking mechanism. No additional locking required (not even for impact drilling).
- Very ergonomic, user-friendly, hexagon flats for wrench assistance.
- Good concentricity.
- **Through hole version for right-hand and left-hand operation** (thread M5 or M6).
34 2204 – Single-piece drill chuck; the drill chuck can be opened with one hand when the spindle of the drilling machine is stopped. Extremely short design.
- 34 2200–2205 – Equipped with start inhibit.
- 34 2200/2205 Size 13-3/8; 13-1/2 – **Chamfers made of carbide** for wear reduction.
- 34 2207/2208 – Chamfers made of carbide for wear reduction.



34 2200

34 2205



34 2204

34 2208

Type	39R	34 2200	39R	34 2204	39R	34 2205	Clamping range	External Ø		Drill head length open		Drill head length closed		Adapter	maximum machine power		
								34 2200 34 2205	34 2204	34 2200 34 2205	34 2204	34 2200 34 2205	34 2204		34 2200 34 2205	34 2200	34 2204 34 2205
	Drill chuck with keyless locking mechanism Extra RV																
	Plastic version	Metal version	Metal version														
					mm	mm	mm	mm	mm	mm	mm	in	W	W			
10-3/8	eShop	—		—	1 – 10	42.7	—	55	—	60.9	—	3/8-24	550	—			
10-1/2	eShop	—		—	1 – 10	42.7	—	55	—	60.9	—	1/2-20	1000	—			
13-3/8	eShop	—		—	1.5 – 13	42.7	—	64.5	—	72.4	—	3/8-24	1000	—			
13-1/2	eShop	eShop		eShop	1.5 – 13	42.7	42.4	64.5	51	72.4	60.9	1/2-20	1000	1100			
13-9/16	—	eShop		—	1.5 – 13	—	42.4	—	51	—	60.9	9/16-20	—	1100			

Type	32W	34 2207	32W	34 2208	Clamping range	External Ø	Drill head length open	Drill head length closed	Adapter	maximum machine power
										
	Drill chuck with keyless locking									
	Metal version									
					mm	mm	mm	mm	in	W
13-3/8		eShop		—	1.5 – 13	43.1	63	74	3/8-24	1100
13-1/2		—		eShop	1.5 – 13	42	64.5	71.2	1/2-20	1100

RÖHM Self-tightening drill chuck for hand power drills

- Automatic tightening whilst drilling, proportional to the cutting force (maintains the clamping force even under tough conditions!).
- Sturdy design (functional components of metal).
- **With retaining ring.**
- With clamping force protection (clamping and locking using only one hand!).

Application:

- For heavy-duty cordless and mains power drills.
- Cordless impact power drills up to 36 Volt.
- Reverse torque up to 50 Nm.

Note:

- **No through holes** – Drill chucks thus have to be secured tightly to the spindle.
- **General purpose** – with retaining ring for use on machines with / without spindle stops.



Type	39R	34 1710	Clamping range	External Ø	Drill head length open	Drill head length closed	Adapter
		Self-tightening drill chuck					
		Supra-SK 13E					
13-1/2		eShop	mm 1.5 – 13	mm 42.9	mm 72	mm 79.3	in 1/2-20

Gear rim drill chuck with key

Application: For universal drilling on portable electric drills, **hammer drills** and pillar drills.

With drill chuck taper DIN 238

For clockwise and anticlockwise rotation.
With drill chuck taper DIN 238 for fitting to arbors
No. 342300 - 342850 or directly on to the machine
spindle.

- 34 2215 – Jaws are hardened.
- 34 2220 – Key guide not hardened.



Drill chuck taper



34 2215



34 2220

Type	39R	34 2215	32W	34 2220	Clamping range		External Ø		Drill head length closed		Drill chuck taper	largest drill chuck taper Ø	suitable gear rim socket
													
	Gear rim chuck												
		Prima		34 2215 mm	34 2220 mm	34 2215 mm	34 2220 mm	34 2215 mm	34 2220 mm		mm		
6/10	eShop	—	0.5 – 6.5	—	29.5	—	52.5	—	B 10	10.094	S1		
8	eShop	—	0.5 – 8	—	29.5	—	57.5	—	B 12	12.065	S2		
10/12	eShop	eShop	0.8 – 10	0.8 – 10	34.5	33.5	60.5	61.4	B 12	12.065	S2		
10/16	eShop	eShop	1 – 10	1 – 10	42.8	42.4	77	77	B 16	15.733	S2		
13	eShop	eShop	1.5 – 13	1.5 – 13	42.8	42.4	77	77	B 16	15.733	S2		
16/16	eShop	eShop	3 – 16	3 – 16	50	50	86.5	86.5	B 16	15.733	S3		
16/18	eShop	eShop	1 – 16	3 – 16	56.5	50	98	98	B 18	17.78	S3		

With internal thread

Jaws are hardened.
For clockwise rotation.
Size 10-3/8–13-1/2 – **Chuck secured with a screw** (left-hand thread), therefore suitable for clockwise and anticlockwise rotation.



Internal thread



34 2225

Type	39R	34 2225	Clamping range	External Ø	Drill head length closed	Adapter	suitable gear rim socket
		RÖHM					
		Gear rim chuck					
		Prima					
8-3/8		eShop	mm 0.5 – 8	mm 29.5	mm 53	in 3/8-24	S1
10-3/8		eShop	mm 0.8 – 10	mm 34.5	mm 61	in 3/8-24	S2
10-1/2		eShop	mm 0.8 – 10	mm 34.5	mm 61	in 1/2-20	S2
13-1/2		eShop	mm 1.5 – 13	mm 42.4	mm 74	in 1/2-20	S2
13-3/8		eShop	mm 1.5 – 13	mm 42.8	mm 74	in 3/8-24	S2
16-5/8		(eShop)	mm 1.5 – 16	mm 56.5	mm 100.5	in 5/8-16	S3



HOLEX Accessories for drill chucks

Replacement key

Type	32W	34 2245	Pin Ø
		Chuck key for gear rim chuck	
			mm
S1		eShop	4
S2		eShop	6
S3		eShop	8



34 2245

Adapter for drill chuck with internal thread 1/2 inch/ 20 tpi

Adapter with SDS-Plus shank to 1/2 inch / 20 tpi.

32X	34 2150	Adapter with shank SDS-Plus to 1/2 inch 20 tpi	eShop
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34 2150

ALBRECHT
 Präzisions Spannfutter

Micro drill adapters

Precision operation due to ball-bearing retaining ring. Automatic return to initial position by spring retraction.

Suitable for: No. 341000 size 15.

Application: For holes up to Ø 1.5mm. To produce very small holes by manual feed, even on large machines.


34 1200

Type	33A	34 1200	Shank type	Drill stroke	Overall length	Taper size
		Micro drill adapter		mm	mm	
13		eShop	13 mm Ø	20	91	B 6
MK1		eShop	MK 1	20	107	B 6


Morse taper drill chuck arbors

With MT shank and tang.

34 2500 – Precise economy version.

 34 2600 – The **high precision version** offers maximum concentricity and is recommended for self-tightening high-performance drill chucks No. 341000.

Application: For mounting drill chucks on drills, lathes, jig borers etc.


34 2500

MT / drill chuck taper	32X	34 2500	33A	34 2600	Drill chuck taper DIN 238	Taper Ø D	MT / drill chuck taper	32X	34 2500	33A	34 2600	Drill chuck taper DIN 238	Taper Ø D
		HOLEX							HOLEX				
		Drill chuck arbor with MT shank		MT drill chuck arbor, precision version					Drill chuck arbor with MT shank		MT drill chuck arbor, precision version		
						mm							mm
0/6		—		eShop	B 6	6.35	3/16		eShop		eShop	B 16	15.733
0/10		—		eShop	B 10	10.094	3/18		eShop		eShop	B 18	17.78
1/10		eShop		eShop	B 10	10.094	3/22		eShop		eShop	B 22	21.793
1/12		eShop		eShop	B 12	12.065	3/24		—		eShop	B 24	23.825
1/16		eShop		eShop	B 16	15.733	4/16		eShop		eShop	B 16	15.733
1/18		eShop		eShop	B 18	17.78	4/18		eShop		eShop	B 18	17.78
2/10		eShop		eShop	B 10	10.094	4/22		—		eShop	B 22	21.793
2/12		eShop		eShop	B 12	12.065	4/24		—		eShop	B 24	23.825
2/16		eShop		eShop	B 16	15.733	5/18		—		eShop	B 18	17.78
2/18		eShop		eShop	B 18	17.78	5/22		—		eShop	B 22	21.793
2/22		eShop		eShop	B 22	21.793							

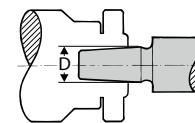
HOLEX Drill chuck arbors

Through hardened and ground. High long-term concentricity because swarf cannot be pressed into the hardened surface and no notches can occur from minor impacts.

Standard: Drill chuck taper **DIN 238**.



34 2300



Drill chuck arbors with straight shank

High precision version with plain shank.

Application: For mounting drill chucks on to milling machines, automatic system etc. The plain shank can be clamped in a **collet** or in a **milling chuck**.

Shank Ø / drill chuck taper	32X	34 2300	Drill chuck taper DIN 238	Taper Ø D	Plain shank length	Shank Ø / drill chuck taper	32X	34 2300	Drill chuck taper DIN 238	Taper Ø D	Plain shank length
		Straight shank drill chuck arbor		mm	mm			Straight shank drill chuck arbor		mm	mm
6/6		eShop	B 6	6.35	35	10/12		eShop	B 12	12.065	40
8/10		eShop	B 10	10.094	35	16/16		eShop	B 16	15.733	50
10/10		eShop	B 10	10.094	40						

Drill chuck arbors with MT shank and internal locking thread

High precision version with MT shank and internal locking thread.

Application: For mounting drill chucks on milling machines with Morse tapers.

MT / drill chuck taper	32X	34 2700	Drill chuck taper DIN 238	Taper Ø D	Internal pull thread
		Morse taper arbor with locking thread		mm	
2/12		eShop	B 12	12.065	M10
2/16		eShop	B 16	15.733	M10
3/16		eShop	B 16	15.733	M12



34 2700

Drill chuck arbors with steep taper shank and locking thread

High precision version with DIN taper shank and locking thread.

34 2887 – **Steep taper to DIN 69871 A, Part 1** with tool changer flange and thread for pull stud.

Application: For mounting drill chucks on milling machines with DIN 2080 steep tapers.

Size 40/16 – With internal locking thread M16 and **snap ring groove** for **automatic clamping** (e.g. Maho, Deckel, Mikron etc., also suitable for all standard machines **with manual clamping**).

SK / drill chuck taper	32A	34 2886	32A	34 2887	Drill chuck taper DIN 238	Taper Ø D	Internal pull thread	Colour code for suitable shank
		Steep taper (SK) drill chuck arbor				mm		
40/16		eShop		eShop	B 16	15.733	M16	
50/16		–		eShop	B 16	15.733	M24	



34 2886_40/16

Size 40/16 with snap ring groove



34 2887_50/16

HOLEX Morse taper reducing sleeves

Through hardened, internal and external tapers ground.

Standard: **DIN 2185**



34 3000

MT external / internal	1/0	2/1	3/1	3/2	4/1	4/2	4/3	5/1	5/2	5/3	5/4	6/3	6/4	6/5
32X 34 3000	MT reducing sleeve	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Overall length	mm	80	92	99	112	124	124	140	156	156	156	171	218	218

HOLEX Long Morse taper sleeves

External taper ground.

34 3510 – **Extension sleeve** (with identical external and internal taper).

34 3520 – **Extended reducing sleeve** (internal taper smaller than external taper).

34 3530 – **Expansion sleeve** (internal taper larger than external taper).

Standard: Similar to **DIN 2187**.



34 3510

MT external / internal	32X	34 3510	32X	34 3520	32X	34 3530	Overall length	MT external / internal	32X	34 3510	32X	34 3520	32X	34 3530	Overall length
		MT extension sleeve		MT extended reducing sleeve		MT expansion sleeve	mm			MT extension sleeve		MT extended reducing sleeve		MT expansion sleeve	mm
2/1		–		eShop		–	160	2/2		eShop		–		–	175
3/1		–		eShop		–	175	3/3		eShop		–		–	215
3/2		–		eShop		–	194	4/4		eShop		–		–	265
4/1		–		eShop		–	200	5/5		eShop		–		–	335
4/2		–		eShop		–	215	1/2		–		–		eShop	160
4/3		–		eShop		–	240	2/3		–		–		eShop	196
5/3		–		eShop		–	268	3/4		–		–		eShop	240
5/4		–		eShop		–	300	4/5		–		–		eShop	300
1/1		eShop		–		–	145								

Colour code: ■ SK 40 ■ SK 50

AMF Drill drifts for Morse taper tools with tang

Standard: DIN 317

Application: For Morse taper tools to DIN 228 with tang.

Type		0	1	3	4	5
35A 34 3800	Drill drift	eShop	eShop	eShop	eShop	eShop
for MT		0	1; 2	3	4	5; 6
Overall length	mm	90	140	190	225	265

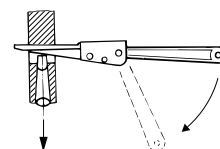


AMF Semi-automatic drill drift

- One-handed operation without impact tools (avoids damage to spindle).
- Tools are released by a wedge effect.

Application: For Morse taper tools to DIN 228 with tang.

Type	35A 34 3850	for MT	Overall length
	Semi-automatic drill drift		mm
1-3	eShop	1-3	317
4-6	eShop	4-6	380



Taper cleaners and cylindrical cleaners

- Wide spacing for collecting swarf and dirt.
- Fleece is resistant to oil and emulsions.

Advantage:

34 3700/3705/3720/3730 – **Plastic version** non-warping, for high precision use. Fleece strips with additional grooves.

Application: For cleaning internal tapers / external tapers / internal bores on machine spindles, sleeves, and tool arbors (e.g. shrink-fit chucks / hydraulic chucks).

Note:

34 3700 – HSK sizes are compatible with HSK-E and HSK-F. For example: HSK-E 50 = size HSK50; HSK-F = always one size smaller, for example HSK-F63 is size HSK50.

for mounting type	37E 34 3700	37E 34 3705	37E 34 3710
	Garant		HOLEX
	Taper cleaner Plastic	External cleaner Plastic	Taper cleaner Wood
MK1	eShop	—	eShop
MK2	eShop	—	eShop
MK3	eShop	—	eShop
MK4	eShop	—	eShop
MK5	eShop	—	eShop
SK30	eShop	—	eShop
SK40	eShop	—	eShop
SK45	eShop	—	—
SK50	eShop	—	eShop
HSK32	eShop	—	—
HSK40	eShop	eShop	—
HSK50	eShop	eShop	—
HSK63	eShop	eShop	—
HSK80	eShop	eShop	—
HSK100	eShop	eShop	—

Pin Ø	37E 34 3720
	Garant
	Cylindrical cleaner Plastic
mm	
6	eShop
8	eShop
10	eShop
12	eShop
14	eShop
16	eShop
18	eShop
20	eShop
25	eShop
32	eShop

for arbor type	37E 34 3730
	Garant
	Taper cleaner for ER, Plastic
ER11	eShop
ER16	eShop
ER32	eShop



34 3705



34 3700



_SK40



_HSK100

34 3720_25
For parallel bores34 3720_16-32
For parallel bores34 3730
For ER collet chucks

Morse taper clamping sleeve

Through hardened, bore and external taper ground.

Standard: DIN 6328

Cutting data: For fitting into adjustable adapters angle heads, quick-change tapping collets, and multi-spindle machines where the spindles are close together.

Application: For mounting parallel shank taps and reamers with square drive.

Note: Not suitable for milling work!



Tool with parallel shank and square.



Morse taper clamping sleeve

34 5000



MT/Ø	37°	34 5000	for shank Ø	for shank □
		Morse taper clamping sleeve for taps	mm	mm
1/3,5		eShop	3.5	2.7
1/4		eShop	4	3
1/4,5		eShop	4.5	3.4
1/5		eShop	5	3.8
1/5,5		eShop	5.5	4.3
1/6		eShop	6	4.9
1/7		eShop	7	5.5
1/8		eShop	8	6.2
2/5,5		eShop	5.5	4.3
2/6		eShop	6	4.9
2/7		eShop	7	5.5
2/8		eShop	8	6.2
2/9		eShop	9	7
2/10		eShop	10	8
2/11		eShop	11	9

MT/Ø	37°	34 5000	for shank Ø	for shank □
		Morse taper clamping sleeve for taps	mm	mm
2/12		eShop	12	9
3/8		eShop	8	6.2
3/9		eShop	9	7
3/10		eShop	10	8
3/11		eShop	11	9
3/12		eShop	12	9
3/14		eShop	14	11
3/16		eShop	16	12
4/12		eShop	12	9
4/14		eShop	14	11
4/16		eShop	16	12
4/18		eShop	18	14.5
4/20		eShop	20	16
4/22		eShop	22	18
4/25		eShop	25	20

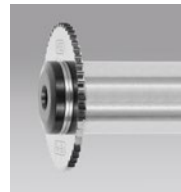
HOLEX

Slitting saw arbors

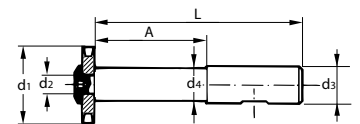
Precisely tempered, ground on the external and internal Ø, shank to DIN 1835 B. Concentricity 0.01 mm. **For side lock arbor with bore Ø (d₃) 20 or 25 mm.**

Application: For holding slitting saws No. 175000 – 179820 with Ø (d₁) from 20 – 100 mm and saw blade thicknesses from 0.2 – 6 mm.

Supplied with: Arbor, clamping screw and intermediate ring.



34 5510



for saw blade Ø d ₁	mm	20	25	32	40	50	63	80	100
32X 34 5510	Slitting saw arbor	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
A	mm	40	50	55	60	78	78	92	92
Length L	mm	90	100	105	110	136	136	150	150
Ø d ₂	mm	5	8	8	10	13	16	22	22
Ø d ₃	mm	20	20	20	20	25	25	25	25
Ø d ₄	mm	10	13	16	19.5	24.5	24.5	34	39.5

Set of slitting saw arbors

Supplied with: No. 345510 size 20 – 63, including a wooden case.

32X 34 5555

Set of slitting saw arbors

eShop



34 5555

Spare parts for slitting saw arbors

for saw blade Ø d ₁	mm	20	25	32	40	50	63	80	100
32X 34 5561	Spare washer for slitting saw arbor	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
32X 34 5566	Spare screw for slitting saw arbor	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop



34 5561



34 5566

1121

34

Garant SHRINK-FIT AND COOLING UNIT

- Unique design.
- Modular.
- Easy to use.
- Everything in its right place.

Ergonomic handle

High-power coil

- Shrink range $\varnothing$ 3 – 32 mm (carbide + HSS)
- Roller spring supported coil guide
- QTH = QuickToolHolder (integrated tool tray)

Shrink-fit tool length

up to 500 mm

Basic tool holders

No. 35 4225 – 35 4227

Including air cooling

at the shrink-fit chuck position



Intuitive new touch control

Modular design

- Shrink-fit station including air cooling No. 35 4210_SU1
- Cooling unit including cooling air supply No. 35 4215_CU1

Perforated panel

for using GARANT Easyfix systems
No. 96 3001 – 96 3058.

Contact cooling

- Positively driven
- Contour-dependent

Storage for the cooling inserts

Tool storage

Stainless steel surface

Storage for screening plates

$\varnothing$ 3 – 32 mm (no. 35 4240)

Garant Shrink-fit and cooling unit

Shrink-fit unit set SU1 / CU1

Shrink-fit unit with integral cooling at the shrink-fit chuck position.

Maximum shrink-fit tool length 500 mm.

Storage for screening plates.

- Application:**
- **For contour-dependent cooling.**
 - For shrinking shanks of carbide and HSS in and out.
 - Shrink range 3 – 32 mm.
- Supplied with:**
- 4 screening plates $\varnothing$ 3 – 32 mm No. 354240.
 - Clamping ring.
 - 1 pair heat-resistant gloves.
- Optional extras:**
- Suitable base cabinet No. 354291.
 - Spare screening plates No. 354240.
 - Basic tool mountings No. 354225 – 354227.
 - Cooling adaptor for air cooling No. 354235 – 354236.
 - **Cooling unit No. 354215 CU1.**

Type		SU1
3 IE 35 4210	Shrink-fit unit	eShop
Width	mm	700
Height	mm	986
Depth	mm	533
Power supply		3-AC 400 V/50 Hz + N + PE 230 V/50 – 60 Hz
Power	kW	11
Weight	kg	45



35 4210



Very easy to use, including by selecting pre-parametrised shrink processes.

Cooling unit CU1 with active cooler

- Storage for cooling inserts.
 - Stand-alone variant.
 - 2 x positively driven contact cooler (no damage to the tool).
- Application:**
- **For contour-dependent cooling.**
- Supplied with:**
- Includes active cooler.
 - 5 cooling inserts $\varnothing$ 6 – 32 mm No. 354260.
- Optional extras:**
- Suitable sub-frame No. 354290.
 - Cooling inserts No. 354260 – No. 354279 in the spare parts list.

Note: 1.4 litres ethylene glycol (such as Glysantin G48) are required for operation of the active cooler.

Type		CU1
3 IE 35 4215	Cooling unit	eShop
Width	mm	430
Height	mm	902
Depth	mm	533
Weight	kg	39
Active cooler width	mm	413
Active cooler height	mm	415
Active cooler depth	mm	283
Active cooler power	kW	0.47
Active cooler weight	kg	22
Active cooler power supply		230 V / 50 – 60 Hz



35 4215

Accessories for GARANT shrink-fit unit SU1 / cooling unit CU1

Screening plates

Suitable for: Shrink-fit unit No. 354210 SU1.

Note: For slim shrink-fit chuck screening plate No. 354241.



35 4240_12-20



35 4240_3-5

for clamping Ø	mm	3-5	6-12	12-20	20-32
31E 35 4240	Garant Screening plate for coil SU1	eShop	eShop	eShop	eShop
for clamping Ø	mm	3 – 5	6 – 12	12 – 20	20 – 32

Basic tool mountings

Suitable for: Shrink-fit unit No. 354210 SU1 and cooling unit No. 354215 CU1.

for SK taper shank			30	40	50		
31E	35 4225	 Basic tool mounting for SK	eShop	eShop	eShop		
for HSK taper shank			32	40	50	63	100
31E	35 4226	 Basic tool mounting for HSK	eShop	eShop	eShop	eShop	eShop



35 4225



35 4235

4.5° cooling adapter for air cooling

- Precise enclosure of the clamping profile of the tool.
 - Quick cooling of the heated shrink-fit chuck.
- For shrink-fit chucks with engagement lengths up to 120 mm.

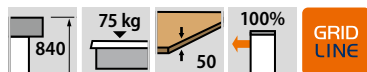
Note: For mounting on tool mounting No. 354225 – 354227. For shrink-fit chucks 120 – 200 mm on request.



35 4235

for clamping Ø	mm	3-5,9	6-9	9,1-12	12,1-16	16,1-22	22,1-32
31E 35 4235	Garant Cooling adapter short 4.5°	eShop	eShop	eShop	eShop	(eShop)	(eShop)

Base cabinet for SU1 and CU1



- Body with 3 drawers and one cupboard in RAL 7035 light grey and drawers RAL 7016 anthracite grey. (Storage space for the active cooler of the CU1 cooling unit).
- Body of welded sheet steel, with bench top of Beolin, edges veneered with 3 mm thick graphite.

Note: No complaints will be accepted for changes in colour due to exposure to sun and light.



35 4291

Width	mm	1500
31E 35 4291	Garant GRID LINE Base cabinet for shrink-fit unit	eShop
Height	mm	840
Width	mm	1500
Depth	mm	700



35

Shrink-fit unit

- Fully automatic shrink-fitting: Perfectly clamped tools in seconds without the need for manual work.
- Maximum safety: No overheating or damage to the shrink-fit holders thanks to intelligent technology.
- Easy to use: Intuitive control using a graphical user interface (GUI) that enables fast, accurate working.
- Future-proof technology: Thanks to the USB port and optional RFID extension, you are ideally equipped for Industry 4.0.
- Durable and reliable: An investment that pays off through sustainable equipment management and service packages for air- and water-cooled models.
- Clamping range for carbide: Ø 3 mm – 32 mm / HSS Ø 6 – 32 mm / optionally up to Ø 50 mm with quick-change spool.
- Fully automatic cooling and subsequent drying of the shrink-fit chucks.
- Cool down shrink-fit chucks in seconds with the "Cool Down" technology without touching the hot part.
- Improved blow-off function for optimum drying of the shrink-fit chucks.
- Ergonomic working height of 1300 mm.

Application: For machine interface SK40; SK50; HSK-A63 and HSK-A100. Automatic shrink-fit unit with liquid cooling and drying.

Supplied with: 4 screening plates Ø 3 – 32 mm. 1 pair safety gloves. 1 litre coolant concentrate.

Note: Tool mountings available on request.



35 4300

Type	WK	
35B 35 4300 Shrink-fit unit ISG-3410	—	
Width	mm	800
Height	mm	560
Depth	mm	1720
Power supply		400V / 16A / 50Hz
Power	kW	11
Compressed air	bar	4
Tank capacity	l	50
Cooling time	s	20
Weight	kg	128

ThermoGrip® shrink-fit unit

- Easily enter shrink parameters by scanning barcodes.
- Energy-saving induction technology for a long tool life.
- Precise centering of the tool.
- Only a small amount of space required and suitable for mobile use.
- Very high holding force and lasting strength, even in oily environments.
- ThermoGrip® shrink-fit units have been synonymous with innovative premium shrinking equipment for over 20 years.
- Clamping range Ø 3 – 32 mm for all shrink-fit chucks T, TSF, TB (HSS Ø 6 - 16 mm / carbide Ø 3 - 32 mm).
- Integrated air cooling (cooling adapter available as an option).
- Maximum tool length for HSK-A63 450 mm.
- Ideal for workbenches.

Supplied with:

- 1 barcode scanner
- Magnetic strip set
- Shrink-fit chuck catalogue
- Safety gloves
- Screening plates
- Operating instructions

Optional extras: Screening plates No. 354241, tool mounting No. 354225 – 354227.



35 4405

Type	ISG1200	
35B 35 4405 Shrink-fit unit	(eShop)	
Length	mm	410
Width	mm	315
Height	mm	767
Power supply		400V / 16A / 50Hz
Power	kW	6.5
Cooling time	s	300
Weight	kg	25

HOLEX Length setting gauge (manual pre-setting)

Tools are set to length from 20 - 125 mm and are held in the jaws by a clamping spring - no force needs to be applied.

Suitable for: All popular parallel tools from Ø 3 - 20 mm.

Advantage: Pre-setting of tool free lengths up to 125 mm, saves time due to ease of operation, tools do not "drop through" e.g. for shrink-fit arbors, high stability, high degree of safety.

Application: Tools can be pre-set to 0.5 mm accuracy, suitable for all tool arbors (such as shrink-fit arbors, ER collets, Weldon arbors etc.).



		125
32Z 35 8400	Length setting gauge	eShop

Garant Data clip for tool arbors

- Flexible plastic with locking stop.
- Area provided for an adhesive label (size 25×54 mm).

Suitable for: **Type SK** – DIN 69871, JIS B 6339 (MAS-BT), ANSI.
Type HSK – DIN 69893, form A, B, E, F, T.

Advantage:

- For insertion into the toolchanger groove.
- After presetting the tools, the labels are printed off with the measured dimensions and stuck on to the data clip.

Application:

- No need for tedious handwriting and rubbing off the sizes.
- Clean and tidy (get rid of the paper chaos!)



35 9140

for Ø tool collar	mm	63	63-OR	63-GY	63-RD	100	100-OR	100-GY	
31T 35 9140	Data clip for tool arbors	eShop	eShop	eShop	eShop	eShop	eShop	eShop	10
Colour		blue	orange	grey	red	blue	orange	grey	
suitable for colour code									

HOLEX Data clip for VDI tool arbors

Flexible plastic with locking stop.
Area provided for an adhesive label. (Size 25 × 54 mm).



35 9142



for VDI	30B	30R	40B	40R	
32B 35 9142	Data clip for VDI tool arbors	eShop	eShop	eShop	10
Colour	black	red	black	red	
suitable for colour code					

Colour code: SK 40 TS 63 SK 40 TS 63 SK 50 TS 100 SK 50 VDI 30



35

Pre-setting device UNO

- **Large multi-touch screen** with intuitive and simple Microvision interface.
- Calibration device on the SK50 tool mounting.
- Simple storage for 3 adapters with SK50 inserts.
- Quick adjustment of both axes by release-by-touch (**X/Z**).
- Fine adjustment of both axes (X / Z) using rotary wheel.
- Spindle with 4×90° and spindle brake.
- Camera with 32x magnification.

The device operates in conjunction with the optional Hoffmann Group Connected software solutions for use in production environments.

Application: For measuring and pre-setting tools at the machine in production or when planning work.

Supplied with: Thermal label printer with labels, simple modular subframe cabinet, measurement software in all major foreign languages, **commissioning and training included (1/2 day).**

Optional extras: The Haimer pre-setting devices are compatible with the GARANT reducers No. 354771; 354773; 354775; 354777 and 354779. Haimer reducers are available on request.

**Commissioning and
one-day training included**



35 5020_UPCAM

Type	UP	UPCAM	UAF	UAFCAM	UAD	UADCAM
34H 35 5020 UNO pre-setting device	—	—	—	—	—	—
Base toolholder	SK50 ultra precision spindle					
Quick adjustment	pneumatic					
Measuring range X	400					
Measuring range Z	400					
Snap gauge X	100					
Width base	1294					
Overall height	1735					
Overall width	2264					
Depth	590					
Weight	300					
Spindle load	30					
Second camera in the lens carrier	no	yes	no	yes	no	yes
Display size	22	22	24	24	24	24

PRE-SETTING DEVICE UNO IN DETAIL

Technical data

- Repetition accuracy of +/- 2µm and concentricity 2µm.
- **Edgefinder** laser for finding the tool cutting edge quickly.
- Post processor for data transmission to the machine and editor for adapting the machine interface to the pre-setting device.
- Compatible with Hoffmann Group Connected Manufacturing. Windows 10 operating system.

„Release-by-Touch“ one-handed operation

- Easy to operate without buttons / keys.
- Intelligent sensor control for movement of axes.

Robust design

- Sturdy durable cast iron design.
- Thermally optimised material combination for better repetition accuracy.

Manual fine adjustment

- µm-precision infinite fine adjustment of the X and Z axes for high-precision positioning of the tool cutter.
- High-quality Heidenhain glass scales both in X and Z axis.

Driven axes

- 355020 UAF, UAFCAM – motorised driven spindle (C-axis)
- 355020 UAD, UADCAM – fully automatic measurement with the driven axes X-, Z- and C.



Second camera in the lens carrier (355020 UPCAM, UAFCAM, UADCAM)

- For measuring the turning centre height of turning tools.
- Adjustable LED incident light illumination.

Digital camera

- Camera with 22-times magnification.
- Adjustable incident light for checking the cutting edge.

Intuitive operation on up to 24" large touch screen

- High-performance processor with image processing system, Microvision.
- Integrated USB and LAN interfaces.
- External camera for taking photos of tools.
- Unlimited storage of zero points, tools, and tool lists.
- With all common measuring functions.

SK50 ultra precision spindle, manual

- Vacuum clamping: pneumatic retraction of arbors with ISO taper size 50.
- Pneumatic spindle indexing at 4 × 90° and 3 × 120°.
- Spindle brake, pneumatic.
- Automatically operated spindle with auto-focus and automatic drive version.



UNO RANGE

Unique high-tech features in entry-level class.

As well as precision, speed and reliability, the UNO range impresses with numerous features. The timeless design and improved ergonomics set new standards. High-quality components, e.g. from Festo/SMC, Bosch, Heidenhain, IDS are used. Optionally, the UNO range offers you key benefits for top-level tool measurement in the expansion levels autofocus and automatic drive.

UNO premium (355020 UP, UPCAM) – the right solution for virtually all users.

The highest standard for manual tool pre-setting. Operator-independent results, easy to use with the option of digital data transmission.

UNO autofocus (355020 UAF, UAFCAM) – the right device for demanding measurement tasks. Benefit from semi-automatic device handling for many tool measurements in a single plane.

UNO automatic drive (355020 UAD, UADCAM) – thanks to the fully automatic tool measuring, the high-end variant offers absolute operator independence and can be used with virtually no user knowledge. This promises maximum quality and time savings, even for complex tools on several planes.



Further UNO models available on request from the Hoffmann Group.



autofocus

- Automatic focussing of the cutting edge.
- Motorised spindles.
- With convenient modular cabinet and 24-inch, 10-point touch display as standard.



automatic drive

- For fully automatic tool pre-setting and measurement independent of the operator (CNC-controlled, 3 axes).
- With convenient modular cabinet and 24-inch touch display as standard.



(optional) ISS spindle

- ISS-U universal ultra precision spindle with integrated clamping system.
- Without loss of measurement path.
- Automatic adaptor recognition.
- Radial run-out $\leq 2 \mu\text{m}$ and high adaptor interchange accuracy.



VIO RANGE

Top comfort and functionality.

Optimise process reliability in your production thanks to the use of fully automatic measuring procedures. The holistic device concept enables integration into all production workflows, including existing ones. Maximum stability and precision. The FEM-optimised and thermostable cast iron design of the VIO linear range permits precise measurement results, even in the long term. Furthermore, highly dynamic linear drives with no wear characteristics ensure precise long-term quality. The parallel drive and guidance system ensures optimum distribution of forces and guarantees a measurement repetition accuracy of $\pm 2 \mu\text{m}$.

Highlights

- Low distortion under maximum permissible load due to high rigidity
- FEM-optimised and thermostable cast iron design
- Maximum tool weight 160 kg
- Maximum tool length and diameter 1000 mm
- Quick, silent and highly accurate positioning thanks to unique linear drive (optional)
- Data exchange optionally via HQR Connect and HRFID Connect
- Fully automatic measurement cycles for very high operating comfort



VIO range available on request from the Hoffmann Group.



1. Second camera for measuring the centre of rotation (optional)



2 + 3. Fully automatic axle drive thanks to state-of-the-art linear technology



35

Pre-setting device VG1 – simple, quick, precise

- 15 inch touch screen, intuitive and simple operation via symbols.
- Calibration facility incorporated into the base mounting.
- Digital camera with 24 times magnification.
- Quick adjustment of both axes (X / Z) separately or together.
- Fine adjustment of both axes (X / Z).
- Spindle with 4×90° indexing and spindle brake.
- Radial and axial run-out error of the spindle: max. 2 µm.

Size VG1 – The device operates in conjunction with the optional Hoffmann Group Connected software solutions for use in production environments.

Advantage:

Size VG1 – By purchasing this device, you are gaining a compatible component for digitally networked production. Increased productivity can be achieved in conjunction with the respective modular software.

Application: For measuring and pre-setting tools at the machine or manufacturing cell.

Supplied with: Calibration device on the tool mounting, keyboard, storage plates, cutting edge cleaner, and measurement software in the major foreign languages.

Optional extras: ■ Sub-frame cupboard No. 354767.

- Reducers No. 354771; 354773; 354775; 354777; 354779.
- Label printer No. 085505 size LW550.
- Labels No. 085565.
- Cover No. 354789 size 1.

New user interface
for the software



35 4760

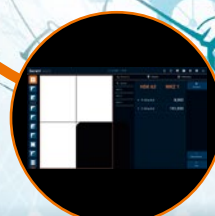
Type	VG1
31E 35 4760 Garant Pre-setting device	(eShop)
Base toolholder	SK50
Quick adjustment	electromagnetic
Measurement process	Image processing 15 inch touch screen
Measurement control	PC measurement electronics
Measuring range X	400
Measuring range Z	500
Width base	860
Overall width	1500
Depth	590
Height	1060
Weight	150
Spindle load	100

Garant

THE VG1 – THE CORE OF YOUR DIGITAL TOOL MANAGEMENT “CONNECTED MANUFACTURING”.

Very easy integration with your digital processes. This means you are ideally placed to meet the highest demands of today and in the future, and your tool preparation will become even more efficient.

Hoffmann Group “Connected Manufacturing” shows quickly and clearly which tools are available, which ones must be mounted and where tools are located. Tool information can be shown and transferred quickly through scanning.



Accessories for VG1

35 4767 – Body of welded sheet steel, with bench top of Beolin, edges veneered with 3 mm thick graphite. Incorporating the GARANT locking system

Function:

35 4783 – For exact measurement / checking of the rotational centre of turning tools.
Scale value of the dial indicator 0.01 mm, measuring range 3 mm.

Colour:

35 4767 – Body light grey RAL 7035, drawers anthracite grey RAL 7016.

Note:

35 4767 – No complaints will be accepted for changes in colour due to exposure to sun and light.

Size 50/30 – Also suitable for BT30 arbors.

Size 50/40 – Also suitable for BT40 arbors.

Size 50/H32 – Also suitable for HSK-A/C/E32 and HSK-F40 arbors.

Size 50/H40 – Also suitable for HSK-A/C/E40 and HSK-F50 arbors.

Size 50/H50 – Also suitable for HSK-A/C/E50 and HSK-F63 arbors.

Size 50/H63 – Also suitable for HSK-A/C/E63 and HSK-F80 arbors.

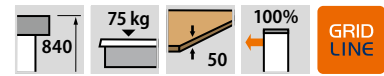
35 4783 – Mounted on the camera arm by means of screw fixing. Dial indicator.

35 4771–4779 – Further SK50 adapters on request:

■ VX3 – EWS article number: 19.SK50VX3

■ VX4 – EWS article number: 19.SK50VX4

■ V5 – EWS article number: 19.SK50V5



35 4767

Width	mm	1500
31E 35 4767	Garant GRID LINE Base cabinet for pre-setting device	eShop
Height	mm	840
Width	mm	1500
Depth	mm	700

SK basic tool mounting / reducer SK	50/30	50/40
31E 35 4771	Garant Reducer SK50 / SK	eShop

SK basic tool mounting / reducer VDI	50/V16	50/V20	50/V25	50/V30	50/V40	50/V50
31E 35 4773	Garant Reducer SK50 / VDI	eShop	eShop	eShop	eShop	eShop

SK basic tool mounting / reducer HSK	50/H32	50/H40	50/H50	50/H63	50/H100
31E 35 4775	Garant Reducer SK50 / HSK	eShop	eShop	eShop	eShop

SK basic tool mounting / reducer PSC	50/C40	50/C50	50/C63	50/C80
31E 35 4777	Garant Reducer SK50 / PSC	eShop	eShop	eShop

SK tool mounting / HSK reducer	50/H63DI	50/H100DI
31E 35 4779	Garant Reducer with retraction SK/HSK	eShop
maximum torque	Nm	8
Chuck key		Torx® TX25

38D 35 4783	Rotational centre measurement unit	VG1
		eShop

31E 35 4788	Garant Cutting edge cleaner	eShop
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35 4771_50/40



35 4773_50/V25



35 4775_50/H63



All reducers include an integral calibration edge.



35 4779_50/H63DI



Reducer including protective ring.



35 4783



35 4788



35

Garant Pre-setting device VG Basic

- 10 inch touch screen, with Windows 10 operating system.
- Focus on intuitive and extremely easy operation.
- Fine adjustment of both axes (X/ Z).
- Precise SK 50 needle-bearing taper.
- Compressed air connection at least 5 bar.
- Digital camera with 17 times magnification.
- Radial and axial run-out error of the spindle: max. 5 µm.

Application: For measuring and pre-setting tools at the machine or production island.

Supplied with: SK 50 needle-bearing taper, measurement software in all major foreign languages and 3 metres of coiled compressed air hose with 1/4 inch coupling connector.

Optional extras: ■ Base cabinet No. 354767.

- Reducers No. 354771; 354773; 354775; 354777; 354779.
- Label printer No. 085505 size LW550.
- Labels No. 085565.
- Calibration mandrel No. 355105 size 90 (if using SK 50 tools).
- Spindle clamping No. 355102 size 1.
- Cutting edge cleaner No. 354788.
- Cover No. 354789 size 1.

Type	VGBASIC	
31E 35 5010 Pre-setting device	eShop	
Base toolholder	SK 50	
Quick adjustment	pneumatic	
Measurement process	Image processing 10 inch touch screen	
Measurement control	PC measurement electronics	
Measuring accuracy	mm	0.01
Measuring range X	mm	400
Measuring range Z	mm	400
Width base	mm	580
Overall width	mm	975
Depth	mm	260
Height	mm	710
Weight	kg	40
Spindle load	kg	50
Power supply	100-230 V / 50-60 Hz	

Accessories for VG Basic

Suitable for: VG Basic pre-setting device No. 355010.

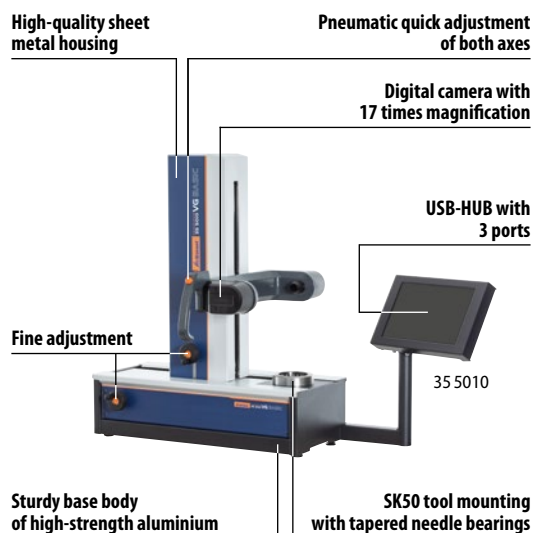
Application:

35 5102 – For braking the SK 50 basic spindle.

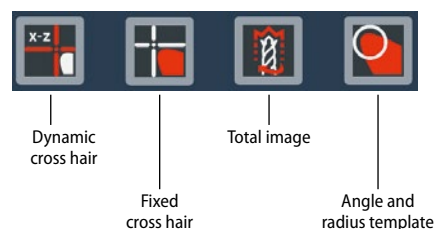
Note:

35 5105 – The calibration mandrel is required when SK 50 tools are being used, because the spindle lacks its own integral calibration edge.

Type	1	
31E 35 5102 Spindle brake	eShop	
Length	mm	90
31E 35 5105 Calibration mandrel SK 50	eShop	
Ø D	mm	30



Measuring functions



35 5102



35 5105

HOLEX Tool length pre-setting

Suitable for:

Size 40; 63 – HOLEX digital depth gauge No. 418742 300.

Size 50; 100 – Digital depth gauge No. L40510 size 1214 (bridge length 150 mm, measurement range 300 mm).

Advantage:

- Easy handling.
- Small footprint.
- Attractively-priced entry-level variants.

Application: Set the tool lengths directly at the machine.

Supplied with: Mounting block for depth gauge.

Note:

All standard depth gauges can be used.
Size 50; 100 – A bridge length of 150 mm is absolutely necessary.



35 5050_40

for taper size		40	50	63	100
32B	35 5050	Tool length pre-setting device			
		eShop	eShop	eShop	eShop
Base toolholder		SK 40	SK 50	HSK 63	HSK 100
Ø D	mm	96	118	96	117
Height H	mm	100	138	100	140
Height H ₁	mm	37			

Tool fitting aid

- Aluminium housing.
- Interchangeable toolholders.

Suitable for: **Type SK** – for DIN 69871, DIN 2080, JIS B6339, and ANSI.

35 8500 – Toolholders No. 358550 – 358625.

35 8660 – Toolholders No. 358665 – 358668.

Feature: All adapters with a clamping screw.

35 8500 – Indexable toolholders 8×45°.

35 8660 – Indexable toolholders 4×90°.

Advantage: **Clamping without damaging the taper.**



35 8500



35 8660

38D	35 8500	Base unit Tool Boy	eShop
32B	35 8660	Tool fitting aid base unit	eShop



for arbor size	32B	35 8665	38D	35 8550	32B	35 8666	38D	35 8570	32B	35 8667	38D	35 8620	32B	35 8668	38D	35 8625
		Toolholder for tool fitting aid		Toolholder for Tool Boy base unit		Toolholder for tool fitting aid		Toolholder for Tool Boy base unit		Toolholder for tool fitting aid		Toolholder for Tool Boy base unit		Toolholder for tool fitting aid		Toolholder for Tool Boy base unit
		SK		SK		HSK-A		HSK-A		VDI		VDI		PSC		PSC
20		—		—		—		—		eShop		(eShop)		—		—
25		—		—		—		—		eShop		—		—		—
30		eShop		eShop		—		—		eShop		eShop		—		—
32		—		—		eShop		—		—		—		—		—
40		eShop		eShop		eShop		eShop		eShop		eShop		eShop		eShop
50		eShop		eShop		eShop		eShop		eShop		(eShop)		eShop		eShop
63		—		—		eShop		eShop		—		—		eShop		eShop
80		—		—		eShop		(eShop)		—		—		—		(eShop)
100		—		—		eShop		eShop		—		—		—		—

Assembly boy

- Fibre-reinforced polyamide for high stability.
- For horizontal and vertical tool mounting.
- Very easy to operate.
- **10 years warranty against breakage and cracking.**
- **With 4 retainer magnets in the horizontal socket (security!)**

Suitable for: **ISO taper arbor SK40.**

Advantage: No risk of damage to expensive tools.

Application: For assembly at the workbench.

For efficient setting up and stripping down of cutting tools and pull studs on tool arbors.

for arbor size		40
38D	35 8690 Assembly boy	SK eShop
Length	mm	120
Width	mm	150
Height	mm	120
Weight	kg	0.55
suitable for arbor		SK 40



35 8690

Fitting aid

- Robust metal frame.
- **One mounting taper for mounting tools.**
- **One mounting taper for attaching the pull stud.**
- Fixing the mountings by fixed or pivoting Tee-nuts.

Suitable for:

Size 30 – Type **BT 30**.

Size 40 – Type **BT 40** and **SK 40**.

Advantage: No risk of damage to expensive tools.

Application: For assembly at the workbench.

for arbor size		30	40
32B	35 8685 Fitting aid	eShop	eShop
Length	mm	200	253
Width	mm	120	140
Height	mm	148	167



35 8685_40



35

Garant Tool fitting fixture

Modular system consisting of base rails, flexible tool modules for locking on the base rails and a height adjustment/height gauge system.

All components made from high-quality anodised aluminium.

- Advantage:**
- Clean, tidy workstation – all assembly jigs in one place.
 - Modular – base rail can be extended at any time through direct attachment.
 - Flexible – two different tool modules (fixed or pivotable).
 - Quick and easy handling – locking lever on the tool modules, moving of the setting device on the base rail.
 - GARANT easyFix hole pattern on the rear of the base rail – attachment of storage facilities directly on the mounting device.
 - 100% solid and secure attachment of the arbor – does not wobble, protects the mounting taper.

- Application:**
- Assembly/disassembly of all accessory parts of an arbor.
 - Adopting/copying existing tool lengths.
 - Measurement of the tool length.
 - Small parts storage via GARANT easyFix.

Supplied with: 1 pc. GARANT easyFix wall mounting No. 955825 2, mounting bracket with cover for attaching the base rail, e.g. to a workbench.

Optional extras: Tool module No. 358575 and 358580, height adjustment No. 358585.

Note: The tool mounting device does not replace tool pre-setting.



Type		200	400	600
31P 35 8565	Base rail for tool fitting fixture	eShop	eShop	eShop
Length	mm	200	400	600
Width	mm		40	
Height	mm		160	

Accessories

Locking of the tool arbors with quick-action clamping.

35 8580 – With securing against the arbor falling out.

Suitable for: Base rail No. 358565.

for arbor size		30	40	50	63	80	100
31P 35 8575	Tool module for tool fitting fixture rigid	eShop	eShop	eShop	eShop	eShop	eShop
31P 35 8580	Tool module for tool fitting fixture can be tilted	eShop	eShop	eShop	eShop	eShop	eShop
Length	mm	130	130	130	130	145	145
Width	mm	80	80	80	80	120	120
Suitable for:		HSK 32; PSC 32; VDI 30	HSK 40; PSC 40; VDI 40	SK 30; BT 30; HSK 50; PSC 50; VDI 50	SK 40; BT 40; HSK 63; PSC 63	HSK 80; PSC 80	SK 50; BT 50; HSK 100

Including locking for secure fixing to the base rail.

Maximum A-dimension incl. tool = 300 mm.

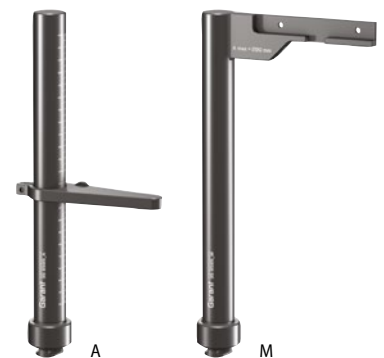
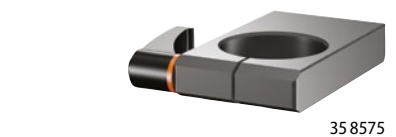
Size A – The lever dial indicator transfers the height of the tool to be exchanged, including the measurement scale.

Size M – In combination with a depth gauge (e.g. No. 418742 300), measurement of the tool length possible.

Suitable for: Base rail No. 358565.

Note: Caliper is not included in the scope of supply.

Type		A	M
31P 35 8585	Height adjustment for tool fitting fixture	eShop	eShop



HOLEX Tool fitting aid

- Aluminium housing.
- 45° and 90° indexable.
- Clamping the tools using a clamping lever.

Suitable for:

35 8696 – **Type SK** – for DIN 69871, DIN 2080, JIS B6339, and ANSI.

35 8697 – **Type HSK** – for DIN 69893-1.

Application: For assembly at the workbench.



for arbor size		40	50	63	100
32B 35 8696	Fitting aid SK	eShop	eShop	–	–
32B 35 8697	Fitting aid HSK-A	–	–	eShop	eShop

MOLEX Fitting aid

- Anodised aluminium.
- SK: Slot nut steel C15 ground and case-hardened.
- HSK: Drive web over the drive slots to act as a stop.

Application: For **fitting and removing cutting tools and pull studs** in a single clamping.
Contact face single-sided 15°.

for arbor size		30	40	50	63	100
32B 35 8680	Fitting aid	SK, HSK	eShop	eShop	eShop	eShop
Length	mm	60	80	120	—	—
Width	mm	60	80	100	—	—
Height	mm	46	60	100	66	84
suitable for arbor		SK 30	SK 40	SK 50	HSK 63	HSK 100
Diameter	mm	—	—	—	126	167



35 8680_40



35 8680_63

REGO-FIX TORCO-BLOCK tool assembly measuring system

- Sturdy but lightweight body made from aluminium with **integrated torque measurement**.
Display either as actually achieved torque or as a visualisation of the recommended tightening torque for a specific collet chuck type/clamping nut type, collet size or pull stud.

- For use with toolholders that have to be screwed to a specific torque, especially for **collet chucks**.

Suitable for: Tool arbors type **SK** (ISO 7388-1), **BT** (ISO 7388-2), **HSK** (ISO 12164-1), **PSC** (ISO 26623-1).

Advantage: ■ Use of torque drive tools no longer necessary, commercially available assembly tools can be used.

- **Always apply the right torque** on the tool – do not over-tighten, but still ensure a secure grip.

Application: Unique, convenient and reliable tool assembly aid with integral torque display.

Works for all **pliers-based set-ups**.

Adapters available for all popular spindle interfaces.

Supplied with: Incl. indicator ring set No. 358647.

Optional extras: Adaptor No. 358646, indicator rings No. 358647.



35 8645



35 8645

Type		TORQUE
30W 35 8645	Tool assembly measuring system	(eShop)
	TORCO-BLOCK	
Length	mm	270
Width	mm	170
Height	mm	130

Adaptor for arbors

Gentle aluminium body, fixing and clamping of the arbor with clamping lever or integral T-nuts.

Suitable for: Tool assembly measuring system No. 358645.

Advantage: Quick and easy fixing using clamping lever for HSK, PSC and BT arbors.
SK arbors are secured by means of the drive T-nuts.

Application: For holding and clamping various arbors of varying sizes in TORCO-BLOCK.
The interface adaptor can be changed within seconds using a hexagon L-wrench.

Note: Further adapters on request.



35 8646_40



35 8646_60

Type		30	40	50	63	100
30W 35 8646	Tool adaptor	(eShop)	eShop	(eShop)	eShop	(eShop)
	for TORCO-BLOCK					
suitable for arbor		SK 30	SK 40	SK 50	HSK 63; PSC 63; BT 40	HSK 100; BT 50

Spare indicator rings

Indicator rings made from anodised aluminium, labelled with the corresponding information:

- Tightening range for the respective collet size (for the respective tool Ø).
- Tightening range for the respective pull stud.
- Torque display when a specific value is specified.

Suitable for: Tool assembly measuring system No. 358645.

Application: The indicator rings are positioned by a pin on the dial indicator.
Tighten the clamping nut until the display needle reaches the position marked on the scale ring for the respective shank diameter.

Supplied with: Incl. 5 rings for standard ER collet chucks, 3 rings for precision collet chucks,
1 ring for ball-bearing clamping nuts, 1 ring for general torque indication.



35 8647

Number of indicator rings		10
30W 35 8647	Indicator ring set, 10 pieces	(eShop)
	for TORCO-BLOCK	



35

FAHRION®
FAIR BEYOND PRECISION**Assembly jig with rollers**

Suitable for: For all popular tool arbors such as SK (DIN 69871), HSK (forms A, B, C, D, E, F), polygon shanks, MAS/BT (JIS B 6339), and CAT (ANSI B5.50).

Application: For easy and reliable clamping of tool arbors **at the collar** using rollers to mount and remove cutting tools – friction lock is self-clamping and ideal for HSK forms E and F, and also polygon shank arbors.



35 8695

Collar Ø	mm	25	32	40	50	63	97	100
33F 35 8695	Assembly jig with rollers	eShop	eShop	eShop	eShop	eShop	(eShop)	eShop
suitable for arbor		HSK 25	HSK 32; C3	HSK 40; C4	SK 30; HSK 50; C5	SK 40; HSK 63; C6; MAS/BT 40; CAT 40	SK 50	HSK 100; CAT 50; MAS/BT 50

Garant**Assembly set-up station**

The assembly station can be fitted to the workbench by means of two screws. Clamping studs, e.g. No. 363190, can be used to position the clamping device or jig with pitch 52/96 or 80 on the assembly station, with locking and unlocking by means of the side bridge. Set-up times are optimised with high process reliability when clamping workpieces or changing clamping jaws.

- Locking and unlocking without tools.
- **Reduction in set-up times.**
- **Ensuring safety at work.**
- **Patent pending.**

Suitable for:

Size 52/96 – Clamping device with pitch 52/96 and 80, e.g. Xtric No. 363000 and No. 363300.

Size 80 – Clamping device with pitch of 80 and ZeroClamp clamping studs size 90, e.g. ZeroClamp No. 360134.

Application: For mounting and removing workpieces in the clamping device and for changing or turning the clamping jaws.



35 8595_52/96



35 8595_80

for pitch		52/96	80
310 35 8595	Assembly set-up station	eShop	eShop
Length	mm	125	
Width	mm	125	
Height	mm	25	

**Clear View Disk**

With Insight KB, you can visually monitor the process in the machine room at all times. The machine becomes easier to operate and the entire work process becomes much more efficient and safer, and the scrap costs are reduced.

- Beading effect due to a special coating.
- Low installation height of 0.3 mm.
- No screws required for installation, easy to apply thanks to a special adhesive layer.
- Includes installation kit.

Advantage:

- The position on the machine's protective screen can be freely selected.
- Minimal installation work required.
- Can be used flexibly, also suitable for curved screens.
- Easy to replace.
- No screws required for installation, easy to apply thanks to a special adhesive layer.
- Production can start immediately after it has been installed.
- Beading effect due to a special coating.
- Made in Germany.

Supplied with: 1 disk, 1 squeegee, 1 cloth.

Size SET – 3 disks (No. 358932 310), 1 squeegee, 1 cloth.

Note:

The Clear View Disk is not intended for use in explosive atmospheres (ATEX). Dry machining and very sharp/hot chips, e.g. during high feed rate milling, can damage the surface and reduce its effectiveness.



35 8982



Type		200	310	SET	400
341 35 8982	Disk	eShop	eShop	eShop	eShop
Diameter	mm	200	310	310	400

1134



HCT

ALMATIC

PocketSense

Load cell for reliable, cordless checking of the clamping force.

Advantage:

- Compressive force shown directly on display and on end devices.
- Energy efficient thanks to standby mode and battery life of up to six months in two-shift mode.
- Compact design.
- Aluminium alloy housing.

Application:

Perfect for regular inspection of vices. Suitable for all vices with a minimum clamping width of 61 mm and compressive forces of 2.5 to 70 kN.

Supplied with:

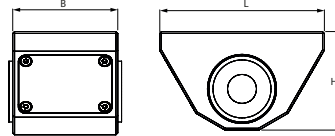
- Includes case for storage.
- 2 pc. battery 1/2 AA (LS14250, 3.6 V).
- 1 pc. Torx wrench T10.
- 1 pc. Quick Start Guide.

Note:

The two measuring faces of the load cell must be in full contact with the vice. Minimum jaw height approx. 38 mm.



35 8777



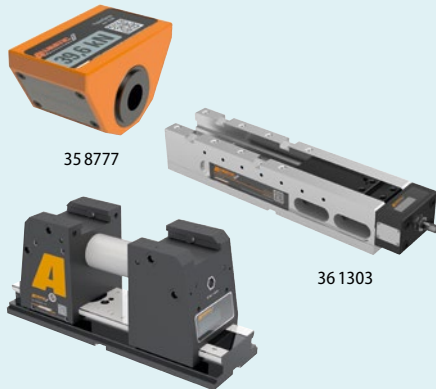
Maximum clamping force		70
34A 35 8777 PocketSense		—
Length	mm	92
Height	mm	55
Width	mm	56
Weight	kg	0.65



HCT Hoffmann Group Connected Tools

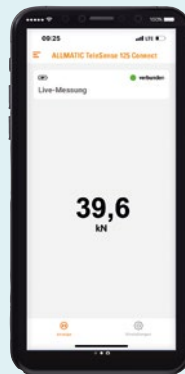


The Hoffmann Group and Almatic present Bluetooth-capable clamping devices as well as an innovative, optional app for fast data transmission to a mobile device. Free of charge for iOS and Android.



35 8777

36 1303



1. Clamping force is initiated.
2. Clamping force is displayed in real time in the HCT app.
3. External clamping force monitoring during machining.

HCT

All products compatible with the HCT app are indicated by this pictogram.

36 1270_125CONNECT

Garant Length setting gauge

For use on milling and drilling machines and lathes.

On all magnetic surfaces such as toolholders, lathe chucks, vices and measurement jigs.

Material:

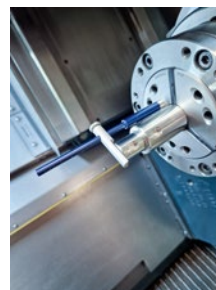
Anodised aluminium.

Advantage:

- Quick, stepless adjustment (thanks to scaling and knurled screw)
- Can be used without tools – for easy handling.
- Magnetic base – for super-fast mounting and sturdiness
- No unnecessary disassembly of things like toolholders in order to replace a tool.
- Compact helper in inaccessible places.

Application:

For setting tool lengths or as an end stop for the workpiece length.



Application examples



Setting scale for coarse presetting.



35 8989_135

35 8989_65

Strong magnet

Type		65	135
31E 35 8989 Length setting gauge		eShop	eShop
Overall length	mm	70	140
Adjustment range	mm	25 – 65	55 – 135
Cross beam overhang	mm	33	



35

Garant Position and run-out check device

- Compact design.
- Precision dial comparators can be exactly adjusted using the adjustment screw.
- Precision dial comparators are suitable for vertical or horizontal use.
- Cylindrical attachment in various diameters, or quick fixing of the inspection device using a magnet.

Advantage:

- Efficient measurement of position and run-out in a short time.
- No laborious fiddling with stands and dial indicators.
- Achieve greater process reliability by regular checking.
- Easy handling.
- Fewer machine stoppages and longer tool lives.

Application: For checking the axes, run-out measurement, determination of positions (such as toolholder, workpiece).

Supplied with: Supplied with case with foam, test device, precision dial comparator, attachment magnet, cylindrical attachment mount, mirror for reading the measured value, hexagon key L-wrench.



35 8980



Adjustment travel	mm	30
31E 35 8980	Position and run-out check device	eShop

Example for turning:

- Axis calibration (such as the position of the headstock or tailstock)
- Calibration of the revolver position or fitted toolholders
- Determining radial run-out / tumbling of driven tools

Example for milling:

- Checking radial run-out: Component central, tool, etc.

HOLEX Zero setter

Special hardened steel.

Size 50M – With magnet.

Function:

- Level the spring-loaded probe face with the reference face of the body (e.g. using a straight edge) and set the dial indicator to –0.25.
- Place the zero setting device on the workpiece and feed the tool down on to spring-loaded probe face until the dial indicator reads 0. The tool is now positioned exactly 50 mm (± 0.01 mm) above the workpiece to be machined (dimension for input into machine controls).

Application: For setting tools (e.g. end mills) to zero and for determining the reference point of the machine spindle.

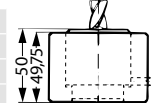
Supplied with: Wooden case, dial indicator, measurement report and instruction manual.

Note: For spare dial gauge No. 359086 3/40 see the spare parts list.



35 9085

Type		50	50M
32E 35 9085	Zero setter	eShop	eShop
Dial indicator display	mm		0.01
Height of body – reference face	mm		49.75
Height of the spring-loaded probe face when the dial indicator reads 0	mm		50
Body Ø	mm		65
Ø spring-mounted contact face	mm		47



35 9085

HOLEX Fine zero setter

- Anodised aluminium.
 - Sturdy base plate of hardened steel (5 mm thick).
- 35 9093 Size 100M – With magnetic function to prevent slipping.

Application: For setting micro drills and micro mills etc.

Supplied with:

35 9093 – Wooden case and measurement certificate.

Note:

35 9087 – For spare dial indicators No. 432500 size 5/40 and 359094 see the spare parts list.

35 9093 – For spare dial gauges No. 359089 and 359094 see the spare parts list.

Type		100	100M
32E 35 9087	Fine zero setter	eShop	–
32E 35 9093		eShop	eShop
Body Ø (35 9093)	mm		54
Length (35 9087)	mm	48	–
Width (35 9087)	mm	25	–
Height	mm		100



35 9087



35 9093

Edge finder (straight shank)

The contact point has a flexible connection to the body via a spring, with an **alignment accuracy of 0.01 mm**.

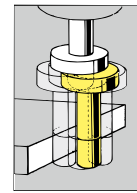
All parts fully hardened and ground.

Size 10/4 – With stepped contact point 10 and 4 mm Ø.

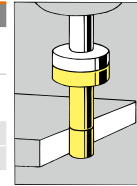
35 9005 – Non-magnetic.

Application: For alignment of component reference surfaces or edges.
Spindle speed approx. 600 rpm.

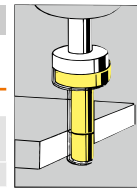
Contact point Ø	mm	6	10	10/4
38D 35 9000	Edge finder	eShop	eShop	eShop
38D 35 9005	Edge finder TN	–	eShop	eShop
Tool shank Ø	mm	6	10	10
Overall length	mm	48	84	90



1. Start up – edge finder runs eccentric.



2. Edge finder touches the workpiece and runs true.



3. Edge finder jerks aside = reference point.



Size 6 and 10

Size 10/4 with stepped contact point.

Spare springs for edge finder No. 359000

Suitable for: Edge finder No. 359000 and 359005.

Ø×Overall length	mm	2,6×25	4,6×40	
38D 35 9010	Spare spring for edge finder	eShop	eShop	10
Suitable for edge finder No. 359000		6	10 and 10/4	

Edge finder with indicator light

The spring-mounted spherical tip protects the unit from damage if contact is too violent.
Functional parts hardened and ground.

35 9078 – Contact accuracy ± 0.005 mm.

35 9070/9075 – Contact accuracy ± 0.01 mm.

Function: When the **spherical tip contacts a metallic component**, batteries cause the lamp to light
= Detection of the reference point.

Application: ■ **Alignment** of component reference surfaces or edges.
■ **Determination of bore centres** to the machine spindle.

35 9075/9078 – When making contact in the Z axis, the reference length has to be determined using the pre-setter and taken into account.

Supplied with: Supplied with special battery No. 081560 A23.

Tool shank Ø	mm	16	20
38D 35 9070	2D edge finder with indicator light	eShop	eShop
38D 35 9075	3D edge finder with indicator light short	eShop	eShop
38D 35 9078	3D edge finder with indicator light long	–	eShop
Spherical point Ø	mm	10	
Overall length (35 9070)	mm	94	
Overall length (35 9075)	mm	118	
Overall length (35 9078)	mm	167	



35 9070 / 2D

35 9075 / 3D

35 9078 / 3D

HOLEX Optical zero setter

Special hardened steel.

Function: ■ Approach the contact face with the tool upright. When the LED lights up, the reference dimension 60 mm (± 0.01) has been reached. A safety spring range of approx. 2 mm is provided for overdrive.

■ Size **60M** is magnetic for horizontal use.

Application: For zeroing tools and for determining the machine spindle reference point.

Supplied with: With test certificate and instruction manual.
Special battery No. 081560 size 357.

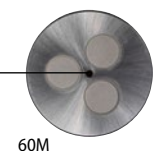
Note: For use only on electrically conductive workpieces. Not waterproof.

Type		60	60M
32B 35 9081	Optical zero setter	eShop	eShop
Version		Standard	magnetic
a	mm	60	
b	mm	31	
c	mm	18	



Centre bore

optimum for turned parts.



60M



Precision centre finders

The dial indicator remains in the required position during the working process.

- With fixed cylindrical clamping shank $\varnothing$ 16 mm.
35 9610 – ■ With adjustable slides for a large working range.

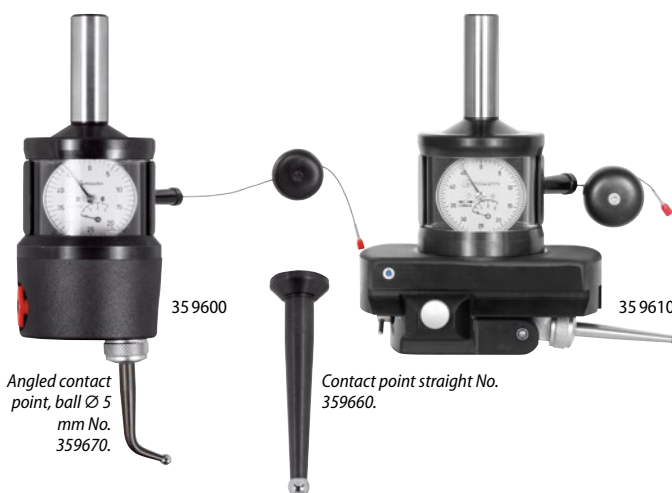
Accuracy: 0.005 mm centring or working accuracy.

- Application:**
- For horizontal and vertical use.
 - Alignment of bores, shafts, plane surfaces, reference edges and grooves centrally to the working spindle.
 - Checking the concentricity of working spindles.

Supplied with:

- 35 9600 – **C OS** – Contact point with ball $\varnothing$ 5 mm No. 359660 and curved contact point with ball $\varnothing$ 5 mm for external $\varnothing$.
- 35 9610 – **C III** – Contact point with ball $\varnothing$ 5 mm No. 359660 (also applicable for external $\varnothing$).

Optional extras: Contact points, see No. 359650 – 359670.



Dial indicator reading	mm	0,005
35 9600	Centre finder C OS with clamping shank $\varnothing$ 16 mm	eShop
35 9610	Centre finder C III with clamping shank $\varnothing$ 16 mm	eShop
Length without shank and probe (35 9600)	mm	92
Length without shank and probe (35 9610)	mm	102
Body $\varnothing$ (35 9600)	mm	60
maximum slide $\varnothing$ (35 9610)	mm	116
maximum speed of spindle	min ⁻¹	50 – 100
Measuring range of the dial indicator	mm	2.5
Probe pressure	N	1

	Can be fitted with (including special accessories):	C OS centre finder		C III centre finder	
		Range mm $\varnothing$	Depth mm	Range mm $\varnothing$	Depth mm
Internal $\varnothing$	Contact point 5 mm $\varnothing$	6–125	55	6–200	55
	Contact point 1.6 mm $\varnothing$	2–125	55	2–220	55
	Right-angle contact point	–	–	20–220	55
	Extension	–	–	2–400	150
Outer $\varnothing$	Contact point	0–125	20	0–150	55
	Right-angle contact point	–	–	0–220	55
	Extension	–	–	0–300	150
Flat surface	Flat surface contact point	–	–	0–90	28
	Contact point	120–160	–	90–280	40
	Right-angle contact point	–	–	90–280	40
	Extension	–	–	280–480	–

Optional extras

Probe

Suitable for: Centre finder No. 359600 and 359610.

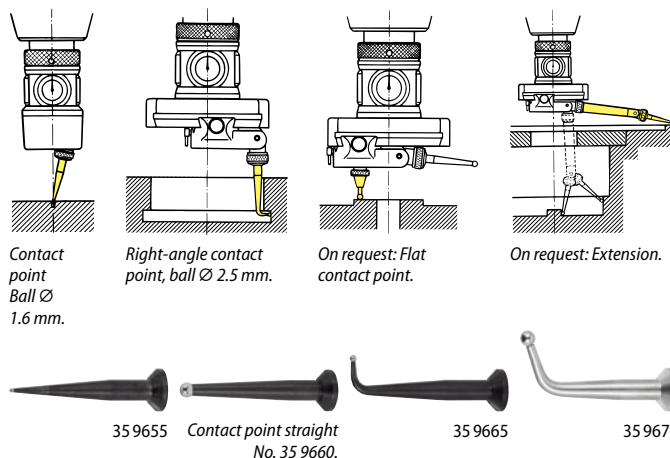
- 35 9650 – Only for centre finder No. 359610.

Supplied with:

- 35 9650 – **With contact point, ball $\varnothing$ 1.6 mm and angled contact point, ball $\varnothing$ 2.5 mm. Flat face contact point** for aligning faces up to 90 mm $\varnothing$. **Extension** for enlarging the working range and for inaccessible places.

35 9650	Probe / extension set	eShop
35 9655	Contact point, ball $\varnothing$ 1.6 mm	eShop
35 9660	Spare contact point, straight $\varnothing$ 5 mm	eShop
35 9665	Angled contact point $\varnothing$ 2.5 mm	eShop
35 9670	Angled contact point $\varnothing$ 5 mm	eShop

Accessories from the 4-part set No. 35 9650.



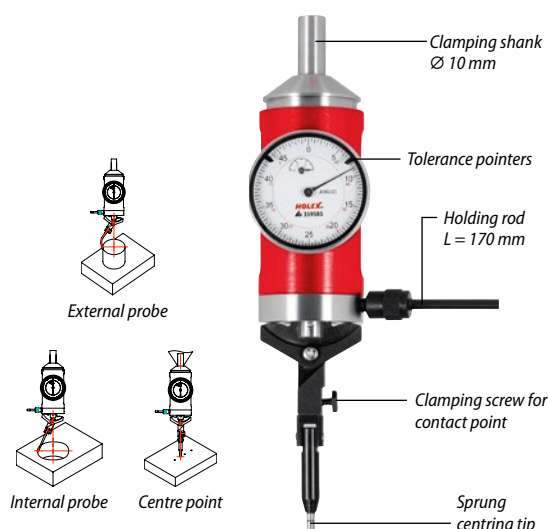
Centre finder – with non-rotating dial

Sturdy metal casing suitable for workshop use with dial indicator $\varnothing$ 42 mm (scale graduation 0.005 mm). Holding rod can be fitted on the left or right. Centre finder can be used vertically and horizontally. Overall height without contact point 140 mm. Recommended speed approx. 50 – 100 rpm. Working range up to 300 mm. Centring accuracy 0.02 mm.

Application: Determining the centres of bores and shafts.

Supplied with: Centre finder including retaining bar, retaining magnet with connecting cord, 3 internal contact points, 3 curved external probes and 1 sprung centring tip (centre contact point).

35 9585	Centre finder with non-rotating dial	eShop
Working range $\varnothing$ internal	mm	3.5 – 300
Working range $\varnothing$ external	mm	0 – 300
Length without shank and probe	mm	118
maximum speed of spindle	min ⁻¹	50 – 100
Measuring range of the dial indicator	mm	3



Garant Contact point calibration aid

- Very easy calibration of the 3D contact point.
- Completer calibration process in X, Y and Z in just a few minutes.
- Protection against collisions and spindle damage by the spring pin.
- Very easily fixed to the worktable by means of a magnetic stand.
- Highly accurate and consistent calibration results.
- The carbon casing ensures shock-proof characteristics, high-quality design and temperature resistance.

- Advantage:**
- The spring pin avoids spindle damage when the unit is blocked out.
 - Easy handling and enormous saving of time.
 - This functions for all manufacturers.
 - Calibration in a single operation and without additional equipment such as setting rings and gauge blocks.

Application: For calibrating the 3D contact point.

Supplied with: Supplied in a case with foam, calibration aid with magnetic stand, nut spinner for removing the spring pin, T-wrench for stopping or unlocking the spring.



Procedure:

- Move the spindle nose or calibrated tool to the sprung pin and lock it with the side clamping screw.
- Use a contact point to probe the position of the pin.
- Unscrew the pin and perform diameter calibration within the integral setting ring dia. 25 mm.



35 8975



Calibration diameter	mm	25
31E 35 8975	Contact point calibration aid	eShop
Height	mm	178



Garant Digital 3D edge finder

- High accuracy and linearity. Suitable for measuring components, and capable of measuring over the entire working range.
- Independent of machine controls.
- **Very easy to read due to combined display:** Digital display gives exact measured value.
- **LED indicates the status of the probing process:** green= 0.000 (green LED flashes dynamically when approaching the zero point, becomes static upon reaching it), red= overrun.
- Convenient and simple concentricity adjustment.
- Large working range in all directions (x, y, z : 6 mm).
- Compact metal body
- Predetermined breaking point
- Dust-tight and waterproof (IP67)
- Reading changeover function 0.005/0.001

Application: Precision measuring device for milling and spark erosion machines. For determining component zero-points, measurement of lengths, bore centres and reference edges. Determining tool lengths for lathes, setting up turning tools on the rotational centre (taper contact point).

Supplied with: Supplied with battery CR2 and contact point 359505 size 4

Note: suitable contact points No. 359505.



Clamping shank
Ø 16 mm h6

35 9501

Concentricity
adjustment

Standard
contact point
No. 35 9505 size 4



Setting menu

Probing path LED

Displays the status of the test procedure.
Green = 0.000, red = overrun

		16
31T 35 9501	3D edge finder, digital, with contact point (Ø 4 mm)	eShop
Shank Ø	mm	16
Scale divisions	mm	0.005/0.001
Measuring accuracy	mm	< 0.01
Displacement travel x, y, z respectively	mm	6
Body length	mm	55.5
Body depth	mm	39
Body width	mm	67
free length contact point	mm	40
Overall length (body and contact point)	mm	130
Adjustment travel	mm	± 0.4
Weight	kg	0.42
Spare contact point		359505 4



35



Analogue 3D edge finder

- Linear scale.
- Suitable for measuring.
- Precise operation.
- Compact design avoids collisions when finding edges.
- **Dust-tight and watertight = IP67.**
- Convenient and exact concentricity adjustment.
- One scale for both radial and axial run-out.

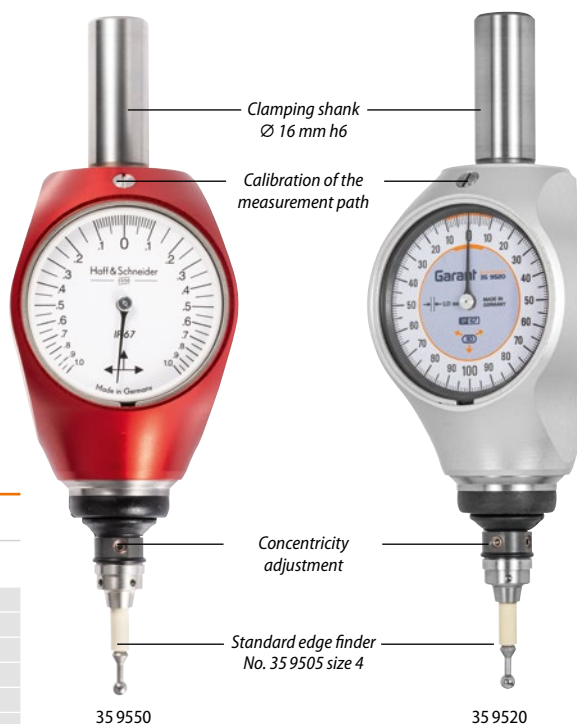
Application: Precision measuring device for milling and spark erosion machines. For determining component zero-points, measurement of lengths, bore centres and reference edges.

Supplied with: With contact point No. 359505 size 4.

Optional extras: Contact point No. 359505 size 6.

Note: Digital 3D edge finder No. 359500.
Suitable contact points No. 359505 and spare glass No. 359510.

3T	35 9520	Garant	3D edge finder, analogue, with contact point (Ø 4 mm)	eShop
36T	35 9550	Hoff & Schneider		eShop
Shank Ø	mm		16	
Reading accuracy	mm		0.01	
Measuring accuracy	mm		0.01	
Displacement travel x, y, z respectively	mm		7	
free length contact point	mm		40	
Overall length (body and contact point)	mm		134	
Display Ø	mm		50	
Spare contact point			359505 4	
Spare glass			359510	



Garant Accessories for 3D edge finder

Size T – The special shape of the spherical point permits turning tools in the lathe to be accurately measured in X, Y and Z.

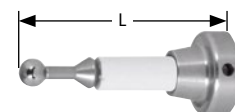
Suitable for:

Size 4 – Analogue and digital 3D edge finders No. 359520; 359500; 359550; 359450 size 4.

Size 6 – Analogue 3D edge finder No. 359520; 359550.

Size T – Analogue and digital 3D edge finders No. 359500; 359520; 359450 size 4.

Application: The contact point is screwed into the 3D edge finder when changing.



359505_4



359505_6



359505_T



Contact point for 3D edge finder

Spherical point Ø D	mm	4	6	T
3T 35 9505	Contact point for 3D edge finder	eShop	eShop	eShop
Spherical point Ø	mm	4	6	–
Spherical point Ø	mm	–	–	4
Overall length L	mm	31	56.5	32

Articulated holders

- Steplessly adjustable mechanical central clamping of all joints.
- Shank length = 40 mm for direct clamping.
- 35 9682 – ■ Holder for dial indicators with shank Ø 6 or 8 mm or dovetail.
- 35 9680/9685 – ■ Holder for dial indicators with shank Ø 8 mm or dovetail.

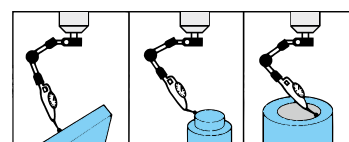
Supplied with:

35 9685 – No. 359680 including HOLEX dial indicator No. 436341 size 0.4/40.



35 9680

359685



Radius of action	mm	120	170
38D 35 9680	Articulated holder	eShop	–
38D 35 9682		–	eShop
34F 35 9685	Articulated holder with lever dial indicator HOLEX	eShop	–

Garant Cycle-controlled and radio-transmitted tool and workpiece measuring



We need you to submit your machine tool data to us so that we can supply you with NC cycles that match your machine tools or controllers.
Proceed as follows:

Step 1:

Download the "Machine data" form in the eShop after inputting article number 35 9400_1 or 35 9400_4.



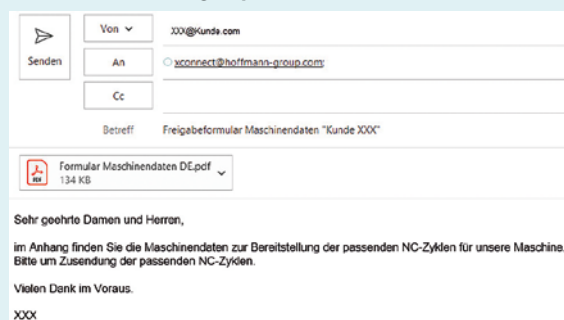
Step 2:

Fill in the downloaded form.



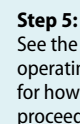
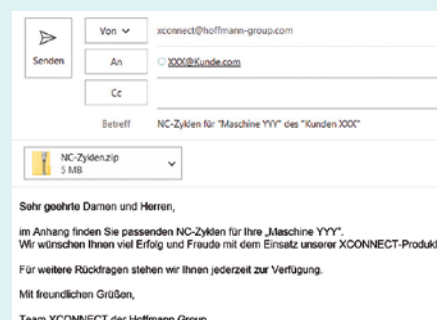
Step 3:

Send the completed form to **xconnect@hoffmann-group.com**.



Step 4:

We will send you the cycles configured for your machine and controller.



Step 5:
See the operating instructions for how to proceed!

XCONNECT, XTOUCH and XCONTROL only possible in combination with the following controllers:

- SIEMENS 840D sl from software status 2.6
- SIEMENS 828D from software status 4.3
- HEIDENHAIN ITNC 620/640

Garant XCONNECT data memory stick

Suitable for: Tool breakage monitoring XCONTROL No. 359400 1 and 3D radio probe XTOUCH No. 359450 4.

Advantage:

- Quick commissioning without hardware changeover and service engineer use.
- No need to interfere with the machine tool operating system!

Application: For transferring the values measured with XTOUCH and XCONTROL to the machine control.

Note: Signals from both items XCONTROL No. 359400 1 and XTOUCH No. 359450 4 can be received using 1 pc. XCONNECT stick. **The necessary machine information must be submitted to us using the form. We will then provide you with the NC cycles configured for your machine.**



35 9455

35

Type	1
310 35 9455	XCONNECT data memory stick
	(eShop)



Garant XTOUCH digital radio 3D edge finder

- Possibility to transfer the measured values in combination with GARANT Xconnect No. 359455 1.
- Suitable only for Siemens and Heidenhain controllers. The machine requires a functioning USB port on the control panel.
- High accuracy and linearity. For fully automatic determination of component zero-points, measurement of lengths, bore centres, reference edges and axial alignment.
- Convenient and simple concentricity adjustment.
- Large working range in all directions (x, y, z = 7 mm).
- Compact metal body.
- Dust-tight and watertight = IP67.
- Predetermined breaking point.
- Simple menu navigation.
- Quick commissioning without hardware changeover and service engineer use.
- No need to interfere with the machine tool operating system!
- Minimisation of rejects.

Application: Automatic transmission of the measured values into the machine control by GARANT Xconnect No. 359455 1.

For fully automatic determination of component zero-points, measurement of lengths, bore centres, reference edges and axial alignment. Manual operation without wireless transmission (without XCONNECT) is also possible.

Supplied with: Supplied with battery CR2 and contact point No. 359505 size 4.

Optional extras: XCONNECT data memory stick No. 359455 1.

Note: Suitable contact point No. 359505 4. The item is permanently installed on a machine and can only be used on another machine through another cycle request.



Spherical point Ø	mm	4
310 35 9450	Radio 3D edge finder, digital, with contact point (Ø 4 mm)	(eShop)
XTOUCH		
Shank Ø	mm	16
Scale divisions	mm	0.005
Measuring accuracy	mm	< 0.01
Displacement travel x, y, z respectively	mm	7
Body length	mm	82
Body depth	mm	39
Body width	mm	67
free length contact point	mm	40
Overall length (body and contact point)	mm	134
Adjustment travel	mm	±0.4
Weight	kg	0.52
Spare contact point		359505 4



Garant XCONTROL tool breakage monitoring and length measurement

XCONTROL – tactile tool contact point for **tool breakage monitoring** and **tool length measurement**. Measurement accuracy +/- 0.01 mm and repetition accuracy +/- 0.005 mm.

- Suitable only for Siemens and Heidenhain controllers.
- The machine requires a functioning USB port on the control panel.
- For use only in conjunction with the XCONNECT No. 359455 1.
- Dust-tight and watertight = IP67.
- Quick commissioning without hardware changeover and service engineer use.
- No need to interfere with the machine tool operating system!
- Drills from Ø 0.3 mm can be measured or tested.

Application: For tool breakage and process monitoring in an automated machine tool or for multi-machine operation. For tool length measurement and automatic transmission of data to a machine tool. Automatic transmission of the measured values into the machine control by GARANT Xconnect No. 359455 1.

Supplied with: Supplied with battery CR2.

Optional extras: XCONNECT data memory stick No. 359455 1, clamping claw No. 363081 80.

Note: The item is permanently installed on a machine and can only be used on another machine through another cycle request.



Type		1
310 35 9400	Tool breakage monitoring	(eShop)
XCONTROL		
Ø spring-mounted contact face	mm	29
Length	mm	71.5
Width	mm	53
Height	mm	105

HSC

DIN
69871JIS
B6339DIN
69893

High-speed spindles

Air-powered high-speed spindle, constant speed under load 25,000 – 65,000 rpm. depending on the version. Power up to 1kW.

Application: High-speed spindles allow higher cutting speeds and feed rates. They allow above all the use of tools with small diameters (6 mm).

Supplied with: High-speed spindle, collet, collet clamping nut, wrench, sealing plug, air filter, connection hose.

Optional extras: Tool-change turret for automatic tool-change. Required only for **external** air supply - available on request.

Note: Use clean dry compressed air at approx. 6.2 bar.
Further spindles available on request: all commonly-used shank versions, different performance classes and speeds.

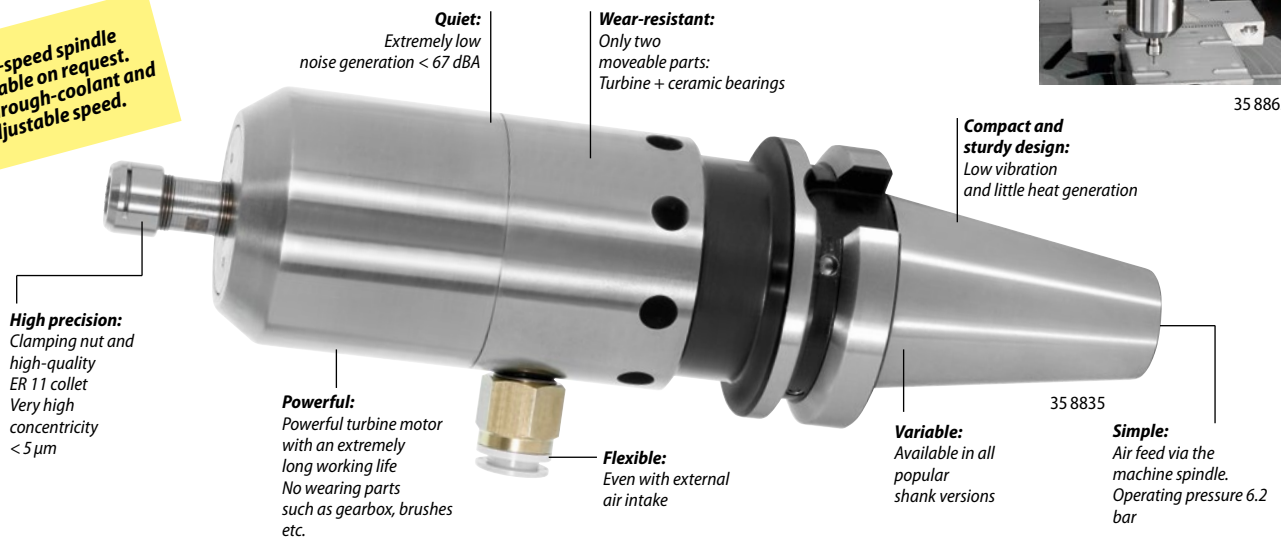


35 8825
Device for automatic tool changing on request.



35 8865

High-speed spindle available on request. With through-coolant and adjustable speed.



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■ **Higher machining speed** with smaller tools.



■ **Continuous use** due to integral air cooling. No standstill times.



■ **Environmentally friendly.** Patented airflow regulation minimises air consumption.



■ **Protects the machine.** Rotation is generated by high-speed spindle – the machine spindle remains stationary.

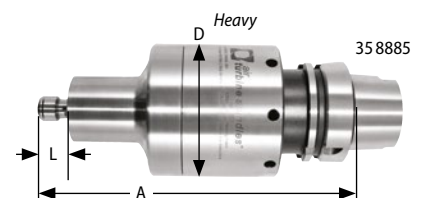
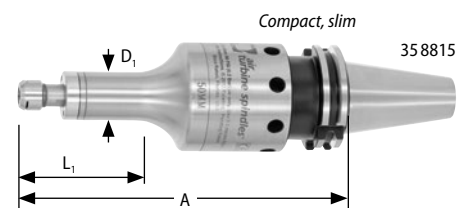


■ **Longer working life** of the tools.



■ **Very good surface quality** of the workpieces. Less rework required.

Speed		min ⁻¹	40000	50000
331 35 8805	High-speed spindle type 625 compact	SK 40	–	eShop
331 35 8815	High-speed spindle type 625S compact, slim	SK 40	(eShop)	(eShop)
331 35 8825	High-speed spindle type 660 heavy-duty	SK 40	–	(eShop)
331 35 8835	High-speed spindle type 625 compact	BT 40	–	eShop
331 35 8865	High-speed spindle type 625S compact, slim	HSK-A 63	(eShop)	eShop
331 35 8875	High-speed spindle type 660 heavy-duty	HSK-A 63	(eShop)	(eShop)
331 35 8885	High-speed spindle type 660 heavy-duty	HSK-A 63	–	(eShop)
Type (35 8805, 35 8835, 35 8865)			625	
Type (35 8815, 35 8875)			625S	625S
Type (35 8825, 35 8885)			–	660
∅ D (35 8805, 35 8815, 35 8835, 35 8865, 35 8875)	mm		57.15	
∅ D (35 8825, 35 8885)	mm		–	81.79
∅ D ₁ (35 8815, 35 8875)	mm		25	25
L (35 8805, 35 8825, 35 8835, 35 8865, 35 8885)	mm		22	
L (35 8815, 35 8875)	mm		25	25
L ₁ (35 8815, 35 8875)	mm		55	55
A (35 8805)	mm		163	
A (35 8815)	mm		169	169
A (35 8825)	mm		–	180
A (35 8835)	mm		–	173
A (35 8865)	mm		154	
A (35 8875)	mm		177	177
A (35 8885)	mm		–	197



35

Garant ZeroClamp zero point clamping system

More than 10 years of GARANT ZeroClamp – choose the right system!

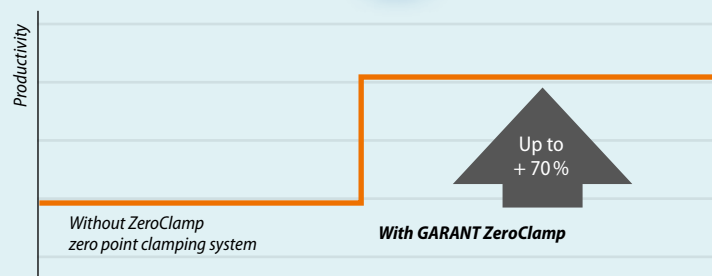
Increased productivity



Cost saving



Time saving



An overview of the critical advantages:

Thermal symmetry

Absolute zero point

Compensation for thermal expansion is always towards the centre.

Compensates pitch errors

up to ± 0.05 mm per pot:
Fixed zero point in the centre of the table.

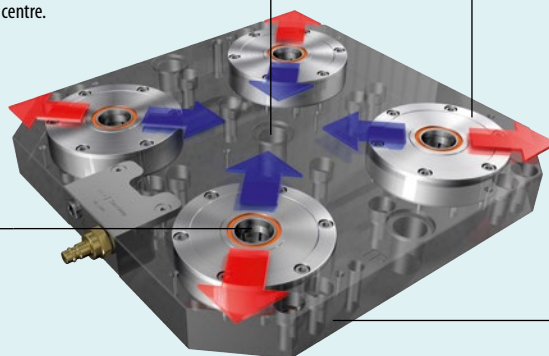
Precise

Precision taper

On insertion, the resiliently sprung taper of the socket expands and ensures a flat face contact seating.

HSK principle

Functions like an HSK tool taper.
Free of radial run-out and axial flat face contact seating, with repetition accuracy $< 2.5 \mu\text{m}$.



Simply brilliant

Only 1 stud type

no zero, floating or free studs.

Powerful

12.5 kN to 40 kN.

Compressed air connection

Only 5.5 bar required to release the clamping studs.

Low-maintenance

Sealed system

no hydraulic oil and unaffected by chips.

See our current supplementary brochure for further information.

One base – one type of stud – very great flexibility

The zero point clamping system for a wide range of applications.

From standard applications through to automation with just a single type of stud

- Good process reliability.
- No tilting if not level.

- User-friendly even for heavy and asymmetrical components.



Garant ZeroClamp, standard clamping system

All bores for T-slot pitches of **63, 100, 125 mm**.

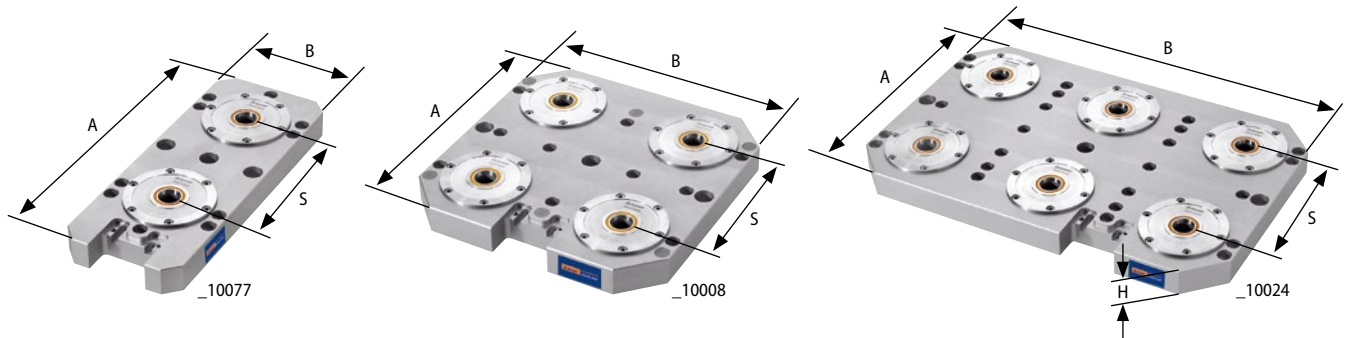
Centre bore Ø 25 H7 to receive a centring set.

Material: **Base plate** of high-tensile aluminium, surface treated.
All components of the clamping pot of stainless or corrosion-resistant steel.

Application: For vertical/horizontal machines.

Optional extras: Clamping stud No. 360025,
Connection block No. 360017 size 12808 / 12805.

Note: Base plates with clamping pot dia. 138 mm are also available with self-locking clamping pots on request.



Type		10077	10008	10024	11058
310 36 0012	ZeroClamp base plate	(eShop)	(eShop)	(eShop)	(eShop)
Clamping pot Ø	mm	120			
Number of clamping pots		2	4	6	8
B	mm	166	366	566	766
A	mm	416	366	366	366
H	mm	44			
Pitch S	mm	200			

Type		21782	21521	25438
310 36 0012	ZeroClamp base plate	(eShop)	(eShop)	(eShop)
Clamping pot Ø	mm	138		
Number of clamping pots		2	4	6
B	mm	196	396	596
A	mm	446	396	396
H	mm	54		
Pitch S	mm	200		

Garant Cover plates for base plates

The cover plates are made of 1 mm stainless steel 1.4301 for covering the base units.
(Surface protection + cover for location holes.)



Type		11356	11355	11354	11396
310 36 0013	ZeroClamp cover plate for base plate	(eShop)	(eShop)	(eShop)	(eShop)
Suitable for base plate No. 360012		Size 10077	Size 10008	Size 10024	Size 11058

Type		21872	24311	25449
310 36 0013	ZeroClamp cover plate for base plate	(eShop)	(eShop)	(eShop)
Suitable for base plate No. 360012		Size 21782	Size 21521	Size 25438



36

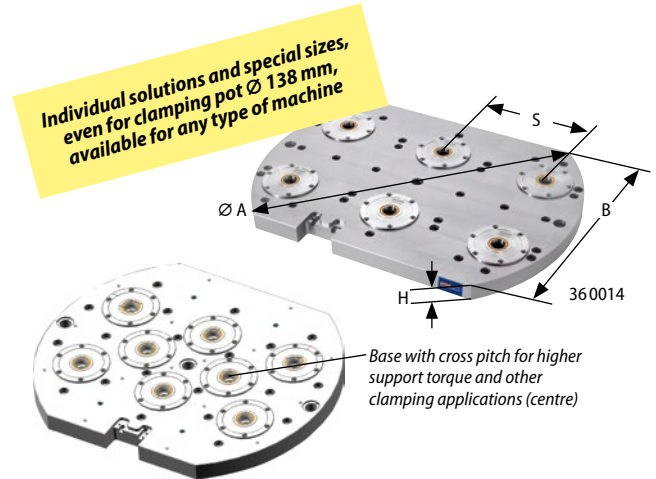
Garant ZeroClamp, adapted clamping system for 3/5-axis machines (according to machine type)

Centre bore $\varnothing$ 25 H7 to take the centring set.

Material: **Base plate** of high-tensile aluminium, surface treated.
All components of the clamping pot of stainless or corrosion-resistant steel.

Optional extras: Clamping stud No. 360025, connection blocks No. 360017 size 12808 and size 12805.

Note: Depending on the machine type, the arrangement may differ from that in the illustration.



Type		14014	10089	10477	29612	29598
310 36 0014	ZeroClamp base plate (depending on the machine type / machine table)	(eShop)	(eShop)	(eShop)	(eShop)	(eShop)
Suitable for machine type		MAZAK VARIAX 500	DMG DMU 50	Mazak Variax 630	Hermle C 32	DMG DMU 60eV0
Clamping pot $\varnothing$	mm			120		
Number of clamping pots		4	6	6	8	8
$\varnothing$ A	mm	500	630	630	650	630
B	mm	400	500	500	540	500
H	mm			44		
Pitch S	mm			200		

Garant Cover plates for base plates (based on machine type)

The cover plates are made of 1 mm stainless steel 1.4301 for covering the base units.
(Surface protection + cover for location holes.)



36 0021_11648

Type		11648	29610
310 36 0021	ZeroClamp cover plate for base plate	(eShop)	(eShop)
Suitable for base plate No. 360014		Size 10089; 10477	Size 29612

Garant ZeroClamp extension bases / adapters

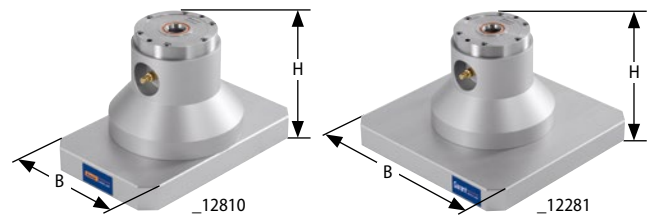
1-pot extension bases

Clamping pot $\varnothing$ 120 mm, indexed.

Suitable for: For base plates with pitch 200.

Supplied with: Including coupling plug and clamping stud No. 360025 size 18M16.

Optional extras: Quick-release coupling No. 360019 size 10241 and size 1003.



Type		19619	12809	12810	12281
310 36 0030	ZeroClamp extension base with 1 clamping point	(eShop)	(eShop)	(eShop)	(eShop)
B	mm	198	198	198	330
H	mm	120	150	200	200
Number of clamping studs		2	2	2	4
Connection thread	in	1/8	1/8	1/4	1/4

2-pot extension bases

With 2 clamping pots.

Suitable for: For base plates with pitch 200.

Supplied with: Including coupling plug and clamping stud No. 360025 size 18M16.

Optional extras: Quick-release coupling No. 360019 size 10241 and size 10003.

Note: Consoles with clamping pot dia. 138 mm are also available with self-locking clamping pots on request!



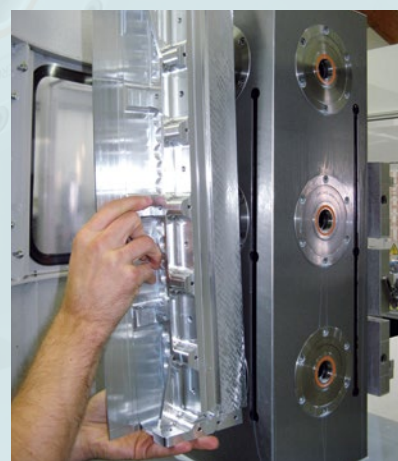
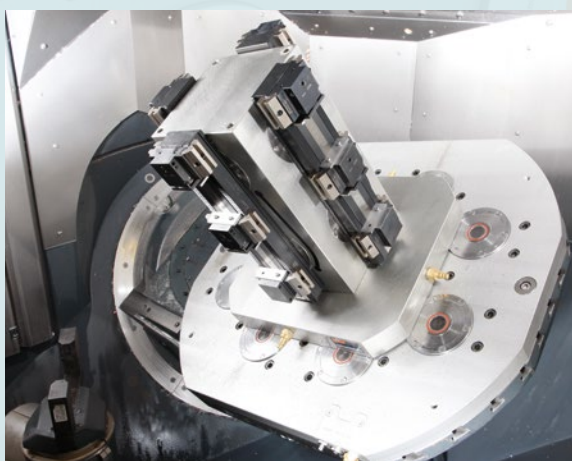
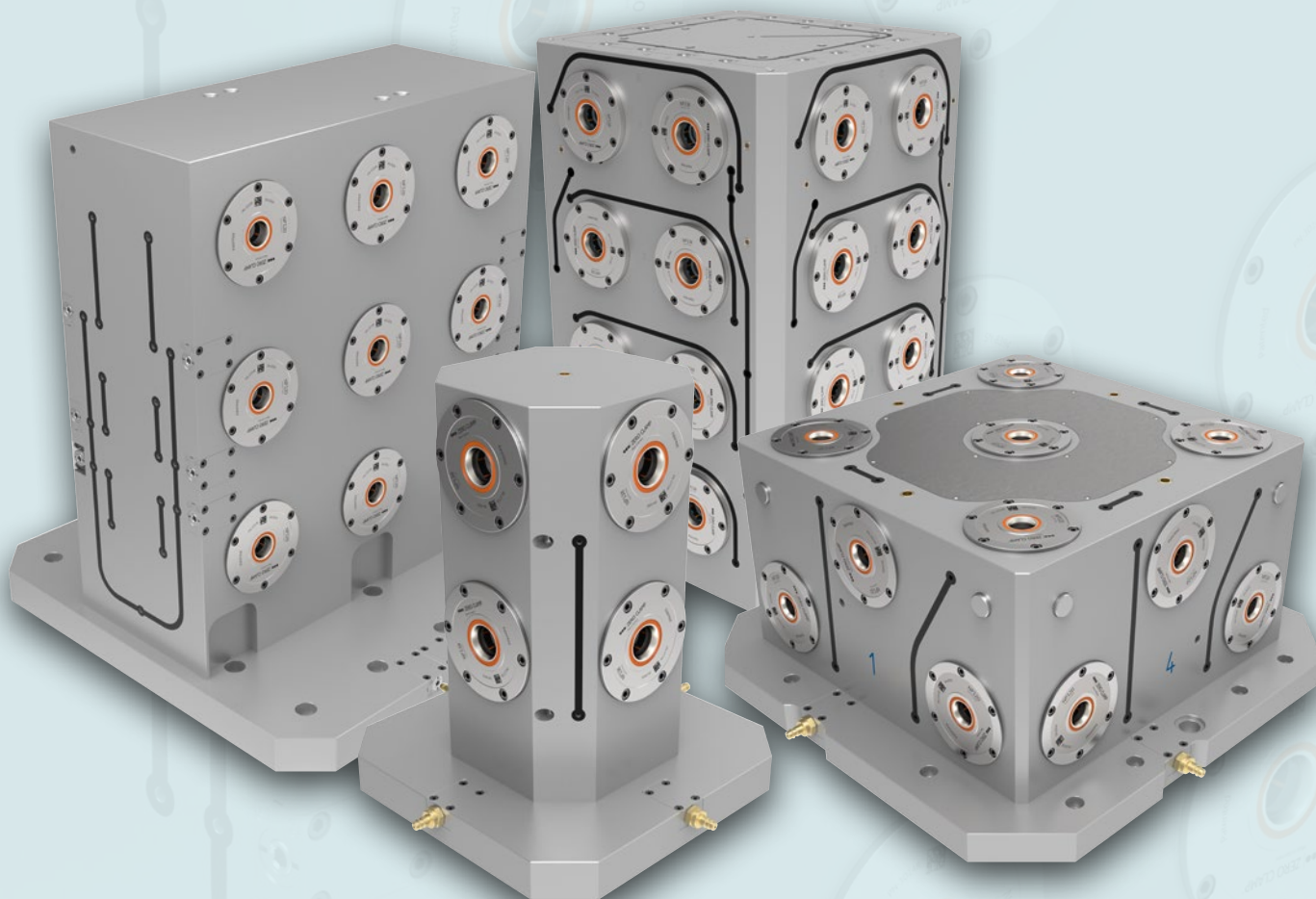
Type		12813	12814	12815	12816	12732	12735	12126	14523	25067	21033
310 36 0031	ZeroClamp extension base with 200 pitch	(eShop)	(eShop)	(eShop)	(eShop)	(eShop)	(eShop)	(eShop)	(eShop)	(eShop)	(eShop)
Clamping pot $\varnothing$	mm	120	120	120	120	120	120	120	120	138	138
H	mm	70	100	120	160	200	160	150	150	120	200
Number of clamping studs		2	2	2	2	2	4	2	4	2	2

Garant Clamping pillars with zero-point clamping system



Design your own clamping pillar to suit your requirements!

The clamping pillars of the zero-point clamping system are flexible in their dimensions and can be adjusted up to a height of approx. 900 mm. They offer individual adjustment options for clamping pot diameter, pitch and pot spacing to meet specific requirements.



- Freely selectable dimensions of the clamping pillar (max. height approx. 900 mm), the clamping pot diameter, the pitch and distances of the pots.
- Separate air connections available on each side.
- Clamping pots can be controlled individually or in groups.
- Indexed pots for clamping with only one pot.

- Ideally suited for clamping multi-point clamping rails, 5-axis clamps, NC clamps and centring vices.
- Ideal for machining on a horizontal milling machine.
- Can be clamped directly on the machine table or on a zero point clamping system.
- Can be controlled via the rotary feed through in the machine table.



36

Garant ZeroClamp zero-point clamping pot – self-locking

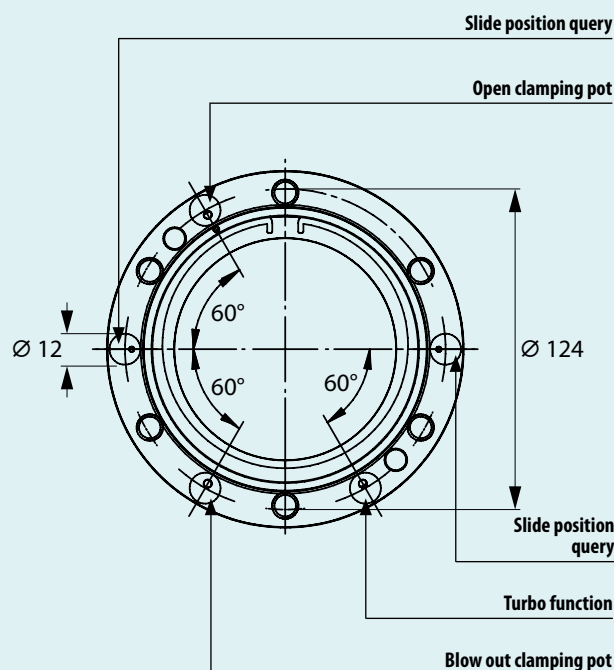


When your requirements become more demanding.

Operating principle:

A piston recessed in the slide area and equipped with drivers arranged at an angle of 15° which engage in the slides.

Piston stroke motion moves the clamping slides radially, locking the clamping stud by applying the spring force of the 14 locking springs.



Tried-and-tested benefits:

- Compatible with existing installations.
- Repetition accuracy < 2.5 µm.
- Zero play thanks to HSK principle.
- Thermal symmetry due to pre-loaded clamping cones. These always compensate for pitch inaccuracies towards the zero point.
- Only one type of clamping stud is required, which simplifies logistics.

Advantages over standard clamping pots:

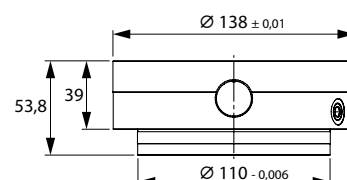
- 30% greater force/stroke volume. Clamping slides motion is linear and does not need to be divided into rapid stroke and clamping stroke.
- Blow-out function, turbo function and jaw position query as standard.
- No free studs or sword stud required, but still works the classic way with these types of studs

Garant Self-locking clamping pot

- 6 bar compressed air connection required to unlock.
- Radial compensation 0.1 mm.
- Maximum pin retraction 1 mm.
- Repetition accuracy < 2.5 µm.
- All components made of stainless or corrosion-resistant steel.

Application: For individual incorporation in the clamping system. For retrofitting on existing base plates for greater holding force.

Optional extras: Clamping stud No. 360025 size 16M8, 16M10, 18M12, 18M16 and 25M10.



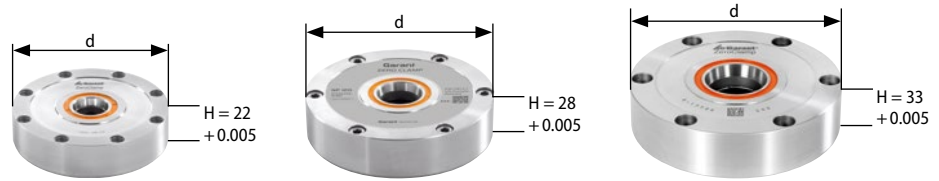
Type		Z120L	Z138L
310 36 0045	ZeroClamp clamping pot self-locking	eShop	eShop
Holding force M10	kN	35	
Holding force M12	kN	50	
Holding force M16	kN	—	70
Draw-in force	kN	5	8
Draw-in force with turbo	kN	20	25
Clamping pot Ø d	mm	120	138
Indexing hole available		no	
Radial compensation	mm	0.1	
Repetition accuracy	µm	< 2.5	

Garant ZeroClamp zero-point clamping system – Accessories

Clamping pots

All components made of stainless or corrosion-resistant steel.

Application: For individual incorporation in the clamping system.



Type		11886/90	12987/90I	10012	10148	138	138I
310 36 0040	ZeroClamp clamping pot	eShop	eShop	eShop	eShop	eShop	eShop
Holding force	kN	12.5	12.5	25	25	40	40
Clamping pot Ø d	mm	90	90	120	120	138	138
Indexing hole available		no	yes	no	yes	no	yes

Closure stud

36 0029 – Circular cover with seal covers the complete clamping pot including the closure stud.

Application: To protect unused clamping points against dirt and swarf.



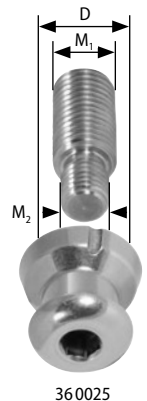
Clamping pot Ø	mm	90C	120C	138C	90	120	138
310 36 0029	Closure stud	eShop	eShop	eShop	–	–	–
310 36 0035	ZeroClamp original closure stud	–	–	–	eShop	eShop	eShop

Clamping studs

With internal thread including a suitable threaded pin.

Type		12M10/90	14M12/90	16M8	16M10	18M12	12M10	18M16	25M10
310 36 0025	ZeroClamp clamping stud with internal thread	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Ø D	mm	12	14	16	16	18	12	18	25
Tolerance external Ø		k6	k6	k6	k6	k6	k6	k6	h6
M ₁		M10	M12	M8	M10	M12	M10	M16	M10
M ₂		M8	M8	M8	M10	M12	M10	M12	M12
suitable for clamping pot Ø	mm	90	90	120	120	120	120	120	120

Type		12M10/138	18M12/138	25M10/138	25M16/138	18M16/138
310 36 0025	ZeroClamp clamping stud with internal thread	eShop	eShop	eShop	eShop	eShop
Ø D	mm	12	18	25	25	18
Tolerance external Ø		k6	k6	h6	k6	k6
M ₁		M10	M12	M10	M16	M16
M ₂		M10	M12	M16	M16	M12
suitable for clamping pot Ø	mm			138		

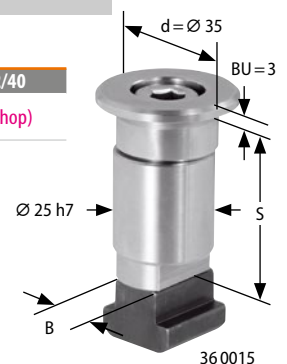


36 0025

Alignment sets

Application: For parallel alignment in the T-slots.

Slot width B / Clamping thickness S	mm	12/40	14/40	14/50	16/40	18/40	22/40
310 36 0015	ZeroClamp alignment set	(eShop)	(eShop)	(eShop)	(eShop)	(eShop)	(eShop)

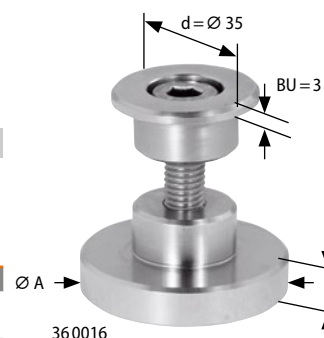


36 0015

Centring set

Application: For centralised alignment in the centre bore.
For basic units with 40 - 50 mm thickness.

Centring Ø A / Centring height B	mm	30/10	32/10	50/10	50/20
310 36 0016	ZeroClamp centring set	(eShop)	(eShop)	(eShop)	(eShop)



36 0016

Connection blocks

Size 12808 – With 2 connection threads G 1/4 inch for the connection of release and blow-out air hoses.

Size 12805 – With one connection thread G 1/4 inch for connecting the compressed air. The connection block has a manual valve for releasing, clamping, and also blowing out.



_12808

_12805

Type		12808	12805
310 36 0017	ZeroClamp connection block	(eShop)	(eShop)

Quick-release coupling nipple

310 36 0018	ZeroClamp quick-release coupling nipple	eShop
Connection thread	in	1/4



36 0018

Quick-release couplings

Type		10241	10003
310 36 0019	ZeroClamp quick-release coupling	eShop	eShop
Connection thread	in	1/8	1/4



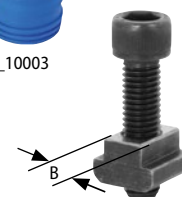
36 0019_10241



_10003

T-nut with clamping screw

Socket-head screw with hexagon socket to DIN912, strength class 12.9.



36 0024

Slot width B / clamping thickness S	mm	12/40	14/40	16/40	18/40	12/50	14/50	18/50
310 36 0024	T-nut with clamping screw	eShop	eShop	eShop	eShop	eShop	eShop	eShop
M		M10	M12	M14	M16	M10	M12	M16
Clamping screw length	mm	45	45	50	50	55	55	60

Clamping pot starter kit

All components made of stainless or corrosion-resistant steel.

Application: For individual incorporation in the clamping system.

Supplied with: Each with 4 clamping pots.
10 × adapters for the air line.
1.5 m air line.
1 × quick-release coupling No. 360019 size 10003.
1 × male coupling (suitable for quick-release coupling).

Note: Supplied with drawings and installation instructions for configuring your own clamping system. 2-component epoxy resin may be used to fill in the milled slots.



Configure your own clamping system

Type		10012-SET	10148-SET	138-SET	138I-SET
310 36 0040	ZeroClamp clamping pot	(eShop)	(eShop)	(eShop)	(eShop)
Clamping pot No. 360040		10012	10148	138	138I
Clamping pot Ø d	mm	120	120	138	138
Indexing hole available		no	yes	no	yes

Unique advantages:

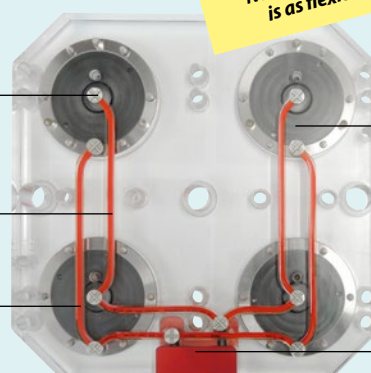
- Individual fitting
- Adaptation to special requirements
- Virtually limitless applications
- User-selected variable pitch
- Cost-effective solution
- Especially versatile for jig and tool making



Adapters

Compressed air line for
blowing out and dynamic pressure monitoring

Compressed air line for opening
the clamping pots



No other system is as flexible



Air feed
from below

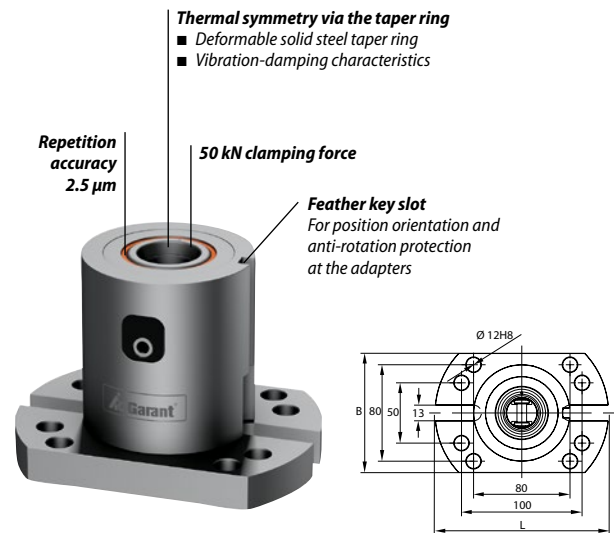
Different
connection blocks

Garant Flexible clamps

- Steel base body with integral solid steel taper.
- Mechanical clamping mechanism.
- Tightening the lateral clamping bolt axially draws the component in with the respective clamping stud via 2 clamping wedges, and clamps it.
- Can be secured using steplessly adjustable clamps, T-nuts or zero point clamping system using clamping studs No. 360066.
- Pre-drilled for the zero point clamping system.

Application: Simple and exact positioning on the machine table. Clamping of complex components, e.g. For mould making.

Optional extras: Clamping stud No. 360025 for size 120, torque wrench No. 656050 size 60, height element No. 360068.



Flexible clamp, fixed

Type		1	2
310 36 0060	Flexible clamp, fixed	(eShop)	(eShop)
Ø D	mm	80	
Length L	mm	144	
B	mm	99	
H	mm	100	125
Torque	Nm	10	

Flexible clamp, variable

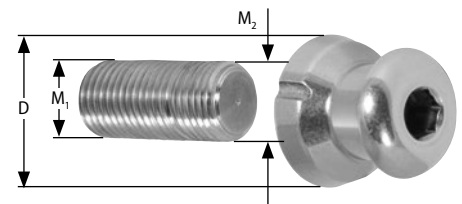
Height adjustment with 3 mm pitch per revolution. Maximum travel 25 mm.

Application: For compensating deformed components.



Garant Clamping studs for flexible clamp

Type		18M12	18M12/138
310 36 0066	ZeroClamp clamping stud	(eShop)	(eShop)
Ø D	mm	18	
Tolerance external Ø		K6	
M ₁		M12	
M ₂		M12	
suitable for clamping pot Ø	mm	120	138



Garant Height element

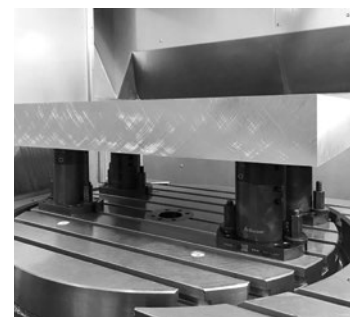
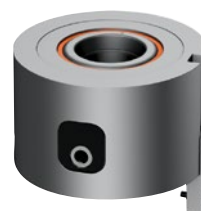
Suitable for: Flexible clamps No. 360060 and 360064.

Application: For extending the flexible clamp. Up to 5 height elements adaptable one over another.

Supplied with: Anti-rotation protection and clamping stud No. 360131 18M12/120.

Optional extras: Clamping stud No. 360025 for size 120. Torque wrench No. 656050 size 60.

Type		1
310 36 0068	Height element	(eShop)
Ø D	mm	80
H	mm	50
Torque	mm	10



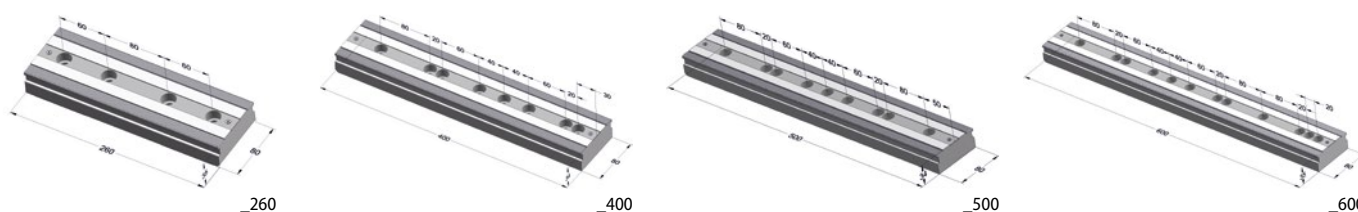
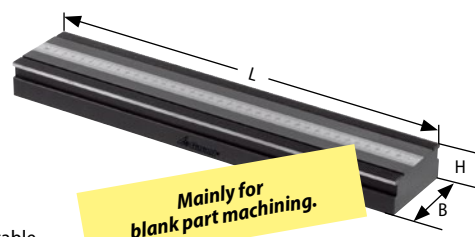
Garant Multi-point clamping rails 80 mm - accessories

- All functional faces precision ground, pairing accuracy 0.03 mm.
- Base rail and jaws case hardened.
- Compact modular design, **high clamping force up to 20 kN**, maximum tightening torque 25 Nm.
- Attachment hole pattern for **GARANT ZeroClamp zero point clamping system** (200 mm pitch) as standard, can be mounted on clamping plates or grid plates, or using table clamps.
- Ruler inset into the top face permits repeatable positioning of the clamp attachments in the serrations of the clamping rail.
- Easily clamped using a torque wrench.

Application: ■ **5-face machining on multi-axis machining centres.**

- As a cost-effective clamping solution for use with the GARANT ZeroClamp zero-point clamping system or with pallet and automated systems, or directly on to the machine table or clamping towers.

Optional extras: Clamping jaw variants, magnetic strip, workpiece backstops see No. 360084 to 360096. Torque wrench No. 656050 size 60, clamping stud No. 360025 size 12M10, clamping claw No. 360127

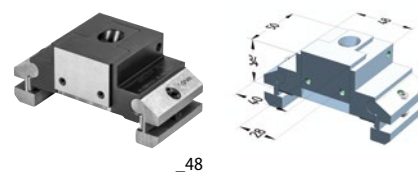


Beam length	mm	260	400	500	600
310 36 0080 Multi-point clamping rail 80		eShop	eShop	eShop	eShop
L	mm	260	400	500	600
B	mm	80			
H	mm	35			

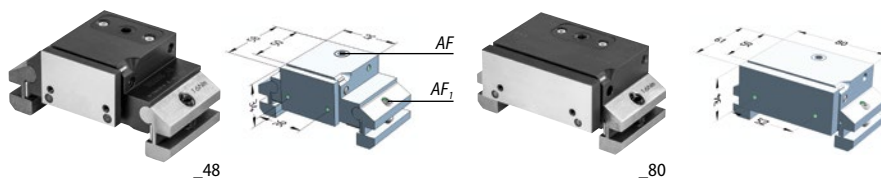
Clamping jaws

Suitable for: Clamping rail No. 360080.

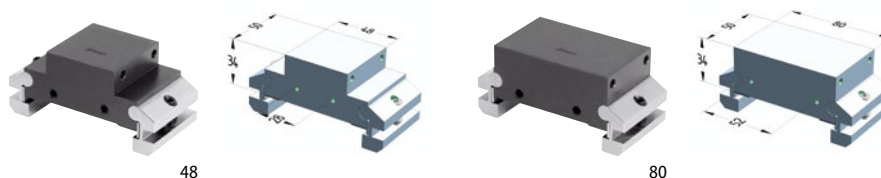
Note: For use with clamping rails from revision 3 onwards (see illustration). Attachment bar on multi-point clamping rails must not be wider than 5 mm.



Jaw width	mm	48	80
310 36 0084 Pull-down jaw		eShop	eShop
Clamping force	kN	5; 10; 15; 20	
Torque	Nm	6; 12; 17.5; 25	
max. stroke	mm	3	
T-bolt AF	mm		
Shank screw AF ₁	mm	4	



Jaw width	mm	48	80
310 36 0085 Parallel clamping jaw		eShop	eShop
Clamping force	kN	5; 10; 15; 20	
Torque	Nm	5; 10; 15; 20	
max. stroke	mm	3	3.5
T-bolt AF	mm		
Shank screw AF ₁	mm	4	



Jaw width	mm	48	80
310 36 0086 Fixed jaw		eShop	eShop

Accessories for clamping jaws

Suitable for: Parallel jaw No. 360085 and fixed jaw No. 360086.
Size 48NF – No. 360084 size 48, 360086 size 48
Size 80; 80ST – No. 360084; 360085; 360086.
Application: For clamping individual workpiece contours.

Jaw width	310	36 0092
mm		Gripper front jaw
48NF		(eShop)
80		eShop
80ST		eShop

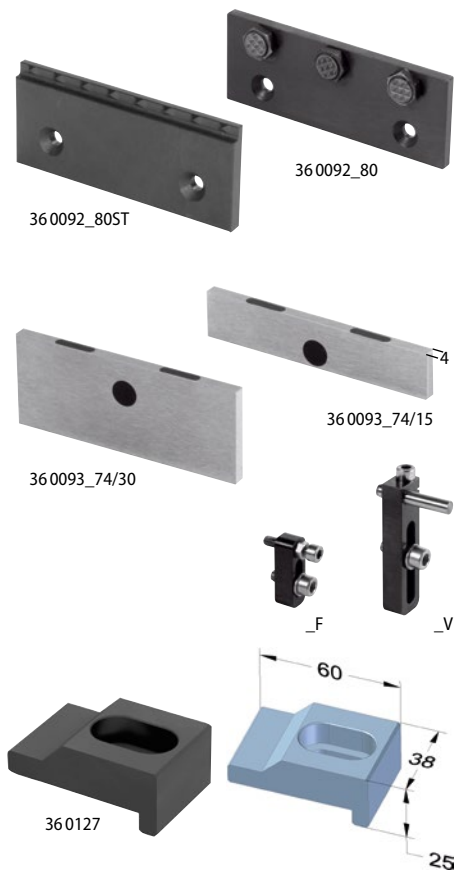
Jaw width / jaw height	310	36 0093
mm		Magnetic strip
74/10		eShop
74/15		eShop
74/20		eShop
74/25		eShop
74/30		eShop

Version	310	36 0094	Version
		Component backstop	
F		eShop	fixed
V		eShop	adjustable

Accessories for clamping rails 80 mm and 120 mm

Suitable for: Clamping rail No. 360080 and No. 360110.
Application: For conventional fastening to the machine table.

310	36 0127	Clamping claw set 6 pieces	eShop
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Garant Multi-point clamping rails 120 mm - accessories

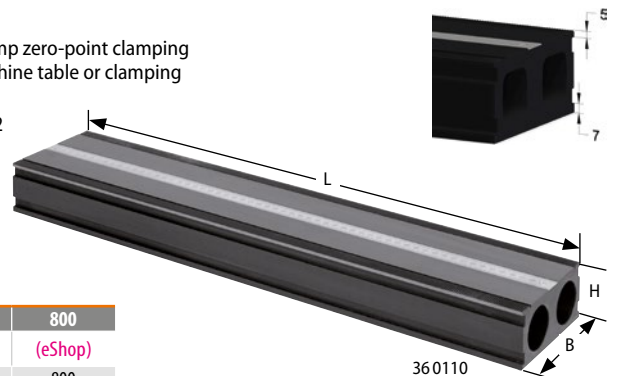
- All functional faces precision ground, pairing accuracy 0.03 mm.
- Base rail and jaws case hardened.
- Compact modular design, **high clamping force up to 40 kN**, maximum tightening torque 50 Nm.
- Attachment hole pattern for **GARANT ZeroClamp zero point clamping system** (200 mm pitch) as standard, can be mounted on clamping plates or matrix tables, or using table clamps.
- Ruler inset into the top face permits repeatable positioning of the clamp attachments in the serrations of the clamping rail.
- Variable pitches can be achieved using cross connectors.
- Conventional and grip clamping available.
- Clamping range can be extended individually.
- Easily clamped using a torque wrench.

Application: ■ **5-face machining on multi-axis machining centres.**

- As a cost-effective clamping solution for use with the GARANT ZeroClamp zero-point clamping system or with pallet and automated systems, or directly on to the machine table or clamping towers.

Optional extras: Clamping jaw variants, magnetic strip, workpiece backstop see No. 360112 to 360129. Torque wrench No. 656050 size 60, clamping stud No. 360025 size 18M16, clamp No. 360127.

Beam length	mm	300	600	800
310 36 0110	Multi-point clamping rail 120	eShop	eShop	(eShop)
L	mm	300	600	800
B	mm		120	
H	mm		60	

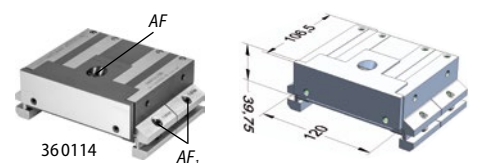


Clamping jaws

Note:

36 0114/0115 – Torque and clamping force are standard values and are only indicative reference points (material-dependent).

Jaw width	mm	120
310 36 0114	Pull-down jaw	eShop
Clamping force	kN	10; 20; 30
Torque	Nm	17; 30; 50
max. stroke	mm	4
T-bolt AF	mm	8
Shank screw AF ₁	mm	4



Jaw width	mm	120
310 36 0115	Parallel clamping jaw	eShop
Clamping force	kN	10; 20; 30; 40
Torque	Nm	10; 20; 30; 40
max. stroke	mm	4
T-bolt AF	mm	
Shank screw AF ₁	mm	4

Jaw width	mm	120
310 36 0116	Fixed jaw	eShop

Accessories for clamping jaws

Suitable for: Base jaw No. 360119.

Type		GLATT-HM	GRIPP-3,8
310 36 0118	Gripp insert	eShop	eShop
Height	mm	5.5	3.8
Version		Smooth	Gripp
Quantity		1	

Suitable for:

Size P – Only on fixed jaw No. 360116.

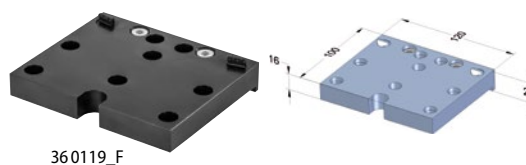
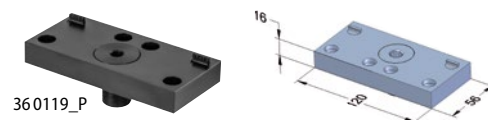
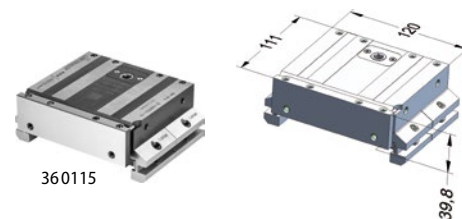
Size F – Jaws No. 360115 and 360016.

Application: Conventional clamping or clamping with gripp inserts.

Supplied with: 2 gripp inserts No. 360118 GRIPP-3.8.

Type		P	F
310 36 0119	Base jaw	eShop	eShop
Function		pivoting	fixed

Jaw width / jaw height	mm	120/10	120/20	120/30	120/38
310 36 0128	Magnetic strip 6 mm thick	eShop	eShop	eShop	eShop



Garant 3-way extension base for centring vice

Clamping of the centring vice on the three-way extension base via clamping claws. Double slot per clamping side, meaning the centring vices can be turned by 90°. Secured via GARANT ZeroClamp zero point clamping system (holes 18M16) or via T-nuts directly on to the machine table.

Suitable for: Centring vice No. 360133.

Material: High-tensile aluminium, hard anodised.

Supplied with: Including 6 T-nuts for alignment

Note: Use clamping set No. 363102 size 80 to install the GARANT Xtric No. 363000 size 50 or size 80.

for type		80/120
310 36 0156	3-way extension base for centring vice	(eShop)
Ø d	mm	400
h	mm	140
n H7	mm	20
Angle α	degrees	45

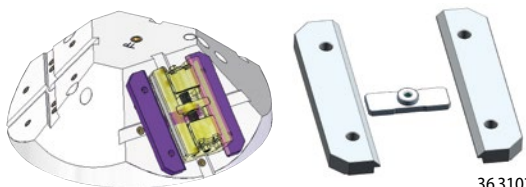
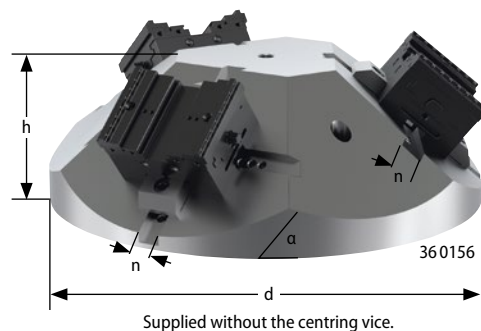
Accessories

Suitable for: GARANT Xtric No. 363000 size 50 or size 80.

Application: For fixing the Xtric to the three-way extension base No. 360156.

Type		80
310 36 3102	Alignment and clamping strip set, Xtric	(eShop)

Also available
as 4-way extension base on request.



Garant Centring vice and accessories

Centring vice for flexible applications.

- Absolute operational reliability thanks to enclosure.
- High repetition accuracy 0.02 mm.
- Variable central alignment ± 0.02 mm.
- Functional faces hardened.
- Sturdy design of tool steel, surface protection by brief exposure nitriding.

Suitable for:

- 36 0130 – Multi-point clamping rails No. 360080 and 360110.
- 36 0133 – Directly on the machine table, exchange pallet or 3-way extension base No. 360156.
- 36 0134 – Automation extension base No. 360164.

Application: Ideal for 5-face machining, perfect for clamping blank parts.

Supplied with: Supplied with socket No. 642700 size E12.

36 0133 – 2 table clamps.

36 0134 – Supplied with 4 clamping studs size 90.

Optional extras: Types of jaws No. 360135– 360151.



Basis
suitable for multi-point clamping rail 80 mm or 120 mm.

36 0130



Quick change
with just a few simple movements, can be turned through 90°.

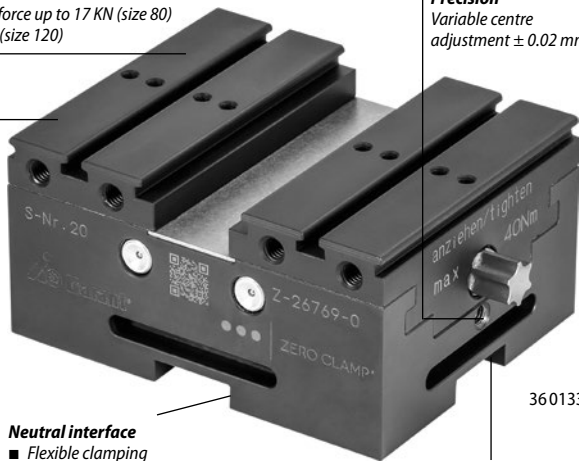
Powerful

Clamping force up to 17 kN (size 80)
or 25.5 kN (size 120)

Precision

Variable centre
adjustment ± 0.02 mm

Form fit of the
jaws on
the base body

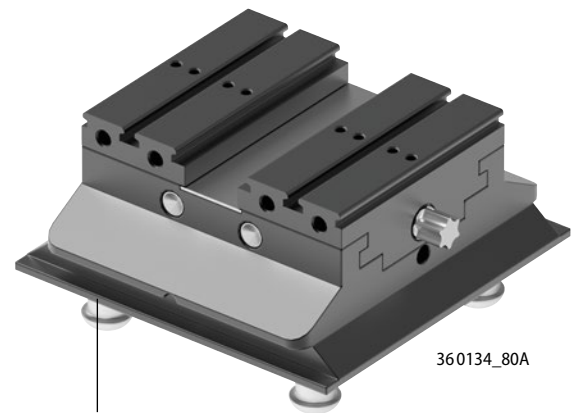


36 0133

Neutral interface

- Flexible clamping
on the machine table
- Extension bases or pallets
- Grid plates

Precise location slots
Quick placement on the table
or grid plate.



36 0134_80A

Basis
with 4 clamping studs size 90 with pitch 80 mm.

Jaw width A	mm	80	120	80A	120A
310 36 0130	Centring vice	eShop	eShop	–	–
310 36 0133	Centring vice, neutral	eShop	eShop	–	–
310 36 0134	Centring vice, automation	–	–	eShop	eShop
Clamping force up to maximum	kN	17	25.5	17	25.5
Torque	Nm	40	60	40	60
Weight	kg	2.5	5.1	3.5	5.3
Stroke	mm	22	25	22	25
A	mm	80	120	80	120
Length	mm	110	130	120	130
Width	mm	80	120	120	120
Height	mm	50.2	50.2	50	50

Automation vice in combination with an automation extension base

For use in automation.

Range of jaws

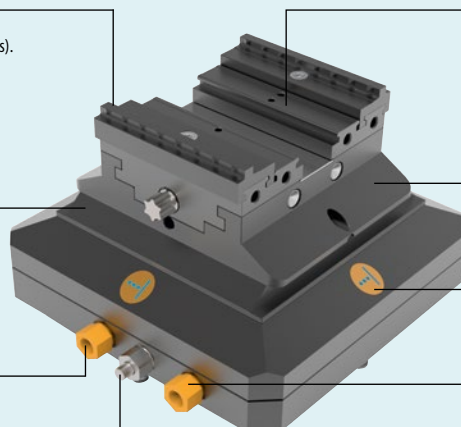
- Identical to previous centring vices No. 36 0130 and 36 0133.
- Clamping of blank parts (Gripp top jaws) and finished parts (carbide top jaws).

Clamping studs

- Clamping is achieved using 4 clamping studs.
- Draw-in force of 12.5 kN per stud.
- The same principal of operation as for the clamping pots.
- Absolute zero point is maintained thanks to thermal symmetry.

Opening

Bleeding



Automation vice 36 0134
in combination with extension base 36 0164.

Proven technology

- Enclosed spindle – no need for cleaning.
- High clamping accuracy.
- Clamping force up to 17 kN (size 80) or 25.5 kN (size 120).

Basis

- Integral M8 tapped holes
 $\varnothing$ 12H7 and 80 mm pitch.

Attachment hole

- Supplied with cover cap.

Monitoring the back pressure

- This is done using the Zerobot gripper, by rotary feed-through of the machine or manually.
- Back pressure can be checked.

i



36

Garant Top jaws for centring vices

Suitable for: Centring vice No. 360130 – 360134.

360140 80/120 – Clamping height = 4 mm.

360135/0136/0141 – Clamping height = 4 mm.

360140 Size 80L; 120L – Pre-impression of the serrated contour necessary.

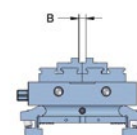
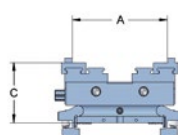
Material: Tool steel with brief exposure nitriding.

Supplied with: Fastening screw.

for type	80	120
360135	eShop	eShop
360136 Pair of carbide top jaws	eShop	eShop
Jaw width b	mm 80	mm 120
Clamping range B - A (360135)	mm 7 – 88	mm 7 – 107
Clamping range B - A (360136)	mm 88 – 108	mm 106 – 132
C (360135)	mm 55	mm 57
C (360136)	mm 58	mm 60
suitable for colour code		



360135/0136



for type	80	80L	120	120L
360140	eShop	eShop	eShop	eShop
360141 Pair of gripp top jaws	eShop	–	eShop	–
Jaw width b	mm 80	mm 80	mm 120	mm 120
Clamping range B - A (360140)	mm 6 – 87	mm 6 – 87	mm 6 – 107	mm 6 – 107
Clamping range B - A (360141)	mm 87 – 107	–	mm 107 – 132	–
C (360140)	mm 55	mm 74.18	mm 57.18	mm 74.18
C (360141)	mm 58	–	mm 60	–
suitable for colour code				



360140/0141

Material: Tool steel with brief exposure nitriding.

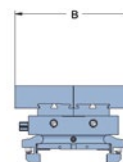
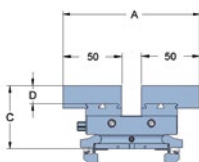
Application: For individual manufacturing of shaped jaws.

Supplied with: Fastening screw.

for type	80	120
360145 Pair of soft top jaws	eShop	eShop
Jaw width b	mm 80	mm 120
Clamping range B - A	mm 100 – 123	mm 125 – 153
C	mm 50	mm 50
D	mm 20	mm 25
suitable for colour code		

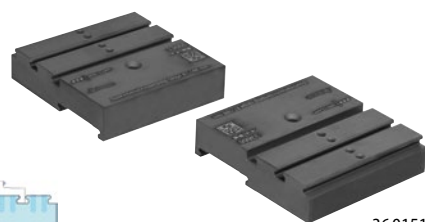
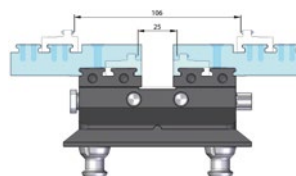


360145



Application: For increasing the clamping range, in combination with the top jaws No. 360135 - 360141.

for type	80	120
360151 Pair of jaw adapters	eShop	eShop
b	mm 80	mm 120
Clamping range	mm 87 – 168	mm 107 – 208
suitable for colour code		



360151

Colour code: ■ ZC 80 ■ PCV 100 ■ ZC120

Garant Extension base for automation vice – pitch 80 mm

50 kN holding force from 4 sets of clamping pot components size 90, pitch 80 mm.

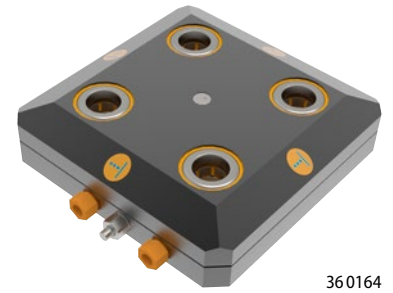
The same principle of operation as the GARANT ZeroClamp clamping pots.

Meaning there is thermal symmetry towards the centre. Manual or automatic clamping and release possible.

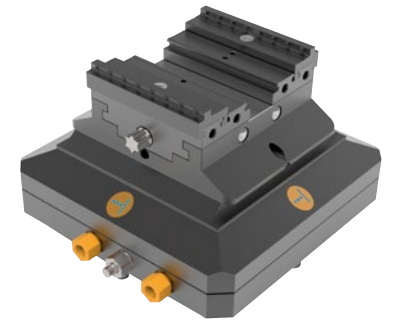
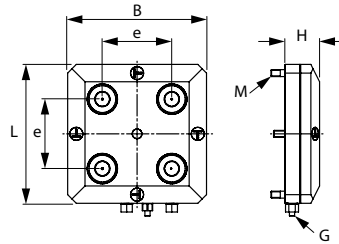
Clamp using spring pressure, release using compressed air (6 bar).

Suitable for: Centring vice no. 360134, height element no. 360166.

Application: For all vices and pallets with ZeroClamp clamping stud size 90.



360164



Application example

Type		XP80Z
310 36 0164	Automation extension base	eShop
Length L	mm	160
Width B	mm	160
Height H	mm	40
e	mm	80
Thread M		M8
Thread G	in	1/4
Number of location holes for clamping studs		4

Garant Accessories for automation extension base

High-tensile aluminium, black anodised.

Gripper groove on side 8×6 mm including central locating hole for automated applications.

Suitable for: Extension base no. 360164.

Size 136 – Centring vice No. 363000 size 50 and size 80 and No. 363300 size 75.

Application:

Size 136 – For adapting a clamping device with a pitch of **52 mm** to a pitch of **80 mm**.

Size 180 – Unrestricted surface on an **80 mm** pitch for individual processing or for use as a pallet.

Supplied with:

Size 136 – 4 × fastening screw,
4 × grub screw M8,
2 × locator bushing,
4 × clamping stud No. 360025 12M10/90.

Size 180 – 4 × clamping stud No. 360025 12M10/90.

Size 180 – 4 × grub screw M8.

Note:

Size 136 – Compatible with all brands of clamping device with pitch 52 mm.



360171_132



360171_180



Indexing holes for clamping pot 120 or 138.

Adapter plate for automation extension base XP80Z

Length	mm	136	180
310 36 0171	Adapter plate for automation extension base XP80Z	eShop	eShop
L	mm	136	180
B	mm		120
H	mm		29



36

The pneumatic centring vice – powerful and universal

Active adjustable clamping element best suited for automated production. Can also be operated manually!



Precision dovetail slides

Clamping stroke up to 8.5 mm

Clamping force

Steplessly adjustable up to 22.5 kN.
(Arithmetical sum = 45 kN)

Safety

A slight pre-load (approx. 60 kg) is maintained even if the compressed air supply fails.
This ensures secure positioning of the workpiece.

Grease nipples

Adjustable stroke

5 mm per side.

Air supply for opening

Air supply for clamping

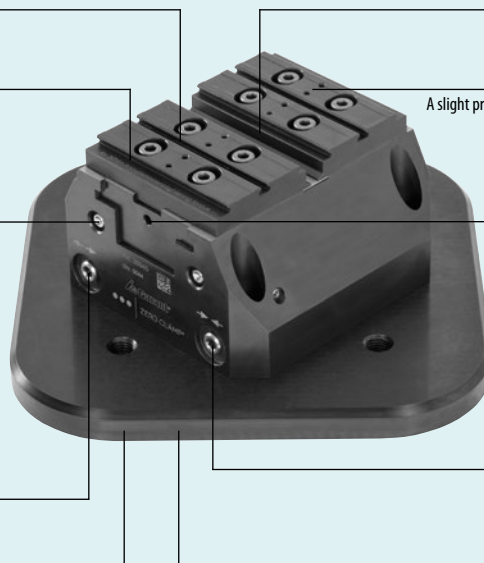
Manual operation with air pressure gun possible.
Maximum 9 bar.

Base plate

For 4 clamping studs (18x6 M16) cross pitch 200 mm.
With additional Schunk interface.

Air delivery

Air delivery in automatic mode via the
4-channel clamping pot.



Garant Pneumatic centring vice

- Adjustable stroke + 5 mm per end.
- Clamping force steplessly adjustable up to 22.5 kN. Arithmetical sum = 45 kN.
- Even if the compressed air supply fails, the centring vice maintains a slight (approx. 60 kg) pre-load, to ensure secure positioning of the workpiece, such as when a shuttle table is being used.

36 0180/0181 Size 100/4; 160/4 – With base plate, for higher support torque and maximum stability.

Advantage:

- 36 0181 – Incl. pressure reservoir with double-acting non-return valves.
- Continuous monitoring of clamping and release pressure and of battery state via WiFi.
- No rotary union necessary.
- Clamping and release by compressed air via robot.
- Connection block no. 360191 for horizontal or vertical compressed-air transfer available.

Application:

For centralised clamping of components. Suitable for **automated operation** with 4-channel clamping pots, even with side connections.

Optional extras:

36 0181 – Connection block no. 360191.

Size 100; 100/4 – Range of jaws no. 360135 - 360151 size 80.

Size 160; 160/4 – Range of jaws no. 360183 - 360187.

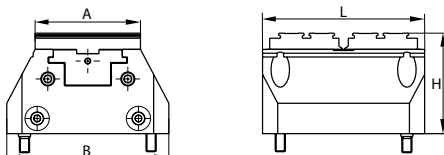


36 0180_160

Please order
top jaws separately

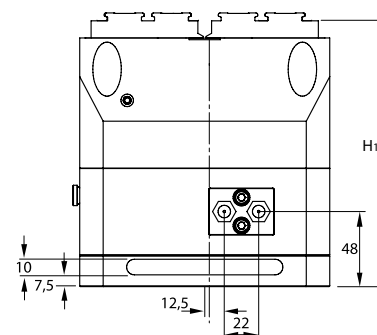


36 0181_160



Type		100	100/4	160	160/4
310 36 0180	Centring vice, pneumatic	eShop	eShop	eShop	eShop
310 36 0181	Centring vice, pneumatic IOT	eShop	eShop	eShop	eShop
Clamping force up to maximum	kN	10	10	22.5	22.5
Maximum compressed air supply	bar	9			
Weight (36 0180)	kg	4.8	14.8	12.2	22.2
Weight (36 0181)	kg	11.6	21.6	19	29
Jaw width A	mm	80	80	104	104
L	mm	100	100	160	160
B	mm	100	100	160	160
H	mm	95	95	99.2	99.2
Clamping range	mm	6	6	8.5	8.5
H ₁ (36 0181)	mm	171	191	175	175
Dimension across diagonals	mm	–	200	–	200
suitable for colour code		■	■	■	■

Colour code: ■ PCV 100 ■ PCV 160



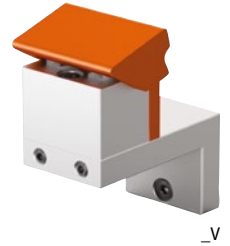
Garant Accessories for pneumatic centring vices

Connection blocks

Suitable for: Centring vice IOT No. 360181.

Application: For horizontal or vertical compressed air delivery. The air delivery is covered by a flap made from elastomer which is opened by the robot while pressure is being filled.

Optional extras: Connector No. 360167 1.



Type		V
310 360191	Connection block for IOT centring vice	eShop
Air delivery		vertical

Gripping jaws

Hardened, for clamping blanks. Gripping jaws can also be used as reversible jaws. Clamping step with a height of 4 mm.

360184 – The jaws cover four clamping ranges.

Suitable for: Centring vice no. 360180 and no. 360181 size 160 each.

Supplied with: Fastening screws.

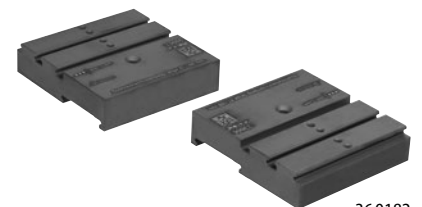


Type			1	2	3	4	5	6	Jaw width A mm
310 360183	Pair of gripping jaws	H = 40	eShop	eShop	eShop	eShop	eShop	eShop	80
310 360184		H = 15	eShop	eShop	eShop	–	–	–	120
S1		mm	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60	60 – 70	
S2		mm	120 – 130	110 – 120	100 – 110	90 – 100	80 – 90	70 – 80	
S3 (360184)		mm	60 – 70	50 – 60	40 – 50	–	–	–	
S4 (360184)		mm	70 – 80	80 – 90	90 – 100	–	–	–	
suitable for colour code									

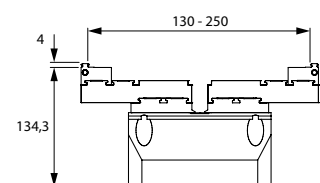
Jaw adapter

Suitable for: Centring vice no. 360180 and no. 360181 size 160 each.

Application: For increasing the clamping range, in combination with the top jaws No. 360183 – 360184.



for type		160
310 360182	Jaw adapter	eShop
Jaw width A	mm	104
Clamping range	mm	130 – 250
suitable for colour code		



Soft top jaws

360185 – For mounting soft top jaws No. 360186

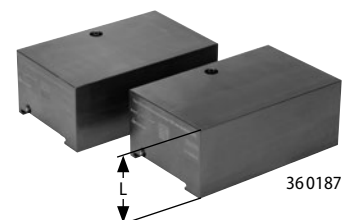
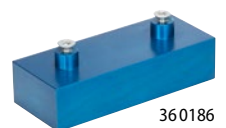
360186/0187 – For manufacturing shaped jaws.

Suitable for: Centring vice no. 360180 and no. 360181 size 160 each.

Supplied with: Fastening screws.

Type		148	148A	148S	168	H mm
310 360185	Pair of base jaws	eShop	–	–	–	15
310 360186	Soft top jaw 1/2	–	eShop	eShop	–	29
310 360187	Pair of soft top jaws	eShop	–	–	eShop	44
Jaw width A	mm	120				
l	mm	64	–	–	74	
Version		Steel	Aluminium	Steel	Steel	
suitable for colour code						

Colour code: ■ PCV 160



Incredibly varied clamping options for pre-embossed components



Garant XGRIPP embossing station

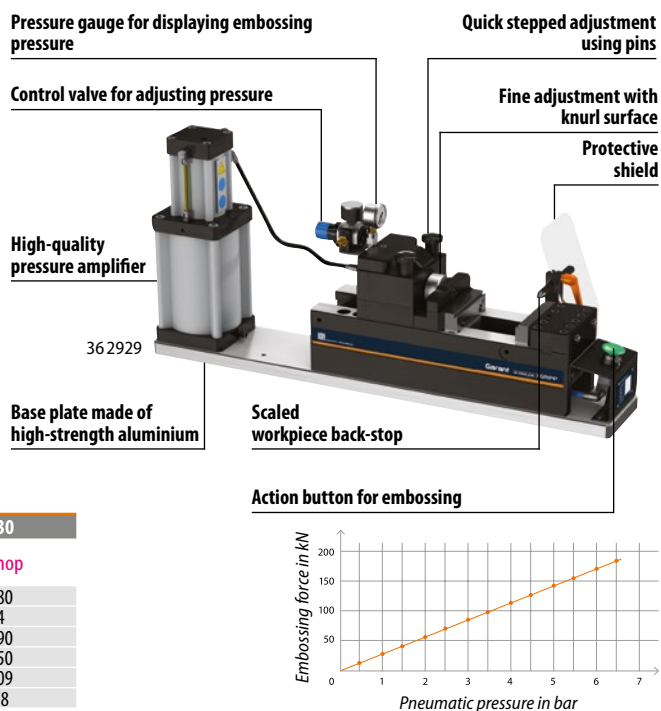
- Embossing materials up to 45 HRC (tensile strength 1450 N/mm²) possible.
- Max. Embossing force 180kN (18 t), linear embossing force progression.
- Adjustment of the pneumatic embossing pressure between 0.5 and 6.5 bar.
- Quick adjustment at 30 mm intervals.
- Fine adjustment by knurled screw.
- Everything mounted on a base plate – conforms to CE, can be used safely and in a compact manner as a single unit.
- The operating button is directly on the embossing station and thus there are no pneumatic hoses outside the station.

Advantage: Positive clamping in gripper jaws even at low clamping force

Application: For pre-embossing especially hard or unstable components.

Supplied with: Base plate, pressure converter, embossing station, protection plate, stamping jaws, workpiece backstop, support strip.

Optional extras: Centre marking No. 362934 size 1, checking set for stamping jaw wear No. 362936 size 1.



max. embossing width	mm	230
310 36 2929	Embossing station XGRIPP	eShop
maximum embossing force	kN	180
Embossing stroke	mm	4
Length	mm	890
Width	mm	150
Height	mm	409
Weight	kg	78

Accessories for XGRIPP embossing station

36 2931/2932/2935 – Spare part – easily exchanged if worn.

Suitable for: Embossing station XGRIPP No. 362929 size 230.

Application:

36 2934 – Visual aid for ensuring a central position of the component in the vice.

36 2936 – For checking wear of the stamping jaws No. 362931.

Supplied with:

36 2934 – Incl. marking bolt No. 362935.

Optional extras:

36 2931 – Checking set No. 362936.

Type		1
310 36 2931	Impress jaw XGRIPP	eShop
Type		1
310 36 2932	Support strip XGRIPP	eShop
Type		1
310 36 2934	Centre marking XGRIPP	eShop
Type		1
310 36 2935	Marking bolt XGRIPP	eShop
Type		1
310 36 2936	Checking set for stamping jaw wear XGRIPP	eShop



Garant**GARANT XTURN: ALWAYS PUTTING IN A GOOD TURN.**

For **economical multi-side processing** on a 3-axis machine:
The GARANT Xturn helps you upgrade your existing machine.
Additional axes provide new machining options and greater
production capacity to your existing stock of machine tools.

For further information
and options, ask
your technical adviser!



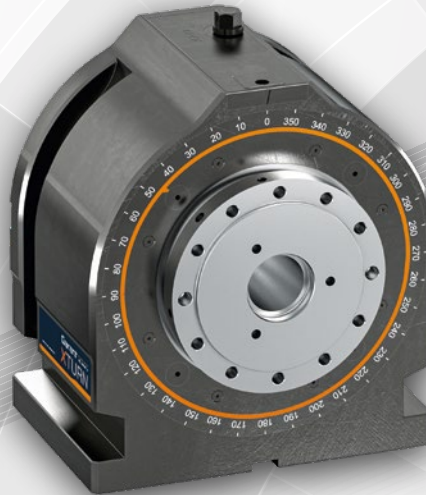
GARANT Xturn with GARANT ZeroClamp clamping pot.



GARANT Xturn with rocker and 4 GARANT Xtrics.



GARANT Xturn with clamping cube, elevation set and 8 GARANT Xtrics with centre jaw.



GARANT Xturn with cross beam, elevation set and 8 GARANT Xtrics.



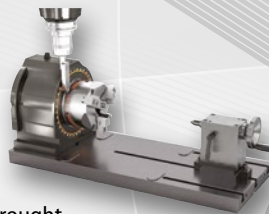
GARANT Xturn with clamping cube, integral ZeroClamp clamping pot, elevation set and 6 GARANT Xtrics.



GARANT Xturn with three-jaw chucks and opposite tailstock.

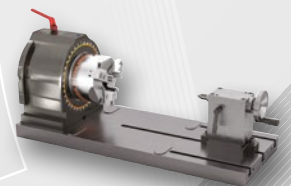
Functional principle of machine indexing:

When the indexing tool is changed and is retracted to the intended indexing points, the interlocking is released and the Xturn can be indexed in 1° increments. When the indexing tool has been brought out into the indexing position, the Xturn locks itself automatically, and the machine can immediately recommence processing.



Operating principle of manual indexing:

By actuating the ring spanner, the interlocking is released and the Xturn can be indexed manually in 1° increments. When the ring spanner is released, the Xturn locks again and work can continue.



The most important features:

- Can be used on any machine.
- Spacing 360 × 1.
- Indexing accuracy ± 10 seconds.
- Repeatability ± 4 seconds.
- Manual or CNC-controlled indexing is possible using an indexing tool in the machine spindle.
- Can be used upright or horizontally.

The benefits to you:

- Increase in machine running times due to multiple clamping.
- Allows quick machine loading and unloading.
- A wide variety of tools in one base device.



36

Garant Centric clamping to perfection for your automation



Top jaws with optimised contour design

- Optional coating for process reliability in machining.
- Hardened and underside precision milled.
- Very good repetition accuracy < 0.01 mm.

100 % centred

- Centring adjustment for perfect centring.

Various different top jaws

- Finished parts are clamped using pairs of parallels.
- Raw materials and finished parts are clamped using the same jaw.

Spindle nut with or without pivot function

- The size code P stands for pivoting jaw.
- The pivot function nut permits pivoting by $\pm 2^\circ$.
- Use of the pivot function nut offers increased security for components such as sawn parts.
- Greater precision when using rigid version.

Clamping jaw quick-change system

- Clamping jaw quick-change in seconds without tools by clicking onto the dovetailed slide.



Different base lengths

- Choose the right length for every machine.

Clamping edge

- Perfect for clamping claws.

Interface for automated applications

- Freely usable interface.
- Also serves as a cleaning opening.
- Also serves as an **endutec** interface
- Size 50H suitable for Häberle automation systems.
- Size 50XSE suitable for Erowa ITS50.
- With 363085 148P adaptable to Erowa ITS148.

Chromium-plated spindle

- Linear clamping force development
 - XTRIC50: 40 Nm generate 16 kN clamping force
 - XTRIC80: 85 Nm generate 25 kN clamping force
 - XTRIC125: 132 Nm generate 32 kN clamping force
- Internal clamping available by switching the spindle nuts.

Laser-engraved graduations

- For pre-positioning the clamping jaws.

Longitudinal slots

- Quick and easy alignment on the machine tool table.

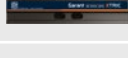
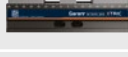
Centring adjustment with pin wrench



Special underside

- Hole pattern suitable for the "LANG" positioning system.
(Grid scale XTRIC 50 and 80: 52 mm; XTRIC125: 96 mm)
- Can be clamped to the GARANT ZeroClamp using the adapter.

The clamping jaw quick-change system: for more clamping options

Garant XTRIC		50XS (XSE)	50H	50S (SP)	80XS (XSP)	80S (SP)	80M (MP)	80SMT	125XS (XSP)	125S (SP)	125M (MP)	125L (LP)	125XL (XLP)
Standard		0 – 22	0 – 36	0 – 51	0 – 42	0 – 76	0 – 126	0 – 101	0 – 60	0 – 94	0 – 144	0 – 194	0 – 244
Reversed		49 – 65	49 – 79	49 – 94	74 – 110	74 – 144	74 – 194	74 – 169	92 – 146	92 – 180	92 – 230	92 – 280	92 – 330
Offset jaws		20 – 36	20 – 50	20 – 65	29 – 65	29 – 99	29 – 149	29 – 124	35 – 89	35 – 123	35 – 173	35 – 232	35 – 273
Offset jaws, reversed		35 – 51	35 – 65	35 – 80	51 – 87	51 – 121	51 – 171	51 – 146	63 – 117	63 – 151	63 – 201	63 – 251	63 – 301
Centre jaw, standard*		–	–	–	–	6 – 29.5	6 – 54.5	6 – 42	–	6 – 37	6 – 62	6 – 87	6 – 112
Centre jaw, reversed*		–	–	–	–	40 – 63.5	40 – 88.5	40 – 76	–	49 – 80	49 – 105	49 – 130	49 – 155
Centre jaw, offset jaws*		–	–	–	–	17.5 – 41	17.5 – 66	17.5 – 53.5	–	20.5 – 51.5	20.5 – 76.5	20.5 – 101.5	20.5 – 126.5
Centre jaw, offset jaws, reversed*		–	–	–	–	28.5 – 52	28.5 – 77	28.5 – 64.5	–	34.5 – 55.5	34.5 – 90.5	34.5 – 115.5	34.5 – 140.5
1 pc. standard, 1 pc. reversed**		27.5 – 43.5	27.5 – 57.5	27.5 – 72.5	35 – 101	35 – 135	35 – 185	35 – 160	49 – 103	49 – 137	49 – 187	49 – 237	49 – 287
1 pc. offset jaw, 1 pc. offset jaw, reversed**		27.5 – 43.5	27.5 – 57.5	27.5 – 72.5	40 – 76	40 – 110	40 – 160	40 – 135	49.5 – 103.5	49.5 – 137.5	49.5 – 187.5	49.5 – 237.5	49.5 – 287.5

* for each clamping point ** no longer a centring vice

Garant XTRIC centring vice

- Very good accessibility and perfectly symmetrical.
- Fully hardened and precision milled on the underside.
- Clamps raw materials and finished parts with the least possible backstroke of the jaws / component.
- Supplied with holes for LONG positioning system, **can be adapted to GARANT ZeroClamp and Erowa ITS148 (size 50 and 80) using an intermediate plate.**
- Jaws can be changed without using tools. The clamping range can be changed by reversing the jaws.
- Interface for automated applications.

Suitable for: Top jaws No. 363010 – 363045.

Application: Perfect for 5-face machining. Centred clamping.

Supplied with: Base rail, spindle, spindle nuts, **spindle cover No. 363083.**

Optional extras: Hexagon screwdriver No. 627424 size 5, pin spanner No. 628600 size 2, torque wrench No. 656050, socket No. 642229, stepless adjustable clamps No. 363081 80 and 361165 CS1, GARANT clamping stud No. 363190, adapter plates No. 363079, 363080, 363085. Height extension base No. 363090 (in conjunction with No. 363079). Assembly station No. 358595 52/96.

Note:

Size 50XSE – **Including adaptation suitable for Erowa ITS50.**

Size 50H – **Particularly suitable for HÄBERLE automation systems.**

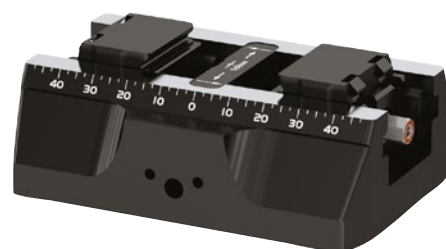
Size 50XS; 50S; 50SP; 80XS; 80XSP; 80S; 80SP; 80M; 80MP; 125XS; 125XSP; 125S; 125SP; 125M; 125MP; 125L; 125XL; 50XSE; 50H –

Suitable top jaws No. 363010 – 363045 are not included in the scope of supply.

Clamping situation S2 arises by reversing the jaws.

Use offset top jaws to overcome the clamping gaps with types XS and XSP and H.

See our additional brochure
"The GARANT X-Team"
for detailed information.



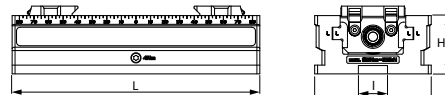
363000_50H



363000_80S



Large capacity range S1 – S2 with the same Xtric and the respective accessories.



363000_50XSE

Type	310 36 3000 Centring vice basic device	Clamping force up to maximum	Weight	L	B	H	S1	S2	I	Swing angle	maximum torque	Width across flats	Pitch underside	Colour code for suitable accessories
	Xtric	kN	kg	mm	mm	mm	mm	mm	mm	degrees	Nm	mm	mm	
50XSE	eShop	16	2.215	96	50; 80	35	0 – 22	49 – 65	20	–	40	7; 3	52	
50XS	eShop	16	1.5	96	50; 80	35	0 – 22	49 – 65	20	–	40	7; 3	52	
50H	eShop	16	1.5	110	50; 80	35	0 – 36	49 – 79	–	–	40	7; 3	52	
50S	eShop	16	1.8	125	50; 80	35	0 – 51	49 – 94	20	–	40	7; 3	52	
50SP	eShop	16	1.8	125	50; 80	35	0 – 51	49 – 94	20	±3	40	7; 3	52	
80XS	eShop	25	2.7	136	80	40	0 – 42	74 – 110	20	–	85	10; 5	52	
80XSP	eShop	25	2.7	136	80	40	0 – 42	74 – 110	20	±2	85	10; 5	52	
80S	eShop	25	3.2	170	80	40	0 – 76	74 – 144	20	–	85	10; 5	52	
80SP	eShop	25	3.2	170	80	40	0 – 76	74 – 144	20	±2	85	10; 5	52	
80M	eShop	25	4	220	80	40	0 – 126	74 – 194	20	–	85	10; 5	52	
80MP	eShop	25	4	220	80	40	0 – 126	74 – 194	20	±2	85	10; 5	52	
125XS	eShop	32	7.8	186	125	54	0 – 60	92 – 146	20	–	132	13; 5	96	
125XSP	eShop	32	7.8	186	125	54	0 – 60	92 – 146	20	±2	132	13; 5	96	
125S	eShop	32	9	220	125	54	0 – 94	92 – 180	20	–	132	13; 5	96	
125SP	eShop	32	9	220	125	54	0 – 94	92 – 180	20	±2	132	13; 5	96	
125M	eShop	32	10.6	270	125	54	0 – 144	92 – 230	20	–	132	13; 5	96	
125MP	eShop	32	10.6	270	125	54	0 – 144	92 – 230	20	±2	132	13; 5	96	
125L	eShop	32	11.8	320	125	54	0 – 194	92 – 280	20	–	132	13; 5	2x96 / 200	
125XL	eShop	32	13.4	370	125	54	0 – 244	92 – 330	20	–	132	13; 5	2x96 / 200	

Colour code: ■ Xtric 80 ■ Xtric 80 ■ Xtric 125



36

Garant Xtric automation centring vice

- Very good accessibility and perfectly symmetrical.
- Fully hardened and precision milled on the underside.
- Clamps raw materials and finished parts with the least possible backstroke of the jaws / component.
- Central alignment delivers perfectly centred clamping.
- The clamping range can be changed by reversing the jaws.

Suitable for: Top jaws No. 363010 – 363045.

Application: Perfect for 5-face machining. Centred clamping.

Supplied with:

Size 80SMT – Base body, spindle nuts and four clamping studs.

Size 80SA; 80SPA – Base body, spindle, spindle nuts.

Size 125XSA; 125XSPA – Base body, spindle, spindle nuts and four clamping studs suitable for automation extension base No. 360164 XP80Z.

Optional extras:

Size 125XSA – Torque wrench No. 656050,
socket No. 642229 13,
assembly station No. 358595 80.

Size 80SA; 80SPA; 80SMT; 125XSPA – Torque wrench No. 656050,
socket No. 642229 13,
assembly station No. 358595 52/96 or No. 358595 80.

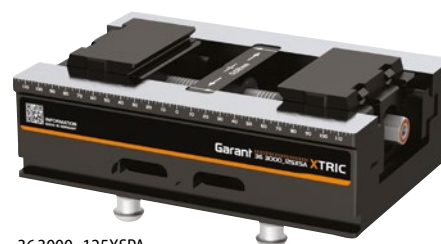
Size 80SA; 80SPA – Clamping stud No. 363190 52.

Note:

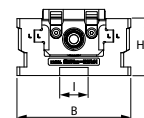
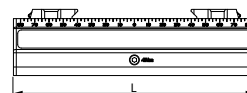
Size 80SMT – Spindles must be ordered separately, see No. 363008 80/195; 363084 80SM.

Size 80SA; 80SPA – Suitable for the GARANT TurnTable automation system in combination with / for automation extension base No. 360164 XP80Z. Suitable top jaws No. 363010 – 363045 are not included in the scope of supply. Clamping situation S2 arises by reversing the jaws.

Size 80SMT–125XSPA – Suitable for the GARANT TurnTable automation system in combination with / for automation extension base No. 360164 XP80Z. Suitable top jaws No. 363010 – 363045 are not included in the scope of supply. Clamping situation S2 arises by reversing the jaws.



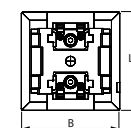
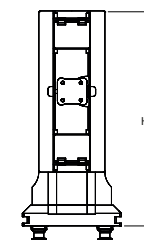
363000_125XSPA



363000_80SA



363000_80SMT



Type		80SA	80SPA	80SMT	125XSA	125XSPA
310 36 3000	Centring vice basic device Xtric	(eShop)	(eShop)	(eShop)	(eShop)	(eShop)
Weight	kg	3.1	3.1	9.49	10.6	10.6
L	mm	170	170	120	186	186
B	mm	75	75	120	120	120
H	mm	40	40	260	54	54
Reference dimension	mm	52	52	80	80	80
maximum torque	Nm	85	85	85	132	132
Width across flats	mm	10; 5	10; 5	10; 5	13; 5	13; 5
maximum clamping force	kN	25	25	25	32	32
Colour code		Yellow	Yellow	Yellow	Blue	Blue

Garant Choose between single and double clamping



363000_80SMT



2x 363084_80SM



1x 363084_80SM / 1x 363008_80/195



2x 363008_80/195



Single clamping on both sides



Single and double clamping



Double clamping on both sides

Colour code: Yellow Xtric 80 Blue Xtric 125

Garant Xtric accessories

Combination top jaws

piece

36 3019 – Jaws with narrow web for improved accessibility, caution:

Size 50: Max. 35 Nm = 14 kN;

size 80: Max. 54.4 Nm = 16 kN;

size 125: Max. 82.5 Nm = 20 kN.

36 3036 – Jaws for using Gripp inserts 361163 and without clamping step

(individual adjustment of the step height using parallels, Gripp inserts must be ordered separately).

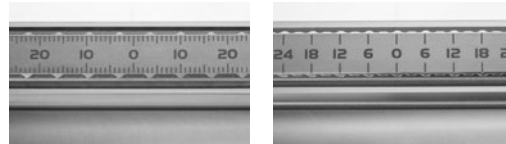
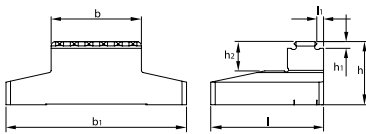
36 3037 – Smooth jaws without step.

36 3010/3014/3018/3022/3026/3030 – Combination jaws with grip serrations and a smooth clamping face.

36 3012/3016 – Jaws with a smooth step.

36 3014/3016/3022 – With coating on the smooth clamping face for optimum retaining force.

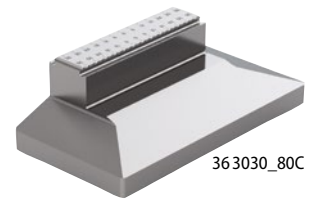
36 3018–3022/3030 – Pre-impression of the serrated contour necessary.



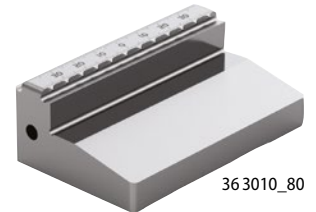
36 3010

36 3018

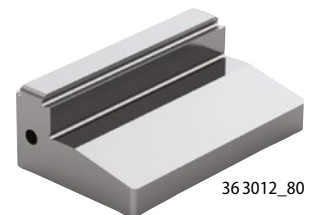
for type		25C	50	40C	80	80C	125
310 36 3010	Standard top jaw	–	eShop	–	eShop	–	eShop
310 36 3012	Top jaw, smooth	eShop	eShop	eShop	eShop	eShop	eShop
310 36 3014	Standard top jaw, coated	–	–	–	eShop	–	eShop
310 36 3016	Top jaw, smooth coated	–	–	–	eShop	–	eShop
310 36 3018	Top jaw system, LANG	–	eShop	–	eShop	–	eShop
310 36 3019	Top jaw LANG with narrow web	–	eShop	–	eShop	–	eShop
310 36 3022	Top jaw system, LANG, coated	–	–	–	eShop	–	eShop
310 36 3026	Standard top jaw, width-reduced	eShop	–	eShop	–	eShop	–
310 36 3030	Top jaw system, LANG, width-reduced	eShop	–	eShop	–	eShop	–
310 36 3036	Top jaw with insert seat	–	eShop	–	eShop	–	eShop
310 36 3037	Top jaw without step	–	eShop	–	eShop	–	eShop
b	mm	25	–	40	–	80	–
b ₁	mm	50	50	80	80	125	125
h	mm	24	24	28	28	38	38
h ₁ (36 3010, 36 3012, 36 3014, 36 3016, 36 3018, 36 3019, 36 3022, 36 3026, 36 3030)	mm	3					
h ₂ (36 3010, 36 3012, 36 3014, 36 3016, 36 3018, 36 3019, 36 3022, 36 3026, 36 3030)	mm	11	11	13	13	18	18
h ₂ (36 3036, 36 3037)	mm	–	8	–	10	–	15
l	mm	40	40	50	50	66	66
l ₁	mm	3					
Weight	kg	0.18	0.22	0.35	0.45	1.2	1.35
suitable for colour code		■	■	■	■	■	■



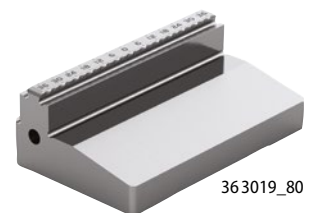
36 3030_80C



36 3010_80



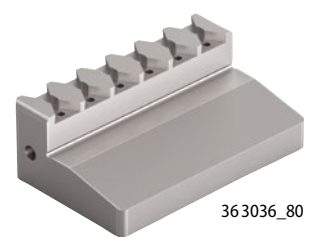
36 3012_80



36 3019_80



36 3037_80



36 3036_80

Combination top jaws for cylindrical workpieces

Suitable for:

36 3038 Size 80 – No. 363039

Size 125 – No. 361238 – 361250 and 361160.

Application: For realising customised contours and for machining sensitive components.

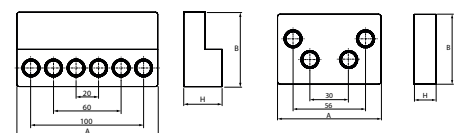
for type		80	125
310 36 3038	Gripp top jaw	eShop	eShop
b	mm	80	125
h	mm	17	34
l	mm	54	66
Weight	kg	0.43	1.37
Thread		M12×1	M14×1.5
suitable for colour code		■	■

Type	mm	1
310 36 3039	Gripp clamping insert, round	eShop
Thread M		M12×1

Colour code: ■ Xtric 50 ■ Xtric 80 ■ Xtric 125



36 3038_125



36 3039

Soft top jaws

piece

Application: For realising customised contours and for machining sensitive components.

Note: Dovetail slide available for quick change of jaws. Version S of steel and A of aluminium.
Sawn raw material, only machined on underside.
Article 363034 80A may be clamped only to max. 12.5 Nm (12.5 Nm = 0.5 t).
Article 363034 120A may be clamped only to max. 34 Nm (34 Nm = 1 t).
Article 363034 160A may be clamped only to max. 82.5 Nm (82.5 Nm = 2 t).



363034_120A

Type	310	36 3034	Material	b	h	l	suitable for colour code
		Soft top jaw		mm	mm	mm	
80S		eShop	1.7227	80	24	40	■
80A		eShop	EN AW-7075	80	24	40	■
120S		eShop	1.7227	120	28	50	■
120A		eShop	EN AW-7075	120	28	50	■
160S		eShop	1.7227	160	38	66	■
160A		eShop	EN AW-7075	160	38	66	■

Pairs of parallels, magnetic for clamping finished parts

Note: Sizes 15C, 20C, 22C, 30C and 32C were modified to suit the contour of the reduced-thickness jaws.



363076_20



Back face



363076_32C

Height	mm	5	7	10	12	15	20	20C	22	22C	25	30	30C	32	32C
310 36 3075	Pair of parallels	eShop	eShop	eShop	—	eShop	eShop	eShop	eShop	eShop	—	—	—	—	—
310 36 3076	magnetic	—	—	eShop	eShop	—	eShop	—	—	—	eShop	eShop	eShop	eShop	eShop
Length (36 3075)	mm	80	80	80	—	80	80	80	80	80	—	—	—	—	—
Length (36 3076)	mm	—	—	125	125	—	125	—	—	—	125	125	125	125	125
Width	mm	2.5													
suitable for colour code (36 3075)		■	■	■	—	■	■	■	■	■	—	—	—	—	—
suitable for colour code (36 3076)		—	—	■	■	—	■	—	—	—	■	■	■	■	■

Double clamping spindle bearing

- Permits the clamping of two components.
- 4 mm length compensation of the spindle for clamping workpieces of different sizes.
- Straightforward assembly and removal.

Suitable for: Separately obtainable centre jaws No. 363040, 363042, 363044.

Supplied with: Spindle bearing, spindle with length compensation.

Optional extras: Hexagon screwdriver No. 627424 size 3 and size 5.

Note: Not for use with size 50 or Xtric types XS and XSP!



363008



Clamping situation with 363008, 363040 and 363041 reversed.

Type	80/170	80/195	80/220	125/220	125/270	125/320	125/370
310 36 3008	Spindle bearing, complete	eShop	(eShop)	eShop	eShop	eShop	eShop
Width across flats	mm	5; 10	5; 10	5; 10	5; 13	5; 13	5; 13
suitable for type		80S; 80SP	80S; 80SP	80M; 80MP	125S; 125SP	125M; 125MP	125L; 125XL
suitable for colour code		■	■	■	■	■	■

Colour code: ■ Xtric 50 ■ Xtric 80 ■ Xtric 125

Centre jaws**piece**

36 3040 – With grip serrations in a 3 mm step and a smooth clamping face.

36 3042 – Pre-impression of the serrated contour necessary.
With 3 mm grip step and smooth clamping face.

36 3044 – With smooth 3 mm grip step and smooth clamping face.

Suitable for: Spindle bearing, complete No. 363008.**Note:** Not for use with size 50 or Xtric types XS and XSP!

36 3040_80



36 3044_125

Type		80	125
310 36 3040	Standard centre jaw	eShop	eShop
310 36 3042	Centre jaw, LANG system	—	eShop
310 36 3044	Smooth centre jaw	eShop	eShop
b	mm	80	125
h	mm	28	38
l	mm	23	26
suitable for colour code			

Top jaws, offset**piece**

36 3041 – With grip serrations in a 3 mm step and a smooth clamping face.

36 3043 – Pre-impression of the serrated contour necessary.
With 3 mm grip step and smooth clamping face.

36 3045 – With smooth 3 mm grip step and smooth clamping face.

Application: To avoid clamping gaps. See clamping capacity overview.

36 3041_80

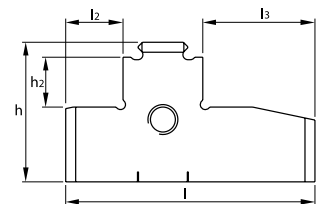


Clamping situation with 363041



36 3045_125

Type		50	80	125
310 36 3041	Standard top jaw, offset	eShop	eShop	eShop
310 36 3043	Top jaw, offset, LANG system	eShop	eShop	eShop
310 36 3045	Top jaw, offset, smooth	eShop	eShop	eShop
b	mm	50	80	125
h	mm	24	28	38
h ₂	mm	8	10	15
l	mm	40	50	66
l ₂	mm	7	11.5	14.5
l ₃	mm	14.5	22.5	28.5
suitable for colour code				

**Replacement spindles for the centring vice basic device****Suitable for:** XTRIC No. 363000**Supplied with:** Spindle bearing, spindle.

36 3084

Type		50XS	50S	80XS	80S	80SM	80M	125XS	125S	125M	125L	125XL
310 36 3084	Spare spindle for XTRIC	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
suitable for colour code												

Colour code: Xtric 80 Xtric 125 Xtric 80

Spindle cover

Note: The sets each comprise variously sized modules and have been tailored to match the length of the respective vice size.



Application example



36 3083 80XS

Type	50XS	50S	80XS	80S	80M	125XS	125S	125M	125L	125XL
310 36 3083 Spindle cover set	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
suitable for colour code										
Content:										
Number of 3 mm modules	8	8	–	–	–	–	–	–	–	–
Number of 5 mm modules	8	8	6	8	12	–	–	–	–	–
Number of 8 mm modules	–	–	6	8	12	–	–	–	–	–
Number of 6 mm modules	–	–	–	–	–	6	8	12	16	20
Number of 10 mm modules	–	–	–	–	–	6	8	12	16	20

Clamping claw

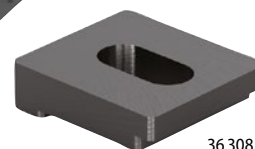
Suitable for:

36 1165 – Xtric 125

36 3081 – Xtric 50 and 80, No. 359400 1 and No. 363300.



36 1165



36 3081

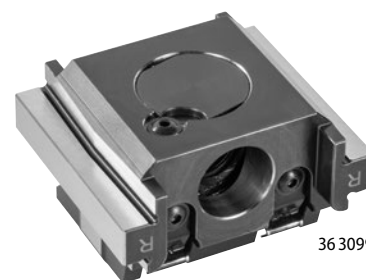
Type	310 36 1165	310 36 3081	B	H	L	suitable for colour code
	Clamping claw		mm	mm	mm	
CS0	eShop	–	50	16	56	
CS1	eShop	–	50	20	56	
80	–	eShop	40	12	45	

Spindle nuts

36 3097 – For converting a pivoted Xtric into a rigid Xtric.

36 3098 – When using a centre jaw in order that the left-hand side is pivoted.

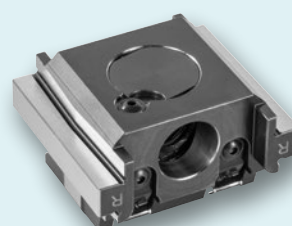
36 3099 – For converting a rigid Xtric into a pivoted Xtric.



36 3099

Type	50	80	125
310 36 3097 Rigid right-hand spindle nut	eShop	eShop	eShop
310 36 3098 Spindle nut with left-hand pivot function	–	eShop	eShop
310 36 3099 Spindle nut with right-hand pivot function	eShop	eShop	eShop
suitable for colour code			

Garant Rigid left spindle nut



The rigid left spindle nut for our **GARANT Xtric No. 36 3000** is available on request, as the spindle nuts are matched to our basic unit.

Colour code: Xtric 80 Xtric 80 Xtric 125 Xpent0 Xpent1-2

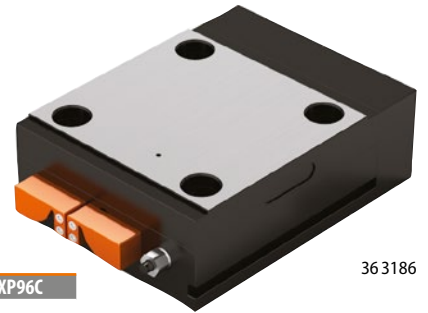
Garant Automation extension bases

- 36 3185 – Operation via roller bearing eccentric lever and 2-stage clamping wedge.
Quick and easy change by moving an eccentric lever.
- 36 3186 – Manual or automatic clamping and releasing can be performed.
Clamping by spring pressure – can be released with compressed air (6 bar).

Suitable for: Centring vice No. 363000, 363300 and height extension base No. 363188.
Application: For all vices and pallets with pitch 52 mm or 96 mm.



36 3185



36 3186

Type		XM52C	XM96C	XP52C	XP96C
310 36 3185	Automation extension base mechanical	eShop	(eShop)	–	–
310 36 3186	Automation extension base pneumatic	–	–	eShop	eShop
Length	mm	197.5	197.5	176	176
Width	mm	134			
Height	mm	47	47	60	60
Connection thread	in	–	–	1/4	1/4

Clamping studs for pitch 52 and 96

Suitable for: Centring vice No. 363000, 363300, automation extension base No. 363185 and No. 363186.

Note: Compatible with all brands of clamping device with pitch 52 mm and 96 mm.



for pitch	mm	52	96
310 36 3190	Clamping studs	eShop	eShop
Ø D	mm	12n6	16n6
Thread M		M8	M10

Adapter plates for centring vice for zero-point clamping systems

Adapter plate with recessed handles for pitch 200 mm

For fastening any clamping devices with pitch 52 mm and 96 mm, for adapting to zero point clamping systems.
Supplied with 2 ZeroClamp holes 18M12, 200 mm pitch. Anodised aluminium.

Size 325/3 – 2 x 96 mm grid for holding two centring clamps with a pitch of 96 mm or 3 x 52 mm grid for holding three centring clamps with a pitch of 52 mm. In addition to the two ZeroClamp 200-mm pitch holes in the bottom, there are two further 141.42-mm pitch holes.

Suitable for: Centring vice No. 363000, 363300 and height extension base 363090.

Supplied with: Centring bushings and fastening screws for Xtrac size 50/80 and 125, caps for locator holes in Xtrac size 125 when using Xtrac size 50 or 80.



36 3079_325



36 3079_325/3



Length	mm	325	325/3
310 36 3079	Adapter plate	eShop	eShop
Width	mm	125	
Height	mm	30	



36

Adapter plate for indexed clamping pots

Application: For adapting a centric clamping device to indexed clamping pots.

Note: For securing all clamping devices with pitch 52 mm and 96 mm, for adapting to an indexed clamping pot. Not suitable for Xtric No. 363000 125L and XL!



Underside Xtric



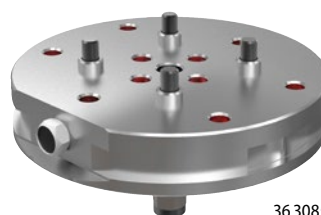
36 3080_125/120

ZS type / for clamping pot Ø	mm	80/120	80/138	125/120	125/138
310 36 3080	Garant Adapter plate for centring vice	eShop	eShop	eShop	eShop
Mounting hole		18M12			
suitable for colour code					

Adapter plate for Erowa ITS148

Stainless steel. Centring integrated in the plate. Includes screws, centring sleeves and blanking plugs. Chucking spigot F/M Production ER-010742 included.

Application: Can be used on all EROWA PowerChuck P and ProductionChuck 210 Combi. For attaching clamping devices/centring vices with 52 mm pitch. For adapting the centring vices 363000 size 50/80 and 363300 size 75 to the Erowa zero point clamping system ITS148P.



36 3085

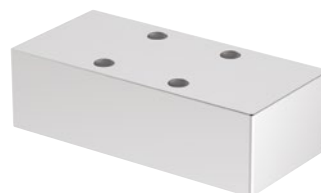
Type		148P
30N 36 3085	EROWA ITS148P adapter plate	eShop
suitable for colour code		

Height extension bases for centring vice with pitch 52/96 mm

Application: For raising the centring vices No. 363000 and 363300 on 5-axis machines. The base element is **always** the adapter plate No. 363079, onto which the height extension base with centring vice is mounted.

Supplied with: Centring bushings, 4 short fastening screws for mounting the centring vices on one height extension base and 4 long fastening screws for mounting the centring vices on two height extension bases.

Note: Two height extension bases can be used on top of each other so that the height can be increased by 100 mm!

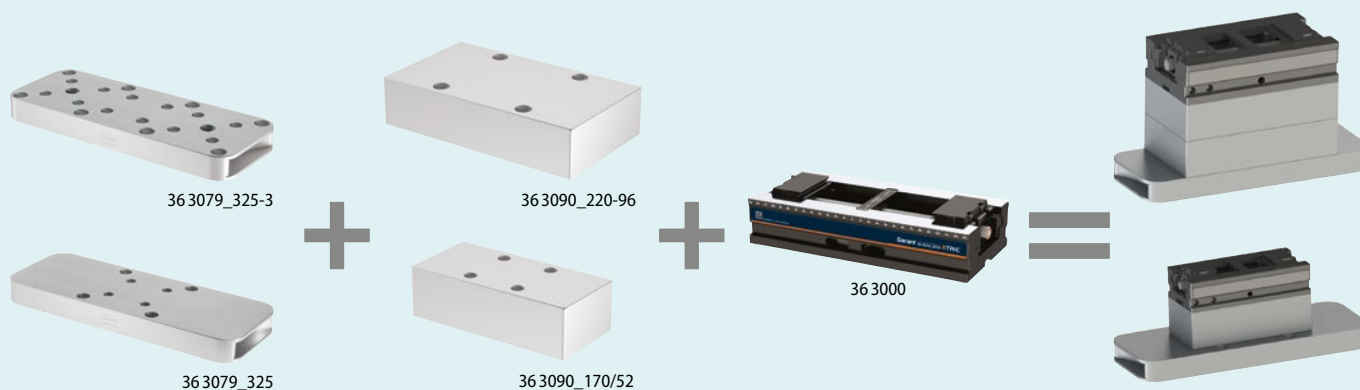


36 3090_170/52

Length/pitch		170/52	220/96
310 36 3090	Garant Height extension base for centring vice	eShop	eShop
Width	mm	80	125
Height	mm	50	
suitable for colour code			

Garant Modular height extension base system

For pitch 52 or 96 mm.



Colour code: Xtric 50 Xtric 80 HOLEX ZS 75 Xtric 125 HOLEX ZS 120

HOLEX Centring vice

- Very good accessibility and perfectly symmetrical.
- Fully plasma-nitrided and precision milled on the underside.
- Clamps raw materials and finished parts with the least possible backstroke of the jaws / component.
- The clamping range can be changed by reversing the jaws.

Size 75; 120 – ■ With interface for automated applications.

- Including holes for LANG positioning system, **can be adapted to GARANT ZeroClamp and Erowa ITS148 (only No. 363300 75) via intermediate plate.**

Suitable for: Top jaws No. 363310 – 363324.

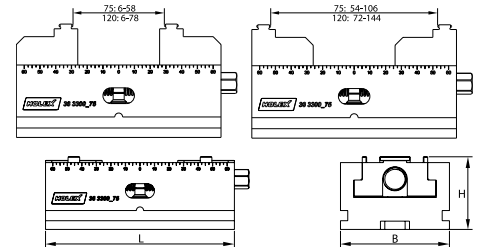
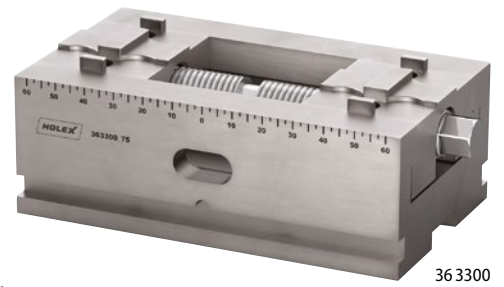
Application: Perfect for 5-face machining. Centred clamping.

Supplied with: Base body, spindle, spindle nuts.

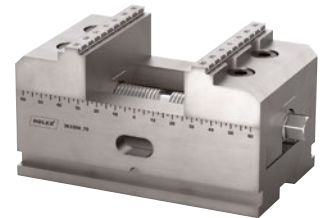
Optional extras: Torque wrench No. 656050, socket No. 642229 12 (for size 75), No. 642229 13 (for size 120) clamping claws No. 363081 80 and 361165 CS1, GARANT clamping stud No. 363190, adapter plates No. 363079, 363080, 363085 height extension base No. 363090 (in combination with No. 363079) assembly station No. 358595 52/96.

Note:

Size 75; 120 – Suitable top jaws No. 363310 – 363324 are not included in the scope of supply. Clamping situation S2 arises by reversing the jaws.



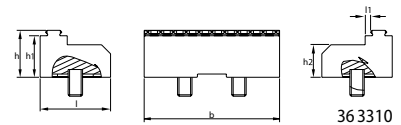
Width	mm	75	120	
36 3300 Centring vice		eShop	eShop	5
Weight	kg	2.8	9.5	
L	mm	130	180	
B	mm	75	125	
H	mm	46	65	
Reference dimension	mm	52	96	
maximum tightening torque	Nm	75	100	
maximum clamping force	kN	22	28	
Colour code				



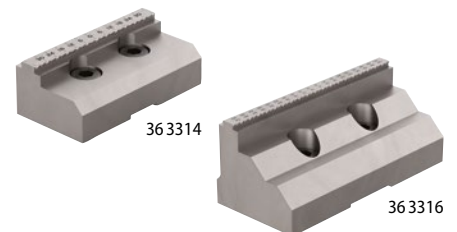
Top jaws for centring vices

piece

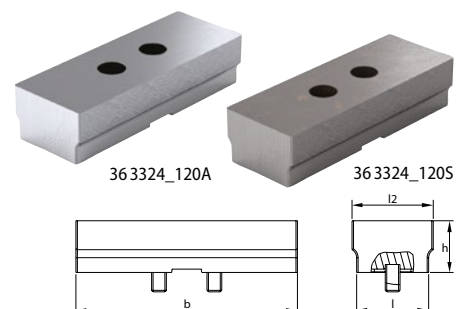
- 36 3310 – Combination jaw with grip serrations and a smooth clamping face.
- 36 3312 – Jaws with a smooth step.
- 36 3314 – Pre-impression of the serrated contour necessary due to LANG system gripper teeth.
- 36 3324 – Soft jaws for realising customised contours and for machining sensitive components.



Jaw width b		75	120	
36 3310 Standard top jaw		eShop	eShop	10
36 3312 Top jaw, smooth		eShop	eShop	10
36 3314 Top jaw system, LANG		eShop	eShop	10
36 3316		eShop	eShop	10
h (36 3310, 36 3312, 36 3314)	mm	26	33	
h (36 3316)	mm	40	49	
h ₁ (36 3310, 36 3312, 36 3314)	mm	23	30	
h ₁ (36 3316)	mm	37	46	
h ₂	mm	18	25	
l	mm	39	54	
l ₁	mm	3		
Weight	kg	0.4	1.3	
suitable for colour code				



Jaw width b		120A	120S	160A	160S	
36 3324 Top jaw soft		eShop	eShop	eShop	eShop	10
h	mm	28	28	35	35	
l	mm	39	39	54	54	
l ₂	mm	44	44	60	60	
Weight	kg	0.4	1.1	0.9	2.4	
Material		Aluminium	Steel	Aluminium	Steel	
suitable for colour code						



Colour code: ■ HOLEX ZS 75 ■ HOLEX ZS 120



36

HOLEX Automation centring vice

- Very good accessibility and perfectly symmetrical.
- Fully plasma-nitrided and precision milled on the underside.
- Clamps raw materials and finished parts with the least possible backstroke of the jaws / component.
- The clamping range can be changed by reversing the jaws.

Size 120A – **Supplied with GARANT ZeroClamp adaptation with 80 mm pitch.**

Size 120A – Includes 4 ZeroClamp clamping studs.

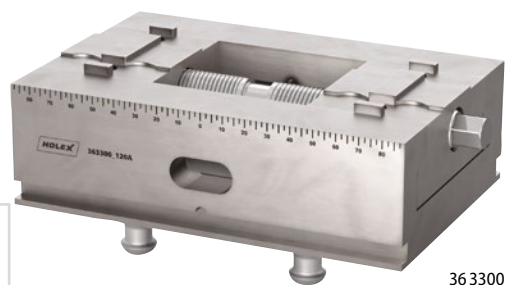
Suitable for: Top jaws No. 363310 – 363324.

Application: Perfect for 5-face machining. Centred clamping.

Supplied with: Base body, spindle, spindle nuts and four clamping studs suitable for automation extension base No. 360164 XP80Z.

Optional extras: Torque wrench No. 656050, hexagon socket No. 642229 13, assembly station No. 358595 80.

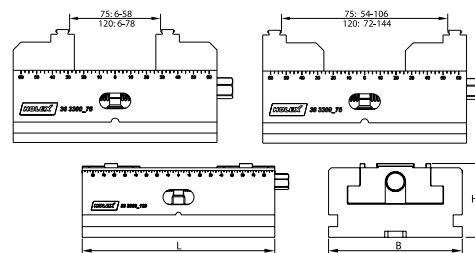
Note: Suitable for the GARANT Turntable automation system in combination with / for automation extension base No. 360164 XP80Z. Suitable top jaws No. 363310 – 363324 are not included in the scope of supply. Clamping situation S2 arises by reversing the jaws.



363300

Width	mm	120A
363300	Centring vice	eShop
Weight	kg	7.6
L	mm	180
B	mm	120
H	mm	59
Reference dimension	mm	80
maximum tightening torque	Nm	100
maximum clamping force	kN	28
Colour code		

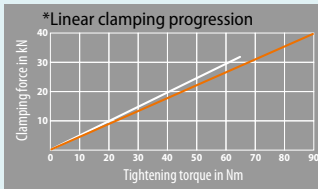
Colour code: ■ HOLEX ZS 120



Garant The Xpent family – a unique programme in perfection

Top jaws with optimised contour design

- Coating for process reliability in machining.
- Hardened and ground.
- Very good repetition accuracy < 0.01 mm.



— GARANT Xpent 361100_0
 — GARANT Xpent 361100_1 and 15
 — GARANT Xpent 361100_2

Front jaws

- Large variety
- 2 clamping steps on each jaw

Red security ring

For visual detection of incorrect assembly.

Clamping modules

- Lower risk of collisions due to reduced interference contours.
- Symmetrical
- Convex shape
- Both clamping modules can be moved

Spindle with spindle extension

- Optimum for quick adjustment of the clamping ranges.
- The spindle does not project beyond the clamping modules in any clamping situation.

Quick-change system for spindles

- Spindle change in seconds

Scaling

- For pre-positioning the clamping modules.

High precision guide

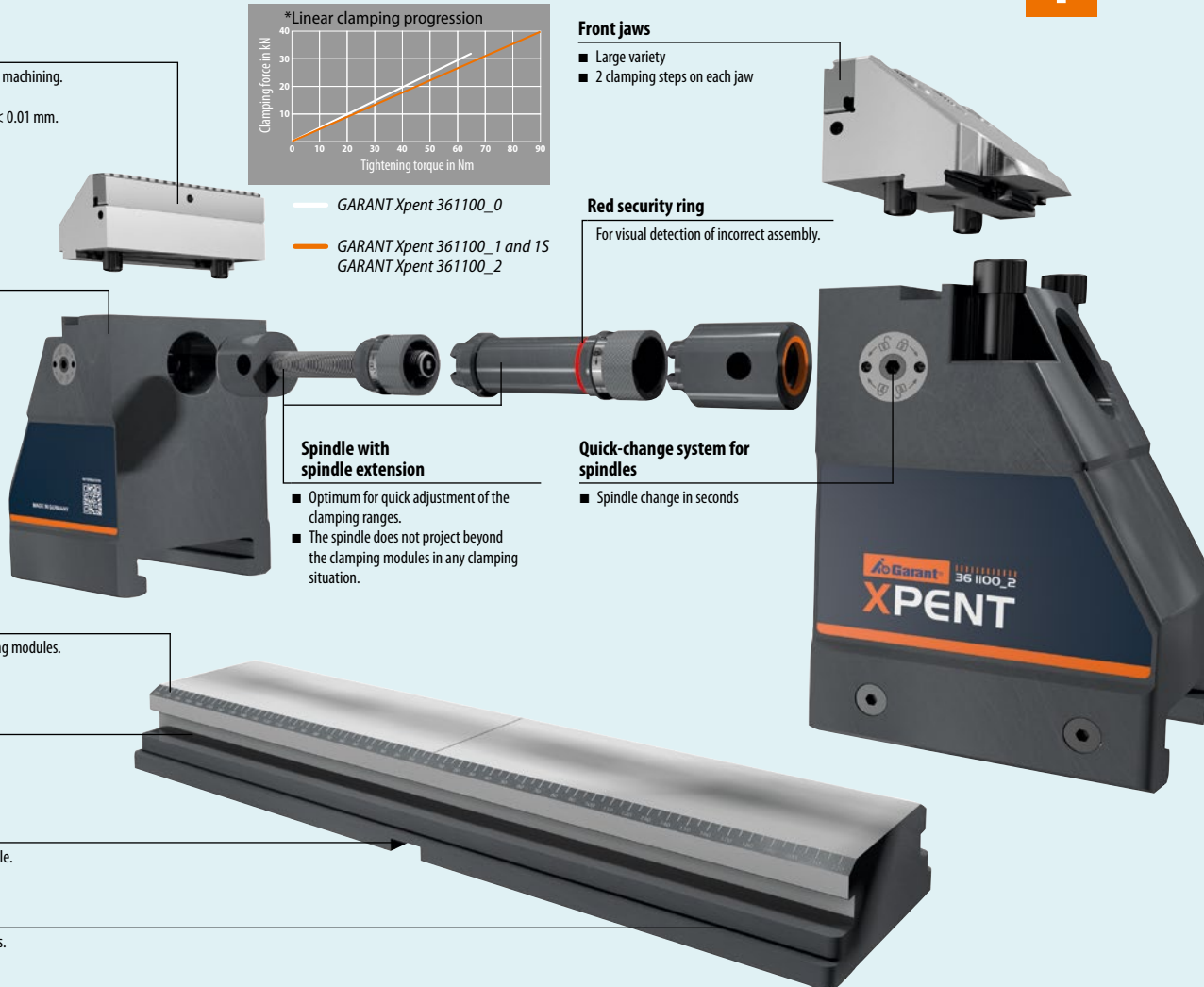
- The clamping modules do not tilt when moved.

Transverse slots

- For aligning to the machine table.

Clamping lip

- For steplessly adjustable clamps.



Garant The Xpent – Master in the ecosystem

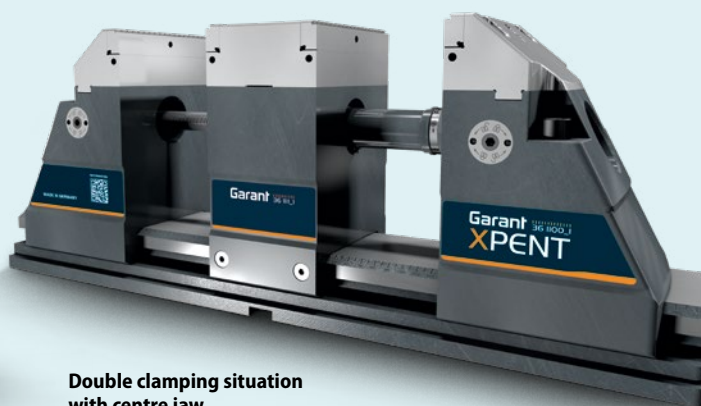

Standard clamping situation.



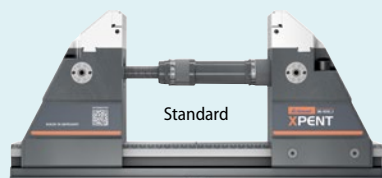
Clamping precise to the μ when pulled down (finished part machining).



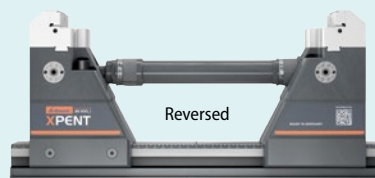
Maximum clamping range due to reversed clamping modules.



Double clamping situation with centre jaw.



Standard



Reversed



Clamping range overview Xpent sizes 1, 1S and 2

Base rail No. 36 1115		Size 450		Size 550		Size 650		Size 850		Size 1050	
		Standard	Reversed	Standard	Reversed	Standard	Reversed	Standard	Reversed	Standard	Reversed
Spindle	mm	6 – 108		6 – 108		6 – 108		6 – 108		6 – 108	
+ extension No. 36 1120											
Size 100	mm	104 – 208	186 – 290	104 – 208	186 – 290	104 – 208	186 – 290	104 – 208	186 – 290	104 – 208	186 – 290
Size 200	mm	–	286 – 386	204 – 308	286 – 390	204 – 308	286 – 390	204 – 308	286 – 390	204 – 308	286 – 390
Size 100 and 200	mm	–	–	–	386 – 486	304 – 408	386 – 490	304 – 408	386 – 490	304 – 408	386 – 490
Size 400	mm	–	–	–	–	–	486 – 586	404 – 508	486 – 590	404 – 508	486 – 590
Size 100 and 400	mm	–	–	–	–	–	–	504 – 608	586 – 690	504 – 608	586 – 690
Sizes 200 and 400	mm	–	–	–	–	–	–	–	686 – 786	604 – 708	686 – 790
Size 100; 200 and 400	mm	–	–	–	–	–	–	–	–	704 – 808	786 – 890
Sizes 400 and 400	mm	–	–	–	–	–	–	–	–	–	886 – 986

Clamping range overview Xpent size 0

Base rail No. 36 1115		Size 360		Size 440		Size 520	
		Standard	Reversed	Standard	Reversed	Standard	Reversed
Spindle	mm	6 – 88	–	6 – 88	–	6 – 88	–
+ extension No. 36 1120							
Size 80	mm	84 – 168	159 – 243	84 – 168	159 – 243	84 – 168	159 – 243
Size 160	mm	–	239 – 301	164 – 248	239 – 323	164 – 248	239 – 323
Size 80 and 160	mm	–	–	–	319 – 381	244 – 328	319 – 381
Size 160 and 160	mm	–	–	–	–	–	399 – 461





Garant XPENT 5-axis vice sets

- Very good accessibility and perfectly symmetrical.
- Flexible modular clamping system.
- All functional faces hardened and ground.
- Clamping force up to 40 kN at 90 Nm torque.
- Both clamping modules can be positioned individually on the base rail.
- Variable clamping and adjustment range.
- Repetition accuracy < 0.01 mm.
- Including holes 18M16 for zero point clamping system pitch 200mm.

Application: Perfect for true 5-face machining.
In conjunction with various jaws it can be used for conventional, smooth-faced clamping and clamping of unfinished parts.

Supplied with: Base rail, spindle, spindle extension, crank / hexagon screwdriver (for type 1S), fixed clamping module, mobile clamping module.

Optional extras: Clamping modules No. 361105 – 361110, centre jaw No. 361111, base rails No. 361115, spindle No. 361119, spindle extensions No. 361120, stepless adjustable clamps No. 361165, torque wrench No. 656050 size 120, screwdriver bit No. 643329, workpiece back-stop No. 360094, top jaws No. 361123 – 361138.

Note: Not supplied with matching top jaws No. 361123 – 361137 and front jaws No. 361140 – 361151. Clamping situation S4 requires a further spindle extension No. 361120. To ensure perfect tool lubrication, we recommend the use of multi-purpose grease No. 083592 PLUS.



Large capacity range S1–S4 with the same Xpent + the respective accessories programme.

Type		0	1S	1	2
310 36 1100	5-axis vice Xpent	eShop	eShop	eShop	eShop
S1	mm	6 – 88	6 – 108	6 – 108	6 – 108
S2	mm	84 – 168	104 – 208	104 – 208	104 – 208
S3	mm	159 – 243	186 – 290	186 – 290	186 – 290
S4	mm	239 – 301	286 – 386	286 – 386	286 – 386
L	mm	362	454	454	454
c	mm	125	125.5	165.5	195.5
c ₁	mm	85	77.5	117.5	147.5
B	mm	100	125	125	125
n H7	mm		20		
h	mm	40	45	45	45
Clamping force up to maximum	kN	32	40	40	40
maximum torque	Nm	65	90	90	90
Weight	kg	19	34	36	41
Width across flats	mm	5; 8	5; 10	5; 10	5; 10
Spindle extension size		80	100	100	100
Colour code for suitable accessories					

Garant XPENT modular system – individually configure your 5-axis vice.

The 5-axis vice has a modular design. The key components are the clamping modules No. 361105 – 361110, base rails No. 361115, spindle No. 361119, spindle extensions No. 361120 and the top jaws No. 361123 – 361137.

Clamping modules

piece

All functional faces hardened and ground.

Suitable for: Base rails No. 361115, spindle No. 361119 and top jaws No. 361123 – 361138.

Note: You will need a 5 AF screwdriver bit for spindle locking.

36 1105 – You will need a hexagon screwdriver bit (type 0 = 8 AF, type 1, 1S+2 = 10 AF) for the attachment screws.

for type		0	1S	1	2
310 36 1105	Fixed clamping module	eShop	eShop	eShop	eShop
310 36 1110	Mobile clamping module	eShop	eShop	eShop	eShop
L	mm	100	126	126	126
B	mm	100	125	125	125
H	mm	108	104.5	144.5	174.5
H ₁	mm	85	77.5	117.5	147.5
Weight	kg	4.5	8	9	11
suitable for colour code					

Colour code: ■ Xpent0 ■ Xpent1-2

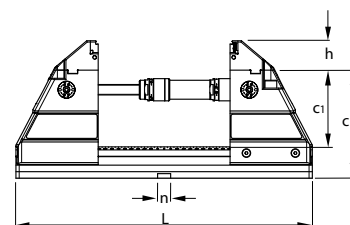
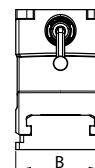
Welcome to the 5th dimension!
For further information see:
<https://hog.tools/x-team>



_0



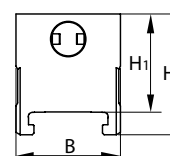
_1



36 1110_1



36 1105_1

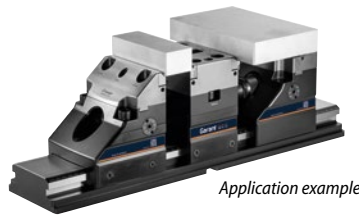


Centre jaw

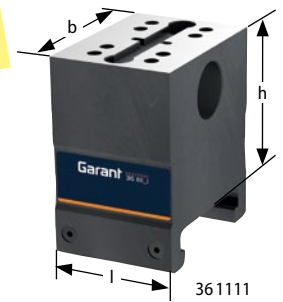
piece

Application: For multiple clamping. Components of different lengths can also be clamped.

For a detailed overview of capacities, see the current X-Team supplementary brochure.



Application example



361111

for type		0	1S	1	2
310 36 1111	Centre jaw	eShop	eShop	eShop	eShop
b	mm	100	125	125	125
h	mm	85	77.5	117.5	147.5
l	mm	80	90	90	90
suitable for colour code					

Base rails

piece



Fully hardened and ground. Laser engraved scale for prepositioning the clamping claws. Side groove for steplessly adjustable clamps and transverse slots for alignment on the machine table.

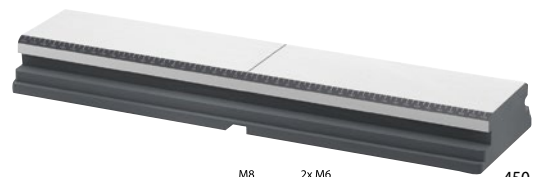
Size 450; 550 – GARANT ZeroClamp bores drilled as standard. Pitch 200 mm.

Suitable for: Clamping modules No. 361105 – 361110.

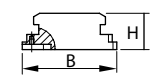
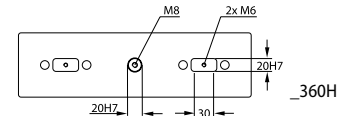
Size 360H – Round table Ø 320 mm. Attachment via stepless adjustable clamps and T-slot.

Optional extras: Clamping claws No. 361165, adapter plate for GARANT ZeroClamp No. 361170, clamping studs No. 360025 size 18M16 and size 18M16/138.

Note: GARANT ZeroClamp holes available on request from size 650. See No. 375365 for suitable T-nuts.



_450



Type		360	360H	440	520	450	550	650	850	1050
310 36 1115	Base rail	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
L	mm	362	362	442	522	454	554	654	854	1054
B	mm	100	100	100	100	125	125	125	125	125
H	mm	40	40	40	40	48	48	48	48	48
Weight	kg	8.5	8.5	10.5	12.5	17	21	25	32	40
Number of ZC holes		2	–	5	3	5	3	on request	on request	on request
suitable for colour code										

Spindles

piece

Trapezoidal spindle for optimal force transfer.

Suitable for: Clamping modules No. 361105 – 361110.

Application: TR14 and TR16 for external clamping, TR14I and TR16I for internal clamping.

Optional extras: Spindle extensions No. 361120, torque wrench No. 656050 120.

Size TR14 – Hexagon screwdriver bit No. 643329 8.

Size TR16 – Hexagon screwdriver bit No. 643329 10.

Note: Spare parts for spindles No. 361176, 361177 and 361178.



2AF

361119_TR16

1AF



361119_TR14I



361120

Type		TR14	TR14I	TR16	TR16I
310 36 1119	Spindle	eShop	eShop	eShop	eShop
Ø D	mm	34	34	40	40
AF ₁		8	10	10	13
AF ₂		27	27	30	30
L	mm	201.1	201.1	229.6	229.6
suitable for colour code					

Spindle extensions

piece

Suitable for: Spindle No. 361119.

Type		40	80	160	50	100	200	400
310 36 1120	Spindle extension	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Ø D	mm	30	30	30	34	34	34	34
AF ₂		27	27	27	30	30	30	30
L	mm	50.4	90.4	170.4	61.9	111.9	211.9	411.9
suitable for colour code								

Colour code: ■ Xpent0 ■ Xpent1-2

Garant Top jaws**Top jaws for the centre jaw****piece****Suitable for:** No. 361111.**Application:**

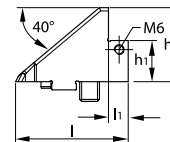
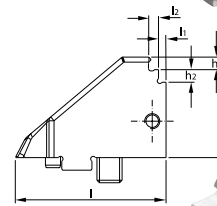
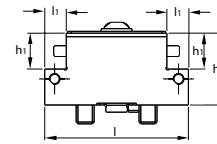
Size 100; 125 – For mounting front jaws No. 361140 – 361151.

Size 100G – For fitting the Gripp inserts No. 361160 7; 361238 – 361250.

Size 125G – For mounting gripp inserts No. 361160.

Supplied with: Fastening screws. Including cover plate.

for type	310	36 1135	b	h	h ₁	l	l ₁	suitable for colour code
		Top jaw for centre jaw	mm	mm	mm	mm	mm	
100		eShop	100	40	20	80	12	■
125		eShop	125	45	20	90	12	■
100G		eShop	100	40	–	80	–	■
125G		eShop	125	45	–	90	–	■

**Top jaws Gripp single-piece 5 mm****piece**

Clamping step with a height of 5 mm and 3 mm contact area.

Suitable for: 5-axis vice set No. 361100 and clamping module No. 361105 – 361110.**Application:** Ideal for rough machining.**Supplied with:** Fastening screws.**Note:** Type GS with gripp step and smooth clamping step

for type	310	36 1123	b	h	h ₁	h ₂	l	l ₁	l ₂	suitable for colour code
		Top jaw Gripp, single piece	mm	mm	mm	mm	mm	mm	mm	
100GS		eShop	100	40	5	5	60	3	3	■
100/32		eShop	100	40	3	3	60	3	3	■
125GS		eShop	125	45	5	5	68.5	3	3	■
125/32		eShop	125	45	3	3	68.5	3	3	■

Top jaws**piece**

Coated, hardened and ground.

Size 63C; 80C; 100C – Comfort version, width-reduced variant.

Suitable for: 5-axis vice set No. 361100 and clamping module No. 361105 – 361110.**Application:** For mounting front jaws No. 361140 – 361149.**Supplied with:** Fastening screws.

For type	310	36 1124	310	36 1125	b	h	h ₁	l	l ₁	suitable for colour code
		Standard top jaw								
					mm	mm	mm	mm	mm	mm
63C		eShop	–	–	63	40	–	20	–	12
80C		eShop	eShop	–	80	40	45	20	25	60
125		–	eShop	–	125	–	45	–	25	68.5
100		eShop	–	–	100	40	–	20	–	60
100C		–	eShop	–	100	–	45	–	25	68.5

Top jaws for reversed clamping modules**piece**

Coated, hardened and ground.

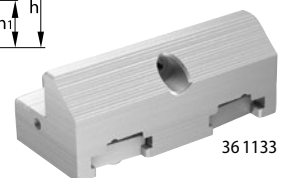
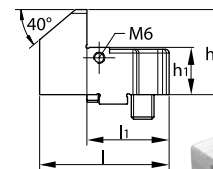
Suitable for: 5-axis vice set No. 361100 and clamping module No. 361105 – 361110.**Application:** For mounting front jaws No. 361140 – 361150.**Supplied with:** Fastening screws.

Note:

36 1126 – Essential for clamping modules which have been reversed 180°.

36 1133 – Mounting recommendation on a **fixed clamping module**. Matching counter jaw No. 361126.

for type	310	36 1126	310	36 1133	b	h	h ₁	l	l ₁	Swing angle	suitable for colour code
		Top jaw for reversed clamping modules									
					mm	mm	mm	mm	mm	degrees	
		rigid	Pivoted		mm	mm	mm	mm	mm	degrees	
100		eShop	eShop	–	100	40	20	60	43.5	15	■
125		eShop	eShop	–	125	45	25	68.5	43.5	15	■

**Top jaws****piece**

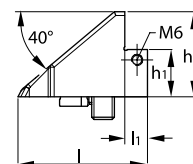
Coated, hardened and ground.

Suitable for: 5-axis vice set No. 361100 and clamping module No. 361105 – 361110.**Application:** For mounting front jaws No. 361140 – 361149.**Supplied with:** Fastening screws.

Note:

Mounting recommendation on **fixed clamping module**. Matching counter jaw No. 361125.

for type	310	36 1127	b	h	h ₁	l	l ₁	Swing angle	suitable for colour code
		Top jaw	mm	mm	mm	mm	mm	degrees	
		pivoting	mm	mm	mm	mm	mm	degrees	
100		eShop	100	40	20	60	12	15	■
125		eShop	125	45	25	68.5	12	15	■

**Colour code:** ■ Xpent0 ■ Xpent1-2

Gripp top jaws**piece****Suitable for:** 5-axis vice set No. 361100 and clamping module No. 361105 – 361110.**Application:**

Size 100; 125; 160 – For mounting grip inserts No. 361160 7 and 361238 – 361250.
For compensation of non-parallel clamping faces. Gripp inserts can be screwed into a variety of hole patterns, for secure clamping of various geometries.

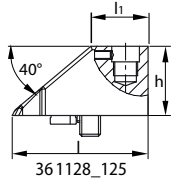
Size 100SG; 125SG – To take Gripp inserts No. 361163. Number of inserts size 100 = 5 and size 125 = 6.
Suitable screws No. 361164 and Gripp inserts must be ordered separately.

Supplied with: Fastening screws.**Note:**

36 1129 – Mounting recommendation on **fixed clamping module**.
Matching counter jaw No. 361128.



36 1128_160

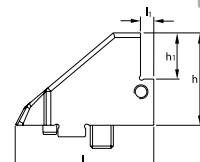


36 1128_125



36 1129_160

for type	310	36 1128	310	36 1129	b	h	h ₁	l	l ₁	Swing angle	suitable for colour code
		Gripp top jaw			mm	mm	mm	mm	mm	degrees	
		rigid	pivoting								
100		eShop	eShop		100	35	35	70	33	30	■
100SG		eShop	—		100	40	20	60	5.75	—	■
125		eShop	eShop		125	40	40	78.5	40	30	■
125SG		eShop	—		125	45	20	68.5	5.75	—	■
160		eShop	eShop		160	40	40	78.5	40	30	■



36 1128_100SG



36 1128_125



36 1129_125



36 1128_100SG



36 1128_125SG

Gripp inserts for SG top jaws**Suitable for:** 5-axis vice set No. 361100 and clamping module No. 361105 – 361110.
Gripp top jaws No. 361128 100SG and No. 361128 125SG.**Application:** For clamping workpieces that require high stability.**Optional extras:** Replacement screw No. 361164.**Note:**

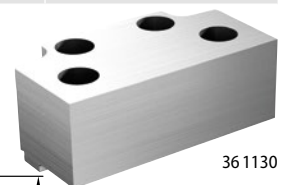
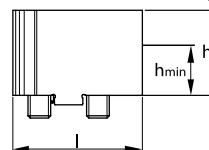
For milling cutters for the clamping seats see the spare parts list.
Size PI – Protective insert for an insert seat.



Type		S	HS	A	PI
335 36 1163	Gripp inserts set, pack of 10	eShop	eShop	eShop	eShop
Suitable for: Material		Steel up to 980N/mm ²	hardened steel HRC 50-54	Aluminium	—

Soft top jaws**piece****Suitable for:** 5-axis vice set No. 361100 and clamping module No. 361105 – 361110.**Application:** For realising customised contours and for machining sensitive components.**Supplied with:** Fastening screws.

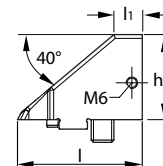
for type	310	36 1130	b	h	h _{min}	l	suitable for colour code
		Soft top jaw	mm	mm	mm	mm	
100		eShop	100	40	25.5	60	■
80		eShop	80	45	26.5	68.5	■
125		eShop	125	45	26.5	68.5	■



36 1130

Top jaws for parallels, 2.5 mm**piece****Suitable for:** 5-axis vice set No. 361100 and clamping module No. 361105 – 361110.**Application:** Jaw is set back by 2.5 mm. Ideal in combination with parallels No. 366740.**Supplied with:** Fastening screws.

for type	310	36 1131	310	36 1134	b	h	l	l ₁	suitable for colour code
		Top jaw for parallels			mm	mm	mm	mm	
			coated						
100		eShop	eShop		100	40	57.5	15	■
125		eShop	eShop		125	45	66	15	■



36 1131

Further gripp inserts can be found on page 1196

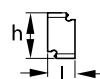
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36

**Colour code:** ■ Xpent0 ■ Xpent1-2

Garant Front jaws

Suitable for: Top jaws No. 361124 - 361127, No. 361133 and No. 361135.
Stepped jaws No 361295 - 361296.



Dual front jaws

piece

3 mm contact face.

36 1140 – 2 clamping steps with a height of 3 mm.

36 1141 – 2 clamping steps with a height of 5 mm.

36 1144 – 3 mm contact face.

36 1151 – Pre-impression of the serrated contour necessary.

36 1142–1144 – First clamping step with a height of 3 mm. Second clamping step with a height of 5 mm.

Advantage:

36 1140/1141/1142/1143/1144/1150/1151 –

Turning the jaw provides a second clamping step.

Clamping height

3

3

5

5

3

5

3

5

3

5

3

3

3

5

3

5

3

5

3

5

for type		63	100	80	125
310 36 1140	Gripp 3/3 front jaw	eShop	eShop	eShop	eShop
310 36 1141	Gripp 5/5 front jaw	–	eShop	–	eShop
310 36 1142	Gripp 3/5 front jaw	eShop	eShop	eShop	eShop
310 36 1143	Smooth front jaw 3/5	eShop	eShop	eShop	eShop
310 36 1144	Smooth front jaw 3/5 coated	eShop	eShop	eShop	eShop
310 36 1145	Combination front jaw gripp/smooth 3/3	eShop	eShop	eShop	eShop
310 36 1150	Gripp 3/5 front jaw for soft materials	eShop	eShop	eShop	eShop
310 36 1151	Gripp front jaw LANG system	eShop	eShop	eShop	eShop
b	mm	63	100	80	125
h	mm	20			
l	mm	12			
suitable for colour code		■	■	■	■

Soft front jaw

piece

Application: For realising customised contours and for machining sensitive components.

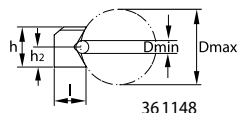
for type		63	100	80	125
310 36 1146	Soft 12/20 front jaw	eShop	eShop	eShop	eShop
310 36 1147	Soft 20/20 front jaw	eShop	eShop	eShop	eShop
b	mm	63	100	80	125
h	mm	20			
l (36 1146)	mm	12			
l (36 1147)	mm	20			
suitable for colour code		■	■	■	■

Vee front jaw

piece

Suitable for:

36 1149 – Vee front jaw No. 361148.



for type		63	100	80	125
310 36 1148	Vee front jaw	eShop	eShop	eShop	eShop
310 36 1149	Smooth front jaw for Vee jaw	eShop	eShop	eShop	eShop
b	mm	63	100	80	125
h	mm	25			
l (36 1148)	mm	19.8			
l (36 1149)	mm	20			
D _{min} (36 1148)	mm	8			
D _{max} (36 1148)	mm	47			
suitable for colour code		■	■	■	■

Colour code: ■ Xpent0 ■ Xpent1-2

Garant Universal top jaw

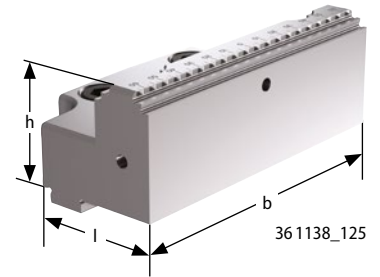
Clamping steps with a height of 3 mm and 3 mm contact area. With gripp step and smooth clamping step. Hardened and ground. Fastening screws.

Suitable for: Xpent No. 361100 size 1-2

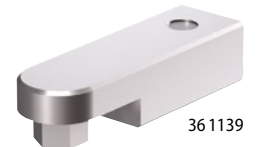
Material: Hardened steel.

Application: To quickly extend the capacity of the Xpent No. 361100 size 1-2

Note: If this jaw is used, the clamping range can be extended by 108 mm without needing to rotate the pillars. When using a rotated Universal top jaw No. 361138, the fixed jaw of the Xpent No. 361100 can only be released using plug-in head No. 361139.



Application illustration



Application illustration

for jaw width b	mm	125
310 361138	Universal top jaw for Xpent	eShop
h	mm	45
l	mm	68
suitable for colour code		

Plug-in head

Suitable for: To release the fixed jaw of the Xpent No. 361100 when using the rotated Universal top jaw No. 361138.

Note: Use torque wrench with plug-in shank 14×18 such as No. 656055 120.

Type		10
310 361139	Open jaw plug-in head	eShop
Plug-in shank	mm	14×18
Length L	mm	59

Garant Overview of capacities for Universal top jaw 361138 125



Base rail No. 361115		Size 450		Size 550		Size 650		Size 850		Size 1050	
		Standard	Jaw Reversed	Standard	Jaw Reversed	Standard	Jaw Reversed	Standard	Jaw Reversed	Standard	Jaw Reversed
Spindle	mm	6 – 108	114 – 216	6 – 108	114 – 216	6 – 108	114 – 216	6 – 108	114 – 216	6 – 108	114 – 216
+ extension No. 361120 											
Size 100	mm	104 – 208	212 – 316	104 – 208	212 – 316	104 – 208	212 – 316	104 – 208	212 – 316	104 – 208	–
Size 200	mm	–	–	204 – 308	312 – 416	204 – 308	312 – 416	204 – 308	312 – 416	204 – 308	312 – 416
Size 100 and 200	mm	–	–	–	–	304 – 408	412 – 516	304 – 408	412 – 516	304 – 408	412 – 516
Size 400	mm	–	–	–	–	–	–	404 – 508	512 – 616	404 – 508	512 – 616
Size 100 and 400	mm	–	–	–	–	–	–	504 – 608	612 – 716	504 – 608	612 – 716
Sizes 200 and 400	mm	–	–	–	–	–	–	–	–	604 – 708	712 – 816
Size 100; 200 and 400	mm	–	–	–	–	–	–	–	–	704 – 808	812 – 916
Sizes 400 and 400	mm	–	–	–	–	–	–	–	–	–	–

Garant Quick-change adaptor plate for XPENT

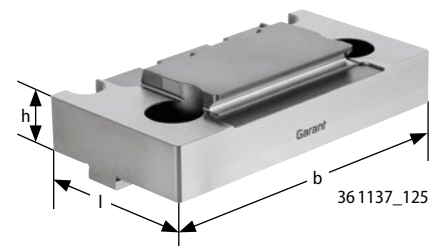
Hardened and ground. Fastening screws.

Suitable for: XTRIC top jaws No. 363010 – 363045 in size 125.

Material: Hardened steel

Application: For use of XTRIC top jaws size 125 on the XPENT size 1S, 1 and 2.

Note: Clamping width cannot be increased by rotating the clamping pillars in combination with the adaptor plate.
Important: Max. 72 Nm = 32 kN.



Application illustration

for jaw width b	mm	125
310 361137	Quick-change adaptor plate for XPENT	eShop
h	mm	20.5
l	mm	66
suitable for colour code		

Colour code:  Xpent1-2



36

Garant

Pull-down system



Extremely accurate finishing of the sixth side in the 5-axis clamp due to pull-down on both sides.

How the pull-down works:

After the clamping force has been introduced, the workpiece is clamped in parallel onto the base rail via the shims using the movable wedge elements.

Physical riding up of the jaws is therefore corrected.



Garant

Accessories

Top jaws for pull-down system

piece

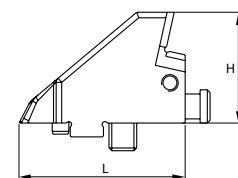
Hardened and ground

Application: Pull-down system in conjunction with shims No. 361161 and pull-down inserts No. 361162. Optimum for machining the 6th face, because the workpiece is pulled down on to the base rail by the pull-down insert and shim. Shims of 5, 10 and 15 mm available



361136

for type	310	36 1136	b	h	l	Number of slots for inserts	suitable for colour code
		Pull-down top jaw	mm	mm	mm		
100		eShop	100	40	60	4	■
125		eShop	125	45	68.5	5	■



Shims for pull-down system

piece

Material: Steel, induction hardened and hard milled. Material thickness 5mm, with magnets on the rear face

Note: Shims are inserted into the pull-down jaw without being screwed into the front jaw screws.

Type/shim height (W/H)	100/110	100/120	125/107,5	125/112,5	125/117,5
310 36 1161 Shim for pull-down system	eShop	eShop	eShop	eShop	eShop
Clamping height mm	15	5	15	10	5
suitable for colour code	■	■	■	■	■
Xpent size	0	0	15	15	15



361161

Type/shim height (W/H)	125/147,5	125/152,5	125/157,5	125/177,5	125/182,5	125/187,5
310 36 1161 Shim for pull-down system	eShop	eShop	eShop	eShop	eShop	eShop
Clamping height mm	15	10	5	15	10	5
suitable for colour code	■	■	■	■	■	■
Xpent size	1	1	1	2	2	2



Pull-down insert

piece

Size 1 – **Hardened and coated.**

Size 0; 2 – **Hardened.**

Suitable for: Pull-down top jaw No. 361136.

Note: Pull-down inserts are held on to the pull-down jaws 361136 by magnets.



361162_1



361162_0



361162_2

Type	0	1	2
310 36 1162 Pull-down insert	eShop	eShop	eShop
Version	smooth, uncoated	smooth, coated	gripp

Colour code: ■ Xpent0 ■ Xpent1-2

Closure stud and sealing cap

Suitable for:

- 36 1174 – Sealing pin for top jaws (10 pieces) and Tee-bolts No. 361135, 361126, 361133, 361130.
 36 1175 – Sealing cap for top jaws (4 pieces) No. 361123-361125, 361127-361129, 361131, 361134, 361136; 361138.

Material: Plastic

Application: To protect the screws and screw heads against chips and cooling lubricants, and provide increased worker protection when cleaning.

Note:

- 36 1174 – Can also be used for screw head with 8 AF and 10 AF for GARANT and Allmatic standard jaws.



AF		8	10
310 36 1174	Closure stud set, pack of 10	eShop	eShop
310 36 1175	Sealing cap, pack of 4	eShop	eShop
suitable for colour code		■	■

36 1175

Clamping claw

piece

Suitable for: Xtric 125

Type		CS0	CS1
310 36 1165	Clamping claw	eShop	eShop
B	mm	50	20
H	mm	16	20
L	mm	56	
suitable for colour code		■	■ ■



Spare crank

piece

Suitable for: 5-axis vice set No. 361100 and spindle No. 361119.

Note: For Xpent type 1S, please use No. 627451.

Type		8	10
310 36 1168	Crank	eShop	eShop
AF		8	10
L	mm	172	
suitable for colour code		■	■



36 1168

Adapter plate

piece



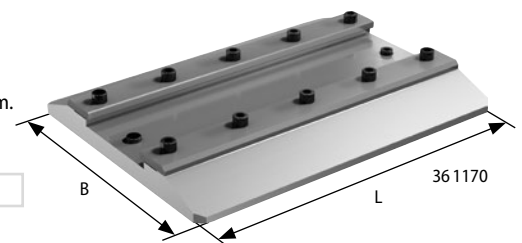
Suitable for: 5-axis vice set No. 361100 and base rails No. 361115.

Application: For optimally fastening the 5-axis vice to a zero point clamping system with pitch 200 mm.

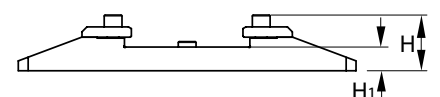
Supplied with: Includes clamping strip with socket-head screws

Optional extras: Clamping stud No. 360025 size 18M16 and size 18M16/138.

Note: Further sizes available on request.



for type	310 36 1170	L	B	H	Height H ₁	Weight	Number of ZC holes	suitable for colour code
	Adapter plate	mm	mm	mm	mm	kg		
360	(eShop)	362	342	54.4	26	28	4	■
440	(eShop)	442	342	54.4	26	34	10	■
450	(eShop)	454	342	56.4	24	34.5	10	■
550	(eShop)	554	342	56.4	24	42.5	6	■



Colour code: ■ Xpent0 ■ Xpent1-2 ■ Xtric 125



36



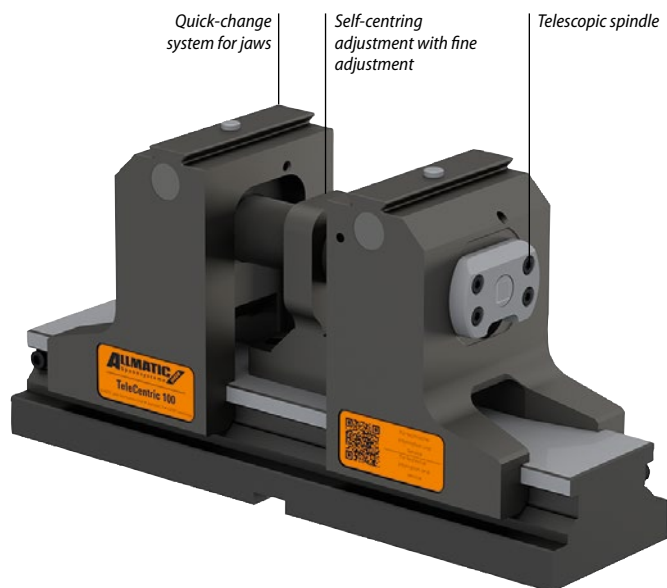
- Optimum for use on 5-axis machining centres.
- Conventional clamping and gripper clamping can be performed.
- Telescopic spindles and obstructive contours remain unchanged.
- Simple centre-reference programming with no displacement of the zero point.
- Accessibility of the workpiece irrespective of the clamping span.
- Symmetrical design = workpiece remains central and parallel - the dimensions of the material are distributed symmetrically.
- Thanks to the quick-release fastening, pairs of jaws can be changed within 10 seconds.
- Constant clamping force thanks to the low-maintenance telescopic spindle.
- Supplied as standard with 25H6 M10 mounting holes for zero-point clamping system with 200 mm pitch.
- Integral scaled ring for fine adjustment of the centre position.
- Clamping force 30 kN at 45 Nm linear.

Supplied with: Hand crank, Quick Start Guide.

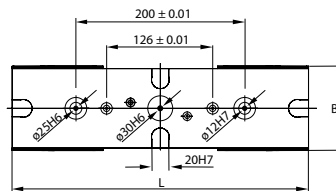
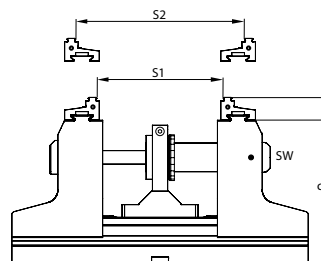
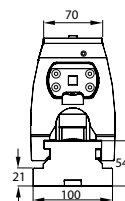
Optional extras: Torque wrench No. 656050 size 120, hexagon screwdriver bit No. 643330 size 14, top jaws No. 361258 – 361264, clamp No. 360750 size 125/160, alignment and fixing set No. 360530, clamping stud No. 360025 size 25M10 or 25M10/138.

Size 125 – Top jaws No. 361258 125 and 361260 125, additional optional accessories on request.

Size 100; 70 – Top jaws No. 361258–361260, clamps No. 360750 size 125/160, alignment and fixing set No. 360530, clamping stud No. 360025 size 25M10 or 25M138.



36 1255



Type		125	100	70
34A 36 1255	5-axis vice TeleCentric	(eShop)	(eShop)	(eShop)
S1	mm	44 – 165	12 – 166	9 – 85
S2	mm	106 – 227	62 – 199	66 – 135
L	mm	398	351	286
c	mm	178.9	168.9	168.9
B	mm	125	94	94
n H7	mm		20	
h	mm		27.1	
Clamping force up to maximum	kN	40	30	30
maximum torque	Nm	60	45	45
Weight	kg	35	24.5	17.5
Width across flats	mm		14	
Colour code for suitable accessories		—	■	■

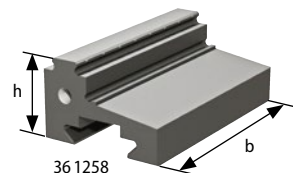
Top jaws

36 1258 – 3 mm contact surface, 4 mm clamping height.

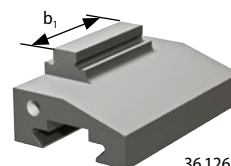
36 1260 – 3.5 mm contact surface, 5 mm clamping height.

Suitable for: TeleCentric 5-axis vice No. 361255

36 1258 Size 125 – No. 361255 125.



36 1258



36 1260

Type	34A 36 1258	34A 36 1260	b	b ₁	h ₁	suitable for colour code
	Top jaw					
	gripp	smooth	mm	mm	mm	
38	(eShop)	(eShop)	70	38	27.1	■
70	(eShop)	(eShop)	70	70	27.1	■
100	(eShop)	(eShop)	70	100	27.1	■
125	(eShop)	(eShop)	125	125	27.1	—

Colour code: ■ TeleCentric



TeleSense 5-axis vice

- Optimum for use on 5-axis machining centres.
 - Constant clamping force thanks to the low-maintenance telescopic spindle. Interference contours remain unchanged.
 - Jaws can be changed without using tools thanks to quick release fastener.
 - Supplied as standard with 25H6 M10 mounting holes for zero-point clamping system with 200 mm reference module.
 - Clamping force 40 kN at 50 Nm linear.
 - Maximum flexibility: **Universal quick-change jaw No. 361275** for a wide variety of applications; thus reducing set-up time and requiring less force. **Compatible with the mobile jaws of Centro Gripp, T-Rex, NC8 and TITAN 2 via jaw adapter No. 361285.**
 - It is possible to measure the clamping force with all compatible jaws thanks to the integral measuring unit (size 125CONNECT) in the spindle. Transmission range up to 20 m. Quick and easy change of the battery. Operating temperature between 10 °C and 40 °C. QR code on the nameplate for quick access to technical information, accessories, spare parts and service.
- Size 125CONNECT – ■ Conventional clamping and gripping clamping with **intelligent clamping force monitoring.**

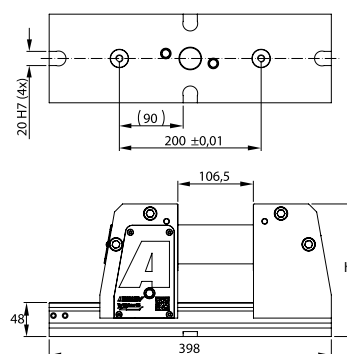
- Monitoring of the clamping force during clamping and machining by means of an integrated electronic measuring system. Display directly on a robust and splash-proof display and via wireless transmission to the end device (via Bluetooth® (BLE)).

Supplied with: Hand crank, Torx T10 key, Quick Start Guide.

Optional extras: Torque wrench No. 656050 size 120, hexagon bit socket No. 643229 size 10, top jaws No. 361275 – 361285, clamping claw No. 361289, clamping stud No. 360025 size 25M10 or 25M10/138; jaw adapter No. 361285, Gripp strip No. 361280, spindle extension No. 361287. Further accessories available on request.



361270_125CONNECT



Type		125COMPACT	125	125CONNECT
34H 361270	5-axis vice TeleSense	(eShop)	eShop	eShop
h	mm	165	187	187
maximum clamping range	mm		199	
Clamping force up to maximum	kN		40	
maximum torque	Nm		50	
Weight	kg	35.5	38.5	39

Universal quick-change jaw

- Jaw made of hardened steel.
- Clamping of blanks and pre-machined parts (parallel, round and unshaped) – also with Gripp and pull-down clamping.

Suitable for: TeleSense No. 361270.

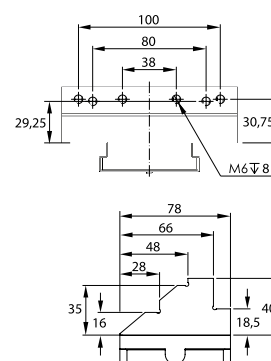
- Feature:**
- Can be used as a stepped jaw, shape jaw (turned for round parts) and with a pre-screwed Gripp strip for clamping workpieces.
 - Can be used with all Gripp inserts of the Titan 2 series (except for Gripp inserts round h5.5).

Optional extras: Gripp strip No. 361280.

Note: Can be used with all Gripp inserts of the Titan 2 series (except for Gripp inserts round h5.5).



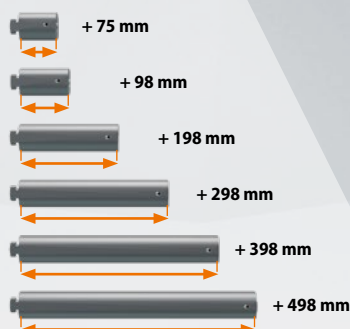
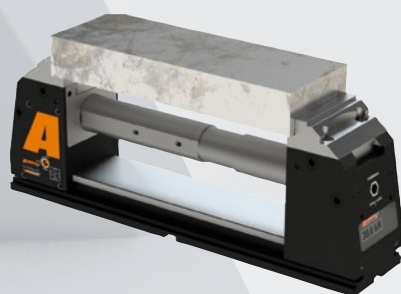
361275



Jaw width b	mm	125
34H 361275	Universal quick-change jaw	eShop
Jaw width b	mm	125



TeleSense modular system



Thanks to the modular design, the TeleSense can be easily and flexibly extended up to a capacity of 672 mm!

Available as sets and standalone accessories.

Length of lower part (mm)	Max. capacity with 361275
498	297 (+75)
598	397 (+75)
2x398	672



36

Gripp strip

Gripp strip reversible for mounting on the universal quick-change jaw.
For clamping blanks close to the edge, stage 4 mm. Gripp strip with fine and coarse serrations.
Gripp inserts suitable for materials up to approx. 1000 N/mm² strength.

Suitable for: Universal quick-change jaw No. 361275.

Type		1
34H 36 1280	Gripp strip reversible	eShop



36 1280

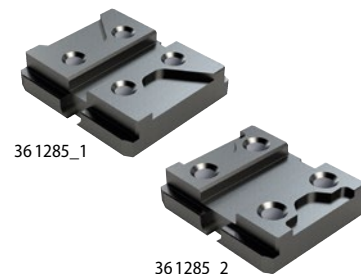
Jaw adapters

Jaw adapter for use of the wide range of accessories.
Quick-change system for mounting the adapter on the jaw carrier.

Size 1 – **Mobile jaws** of the CentroGripp/T-Rex range compatible.

Size 2 – **Mobile jaws** of the NC8 125/Titan 2 125 series compatible.

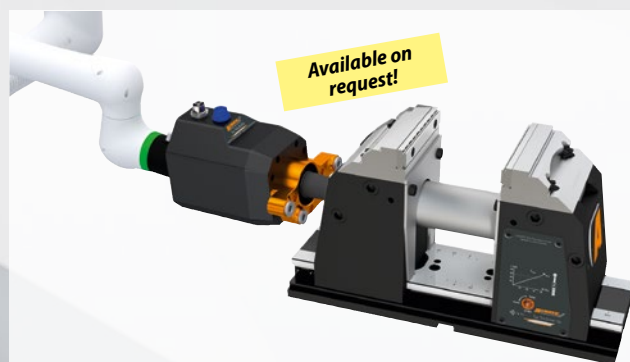
Type		1	2
34H 36 1285	Jaw adapters	eShop	eShop
suitable mobile jaws		Centro Gripp; T-Rex	NC8; Titan 2; GARANT



36 1285_1

36 1285_2

ALLMATIC CLAMPING SOLUTIONS OF THE FUTURE.



Available on request!

RoboBuddy

- Automate mechanical vices.
- No costly retrofits of the machine table.
- Fast commissioning.
(Industrial data and robot interfaces)
- Used for NC8/Titan2 and CentroLite series.
- Save the settings of up to 256 clamps.



AccuClamp

- Electro-mechanical, battery-powered automation system for machine vices.
- Can be connected to NC controller via OPC UA.
- Can be retrofitted to ALLMATIC vices of type LC/TC/NC8 125 mechanically.
- Runtime of 16 hours and charging time of 1 hour.

Available on request!



Configure your clamping tower!

Clamping towers at a glance

- 57 standard variants.
- Clamp 2 to 8 workpieces.
- For blanks and pre-processed workpieces.

Step 1: Determine the workpiece.

Step 2: Planned set-up of clamping tower.

Step 3: Determine the base plate.

The result

- Fully planned clamping tower for your specific needs.
- 2D drawing and CAD file.
- Direct link to quotation creation.

You can find the clamping tower configurator here

<https://hog.tools/towerconfig>



NEW



36

Workpiece backstop 3-dimensional

- Stepless and quick adjustment.
- M8 mounting for T-nuts or direct mounting.

36 0432 Size 300 – Double stop.

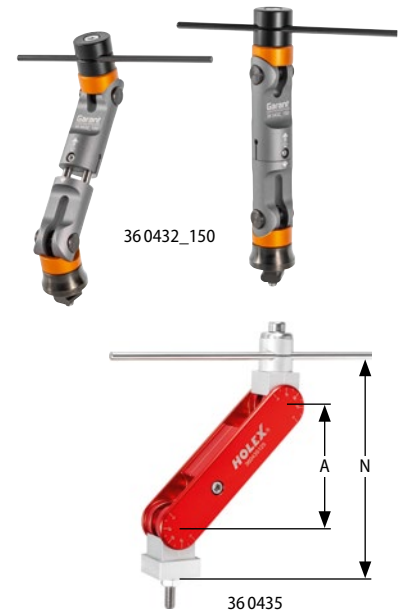
Size 150; 300 – ■ Optional maximum extension 30 mm.

Material: Anodised aluminium.

Application: For use on milling and drilling machines.

Optional extras: T-nuts with M8 thread, see No. 370520 size 12 – 18.

Type		125	150	300
31H 36 0432	Garant	–	eShop	eShop
32E 36 0435	HOLEX	eShop	–	–
Usable height N	mm	195	145 – 175	285 – 315
Overall height	mm	220	210 – 240	350 – 380
S axial spacing A	mm	125	80 – 110	80 – 110
suitable for colour code				



HOLEX Workpiece backstop

- Stepless and quick adjustment.
- The stop can be fitted and removed quickly.
- Up to 5 times higher clamping force than with standard magnets due to Samarium-Cobalt core.

Size 3 – Can be used without tools.

Size 4 – Tool-free fixing of the set stop length.

Material: Anodised aluminium.

Size 4 – Stainless steel knurled screw and threaded rod.

Application: On all magnetic surfaces such as vices, measuring devices, drilling machines, and lathes etc.

Size 4 – Magnetic jack on the guide track of the clamping device for processing thin-walled materials.

Type		3	4
32E 36 0495	Workpiece backstop, magnetic	eShop	eShop
Usable height N	mm	–	25 – 38
Threaded rod	mm	–	M6x60



Allmatic workpiece backstop

Suitable for: All Allmatic and GARANT NC vices.

34A 36 0555	Workpiece backstop	eShop
suitable for colour code		

Suitable for: All basic types and all vices with M8 thread.

Application: Can be positioned with high repeat accuracy; can be pivoted out of the way.

34A 36 2650	Workpiece backstop	eShop
suitable for colour code		



Colour code:	TC	HiPo	LC	LC-GARANT	Duo	Duo Plus	T-Rex	Titan
	Titan2/TitanSense		Basic	HD-Allmatic	Centro Gripp	LCV125G	NC8	HOLEX NC



NC8 NC high pressure vice

Compact size: Optimum ratio between clamping range and overall length. The clamping force can be pre-set **without using tools: in 11 steps:** Jaw width 90 mm, **in 4 steps:** Jaw width 125 / 160 / 200 mm. Particularly rigid base body of GJS-60, **top and bottom faces ground; pairing accuracy 0.02 mm.**

Feature:

Fully enclosed low-maintenance nitrided spindle!

- Increased service reliability.
- Optimised swarf protection.
- Minimised cleaning requirement.

Size 90–125MX – **With 25H6 M10 holes at 200 mm pitch for zero-point clamping system.**

Size 200 – Base body same as size 160.

Size H200 – Heavy Duty for very heavy machining.

Application: Can be used horizontally or laterally, **since the side faces are ground to an accuracy of -0.05 mm.**

Supplied with: 2 stepped jaws (= standard!), 1 crank handle, 4 table clamps.

Optional extras:

- Size 90–125LX – ■ Clamping stud No. 360025 – 25 M10.
- Size 125M–125LX – ■ Adapter plates for quick jaw change Xtric No. 361293; 361294 size 125.
- Adapter plates No. 361297; 361298 size 125.
- Size 125MX; 125LX – ■ Front jaws No. 361140 – 361151.

Note:

- Dimensions/jaws interface NC 8 identical to the Allmatic TC / LC.
- NC 8 (No. 360405) supersedes the products LC (No. 360500) and TC (No. 360400).
- **Sizes 125 MX and 125 LX are supplied with jaws No. 361295 125 and No. 361296 125.**
- Size 90; H200 – ■ **No end face holes for extensions included!**

Thread

for HD jaws
No. 362390 – 362600

Thread M8

for a workpiece
stop

Also available in a
hydraulic version.



Attachment holes

for stepped inserts
No. 361950 to
361970

Click quick-change system

(see No. 361950/1960/1970),
only size 90–160.

Force pre-setting without the use of tools

Upper face

induction hardened
and ground.

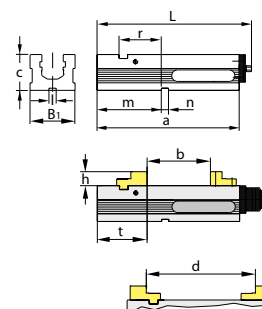
Faces ground on the side

36 0405

Proven low-maintenance high-pressure spindles

with constant pressure level due to low-wear fully mechanical power intensifier.
No decline of clamping force.

Type		90	125M	125MX	125L	125LX	160	200	H200
34A 36 0405	NC8 NC high pressure vice	eShop	eShop	eShop	eShop	eShop	eShop	(eShop)	(eShop)
Clamping force up to maximum	kN	28	40	40	40	40	60	60	80
Weight	kg	15	35	35	43	43	56	60	85
L	mm	339	483	483	615	615	615	615	615
a	mm	283	398	398	530	530	530	530	530
B ₁ -0.05	mm	90	126	126	126	126	164	164	202
b	mm	0 – 126	0 – 182	0 – 182	0 – 314	0 – 314	0 – 246	0 – 246	0 – 246
c -0.02	mm	80	100	100	100	100	115	115	140
d	mm	91 – 217	131 – 313	131 – 313	87 – 445	87 – 445	189 – 435	189 – 435	189 – 435
h	mm	34	39.5	39.5	39.5	39.5	49.8	60	60
I H7	mm				20				
m	mm	112	180	180	278	278	234	234	234
n H7	mm				20				
r ±0.015	mm	73	118	118	216	216	164	164	164
t	mm	97	144	144	144	144	164	164	164
Colour code for suitable accessories		■	■	■	■	■	■	■	■



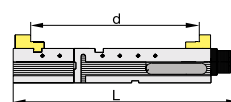
Example: No. 36 0405
with 36 0420

Extensions

Suitable for: NC 8 and Titan.

Supplied with: 2 table clamps and connecting screws.

for type		125	160
34A 36 0420	Vice base extension	eShop	eShop
d	mm	492	677
L	mm	659	857
suitable for colour code		■ ■ ■	■ ■ ■



36 0420



36 0530

Accessories

Supplied with: 4 screws, plain washers, 4 T-nuts, 2 tenons.

Table T-slot size	mm	12	14	16	18	22
34A 36 0530	Alignment and fixing set	eShop	eShop	eShop	eShop	(eShop)
for type		90	125-200	125/200		
34A 36 0406	Angled gear drive	(eShop)	eShop	–		
34A 36 0800	Spare crank	–	–	eShop		
suitable for colour code		■	■	■ ■ ■ ■ ■		

Application: For bolting on to the hand crank where access is difficult.

34A 36 0850	Hand crank extension	eShop
--------------------	----------------------	-------

Colour code: ■ NC8 ■ TC ■ Titan ■ HiPo ■ LC ■ LC-GARANT



36 0406



36 0800

36 0850

Garant HiPo clamp NC high-pressure vice



- Pairing accuracy 0.02 mm.
- Alignment dimensions compatible with other manufacturers.
- Universal design accepts wide variety of jaw systems.
- Slides induction hardened.
- Fully enclosed spindle (minimises cleaning requirement).
- Tapped holes on each side for workpiece backstop.
- Including holes 18M16 for zero point clamping system pitch 200mm.
- **All faces apart from the end face ground:** Can be used horizontally or laterally.
- Angled gear drive can be attached.
- Fully enclosed and nitrided spindle.
- Tapped hole for workpiece backstop.

Supplied with:

Size 125 – Including stepped jaws No. 361400 and 361420, 4 stepless adjustable clamps and hand crank.

Size 125X – Including stepped jaws 361295 125 and 361296 125, 4 stepless adjustable clamps and hand crank.

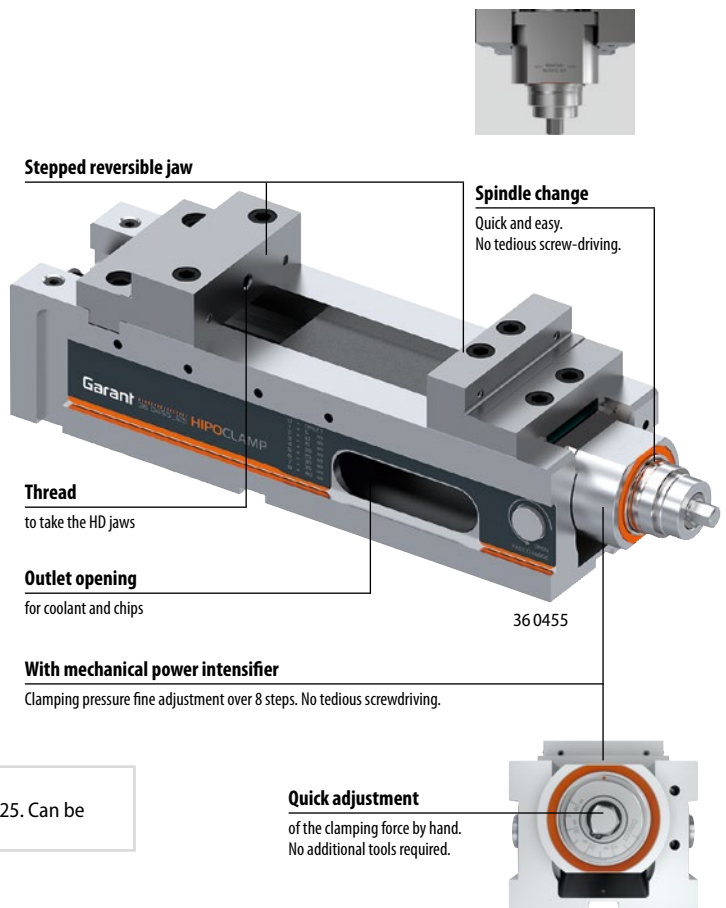
- Optional extras:**
- Accepts popular makes of jaws size 125, e.g. No. 361400 – 361660, No. 362390 – 362600, No. 361295, No. 361296.
 - For tenon and Tee-nut set see No. 360530.
 - For workpiece backstop, hand crank see No. 360555; 360800.
 - Clamping stud No. 360025.
 - Angle drive No. 360457.

Size 125; 125X – Adapter plate for quick jaw change Xtric No. 361293; 361294 size 125.

■ Adapter plates No. 361297; 361298 size 125.

Note:

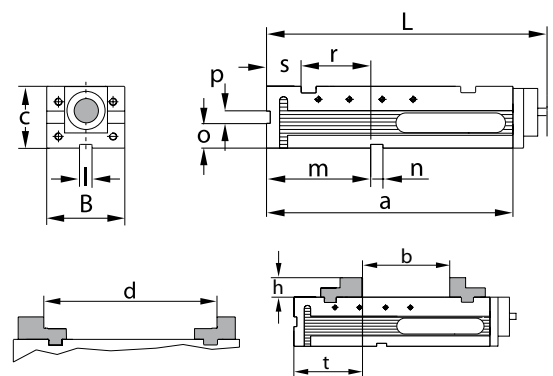
- Suitable base body extension is available on request.
- Size 125X is supplied with jaws 361295 125 and 361296 125. Can be used with Xpent front jaws.



Type		125	125X
31F 36 0455	NC high-pressure vice HiPo Clamp with power intensifier	eShop	eShop
Clamping force up to maximum	kN	40	
Weight	kg	35	
L	mm	512	
a	mm	424	
B	mm	125	
b	mm	0 – 182	
c – 0.02	mm	100	
d	mm	131 – 313	
h	mm	39.5	
I H7	mm	20	
m ± 0.02	mm	180	
n H7	mm	20	
o – 0.02	mm	40	
p H7	mm	20	
r ± 0.015	mm	118	
s – 0.02	mm	62	
t	mm	144	
Colour code for suitable accessories			

Angled gear drive

Application: For fitting on to end of spindle where access is difficult.



Type		125
31F 36 0457	Angled gear drive	eShop
suitable for colour code		

Colour code: HiPo



36

NC high pressure vice – version LC



- Compact size; optimum ratio between jaw span and overall length. **Clamping force can be checked visually by the 4 ring marks.** Maximum clamping pressure reproducible using integral fixed stop.
- Particularly rigid base body made of spheroidal graphite iron, top and bottom faces; pairing accuracy 0.02 mm.
- **Supplied with 25H6 M10 holes for zero point clamping systems, pitch 200 mm.**

Feature:

- **Click quick-change system** for parallel inserts / jaws. Short set-up times and high flexibility.
- Fully enclosed and nitrided spindle (increased operational reliability, optimised swarf protection, minimised cleaning requirement).

Application: Universal clamping system for machining centres.

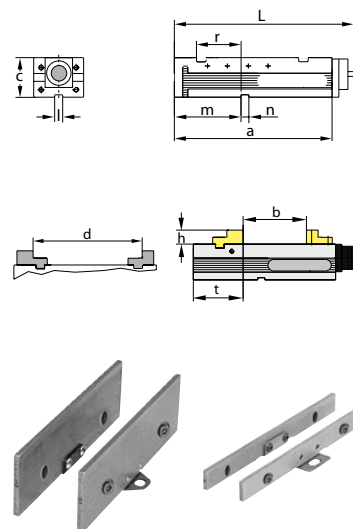
Supplied with: 2 stepped jaws, 1 crank handle, 4 steplessly adjustable clamps, and 1 hexagon L-wrench.

Optional extras: ■ For tenon and Tee nut set see No. 360530.

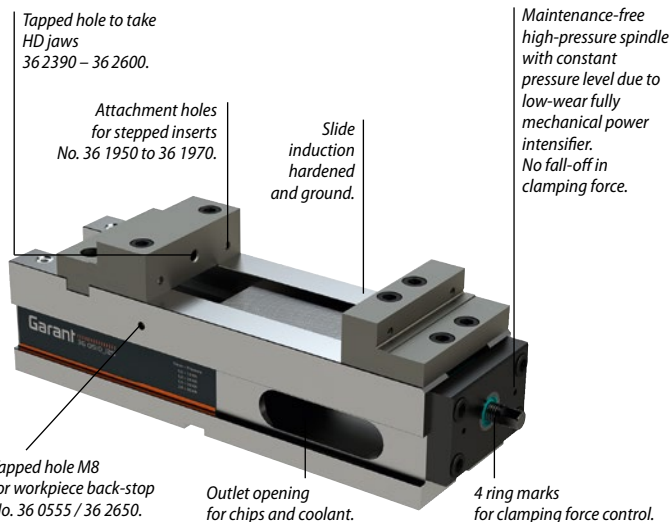
- See No. 360555; 352650 and 360800 for spare component backstop / spare crank handle.
- See No. 360850 for hand crank extension.
- See also No. 361380 – 361770 and 362390 – 362600 for other jaws.
- For spare stepped jaws see No. 361400; 361420 and 361295; 361296.
- Clamping stud No. 360025.
- Adapter plates for jaw quick-change system Xtrix No. 361293 and 361294 size 125.
- Adapter plates No. 361297 and 361298 size 125.

Note:

- Click system parallel inserts for drilling close to the edge and clamping flat components see No. 361950; 361960; 361970.
- For stepped jaws see No. 361400; 361420; 361295; 361296.



Type	125	
31F 36 0510 Garant NC high pressure vice version LC	eShop	
Clamping force up to maximum	kN	40
Weight	kg	34
L	mm	446
a	mm	398
b	mm	0 – 182
c – 0.02	mm	100
d	mm	131 – 313
h	mm	39.5
l H7	mm	20
m	mm	180
n H7	mm	20
r ±0.015	mm	118
t	mm	144
Colour code for suitable accessories	Blue	



Vee jaws

Application: Clamping round parts, 16 – 74 mm vertically, 12 – 40 mm horizontally.



for type	125	
31F 36 0540 Vee jaws pair Steel hardened	eShop	
b	mm	125.6
h	mm	39.8
l	mm	15
suitable for colour code	Green, Blue, Purple, Black, Yellow	

Angled gear drive

Application: For fitting on to end of spindle where access is difficult.



for type	125	
34A 36 0580 Angled gear drive	eShop	
suitable for colour code	Blue	

Colour code: Blue LC-GARANT, Green TC, Red LC, Purple Titan, Black Basic, Grey Titan2/TitanSense, Yellow LCV125G, Black NC8

HOLEX NC high pressure vice

Small size – optimum ratio of clamping range to overall length.
Stepless adjustment – 100% clamping force at 360°.
 Particularly rigid body made of GJS-60, **ground on top and bottom faces**.

Pairing accuracy 0.02 mm.

Feature:

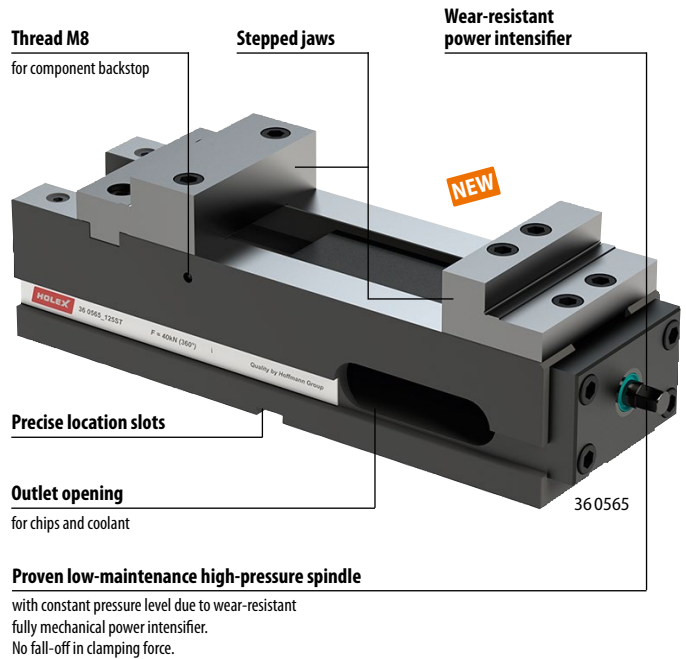
- Fully enclosed low-maintenance nitrided spindle.
- Increased service reliability.
- Optimised swarf protection.
- Minimised cleaning requirement.

Application: For horizontal use. Versatile clamping unit for machining centres.

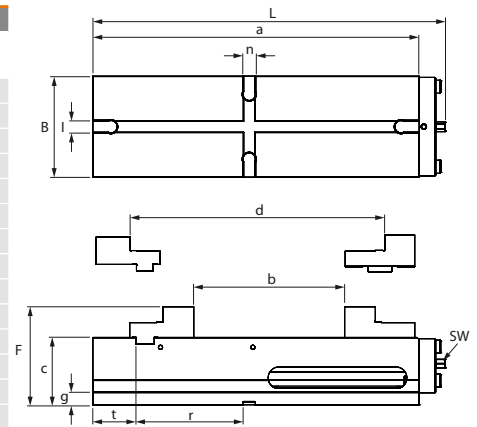
Supplied with: Including 2 pcs. stepped jaws and 1 pc. hand crank.

Optional extras: Stepless adjustable clamps No. 360579.
 Alignment and fixing set No. 360530.
 Popular makes of jaws such as No. 361400–361660, No. 361295–361298.
 Workpiece backstop and crank No. 360555 and 360800.
 Jaws quick-change system No. 361293 125 and 361294 125.

Note: Alignment dimensions not compatible with those of other manufacturers.



Type		125ST	160ST
32P 36 0565	NC high-pressure vice	eShop	eShop
Clamping force up to maximum	kN	40	60
Weight	kg	33	66
L	mm	441	573
a	mm	398.5	530
B	mm	126	164
b	mm	0 – 182	0 – 245
c – 0.02	mm	95	110
F	mm	134.5	159.8
d	mm	131 – 313	190 – 435
g	mm	21	
I H8	mm	20	
n H7	mm	20	
r	mm	128	174
t	mm	62.5	70
Colour code for suitable accessories			
AF	mm	14	



Stepped jaws

Suitable for: NC high pressure vice No. 360565.
Material: Hardened, nitrided, both sides smooth.
Supplied with: Incl. fastening screws.

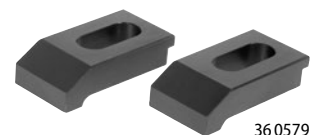
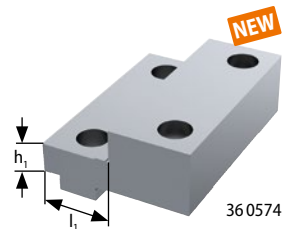
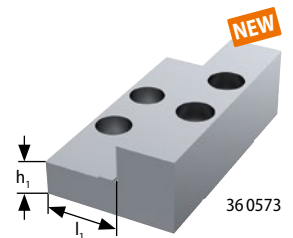
Type		125	160
32P 36 0573	Stepped jaws movable	eShop	eShop
32P 36 0574	Stepped jaws fixed	eShop	eShop
b	mm	124.4	160.4
h	mm	39.5	49.8
h ₁	mm	20	25
I (36 0573)	mm	70	114
I (36 0574)	mm	92	104
I ₁	mm	40	64
suitable for colour code			

Clamping claws

Suitable for: NC high pressure vice No. 360565.

for jaw width	mm	125/160
32P 36 0579	Set of clamps 2 pieces	eShop
suitable for colour code		

Colour code: HOLEX NC




ALLMATIC
Spannsysteme

NC high-pressure vice – Duo 2-component vice

Particularly rigid body made of spheroidal graphite iron, ground on top and bottom faces. **Pairing accuracy 0.02 mm.**

Function: Insert first piece at **clamping position I** and turn the crank until movable jaw touches the component, then insert second part at **clamping position II** and continue to turn the crank all the way to the stop.

Application: ■ **For horizontal use.**

■ Clamping of **2 identical parts**, dimensional differences (± 3 mm).

Supplied with: Includes 4 stepped jaws, 1 crank handle, 4 steplessly adjustable clamps and Quick-Start Guide.

Note:

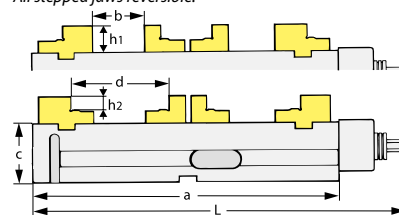
■ **Overall length L remains unchanged** (reduced risk of collisions).

■ **Accessories see No. 360530; 361400; 361440; 361600 – 361970.**

■ **Always clamp 2 workpieces!**

Size 90 – ■ **With 25H6 M10 holes at 200 mm pitch for zero-point clamping systems.**

All stepped jaws reversible.



Clamping using crank.

High clamping forces achieved with low physical effort. Required clamping force can be pre-selected.

Clamping positions I and II, induction hardened.

Click quick-change system

(see No. 36 1950 / 1960 / 1970).

Precision tenon slot (milled).

Outlet opening

for chips and coolant.

Spindle chamber

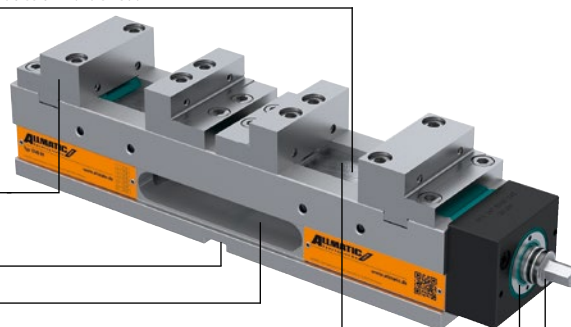
with profile wiper and spindle seal.

Well-proven maintenance-free high-pressure spindle

with constant pressure level due to low-wear mechanical power intensifier. No reduction in clamping force.

Threads

for angled gear drive (angle drive on request)



Type		90	125
34A 36 0600	NC high pressure vice Duo	eShop	eShop
Clamping force up to maximum	kN	28	40
Weight	kg	24	49
L	mm	482	640
a	mm	400	530
b	mm	0 – 64	0 – 89
c – 0.02	mm	80	100
d	mm	56 – 120	82 – 171
h ₁	mm	34	40
h ₂	mm	18	20
Tenon slots	mm	20H7	
Colour code for suitable accessories			

ALLMATIC
Spannsysteme

NC high-pressure vice – Duo Plus 2-component vice

Rigid base body made of GGG60, slides induction hardened and ground.

Function: Place and secure the first and second component to the mobile jaws. If the crank is turned past the engagement point, the clutch disengages. The pressure spindle activates the mechanical power intensifier.

Application: ■ **For horizontal use.**

■ **Capable of clamping 2 different workpieces** or clamping 2 identical parts. Dimensional differences ± 2.5 mm (workpiece 1 to workpiece 2).

■ **Conventional and gripper clamping using carrier jaws or a combination of the two.**

Supplied with: 4 pcs. stepless adjustable clamps, Quick Start Guide.

Optional extras: Clamping jaws No. 361400 – 361440, 361600, 361660.

Parallel inserts No. 361950, 361960, 361970.

Gripp set No. 361345.

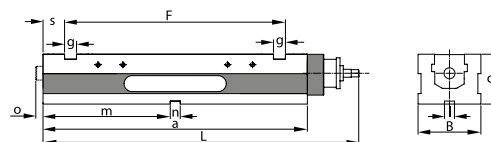
Torque wrench No. 656050 size 60.

Note:

■ **Overall length L remains unchanged** (reduced risk of collisions).

■ **Accessories see No. 360530; 361400; 361440; 361600 – 361970.**

■ **Always clamp 2 workpieces!**

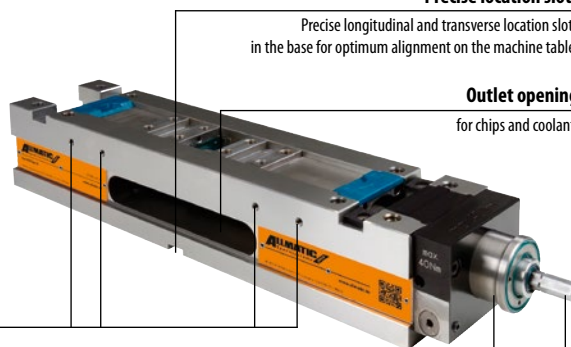


Precise location slots

Precise longitudinal and transverse location slots in the base for optimum alignment on the machine table.

Outlet opening

for chips and coolant.



Tapped hole in the side

for a workpiece back-stop.

Clamping capacity can be adjusted

by changing the spindle position.

Fully enclosed maintenance-free high-pressure spindle,

minimal cleaning requirement.

Type		125
34A 36 0605	NC high pressure vice Duo Plus	eShop
Clamping force up to maximum	kN	40
Torque	Nm	40
Weight	kg	40
L	mm	633
a	mm	530
B	mm	126
c	mm	100
F	mm	443
g	mm	24
l	mm	20
m	mm	255.2
n	mm	20
o	mm	0 – 15
s	mm	43.2
Colour code for suitable accessories		

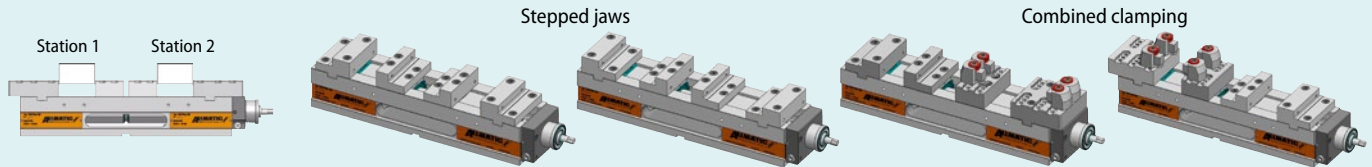
Colour code: ■ Duo ■ Duo Plus



GALLERY Duo Plus / Centro Gripp

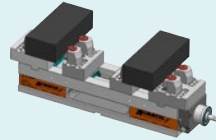


Duo Plus (clamping range can be adjusted up to 25 mm).

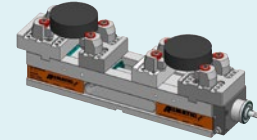


	Station 1	Station 2	Station 1	Station 2	Station 1	Station 2	Station 1	Station 2
Capacities	0 – 89 mm	0 – 89 mm	43 – 172 mm	43 – 172 mm	0 – 89 mm	10 – 200 mm	10 – 200 mm	0 – 89 mm
Clamping range with spindle adjustment	0 – 64 mm	50 – 114 mm	43 – 147 mm	93 – 197 mm	0 – 64 mm	60 – 225 mm	10 – 175 mm	93 – 197 mm

Carrier jaws with rectangular workpiece

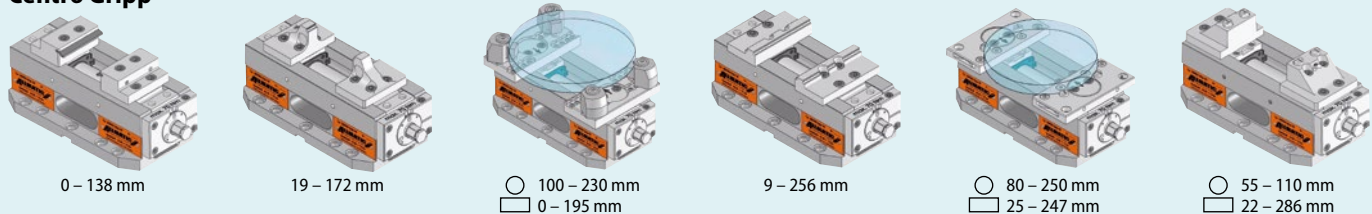


Carrier jaws with round workpiece



	Station 1	Station 2	Station 1	Station 2
Capacities	10 – 202 mm	10 – 202 mm	Ø 60 – 220 mm	Ø 60 – 220 mm
Clamping range with spindle adjustment	10 – 175 mm	60 – 225 mm	Ø 60 – 190 mm	Ø 80 – 240 mm

Centro Gripp



NC high-pressure vice Centro Gripp – 5-face blank component machining

Guide track induction hardened, top and bottom faces ground.

With 25H6 M10 holes for zero point clamping system, pitch 200 mm.

Feature: Enclosed spindle, high swarf protection, minimal cleaning requirement.

Function:

- Spindle with integral power intensifier.
- Clamping with adjustable torque wrench (18 – max. 70 Nm).
- Clamping centre adjustable.
- Repetition accuracy $\pm 1/100$ mm for angular workpieces.

Application:

In conjunction with various jaws it can be used for conventional clamping, clamping of smooth-faced workpieces, and grip clamping.

Supplied with: Hexagon socket 20AF-1/2 inch, 6 screws, 2 ring spanners 20AF.

Optional extras:

- Gripper inserts No. 361238 – 361250 and No. 361160.
- Torque wrench No. 656050 size 120.
- Extension base No. 361230 size 125.
- Stepped jaws No. 361215.
- Carrier jaw, pivoting, No. 361207 size 125.
- Carrier jaw Uni-Gripp set, pivoting, No. 361209 size 125.
- Jaw No. 361222 size 125 and No. 361227 size 125.
- Universal gripper set No. 361345 size 125.
- Pull-down jaws No. 361229 size 125.
- Prismatic jaw No. 361185 size 125.
- Jaw blank No. 361186 size 125.
- Gripper jaw No. 361218.
- Pair of parallel inserts No. 361223 size 125.
- Clamping studs No. 360025 size 25M10 and size 25M10/138.

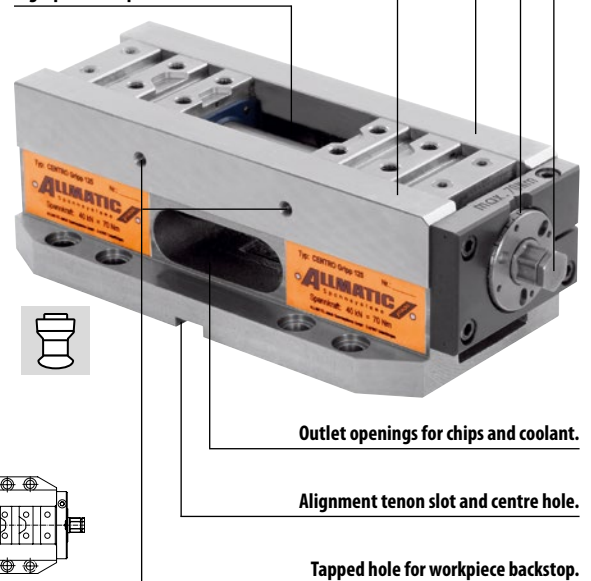
Clamping with a torque wrench

(maximum 70 Nm).

Setting ring with scale for centre position.

Slides induction hardened, top and bottom faces ground.

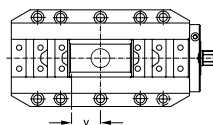
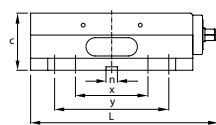
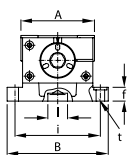
Low-maintenance, enclosed high-pressure spindle.



Outlet openings for chips and coolant.

Alignment tenon slot and centre hole.

Tapped hole for workpiece backstop.



Type	34A	36 1180	Clamping force up to maximum	Torque	Weight	A	B	c	f	i	l H8	L	n H7	Ø t	Travel distance v	x	y	Colour code for suitable accessories
125		NC high pressure vice Centro Gripp	kN	Nm	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
		eShop	40	70	19.5	112	154	100	21	129; 130	30	329	20	13	46	127	200	

Colour code: ■ Centro Gripp

Vee jaws / jaw blank for Centro Gripp

Suitable for: Centro Gripp No. 361180.

Vee jaws

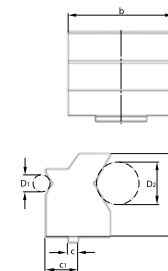
piece

Vee angle 120° – axis height 53 mm on both sides. The jaws open sufficiently to allow the workpiece to be removed upwards – even at maximum Ø.

Material: Steel hardened and ground.

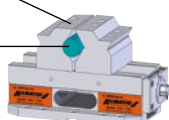
Application: For clamping cylindrical components.

for type	34A	36 1185	b	c	c ₁	h	D ₁	D ₂	suitable for colour code
		Vee jaw for Centro Gripp	mm	mm	mm	mm	mm	mm	
125		eShop	124.4	12	39	81	17 – 42	38 – 104	

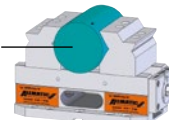


Access
width min. 13 mm

min. Ø
38 mm

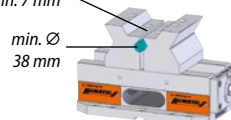


max. Ø
104 mm



Access
width min. 7 mm

min. Ø
38 mm



min. Ø
42 mm



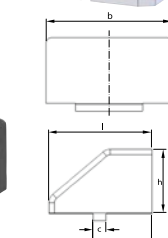
Jaw blank

piece

Material: GGG40 – can be hardened.

Supplied with: Fastening screws.

for type	34A	36 1186	b	c	c ₁	h	l	for type	suitable for colour code
		Jaw blank for Centro Gripp	mm	mm	mm	mm	mm		
125		eShop	124	12	54	58	94.5	125	



NC high-pressure vice – T-Rex, 5-face blank component machining



Top and bottom faces ground. With 25H6 M10 holes at 200 mm pitch for zero-point clamping systems.

Suitable for: Fixed carrier jaws No. 361206; 361208.
Mobile carrier jaws No. 361207; 361209.

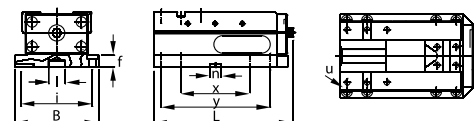
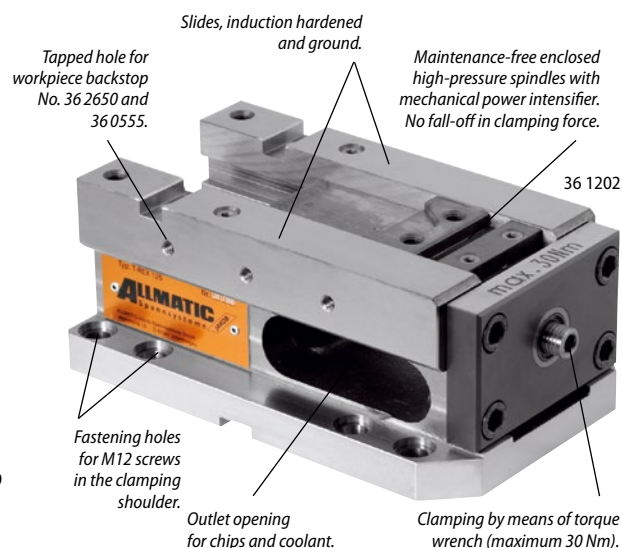
Function: **Clamping using adjustable torque wrench (maximum 30 Nm)**, requiring only minimal lost clearance around the component (in connection with jaws / gripper inserts). **Using special high pressure spindle and mechanical power intensifier.**

Feature: Sturdy, compact base body (GGG 60) with large capacity. Fully enclosed and nitrided spindle (increased operational reliability, optimised swarf protection, minimised cleaning requirement).

Application: Quick and secure clamping of **flame-cut and saw-cut blanks** by penetration of **hardened and replaceable Gripp inserts** into the workpiece. Suitable for all materials with a strength of up to approximately 1000N/mm² (exception: hardened materials).

Supplied with: 4 securing bolts, hexagon screwdriver bit 3/8 inch. Additional 3 hexagon L-wrenches (5 / 8 / 10 AF).

Optional extras: ■ For extension base see No. 361230 size 125.
■ For gripper inserts see No. 361238 – 361250; 361260
■ For stepped jaws see No. 361210; 361215.
■ For fixed carrier jaw see No. 361206 size 125.
■ For pivoting carrier jaws see No. 361207 size 125.
■ For universal gripper set carrier jaw see No. 361208 size 125.
■ For movable pivoting universal gripper set carrier jaws see No. 361209 size 125.
■ For universal gripper set see No. 361345 size 125.
■ For pull-down jaws see No. 361228; 361229 size 125.
■ Torque wrench No. 656050 size 60
■ For gripper jaws see No. 361217; 361218.
■ For stepped jaws see No. 361223 size 125.
■ Clamping stud No. 360025, 25M10 or 25M10/138.
■ Alignment and fixing set No. 360530.



Application examples:



Clamping range min. = 65 mm



max. = 226 mm



min. = 26 mm



max. = 184 mm

Type	34A	36 1202	Clamping force up to maximum	Torque	Weight	L	B	f	i	l H8	n H7	u	x	y	Colour code for suitable accessories
		NC high pressure vice T-Rex	kN	Nm	kg	mm	mm	mm	mm	mm	mm	mm	mm	mm	
125		eShop	40	30	18	256	154	21	130	30	20	13	127	200	

Colour code: ■ Centro Gripp ■ T-Rex

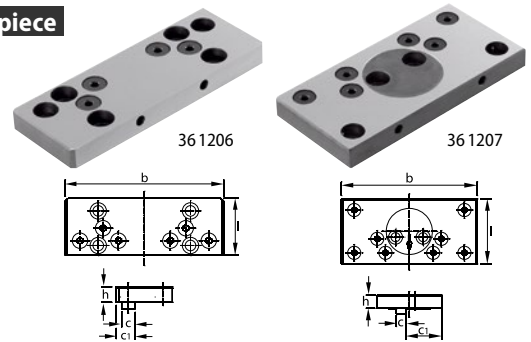


Carrier jaws / stepped jaws / clamping jaws / gripp jaws for T-Rex / Centro Gripp

Carrier jaws for bolt-on gripp inserts

piece

Application: Carrier jaws for standard gripp inserts No. 361238; 361240; 361245; 361250 (not suitable for universal gripp set No. 361345 size 125 and No. 361350 size 125). Mobile pivoted jaws compensate non-parallel clamping faces. Gripp inserts can be screwed into a variety of hole patterns, for secure clamping of various geometries.

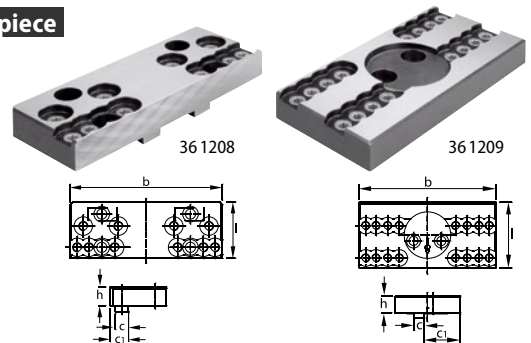


for type		125	b	c	c ₁	h	l	Clamping range maxi- mum round	Clamping range mini- mum round	Clamping range maxi- mum square	Clamping range mini- mum square	suitable for colour code	
			mm	mm	mm	mm	mm	mm	mm	mm	mm		
34A	36 1206	Carrier jaw for gripp inserts, for T-Rex fixed	eShop	165	14	20	16	59	190	80	185	26	
34A	36 1207	Carrier jaw for gripp inserts, for T-Rex / Centro Gripp pivoting	eShop	165	12	43.5	16	79	226 / 250	80 / 80	185 / 247	26 / 27	 

Carrier jaws for use with universal gripp set

piece

Application: Carrier jaws for holding the universal Gripp set No. 361345 size 125. Mobile pivoted jaws compensate non-parallel clamping faces. Gripp inserts can be screwed into a variety of hole patterns, for secure clamping of various geometries.



for type			125	b	c	c ₁	h	l	Clamping range maxi- mum round	Clamping range mini- mum round	Clamping range maxi- mum square	Clamping range mini- mum square	suitable for colour code
				mm	mm	mm	mm	mm	mm	mm	mm	mm	
34A	36 1208	Carrier jaw, Uni-Gripp set, for T-Rex fixed	eShop	165	14	20	20	61	160	100	152	0	
34A	36 1209	Carrier jaw Uni-Gripp set, for T-Rex / Centro Gripp pivoting	eShop	165	12	35.5	20	79	160 / 230	100 / 100	152 / 195	0 / 0	

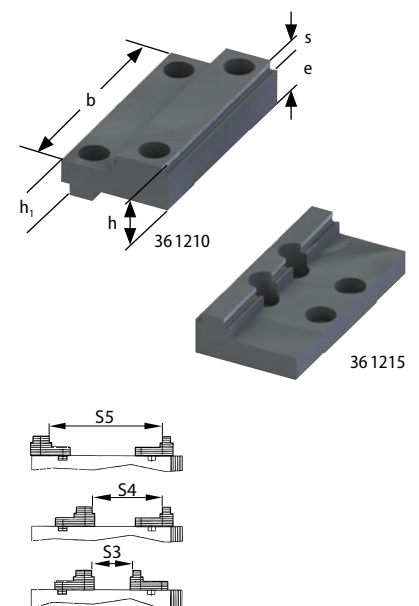
Stepped jaws

piece

Material: Hardened steel, **coated clamping faces** for high friction values, **increased gripping power by a factor of at least 1.5** (typical hardness 80 HRC).

Application: For clamping parallel pre-machined components.

for type		125
34A	36 1210	Stepped jaw coated, for T-Rex fixed
34A	36 1215	Stepped jaw coated, for T-Rex / Centro Gripp movable
b	mm	124.4
h	mm	26
h ₁	mm	14
s	mm	5
e	mm	21
S3 (36 1210)	mm	9 – 67
S3 (36 1215)	mm	9 – 67 / 9 – 162
S4 (36 1210)	mm	48 – 114
S4 (36 1215)	mm	48 – 114 / –
S5 (36 1210)	mm	100 – 183
S5 (36 1215)	mm	100 – 183 / 102 – 256
suitable for colour code (36 1210)		■
suitable for colour code (36 1215)		■ ■

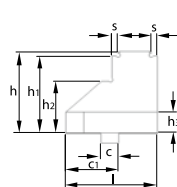
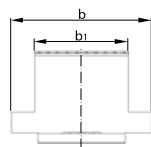


Colour code: ■ T-Rex ■ Centro Gripp

Gripp jaws**piece**

Rigid anti-vibration design for parts clamped upright.
Additional clamping area, ground both sides.

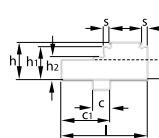
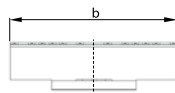
Application: For rectangular workpieces
(saw-cut blanks) $// \leq 0.5 \text{ mm}$



36 1218_64



36 1217_64



36 1218_125

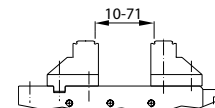
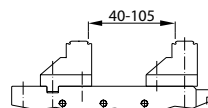
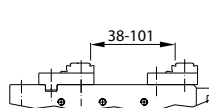
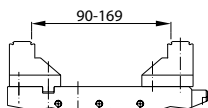
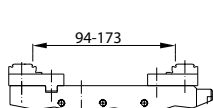


36 1217_125

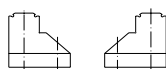
for type	34A	36 1217	34A	36 1218	b	b ₁	c	c ₁	h	h ₁	h ₂	h ₃	l	s	suitable for colour code	
		Gripp jaw, for T-REX		Gripp jaw, for T-Rex / Centro Gripp	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	36 1217	36 1218
		fixed		movable												
64		eShop			96	64	12	22	55	52	35	14	62.5	4		
125		eShop			118	—	14	34	26	23	16	14	60.6	4		

**Parallels / clamping jaws for T-Rex / Centro Gripp**

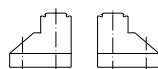
T-Rex clamping capacities in mm with gripp jaws



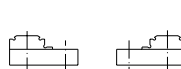
Centro Gripp clamping capacities in mm with gripp jaws



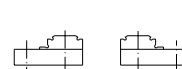
front slot: approx. 78 – approx. 161
rear slot: approx. 146 – approx. 229



front slot: approx. 10 – approx. 93
rear slot: approx. 78 – approx. 161



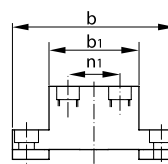
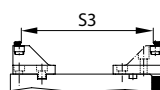
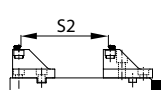
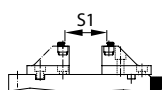
front slot: approx. 78 – approx. 161
rear slot: approx. 146 – approx. 229



front slot: approx. 10 – approx. 93
rear slot: approx. 78 – approx. 161

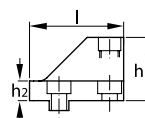
Reduced width jaws 64 mm**piece**

Application: For clamping small to medium workpieces.
Blanks can be clamped using 2 adjustable gripp inserts.
Smooth clamping faces for clamping pre-machined workpieces.



36 1220

for type	34A	36 1220	b	b ₁	h	h ₂	l	n ₁	S1	S2	S3	suitable for colour code	
		Jaw 64 mm, for T-Rex	mm	mm	mm	mm	mm	mm	mm	mm	mm		
		fixed											
125		eShop	116	64	45	14	67	37	21 – 68	66 – 138	131 – 209		



36 1222

for type	34A	36 1222	b	b ₁	h	h ₂	l	n ₁	S1	S2	S3	suitable for colour code	
		Jaw 64 mm, for T-Rex / for Centro Gripp	mm	mm	mm	mm	mm	mm	mm	mm	mm		
		movable											
125		eShop	96	64	45	14	79	37	21 – 68 / 22 – 144	66 – 138 / —	131 – 209 / 137 – 286		

Colour code: ■ T-Rex ■ Centro Gripp

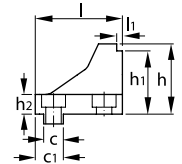
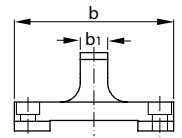
Reduced width jaws 20 mm

piece

Application: Clamping faces coated for high friction values, increased gripping power by a factor of at least 2 (typical hardness 80 HRC).



36 1227



for type	34A	36 1227	b	b ₁	c	c ₁	h	h ₁	h ₂	l	l ₁	S1	suitable for colour code
		Jaw 20 mm, for T-Rex / for Centro Gripp											
		movable	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
125		eShop	96	20	12	39	50	45	14	62	4	9 – 75 / 19 – 172	



Screw-in gripp inserts / gripp set

Universal gripp set

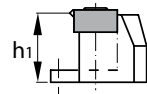
Suitable for: Allmatic jaws 361206 – 361354.

Application: The universal gripp set offers a wide range of possibilities for the clamping of blanks. It consists of a base unit with position adaptation, mounting unit and gripp insert, and is bolted to the carrier jaw with an M10 bolt. The customer can modify the mounting unit to set the points of the gripp unit in nearly any position relative to the workpiece, allowing the gripp height and also the mounting height of the workpiece to be varied.

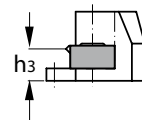


36 1345

40 mm



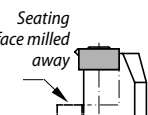
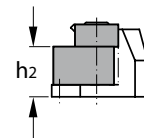
18 mm

65 mm
min. capacity

300 mm max. capacity



29 mm

Seating
face milled
away

for type	34A	125
36 1345	Universal gripp set (case with 4 units)	eShop



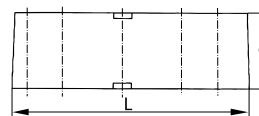
T-Rex extension bases for increasing the NC vice height

Suitable for:

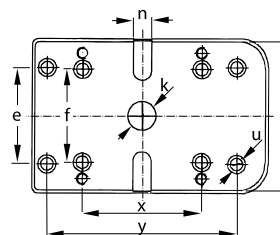
- Size 125 – T-Rex No. 361202 / Centro Gripp No. 361180.
- Size 125XL – No. 360405; 360465; 360510; 361290 and No. 361302 in size 125M.

Supplied with:

- Size 125 – Extension base with 1 locating pin, 2 t-slot nuts and 4 bolts.
- Size 125XL – Extension base with 1 locating pin, 2 tenons, 8 duo table clamps, and 4 bolts.



36 1230_125



36 1230_125XL

for type	34A	36 1230	L	B	c – 0.02	e	f	k H7	n H7	u	x	y	suitable for colour code
		Extension base	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
125		eShop	250	154	85	100	96	30	20	13	125.5	200	
125XL		eShop	400	126	100	–	–	30	20	–	–	–	

Colour code: T-Rex Centro Gripp Titan2/TitanSense TC HiPo LC LC-GARANT Titan LCV125G NC8

36



ALUMATIC spannsysteme Modular NC high-pressure vice TitanSense

- Clamps for modular clamping system with **intelligent clamping force monitoring**.
- Monitoring of the clamping force during clamping and during machining by means of an **integrated electronic measuring system**. Display directly on a robust and splash-proof display and via wireless transmission to the end device (via Bluetooth® (BLE)).
- Enclosed spindle with power intensifier (IP65).
- Process-safe clamping with high repeatability.
- Can be used horizontally and vertically, making it ideal for 3 and 4-axis machines.
- Clamping of raw and pre-machined parts (parallel, round and shapeless) also with Gripp and pull-down clamping for materials up to approx. 1400 N/mm² strength.
- Slides induction hardened. Side, top and bottom faces ground.

Function: **Clamping exclusively with adjustable torque wrench (maximum 30 Nm).** Using special high pressure spindle and mechanical power intensifier.

Feature: The clamping force can be measured with all compatible jaws, thanks to the integrated measuring unit in the spindle. Transmission range up to 20 m. Easy and fast replacement of standard batteries (LS14250; 1/2AA) with long battery life. Operating temperature between 10°C and 40°C. QR code for quick access to technical information, accessories, spare parts and service on the rating plate. **Increased force travel for secure clamping of blanks in combination with a pull-down function.**

Jaws secured with M12 socket head screws.

8 mm lost clearance when pulled down, 3 mm for Gripp.

Clamping can be achieved close to the neutral line. Clamping jaws from the Allmatic/GARANT NC clamping range are compatible (see special accessories).

Outlet for chips and coolant. Precise location slots.

Tapped holes for component backstop and for extension.

Maximum clamping force 40 kN.

Size 125M – With 25H6 M10 holes at 200 mm pitch for zero-point clamping system.

Size 125M; 160 – Can be installed vertically.

Advantage: Precise and powerful multi-function high-pressure vice.

- Reliable clamping of blank parts, thanks to the extra long stroke of the high-pressure spindle.
- Precision machined finished parts, base body machined all round.

Application: **For conventional clamping, grip clamping and pull-down clamping.** Clamping of **flame-cut and saw-cut blanks** by **hardened replaceable Gripp elements** piercing into the workpiece. Suitable for all materials up to tensile strength of 1000 N/mm. Can be used horizontally or laterally.

Supplied with: Bi-hex socket 14 AF, 4 pcs. stepless adjustable clamps.

Optional extras: ■ Jaws No. 361331 – 361970.
 ■ Torque wrench No. 656050 size 60.
 ■ Adapter plate for quick jaw change Xtric No. 361293; 361294 size 125.
 ■ Adapter plates No. 361297; 361298 size 125.

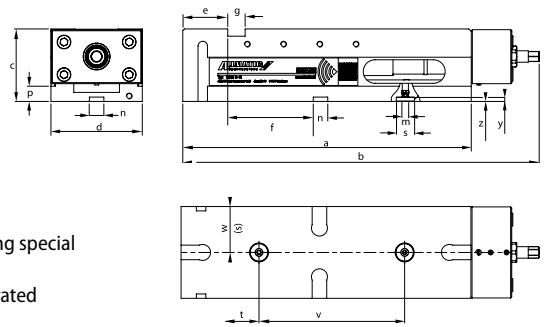
Size 125M – ■ Clamping stud No. 360025.

Note:

Size 125L – Extension and facility for bolting a second vice on to the end face available on request.

Size 160 – Clamp capacity extension available using base body No. 360420 size 160.

Size 125M; 125L – Clamp capacity extension available using base body No. 360420 size 125.



361303_125M



361303_125M



361303_125L



361303_160

Type		125M	125L	160
34A 36 1303	NC high-pressure vice TitanSense	eShop	eShop	eShop
Weight	kg	35	40	52
L	mm	492	624	624
a	mm	398	530	530
B	mm	126	126	164
c	mm	100	100	115
f	mm		21	
g	mm	24	24	30
l	mm		20	
m	mm	180	278	234
n	mm		20	
p	mm	–	176	–
r	mm	118	216	164
Colour code for suitable accessories				

Colour code: ■ Titan2/TitanSense



Modular NC high pressure vice Titan 2

Slides induction hardened. Side, top and bottom faces ground.

Feature:

Clamps for the modular clamping system.

Increased force travel for secure clamping of blanks in combination with a pull-down function.

Jaws secured with M12 socket head screws.

8 mm lost clearance when pulled down, 3 mm for Gripp.

Clamping can be achieved close to the neutral line.

Jaws are compatible with earlier models.

Outlet for chips and coolant. Precise location slots.

Tapped holes for component backstop and for extension.

Maximum clamping force 40 kN.

Size 125K; 125M – With 25H6 M10 holes at 200 mm pitch for zero-point clamping system.

Function: **Clamping exclusively with adjustable torque wrench(maximum 30 Nm).**
Using special high pressure spindle and mechanical power intensifier.

Feature:

Size 125K– 160M – Can be installed vertically.

Advantage: Precise and powerful multi-function high-pressure vice.

- Reliable clamping of blank parts, thanks to the extra long stroke of the high-pressure spindle.
- Precision machined finished parts, base body machined all round.

Application: **For conventional clamping, grip clamping and pull-down clamping.** Clamping of **flame-cut and saw-cut blanks** by **hardened replaceable gripper elements piercing** into the workpiece. Suitable for all materials up to tensile strength of 1000 N/mm². Can be used horizontally or laterally.

Supplied with: Includes bi-hex socket 14 AF, 4 stepless adjustable clamps.

Optional extras: ■ Jaws No. 361331 – 361970.

■ Torque wrench No. 656050 size 60.

■ Adapter plate for quick jaw change Xtric No. 361293 and 361294 size 125.

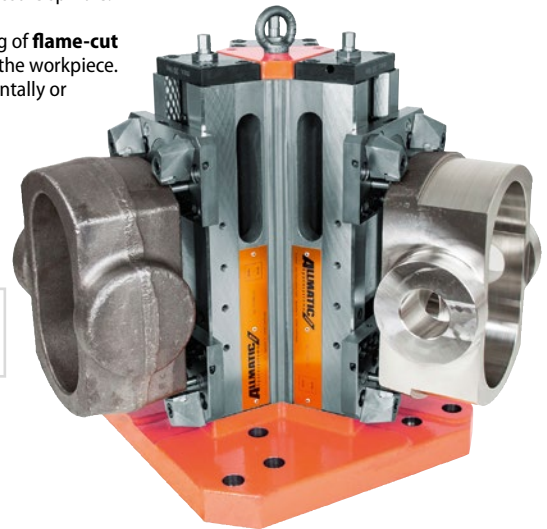
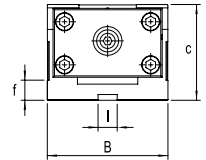
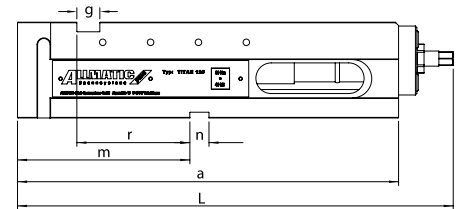
■ Adapter plates No. 361297 and 361298 size 125

Size 125K; 125M – Clamping stud No. 360025.

Note:

Size 160M – Clamp capacity extension available using base body No. 360420 size 160.

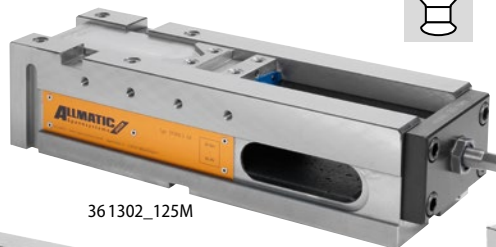
Size 125K–125L – Clamp capacity extension available using base body No. 360420 size 125.



Here is an example of clamping a casting using a carrier jaw with pull-down grip elements.



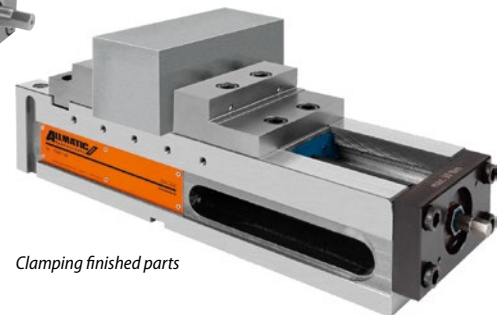
361302_125K



361302_125M



361302_125L



Clamping finished parts

Type		125K	125M	125L	160M
34A 36 1302	NC high pressure vice TITAN 2	eShop	eShop	eShop	eShop
Weight	kg	22	30	38	68
L	mm	318	455	587	587
a	mm	280	398	530	530
B	mm	126	126	126	164
c	mm	100	100	100	115
f	mm			21	
g	mm	24	24	24	30
l	mm			20	
m	mm	139	180	–	234
n	mm			20	
p	mm	–	–	176	–
r	mm	77	118	216	164
Colour code for suitable accessories					

Colour code: Titan2/TitanSense



36



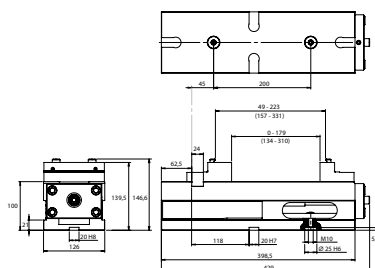
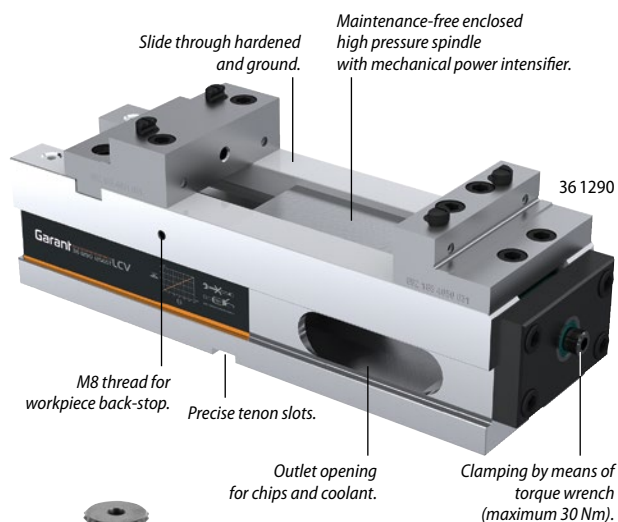
Garant Modular NC high-pressure vice LCV 125 G for conventional and gripp clamping

Top and bottom faces ground. **With 25H6 M10 holes at 200 mm pitch for zero-point clamping system.**

Application: Due to the 2.5 mm power stroke of the spindle, suitable for conventional clamping using stepped jaws and Gripp jaws.

Supplied with: Including stepped jaws (No. 361400 125; 361348 125), 4 pcs. gripper inserts (No. 361160 7); 4 pcs. gripper inserts (No. 361240 1) and clamping claws (No. 360750 125/160).

Optional extras: Jaws (see No. 361331–361970), torque wrench No. 656050 size 60, clamping stud No. 360025.



Jaw width A	3H	36 1290	Clamping force up to maximum	Torque	maximum clamping range	Weight	Colour code for suitable accessories
mm		Modular NC high-pressure vice LCV 125 G	kN	Nm	mm	kg	
125GST		eShop	40	30	331	33	

Accessories for modular NC high pressure vice Titan 2

Suitable for: Allmatic jaws No. 361206 – 361354. GARANT Xpent top jaws No. 361128 and 361129. GARANT Xtric top jaw 363038 125.

Application: Serrated gripp insert, e.g. to clamp blanks. Smooth clamping insert with coating, e.g. for clamping pre-machined components. Serrated gripp insert, round, for drilling near to edges and for additional clearance under the workpiece.

36 1160 – For workpieces with a large radius or chamfer between 3 and 8 mm.

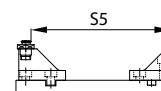
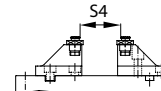
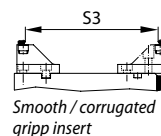
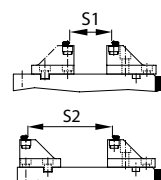
Size 7 – For workpieces with a large radius or chamfer between 3 and 8 mm.

36 1242 – For highly tempered materials and flame-cut blanks.

Optional extras:

36 1238–1245 – Screw-in aid No. 361251 size 1.

Type		1
34A 36 1238	Gripp insert with 2 spikes, height 3.7 – 5.2 mm	eShop
34A 36 1240	Gripp insert with 2 spikes, height 5.2 – 6.7 mm	eShop
34A 36 1239	Gripp insert with 2 spikes, height 8.2 – 9.7 mm	eShop
34A 36 1241	Gripp insert with 4 spikes height 3.7 – 5.2 mm	eShop
34A 36 1242	Gripp insert carbide height 7.1 – 8.6 mm	eShop
34A 36 1245	Clamping insert with coating, height 5.2 – 6.7 mm smooth	eShop
34A 36 1250	Gripp insert height 5.5 mm round	eShop
Type		7
34A 36 1160	Garant Gripp insert	eShop
Version		round
Height	mm	8



ALLMATIC Screw-in aid for gripp inserts

Suitable for: Gripp inserts No. 361238, 361239, 361240, 361241, 361242, 361245 and No. 361160 size 1-5.

Application: For easier screwing in of Gripp inserts without using an additional tool.

Type		1
34A 36 1251	Screw-in aid for gripp inserts	eShop

Colour code: LCV125G

1198



36 1251

ALLMATIC Spannsysteme Modular Gripp jaws system

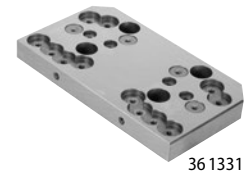
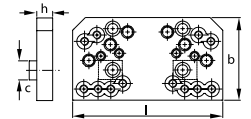
Carrier jaw, fixed

piece

Suitable for: Titan 2 No. 361302.

Application: The carrier jaw allows mounting of wedges and various different gripp inserts. Wedges, gripp inserts and gripp sets can be screwed into a variety of hole patterns for secure clamping of various workpiece geometries.

Note: Wedge mountings + accessories No. 361341 – 361352, gripp inserts No. 361238 – 361250.



361331

for type	125	b mm	c mm	h mm	l mm	suitable for colour code
34A 361331 Carrier jaw fixed	eShop	104	24	20	189	

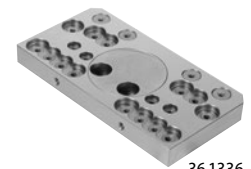
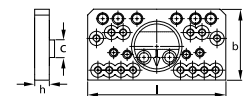
Carrier jaw, movable pivoting

piece

Suitable for: Titan 2 No. 361302.

Application: Movable pivoting carrier jaw for compensation of non-parallel clamping faces, required for clamping unequal workpieces.

Note: Wedge mountings + accessories No. 361341 – 361352, gripp inserts No. 361238 – 361250.



361336

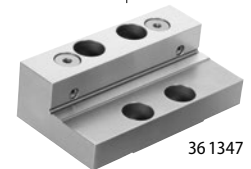
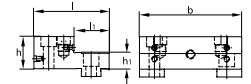
for type	125	b mm	c mm	h mm	l mm	suitable for colour code
34A 361336 Carrier jaw movable pivoting	eShop	97	24	20	189	

Stepped jaws for gripp inserts

Suitable for: Titan 2 No. 361302.

Application: For clamping blanks and finished parts (using screw-in gripp inserts).

Note: Blanks can be clamped only if they are parallel workpieces. Gripp inserts No. 361238 – 361250.



361347

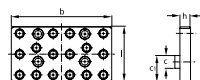


361348

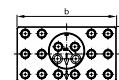
for type		125	160
34A 36 1347	Stepped jaw for gripp inserts movable	eShop	(eShop)
34A 36 1348	Stepped jaw for gripp inserts fixed	eShop	(eShop)
b	mm	124.4	160.4
h	mm	39.5	49.8
h ₁	mm	20	25
l (36 1347)	mm	70	114
l (36 1348)	mm	92	104
l ₁ (36 1347)	mm	40	64
l ₁ (36 1348)	mm	43	44
suitable for colour code			

Carrier jaws

Suitable for: Bench vice No. 361290; 361302.



361333



361338

Type	125	b mm	c mm	c ₁ mm	h mm	l mm	Clamping range maximum round mm	Clamping range minimum round mm	Clamping range maximum square mm	Clamping range minimum square mm	suitable for colour code
34A 361333 Carrier jaw fixed	eShop	189	24	26	20	104	330	50	489	25	
34A 361338 Pivoting carrier jaw movable	eShop	189	24	53.5	20	103.5	330	50	489	25	

Colour code: Titan2/TitanSense LCV125G Titan



36

Garant Jaws for gripp inserts

Suitable for: No. 361290 125G, 361302, jaws No. 361400 125, 361420, 361450 160.

Application: For grip clamping with pull-down function thanks to special tooth geometry on the insert.

Supplied with: Screws No. 361164.

Size 125 – Set of parallels $123.9 \times 3.8 \times 36.5$ mm.

Size 160 – Set of parallels $158.5 \times 3.8 \times 47$ mm.

Optional extras: Gripper inserts No. 361163.



361376_125



361376_160

Jaw width	mm	125	160
310 361376 Jaws for Gripp inserts		eShop	eShop
B	mm	39.5	49.8
Number of insert seats	pcs.	9	11
suitable for colour code			



Modular NC high-pressure vice Titan 2 accessories

Pull-down set

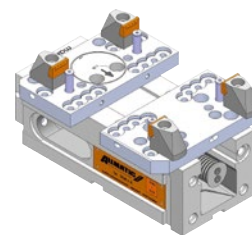
Suitable for: Carrier jaws No. 361331; 361336.

Material: Hardened steel.

Supplied with:

Size 1 – 1 storage case with foam,
4 low wedges,
4 screws M10×30 mm,
4 wedge elements 4-pointed,
4 wedge elements Microgripp,
4 clamping pins h = 23 mm,
4 clamping pins h = 34 mm,
1 hexagon L-wrench.

Size 2 – 1 storage case with foam,
4 tall wedges,
4 screws M10×45 mm,
4 wedge elements 4-pointed,
4 wedge elements Microgripp,
4 clamping pins h = 34 mm,
4 clamping pins h = 48 mm,
1 hexagon L-wrench.



361346_1



361346_2



361346

for type	1	2
34A 361346 Pull-down set case	(eShop)	(eShop)
Version	low	high
suitable for colour code		

Garant Adapter plates for XTRIC top jaws size 125

Hardened and ground. Fastening screws.

Suitable for: Top jaws No. 363010 125 to 363037 125.

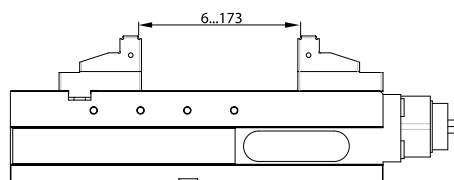
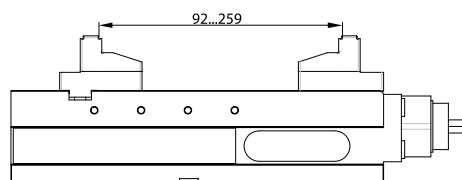
Material: Hardened steel.

Advantage: Existing NC vices from GARANT or Allmatic can be used with XTRIC top jaws.

Application: For mounting XTRIC top jaw size 125.



361293



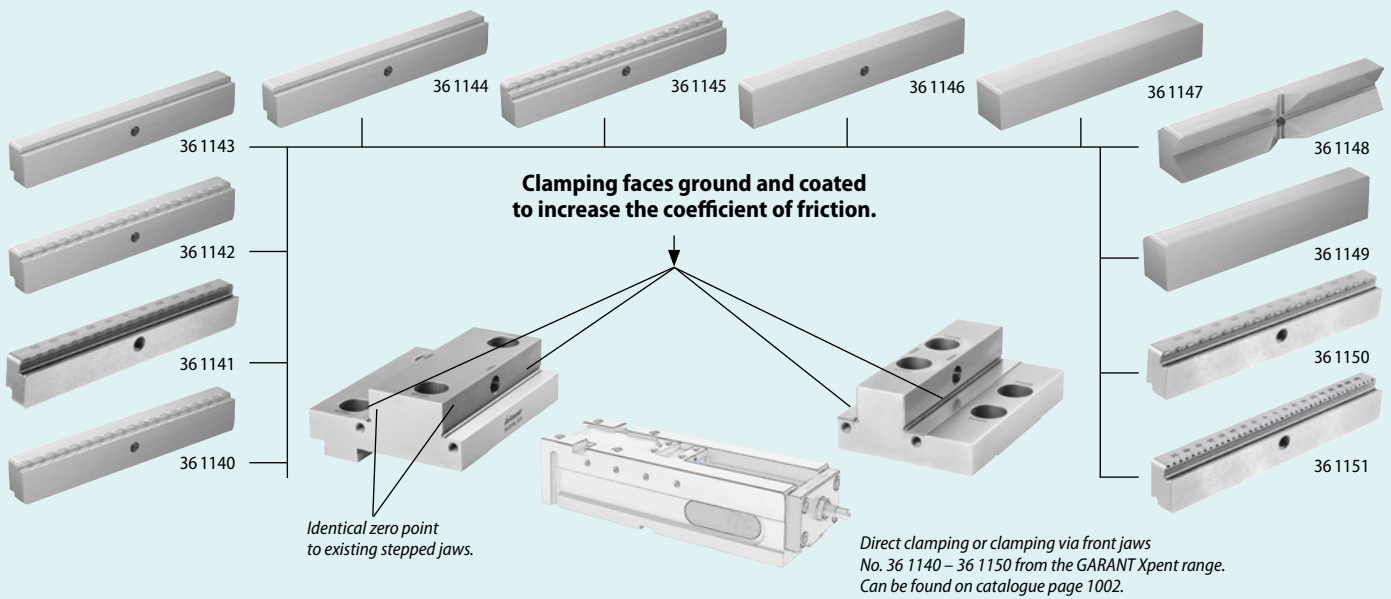
for jaw width b	mm	125
310 361293 Adapter plate for XTRIC top jaw movable		eShop
310 361294 Adapter plate for XTRIC top jaw fixed		eShop
h	mm	20.5
l (361293)	mm	91
l (361294)	mm	88
suitable for colour code		

Colour code: LCV125G Titan2/TitanSense Titan Duo Duo Plus HiPo HOLEX NC
 LC LC-GARANT NC8 TC

Garant Stepped jaws for GARANT and Allmatic NC vices



When selecting front jaws to be combined, ensure compatibility with the spindle fitted to the NC vice. Smooth front jaws can be combined with a standard high-pressure spindle and with a gripp spindle. Gripp front jaws on the other hand can be combined only with a gripp spindle.



Garant Stepped jaws

Coated, hardened and ground. Fastening screws.

Suitable for: No. 360400 125, 360465 125, 360500 125, 360510 125, 360565 125, 360605 125, 361302 125, 361290 125G together with Allmatic Titan 1 and Allmatic SC125.

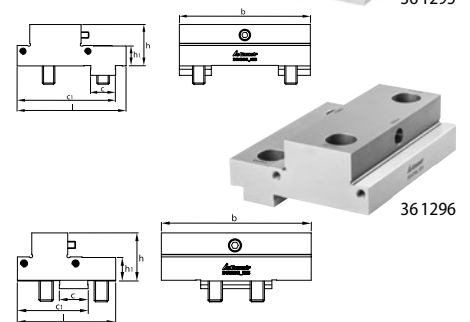
Material: Hardened steel.

Application: To take front jaws No. 361140-361151.

Note: The front jaws are attached using an M6 bolt.

Also available as a set
with Allmatic NC8
(No. 36 0405_125MX and
_125LX).

for jaw width	mm	125
310 36 1295	Stepped jaw, mobile	eShop
310 36 1296	Stepped jaw, fixed	eShop
b	mm	125
c	mm	24
c ₁ (36 1295)	mm	59
c ₁ (36 1296)	mm	94
h	mm	39,5
h ₁	mm	19
l (36 1295)	mm	82
l (36 1296)	mm	104
suitable for colour code		



Garant Adapter plates for XPENT top jaws

Hardened and ground. Fastening screws.

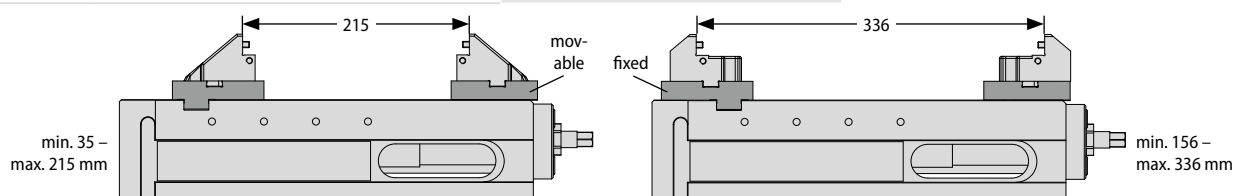
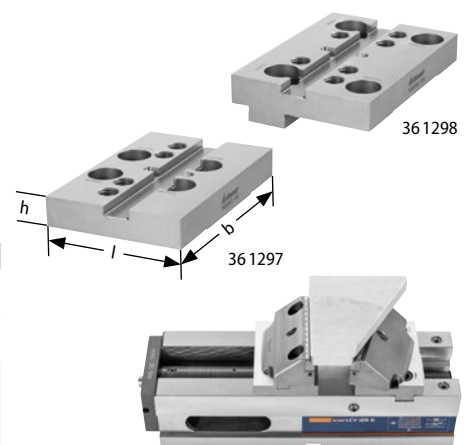
Suitable for: Top jaws No. 361123 to 361134.

Material: Hardened steel

Advantage: Existing NC vices from GARANT or Allmatic can be used with XPENT top jaws and front jaws.

Application: To take the XPENT top jaw.

for jaw width b	mm	125
310 36 1297	Adapter plate for XPENT top jaw movable	eShop
310 36 1298	Adapter plate for XPENT top jaw fixed	eShop
h	mm	18
l (36 1297)	mm	83
l (36 1298)	mm	88
suitable for colour code		



Colour code: Duo Duo Plus HiPo HOLEX NC LC LC-GARANT LCV125G NC8
TC Titan Titan2/TitanSense

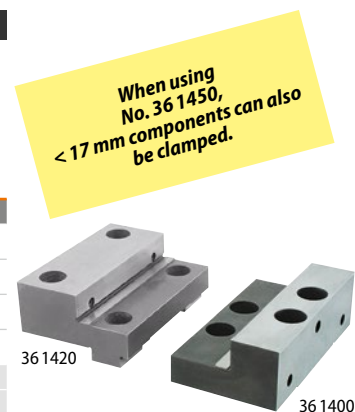
Universal stepped jaws

piece

Sizes 90, 125, and 160 with **Click quick-change system**, for No. 361440 only in sizes 90 and 125.

Application: Accepts parallel inserts on high side or stepped side (No. 361950; 361960; 361970).

for type		90	125	160	200
34A 36 1400	Stepped jaw movable	eShop	eShop	—	—
34A 36 1450		—	—	eShop	(eShop)
34A 36 1420	Stepped jaw fixed	eShop	eShop	eShop	(eShop)
34A 36 1440		—	eShop	—	—
b	mm	89.5	124.4	160	200.4
h	mm	34	39.5	50	60
h ₁	mm	16	20	25	25
l (36 1400, 36 1450)	mm	56	70	114	115
l (36 1420)	mm	67	92	104	104
l (36 1440)	mm	64	87	—	—
l ₁ (36 1400, 36 1450)	mm	31	40	64	65
l ₁ (36 1420)	mm	32	43	54	54
l ₁ (36 1440)	mm	25	42	—	—
suitable for colour code (36 1400, 36 1450)					
suitable for colour code (36 1420)					
suitable for colour code (36 1440)				—	—



Hard base jaws – one side with serrations, Click system

piece

Suitable for: NC8, Garant-NC, Titan.

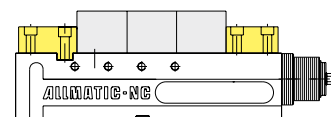
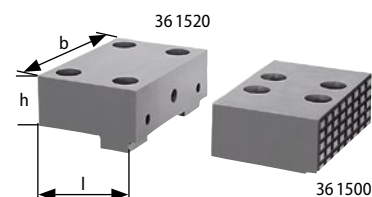
Material: Hardened steel, ground surfaces.

Application: ■ For fitting all high pressure jaws No. 362390 to 362600.

■ For fitting parallel inserts No. 361950; 361960; 361970.

Supplied with: Fastening screws.

for type		90	125	160
34A 36 1500	Base jaw movable	(eShop)	eShop	—
34A 36 1520	Base jaw fixed	—	eShop	(eShop)
b	mm	89.5	124.4	160.4
h	mm	34	39.5	49.8
l (36 1500)	mm	60	76	—
l (36 1520)	mm	—	88	104
for type		90	125	160
suitable for colour code				



Adapter jaws – high side hardened

piece

Suitable for: NC8, Garant-NC, Titan.

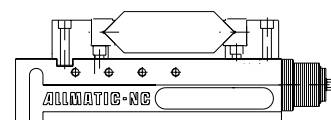
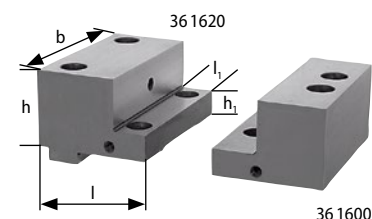
Material: Hardened steel, ground surfaces.

Application: ■ For fitting existing or self-manufactured jaws.

■ For fitting all high pressure jaws No. 362390 to 362600.

Supplied with: Fastening screws.

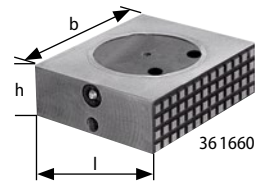
for type		125	160
34A 36 1600	Adapter jaw movable	eShop	—
34A 36 1620	Adapter jaw fixed	eShop	(eShop)
b	mm	126	164
h	mm	58	73
h ₁	mm	20	24
l (36 1600)	mm	80	—
l (36 1620)	mm	85	100
l ₁	mm	32	34
suitable for colour code (36 1600)			—
suitable for colour code (36 1620)			



Colour code: TC HiPo LC LC-GARANT Titan Titan2/TitanSense Duo
 NC8 HOLEX NC Duo Plus LCV125G

Pivot jaws – One side with serrations**piece****Suitable for:** NC8, Garant-NC, Titan.**Material:** Hardened steel, ground surfaces.**Application:** ■ For clamping non-parallel workpieces.

■ For fitting parallel inserts No. 361950; 361960; 361970.

Supplied with: Fastening screws.

for type		125
34A 36 1660	Pivot jaw movable	eShop
for type		125
b	mm	124.4
h	mm	39.5
l	mm	84
suitable for colour code		

Parallel inserts**pair****Suitable for:**

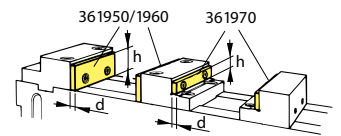
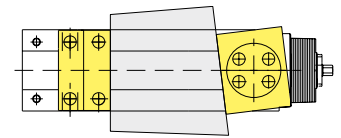
36 1970 – For screw-fixing to the stepped face of No. 361400; 361420; 361440.

36 1950/1960 – For screw-fixing or clicking to the high side of No. 361400; 361420; 361440; 361450; 361500; 361520; 361660.

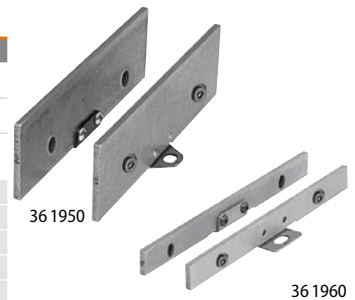
Material: Hardened steel.**Application:** For clamping flat components and for drilling close to edges.

On request, the parallel inserts are available in different heights.

for type		90	125	160
34A 36 1950	Pair of parallel inserts Click system, hardened steel	–	eShop	–
34A 36 1960		(eShop)	eShop	(eShop)
34A 36 1970	Pair of parallel inserts (stepped face)	–	eShop	–
l	mm	3		
h (36 1950)	mm	–	35	–
h (36 1960)	mm	16	20	25
h (36 1970)	mm	–	15	–
suitable for colour code				

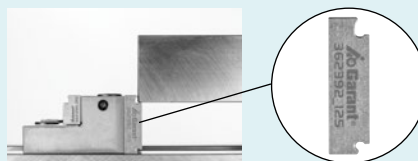


Reversible stepped jaws (included in price for No. 36 0400 / 0500 / 0600 / 0900).

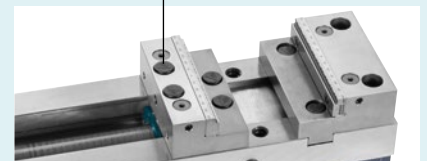
**Garant Use of Gripp front jaws for standard stepped jaws****i**

36 2392

Two clamping steps of 3 mm and 5 mm



Blanking plug 361171



36 2390

Garant Gripp front jaws

High precision when clamping. The additional jaws greatly extend the application range of your vice.

Optimised tooth profile for high retention forces.

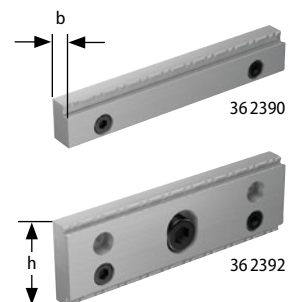
36 2392 Size 125; 160 – Reversible jaw with 2 clamping steps.

One clamping step of 3 mm height and one clamping step of 5 mm height.

Note:

Size 125L; 160L – Pre-impression of the serrated contour necessary (LANG system).

for jaw width	mm	125	160	125L	160L
31S 36 2390	Gripp front jaw	eShop	eShop	eShop	eShop
31S 36 2392		eShop	eShop	eShop	eShop
b	mm	12			
h (36 2390)	mm	20	25	20	25
h (36 2392)	mm	40	50	40	50
suitable for colour code					



Colour code:	TC	HiPo	LC	LC-GARANT	Titan	Titan2/TitanSense	Duo Plus
	LCV125G	NC8	HOLEX NC	Duo	Basic	HD-Allmatic	HD-GARANT
						HD-Spanner	

High pressure machine vices

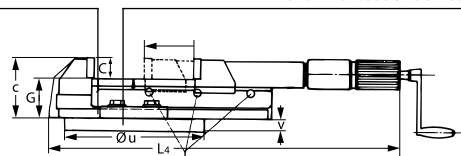
- Base body with **longitudinal and transverse tenon slots** enables **fast and exact alignment** of the vice in longitudinal and transverse directions.
- High quality spheroidal cast iron, hardened, ground workpiece mounting face and ground guides.
- Maintenance-free high pressure spindle with constant pressure level due to low-wear fully mechanical power intensifier.
- Required clamping force pre-selectable: No high pressure at 0 setting. Continuous tests have shown that the power intensifier can withstand 1 million working strokes without harm.
- **No fall-off in clamping force. Fast alignment** with 2 loose tenons in the precisely manufactured slot in the **vice base**.
- Interchangeable jaws, hardened and ground (with serrated faces).
- Height tolerance – 0.03 mm.

- Application:**
- For **vibration-free, absolutely reliable clamping at maximum cutting and feed rate forces**.
 - Consistent support height allows efficient working with several vices alongside each other.
 - **Clamping using crank.** High clamping forces can be achieved with low physical effort due to maximum 2 spindle rotations.

Supplied with: 4 table clamps, 1 pair serrated jaws, crank handle.

Slot width 20H7

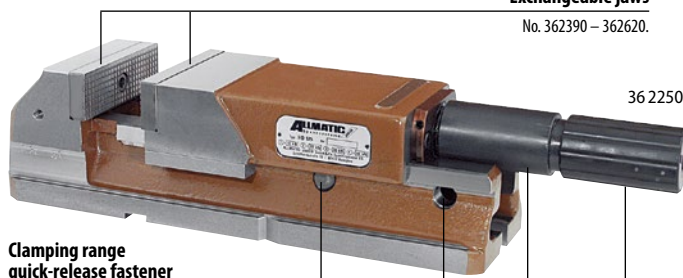
With swivel base underneath



Quick adjustment of the stop

Exchangeable jaws

No. 362390 – 362620.



36 2250

Clamping range
quick-release fastener

(without cranking)

Maintenance-free high pressure spindle

Required clamping force is pre-selectable

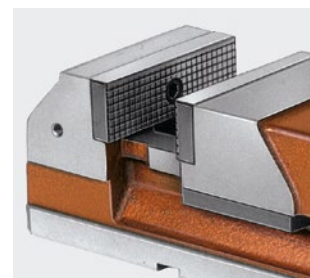


Jaw width	34A 36 2250	Clamping range b I	Clamping range b II	Clamping force	Weight	c	C	G – 0.05	L ₄	Colour code for suitable accessories
	High-pressure vice without swivel base									
mm		mm	mm	kN	kg	mm	mm	mm	mm	
100	eShop	0 – 82	78 – 162	30	18	87	32	53.5	419 – 581	
125	eShop	0 – 102	98 – 202	40	30	120	40	78	507 – 709	
160	eShop	0 – 152	147 – 302	60	60	137	50	85	613 – 915	

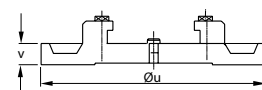
Swivel base for high-pressure machine vices

- Swivel base with longitudinal tenon slot for **quick and exact alignment** of the vice.
- 360 graduations (4×90°) clearly marked on the scale of the swivel base.
- 4 clamping slots for easy attachment to the machine table.

for jaw width	34A 36 2260	Ø u	v	Weight
	Swivel base			
mm		mm	mm	kg
100	eShop	260	26	6
125	eShop	320	30	12



36 2250



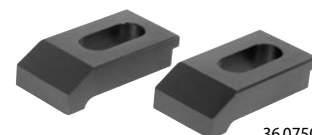
36 2260

Accessories for machine vices

Suitable for: GARANT NC No. 360510; 360465; 362010; 361290.
Allmatic No. 360405; 360600; 360605; 361180; 361255; 361202; 361301; 361302; 361304; 362250 and old version NC with No. 360000.

Spare clamps

for jaw width	mm	100	125/160
34A 36 0750	Clamp set 2 pieces	eShop	eShop
suitable for colour code			



36 0750

Spare crank

for jaw width	mm	100	125/160
34A 36 0810	Crank	eShop	eShop
suitable for colour code			



36 0810

Colour code: HD-Allmatic TC HiPo LC LC-GARANT HD-GARANT Duo T-Rex
Titan Titan2/TitanSense TeleCentric LCV125G NC8

Garant High-pressure machine vice

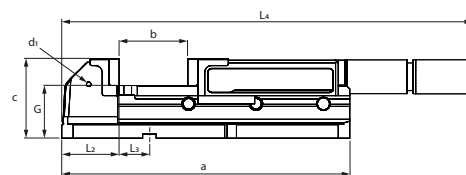
- The base body with longitudinal and transverse slot ensures the vice is aligned quickly and precisely in both directions.
- The maintenance-free high-pressure spindle ensures a constant pressure level thanks to a wear-resistant, fully mechanical power intensifier.
- High-quality spheroidal cast iron with hardened, ground workpiece mounting face and precision-ground guides.
- The desired clamping pressure can be preselected – without high pressure in position 0.
- No loss of clamping force.
- Interchangeable jaws, hardened and ground.
- Height tolerance ± 0.03 mm.
- Fast alignment with two loose tenons in the precisely manufactured vice slot.

- Application:**
- For vibration-free and absolutely reliable clamping with the highest possible cutting and feed rate forces.
 - The uniform support height allows efficient working with several vices at the same time.
 - The clamping action is performed using a crank. High clamping forces are achieved with minimal force in a maximum of two spindle revolutions.

Supplied with: 4 table clamps, 1 pair smooth jaws, crank handle.



36 2240



Jaw width	310	36 2240	Clamping range b I	Clamping range b II	Clamping force	Weight	c	d ₁	a	L ₂	L ₃	L ₄	G +0.02	Colour code for suitable accessories
mm		High-pressure vice	mm	mm	kN	kg	mm		mm	mm	mm	mm	mm	
125		eShop	0 – 102	98 – 202	40	30	118	M8	427	85	45	508 – 710	78	

HOLEX High pressure machine vices

- Base body and movable upper sliding blocks made of spheroidal graphite iron GGG 60, slides hardened and ground.
- Hydro-mechanical power intensifier with precise clamping force pre-selection.
- Maintenance-free and fully enclosed high-pressure spindle.
- As standard with hardened and ground smooth clamping jaws.
- Base plate with **longitudinal and cross slots** provides for **quick and precise alignment** of the vice in longitudinal and transverse directions.

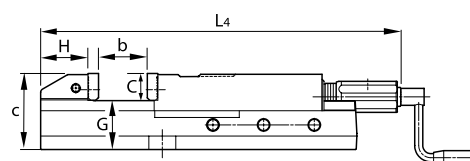
Application: For vibration-free, reliable clamping under high cutting and feed rate forces. Quick clamping by hand crank.

Supplied with: 1 pair grooved jaws (rear face smooth), hand crank.

Optional extras: Replacement jaws No. 362076; 362077; 362079, swivel base No. 362073.



36 2075



Jaw width	32E	36 2075	Clamping range b I	Clamping range b II	Clamping range b III	Clamping force	Weight	c	H	C	L ₄	G ±0.02	Colour code for suitable accessories
mm		High-pressure vice without swivel base	mm	mm	mm	kN	kg	mm	mm	mm	mm	mm	
113		eShop	0 – 56	52 – 113	109 – 170	30	24	97	55	31.6	413 – 583	65.5	
135		eShop	0 – 72	69 – 147	144 – 220	40	39	112	70	39.6	461 – 679	72.5	
160		eShop	0 – 104	102 – 207	205 – 310	50	60	133	80	49.6	507 – 817	83.5	

Clamping jaws

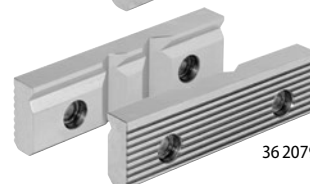
Suitable for: High pressure machine vice No. 362075.

for jaw width	mm	113	135	160
32E 36 2076	Jaw with longitudinal grooves, other face smooth	eShop	eShop	eShop
32E 36 2079	Jaw with Vees, other face with longitudinal grooves	eShop	eShop	eShop
suitable for colour code				

Colour code: ■ HD-GARANT ■ High press. vices



36 2076



36 2079



36

HOLEX Stationary machine vice

Sturdy base body of cast iron, slides and base area hardened. Cleaning holes in the base body for good flow of chips. Less component lift-off thanks to special transfer of force in the mobile jaw.

Application: Versatile clamping unit for machining centres.

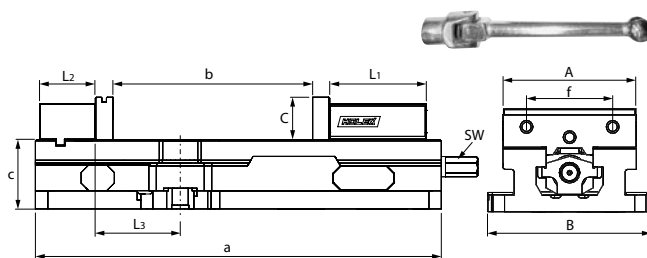
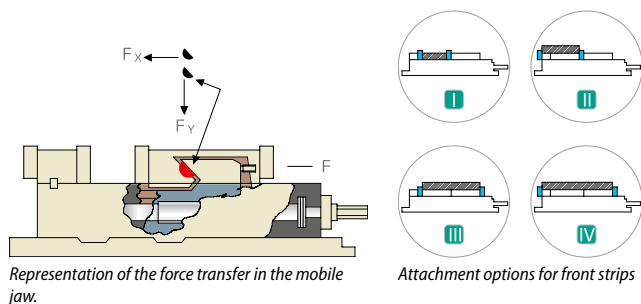
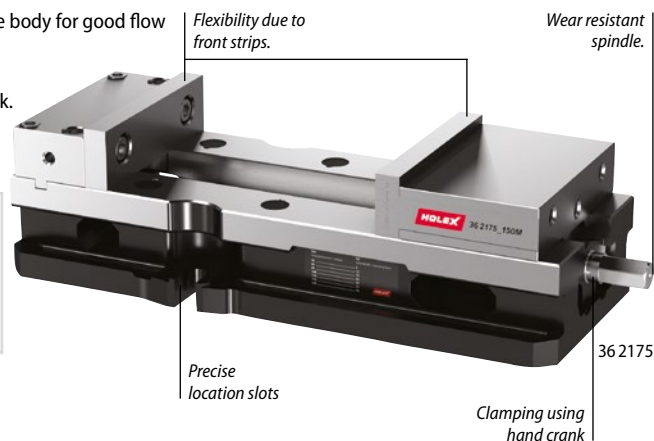
Supplied with: Incl. 2 pcs. top jaws, 2 pcs. front jaws No. 362181 and 1 pc. hand crank.

Optional extras: Front jaws No. 362177 – 362183, crank No. 362190, spare-parts set No. 362199. Mounted with Tee bolts No. 375300 and aligned with tenons No. 375365.

Note: Alignment dimensions not compatible with those of other manufacturers.

Size 150M – Metric version – screws and threads in metric version, drive hexagon = 19 mm AF.

Size 150I – Inch version – screws and threads in imperial version, drive hexagon = 3/4 inch AF.



Type	32P	36 2175	b	Clamping force	c +/- 0.012	C	A	a	B	L ₁	L ₂	L ₃	f	AF		Colour code for suitable accessories
	Stationary machine vice													mm	in	
150M		eShop	0 – 232	36	73	44.5	151	427	186	101.6	58.7	90.5	98.4	19	–	
150I		eShop 	0 – 232	36	73	44.5	151	427	186	101.6	58.7	90.5	98.4	–	3/4	

Front jaws

Suitable for: Stationary machine vice No. 362175.

Material:

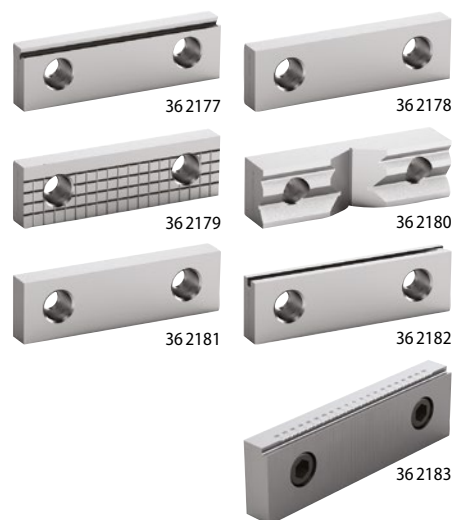
Size 150S – Steel

Size 150A – Aluminium

Note:

362183 – Pre-impression of the serrated contour necessary (LANG system).

Type		150	150S	150A
32P 36 2177	Front jaw with step 4.5x5 mm	eShop	–	–
32P 36 2178	Front jaw soft	–	eShop	eShop
32P 36 2179	Front jaw serrated	eShop	–	–
32P 36 2180	Front jaw Vee block	eShop	–	–
32P 36 2181	Front jaw Standard	eShop	–	–
32P 36 2182	Front jaw with groove	eShop	–	–
32P 36 2183	Front jaw LANG system	eShop	–	–
suitable for colour code				

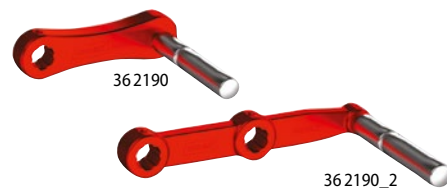


Crank handles

Size 2 – Quick crank.

Suitable for: Stationary machine vice No. 362175.

Type		1	2
32P 36 2190	Crank handle for machine vice	eShop	eShop
suitable for colour code			

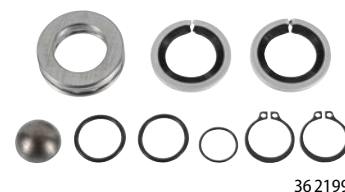


Spare-parts set

Suitable for: Stationary machine vice No. 362175.

Supplied with: 2 pcs. scraper, 2 pcs. C-rings, 3 pcs. O-rings, 1 pc. hemisphere, 1 pc. ball bearing.

Type		9
32P 36 2199	Spare-parts set 9 pieces	eShop
suitable for colour code		



Colour code: NC-HOLEX



Accessories for machine vices

Suitable for:

GARANT NC No. 360510; 360465; 361290.

HOLEX No. 362010.

ALLMATIC No. 362250 – 362300 and also with base jaw No. 361500 – 361520 suitable for version NC8. Adaptor jaws No. 361600, 361620 also suitable for all NC versions.

Application:

The additional jaws extend the application range greatly. Hydraulic compensation jaws for multiple clamping of round material or for clamping components with surface deviations on request.

Note:

Please order attachment screws separately - No. 362621 M10×23.

for jaw width		mm	100	125	160
34A	36 2400	Pair of clamping jaws with serrated faces	eShop	eShop	eShop
suitable for colour code					
for jaw width		mm	100	125	160
34A	36 2420	Pair of clamping jaws, smooth	eShop	eShop	eShop
suitable for colour code					
for jaw width		mm	125		
34A	36 2460	Pair of pull-down roller jaws	eShop		
suitable for colour code					
for jaw width		mm	125		160
34A	36 2500	Pair of Vee jaws	eShop		eShop
suitable for colour code					
for jaw width		mm	100	125	160
34A	36 2560	Pair of clamping jaws with stepped upper edge	(eShop)	eShop	eShop
suitable for colour code					



Garant Jaws with positioning pins (pneumatically operated)

- Hardened steel, Tenifer gas nitrided (tolerance ± 0.01 mm).
- Simple to fit on the vice.
- Pins pushed in mechanically.
- Compressed air operation via valves on both sides.
- The fixed and movable jaws are identical.
- Requires a 5.5 bar compressed air supply

Suitable for:

36 2622 Size 125 – **GRESSEL** Gripes GPS125, Gripes GPS125-VS, Gripes 2, Gripes-5S/5X-S, Grefors, S2 Duogrip, C2, Ecopos.
WNT NCG 125, DSG4 125, HDG2 125, H5G 125, ZSG4 125, ESG4 125.

Size 160 – **GRESSEL** Gripes GPS160, Gripes GPS160-VS, Gripes 2, Gripes-5S/5X-S, Grefors, S2 Duogrip, C2, Ecopos.
WNT NCG 160, HDG2 160, ZSG4 160, ESG4 160.

36 2624 Size 125 – **ALLMATIC** NC8 125, HD 125, TC, TITAN2 125.
BULL pneumatic 125, mechanical 125.
KESEL ARNO125, CNC125, NCA125.
RÖHM RKE125, RKE-L125, RKE-U125, RKG-L125, RKE-LV125.

Size 160 – **ALLMATIC** NC8 160, HD 160, TC, TITAN2 160.
BULL pneumatic 160, mechanical 160.
KESEL ARNO160, CNC160, NCA160.
RÖHM RKE160, RKE-L160, RKE-U160, RKG-L160, RKE-LV160.

36 2627 – **GARANT** NC No. 360510; 360465; 361290.
HOLEX No. 362010.
Allmatic No. 360405; 360600; 360605; 361180; 361202; 361302; 361304; 362250; 362350 and with clamping jaws No. 361400 – 361620.

Application:

- Quick changeover for different machining operations.
- Quick and fully repeatable positioning accuracy.
- Eliminates tedious fitting of jaw inserts.

Supplied with:

36 2627 – 1 fastening screw.



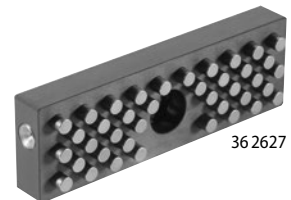
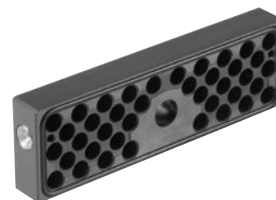
Actuation from both sides with a compressed air gun replaces the previous procedure of using the push-out pin with its obstructive contour.



Positioning pins pushed in manually.



Individual contours can be clamped.



36 2627

for jaw width	mm	125	160
31S 36 2622		eShop	eShop
31S 36 2624	Jaw with positioning pins	eShop	eShop
31S 36 2627		eShop	eShop
suitable for colour code (36 2627)			

Colour code: ■ HD-Allmatic ■ TC ■ HiPo ■ LC ■ LC-GARANT ■ HD-GARANT ■ Basic ■ LCV125G
■ NC8 ■ Titan2/TitanSense



36



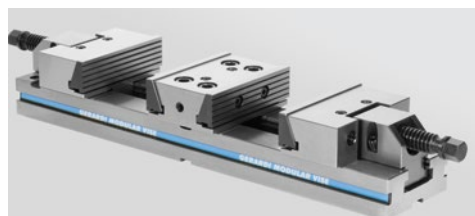
Modular vices

- Simple mechanical actuation (up to 3.5 t).
- Easy adjustment of jaw opening.
- Machine vice with pull-down jaws.
- Case-hardened HRC 60.
- Parallelism 0.02 mm.

Supplied with: Supplied with pull-down jaws, 1 workpiece backstop, 2 T-nuts No. 362160 size 16/16, 1 clamping wrench, 1 cross-bar wrench.

Note:

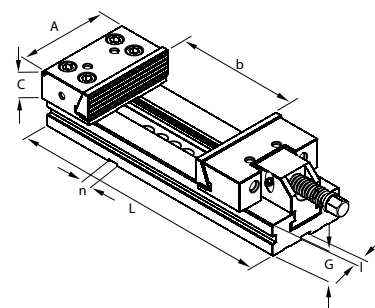
36 2105 – See No. 362160 for other T-nuts.



By means of simple modification and addition of a movable jaw, the long modular vice can be used to clamp two components, each with pull-down.

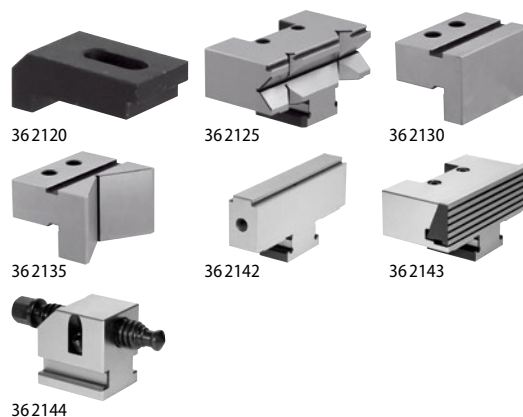


Jaw width A	mm	125	150/2	150/3	200/3	200/4
36 2100	Modular vice	eShop	eShop	eShop	eShop	eShop
36 2105	Modular vice long	eShop	eShop	eShop	—	—
Weight (36 2100)	kg	17	35.5	40	69	74
Weight (36 2105)	kg	18.3	32	35	—	—
L (36 2100)	mm	345	420	520	595	695
L (36 2105)	mm	520	580	680	—	—
b (36 2100)	mm	150	200	300	300	400
b (36 2105)	mm	320	360	460	—	—
Base body height G	mm	40	50	50	70	70
C	mm	40	50	50	65	65
Longitudinal tenon slot l	mm	16				
Transverse tenon slot n	mm	16				
maximum clamping force at 60 Nm	kN	25	—	—	—	—
maximum clamping force at 80 Nm	kN	—	30	30	—	—
maximum clamping force at 120 Nm	kN	—	—	—	40	40
Colour code for suitable accessories		■	■	■	■	■



Jaws

for jaw width	mm	125	150	200
36 2120	Pair of clamps	eShop	eShop	eShop
36 2125	Prismatic jaw (piece)	eShop	eShop	—
36 2130	Square top jaw (piece)	—	eShop	—
36 2135	Prismatic top jaw (piece)	—	eShop	—
36 2142	Centre jaw (piece)	—	eShop	—
36 2143	Movable jaw (piece)	eShop	eShop	—
36 2144	Complete clamping element (piece)	eShop	eShop	—
suitable for colour code (36 2125, 36 2130, 36 2135, 36 2142, 36 2143, 36 2144)		■	■	—



Front jaws

Supplied with:

36 2149 Size 125 – 1 pc. magnetic parallel and 3 pcs. Gripp inserts No. 362151 size U.
 Size 150 – 1 pc. magnetic parallel and 5 pcs. Gripp inserts No. 362151 size U.
 Size 200 – 1 pc. magnetic parallel and 7 pcs. Gripp inserts No. 362151 size U.

Note:

Front jaws not suitable for use as fixed jaw of the vice 362105!

for jaw width	mm	125	150	200
36 2146	Longitudinally serrated front jaw (piece)	eShop	eShop	(eShop)
36 2147	Smooth front jaw, hard (piece)	(eShop)	eShop	(eShop)
36 2148	Smooth front jaw, soft (piece)	(eShop)	eShop	—
36 2149	Front jaw with grip inserts	(eShop)	eShop	(eShop)
suitable for colour code (36 2146, 36 2147, 36 2148)		■	■	■

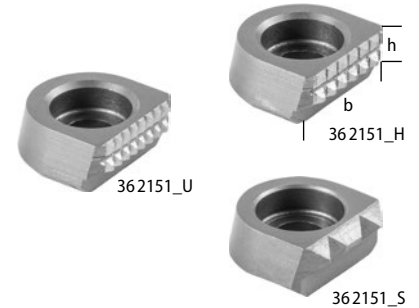


Colour code: ■ Gerardi 125 ■ Gerardi 150 ■ Gerardi 200 ■ Modular HOLEX 125 ■ Modular HOLEX 150

Gripp inserts

Suitable for: Front jaw with gripp inserts No. 362149.
Application: U – For standard material.
 H – For very hard materials.
 S – For soft materials.

Type		U	H	S
35G 36 2151	Gripp inserts	eShop	eShop	eShop
h	mm	7		
b	mm	14.5		



Modular elements

- Machine vice with pull-down jaws.
 - Simple mechanical actuation (up to 3.5 t).
 - Easy adjustment of jaw opening.
 - Case-hardened HRC 60.
- Supplied with:** 2 pieces T-nuts No. 362160 size 16/16.

Note: For other T-nuts see No. 362160.

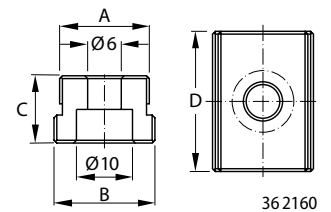
for jaw width	mm	125	150
35G 36 2145	Modular element movable (piece)	eShop	eShop
35G 36 2150	Modular element fixed (piece)	eShop	eShop
suitable for colour code			



T-nuts

Accuracy: Dimension B = fit h6.

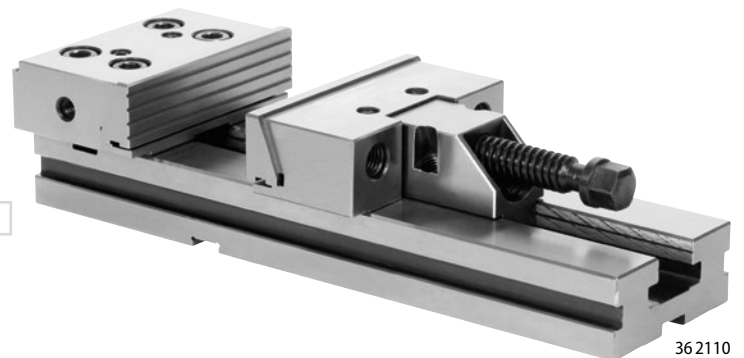
T-slot dimension B / keyway	mm	12/16	14/16	16/16	18/16	20/16
35G 36 2160	Pair of T-nuts	eShop	eShop	eShop	eShop	eShop
A	mm	16				
B	mm	12	14	16	18	20
C	mm	10	10	10	10	12
D	mm	25				
suitable for colour code						



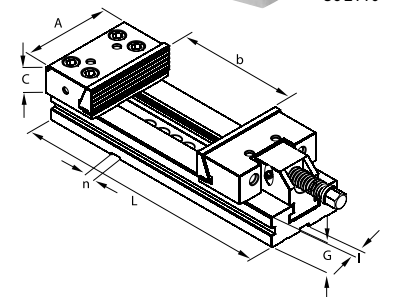
HOLEX Modular vices

- Machine vice with pull-down jaws.
 - Simple mechanical actuation (up to 3.5 t).
 - Easy adjustment of jaw opening.
 - Case-hardened HRC 60.
 - Parallelism 0.02 mm.
- Supplied with:** Component backstop, 2 T-nuts similar to No. 362160 size 18/16, 1 clamping wrench, 1 L-wrench for hexagon socket screws, 4 clamping claws.

Note: See No. 362160 for other T-nuts.

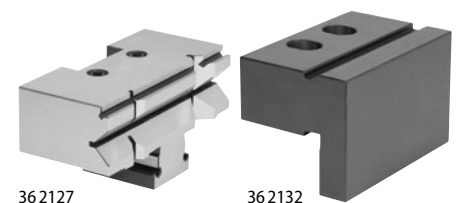


Jaw width A	mm	125	150/2	150/3	200/3	200/4
32P 36 2110	Modular vice	eShop	eShop	eShop	eShop	eShop
Weight	kg	18.5	34	37.5	69	74
L	mm	345	420	520	595	695
b	mm	150	200	300	300	400
Base body height G	mm	40	50	50	70	70
C	mm	40	50	50	65	65
Longitudinal tenon slot l	mm	16				
Transverse tenon slot n	mm	16				
Colour code for suitable accessories						



Jaws

for jaw width	mm	125	150
32P 36 2127	Prismatic jaw (piece)	eShop	eShop
32P 36 2132	Square top jaw (piece)	eShop	eShop
suitable for colour code			



Colour code: Gerardi 125 Gerardi 150 Gerardi 200 Modular HOLEX 125 Modular HOLEX 150

Precision grinding and inspection vices

Ground Vee grooves.

All-steel, through hardened and **precision ground all round** for 4-face machining.

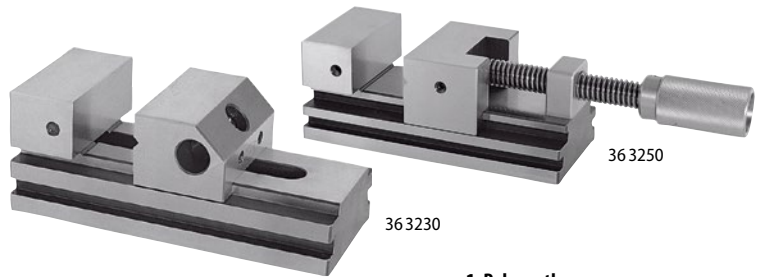
36 3240 – **With quick adjustment (no spindle).**

36 3250 – **With threaded spindle.**
With horizontal Vee groove.

Accuracy: Within **0.005 mm** / 100 mm.

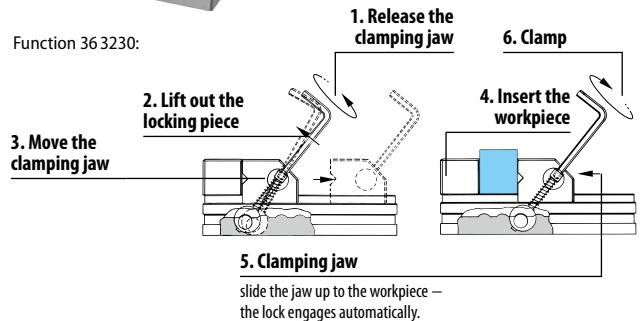
Application: For **machining and inspection true to gauge.**

Supplied with: **Sturdy case.**



Jaw width A	mm	70	120
32K 36 3240	Grinding and inspection vice with quick adjustment	eShop	eShop
32K 36 3250	Grinding and inspection vice with threaded spindle	eShop	eShop
maximum clamping range b	mm	80	140
Jaw height C	mm	30	40
Overall length a	mm	160	255
Overall width B	mm	70	120
Base body height G	mm	32	55
Weight	kg	3	13.9

Function 36 3230:



SPREITZER Universal grinding and inspection vice

■ Tool steel, through hardened, precision ground.

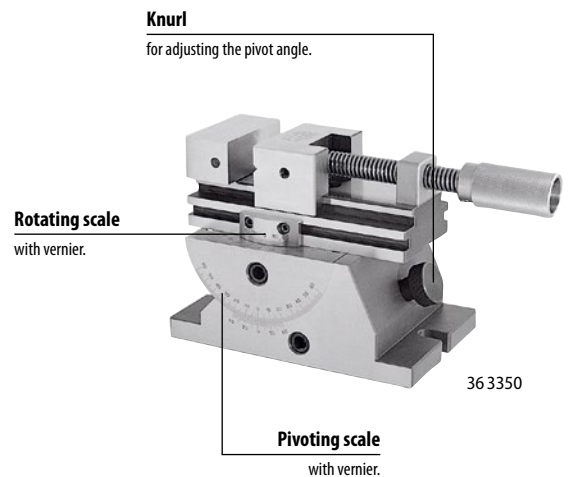
■ Adjustment in **2 axes**, rotating and pivoting.

■ Scale reading via vernier: 3'.

Accuracy: Within **0.003 mm** / 100 mm.

Application: For **machining and inspection of surfaces and angular surfaces up to 46°**, true to gauge.

Jaw width A	mm	70
38F 36 3350	Universal grinding and inspection vice	eShop
maximum clamping range b	mm	80
Jaw height C	mm	30
Overall length a	mm	180
Overall width B	mm	110
Overall height c	mm	137
Pivot range		2×60°
Weight	kg	12



SPREITZER Precision grinding and inspection vices

■ Hardened steel; **precision ground all round.**

Working on 4 different faces (front, rear, and side faces).

36 3550 – With horizontal **ground Vee profile.**

36 3600 – Magnetisable chromium steel – **stainless**
(for working with coolants and lubricants which aggressively cause rusting).

36 3650 – Movable jaw can be slid to the component by hand and clamped.

On release, the movable jaw automatically backs away from the component.

Accuracy: Within **0.003 mm** / 100 mm (system accuracy).

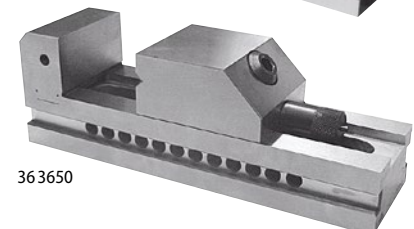
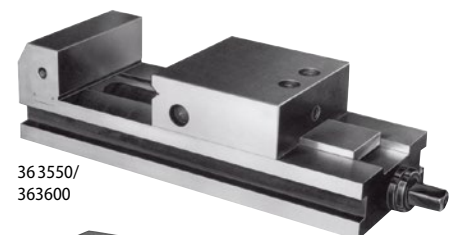
Function: **Pull-down system** – The movable jaw is pulled down by the resulting clamping force; no lifting of the component or vibration during machining.

Application: For **machining and inspection true to gauge.**

36 3600 – **Also suitable for spark eroding.**

Supplied with:

36 3550/3600 – Operating crank handle.



Jaw width A	mm	45	65	100	125
38F 36 3550	Grinding and inspection vice with spindle	eShop	eShop	eShop	eShop
38F 36 3600	Grinding and inspection vice with spindle, stainless	–	–	eShop	–
38F 36 3650	Grinding and inspection vice without spindle	–	eShop	eShop	eShop
maximum clamping range b (36 3550, 36 3600)	mm	65	100	140	160
maximum clamping range b (36 3650)	mm	85	130	160	180
Jaw height C	mm	20	37	40	43
Overall length a (36 3550, 36 3600)	mm	150	220	270	300
Overall length a (36 3650)	mm	160	230	270	310
Overall width B	mm	45	65	100	125
Weight	kg	1.3	4.3	9.5	14.5

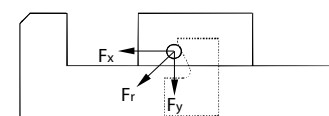


Illustration: Pull-down system

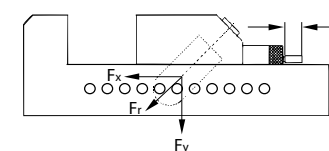


Illustration: Pull-down system – stroke indication.



Quick-release vices

- Quick adjustment of the movable jaws.
- **Jaws through hardened and ground.**
- **Time-consuming cranking not necessary.**
- **Precise clamping due to long flat guide.**
- **Clamping of component with just one hand.**
- One jaw with horizontal and vertical prismatic profiles for round material, one jaw smooth.
- Both jaws are stepped at the top to clamp flat parts.
- With two side support faces.
- Positive locking.

Accuracy: Within **0.03 mm**.

Material: Body and movable jaw made of sturdy special cast iron.

Application: **For quick clamping of components on drilling machines and measuring machines.**



36 5023

Jaw width A	mm	110	135
32P 36 5023	Quick-release vice for one-hand use	eShop	eShop
Clamping range b	mm	130	160
Jaw height C	mm	32	40
Base body length a	mm	280	365
Base body width B	mm	112	138
Overall height c	mm	82	80.5
maximum overall length L ₄	mm	510	587
Weight	kg	9.5	13.5
Colour code for suitable accessories			



Manual vices for drilling machines

- **Sturdy design with strong spindle.**
- **Jaws through hardened and ground.**
- **Precise clamping due to long flat guide.**
- One jaw with horizontal and vertical prismatic profiles for round material, one jaw smooth.
- Both jaws are stepped at the top to clamp flat parts.
- 36 5038 – Patent-pending **integrated eccentric quick clamping** for a secure grip on the drilling machine table.
- The **quick clamping** in the area of the grooves makes it possible to process the clamped workpiece flexibly and efficiently at any desired position on the **entire** drilling machine table without re-clamping.

Accuracy: Within **0.10 mm**.

Material: Body and movable jaw made of special cast iron.

Application: For clamping components on drilling machines.

Supplied with:

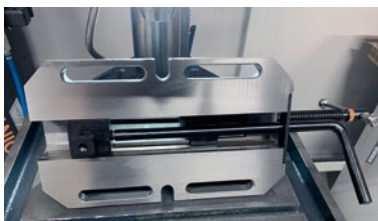
36 5038 – Clamp wrench and three Tee-nuts in sizes 12;14 and 16 mm.



36 5035



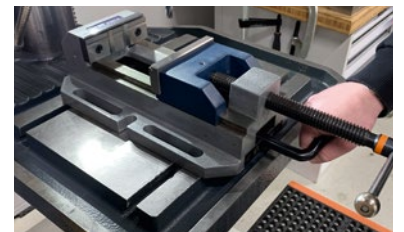
36 5038



Eccentric quick clamping on the underside of the vice.



Open and lock the clamping using the supplied clamp wrench.



Easily and securely clamped for machining.

Jaw width A	mm	60	80	100	120	150
31S 36 5035	Manual vice for drilling machines	eShop	eShop	eShop	eShop	eShop
31S 36 5038	Manual vice for drilling machines, with eccentric quick clamping	—	—	eShop	eShop	—
Clamping range b	mm	79	120	143	173	209
Jaw height C	mm	25	28	32	40	40
Base body length a	mm	169	238	286	340	400
Base body width B	mm	115	140	174	193	226
Overall height c (36 5035)	mm	55	65	82	90	90
Overall height c (36 5038)	mm	—	—	92	107	—
Clamping slot spacing	mm	90	110	141	160	189
Clamping slot width	mm	13	13	17	17	19
maximum overall length L ₄	mm	271	280	474	556	652
Weight (36 5035)	kg	3.2	5.7	11.7	18	23.8
Weight (36 5038)	kg	—	—	12.5	20	—
Colour code for suitable accessories						

Colour code: ■ BM vice, blue ■ BM vice, grey



36

HOLEX Manual vice for drilling machines

- **Sturdy and handy design.**
- **Jaws through hardened and ground.**
- **Consistent overall length** (the spindle retracts into the handle)
- Universal fastening capability due to long holes.
- Movable jaw with guides at the sides.
- Fixed jaw with three vertical prismatic and one horizontal prismatic section.

Accuracy: Within **0.20 mm.**

Material: **Cast iron body.**

Application: For clamping components on drilling machines.

Jaw width A	mm	80	100	120
32D 36 5045	Manual vice for drilling machines	eShop	eShop	eShop
Clamping range b	mm	65	87	110
Jaw height C	mm		30	
Base body length a	mm	233	288	343
Overall height c	mm	64	64	66
Weight	kg	4	4.8	6.5



HOLEX 3-sided manual vice for drilling machines

- **Can be used horizontally, vertically or laterally.**
- **Sturdy and handy design.**
- **Jaws through hardened and ground.**
- **Uniform total length.** (spindle retracts into handle)
- Universal fastening capability due to long holes.
- Movable jaw with guides at the sides.
- Fixed jaw with three vertical prismatic and one horizontal prismatic section.
- With detachable crank.

Accuracy: Within **0.20 mm.**

Material: **Cast iron body.**

Application: For clamping components on drilling machines.

Jaw width A	mm	80	100	120
32D 36 5055	Manual vice for drilling machines	eShop	eShop	eShop
Clamping range b	mm	77	101	128
Jaw height C	mm	30	30	39
Base body length a	mm	158	191	225
Overall height c	mm	64	64	67
Weight	kg	4	4.8	6.5



Garant Magnetic jack

- For use as an additional support point to avoid vibration of the workpiece.
- Ideal in combination with vices.
- Simple and accurate positioning for vertical and horizontal clamping.
- With knurled surface for manual adjustment of height and width across flats, for more positive support.
- Captive support elements.
- Point support available in any position.

Suitable for: All vices, can be used as a support in all clamping situations.

Material: Spring steel

Application: For avoiding vibration, especially when clamping thin workpieces.



Type		15
310 36 6745	Magnetic jack	eShop
H	mm	27 – 40
Diameter	mm	20

Garant Sets of magnetic parallels

Accuracy: Height tolerance ± 0.01 mm; width tolerance ± 0.02 mm.

Hardness: 50-55 HRC.

Advantage:

- Flexible use thanks to integral rod magnet on the underside.
- Reduction in set-up time.

Length	mm	90	125	160
31Z 36 6320	Set of parallels, underside magnetic, narrow	eShop	eShop	eShop
Number of strips	pair	5		
Width	mm	5		
Height	mm	15; 23; 28; 30; 32	20; 30; 35; 37; 39	25; 37; 42; 45; 47



Sets of parallels – 5 pairs

magnetic

Accuracy: Height tolerance ± 0.01 mm; width tolerance ± 0.02 mm.

Hardness: 60 HRC.

Reduces the clamping time by up to 10 %.

Note: Available also in lengths 50, 70, 100 and 150 mm.

Length	mm	90	125	160	200
31Z 36 6740	Set of parallels magnetic	eShop	eShop	eShop	eShop
Number of strips	pair	5			
Width	mm	2.5			
Height	mm	15; 22; 25; 30; 32	15; 30; 35; 37; 39	22; 30; 37; 42; 47	25; 40; 47; 52; 57
Length	mm	90	125	160	200



Sets of parallels

Parallel blocks in various thicknesses – upright

Precision ground as pairs.

36 6702 – GARANT – **precision version**. Pairing tolerance ≤ 0.004 mm, width / height tolerance ≤ 0.007 mm, extremely precise flatness and rectangularity. Parallels stored in special plastic stand. Hardness: 60 HRC.

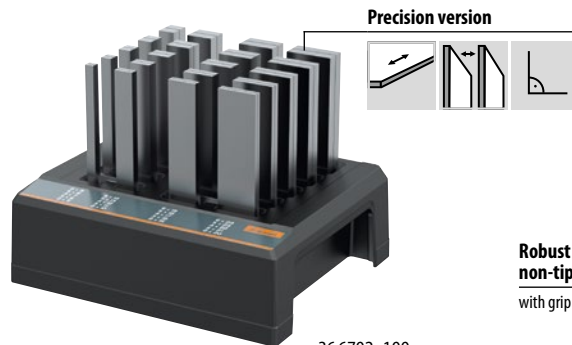
36 6704 – HOLEX – standard version. Height and pairing tolerance 0.01 mm. Stored in a wooden box (as shown on the illustration). Hardness: 60 HRC.

Application: In high precision work for parallel mounting of components in machine vices or jigs.

Note: Sizes 125 – 200: In 1 mm increments, except 9 mm, all other dimensions achievable. See the spare parts list for spare holders.



36 6704



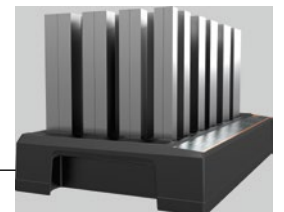
36 6702_100



36 6702_125/150/200

with display of sizes
for quick location of parallels.

Robust non-tipping box
with grip recesses.



36 6702

Length	mm	100	125	150	200
31Z 36 6702	Garant	eShop	eShop	eShop	eShop
32D 36 6704	HOLEX	eShop	eShop	eShop	–
Number of strips	pair	20	24	24	24
Length	mm	100	125	150	200
Content:		2×5; 2×10; 2×15; 2×20; 3×6; 3×11; 3×16; 3×21; 4×7; 4×12; 4×17; 4×22; 5×8; 5×13; 5×18; 5×23; 6×9; 6×14; 6×19; 6×24	8×11; 8×16; 8×21; 8×26; 8×31; 8×36; 10×13; 10×18; 10×23; 10×28; 10×33; 10×38; 12×15; 12×20; 12×25; 12×30; 12×35; 12×40; 14×17; 14×22; 14×27; 14×32; 14×37; 14×42	8×11; 8×16; 8×21; 8×26; 8×31; 8×36; 10×13; 10×18; 10×23; 10×28; 10×33; 10×38; 12×15; 12×20; 12×25; 12×30; 12×35; 12×40; 14×17; 14×22; 14×27; 14×32; 14×37; 14×42	8×11; 8×16; 8×21; 8×26; 8×31; 8×36; 10×13; 10×18; 10×23; 10×28; 10×33; 10×38; 12×15; 12×20; 12×25; 12×30; 12×35; 12×40; 14×17; 14×22; 14×27; 14×32; 14×37; 14×42



36

HOLEX Sets of parallels

Accuracy: Plan parallelism height tolerance ± 0.01 mm; **hardness:** 57 HRC. Insert the clamping clips into the clamp blocks and click them on to the vice.

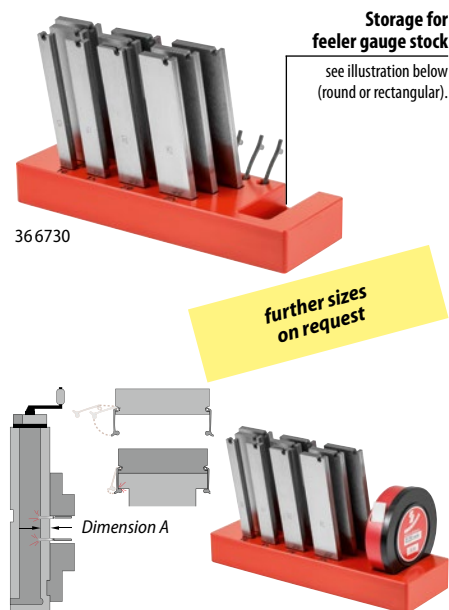
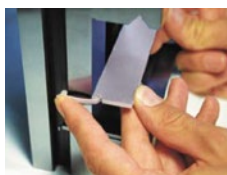
Suitable for: All GARANT, Allmatic NC high pressure vices with tenon width (dimension A) 39 mm ± 0.1 mm.

Advantage: The clamp blocks remain in position during machining and after the high pressure vice has been opened.

Supplied with: Supplied with plastic stand, 10 pairs of inserts, 4 clamping clips

Optional extras: Spare clamping levers No. 366731 in the spare parts list.

Note: Check dimension A on the high pressure vice!



Type		125
38F 36 6730	Set of parallels with clamping clip	eShop
Number of strips	pair	10
Width	mm	3
Height	mm	10; 15; 20; 25; 28; 30; 33; 35; 36; 37
Length	mm	125
suitable for colour code		

HOLEX Sets of parallels, flat

Ground in pairs, hardness 60 HRC.

Accuracy: height tolerance ± 0.01 mm; width tolerance ± 0.02 mm.

Application: In high precision work for parallel mounting of components in machine vices or jigs.

Set of parallels – 14 pairs, flat / 150×10 mm

32D 36 6750	Set of parallels	eShop
Number of strips	pair	14
Width	mm	10
Height	mm	14; 16; 18; 20; 22; 24; 26; 28; 30; 32; 35; 40; 45; 50
Length	mm	150



366750

Set of parallels – 9 pairs, flat / 160×4 mm

32D 36 6751	Set of parallels	eShop
Number of strips	pair	9
Width	mm	4
Height	mm	10; 14; 18; 22; 26; 30; 34; 38; 42
Length	mm	160



366751

Set of parallels – 8 pairs, flat / 160×8 mm

32D 36 6752	Set of parallels	eShop
Number of strips	pair	8
Width	mm	8
Height	mm	12; 17; 22; 25; 28; 32; 36; 38
Length	mm	160



366752

Set of parallels – 8 pairs, flat / 200×8 mm

32D 36 6753	Set of parallels	eShop
Number of strips	pair	8
Width	mm	8
Height	mm	17; 22; 26; 28; 32; 36; 38; 42
Length	mm	200



366753

Colour code: TC LC LC-GARANT Titan Titan 2 Duo Duo Plus LCV125G

Individual pairs of parallels

Hardness: 60 HRC. **Precision ground as pairs.**

36 6706–6726 – GARANT – precision version.

Accuracy: Height and pairing tolerance ± 0.007 mm.

36 6741–6746 – GARANT – height tolerance 0.01 mm.

36 6755–6770 – HOLEX – height tolerance 0.01 mm.

Suitable for:

36 6755 – Set of parallels 366750.

36 6760 – Set of parallels 366751.

36 6765 – Set of parallels 366752.

36 6770 – Set of parallels 366753.

36 6706–6726 – Set of parallels 366702; 366704.

36 6741–6746 – Set of parallels 366740.

Application: In high precision work for parallel mounting of components in machine vices or jigs.



36 6706



36 6741

Width×height	31Z	36 6706
		Garant
		Single pair of parallels for
mm		366702 / 6704 size 100
2×5		eShop
2×10		eShop
2×15		eShop
2×20		eShop
3×6		eShop
3×11		eShop
3×16		eShop
3×21		eShop
4×7		eShop
4×12		eShop
4×17		eShop
4×22		eShop
5×8		eShop
5×13		eShop
5×18		eShop
5×23		eShop
6×9		eShop
6×14		eShop
6×19		eShop
6×24		eShop

Width×height	31Z	36 6711	31Z	36 6716	31Z	36 6726
				Garant		
				Single pair of parallels for		
mm		366702 / 6704 size 125		366702 / 6704 size 150		366702 size 200
8×11		eShop		eShop		eShop
8×16		eShop		eShop		eShop
8×21		eShop		eShop		eShop
8×26		eShop		eShop		eShop
8×31		eShop		eShop		eShop
8×36		eShop		eShop		eShop
10×13		eShop		eShop		eShop
10×18		eShop		eShop		eShop
10×23		eShop		eShop		eShop
10×28		eShop		eShop		eShop
10×33		eShop		eShop		eShop
10×38		eShop		eShop		eShop
12×15		eShop		eShop		eShop
12×20		eShop		eShop		eShop
12×25		eShop		eShop		eShop
12×30		eShop		eShop		eShop
12×35		eShop		eShop		eShop
12×40		eShop		eShop		eShop
14×17		eShop		eShop		eShop
14×22		eShop		eShop		eShop
14×27		eShop		eShop		eShop
14×32		eShop		eShop		eShop
14×37		eShop		eShop		eShop
14×42		eShop		eShop		eShop

Height	31Z	36 6741	31Z	36 6742	31Z	36 6744	31Z	36 6746
				Garant				
				Single pair of magnetic parallels for				
mm		366740 size 90×2.5		366740 size 125×2.5		366740 size 160×2.5		366740 size 200×2.5
15		eShop		eShop		—		—
22		eShop		—		eShop		—
25		eShop		—		—		eShop
30		eShop		eShop		eShop		—
32		eShop		—		—		—
35		—		eShop		—		—
37		—		eShop		eShop		—
39		—		eShop		—		—
40		—		—		—		eShop
42		—		—		eShop		—
47		—		—		eShop		eShop
52		—		—		—		eShop
57		—		—		—		eShop

Width	32D	36 6755	32D	36 6760	32D	36 6765	32D	36 6770
				HOLEX				
				Single pair of parallels for				
mm		366750 size 150×10		366751 size 160×4		366752 size 160×8		366753 size 200×8
10		—		eShop		—		—
12		—		—		eShop		—
14		eShop		eShop		—		—
16		eShop		—		—		—
17		—		—		eShop		eShop
18		eShop		eShop		—		—
20		eShop		—		—		—
22		eShop		eShop		eShop		eShop
24		eShop		—		—		—
25		—		—		eShop		—
26		eShop		eShop		—		eShop
28		eShop		—		eShop		eShop
30		eShop		eShop		—		—
32		eShop		—		eShop		eShop
34		—		eShop		—		—
35		eShop		—		—		—
36		—		—		eShop		eShop
38		—		eShop		eShop		eShop
40		eShop		—		—		—
42		—		eShop		—		eShop
45		eShop		—		—		—
50		eShop		—		—		—



36

Garant Clamping system for contour and form clamping

System consisting of base plate and clamping/sacrificial plate. Base plate is mounted on the zero point clamping system at 200 mm pitch, or directly on to the machine table. The clamping/sacrificial plate is mounted on the base plate and the negative of the component contour is introduced individually. Alternatively, simple clamping elements from Mitee-Bite, AMF, KIPP, Halder and similar can be mounted on the clamping/sacrificial plate for component clamping.

Baseplate

Anodised aluminium.

Size 180 – Pitch 200 mm.

Size 360 – Pitch 200 mm and cross pitch 200 mm.

Suitable for: Zero point clamping systems with 200 mm pitch or 200 mm cross pitch (for size 360).

Supplied with:

Size 180 – 4 fitted screws M8, 4 blanking screws.

Size 360 – 8 fitted screws M8, 8 blanking screws.

Optional extras: Clamping stud No. 360025 18M12.

Length	mm	180	360
310 36 8010 Baseplate		eShop	eShop
Width	mm	360	
Height	mm	30	

Clamping / sacrificial plate

Face-milled aluminium plate of EN AW-5083 - Aluminium (3.3547).

Suitable for: Base plate No. 368010.

Optional extras: Clamping elements from Mitee-Bite, AMF, Kipp, Halder and similar.

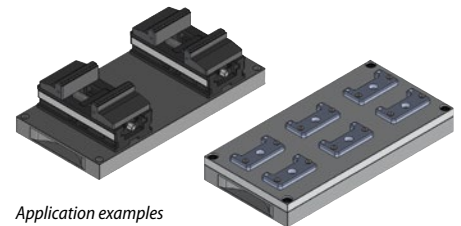
Length	mm	180	360
310 36 8015 Clamping/sacrificial plate		eShop	eShop
Width	mm	360	
Height	mm	15	



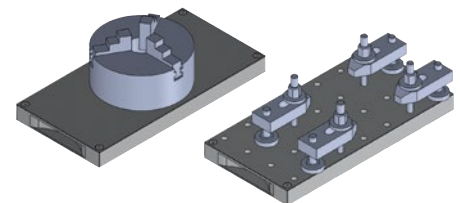
36 8010_180



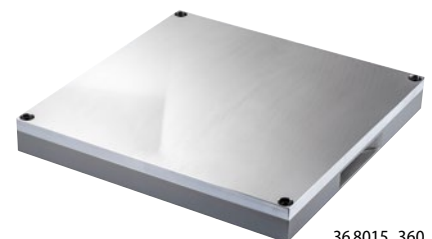
36 8010_360



Application examples

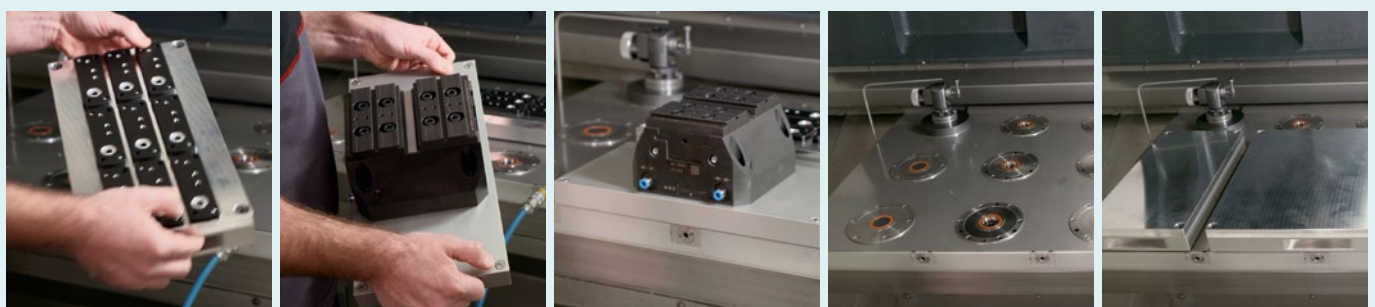


36 8015_180



36 8015_360

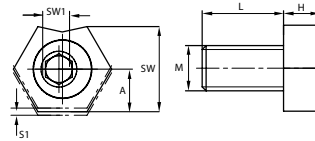
Garant The clamping system in use!



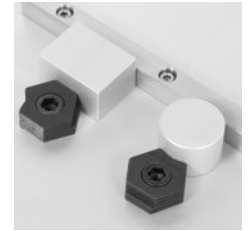
Garant Multi-eccentric clamp

- Hexagon steel washer with eccentric steel screw.
- Clamping of workpieces of any shape.
- **6 different geometries at the clamping faces:** 1. Vee with 150° opening angle
2. Longitudinally grooved 3. Smooth step 4. Serrated 5. Smooth 6. Smooth coated.
- Requires less space, so few interference contours.

Application: Suitable for clamping blanks and finished parts



exclusive
world first



Thread M	310	37 0001	Hexagon washer AF	Internal hexagon AF ₁	Eccentric travel S ₁	Dimension A	Washer height H	L	Clamping force	maximum tightening torque
		Eccentric clamp	mm	mm	mm	mm	mm	mm	kN	Nm
M10		eShop	25	7	1.6	12.7	10	9	9	28

MULE-BITE PRODUCTS INC. Clamping systems for jig inserts

Eccentric clamps

- Requires only small space, so few interference contours.
- Clamping of workpieces of any shape.
- 37 0005 – Hexagon brass washer with eccentric steel screw.
- 37 0008 – Clamping washer of case-hardened steel with eccentric steel screw.

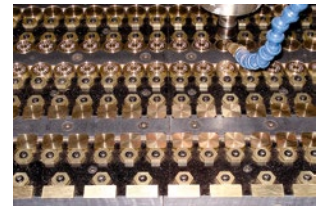
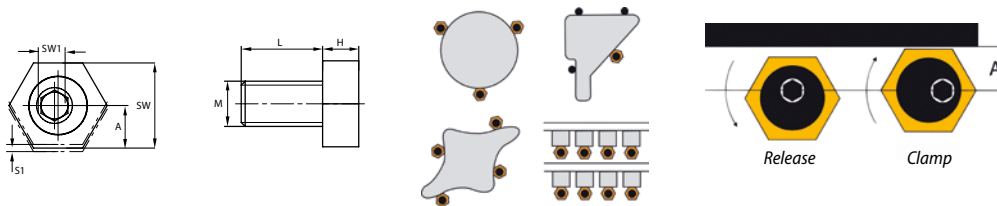
Supplied with: 1 pc. steel screw,
1 pc. clamping washer.

Note: A hexagon L-wrench size 7 is required for clamp M 10!



37 0008_M12

37 0005_M12



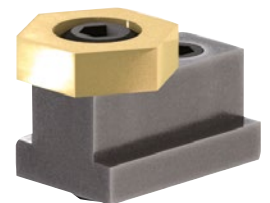
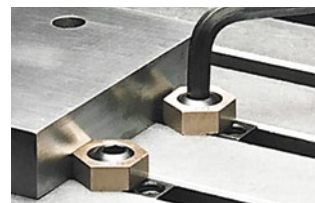
Thread M	37M	37 0005	37M	37 0008	Hexagon washer AF	Claw plate Ø D ₁	Internal hexagon AF ₁	Eccentric travel S ₁	Dimension A	Washer height H	L	Clamping force	maximum tightening torque
		Eccentric fixture clamp		Eccentric fixture clamp with knife edge	37 0005 mm	37 0008 mm	mm	mm	mm	37 0005 mm	37 0008 mm	kN	Nm
M6		eShop	—	—	16	—	4	1.3	7.8	4.8	12	3.4	8.5
M8		eShop	—	—	20	—	5	1	10.2	4.8	16	3.6	11.3
M10		eShop	eShop	eShop	20	20.6	7	1.6	10.2	6.4	20	9	28
M12		eShop	eShop	eShop	25	25.4	8	2	12.7	9.5	25	18	88
M16		eShop	eShop	eShop	30	30.1	12	2.5	15	12.7	27	27	88

Eccentric clamps for T-slots

- Small footprint, so few interference contours.
- For clamping workpieces of any shape.
- Hexagon brass washer with eccentric steel screw.
- Attachment in the T-slot using a locking clamping screw.

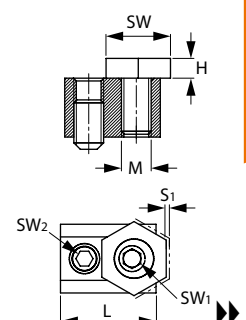
Application: Particularly suitable for clamping flat components.

Supplied with: 1 pc. steel screw,
1 pc. clamping washer.



37 0009_12

T-slot nominal size	37M	37 0009	Hexagon washer AF	Internal hexagon AF ₁	AF ₂	Eccentric travel S ₁	Washer height H	Length L	Clamping force	maximum tightening torque	maximum tightening torque, locking screw
mm		Eccentric clamp	mm	mm	mm	mm	mm	mm	kN	Nm	Nm
8		eShop	16	4	3	1	4.8	23.2	3.4	8.5	7.7
10		eShop	16	4	3	1	4.8	23.2	3.4	8.5	7.7
12		eShop	21	5	4	1	4.8	27.9	3.6	11.3	17
14		eShop	21	7	5	1.6	6.4	30.5	9	28	35
18		eShop	25	8	6	2	9.5	34.7	18	61	55
22		eShop	30	12	6	2.5	12.7	44.3	27	135	55

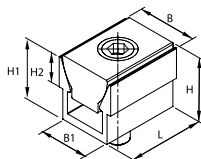
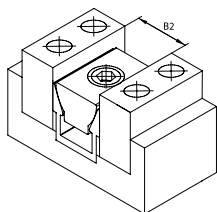


37

Double wedge clamp

- Aluminium profile with steel wedge including screws.
- Space-saving multiple clamping.

Application: Particularly suitable for clamping round and flat parts.



37 0010_M6



Thread M	37M	37 0010		L	B	H	B ₁	H ₁	B ₂	H ₂	Maximum spreading tension	suitable for hex socket -AF	maximum tightening torque	Clamping force
		Double wedge clamp		mm	mm	mm	mm	mm	mm	mm	mm	mm	Nm	kN
M4		eShop	1	15.9	12.3	14.5	10.4	12.7	12.7	5.6	13.2	3	3.4	2.2
M6		eShop	1	23.8	18.6	19	16.1	19.05	19	9.5	20.3	5	14.3	6.7
M8		eShop	1	31.7	24.8	25.9	20.8	25.4	25.4	12.7	26.9	6	14.5	8.9
M12		eShop	1	47.6	37.3	38.6	30.8	38.1	38.1	19	39.9	10	38.4	15.6

Positive engagement double wedge clamp

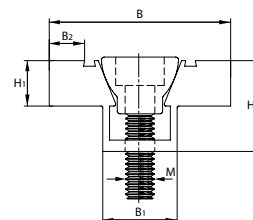
- Aluminium profile with steel wedge including screws.
- Extra-wide jaws, to allow the workpiece contour to be milled in.

Advantage: ■ Positive engagement of workpieces, thus secure clamping.
 ■ Clamping of 2 workpieces at the same time.

Note: The locking plate is required for machining the double wedge clamp.



37 0011

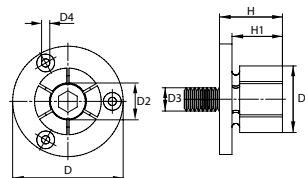


Thread M	37M	37 0011		L	B	H	B ₁	H ₁	B ₂	maximum tightening torque	Clamping force
		Positive engagement double wedge clamp		mm	mm	mm	mm	mm	mm	Nm	kN
M6		eShop		23.9	38.1	19.1	16.05	9.4	6.6	14.3	6.68
M8		eShop		31.8	50.8	25.4	20.83	12.7	9.9	14.5	8.9
M12		eShop		47.5	76.2	38.1	30.86	19.1	15.7	38.4	15.58

Clamping mandrel for through hole

- Base body of structural steel including steel screw.
- 5-face machining possible.
- Very high repetition accuracy.
- Easy machining of the base body **at the desired clamping Ø.**

Application: For clamping workpieces in an existing bore.



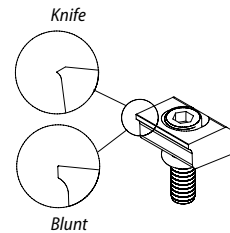
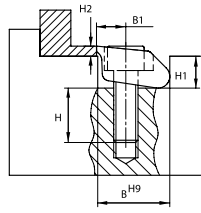
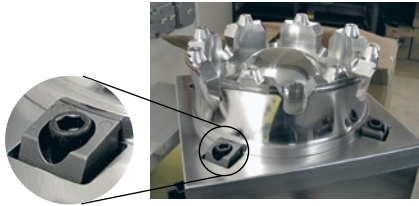
D ₁	37M	37 0015	Ø D	D ₂ smallest clamping Ø	Ø D ₃	Ø D ₄	H	H ₁	Clamping force	maximum tightening torque	max. clamping travel
mm		Clamping mandrel for through hole	mm	mm			mm	mm	kN	Nm	mm
7,4		eShop	20	4.1	M 2	M 2/13.7	10.7	7.6	1.1	0.7	0.13
12,4		eShop	29.72	7.2	M 4	M 3/21	21.8	16	4.2	5	0.25
14,2		eShop	31.5	12.2	M 6	M 3/23.1	24.9	19	8.5	17	0.33
20		eShop	37.5	13.5	M 8	M 3/29	24.9	19	11.1	34	0.38
27		eShop	50	18	M 10	M 4/39.4	28.6	22.2	20	60	0.38
35,3		eShop	56	23	M 12	M 4/45.5	31.8	25.4	26.3	150	0.38
42		eShop	69.5	29.3	M 16	M 5/55.9	39.6	31.8	44.5	280	0.38
51,5		eShop	75.5	29.3	M 16	M 5/63.9	39.6	31.8	44.5	280	0.38
77,7		eShop	107.5	29.3	M 16	M 6/92.5	45.5	37.6	44.5	280	0.38
103		eShop	132.9	29.3	M 16	M 6/118	45.5	37.6	44.5	280	0.38



Pitbull clamps

- Clamp with socket-head screw to DIN912, with oil-tight O-ring.
 - Secure and precise clamping.
 - Compact size, so few interference contours.
- 37 0025 – **Knife edge** for blanks.
37 0030 – **Blunt edge** for general tasks.

Application: Ideal for multiple clamping.



37 0025_M6



37 0030_M6

Thread M	37M 37 0025	37M 37 0030		B _{H9}	H	B ₁	H ₁	H ₂	Clamping width	Clamping travel	maximum tightening torque	Clamping force	Material
	Pitbull clamp												
	knife edge	blunt edge		mm	mm	mm	mm	mm	mm	mm	Nm	kN	
M2,5	eShop	eShop	1	9.5	6.6	3.8	3.6	1.9	9.5	0.15	1.8	2.8	Steel
M4	eShop	eShop	1	12.7	9.9	5.1	4.8	2.6	12.7	0.4	5.6	6.6	Steel
M6	eShop	eShop	1	19.05	14.48	7.6	7.2	3.8	19.1	0.6	22.5	16	Steel
M10	eShop	eShop	1	25.4	18.03	10.2	11.4	6.3	25.4	1.7	40	26	Steel

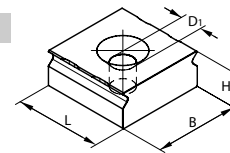
Clamping claws

- The contour of the claw generates a slight pull-down force.
- The low clamping height saves material.
- Higher cutting values due to positive clamping.

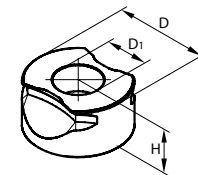
Application: Ideal for multiple clamping.

37 0034 – For use as a stop in jigs in conjunction with Pitbull clamps No. 370025; 370030 or eccentric clamps No. 370001; 370005; 370008.

Supplied with: 1 clamping claw with screw.



37 0034



37 0035

Type	37M 37 0034	37M 37 0035		Screw to standard	Ø D	L	B	H	Ø D ₁	recommended clamping height
	Ultra clamping claw, rectangular	Versa clamping claw, round			mm	mm	mm	mm		mm
1	eShop	—	1	M5×12	—	19.05	12.7	6.35	for M5	1.5 – 1.9
2	eShop	—	1	M5×12	—	19.05	19.05	7.92	for M5	1.5 – 3
3	eShop	—	1	M5×12	—	19.05	25.4	7.92	for M5	1.5 – 3
4	(eShop)	—	1	M8×16	—	25.4	25.4	12.7	for M8	1.5 – 5.6
5	—	eShop	1	M5×10	19.05	—	—	9.53	for M5	1.5 – 3



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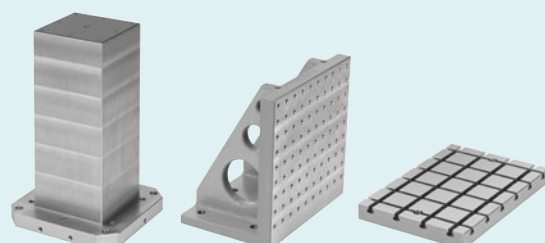


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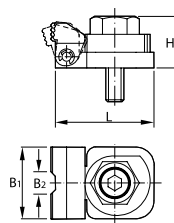
Base elements and attachment elements for modular workpiece design:



37

Side clamp with cam

- Material:** Housing made of tempered steel, gunmetal finished.
- Advantage:**
- Compact design.
 - Quick and easy clamping of components with pull-down.
- Application:** For lateral clamping of narrow and wide workpieces. Clamping force is introduced by eccentric adjustment with an additional pull-down effect.

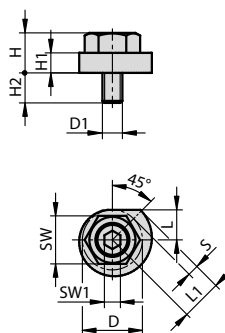


37 0051

Thread		M8	M10	M12
37K 37 0051	Side clamp with cam	eShop	eShop	eShop
Length L	mm	44	54	62
Height H	mm	23	29	35
B ₁	mm	32	40	46
B ₂	mm	10	12	14
Clamping range	mm	4	5	5.5
Clamping force	kN	3.5	5.5	7
maximum tightening torque	Nm	45	55	60

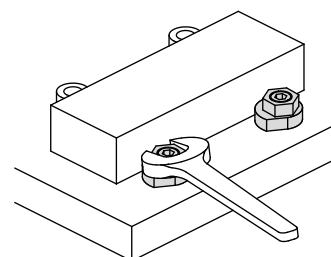
Clamping cams

- Material:** Heat treatable steel, burnished
- Advantage:**
- Compact design.
 - Quick and easy clamping of components.
- Application:** For lateral clamping of narrow and wide workpieces. The workpiece is clamped by tightening the fixture clamp with a spanner.



37 0052

Threads		M8	M10	M12
37K 37 0052	Clamping cam	eShop	eShop	eShop
Ø D	mm	24	30	34
Length L	mm	12	15	17
L ₁	mm	16.4	20.5	23.2
Height H	mm	16	20	24
Height H ₁	mm	8	10	12
Height H ₂	mm	12	15	18
Width across flats AF	mm	19	24	27
AF ₁	mm	6	8	10
Clamping force	kN	5.2	8	9.3
Stroke S	mm	4.4	5.5	6.2
maximum tightening torque	Nm	50	75	90



Application example

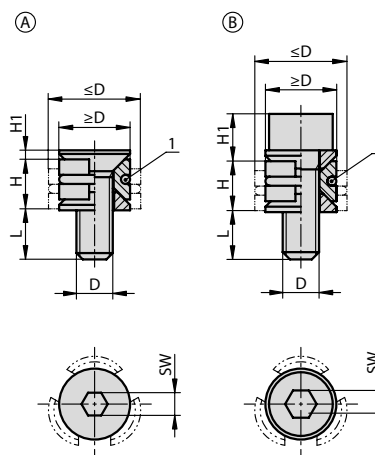
Centring clamps

37 0053 – Form A with countersunk screw.

37 0054 – Form B with cylinder head screw.

- Material:** Heat treatable steel, burnished Hardened (33-39 HRC).
- Advantage:**
- Pull-down effect.
 - Quick and easy clamping of components.
- Application:** For centring and clamping a workpiece in the hole. High clamping forces are achieved by the wedge surfaces.

Note: During the clamping process, the clamping force acts on specific points of the hole wall.



37 0054

Thread × length	37K 37 0053	37K 37 0054	D _{min} mm	D _{max} mm	H mm	H ₁		L		Width across flats AF		maximum clamping force	
	Centring clamp Form A	Centring clamp Form B				37 0053 mm	37 0054 mm	37 0053 mm	37 0054 mm	37 0053 mm	37 0054 mm	37 0053 kN	37 0054 kN
M4×12	eShop	eShop	8	10.3	5.5	0.9	5.1	7.3	7.1	2.5	3	0.9	1.5
M5×15	eShop	eShop	10	12.3	6.4	1.1	6.2	9.1	9	3	4	1.5	2.5
M6×18	eShop	eShop	12	16.3	8.6	1.3	7.9	11.2	10.6	4	5	2.1	5
M8×25	eShop	eShop	16	22	11.5	1.6	10.4	16.2	15.4	5	6	4	9

Self-aligning pads

- Body made of heat treatable steel, phosphated.
- Sphere locked to prevent twisting.
- 37 0057 – Sphere of carbide.

37 0055/0056/0058/0059/0065/0066 – Sphere of ball-bearing steel.

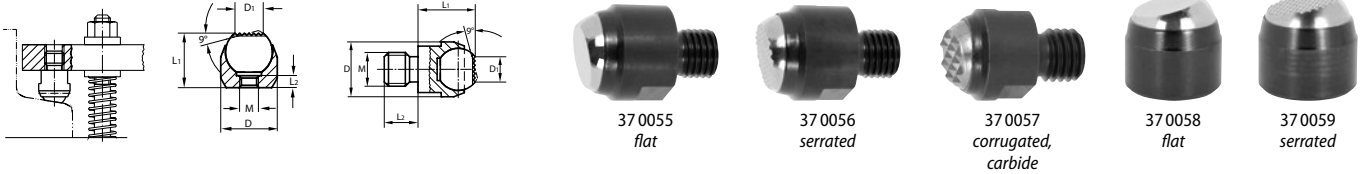
37 0060/0061/0062/0063/0068/0069 – Resets to the home position independently.

Application: Serve as stop, contact and pressure piece in jig and fixture making.

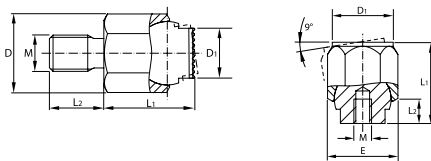
Note:

37 0069 – Can be combined with clamping hooks No. 370073 and 370074.

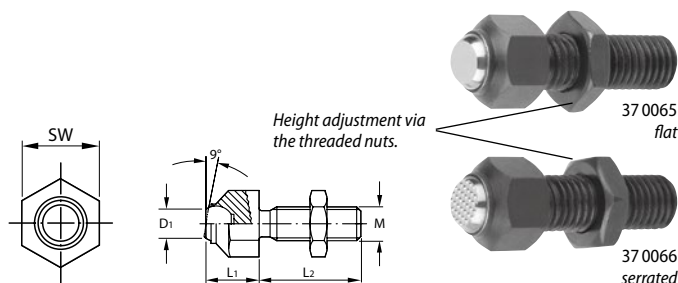
37 0055–0068 – Can be combined with swing clamps No. 370085 – 370086 or clamping hooks No. 370073 and 370074.



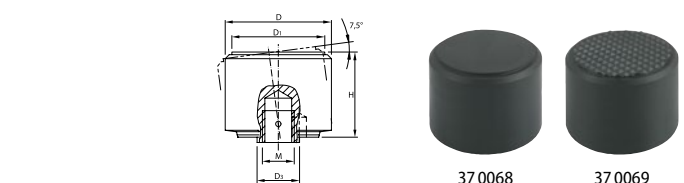
Thread M		M3	M4	M5	M8	M10	M12	M16	M20
37K 37 0055	Self-aligning pad flat, external thread	–	–	–	eShop	eShop	eShop	eShop	eShop
37K 37 0056	Self-aligning pad serrated, external thread	–	–	–	eShop	eShop	eShop	eShop	eShop
37K 37 0057	Self-aligning pad flat, internal thread	–	–	–	eShop	eShop	eShop	–	–
37K 37 0058	Self-aligning pad serrated, internal thread	eShop	–	eShop	–	–	–	–	–
37K 37 0059	Self-aligning pad flat, external thread	eShop	eShop	eShop	–	–	–	–	–
Ø D	mm	12	18	28	13	20	20	30	50
Ø D ₁	mm	7.2	10.5	20	7.2	10.5	10.5	20	34.5
L ₁	mm	11	17	25	13	18	18	27	35
L ₂	mm	3.5	4.4	6.3	8	10	12	16	20
maximum loading (static)	kN	10	25	90	10	25	25	90	165



Thread M		M3	M4	M5	M6	M8	M10	M12	M16
37K 37 0060	Self-aligning pad flat, external thread, self-righting	–	–	–	eShop	eShop	eShop	eShop	eShop
37K 37 0061	Self-aligning pad serrated, external thread, self-righting	–	–	–	eShop	eShop	eShop	eShop	eShop
37K 37 0062	Self-aligning pad flat, external thread, self-righting	eShop	eShop	eShop	eShop	eShop	–	–	–
37K 37 0063	Self-aligning pad serrated, external thread, self-righting	eShop	eShop	eShop	eShop	eShop	–	–	–
Ø D (37 0060, 37 0061)	mm	–	–	–	7	9.5	14	20	22
Ø D (37 0062, 37 0063)	mm	9	12	18	26	30	–	–	–
H ₁	mm	–	–	–	13	18	25	36	40
H ₂	mm	–	–	–	9	12	15	18	24
L ₁	mm	13	18	25	36	40	–	–	–
L ₂	mm	5	6	8	10	12	–	–	–
maximum loading (static) (37 0060, 37 0061)	kN	–	–	–	8	16	32	64	90
maximum loading (static) (37 0062, 37 0063)	kN	8	16	32	64	90	–	–	–



Thread M		M8	M10	M12	M16	M20
37K 37 0065	Adjustable self-aligning pad flat, external thread	eShop	eShop	eShop	eShop	eShop
37K 37 0066	Adjustable self-aligning pad serrated, external thread	eShop	eShop	eShop	eShop	eShop
AF	mm	13	17	17	24	30
Ø D ₁	mm	5.8	8.6	8.6	10.5	20
L ₁	mm	11.6	15.7	15.7	20.7	27.3
L ₂	mm	25	30	35	40	50
maximum loading (static)	kN	8	8	15	25	90



Thread M		M5	M6	M8	M10	M12
37K 37 0068	Self-aligning pad flat, external thread, self-righting	eShop	eShop	eShop	eShop	eShop
37K 37 0069	Self-aligning pad serrated, external thread, self-righting	eShop	eShop	eShop	eShop	eShop
Ø D	mm	18	22	28	34	40
Ø D ₁	mm	15	18	23	29	35
H	mm	14	16.5	21.5	27	32
Ø D ₃	mm	7	8	11	13	16
maximum loading (static)	kN	30	50	90	140	220



37

Clamping hook with collar

37 0075 – Screw head recessed in the clamping hook.

37 0076 – Screw head resting on clamping hook when mounting.

37 0070/0075 – With countersunk screw.

Application: For space-saving clamping of workpieces.

37 0070/0071/37 0072 – Screwed directly into a grid hole, no countersinking required.

For space-saving clamping of workpieces.

37 0073/0074 – For higher clamping forces and greater stability.

37 0075/0076 – For installation in individual clamping devices.

Optional extras:

37 0075/0076 – Springs and socket-head screws on request

Type		1	2	3	4	5	6
37K 37 0070	Clamping hook with collar M8	eShop	eShop	eShop	eShop	eShop	eShop
H ₁	mm	35 – 45	35 – 45	35 – 45	45 – 55	45 – 55	45 – 55
H ₂	mm	14					
L ₁	mm	20	25	30	20	25	30
F _{max.}	kN	7.9	7.3	6.7	7.9	7.3	6.7
maximum torque	Nm	20					

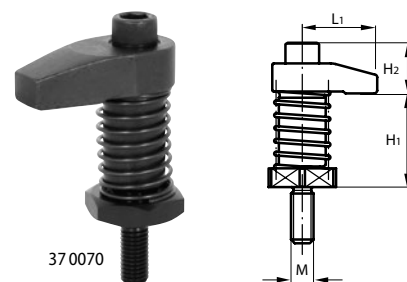
Type		1	2	3	4	5	6	7	8	9
37K 37 0071	Clamping hook with collar M12	eShop	eShop	eShop	eShop	eShop	eShop	–	–	–
37K 37 0073	Clamping hook ground M12	–	–	–	–	–	–	eShop	eShop	eShop
H ₁	mm	50 – 65	50 – 65	50 – 65	65 – 80	65 – 80	65 – 80	39	39	39
H ₂	mm	27	29	29	27	29	29	27	29	29
L ₁	mm	40	50	60	40	50	60	40	50	60
F _{max.}	kN	13.5	12.6	11.7	13.5	12.6	11.7	22.6	18.5	15.2
maximum torque	Nm	45	45	45	45	45	45	58.8	49	45.1
Ø D _{h7}	mm	–	–	–	–	–	–	25	25	25

Type		1	2	3	4	5	6	8	9
37K 37 0072	Clamping hook with collar M16	eShop	eShop	eShop	eShop	eShop	eShop	–	–
37K 37 0074	Clamping hook ground M16	–	–	–	–	–	–	eShop	eShop
H ₁	mm	50 – 65	50 – 65	50 – 65	65 – 80	65 – 80	65 – 80	75	75
H ₂	mm	36							
L ₁	mm	40	50	60	40	50	60	50	60
F _{max.}	kN	13.4	12.4	12	13.4	12.4	12	38	33
maximum torque	Nm	60	60	60	60	60	60	147	127.4
Ø D _{h7}	mm	–	–	–	–	–	–	32	32

Type		1	2	3	4
37K 37 0075	Clamping hook, cylindrical	eShop	eShop	eShop	eShop
37K 37 0076		eShop	eShop	eShop	eShop
H ₁	mm	42	52	66	83
H ₂	mm	10	12	16	20
B	mm	11	15	17	20
Ø D	mm	16	20	25	32
Ø D ₁	mm	10	12	14	17
Ø D ₂	mm	11	15	18	20
Ø D ₃	mm	6.5	8.5	10.5	12.5
F _{max.}	kN	4.8	8.8	13.9	20.2

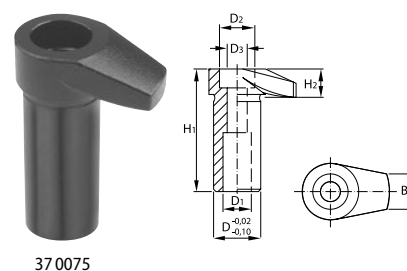
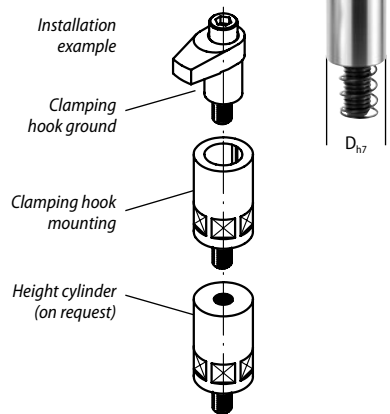
Height cylinder for clamping hooks

Application: For guiding and lifting **ground** clamping hooks.

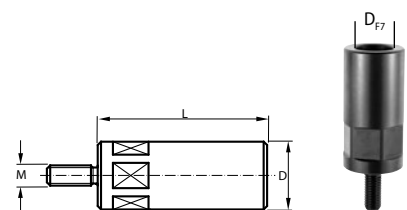


37 0070

M12 thread for screwing in self-aligning pads No. 370055 - 370057



37 0075



37 0083

Length L	mm	80	100	M	Ø D mm	Ø D _{F7} mm	maximum torque Nm
37K 37 0083	Clamping hook mounting	eShop	eShop	M12	40	25	49
37K 37 0084		eShop	eShop	M16	50	32	78.4

Mechanical collet

Material: Heat treatable steel, nickel plated

Application:

- To accept collets for **internal clamping and external clamping**.
- Collets are positioned on the arbor with 2 cylindrical dowels, and thereby secured against twisting.

External Ø D	mm	65	90	120	160
37K 37 0125	Adapter for mechanical collet	(eShop)	(eShop)	(eShop)	(eShop)
Height H	mm	35	40	45	50
Width across flats AF	mm	8	8	10	10

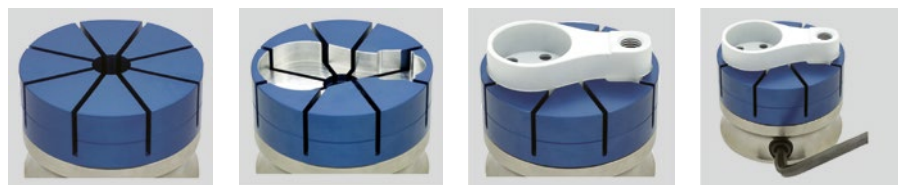
Collets

- For clamping workpieces with complex contours for 5-face machining.
- Minimum clamping depth of 2 mm.
- Clamping stroke 0.3 mm.

Material: High-tensile aluminium.

Supplied with: Clamping ring for machining.

External Ø D	mm	65	90	120	160
37K 37 0126	Collet mechanical External clamping	(eShop)	(eShop)	(eShop)	(eShop)
Height H	mm	25	35	40	45
Maximum machining depth T	mm	10	15	20	25

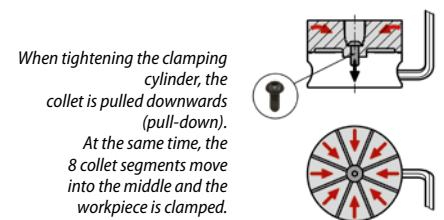
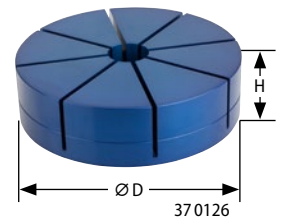
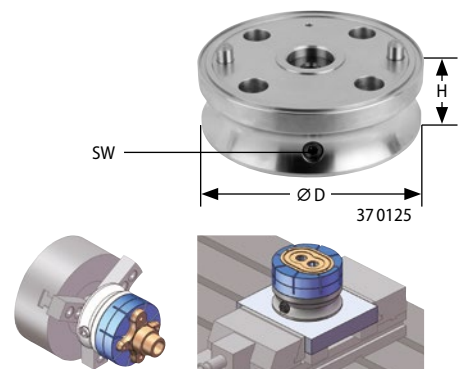


1. Prepare collet

2. Machine collet

3. Insert the workpiece

4. Tighten the clamping cylinder



Wedge clamps

Material: Double wedge and clamping segments heat-treatable steel, hardened, black.

- Application:**
- Wedge surfaces produce high clamping forces.
 - Wedge clamps can be used in tapped holes or T-slots.
 - When the clamping screw is screwed in, the clamping segments press against the workpieces.
 - A slot in the double wedge allows for movement and tolerance adjustment. Movement distance: M8 = ± 0.5 mm; M10 and M12 = ± 1.0 mm; M16 = ± 1.5 mm.
 - Wedge clamps are suitable for multiple clamping.

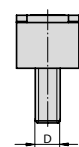
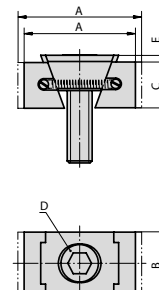
37 0031/0032 – ■ Machining allowance enables adjustments to match the contour.

Note:

37 0031/0032 – The machining allowance per jaw is 3 mm for the M8X25 version and 5 mm for the M10X25, M12X40 and M16X60 versions.

Thread M x length L	mm	M8×25	M10×25	M12×40	M16×60
37K 37 0026	Wedge clamp, narrow version smooth	eShop	eShop	–	eShop
37K 37 0027	Wedge clamp, narrow version serrated	eShop	eShop	eShop	–
37K 37 0029	Wedge clamp, wide version serrated	–	–	eShop	–
37K 37 0031	Wedge clamp with machining allowance on both sides narrow	eShop	eShop	eShop	–
37K 37 0032	Wedge clamp with machining allowance on both sides wide	eShop	–	eShop	–
A minimum (37 0026, 37 0027, 37 0029)	mm	30.5	32	44	55
A minimum (37 0031, 37 0032)	mm	36.5	42	54	–
A maximum (37 0026, 37 0027, 37 0029)	mm	33.5	37	49.5	62
A maximum (37 0031, 37 0032)	mm	39.5	47	59.5	–
B (37 0026, 37 0027, 37 0031)	mm	24	28	30	40
B (37 0029, 37 0032)	mm	30	–	48	–
Height C	mm	15	19	22	29
Height E	mm	2	3.5	3.5	4
maximum clamping force (37 0026, 37 0027, 37 0029)	kN	15	20	30	50
maximum clamping force (37 0031, 37 0032)	kN	11	15	23	–

Optimised design with internal spring



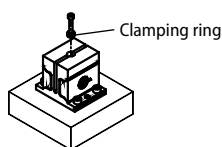
37

Machinable jaws

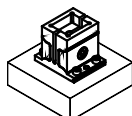
- 2 workpieces can be clamped.
- Maximum clamping stroke 0.5 mm.

Material: Clamping wedges of heat treatable steel.

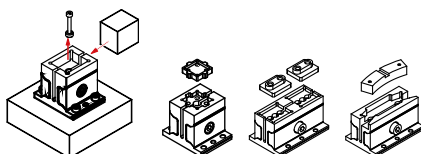
Supplied with: Including clamping for machining.



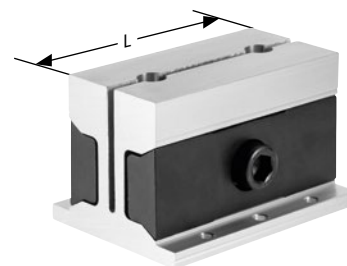
1. Insert the clamping ring:
Tighten the clamping screw



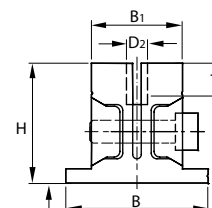
2. Machine the jaws:



3. Clamping the workpiece:
Release the clamping screw and remove the clamping ring using the socket-head screw. Insert the workpiece into the contour and tighten the clamping screw.



L × B1	mm	40×32	80×32	50×50	100×50
37K 37 0089	Machinable jaws	eShop	eShop	eShop	eShop
B	mm	50	50	72	72
Ø D ₂	mm	7.4	7.7	11.4	11.4
H	mm	42	42	63	63
Maximum machining depth T	mm	10	10	15	15
Clamping force	kN	2.5	2.5	5.5	5.5
maximum torque	Nm	7.5	14	26	46



Power clamp, adjustable

- Clamping force 30 or 49 kN with tightening torque of approx. 100 Nm.
- Forged clamping element of alloy heat-treatable steel, black galvanised.
- **Steplessly adjustable height and length.**
- **Low installed height.**

Supplied with: ■ Base element and carrier.

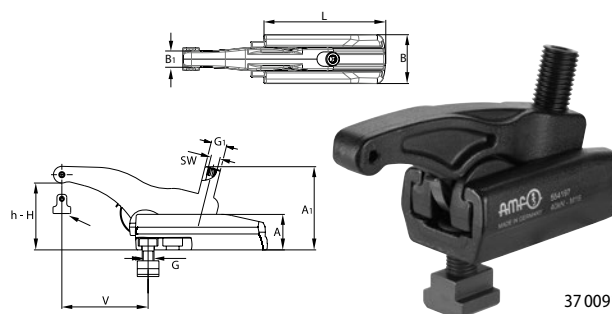
- T-nut DIN 508 with T-bolt strength class 12.9.

Optional extras:

Size 5; 1; 2 – Pressure pieces No. 370095.

Size 6; 3 – Pressure pieces No. 370096.

37 0091 Size 4 – Pressure pieces No. 370097.

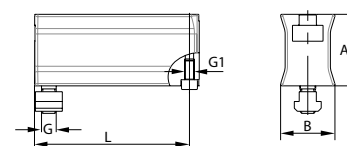


Type	35A 37 0091	35A 37 0092	T-slot width	Fastening screw G	Clamping height h-H	Clamping force	A	A ₁	B	B ₁	L	V	AF	G ₁
	Power clamp adjustable													
	long	short	mm		mm	kN	mm	mm	mm	mm	mm	mm	mm	mm
1	eShop	–	14	M12	6–68	30	36	85	54	18	135	20–110	8	M16
2	eShop	–	18	M16	6–68	30	36	85	54	18	135	24–113	8	M16
3	eShop	–	18	M16	6–80	43	42	105	60	20	155	16–134	10	M20
4	(eShop)	–	22	M20	7–88	49	52	125	75	25	175	19–165	12	M24
5	–	(eShop)	14	M12	6–50	32	36	78	54	18	95	12–82	8	M16
6	–	(eShop)	18	M16	6–50	40	42	92	60	20	110	15–95	10	M20

Spacer element for power clamps, movable

- Forged intermediate element of alloy heat-treatable steel, black galvanised.
- Other clamping heights can be achieved by using multiple height elements.

Supplied with: Including fastening set and socket-head screw.



for type	35A 37 0093	T-slot width	Fastening screw G	A	B	L	G ₁
	Spacer element						
	long	mm		mm	mm	mm	
1/2	(eShop)	14	M12	60	44.5	135	M8
3	(eShop)	18	M16	70	47.5	155	M8
4	(eShop)	22	M20	80	58	175	M10



Pressure pads for power clamps

Supplied with: Supplied with dowel pin.

Type	DG	DR	L mm	B mm	H mm	Suitable for:
35A 37 0095	Pressure pad, stainless steel	eShop	25	18	19.5	Type 1 / 2 / 5
Version	smooth	serrated				



37 0095_DG



37 0095_DR

Garant Compact clamp

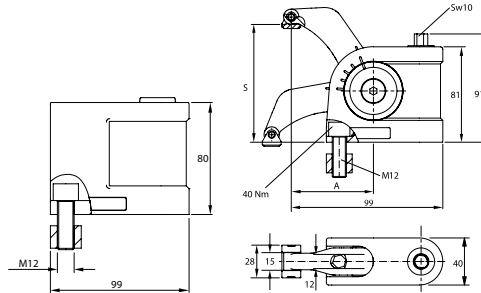
Material: Body and pressure arm of heat treatable steel.

Advantage:

- Compact design, dirt-repellent and chip-repellent.
- Height scale permits quick pre-setting of the clamping height.
- Captive pressure piece. Pressure piece adapters are attached by a magnetic insert.
- Easy assembly using the clamping arm.

Supplied with: Compact clamp, T-nut for width 14 mm and screw M12.

Optional extras: Pressure piece set No. 370148.



370143_67

Reach A	mm	47	67
37 0143 Compact clamp		eShop	eShop
Clamping height S	mm	0 – 90	0 – 100
Length L	mm	95	
Width B	mm	40	
Height H	mm	81	
maximum clamping force	kN	16	12
maximum torque	Nm	105	

Accessories for compact clamps

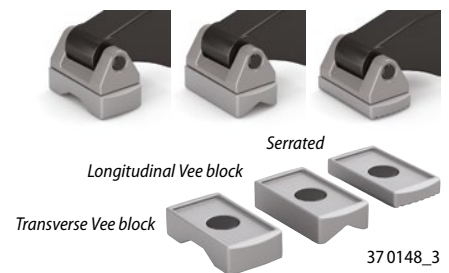
Suitable for: GARANT compact clamp No. 370143.

Height H	mm	80
37 0146 Riser block for compact clamps		eShop
Length L	mm	95
Height H	mm	80
Width B	mm	41

Type		3	B mm
37 0148 Pressure piece set, 3 pieces		eShop	31.5



370146_80



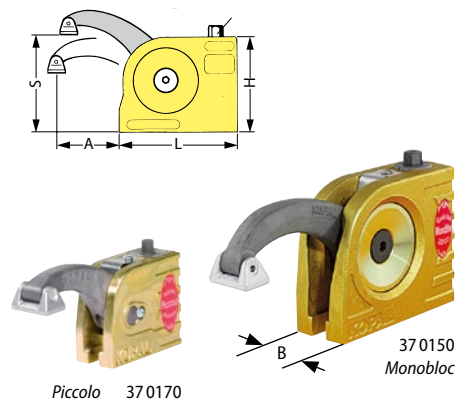
370148_3

KOPAL Compact clamp

Note: Special screws No. 370450 – 370470 not included.

Compact clamp for vertical pressure

Reach A	mm	34	62	54	100
37 0150 Compact clamp Monobloc		eShop	eShop	–	–
37 0170 Compact clamp Piccolo		–	–	eShop	eShop
Clamping height S	mm	0 – 80	–8 – 102	–15 – 58	–40 – 90
Length L	mm	108	108	73	73
Width B	mm	40	40	32	32
Height H	mm	89	89	62.5	62.5
maximum clamping force	kN	16	12	6.5	4.2
maximum torque	Nm	80	80	30	30



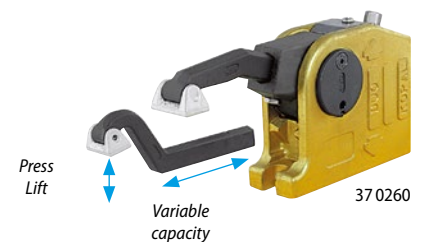
Piccolo 370170

370150 Monobloc

Compact clamp for vertical pressure or lifting

- With 2 different clamping arms (straight or cranked).
- Lifting possible also by turning the clamping arm.

37 0260 Compact clamp Duo		eShop
maximum clamping force with clamping arm position — pushed in	kN	11
maximum clamping force with clamping arm position — pulled out	kN	8
Length L	mm	120
Width B	mm	40
Height H	mm	95
Throat A (cranked clamping arm)	mm	48 – 91
Throat A (straight clamping arm)	mm	46 – 88
Clamping height downwards S (cranked clamping arm)	mm	38 – 129
Clamping height downwards S (straight clamping arm)	mm	0 – 80
Clamping height upwards S (cranked clamping arm)	mm	4 – 94
Clamping height upwards S (straight clamping arm)	mm	52 – 142



370260

Chain clamp hook-in block – chain length 1 m



37 0270

39K	37 0270	Chain clamp		eShop
	Length L	mm	108	
	Width B	mm	40	
	Height H	mm	89	
	maximum clamping force	kN	16	
	maximum torque	Nm	70	

Riser block up to maximum 400 mm clamping height.

	Height H	mm	60	75
39K	37 0300	Riser block for compact clamps	eShop	eShop
	Height H	mm	60	75
	suitable for		Piccolo	Monobloc, Duo



37 0300_60



37 0300_75

Special accessories for compact clamps

37 0380 – Increases the reach by 99 mm (detachable).

39K	37 0350	Clamping wrench 11 AF for Mono-bloc, Duo, and chain clamp	eShop
39K	37 0360	 Clamping wrench 8 AF for Piccolo	eShop
39K	37 0380	Extension arm for Monobloc, Piccolo, and chain clamp	eShop



37 0350



37 0360



37 0380



37 0410

37 0430 – Interchangeable, allowing optimum adaptation to component geometries.



37 0430_1

_2

_3

_4

_5

Type-No.		1	2	3	4	5
39K	37 0430	 Swivel shoe	eShop	eShop	eShop	eShop

Thread / Length		M8×30	M10×35	M12×35	M10×40	M10×45	M12×36	M14×40	M16×40
39K	37 0450	–	eShop	–	eShop	eShop	eShop	eShop	eShop
39K	37 0470	eShop	eShop	eShop	–	–	–	–	–



37 0450



37 0470

for T-slot nominal size	mm	12	14	16	18	20	22
35A	37 0520	M8	eShop	eShop	eShop	–	–
35A	37 0530	M10	eShop	eShop	eShop	–	–
35A	37 0540	M12	–	eShop	eShop	–	–
35A	37 0550	M14	–	–	eShop	–	–
35A	37 0560	M16	–	–	–	eShop	eShop

 T-nut



37 0520

Tapered clamps with adjusting support screw

- 37 0680 – Clamp painted.
Clamping height steplessly adjustable via screw (without clamping lever).
- 37 0685 – Quenched and tempered steel, painted, screw strength 8.8.
- 37 0690 – Hardened, black.

Material:

- 37 0680 – Quenched and tempered steel, screw strength 8.8 or 10.9 (depending on size).

Application:

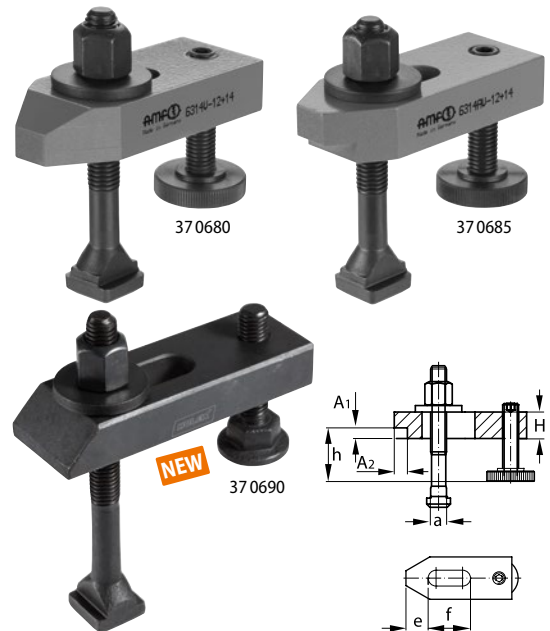
- 37 0685 – To achieve the **lowest clamping height, turn the clamp around**.

Supplied with:

- 37 0690 – Complete with adjusting screw.
- 37 0680/0685 – Adjusting screw and T-bolt DIN 787 (No. 375300).

Note:

- 37 0690 – T-bolt, No. 375301 must be ordered separately.



Slot width a	mm	10	12	14	16	18	20	22
35A 37 0680	AMF	Tapered clamp with adjusting support screw	eShop	eShop	eShop	eShop	–	eShop
35A 37 0685	AMF	Tapered clamp with adjusting support screw offset	–	eShop	eShop	eShop	eShop	eShop
32H 37 0690	HOLEX	Tapered clamp with adjusting support screw	eShop	eShop	eShop	eShop	–	eShop
Clamping height h (37 0680)	mm	8 – 32	10 – 40	10 – 38	13 – 48	13 – 46	–	16 – 65
Clamping height h (37 0685)	mm	–	10 – 48	10 – 46	13 – 58	13 – 56	16 – 77	16 – 77
Tee bolt DIN 787, No. 375300		Size 101080	Size 1212100	Size 1412100	Size 1616125	Size 1816125	Size 2020160	Size 2220160
Length L (37 0680, 37 0685)	mm	80	100	100	125	125	160	160
Length L (37 0690)	mm	80	110	110	125	125	–	160
Width B (37 0680, 37 0685)	mm	30	40	40	50	50	60	60
Width B (37 0690)	mm	30	38	38	48	48	–	60
Height H (37 0680, 37 0685)	mm	15	20	20	25	25	30	30
Height H (37 0690)	mm	15	19	19	24	24	–	30
A ₁ (37 0685)	mm	–	8	8	10	10	12	12
A ₂ (37 0685)	mm	–	10	10	12.5	12.5	15	15
e	mm	15	21	21	26	26	30	30
f (37 0680, 37 0685)	mm	30	40	40	45	45	60	60
f (37 0690)	mm	30	45	45	45	45	–	60

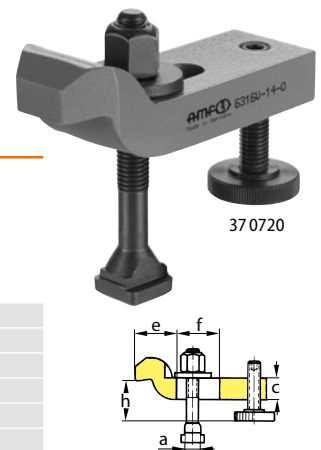
AMF Cranked clamps with adjusting support screw

Clamp painted. Clamping height steplessly adjustable via screw (without clamping lever).

Material: Quenched and tempered steel, screw strength 8.8 or 10.9 (depending on size!).

Supplied with: Adjusting screw and T-bolt DIN 787 (No. 375300).

Slot width a	35A 37 0720	Clamping height h	Tee bolt DIN 787, No. 375300	Length L	Width B	Height H	e	f
mm	Cranked clamp with adjusting support screw	mm		mm	mm	mm	mm	mm
10	eShop	22 – 46	Size 101080	100	11	15	36	32
12	eShop	28 – 58	Size 1212100	125	14	20	44	40
14	eShop	28 – 56	Size 1412100	125	14	20	44	40
16	eShop	36 – 71	Size 1616125	160	18	25	51.5	50
18	eShop	36 – 69	Size 1816125	160	18	25	51.5	50
22	eShop	43 – 92	Size 2220160	200	22	30	59	70



AMF Forked clamps with pin end

Standard: DIN 6315 C

Material: Quenched and tempered steel, painted.



Slot width×overall length	35A 37 0800	Width B	Height H	Shoulder Ø	for clamping screws	Slot width×overall length	35A 37 0800	Width B	Height H	Shoulder Ø	for clamping screws
mm	Forked clamp with pin end	mm	mm	mm		mm	Forked clamp with pin end	mm	mm	mm	
11×125	eShop	30	20	16	M10	22×250	eShop	60	40	30	M20; M22
14×160	eShop	40	25	20	M12; M14	26×250	eShop	70	40	38	M24
18×200	eShop	50	30	24	M16; M18						

AMF Forked clamps offset

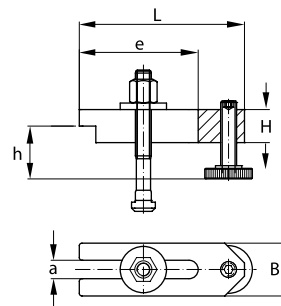
Quenched and tempered steel, painted.

Material: Screw strength 8.8.

Application: To achieve the **lowest clamping height, turn the clamp around.**

Supplied with: Adjusting screw and T-bolts DIN 787 (see No. 375300).

Slot width a	35A 37 0810	Clamping height h	Tee bolt DIN 787, No. 375300	Length L	Width B	Height H	e
mm	Forked clamp offset	mm		mm	mm	mm	mm
10	eShop	8 – 37	Size 101080	100	30	20	70
12	eShop	10 – 48	Size 1212100	125	40	25	90
14	eShop	10 – 45	Size 1412100	125	40	25	90
16	eShop	13 – 58	Size 1616125	160	50	30	110
18	eShop	13 – 56	Size 1816125	160	50	30	110
20	eShop	16 – 77	Size 2020160	200	60	40	135
22	eShop	16 – 75	Size 2220160	200	60	40	135



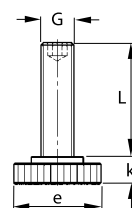
37 0810

AMF Support screw

Quenched and tempered, strength class 8.8.

Suitable for: All adjustable clamps.

Thread G × Length L	35A 37 0840	e	k	Thread G × Length L	35A 37 0840	e	k
	Support screw	mm	mm		Support screw	mm	mm
10×39	eShop	30	8	16×90	eShop	42	13
12×49	eShop	36	10	20×69	eShop	50	16
12×94	eShop	36	10	20×109	eShop	50	16
16×55	eShop	42	13	24×137	(eShop)	60	20



37 0840

AMF Steplessly adjustable clamps

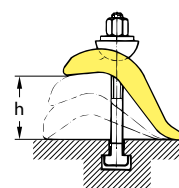
The clamp and Tee bolt form a single unit (no loose parts). The shape of the clamp provides for infinitely variable adjustment without additional blocks.

Material: Quenched and tempered steel, galvanised, screw strength 8.8 or 10.9 (depending on size!).

Application: For quick and reliable clamping of various component heights on milling machines.

Supplied with: T-bolt DIN 787 (No. 375300).

Slot width a	35A 37 0660	Clamping height h	Tee bolt DIN 787, No. 375300	Length L	Width B
mm	Steplessly adjustable clamp	mm		mm	mm
12	eShop	0 – 50	Size 1212125	140	50
14	eShop	0 – 50	Size 1412125	140	50
16	eShop	0 – 75	Size 1616160	140	50
18	eShop	0 – 75	Size 1816160	140	50
22	(eShop)	0 – 85	Size 2220200	175	60



37 0660

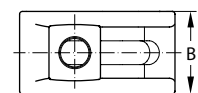
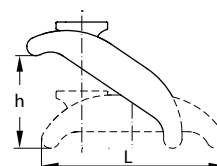
AMF Steplessly adjustable clamps, short

■ Steplessly adjustable.

■ Quenched and tempered, galvanised and blue passivated.

Supplied with: U-piece, complete with T-bolt DIN 787 (No. 375300).

Slot width a	35A 37 0665	Clamping height h	Tee bolt DIN 787, No. 375300	Length L	Width B
mm	Steplessly adjustable clamp, short	mm		mm	mm
12	eShop	0 – 35	Size 1212100	88	38
14	eShop	0 – 35	Size 1412100	88	38
16	eShop	0 – 55	Size 1616160	130	56
18	eShop	0 – 55	Size 1816160	130	56
20	eShop	0 – 65	Size 2020200	144	66



37 0665

HOLEX Steplessly adjustable clamps

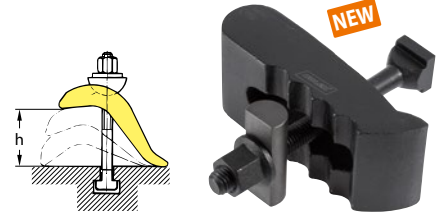
The clamp and Tee bolt form a single unit (no loose parts).
The shape of the clamp provides for stepless adjustment without additional blocks.

Material: Hardened, black, screw strength 8.8.

Application: For quick and reliable clamping of various component heights on milling machines.

Supplied with: Complete with T-bolt (No. 375301).

Slot width a	32H	37 0670	Clamping height h	Length L	Width B
mm		Steplessly adjustable clamp	mm	mm	mm
12		eShop	0 – 45	105	44
14		eShop	0 – 45	105	44
16		eShop	0 – 50	140	51
18		eShop	0 – 50	140	51
22		eShop	0 – 70	160	60



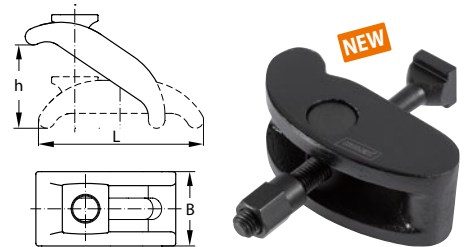
HOLEX Steplessly adjustable clamps, short

■ Stepless adjustment.

■ Hardened, black.

Supplied with: U-piece, complete with T-bolt (No. 375301).

Slot width a	32H	37 0675	Clamping height h	Length L	Width B
mm		Steplessly adjustable clamp, short	mm	mm	mm
14		eShop	0 – 35	118	50
18		eShop	0 – 40	135	60
22		eShop	0 – 50	160	68
28		eShop	0 – 60	160	80



Clamps

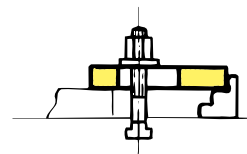
Material:

37 1000 – Quenched and tempered steel, painted.

37 1005 – Hardened, black.



37 1000



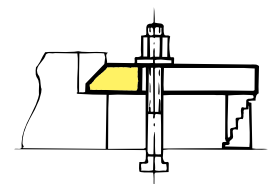
37 1005

Slot width×overall length	mm	7×50	6,6×50	9×60	11×80	14×100	14×125	18×125	18×160	22×160	22×200	26×200	26×250
35A 37 1000	AMF	Clamp	DIN 6314	eShop	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
32H 37 1005	HOLEX	Clamp	–	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Height	mm	10	10	12	15	20	20	25	25	30	30	30	35
Width	mm	20	20	25	30	40	40	50	50	60	60	70	70
for clamping screws		M6	M6	M8	M10	M12; M14	M12; M14	M16; M18	M16; M18	M20; M22	M20; M22	M24	M24

AMF Forked clamps with shoe – DIN 6315 GN

Material: Quenched and tempered steel, painted.

Slot width×overall length	35A	37 1400	Height	Width	for clamping screws
mm		Forked clamp with shoe	mm	mm	
		DIN 6315 GN			
9×100		eShop	15	30	M8
11×125		eShop	20	30	M10
14×160		eShop	25	40	M12; M14
14×200		eShop	25	40	M12; M14
18×200		eShop	30	50	M16; M18
18×250		eShop	30	50	M16; M18
22×250		eShop	40	60	M20; M22
22×315		eShop	40	60	M20; M22
26×250		eShop	40	70	M24
26×315		eShop	40	70	M24
33×315		eShop	50	80	M30
33×400		eShop	50	80	M30



37

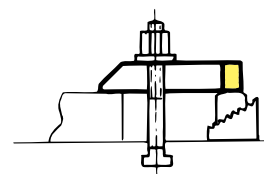
Forked clamp tapered

Material:

37 1600 – Quenched and tempered steel, painted.

37 1605 – Hardened, black.

Slot width×overall length	35A 37 1600 AMF	32H 37 1605 HOLEX	Height		Width		for clamping screws	
	Forked clamp tapered							
mm	DIN 6315 B		37 1600 mm	37 1605 mm	37 1600 mm	37 1605 mm	37 1600	37 1605
7×60	(eShop)	–	12	–	19	–	M6	–
6,6×60	–	eShop	–	12	–	19	–	M6
9×80	eShop	eShop	15	15	25	25	M8	M8
11×100	eShop	eShop	20	24	31	32	M10	M10
14×125	eShop	eShop	25	24	38	40	M12; M14	M12; M14
14×160	eShop	eShop	25	24	38	40	M12; M14	M12; M14
14×200	eShop	eShop	25	24	38	40	M12; M14	M12; M14
18×160	eShop	eShop	30	30	48	48	M16; M18	M16; M18
18×200	eShop	eShop	30	30	48	48	M16; M18	M16; M18
18×250	eShop	eShop	40	38	48	48	M16; M18	M16; M18
22×200	eShop	eShop	40	38	52	52	M20; M22	M20; M22
22×250	eShop	eShop	40	38	62	62	M20; M22	M20; M22
22×315	eShop	eShop	40	38	62	62	M20; M22	M20; M22
25×200	–	eShop	–	38	–	62	–	M24
25×250	–	eShop	–	38	–	62	–	M24
25×315	–	eShop	–	38	–	62	–	M24
26×200	eShop	–	40	–	66	–	M24	–
26×250	eShop	–	40	–	66	–	M24	–
26×315	eShop	–	40	–	66	–	M24	–
33×250	eShop	–	50	–	74	–	M30	–
33×315	eShop	–	50	–	74	–	M30	–
33×400	eShop	–	50	–	74	–	M30	–
40×400	(eShop)	–	60	–	100	–	M36	–
43×600	(eShop)	–	80	–	123	–	M36; M42	–



37 1600



37 1605

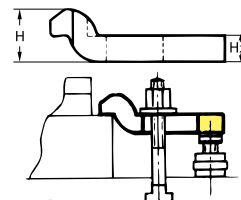
AMF Clamps, cranked – DIN 6316

Material:

Quenched and tempered steel, painted.

Slot width×overall length	35A 37 1800 Clamp, cranked DIN 6316	Height H mm	Height H ₂ mm	Width mm	for clamping screws
mm					
7×60	eShop	20	10	20	M6
9×80	eShop	24	12	25	M8
11×100	eShop	30	15	30	M10
14×125	eShop	40	20	40	M12; M14
18×125	eShop	50	25	50	M16; M18

Slot width×overall length	35A 37 1800 Clamp, cranked DIN 6316	Height H mm	Height H ₂ mm	Width mm	for clamping screws
mm					
18×160	eShop	50	25	50	M16; M18
22×160	eShop	60	30	60	M20; M22
22×200	eShop	60	30	60	M20; M22
26×200	eShop	70	35	70	M24
26×250	eShop	70	35	70	M24



Step clamp

Material:

37 2000 – Quenched and tempered steel.

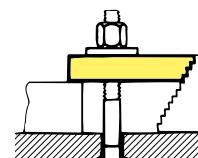
37 2005 – Hardened, black.

Application:

37 2000 – Only in conjunction with universal step blocks No. 372200.

37 2005 – Only in conjunction with universal step blocks No. 372205.

Slot width×overall length	35A 37 2000 AMF	32H 37 2005 HOLEX	Height		Width		for clamping screws	
	Step clamp							
mm	DIN 6314 Z		37 2000 mm	37 2005 mm	37 2000 mm	37 2005 mm		
6,6×50	–	eShop	–	10	–	20	M6	
7×50	eShop	–	10	–	20	–	M6	
9×60	eShop	eShop	12	12	25	25	M8	
11×80	eShop	eShop	15	15	30	30	M10	
11×125	–	eShop	–	15	–	30	M10	
14×100	eShop	eShop	20	19	40	38	M12; M14	
14×150	–	eShop	–	19	–	38	M12; M14	
18×125	eShop	eShop	25	24	50	48	M16; M18	
18×160	–	eShop	–	24	–	48	M16; M18	
22×160	eShop	eShop	30	30	60	60	M20; M22	
26×200	eShop	–	30	–	70	–	M24	



37 2000



37 2005

Universal step blocks

Toothed stepwise. For use in pairs.

Individual blocks can be used in conjunction with clamp No. 372000 or No. 372005.

Material:

37 2200 – Quenched and tempered steel, painted.

37 2205 – Single, black

Type		1	2	3
35A 37 2200	AMF	eShop	eShop	eShop
32H 37 2205	HOLEX	eShop	eShop	eShop
Universal step block single				
Support height (used in pairs)	mm	23 – 51	39 – 107	71 – 208
Height (37 2200)	mm	33	66	131
Height (37 2205)	mm	30	66	117
Length (37 2200)	mm	19	35.5	68
Length (37 2205)	mm	18	38	67
Width (37 2200)	mm		30	
Width (37 2205)	mm	28	31	31

Set of universal step blocks in a wooden case

Toothed stepwise. For use in pairs. Individual blocks can be used in conjunction with clamp No. 372000.

Mounting height 22 to 208 mm.

Material: Quenched and tempered steel, painted.

Supplied with: No. 372200 4 pairs size 1, 4 pairs size 2, 2 pairs size 3, including wooden box.

35A 37 2400	AMF	Set of universal step blocks in a solid wooden case	eShop
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Screw jacks with flat support

Self-locking trapezoidal thread spindle with end stop.

Screw jacks with steel base

37 3500 – Quenched and tempered steel, painted.

Size 200 – Extra heavy version for large workpieces.

37 3505 – Body and spindle hardened, black, thread - trapezoidal.

Note: From size 52 with centring hole Ø 12 mm for jack pads No. 375000 – 375030.

highest support height	mm	50	52	65	70	100	140	200	210	300
35A 37 3500	AMF	eShop	eShop	–	eShop	eShop	eShop	eShop	eShop	eShop
32H 37 3505	HOLEX	–	eShop	eShop	–	eShop	eShop	–	eShop	eShop
lowest support height (37 3500)	mm	38	42	–	50	70	100	140	140	190
lowest support height (37 3505)	mm	–	38	50	–	70	100	–	140	190
Head Ø (37 3500)	mm	31	50	–	50	50	68	80	70	80
Head Ø (37 3505)	mm	–	50	50	–	50	65	–	70	80
Lower part Ø (37 3500)	mm	31	50	–	50	50	68	100	80	100
Lower part Ø (37 3505)	mm	–	50	50	–	50	70	–	80	95
for clamp with slot width	mm	6.6 – 14	14 – 22	14 – 22	14 – 22	14 – 22	20 – 40	20 – 40	20 – 40	20 – 40
Load capacity (37 3500)	kN	25	100	–	100	100	120	350	170	350
Load capacity (37 3505)	kN	–	60	60	–	60	100	–	165	350

Screw jacks with magnetic base

The permanent magnet in the base of the screw jack ensures simple, lasting and precise positioning of the workpiece **on vertical faces**.

Size 88F – Modular version. Height extension up to a maximum of 350 mm, in combination with the spacer ring No. 373555.

Note: With centring hole Ø 12 mm for jack pads No. 375000 - 375010.

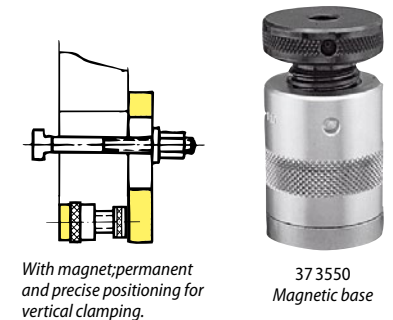
highest support height	mm	62	80	88F	110
35A 37 3550	AMF	eShop	eShop	eShop	eShop
lowest support height	mm	52	60	75	80
Head Ø	mm		50		
Lower part Ø	mm		50		
for clamp with slot width	mm		14 – 22		
Load capacity	kN		30		

Alu spacer ring

For a subsequent increase in height.

Suitable for: Alu screw jack No. 373550 size 88F.

highest support height	mm	12,5	25	50
35A 37 3555	Alu spacer ring	eShop	eShop	eShop
Ø D	mm		50	

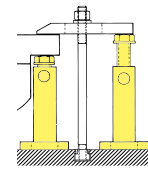


AMF Heavy screw jacks with locking screw

- Spindle quenched and tempered steel; body quenched and tempered steel, painted.
- Spindle with trapezoidal thread.

Note: With centring hole Ø 12 mm for jack pads No. 375000 - 375030.

highest support height	mm	300	460	750	1250
35A 37 4400 Heavy screw jack		eShop	eShop	(eShop)	(eShop)
lowest support height	mm	200	290	430	710
Centre slot spacing	mm	150			
Head size AF	mm	65			
Load capacity	kN	80	60	50	40
Foot length	mm	220			
Foot width	mm	190			
Slot width	mm	26			



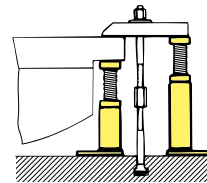
37 4400

AMF Atlas screw jacks with locknut

- Spindle quenched and tempered steel; body grey cast iron.
- Spindle with trapezoidal thread.

Note: With centring hole Ø 12 mm for jack pads No. 375000 - 375030.

highest support height	mm	140	200	320	550
35A 37 4000 Atlas screw jack		eShop	eShop	eShop	eShop
lowest support height	mm	100	140	200	320
Head size AF	mm	46			
Slot width	mm	18	18	22	22
Load capacity	kN	60	60	40	25



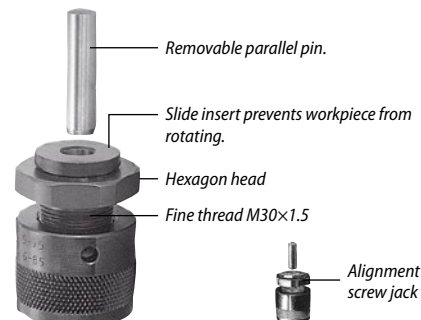
37 4000

AMF Height setting screw jacks

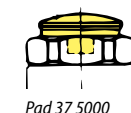
- **For precision alignment** using fine pitch thread M 30×1.5. The fixed slide pad **prevents the component from rotating and moving** during alignment.
- The parallel pins supplied are Ø 12×50 mm and Ø 12×80 mm; they can be inserted in the centring hole, increasing the overall height by 30 or 60 mm.
- If centring jack pad No. 375030 is placed under the screw jack, a **support height of up to approx. 1370 mm can be achieved** in combination with other screw jacks.

Note: Flat component support face with centring hole Ø 12 mm for jack pads No. 375000 – 375030.

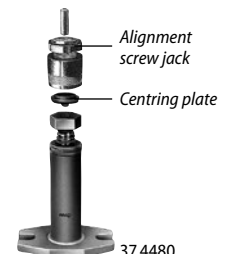
highest support height	mm	75	115
35A 37 4480 Height setting screw jack		eShop	eShop
lowest support height	mm	55	75
Head size AF	mm	46	
Lower part Ø	mm	50	
Load capacity	kN	30	



37 4480



Pad 37 5000



37 4480

Wedge blocks (height wedges)

Very rigid design; spheroidal graphite cast iron and hardened steel. **The ground wedge surfaces provide for precision and even height adjustment** with an accuracy better than 0.1 mm. Either the knurled screw or a hexagon socket wrench can be used for height adjustment. The double action results in a long stroke and precise vertical movement without lateral displacement.

Application: Particularly for working with heavy cast or forged parts on large machine tools after marking-out.

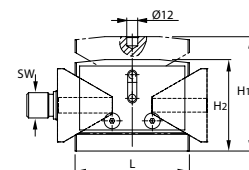
Supplied with: Interchangeable ball jack pad No. 375000.

Note: Flat component support face with centring hole Ø 12 mm for jack pads No. 375000 – 375030.

Ball jack pad



37 4900



Precise alignment (closer than 0.1 mm), even under loads of several tons.



37 4905

highest support height	mm	63	125	190	60	105	155
35A 37 4900 AMF Wedge block "Herkules"		eShop	eShop	(eShop)	—	—	—
32H 37 4905 HOLEX Wedge block		—	—	—	eShop	eShop	eShop
lowest support height	mm	50	100	170	47	80	135
Height adjustment per spindle rotation	mm	0.86	1.16	2.02	9	1.2	2
Load capacity	kN	40	100	250	28	70	175
Footprint length	mm	63	125	175	63	118	140
Footprint width	mm	63	115	145	54	87	125

AMF Jack pads

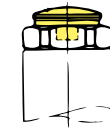
Quenched and tempered steel.

37 5030 – Specially designed as a centring aid for assembling several screw jacks together.
Only for screw jack sizes 52, 70 and 100.

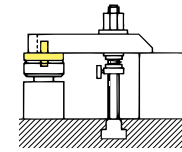
Suitable for: Screw jacks and wedge blocks No. 373500 – 374900.

35A	37 5000	Ball pad		eShop
35A	37 5010	Vee-pad		eShop
External Ø (37 5000)		mm	39	
External Ø (37 5010)		mm	45	

30W	37 5030	Centring pad for positioning screw jacks		eShop
External Ø		mm	45	



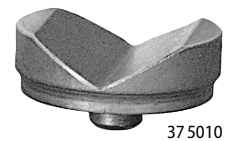
Pad



Fixing attachment



37 5000



37 5010



37 5030

HALDER Our partner for clamping elements

The Hoffmann Group supplies the entire range on short notice ex manufacturer's stock.

Order from the Hoffmann Group simply and conveniently using the HALDER item number.



Machine and fixture parts



Standard components for fixture systems



Groove systems

And much more...

HALDER Frame clamp

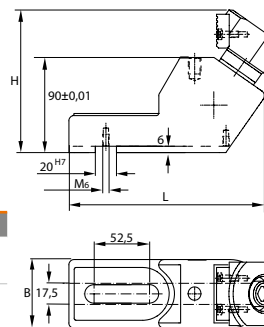
Clamping elements with replaceable jaws.

Advantage:

- Angled arrangement of the movable jaws creates a pull-down effect.
- Solid construction of vibration-damping spheroidal graphite iron (GGG60).
- Optimum compatibility to the workpiece.
- Few interference contours.

Supplied with: 1 pc. interchangeable jaw (serrated / smooth).

Type		1	2
37K	37 0135	Frame clamp	(eShop)
37K	37 0136	Frame stop	(eShop)
Length	mm	185	200
Width	mm		65
Height	mm	135	132
maximum tightening torque	Nm		50
Clamping force	kN		20



37 0135



37 0136

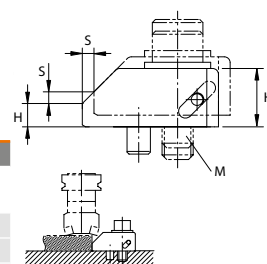
KIPP Toe clamp

Especially low-height and compact design. Pull-down effect due to oblique guidance wedge.

Material: Quenched and tempered steel.

Application: For lateral clamping of particularly flat components directly on the jig insert.

Thread		M8	M12	M16
37K	37 5006	Toe clamp	(eShop)	(eShop)
Width B	mm	25	35	40
Clamping range	mm	3	5	6
Height H	mm	25	38	45
Height H ₁	mm	15	23	25
Clamping force	kN	7	20	40
maximum tightening torque	Nm	25	90	200



37 5006

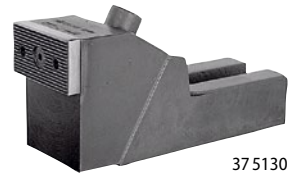
AMF Heavy-duty clamping jaws

Very sturdy, high version with strong pull-down and clamping forces. The angled clamping mechanism ensures that the component is securely clamped down on to the table. The interchangeable jaws are reversible, the smooth side for machined, the serrated side for unmachined components.

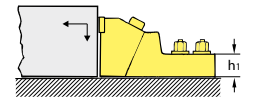
Material: Basic body made of malleable cast iron, jaws case-hardened.

Application: For lateral clamping of high components with high clamping force.

Jaw width	mm	65	75	90
35A 37 5130 Heavy-duty clamping jaw		eShop	eShop	eShop
Maximum height	mm	99	118	145
Minimum height	mm	46	61	89
Slot width	mm	19	26	38
Clamping range	mm	8	11	15
overall length	mm	179	230	265
Width across flats	mm	14	14	17
h_1	mm	38	45	56
for slot width a	mm	12; 14; 16; 18	20; 22; 24; 28; 30	32; 36; 42



37 5130



AMF Flat clamp – Mini-Bulle

Particularly flat design (see table: height above upper table edge). By grinding down the clamp, an even lower clamping height can be achieved and the depth tolerance of the T-slot can be adjusted. The component is firmly pressed against the table due to the wedge effect of the clamp.

Material: Hardened steel, burnished finish.

Application: For lateral clamping of particularly flat components directly on the machine table.

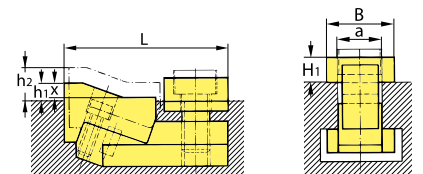
Supplied with: Hexagon key L-wrench ISO 2936 C.

Note: Only supplied in pairs!

Slot width a	mm	12	14	16	18	22
35A 37 5100 Pair of flat clamps Mini-Bulle		eShop	eShop	eShop	eShop	eShop
Length L	mm	52	55	68	71	89
Width B	mm	18	22	25	28	35
Clamping range	mm	1.8	1.8	2.5	2.5	3
Height above upper edge of the table h_1	mm	2.5	1.5	2.5	1.5	4.5
Height above upper edge of the table h_2	mm	13.5	13.5	17	16	21.5
grinding allowance x	mm	5	5	6	6	9
Height H_1	mm	11	11	15	15	20



37 5100



AMF Low height clamping jaws – Bulle

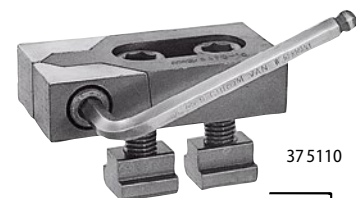
Flat design, no protruding T-bolts. Clamps at any angle to table slot. When the side screw is tightened, the component is securely clamped down on to the table by the wedge effect.

Material: Hardened steel, burnished finish.

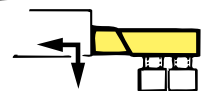
Application: For lateral clamping of flat plates directly on the machine table.

Supplied with: 2 fastening screws, DIN 912, 10.9, T-nuts, and hexagon key L-wrench ISO 2936 C.

Note: Only supplied in pairs!



37 5110



Slot width a	mm	12	14	16	18	20	22	28
35A 37 5110 Pair of low height clamping jaws Bulle with accessories		eShop	eShop	(eShop)	eShop	eShop	eShop	eShop
Length	mm	80	80	100	100	100	140	140
Width	mm	40	40	50	50	50	78	78
Height	mm	20	20	25	25	25	30	30
for clamping screws		M10	M12	M14	M16	M16	M20	M24

AMF Flat clamps

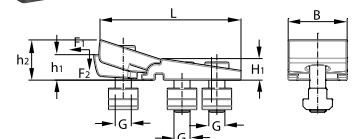
Low design, position the flat clamp on the workpiece. Then tighten the securing screws for the machine table. The workpiece is clamped by turning the clamping screw.

Material: Hardened steel, burnished finish.

Application: For lateral clamping of especially thin components, in order to perform complete machining operations without interference contours. Can be used both horizontally and vertically.



37 5115

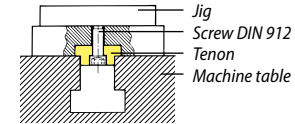
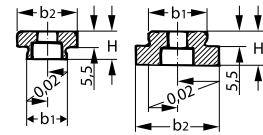
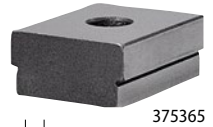


Slot width a	mm	14	16	18	20	22	28
35A 37 5115 Flat clamp		eShop	eShop	eShop	eShop	eShop	(eShop)
G		M12	M12	M16	M16	M20	M20
Clamping force F_1	kN	15	15	25	25	36	36
Clamping force F_2	kN	7.5	7.5	12.5	12.5	18	18
h_1	mm	16	16	19	19	22	22
h_2	mm	25	25	30	30	36	36
H_1	mm	16	16	19	19	22	22
Length L	mm	110	110	130	130	152	152
Width B	mm	44	44	56	56	62	62

AMF High precision tenons for aligning appliances and tools

Precision ground all round, resulting in quick alignment times for appliances, vices etc., which are to be aligned parallel to the table slots of machine tools. A dial indicator is thus no longer required.

Material: Steel C 15, case-hardened.



Stepped fixed tenons for screw attachment

Accuracy: Dimension $b = \text{fit } h6$.

Application: These T-nuts are screwed in pairs into the standard 20 mm-wide tenon slots of jigs. By changing the T-nuts it is possible to work on several machines with different slot widths with one jig each.

Note: Size 20 see No. 375370

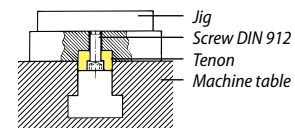
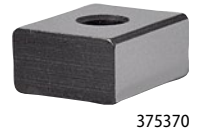
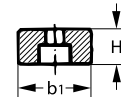
Slot size b_1 of the machine	35A 37 5365	Slot size b_2 of the jig	for screws DIN 84, DIN 912	Length	Height H
	Stepped tenon ground				
mm		mm		mm	mm
10	eShop	20	M6×10	22	10
12	eShop	20	M6×10	22	10
14	eShop	20	M6×16	25	10
16	eShop	20	M6×16	25	10

Slot size b_1 of the machine	35A 37 5365	Slot size b_2 of the jig	for screws DIN 84, DIN 912	Length	Height H
	Stepped tenon ground				
mm		mm		mm	mm
18	eShop	20	M6×16	25	10
22	eShop	20	M6×16	32	12
24	(eShop)	20	M6×16	32	12
28	eShop	20	M6×16	32	12

Flat tenons for screw attachment

Accuracy: Dimension $b = \text{fit } h6$.

Application: Flat tenons are appropriate when a vice is always used on a machine with the same slot width.



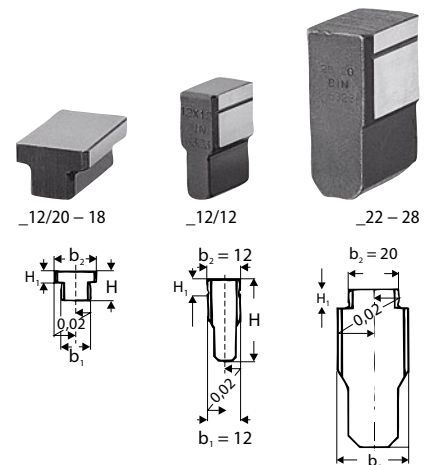
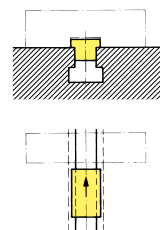
Slot size b_1 of the machine and jig	35A 37 5370	for screws DIN 84, DIN 912	Length	Height H
	Flat tenon ground			
mm			mm	mm
10	eShop	M4×10	20	8
12	eShop	M5×12	20	8
14	eShop	M6×16	22	10
16	eShop	M6×16	22	10

Slot size b_1 of the machine and jig	35A 37 5370	for screws DIN 84, DIN 912	Length	Height H
	Flat tenon ground			
mm			mm	mm
18	eShop	M6×16	22	10
20	eShop	M6×16	22	10
22	eShop	M6×16	32	12
24	(eShop)	M6×16	32	12

Loose tenons for adjustment

Standard: DIN 6323

Application: These loose tenons are inserted sideways into the slots after rough alignment of the fixture. When transporting the fixture, there are then no tenons protruding underneath and the table cannot be damaged. 2 pieces are sufficient per machine, or 4 pieces for a double set-up.



Slot size b_1 of the machine	35A 37 5375	Slot size b_2 of the jig	Height H	Height H_1	Length
	Loose tenon ground for adjustment				
mm		mm	mm	mm	mm
10	(eShop)	12	12	3.6	20
12/12	eShop	12	28.6	5.5	20
12/20	eShop	20	14	5.5	32
14	eShop	20	14	5.5	32
16	eShop	20	14	5.5	32
18	eShop	20	14	5.5	32
22	eShop	20	50.5	7	40
28	eShop	20	61.5	7	40

T-bolts (clamping bolts)

37 5310 – **High-tensile design**, strength class = 12.9.

37 5300/5305/5310 – T-bolt, forged and rolled thread.

37 5300/5305 – **Standard design**, strength class = 10.9 (for M6 – M12) and strength class = 8.8 (for M14 – M24).

37 5301/5306 – T-slot bolt, quenched and tempered, black, strength class 8.8.

Standard: DIN 787

Supplied with:

37 5300 – **Complete**, with extra-thick washer No. 375340 and tall nut No. 375385.

37 5301 – Complete, with washer No. 375341

37 5305–5310 – **Single**, without nut and washer.

Optional extras:

37 5301/5306 – Washers, see No. 35341 and tall nuts, see No. 375386.

37 5305/5310 – Washers, see No. 375340 and tall nuts, see No. 375385.

Note:

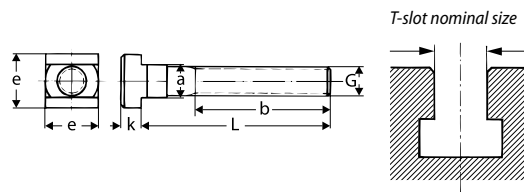
■ **Reading example** – size 6625 means:
T-slot = 6 mm, thread G = M6, length L = 25 mm.



37 5300



37 5305



Type	NEW 35A 37 5300		NEW 35A 37 5305		32H 37 5301		32H 37 5306		35A 37 5310		T-slot nominal size	Thread G	Length L	b		a	e	k
	AMF		HOLEX		AMF													
	Tee bolt (10.9./8.8.)		Tee bolt (8.8.)		Tee bolt (12.9.)		37 5300 37 5305 37 5310		37 5301 37 5306									
	complete	single	complete	single	single	mm	mm	mm	mm	mm				mm				
6625	eShop	(eShop)	—	—	—	6	M6	25	15	—	5.7	10	4					
8832	eShop	eShop	—	—	—	8	M8	32	22	—	7.7	13	6					
8850	eShop	eShop	—	—	—	8	M8	50	35	—	7.7	13	6					
8880	eShop	eShop	—	—	—	8	M8	80	50	—	7.7	13	6					
101040	eShop	eShop	—	—	eShop	10	M10	40	30	—	9.7	15	6					
101063	eShop	eShop	—	—	—	10	M10	63	45	—	9.7	15	6					
101080	eShop	eShop	—	—	eShop	10	M10	80	50	—	9.7	15	6					
1010100	eShop	eShop	—	—	eShop	10	M10	100	60	—	9.7	15	6					
121250	eShop	eShop	eShop	eShop	eShop	12	M12	50	35	30	11.7	18	7					
121280	eShop	eShop	eShop	eShop	eShop	12	M12	80	55	55	11.7	18	7					
1212100	eShop	eShop	—	—	eShop	12	M12	100	65	—	11.7	18	7					
1212125	eShop	eShop	—	—	eShop	12	M12	125	75	—	11.7	18	7					
1212160	eShop	eShop	—	—	eShop	12	M12	160	100	—	11.7	18	7					
1212200	eShop	(eShop)	—	—	eShop	12	M12	200	120	—	11.7	18	7					
141250	eShop	eShop	eShop	eShop	eShop	14	M12	50	35	38	13.7	22	8					
141263	—	—	eShop	eShop	—	14	M12	50	—	35	13.7	22	8					
141280	eShop	eShop	eShop	eShop	eShop	14	M12	80	55	55	13.7	22	8					
1412100	eShop	eShop	—	—	eShop	14	M12	100	65	—	13.7	22	8					
1412125	eShop	eShop	eShop	eShop	eShop	14	M12	125	75	80	13.7	22	8					
1412160	eShop	eShop	—	—	eShop	14	M12	160	100	—	13.7	22	8					
1412200	eShop	eShop	—	—	eShop	14	M12	200	120	—	13.7	22	8					
161463	eShop	eShop	—	—	—	16	M14	63	45	—	15.7	25	9					
161480	eShop	eShop	—	—	—	16	M14	80	55	—	15.7	25	9					
1614100	eShop	eShop	eShop	eShop	—	16	M14	100	65	60	15.7	25	9					
1614125	eShop	eShop	—	—	—	16	M14	125	75	—	15.7	25	9					
1614160	eShop	eShop	eShop	eShop	—	16	M14	160	100	100	15.7	25	9					
1614250	eShop	—	—	—	—	16	M14	250	120	—	15.7	25	9					
161663	eShop	eShop	eShop	eShop	eShop	16	M16	63	45	40	15.7	25	9					
1616100	eShop	eShop	eShop	eShop	eShop	16	M16	100	65	60	15.7	25	9					
1616125	eShop	eShop	—	—	eShop	16	M16	125	85	—	15.7	25	9					
1616160	eShop	eShop	eShop	eShop	eShop	16	M16	160	100	100	15.7	25	9					
1616250	eShop	eShop	—	—	eShop	16	M16	250	150	—	15.7	25	9					
181663	eShop	eShop	—	—	eShop	18	M16	63	45	—	17.7	28	10					
1816100	eShop	eShop	eShop	eShop	eShop	18	M16	100	65	60	17.7	28	10					
1816125	eShop	eShop	—	—	eShop	18	M16	125	85	—	17.7	28	10					
1816130	—	—	eShop	eShop	—	18	M16	160	—	75	17.7	28	10					
1816160	eShop	—	eShop	eShop	eShop	18	M16	160	100	100	17.7	28	10					
1816250	eShop	eShop	—	—	eShop	18	M16	250	150	—	17.7	28	10					
202080	eShop	eShop	—	—	eShop	20	M20	80	55	—	19.7	32	12					
2020115	—	—	eShop	eShop	—	20	M20	80	—	70	19.7	32	12					
2020125	eShop	eShop	—	—	eShop	20	M20	125	85	—	19.7	32	12					
2020150	—	—	eShop	eShop	—	20	M20	125	—	95	19.7	32	12					
2020200	eShop	eShop	—	—	eShop	20	M20	200	125	—	19.7	32	12					
2020210	—	—	eShop	eShop	—	20	M20	200	—	130	19.7	32	12					
2020315	eShop	eShop	—	—	eShop	20	M20	315	190	—	19.7	32	12					
222080	eShop	eShop	—	—	eShop	22	M20	80	55	—	21.7	35	14					

Type	35A 37 5300 AMF	35A 37 5305 AMF	32H 37 5301 HOLEX	32H 37 5306 HOLEX	35A 37 5310 AMF	T-slot nominal size	Thread G	Length L	b	a	e	k
	Tee bolt (10.9. / 8.8.)		Tee bolt (8.8.)		Tee bolt (12.9.)				37 5300 37 5305 37 5310	37 5301 37 5306		
	complete	single	complete	single	single	mm		mm	mm	mm	mm	mm
2220110	—	—	eShop	eShop	—	20	M20	110	—	70	21.7	35
2220125	eShop	eShop	—	—	eShop	22	M20	125	85	—	21.7	35
2220150	—	—	eShop	eShop	—	20	M20	150	—	95	21.7	35
2220200	eShop	eShop	—	—	eShop	22	M20	200	125	—	21.7	35
2220215	—	—	eShop	eShop	—	22	M20	215	—	125	21.7	35
2220315	eShop	eShop	—	—	eShop	22	M20	315	190	—	21.7	35
2424125	—	—	eShop	eShop	—	24	M24	125	—	75	23.7	40
2424150	—	—	eShop	eShop	—	24	M24	150	—	95	23.7	40
2424160	eShop	eShop	—	—	eShop	24	M24	160	110	—	23.7	40
2424210	—	—	eShop	eShop	—	24	M24	210	—	130	23.7	40
2824100	eShop	eShop	—	—	(eShop)	28	M24	100	70	—	27.7	44
2824110	—	—	eShop	eShop	—	28	M24	110	—	65	27.7	44
2824150	—	—	eShop	eShop	—	28	M24	150	—	95	27.7	44
2824160	eShop	eShop	—	—	eShop	28	M24	160	110	—	27.7	44
2824210	—	—	eShop	eShop	—	28	M24	210	—	130	27.7	44
2824250	eShop	eShop	eShop	eShop	eShop	28	M24	250	150	170	27.7	44
2824400	eShop	eShop	—	—	eShop	28	M24	400	240	—	27.7	44
4236250	—	eShop	—	—	—	42	M36	250	175	—	41.6	65

T-nuts

Standard:

37 5315/5320 – DIN 508

Material:

37 5315 – Quenched and tempered steel, strength 10.

37 5316 – Hardened, black.

37 5320 – Quenched and tempered steel, unhardened (= blank, without thread).

Application:

37 5320 – Blanks for production of T-nuts with non-standard threads.

37 5315/5316 – For combination with studs or bolts.

Note: Full load-bearing capacity only when threaded for the **entire** nut length.



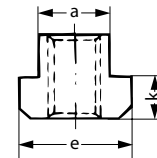
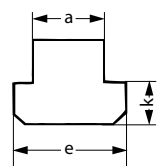
37 5315



37 5320



37 5316



T-slot nominal size	35A 37 5315 AMF	32H 37 5316 HOLEX	35A 37 5320 AMF	Thread	Nut height	Width a	Width e	Height k
	T-nut			37 5315 37 5316				
mm	with thread	with thread	Blank		mm	mm	mm	mm
6	eShop	—	eShop	M5	8	5.7	10	4
8	eShop	eShop	eShop	M6	10	7.7	13	6
10	eShop	eShop	eShop	M8	12	9.7	15	6
12/M8	—	eShop	—	M8	14	11.7	18	7
12	eShop	eShop	eShop	M10	14	11.7	18	7
14/M8	—	eShop	—	M8	16	13.7	22	8
14/M10	—	eShop	—	M10	16	13.7	22	8
14	eShop	eShop	eShop	M12	16	13.7	22	8
16/M12	—	eShop	—	M12	18	15.7	25	9
16	eShop	eShop	eShop	M14	18	15.7	25	9
18/M10	—	eShop	—	M10	20	17.7	28	10
18/M12	—	eShop	—	M12	20	17.7	28	10
18	eShop	eShop	eShop	M16	20	17.7	28	10
20	eShop	—	eShop	M18	24	19.7	32	12
22/M16	—	eShop	—	M16	28	21.7	35	14
22	eShop	eShop	eShop	M20	28	21.7	35	14
24	eShop	—	eShop	M22	32	23.7	40	16
28/M20	—	eShop	—	M20	36	27.7	44	18
28	eShop	eShop	eShop	M24	36	27.7	44	18
32	eShop	—	—	M27	40	31.6	50	20
36	eShop	—	—	M30	44	35.6	54	22



37

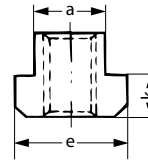
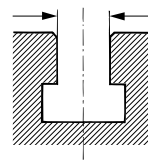
T-nuts, long version

Material:

37 5325 – Quenched and tempered steel, strength 10.

37 5326 – Annealed, black.

Application: Particularly suitable for high precision machines, to protect table slots.



37 5326

T-slot nominal size

T-slot nominal size / thread	37 5325 AMF	37 5326 HOLEX	Thread	Nut height	Width a	Width e	Height k	Length
mm	T-nut long			mm	mm	mm	mm	mm
8/M6	eShop	eShop	M6	10	7.7	13	6	26
10/M8	eShop	eShop	M8	12	9.7	15	6	30
12/M10	eShop	eShop	M10	14	11.7	18	7	36
14/M12	eShop	eShop	M12	16	13.7	22	8	44
16/M14	eShop	–	M14	18	15.7	25	9	50
18/M16	eShop	eShop	M16	20	17.7	28	10	56
20/M18	(eShop)	–	M18	24	19.7	32	12	64
22/M20	eShop	eShop	M20	28	21.7	35	14	70
28/M24	eShop	eShop	M24	36	27.7	44	18	88

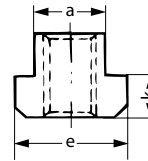
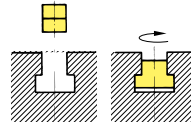
AMF T-nut Rhombus

Material:

Quenched and tempered steel.

Application:

For the insertion of the T-nut from above through the top of the T-slot. (Load capacity lower than No. 375315 due to reduced bearing surface).



37 5330

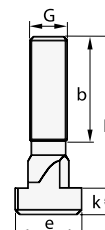
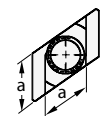
T-slot nominal size / thread	37 5330 Rhombus T-nut	Thread	Nut height	Width e	Width a	Height k
mm			mm	mm	mm	mm
12/M10	eShop	M10	14	18	11.7	7
14/M12	eShop	M12	16	22	13.7	8
16/M14	eShop	M14	18	25	15.7	9
18/M16	eShop	M16	20	28	17.7	10
20/M18	(eShop)	M18	24	32	19.7	12
22/M20	eShop	M20	28	35	21.7	14
28/M24	eShop	M24	36	44	27.7	18
36/M30	eShop	M30	44	54	35.6	22

AMF Rhombus T-bolts

- Forged and milled
- T-slots, rolled thread.
- Hardened to strength class 10.9.

Application: Later insertion of an additional clamping point is made easier on long tables. The T-bolt is inserted into the T-slot from above.

T-slot nominal size × length L	37 5335 Rhombus T-bolt	T-slot nominal size	Thread G	Length L	b	a	e	k
mm		mm		mm	mm	mm	mm	mm
14×50	eShop	14	M12	50	35	13.7	22	8
14×80	eShop	14	M12	80	55	13.7	22	8
14×125	eShop	14	M12	125	75	13.7	22	8
18×63	eShop	18	M16	63	45	17.7	28	10
18×100	eShop	18	M16	100	65	17.7	28	10
18×160	eShop	18	M16	160	100	17.7	28	10
22×80	eShop	22	M20	80	55	21.7	35	14
22×125	eShop	22	M20	125	85	21.7	35	14
22×200	eShop	22	M20	200	120	21.7	35	14
28×125	eShop	28	M24	125	85	27.7	44	18
28×250	eShop	28	M24	250	150	27.7	44	18



37 5335

Washers, extra strong

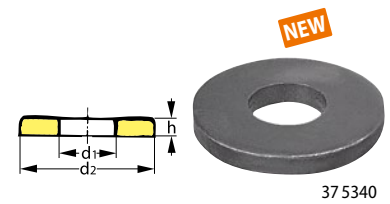
Extra strong, flat-pressed and hardened, edges bevelled.

37 5341 – Hardened, black.

Standard:

37 5340 – **DIN 6340**

Application: Particularly suitable for clamps.
Especially for making jigs and fixtures.



37 5340

for threads		M6	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30	M36
35A	37 5340 AMF Plain washer	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	(eShop)
32H	37 5341 HOLEX Plain washer	eShop	eShop	eShop	eShop	eShop	eShop	–	eShop	–	eShop	–	–	–
Bore $\varnothing d_1$	mm	6.4	8.4	10.5	13	15	17	19	21	23	25	28	31	38
External $\varnothing d_2$	mm	17	23	28	35	40	45	45	50	50	60	68	68	80
Thickness h	mm	3	4	4	5	5	6	6	6	6	8	10	10	10

AMF Spherical seat washers and collared washers

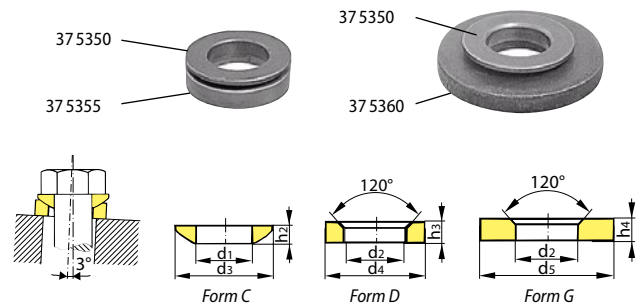
Form C and D case-hardened, form G quenched and tempered.

Standard: **DIN 6319** (form G similar to DIN 6319).

Application: Angular compensation up to 3° when used in sets.

37 5355 – Form D may only be used over holes, so that the washer is in full contact.

37 5360 – Due to its large diameter, form G is suitable even for clamping over the slot of forked clamps.

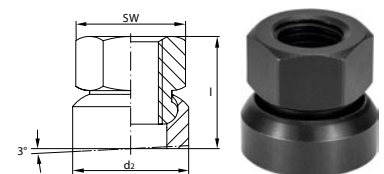


for threads		M8	M10	M12	M14	M16	M20
35A	37 5350 Spherical seat washer Form C	eShop	eShop	eShop	eShop	eShop	eShop
35A	37 5355 Collared washer Form D	eShop	eShop	eShop	eShop	eShop	eShop
35A	37 5360 Collared washer Form G	eShop	eShop	eShop	eShop	eShop	eShop
Bore $\varnothing d_1$ (37 5350)	mm	8.4	10.5	13	15	17	21
Bore $\varnothing d_2$ (37 5355, 37 5360)	mm	9.6	12	14.2	16.5	19	23.2
External $\varnothing d_3$ (37 5350)	mm	17	21	24	28	30	36
External $\varnothing d_4$ (37 5355)	mm	17	21	24	28	30	36
External $\varnothing d_5$ (37 5360)	mm	24	30	36	40	44	50
Thickness h_2 (37 5350)	mm	3.2	4	4.6	5	5.3	6.3
Thickness h_3 (37 5355)	mm	3.5	4.2	5	5.6	6.2	7.5
Thickness h_4 (37 5360)	mm	5	5	6	6	7	8

HALDER Collar nuts with conical seat

Material: Through-hardened steel, strength 10.

Note: Hexagon nut with enlarged seating area available on request.



Threads	37K	37 5384	Overall length	AF	$\varnothing d_2$
		Collar nut with conical seat			
			mm	mm	mm
M8		eShop	14	13	17
M10		eShop	17.5	16	21
M12		eShop	21.5	18	24
M16		eShop	28	24	30
M20		eShop	35	30	36
M24		(eShop)	42.5	36	44
M30		(eShop)	56	46	55

Nuts for studs and T-bolts

37 5390 Size M14 – Turned and milled.

37 5385/5386 – **High nut** (= 1.5 d high) with one flat face to rest on plain washer No. 375340 and a convex face for positioning in collared washer No. 375355 D or No. 375360 G.

37 5389/5390 – **Collar nut** (=1.5 d high) DIN 6331, forged.

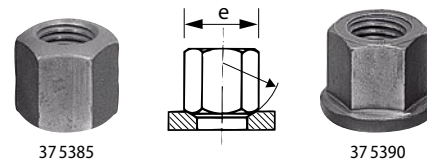
Standard:

37 5385 – **DIN 6330 B**

37 5390 – **DIN 6331**

Material:

37 5385/5390 – Quenched and tempered steel, strength 10.



Thread	NEW		NEW		Overall length	AF	Distance across corners e		Collar Ø	Collar height
	35A	32H	32H	35A						
	37 5385	37 5386	37 5389	37 5390						
	AMF	HOLEX		AMF						
	High nut		Collar nut				37 5385	37 5386 37 5389 37 5390		
					mm	mm	mm	mm	mm	mm
M6	eShop	–	–	–	9	10	11.05	–	–	–
M8	eShop	eShop	eShop	eShop	12	13	14.4	14.38	18	3.5
M10	eShop	eShop	eShop	eShop	15	16	17.77	17.77	22	4
M10/17	–	eShop	–	–	15	17	–	–	22	4
M12	eShop	eShop	eShop	eShop	18	18	20.03	20.03	25	4
M12/19	–	eShop	–	–	18	19	–	–	25	4
M14	eShop	eShop	eShop	eShop	21	21	23.36	23.36	28	4.5
M16	eShop	eShop	eShop	eShop	24	24	26.75	26.75	31	5
M18	eShop	–	–	eShop	27	27	30.14	30.14	34	5
M20	eShop	eShop	eShop	eShop	30	30	33.53	33.53	37	6
M24	eShop	eShop	eShop	eShop	36	36	39.98	39.98	45	6
M30	(eShop)	–	–	eShop	45	46	51.28	51.28	58	8

Two-part threaded nuts TWINNUT

Two-part threaded nut for quick assembly applications.

Tightening capability equal to standard nut of strength class 10.

Nut **with** collar.

Advantage: Quick fitting on to threaded rods that are long, corroded, up to 20° bent or damaged.



Thread	M8	M10	M12	M16	M20
35A 37 5392 AMF TWINNUT nut	eShop	eShop	eShop	eShop	eShop
Overall height mm	12	14	16	21	26



Extension nut

Double length of tall nut No. 375385 (= 3.0 d tall), both ends flat.

Material:

37 5395 – Quenched and tempered steel, strength 10.

37 5396 – Hardened, black.

Application: For connecting together two studs.



Thread	NEW 35A 37 5395 AMF 32H 37 5396 HOLEX		Overall length	AF	Distance across corners e	
	Extension nut				37 5395	37 5396
					mm	mm
M6	eShop	eShop	18	10	11.05	11.05
M8	eShop	eShop	24	13	14.38	14.38
M10	eShop	—	30	16	17.77	—
M10/17	—	eShop	30	17	—	17.77
M12	eShop	eShop	36	18	20.03	20.03
M12/19	—	eShop	36	19	—	20.03
M14	eShop	eShop	42	21	23.36	23.36
M16	eShop	eShop	48	24	26.75	26.75
M18	eShop	eShop	54	27	30.14	30.14
M20	eShop	eShop	60	30	33.53	33.53
M22	eShop	—	66	34	37.72	—
M24	eShop	eShop	72	36	39.89	39.98

Stud bolts (extension bolts)

Rolled thread.

Standard:

37 5380 – DIN 6379

Material:

37 5380 – Heat-treated steel

Strength class:

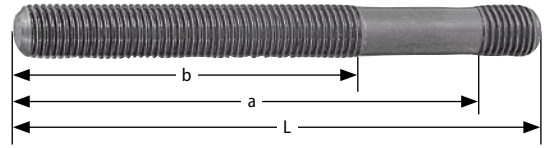
■ M6 – M12 = 10.9

■ M14 – M30 = 8.8

37 5381 – Heat-treatable steel

Strength class: 8.8

Application: For individual combination of T-bolts in conjunction with T-nuts and tenons No. 375315 – 375330, nuts No. 375385 – 378395 and plain washers No. 375340 – 375360.



Thread M × length L	NEW		Length a		Length b	
	35A 37 5380	32H 37 5381				
	AMF	HOLEX	Stud bolt			
			37 5380 mm	37 5381 mm	37 5380 mm	37 5381 mm
M6×32	eShop	—	23	—	16	—
M6×50	eShop	—	41	—	30	—
M6×80	eShop	—	71	—	50	—
M8×40	eShop	eShop	29	29	20	20
M8×63	eShop	eShop	52	52	40	40
M8×100	eShop	eShop	89	89	63	63
M8×160	eShop	—	149	—	100	—
M10×50	eShop	eShop	37	37	25	23
M10×80	eShop	eShop	67	67	50	50
M10×125	eShop	eShop	112	112	75	75
M10×200	eShop	eShop	187	187	125	125
M12×63	eShop	eShop	48	48	32	32
M12×80	eShop	eShop	65	66	50	45
M12×100	eShop	eShop	85	86	63	63
M12×125	eShop	eShop	110	111	75	75
M12×150	—	eShop	—	136	—	95
M12×200	eShop	eShop	185	186	125	125
M14×63	eShop	eShop	46	46	32	32
M14×80	eShop	—	63	—	50	—
M14×100	eShop	eShop	83	83	63	63
M14×125	eShop	—	108	—	75	—
M14×150	—	eShop	—	133	—	95
M14×160	eShop	—	143	—	100	—
M14×250	eShop	—	233	—	160	—
M16×75	—	eShop	—	56	—	45
M16×80	eShop	—	61	—	50	—
M16×100	—	eShop	—	81	—	63
M16×125	eShop	eShop	106	106	75	75
M16×150	—	eShop	—	131	—	95
M16×160	eShop	—	141	—	100	—

Thread M × length L	NEW		Length a		Length b	
	35A 37 5380	32H 37 5381				
	AMF	HOLEX	Stud bolt			
			37 5380 mm	37 5381 mm	37 5380 mm	37 5381 mm
M16×200	—	eShop	—	181	—	125
M16×250	eShop	eShop	231	131	160	160
M16×300	—	eShop	—	281	—	190
M18×80	eShop	—	57	—	50	—
M18×125	eShop	—	102	—	75	—
M18×200	eShop	—	177	—	125	—
M18×315	eShop	—	292	—	180	—
M20×80	eShop	eShop	53	53	32	32
M20×125	eShop	eShop	98	98	70	70
M20×150	—	eShop	—	123	—	95
M20×200	eShop	eShop	173	173	125	125
M20×250	eShop	eShop	223	223	160	160
M20×300	—	eShop	—	273	—	190
M20×315	eShop	—	288	—	200	—
M20×500	eShop	eShop	473	473	315	250
M22×160	eShop	—	129	—	100	—
M22×400	eShop	—	369	—	250	—
M24×100	eShop	—	65	—	45	—
M24×150	—	eShop	—	115	—	95
M24×160	eShop	—	125	—	100	—
M24×200	—	eShop	—	165	—	120
M24×250	eShop	eShop	215	215	160	160
M24×300	—	eShop	—	265	—	190
M24×400	eShop	eShop	365	365	250	250
M24×630	eShop	—	595	—	315	—
M30×200	eShop	—	157	—	125	—
M30×315	eShop	—	272	—	190	—
M30×500	eShop	—	457	—	315	—
M30×700	eShop	—	657	—	400	—

AMF T-bolt set

All parts quenched and tempered.

Strength class 8.8 or 10.

Presented in a sturdy wooden box with hinged lid.

T-slot nominal size / thread	mm	10/M10	12/M12	14/M12	18/M16
35A 37 5400	T-bolt set	eShop	eShop	eShop	eShop
Supplied with: T-bolts No. 375300 DIN 787		4 pcs./63 mm; 4 pcs./100 mm; 2 pcs./40 mm	4 pcs./80 mm; 4 pcs./125 mm; 2 pcs./50 mm	4 pcs./80 mm; 2 pcs./50 mm	4 pcs./100 mm; 2 pcs./63 mm
Studs No. 375380 DIN 6379		4 pcs./50 mm; 4 pcs./80 mm; 4 pcs./200 mm	4 pcs./63 mm; 4 pcs./100 mm; 4 pcs./200 mm	4 pcs./63 mm; 4 pcs./100 mm; 4 pcs./200 mm	4 pcs./80 mm; 4 pcs./125 mm; 4 pcs./160 mm
T-nuts No. 375315 DIN 508		—	—	4 pcs.	4 pcs.
tall nuts No. 375385 DIN 6330 B,				4 pcs.	
Extension nuts No. 375395				4 pcs.	
Plain washers No. 375340 DIN 6340				4 pcs.	
Spherical seat washers and collared washers No. 375350; 375360 DIN 6319 C + G				4 pcs.	



37 5400



37

AMF Clamping elements basic sets

- All parts made of quenched and tempered steel.
- T-slot bolts quenched and tempered, rolled thread.

Application: Ideal for **toolmaking, manufacturing, and training jigs.**

T-slot nominal size / thread	mm	14/M12	16/M14	18/M16
35A 37 5410	Basic assortment of clamping elements	eShop	eShop	eShop
Content:				
Clamps		2 pcs. / 14×100 mm; 2 pcs. / 14×160 mm	2 pcs. / 14×100 mm; 2 pcs. / 14×160 mm	2 pcs. / 18×125 mm; 2 pcs. / 18×200 mm
Clamp blocks		4 pcs. / size 2; 4 pcs. size 3	4 pcs. / size 2; 4 pcs. / size 3	4 pcs. / size 2; 4 pcs. size 3
T-bolts		2 pcs. / M12×14×50 mm; 4 pcs. / M12×14×80 mm; 4 pcs. / M12×14×125 mm	2 pcs. / M14×16×63 mm; 4 pcs. / M14×16×100 mm; 4 pcs. / M14×16×160 mm	2 pcs. / M16×18×63 mm; 4 pcs. / M16×18×80 mm; 4 pcs. / M16×18×160 mm
Studs		2 pcs. size M12×100	2 pcs. size M14×100 mm; 2 pcs. size M14×160 mm	2 pcs. size M16×200 mm; 4 pcs. size M16×125 mm
tall nuts		6 pcs. size M12	6 pcs. size M14	6 pcs. size M16
Washers		6 pcs. size M12	6 pcs. size M14	6 pcs. size M16
Extension nuts		2 pcs. size M12	2 pcs. size M14	4 pcs. size M16



37 5410

T-slot nominal size / thread	mm	14/M12
35A 37 5415	Basic assortment of clamping elements	eShop
Content:		
Clamp		2 pcs. 14×125 mm; 4 pcs. 14×160 mm; 2 pcs. 14×200 mm
Clamp blocks		4 pcs. / size 1; 4 pcs. size 2
T-bolts		4 pcs. / M12×14×100 mm; 4 pcs. / M12×14×160 mm; 4 pcs. / M12×14×200 mm
Screw jacks		2 pcs. size 50; 2 pcs. size 110; 2 pcs. size 140
Nuts		12 pcs. size M12
Washers		12 pcs. size M12



37 5415

HOLEX Clamping sets

Application: Ideal for toolmaking, manufacturing and training jigs.

T-slot nominal size / thread	mm	14/M12	18/M16	22/M20
32X 37 5420	T-bolt set	eShop	eShop	eShop
Content:				
Studs		4 pcs. / M12×80 mm; 4 pcs. / M12×125 mm; 4 pcs. / M12×160 mm	4 pcs. / M16×100 mm; 4 pcs. / M16×125 mm; 4 pcs. / M16×160 mm	4 pcs. / M20×125 mm; 4 pcs. / M20×160 mm; 4 pcs. / M20×200 mm
Nuts for T-slots		8 pcs. size M12×14 mm	8 pcs. size M16×18 mm	8 pcs. size M20×22 mm
Hexagonal nuts		8 pcs. size M12	8 pcs. size M16	8 pcs. size M20
Washers		8 pcs. size M12	8 pcs. size M16	8 pcs. size M20
Extension nuts		2 pcs. size M12	2 pcs. size M16	2 pcs. size M20



37 5420

T-slot nominal size / thread	mm	14/M12	16/M14	18/M16
32H 37 5450	Set of assorted clamping elements	eShop	eShop	eShop
Content:				
Clamping heights at 2 clamping points in mm		150	178	178
Clamping heights at 4 clamping points in mm		115	135	150
Step clamp		2 pcs. size 14×100 mm; 2 pcs. size 14×150 mm	2 pcs. size 14×100 mm; 2 pcs. size 14×150 mm	2 pcs. size 18×125 mm; 2 pcs. size 18×160 mm
Screws for T-slots strength class 8.8		4 pcs. M12×14×50 mm; 4 pcs. M12×14×125 mm	4 pcs. M14×16×100 mm; 4 pcs. M14×16×160 mm	4 pcs. M16×18×100 mm; 4 pcs. M16×18×160 mm
Clamping blocks, serrated L×W×H in mm		4 pcs. size 2 (38x31x66); 4 pcs. size 3 (67x31x117)		
Clamping spindle strength class 8.8 in mm		4 pcs. M12×125	4 pcs. M14×100	4 pcs. M16×125
Hexagonal nut (1.5 d tall)		4 × M12	4 × M14	4 × M16
Washer for clamping tools		4 × M12	4 × M14	4 × M16
Extension nut		4 × M12	4 × M14	4 × M16
Weight in kg		8.5	9.3	12.2
External dimensions of box in mm		275×125×65	213×153×109	236×208×95



37 5450

AMF Sets of assorted clamping elements

Consisting of various clamping elements, which are required for quick clamping of tools, jigs or components to T-slot tables. All parts are made of quenched and tempered steel and can be reordered individually.

Supplied with: Combination spanner, anti-seize compound, wooden case



37 5405

T-slot nominal size / thread	mm	10/M10	12/M12	14/M12	18/M16
35A 37 5405 Assortment of clamping elements		eShop	eShop	eShop	eShop
Clamping height double set up	mm	2 – 230	2 – 270	2 – 270	2 – 270
Clamping height quadruple set up	mm	2 – 140	2 – 160	2 – 160	2 – 160
Supplied with: T-bolts No. 375300 DIN 787		4 pcs./ 63 mm; 4 pcs./ 100 mm; 2 pcs./ 40 mm	4 pcs./ 80 mm; 4 pcs./ 125 mm; 2 pcs./ 50 mm	4 pcs./ 80 mm; 4 pcs./ 125 mm; 2 pcs./ 50 mm	4 pcs./ 100 mm; 4 pcs./ 160 mm; 2 pcs./ 63 mm
Studs No. 375380 DIN 6379		4 pcs./ 80 mm	4 pcs./ 100 mm	4 pcs./ 100 mm	4 pcs./ 125 mm
Step clamp No. 372000 DIN 6314 Z		4 pcs./ 11×80	4 pcs./ 14×100	4 pcs./ 14×100	4 pcs./ 18×125
tall nuts No. 375385 DIN 6330 B				6 pcs.	
Extension nuts No. 375395				4 pcs.	
Universal serrated clamp support block No. 372200		4 pcs./ size 1; 4 pcs./ size 2; 2 pcs./ size 3	4 pcs./ size 2; 4 pcs./ size 3	4 pcs./ size 2; 4 pcs./ size 3	4 pcs./ size 2; 4 pcs./ size 3
Collared washer form G No. 375360 DIN 6319 G				6 pcs.	
Low height clamping jaws No. 375110		4 pcs./ size 12	4 pcs./ size 12	4 pcs./ size 14	4 pcs./ size 18
Spring clamp holder No. 370850		4 pcs./ size 12	4 pcs./ size 12	4 pcs./ size 14	4 pcs./ size 18
T-slot brush No. 375512		–	–	1 pc./ size 1	1 pc./ size 1

AMF Parallel table backstops

With minus tolerance h7, compatible with machine slots with tolerance H8. Height tolerance IT5.

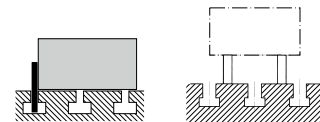
Material: Hardened steel.

Application:

- As backstops in machine table slots.
- As parallel blocks in clamping fixtures. For further parallel blocks see No. 366400 - 366750.



37 5500



T-slot nominal size	mm	8	12	14	16	18	22	28
35A 37 5500 Pair of parallel table backstops		eShop	eShop	eShop	eShop	eShop	eShop	(eShop)
Width tolerance h7	mm	-0.015	-0.018	-0.018	-0.018	-0.018	-0.021	-0.021
Length	mm	100	100	100	160	160	160	160
Height	mm	25	40	50	50	63	80	100
Height tolerance as pairs IT5	mm	0.009	0.011	0.011	0.011	0.013	0.013	0.015

Cover strips for T-slots

Aluminium profile strip, 1 m long.

Application:

- Laborious cleaning of table slots is no longer necessary if empty slots are covered up with cover strips beforehand.
- Cover strips can easily be removed after machining.

Note: Can be cut to the required length using a fine saw blade.



37 5508



37 5510

T-slot nominal size	mm	12	14	16	18	20	22	24	28	36
38F 37 5508  Cover strip for T-slot with discharge holes		–	eShop	eShop	eShop	–	eShop	–	–	–
35A 37 5510  Cover strip for T-slot		eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop

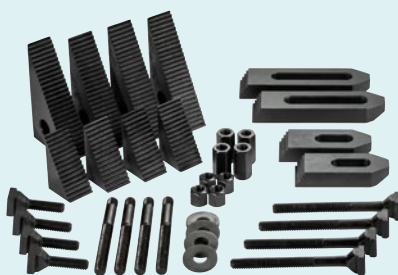
1243

AMF Our partner for standard parts and clamping elements

The Hoffmann Group supplies the entire range* on short notice ex manufacturer's stock.

Order from the Hoffmann Group simply and conveniently using the AMF item number.

See eShop



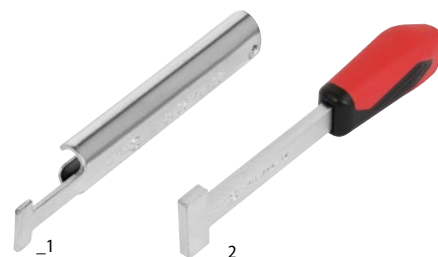
* Excludes zero point clamping technology

AMF T-slot scraper

Sturdy steel tool for clearing T-slots.

Size 2; 3 – with 2-component handle

Type		1	2	3
35A 37 5512	T-slot scraper	eShop	eShop	(eShop)
for T-slot	mm	14 – 20	22 – 32	36 – 54



Garant T-slot brush

- Ergonomically shaped shock-resistant handle with guard.
- Nylon bristles.
- Laterally stabilised bristles.
- 2 in 1: Clearing hook and brush head.
- Sturdy T-slot brush made of steel, 14 mm wide.



Type		1
310 37 5514	T-slot brush	eShop

KOPAL Stop for T-slots

- Workpiece back-stop for clamping using eccentric bolts in T-slots.
- Sturdy version.
- Quick to fit and remove.



T-slot nominal size	mm	12	14	16	18	22
38F 37 5521	Stops for the T-slot table (2-piece set)	eShop	eShop	eShop	eShop	eShop
Width	mm	30	30	40	40	50
Height	mm	34	34	40	40	53

1244

Garant Variable toggle clamps

With horizontal base. Completely black nickel-plated, with solid rivets. Ergonomic 2-component handle. Captive contact screw. Complete with black nickel-plated contact screw.

Advantage: Stepless adjustment function for variations in workpiece heights. Consistently high clamping forces.

Variable clamping heights

automatic height adjustment
up to 35 mm

Adjustable clamping force

up to 3000 N

2-component handle

oil-resistant, ergonomic,
convex form provides finger protection

Captive arrangement on the clamping arm

Black nickel plated

no reflections

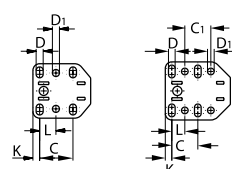
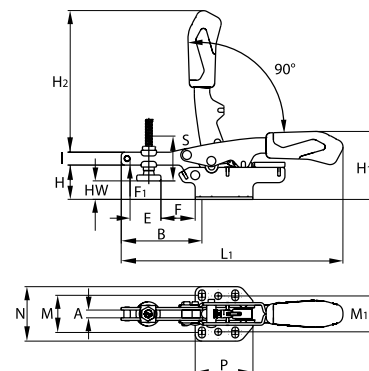
Stainless solid rivets

Contact screw

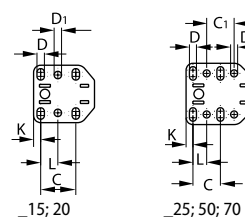
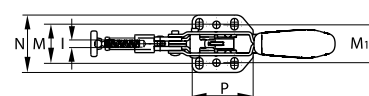
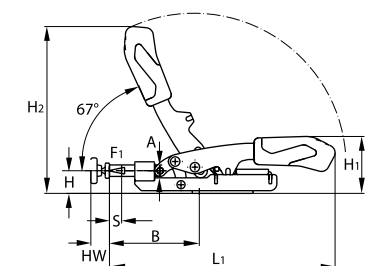
galvanised



37 6400



37 6410



Automatic height adjustment

Type		20	50	70	15	25
37 6400	Horizontal toggle clamp, variable	eShop	eShop	eShop	—	—
37 6410	Push-pull toggle clamp, variable	—	—	—	eShop	eShop
Clamping force	N	2000	3000	3000	2000	3000
automatic height adjustment S	mm	20	35	35	8	13
maximum clamping height	mm	35	40	60	25	35
Contact screw	mm	M6×49	M8×50	M8×66	M6×37	M8×50

Size	A	B	C	C1	D	D1	H	H1	H2	HW min	HW max	I	K	L	L1	M	M1	N	P
15	8.5	52–69	26	—	5.5	5.5	16.8	58	145	13	25	M6	5.3	12.7	177	26–32	28	42.5	45
25	11.8	72–98	25.4	25.4	6.5	6.5	23.2	71	207	16	35	M8	6.3	12.7	256	32–44	38	57	63.5
20	6.1	63	26	—	5.5	5.5	27	70	121	—7	11	10	5.3	12.7	184	26–32	28	42.5	45
50	8.4	104	25.4	25.4	6.5	6.5	23	72	174	—8.9	1.5	13	6.3	12.7	261	32–44	38	57	63.5
70	8.4	104	25.4	25.4	6.5	6.5	41	90	174	—6.6	19.7	13	6.3	12.7	261	32–44	38	57	63.5

Vertical toggle clamp with adjustable contact screw

37 6510 – With vertical base for fixing to ribs and for welded structures.

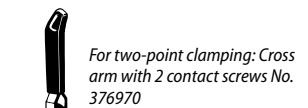
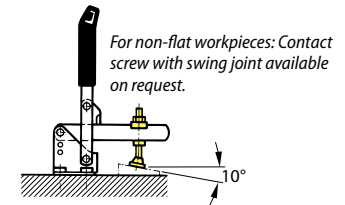
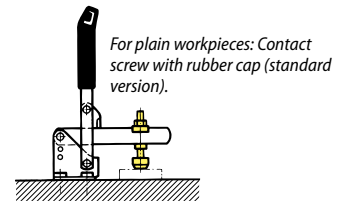
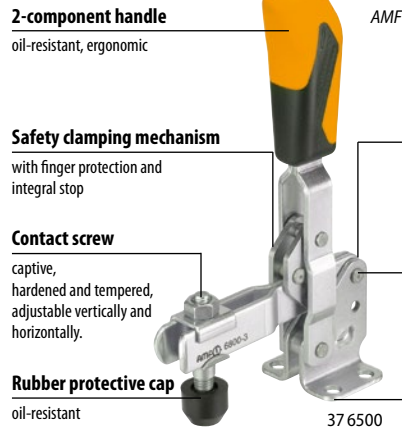
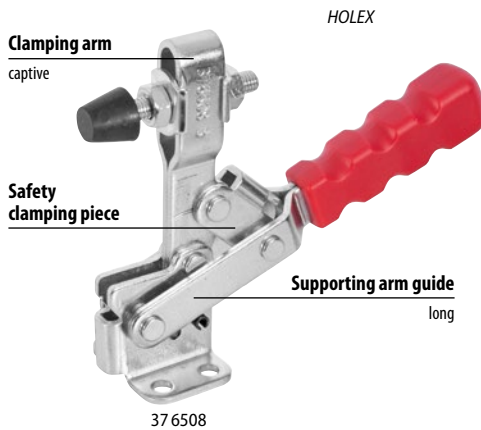
37 6520 – With angled base for side attachment.

37 6500–6508 – With horizontal base for fixing to base plates etc.

37 6500/6505/6510/6520 –

- Compact design due to new handle.
- Ergonomic 2-component handle, very comfortable to use due to enlarged hand rest.
- Captive contact screw.
- Finger protection thanks to safety clamping mechanism no trap points.

Application: For quick clamping and releasing of parts in series production or for installation as part of special clamping jigs. Suitable for clamping during drilling, reaming, grinding, bending, welding, fitting etc.



Type			0	1	2	3	4	5	6
35A 37 6500	AMF	Vertical toggle clamp with horizontal base	eShop	eShop	eShop	eShop	eShop	eShop	eShop
35A 37 6505	AMF	Vertical toggle clamp with horizontal base, stainless	–	eShop	eShop	–	–	–	–
32S 37 6508	HOLEX	Vertical toggle clamp with horizontal base	–	eShop	eShop	eShop	eShop	–	–
Hole spacing e (37 6500, 37 6505)	mm		8.5–13.5	16	20	20	32	45	50.5
Hole spacing e (37 6508)	mm		–	16	12.5	19	32	–	–
Hole spacing f (37 6500, 37 6505)	mm		23	22.5–26	23–31	32.5	43–46.5	45–50	67.5–72.5
Hole spacing f (37 6508)	mm		–	24	27	31.6	45	–	–
Bore Ø d (37 6500, 37 6505)	mm		4.5	4.5	5.5	7.5	8.6	8.5	13
Bore Ø d (37 6508)	mm		–	3	5.2	7.2	8.3	–	–
Clamping height H (37 6500, 37 6505)	mm		18	19	23	33	42.5	55.8	81
Clamping height H (37 6508)	mm		–	19	22.5	32	43	–	–
Clamping force P1 (37 6500, 37 6505)	N		500	600	800	1200	1700	3000	3400
Clamping force P1 (37 6508)	N		–	500	1200	1800	2500	–	–
Clamping force P2 (37 6500, 37 6505)	N		700	1100	1200	2500	3000	5000	5500
Clamping force P2 (37 6508)	N		–	710	1500	2500	3470	–	–
overall height (37 6500, 37 6505)	mm		81	98	140	186	221	281	333
overall height (37 6508)	mm		–	77	140	205	218	–	–
overall length (37 6500, 37 6505)	mm		49	61	78	112	141	195	231
overall length (37 6508)	mm		–	51.5	74.5	90	143	–	–
Contact screw (37 6500, 37 6505)	mm		M4×25	M5×30	M6×35	M8×45	M8×65	M12×80	M12×110
Contact screw (37 6508)	mm		–	M5×30	M6×50	M8×45	M10×89	–	–

Type			1	2	3	4	5
35A 37 6510	AMF	Vertical toggle clamp with vertical base	eShop	eShop	eShop	eShop	eShop
Hole spacing e	mm		16	20	20	32	45
Bore Ø d	mm		4.5	5.5	7.5	8.6	8.5
Clamping height H	mm		23.5 – 25	28.5 – 32	41	55.5	66
Clamping force P1	N		600	800	1200	1700	3000
Clamping force P2	N		1100	1200	2500	3000	5000
overall height	mm		109	144.5	200	244	301
overall length	mm		61	78	112	141	195
Contact screw	mm		M5×30	M6×35	M8×45	M8×65	M12×80

Type			1	2	3	4
35A 37 6520	AMF	Vertical toggle clamp with angled base for side attachment	eShop	eShop	eShop	eShop
Hole spacing e	mm		14	20	24	32
Hole spacing f	mm		20	25.5	28.5	32
Bore Ø d	mm		4.5	6.1	6.5	8.5
Clamping height H	mm		27	35	40	60
Clamping force P1	N		800	1000	1400	2000
Clamping force P2	N		1100	1200	2500	3000
overall height	mm		125	176.5	223	280
overall length	mm		61	77	111	141
Contact screw	mm		M5×30	M6×35	M8×45	M8×65

37 6500

37 6508

37 6510

37 6520

Horizontal toggle clamp

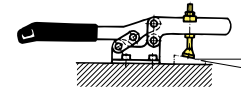
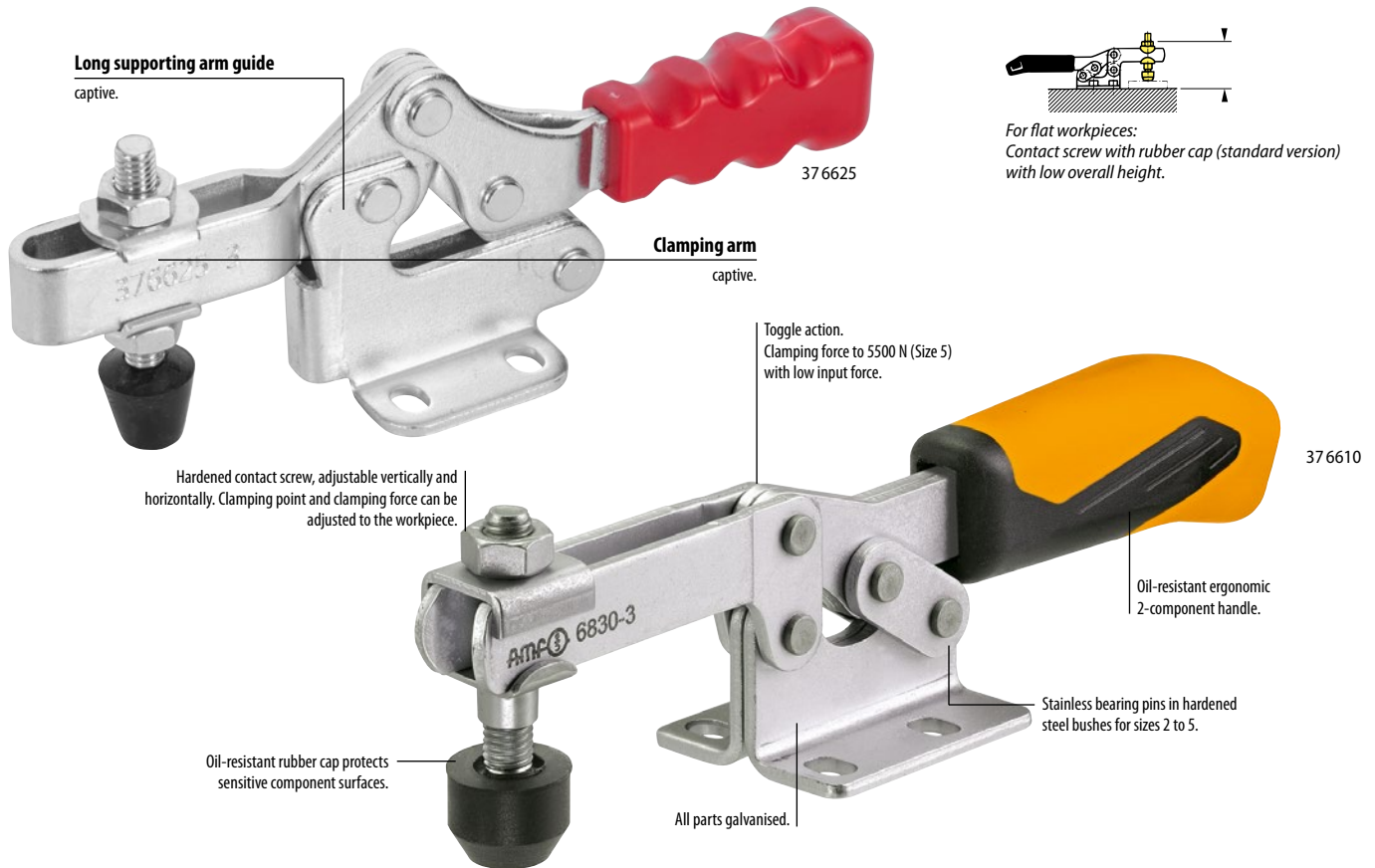
Captive contact screws.

Application: For quick clamping and releasing of parts in series production or for installation as part of special clamping jigs. Suitable for clamping during drilling, reaming, grinding, bending, welding, fitting etc.

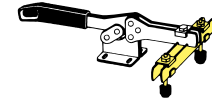
With horizontal base for fixing to base plates etc.

37 6615 – Reinforced version with increased retaining strength

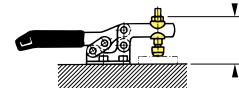
37 6610–6620 – Compact design due to new handle.



For uneven components: contact screw with joint, on request.



For two-point clamping: Cross arm with 2 contact screws No. 376970 can be found in our spare parts list.

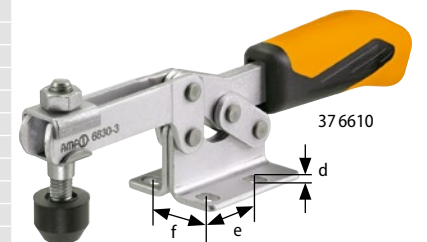


For flat workpieces: Contact screw with rubber cap (standard version) with low overall height.

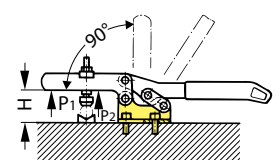
Type		0	1	2	3	4	5
35A 37 6610	Horizontal toggle clamp with horizontal base	eShop	eShop	eShop	eShop	eShop	eShop
35A 37 6615	AMF Horizontal toggle clamp plus, with horizontal base	–	–	eShop	eShop	eShop	–
35A 37 6620	Horizontal toggle clamp with horizontal base, stainless	eShop	eShop	eShop	eShop	–	–
32S 37 6625	HOLEX Horizontal toggle clamp with horizontal base	eShop	eShop	eShop	eShop	eShop	–
Hole spacing e (37 6610, 37 6615, 37 6620)	mm	11.5-15.5	13-14.5	26	25.7	41	41.5
Hole spacing e (37 6625)	mm	11.2	13.5	26	26	41.2	–
Hole spacing f (37 6610, 37 6615, 37 6620)	mm	16	18-21.5	19.5-29.5	22-31.8	29-43	41.5
Hole spacing f (37 6625)	mm	16	19.7	25	31.6	43	–
Bore Ø d (37 6610, 37 6615, 37 6620)	mm	4.6	5.2	5.6	6.5	8.5	8.5
Bore Ø d (37 6625)	mm	4.3	5.2	5.5	6.6	8.8	–
Clamping height H (37 6610, 37 6620)	mm	14.5	19	24	32	45	46
Clamping height H (37 6615)	mm	–	–	28	33.5	41	–
Clamping height H (37 6625)	mm	8	18	24	33	45	–
Clamping force P1 (37 6610, 37 6620)	N	250	800	1000	1800	2000	3000
Clamping force P1 (37 6615)	N	–	–	1600	2500	3500	–
Clamping force P1 (37 6625)	N	230	460	1200	1650	2500	–
Clamping force P2 (37 6610, 37 6620)	N	400	1100	1200	2500	3000	5000
Clamping force P2 (37 6615)	N	–	–	3000	4000	8000	–
Clamping force P2 (37 6625)	N	380	700	1400	2300	3500	–
overall height (37 6610, 37 6620)	mm	23	30	45	48.5	75	73
overall height (37 6615)	mm	–	–	51	58	77	–
overall height (37 6625)	mm	17	38	54	68.5	90	–
overall length (37 6610, 37 6620)	mm	79	120	162	206	287	321
overall length (37 6615)	mm	–	–	224	242	329	–
overall length (37 6625)	mm	77	105	163	190	273	–
Contact screw (37 6610, 37 6620)	mm	M4×25	M5×30	M6×35	M8×45	M8×65	M8×65
Contact screw (37 6615)	mm	–	–	M6×50	M8×58	M10×76	–
Contact screw (37 6625)	mm	M4×20	M5×30	M6×40	M8×50	M10×90	–



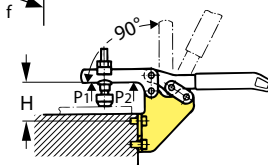
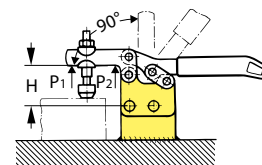
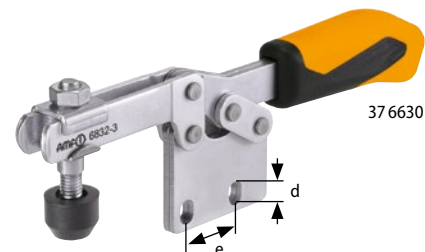
37 6615



37 6610



- Compact design due to new handle.
- Ergonomic 2-component handle, very comfortable to use due to enlarged hand rest.
37 6630 – With vertical base for fixing to ribs and for welded structures.
37 6640 – With angled base for side attachment.



Type		0	1	2	3	4
35A 37 6630	AMFO Horizontal toggle clamp with vertical base	eShop	eShop	eShop	eShop	eShop
Hole spacing e	mm	11.5-15.5	13-14.5	26	25.7	41
Bore Ø d	mm	4.6	5.2	5.6	6.5	8.5
Clamping height H	mm	20	23.5 – 25.5	29.5 – 34	37.5 – 42.5	52 – 59
Clamping force P1	N	250	800	1000	1800	2000
Clamping force P2	N	400	1100	1200	2500	3000
overall height	mm	33	43	61	65	97
overall length	mm	79	120	164	206	287
Contact screw	mm	M4×25	M5×30	M6×35	M8×45	M8×65

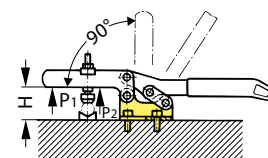
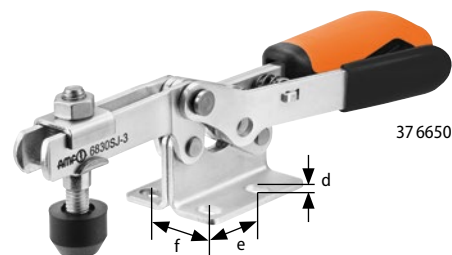
Type		2	3	4
35A 37 6640	AMFO Horizontal toggle clamp with angled base	eShop	eShop	eShop
Hole spacing e	mm	20	24	32
Hole spacing f	mm	25.5	28.5	32
Bore Ø d	mm	5.6	6.8	8.5
Clamping height H	mm	48	40	60
Clamping force P1	N	1000	1800	2000
Clamping force P2	N	1200	2500	3000
overall height	mm	94	86.5	133
overall length	mm	162	206	282
Contact screw	mm	M6×35	M8×45	M8×65

AMFO Horizontal toggle clamp with patented safety-locking mechanism

- Rivet made of stainless steel.
- Case-hardened bearing bushes.
- Bearings greased.
- Complete with hardened and galvanised contact screw.
- More compact design due to new handle.
- Ergonomic 2-component handle, very comfortable to use due to enlarged hand rest.
- Captive contact screws.

Application: Particularly suitable for use where vibrations occur and for overhead applications due to patented safety-locking in closed and open state.

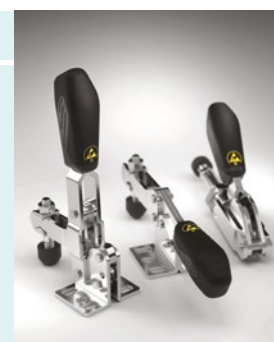
Type		3	4
35A 37 6650	AMFO Horizontal toggle clamp with safety-locking mechanism	eShop	eShop
Hole spacing e	mm	25.7	41
Hole spacing f	mm	22-31.8	29-43
Bore Ø d	mm	6.5	8.5
Clamping height H	mm	32	45
Clamping force P1	N	1800	2000
Clamping force P2	N	2500	3000
overall height	mm	48.5	75
overall length	mm	206	287
Contact screw	mm	M8×45	M8×65



AMFO ESD quick clamp

- Handle and protective cap made from electrostatically dissipative material.
- The quick-action clamps are within the ideal resistance range for a "gentle discharge".
- Maximum protection of electrostatically sensitive components.
- Specially developed for work in ESD protected areas (EPA) – according to the standard DIN EN 61340-5-1.

Complete range of ESD clamps on request.



Push-pull toggle clamp short type

Hardened shoulder screws.

- 37 6700 – ■ Compact design due to new handle.
- Ergonomic 2-component handle, very comfortable to use due to enlarged hand rest.
- 37 6725 – ■ Ergonomic handle made of oil-resistant plastic.

Application: ■ Direct fixing to sheet metal fixing points.
■ Connected to jig body with threaded end of arm.

Optional extras:

- 37 6700 – Angled base No. 376730.
- 37 6725 – Angled base No. 376735.

Note: ■ Available in stainless steel on request.

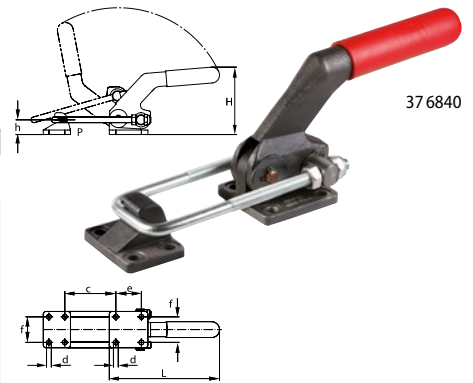


Type		2	3	5
35A 37 6700	AMF Push-pull toggle clamp	eShop	eShop	eShop
32S 37 6725	HOLEX short body	eShop	eShop	—
Clamping range (37 6700)	mm	21.5	40	67
Clamping range (37 6725)	mm	19	38	—
Clamping force P (pressure and traction) (37 6700)	N	1000	2500	4000
Clamping force P (pressure and traction) (37 6725)	N	900	1300	—
Overall height H (37 6700)	mm	73	123	149
Overall height H (37 6725)	mm	74	100	—
Overall length L (37 6700)	mm	161.5	258	364
Overall length L (37 6725)	mm	163	237	—
Contact screw (37 6700)	mm	M6×25	M8×35	M12×50
Contact screw (37 6725)	mm	M6×40	M8×50	—
thread at front of clamp	mm	M16×1.5	M20×1.5	M24×1,5

AMF Hook toggle clamp – heavy-duty version

Base, lever arm, and catch of cast steel, pin of hardened steel. For high retaining force.

Type		4	5
35A 37 6840	Hook toggle clamp heavy-duty	eShop	(eShop)
Hole spacing e	mm	45	57
Hole spacing f	mm	45	57
Bore Ø d	mm	8.5	10.5
Adjustment travel of clamping hook c	mm	24 – 90	28 – 93
Clamping height h	mm	26	32
Clamping force P (traction)	N	15000	27000
Overall height H	mm	122	146
Overall length L	mm	198	250



AMF Contact screws with thread

- Hardened, galvanised, passivated, strength 8.8.
- Vulcanised, oil-resistant contact head (silicone-free).

Application: To protect delicate components.

Type		4×25	5×30	6×25	6×35	8×35	8×45	8×50	8×65	12×50	12×80	12×110
35A 37 7050	Contact screw with threaded shank	eShop	eShop	eShop	eShop	eShop	(eShop)	eShop	eShop	eShop	eShop	eShop
Ø	mm	11	13	16	16	21	21	21	21	31	31	31
Height of contact piece	mm	8	10	12	12	16	16	16	16	24	24	24
Contact screw size	mm	M4×24	M5×28	M6×23	M6×33	M8×32	M8×42	M8×47	M8×62	M12×46	M12×76	M12×106
Overall length	mm	32	38	35	45	48	58	63	78	70	100	130



AMF Protective caps for contact screws

Oil-resistant rubber.

Application: To protect delicate components.

Note: ■ 6/18 = 18 AF (new standard = marked 6 on the contact surface).
■ 6/19 = 19 AF (old standard).
■ Minimum order quantity each size 10 pieces.



Type		0	1	2	3/4	4	6/18	6/19
35A 37 7020	Protective cap	eShop	eShop	eShop	eShop	eShop	eShop	eShop
for screws		M4	M5	M6	M8	M10	M12 / 18 AF	M12 / 19 AF
Ø	mm	11	12.5	15	19	22	25	26
Height	mm	8.5	10	12	15	17.5	20	20



37

Push-pull toggle clamp (push and pull back clamps)

With **compound action**. Opening prevented by self-locking mechanism.

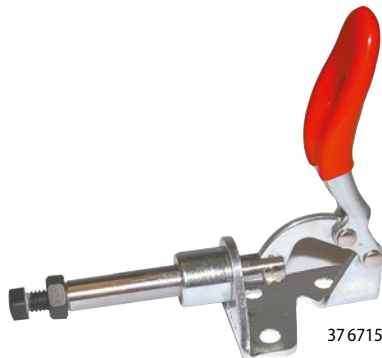
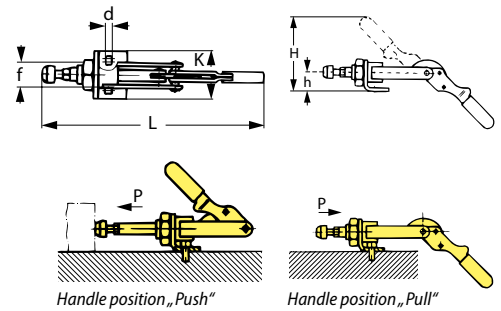
- Rivet made of stainless steel, bearings greased.
- With long push-pull guide.
- Handle can be moved to any angle.
- 37 6710 – ■ With hardened and galvanised contact screw.
- Detachable angled base, permitting fixing to sheet metal walls.

Application: For use in special clamping fixtures for drilling, reaming, grinding, bending, welding, fitting etc.

Optional extras:

37 6710 – Angled base No. 376730.

Note: ■ Size 0 and 3 also available in stainless steel!



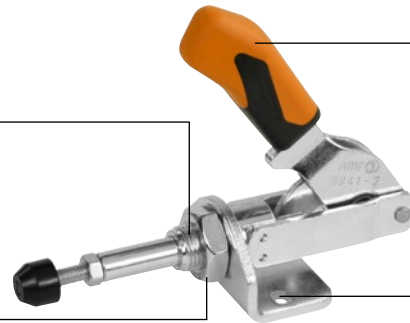
37 6715

Threads

for direct attachment.

Nut

for fixing to sheet metal walls.



37 6710

Handle

can be moved to any angle relative to the clamping surface.

Angled base

removable

Type		0	1	2	3	5
35A 37 6710	AMF Push-pull toggle clamp with angled base	eShop	eShop	eShop	eShop	eShop
32S 37 6715	HOLEX Push-pull toggle clamp with baseplate	eShop	—	—	—	—
Hole spacing f (37 6710)	mm	16	16 – 19.5	31.8 – 36	29.5 – 42.5	29 – 46
Hole spacing f (37 6715)	mm	15.9	—	—	—	—
Angled base width K (37 6710)	mm	25	30	50	60	65
Angled base width K (37 6715)	mm	27	—	—	—	—
Clamping height b to centre of screw (37 6710)	mm	12	15	20	25	30
Clamping height b to centre of screw (37 6715)	mm	12.7	—	—	—	—
Bore Ø d (37 6710)	mm	4.5	4.5	5.6	6.5	8.5
Bore Ø d (37 6715)	mm	4.4	—	—	—	—
Clamping range	mm	16	20	26	32	40
Clamping force P (pressure and traction) (37 6710)	N	800	1000	2000	2500	4500
Clamping force P (pressure and traction) (37 6715)	N	450	—	—	—	—
Overall height H (37 6710)	mm	49.3	60.5	85.5	108	129.5
Overall height H (37 6715)	mm	38	—	—	—	—
Overall length L	mm	140.5	185	244	302.5	379.5
Contact screw	mm	M4×20	M4×20	M6×25	M8×35	M12×50
thread at front of clamp (37 6710)	mm	M10×1	M12×1.5	M16×1.5	M20×1.5	M24×1.5

AMF Heavy-duty push-pull toggle clamps (push and pull back clamps)

- Very sturdy design, with slide-ram guide.
- Slide-ram and hand lever move together.
- Body of malleable cast iron.
- Lever parts and slide ram made of quenched and tempered steel, galvanised and passivated.
- Hardened contact screw.

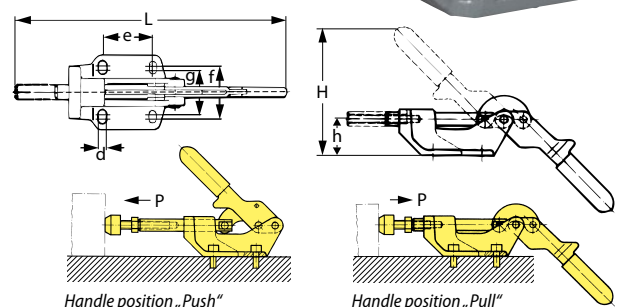
Application:

- For quick clamping / releasing in series production.
- As push or pull clamp.
- For incorporation within special jigs and fixtures.
- Suitable for clamping during drilling, reaming, grinding, bending, welding, fitting etc.



37 6720

Type		3	5	7
35A 37 6720	Heavy push-pull toggle clamp	eShop	eShop	eShop
Hole spacing g	mm	36	41	57
Hole spacing e	mm	41	41	70
Hole spacing f	mm	44	50	65
Clamping height b to centre of screw	mm	30	38	55
Bore Ø d	mm	6.5	8.5	11
Clamping range	mm	32	40	50
Clamping force P (pressure and traction)	N	4000	10000	25000
Overall height H	mm	116	137.5	179
Overall length L	mm	309	380	460
Contact screw	mm	M8×35	M12×50	M12×50

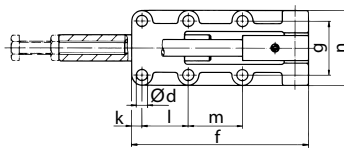


Handle position „Push“

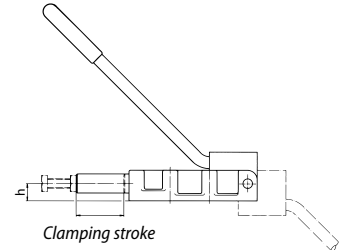
Handle position „Pull“

Push-pull toggle clamp – with removable hand lever

- Hardened bolts, maintenance-free sintered bushes.
- For high clamping forces.
- Body of malleable cast iron, burnished.



Type		4	5	7	8
35A 37 6760	Push-pull toggle clamp with hand lever (can be pulled-out)	eShop	eShop	eShop	eShop
Hole spacing k	mm	25	8	12	14.5
Hole spacing l	mm	36.5	35	45	70
Hole spacing m	mm	–	41	45	70
Hole spacing g	mm	33.4	41	54	60
Base body width n	mm	46	58	78	84
Base body length f	mm	90	135	196	254
Clamping height b to centre of screw	mm	12	18	22	28
Bore Ø d	mm	5.5	8.5	10.3	10.3
Clamping range	mm	32	50	75	106
Clamping force P (pressure and traction)	N	7000	12000	25000	45000
Overall height H	mm	132	210	285	360
Overall length L	mm	155	250	355	440
Contact screw	mm	M8×35	M10×50	M12×50	M16×80
Weight	kg	0.65	1.65	4.28	7.72



AMF Hook toggle clamp (pull back clamps)

- 37 6740 – ■ Quick-action clamp with toggle action.
 ■ Self-locking mechanism prevents inadvertent opening.

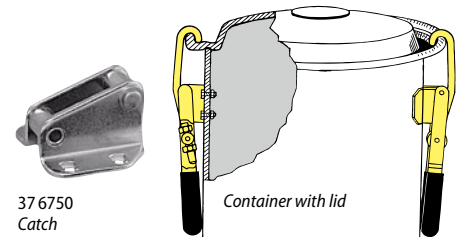
Application:

37 6740 – For closing containers.



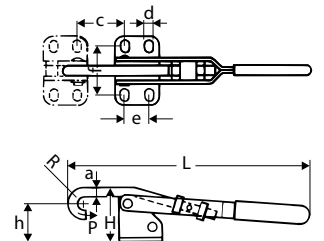
Clamping hook axial adjustment.

Type		1	3	5
35A 37 6740	Hook toggle clamp with clamping hook	eShop	eShop	eShop
35A 37 6750	Catch for No. 37 6740	eShop	eShop	eShop
Hole spacing e	mm	19	19	29
Hole spacing f	mm	25.5 – 30.5	31 – 36	56 – 63.5
Bore Ø d	mm	4.5	5.6	11.2
Adjustment travel of clamping hook c	mm	35 – 42.5	72.5 – 84	58 – 72
Clamping height h (37 6740)	mm	22.7	22.7	49.1
Clamping force P (traction)	N	2000	3000	5000
Overall height H	mm	34.5	36	69
Overall length L (37 6740)	mm	104.6	200.5	260.5
Radius R (37 6740)	mm	4.5	5.5	8
Thickness a (37 6740)	mm	5.3	7.1	10.75
Overall length L (37 6750)	mm	31	40	55
Overall width (37 6750)	mm	40	45	85



37 6750 Catch

Container with lid



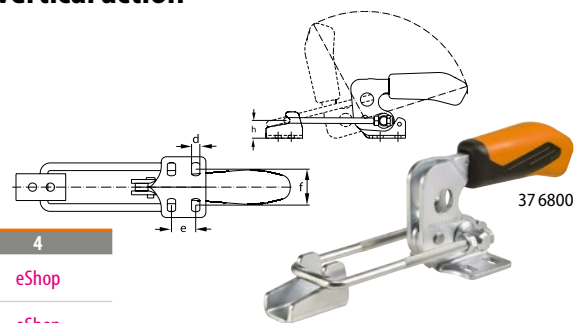
AMF Hook toggle clamp (pull back clamp) – horizontal / vertical action

Complete with catch.

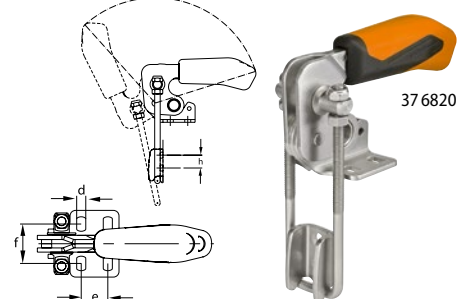
- Quick-action clamp with toggle action.
- Self-locking mechanism prevents inadvertent opening.

Application: For closing containers.

Type		2	3	4
35A 37 6800	Hook toggle clamp horizontal	eShop	eShop	eShop
35A 37 6820	Hook toggle clamp vertical	eShop	eShop	eShop
Hole spacing e	mm	13	19	32
Hole spacing f	mm	19.5 – 23.5	24.5 – 32	35 – 46
Bore Ø d	mm	5.2	6.5	8.5
Adjustment travel of clamping hook c (37 6800)	mm	38 – 72	48.5 – 96	59 – 123
Adjustment travel of clamping hook c (37 6820)	mm	5 – 28	6.5 – 36	9 – 47
Clamping height h	mm	12	19	26
Clamping force P (traction)	N	1600	3200	7000
Overall height H	mm	47	70	94.5
Overall length L (37 6800)	mm	125 – 159	169 – 216	209 – 273
Overall length L (37 6820)	mm	91	125	151



37 6800



37 6820

BESSEY Quick-action table clamp

Steplessly variable, fixed or pivoted. Type BS – the clamping action is released by tightening the clamping handle further then pressing the release lever (clamp then releases easily). Type GRS – the spindle is located away from the head, allowing free access to the work area.

Application: For use on machine tables for fast and reliable clamping and releasing when manufacturing individual parts.

Optional extras: Socket-head screw to DIN 912, T-nuts No. 375315; 375320; 375325 to DIN 508.



Type		BS2N	BS3N	BS5N	GRS20-12
37/B	37 7065 Quick-action table clamp	eShop	eShop	eShop	eShop
Throat	mm	100	120	140	123-140
Clamping height h	mm	200	200	240	200
maximum clamping force at 50mm clamping height	kN	3.5	5.5	10	7.5
Height H	mm	260	260	320	322
Attachment hole Ø	mm	10.5	13	16.5	16.5

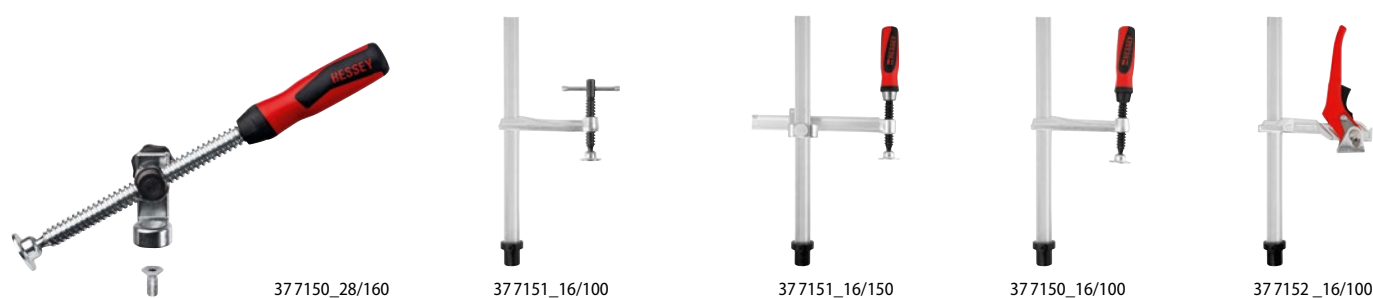
BESSEY Clamping element for welding table

37 7150 Size 28/160 – Applicable only in conjunction with No. 377165.

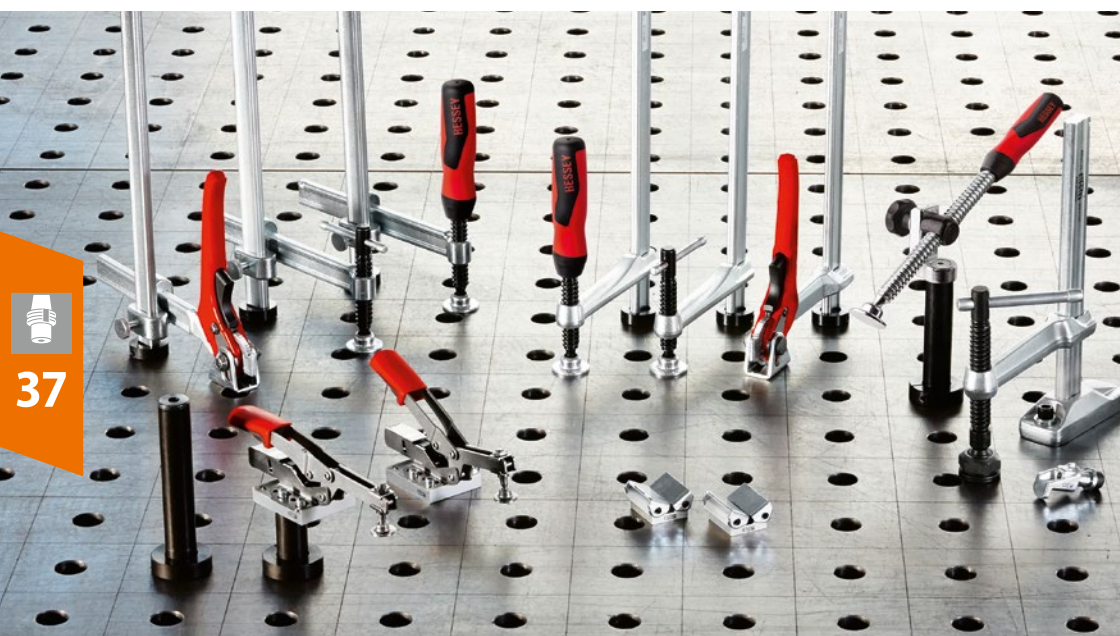
37 7152 – Lever handle with locking mechanism for proportionate and vibration-proof clamping.

Advantage:

- Can be incorporated in to the welding table without using tools.
- Wide variety of uses, and steplessly adjustable.
- Convenient, secure, pin-point individual clamping.



Type		16/100	28/120	28/140	16/150	28/160	28/175
37/B	37 7150 Clamping element 2-component handle	eShop	eShop	eShop	eShop	eShop	eShop
37/B	37 7151 Clamping element Tommy bar	(eShop)	(eShop)	–	eShop	–	eShop
37/B	37 7152 Clamping element Lever handle	eShop	(eShop)	(eShop)	eShop	–	eShop
Hole Ø	mm	16	28	28	16	28	28
Version		rigid	rigid	rigid	variable	can be tilted	variable
Clamping height max.	mm	200	300	300	200	–	300
Throat	mm	100	120	140	30–150	0–160	40–175



Garant Lifting magnet LM

- Manually operated magnets for individual use. Compact, robust design with high-performance neodymium permanent magnets.
- Optimum performance even with large air gaps, no stray fields.
- Certified, individually tested break-away force guarantees 3-fold safety for the user (see test certificate).
- Fully encapsulated compact and lightweight lifting magnet with safety-locking mechanism.
- Solid construction with easy action on/off switch.
- Magnet adhesion surface with 2 longitudinal poles.
- Easy-action lever with safety-locking mechanism.
- High-quality workmanship in timeless GARANT design, in conjunction with well-thought-out features to satisfy user requirements and safety requirements.

Description: Lifting magnets are the ideal solution for safe and efficient handling of ferromagnetic materials. Whether in Production departments, warehouses or construction sites – these powerful tools offer maximum performance and easy handling.

Advantage:

- Impressive lifting capacity, up to several kilogrammes depending on the model.
- Equipped with a sturdy magnet system and a safety-locking mechanism that prevents unintentional release.
- No external power required for permanent magnets – ideal for mobile applications.
- Compact design ensures easy operation and storage.

Application:

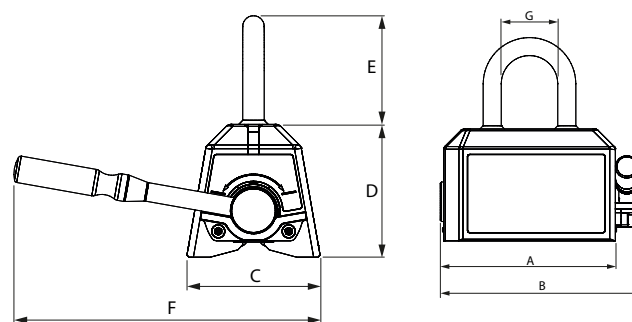
- Loading and unloading of machine tools
- Safe lifting and transportation of flat and round materials up to 1300 kg.
- For steel or cast iron parts, plates, rods or pipes.
- For use in warehouses, foundries / steelworks, storage of steel, tool-making, and production areas.

Note: Air gap < 0.1 mm for steel material! Switch on the load lifting magnet only on magnetic surfaces! The geometry of the workpiece to be lifted should be chosen to suit the safety concept. Test certificate for break-away forces available on request. Annual testing required by law according to DIN EN 13155. Return form available in the eShop.

High power magnetic technology enables compact sizes with higher holding forces than conventional lifting magnets.



38 2030_325



maximum loading capacity (level)	32D	38 2030	maximum Ø round	maximum length flat	maximum width, flat	minimum material wall thickness, flat	minimum material wall thickness, round	A	B	C	D	E	F	G	maximum lifting capacity flat	maximum lifting capacity round	Weight
kg		Lifting magnet LM	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	kg	kg
165		eShop	100	2500	500	2	40	95.1	114	60	69	50	166.2	30	165	70	5
325		eShop	200	2500	1000	4	60	154	178	99.3	99	81	228	50	325	160	9.2
650		eShop	270	2500	1500	6	65	248.3	272.3	117.3	100	81	237	50	650	320	26
1300		eShop	300	3300	1500	10	100	309.5	333.5	147.4	121.5	112	323	64	1300	630	56



MaxX lifting magnet

Application: Quick and easy handling and transport of flat and round materials with 3-fold safety.

Note: Size 125 – With rotating lifting eye.



38 2001_125

maximum loading capacity (level)	38D	38 2001	maximum Ø round	maximum length flat	minimum material wall thickness, flat	minimum material wall thickness, round	maximum lifting capacity flat	maximum lifting capacity round	Weight
kg		MaxX lifting magnet	mm	mm	mm	mm	kg	kg	kg
125		eShop	300	1000	20	10	125	50	3.5
200		eShop	300	1500	20	10	200	100	4.5
300		eShop	300	1500	20	10	300	150	7.5
600		eShop	400	2000	25	15	600	250	18
1000		eShop	450	3000	40	25	1000	400	36
1500		eShop	500	3000	45	30	1500	600	66
2000		eShop	600	3000	55	35	2000	800	80



38



Electro permanent magnet clamping plates

- Innovative and patented monoblock design for maximum stiffness and reliability.
- **Quick attachment of the electrical connections.**
- Threaded sockets of high-tensile material in each pole.
- Sturdy due to monoblock design and use of integral pole plates.

Advantage:

- Vibration-free machining protects the tool and the machine.
- Five-axis machining without interference contours.
- Full exploitation of the machine travel.
- Significant reduction in set-up times.
- Unaffected by power failures.
- Quick and precise plane-parallel milling.
- Uniform clamping force over the entire clamping area.
- Low installed height
- Very high holding forces
- Quick and easy positioning of workpieces.

Application: For use in mould-making, tool-making and machine tool building.

Supplied with: Including ST200FA control unit with 5-pole plug, for controlling a magnetic clamping plate.

Optional extras: Pole extension No. 382010.

Note: **Installation package for actuating multiple electro-permanent magnetic clamping plates available on request!**

The power cable is supplied without any connection plug.

Mains connection 400 V / 50 Hz.

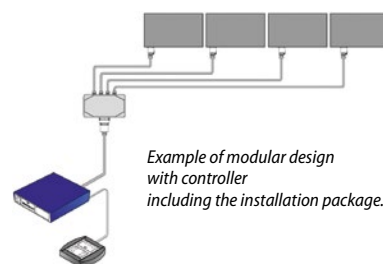


38 2000
UniPower

All sizes
including
ST200FA controller



38 2000



Example of modular design
with controller
including the installation package.

Type		406UP	408UP	508UP	610UP
38D 38 2000	Electro permanent magnet clamping plate UniPower	eShop	(eShop)	eShop	eShop
Length	mm	600	790	790	970
Width	mm	400	400	480	560
Height	mm			51	
Number of poles		24	32	40	60
Pole pitch	mm			62	
Weight	kg	90	115	150	192
maximum clamping force	kN	145	193	241	362

Accessories for electro permanent magnet clamping plates

Suitable for: No. 382000

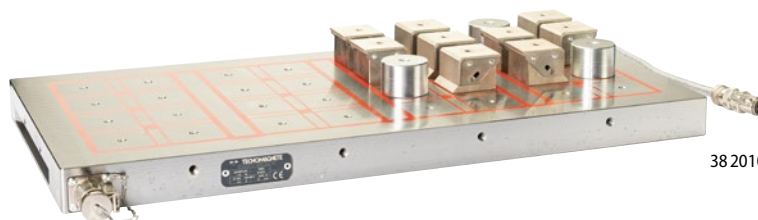
- Advantage:**
- Quick and reliable clamping of uneven parts.
 - Even clamping force over the entire face, without distorting the workpiece.
 - Clamping of distorted fabrications in a very short time.
 - Holes can be bored through the entire workpiece without damaging the magnetic plate.



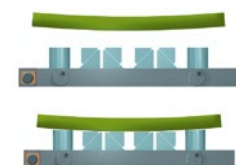
38 2010_PFR



38 2010_PMQ



38 2010



Automatic adaptation
to the workpiece.

Type	38D 38 2010		∅	Length	Width	Height	Version
	Pole extensions for the UniPower electro permanent magnetic clamping plate		mm	mm	mm	mm	
PFR	eShop	1	60	—	—	41	fixed
PMQ	eShop	1	—	60	60	41	movable

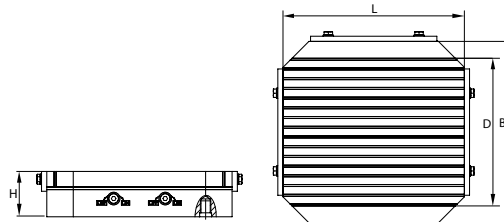
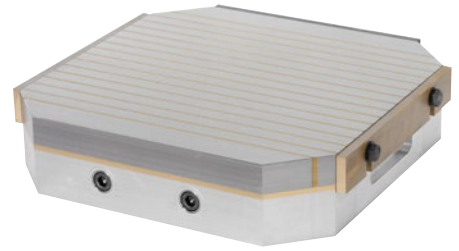
Garant Permanent magnet plate

- Alu casing for mounting on top or for incorporation.
- Stop strips on 3 sides.
- 2 switch points.
- Milled-in grip handle.
- 4 ZeroClamp holes provided at 200 pitch.
- Lamellae made of 3 mm brass / 12 mm steel.

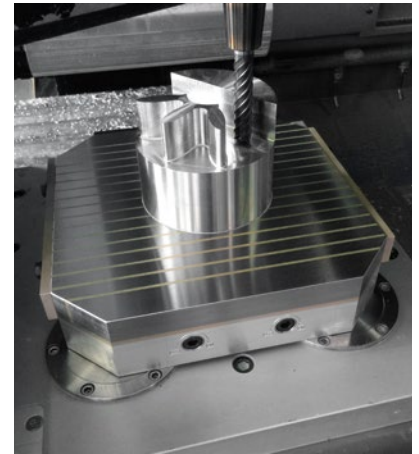
Application: For clamping medium-sized to large workpieces for grinding, milling and spark erosion.

Supplied with: Hexagon socket.

Note: Suitable GARANT ZeroClamp clamping stud 360025 18M16 or 18M16/138.



Length L	mm	280	320
310 38 0040 Permanent magnet, transverse pole pitch		eShop	eShop
Width B	mm	280	320
Height H	mm		68.5
D	mm	220	258
Magnetic field height	mm		6
Grinding allowance in pole area	mm		6
Weight	kg	29	38
Nominal clamping force	N/cm ²		130



[SAV] Permanent magnetic clamping plate with neodymium magnets

- **Neodymium magnet system for strong clamping force.**
- ON-OFF control by hand-operated lever.
- In the OFF state a weak opposing field **assists removal** of the components.
- With longitudinal and transverse stops.
- Lamellae made of 3 mm brass / 12 mm steel.
- Magnetic field without straying, ensuring no magnetisation of tools.

Application: ■ **Suitable for heavy machining** such as roughing.
■ For small, medium, and large components even with rough or uneven surfaces.

Pole area length	mm	250	350	400	500	600
33S 38 0100 Permanent magnetic clamping plate, transverse pole pitch		eShop	eShop	eShop	eShop	(eShop)
Width	mm	150	150	200	200	200
Height	mm	56	56	56	59	59
Height tolerance	mm	+0.5 / -2				
Magnetic field height	mm	12				
Grinding allowance in pole area	mm	5				
Weight	kg	17	24	35	44	52
Nominal clamping force	N/cm ²	150				

- **Neodymium magnet system for strong clamping force.**
- Through transverse pole pitch.
- Uniform clamping force over entire width **and side faces of the pole area.**
- Lamellae made of 0.5 mm brass / 1.4 mm steel.

Application: ■ For grinding and spark erosion machines.
■ **Universal clamping of small and medium-sized components of any thickness.** (Particularly suitable for thin components).
■ Consistent clamping force over entire width **and side faces** guaranteed.

Pole area length		mm	175	255	300	350	450	600
33S	38 0500	Permanent magnetic clamping plate, fine transverse pole pitch	eShop	eShop	eShop	eShop	eShop	(eShop)
	Width	mm	100	130	150	150	150	200
	Height	mm	49	49	51	51	51	51
	Height tolerance	mm	+0.5 / -2					
	Magnetic field height	mm	6					
	Grinding allowance in pole area	mm	8					
	Weight	kg	7	14.5	19.7	23	30	52.4
Nominal clamping force		N/cm²	80					

Primarily for milling!



Primarily suitable for grinding/erosion applications!



38

[SAV] Sine tables with permanent magnetic clamping plate

- **Neodymium magnet system for strong clamping force.**
- With permanent magnetic clamping plate No. 380500.
- Tilting about the longitudinal axis.
- Tilt range 0 – 45°. Angular accuracy ± 5 s. Baseplate thickness at 0° = 3 mm.
- Plane parallelism ± 0.005 / 100 mm.
- Pole pitch 0.5 mm brass / 1.4 mm steel.
- Very high precision combined with extremely low height.

Application: For grinding and spark erosion machines.

Supplied with: Wooden box and sine conversion table from degrees / minutes to mm.

Pole area length	mm	175	255	350
335 38 0700 Sine table with permanent magnetic clamping plate		eShop	eShop	eShop
Width	mm	100	130	150
Baseplate width	mm	115	145	165
Footprint length	mm	215	295	390
Height at 0°	mm	77	77	87
Height tolerance	mm		0 / -2	
Magnetic field height	mm		6	
Grinding allowance in pole area	mm		8	
Weight	kg	10	19	35
Nominal clamping force	N/cm ²		80	



38 0700

[SAV] Circular permanent magnetic chucks

Powerful magnetic system with **neodymium** magnets and low magnetic field height. **Continuously adjustable** magnetic force.

Application: For grinding and turning.

38 0776 – For clamping small and thin to medium workpieces.

38 0777 – For clamping small and thin to large workpieces.

Note: The centre can be bored out to size "J".

Chuck Ø	mm	100	130	150	200	250	300
335 38 0776 Permanent magnetic chuck, with parallel pole pitch		eShop	eShop	eShop	eShop	eShop	eShop
Height	mm	50	50	50	57	57	62
Height tolerance	mm	0 / -1	0 / -1	0 / -1	0 / -1	0 / -1	0 / -1
Pitch circle Ø	mm	85	115	132	154	192	227
Thread Ø		4×M8					
Magnetic field height	mm	8					
Weight	kg	3	5	7	15	20	31
Nominal clamping force	N/cm ²	70	100	100	100	100	100
Grinding allowance in pole area	mm	5					
Centre Ø	mm	60	90	110	150	250	250
Centring hole depth	mm	4	4	4	4	4	4
Parallel pole distribution	mm	1.9					
possible to bore out to centre hole "J"	mm	20×14	20×14	24×5	200×5	250×5	300×5



38 0776

Chuck Ø	mm	160	200	250	300	350
335 38 0777 Permanent magnetic chuck, with parallel pole pitch		eShop	eShop	eShop	eShop	(eShop)
Height	mm	57	57	57	62	62
Height tolerance	mm			0 / -1		
Pitch circle Ø	mm	142	180	232	285	334
Thread Ø		4×M8				
Magnetic field height	mm	10				
Weight	kg	8	13	20	31	43
Nominal clamping force	N/cm ²	100	100	150	150	150
Grinding allowance in pole area	mm	6				
Centre Ø	mm	125	150	200	250	300
Centring hole depth	mm	4	4	4	4	5
Parallel pole distribution	mm	8+3	8+3	12+3	12+3	12+3
possible to bore out to centre hole "J"	mm	15×6	20×6	25×20	25×20	25×20



38 0777

- **Neodymium magnet system for strong clamping force.**
 - Concentric grooves to assist component alignment.
 - Centre is magnetically inactive, so that the plate can be bored through.
- ON-OFF control by hand-operated lever.

Application: ■ For grinding and turning.

■ **Particularly suitable for clamping annular components**, due to radial pole distribution.

■ **For round and annular workpieces**

Chuck Ø	mm	130	150	200	250	300	350	500
335 38 0810 Permanent magnetic circular chuck, with radial pole pitch		eShop	eShop	eShop	eShop	eShop	(eShop)	(eShop)
Height	mm	57	57	57	70	73	73	92
Height tolerance	mm				+0.5 / -2			
Ø non-magnetic core	mm	16	20	28	30	40	40	60
maximum boring-out Ø	mm	20	24	30	50	58	58	58
Pitch circle Ø	mm	100	80 / 120	110 / 180	140 / 220	180 / 260	220 / 300	360 / 440
Thread Ø		4×M6	8×M6	8×M6	8×M6	8×M8	8×M8	8×M8
Weight	kg	5.7	6.5	13	20	30	49	144
Nominal clamping force	N/cm ²	100	100	100	135	150	150	150
Centre Ø	mm	50	50	60	80	150	170	200
Centring hole depth	mm	5	5	5	5	6	6	8



38 0810

[SAV] Permanent magnet clamping blocks with fine pole pitch

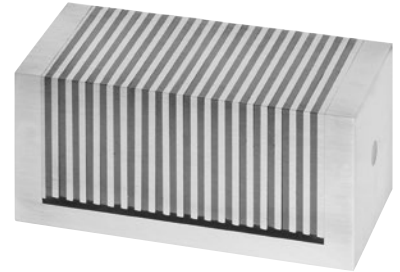
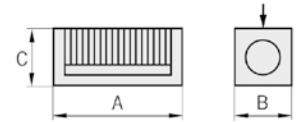
Size MH202; MH202S – Three magnetic clamping faces.

Size MH202S; MH203S – SmCo₅ magnets permit extremely high clamping forces for materials that are difficult to machine.

Size MH203; MH203S – Two magnetic clamping faces.

Application: For profiling and machining small workpieces such as punches etc.

Note: Permanent magnet, not switchable.

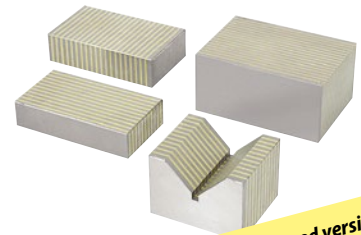


Type		MH202	MH202S	MH203	MH203S
33S 38 0815	Permanent magnet clamping block, with fine pole pitch	eShop	(eShop)	eShop	(eShop)
A	mm	100			
B	mm	50	50	25	25
C	mm	50	50	25	25
Magnetic field height	mm	6			
Grinding allowance in pole area	mm	14	14	6	6
Pole pitch	mm	4			
maximum angular deviation	degrees	5			
Weight	kg	1.7	1.7	0.5	0.5
Nominal clamping force	N/cm ²	80	180	80	180

[SAV] Lamellae pole blocks

- Steel-brass connection.
- Longitudinal and transverse pole pitch. Level or Vee profile.
- Lamellae made of 1 mm brass / 3 mm steel, adhesively bonded without tie rods.
- Lamellae pole blocks are themselves non-magnetic.
- Height tolerance ± 0.5 mm.

Application: ■ For use only in connection with magnetic clamping plates for machining irregularly-shaped components.
■ Pole blocks can be machined to any desired profile.



Improved version – without tie rods

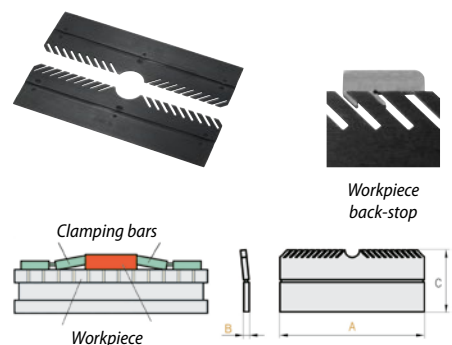
Type		1	2	3	4	5	6	7	8	9	10	11
33S 38 0820	Lamellae pole block (single, non-magnetic)	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop
Length	mm	65	72	75	80	80	90	100	100	100	100	120
Width	mm	60	45	60	60	80	62	50	50	70	70	80
Height	mm	40	22	30	30	50	33	40	40	41	48	50
Version		Vee block	flat	flat	flat	flat	flat	flat	Vee block	flat	flat	flat
Pole alignment		crosswise	crosswise	lengthwise	crosswise	crosswise	lengthwise	lengthwise	lengthwise	crosswise	lengthwise	crosswise
Weight	kg	0.8	0.5	0.7	0.7	2.5	0.8	1.7	1	2.1	2.7	3.8

[SAV] Clamping bars

- Of ferro-magnetic metal.
- Long side with spring strip which when the magnet is switched on presses the workpiece to the mounting (pull-down effect).
- Supplied in pairs.

Application: For reliable clamping of **non-magnetic materials** on magnets.

Supplied with: Supplied with workpiece back-stop (apart from size 4).



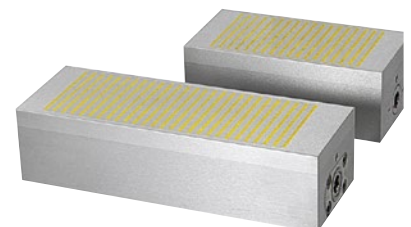
Height B	mm	1	1,6	2,8	3,7	4
33S 38 0825	Clamping bars	eShop	eShop	eShop	eShop	eShop
A	mm	150	150	150	250	100
C	mm	40	43	43	52	45
B	mm	1	1.6	2.8	3.7	4

[SAV] Neodymium magnetic clamping blocks

- **Extremely high clamping force** due to specially developed process.
- Sturdy all-steel body with an ON-OFF switch on the end face.
- Lamellae made of 2 mm brass / 4 mm steel.

Application: ■ For components which are difficult to clamp, such as Ferrotic, carbide with cobalt.
■ For spark erosion and grinding.

Length	mm	140	200
33S 38 0870	Neodymium magnetic clamping block	eShop	eShop
Width	mm	70	
Height	mm	51	
Height tolerance	mm	+0.5 / -2	
Magnetic field height	mm	4	
Weight	kg	3	4.2
Nominal clamping force	N/cm ²	180	



38

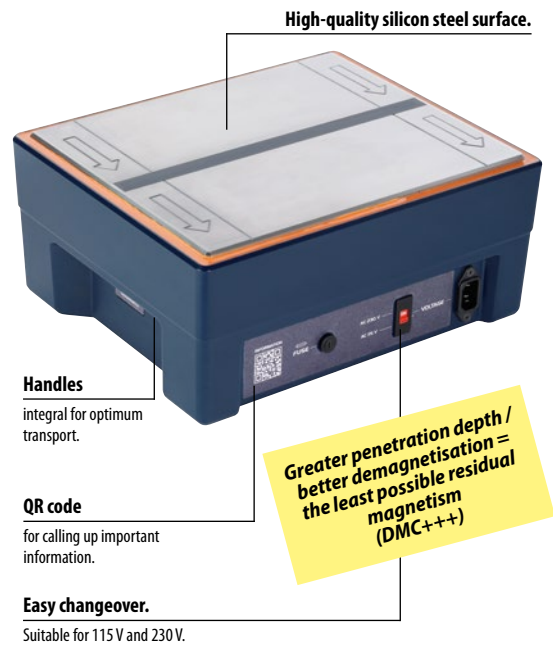
Garant Power demagnetiser DM1

- Pole plate of laminated silicon sheet metal with low inductive eddy current losses.
- **Power supply 230 V / 50 Hz or 115 V / 60 Hz** (selectable).
- Protection class IP21 (fully enclosed device).
- **Duty cycle 100 %** (continuous operation).

Application:

- Demagnetisation by moving component once or more times in the same direction over the pole plate; the component must always be moved over the entire length of the pole plate.
- For demagnetising components after magnetic clamping.
- Sturdy design (die-cast aluminium body) ensures durable use even when roughly handled.

Type		300
310 38 0862	Demagnetiser	eShop
Pole area length	mm	250
Width of pole area	mm	305
Length of the housing	mm	260
Width of housing	mm	315
Height of the housing	mm	137
max. workpiece width	mm	305
Depth of penetration	mm	75
Power consumption	W	990
Weight	kg	36.5
Demagnetisation efficiency class (DMC)		+++



Garant Tesla meter measuring device for measurement of magnetism

- Light and compact design. Housing protected against dirt.
- Automatic measuring range selection. Display either in Tesla or Gauss.
- Static and dynamic measurements.
- Magnetic pole display N/S. Zero setting.

Application: For measuring residual remanence, magnetic flux density and field distribution on magnetic clamping plates.

Supplied with: Supplied with a leather case and 4 × AA batteries.

Note: If wear occurs, the sensor No. 380866 size 1 can easily be reordered and exchanged.

Type		1
310 38 0865	Tesla meter measuring device for measurement of magnetism	eShop
Measurement range for static fields	mT	0 – 1500
Measurement range for dynamic fields	mT	0 – 750
Measuring accuracy		± 5%
Operating temperature	°C	0 – 40



SAV Manual demagnetiser for general-purpose use

- Lightweight casing for easy handling and 3m cable with plug.
- Power supply 230 V / 50 Hz, protection class IP42, power consumption 220 VA.
- Automatic shut-down at > 50 °C. **Duty cycle 30%.**

Application: For demagnetising the surfaces of large workpieces. Mobile use.

Type		HD1	HD2
335 38 0863	Manual demagnetiser	eShop	eShop
Size of the active zone	mm	105×75	150×95
Depth of penetration	mm	30	40
Weight	kg	1.9	2.2
AC supply voltage	V	220; 240	
Mains frequency	Hz	50	
Demagnetisation efficiency class (DMC)		+	



SAV Demagnetiser

- Power supply 230 V / 50 Hz, Index of Protection IP 20, power consumption maximum 920 VA.
- **Duty cycle 100%.**

Application: The demagnetisation devices are suitable for use in inspection rooms, workshops, and on production lines. They very effectively demagnetise bearing rings, punches, dies, and other tools.

Pole area length	mm	250	280	400
335 38 0861	Demagnetiser	eShop	eShop	eShop
Pole area length	mm	250	280	400
Width of pole area	mm	150	220	260
Width	mm	180	266	306
Height	mm	87		
Depth of penetration	mm	50		
Power consumption	W	920		
Weight	kg	11	18	24
Demagnetisation efficiency class (DMC)		++		



Garant Vacuum clamping plates, with Venturi nozzle

Aluminium, steel blue anodised. Operating pressure 3.5 – 8 bar. The final vacuum is approx. 80 mbar (92 % vacuum). Integral noise muffler reduces the noise generation. Height tolerance ± 0.5 mm.

38 4900 Size VR1 – Supplied with 2 ZeroClamp holes, 12M10, pitch 200 mm.

Advantage: **Low-cost entry-level system.** Low maintenance costs. Ready for immediate use.

Size VR1; VS1 – Can quickly and easily be converted to **vacuum pump operation**.

Application: For vacuum clamping **without** a vacuum pump.

Size VRV0; VSV0 – For use on **machine vices**. Especially thin components can be clamped flexibly and with little trouble.

Supplied with: Back-stop discs, compressed air hose $\varnothing 10$ mm (1 m), Venturi nozzle (1 pc.).

38 4900 – Sealing cord $\varnothing 4$ mm (10 m).

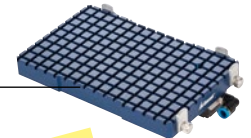
38 4905 – Rubber adapter mat (1x).

Size VR1; VS1 – Hose adaptor (1x), plug LW 12 (1x), stepless adjustable clamps (2x).

Note: When using Venturi nozzles, we advise against machining using coolant emulsion.

Free rake faces

for clamping between two vice jaws

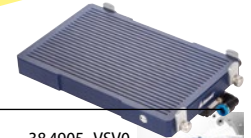


38 4900_VRV0

Vacuum system for vices

Venturi nozzle

on the underside for optimum accessibility

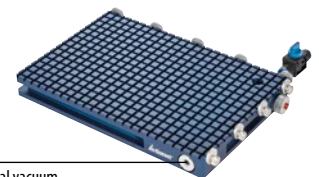


38 4905_VSV0



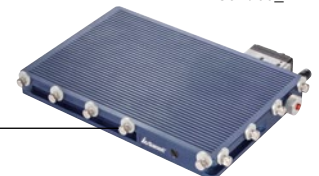
Pressure valve

indicates when the final vacuum has been reached.



38 4900_VR1

Back-stop discs



38 4905_VS1

Type		VRV0	VR1
31E 38 4900	Grid vacuum plate Venturi system	eShop	eShop
Length	mm	200	300
Width	mm	125	200
Height	mm	21	32.5
Intervals	mm	12.5	

Type		VSV0	VS1
31E 38 4905	Slit vacuum plate Venturi system	eShop	eShop
Length	mm	200	300
Width	mm	125	200
Height	mm	21	32.5



Garant Vac-Mat vacuum clamping plates

High-tensile aluminium, steel blue anodised. Supplied with 2 ZeroClamp holes, 12M10, pitch 200 mm.

Supplied with: Hose adaptor (1x), connector (1x), sealing plugs (7x), stepless adjustable clamps (2x), vacuum hose (1 m), VAC-MAT mats orange (10x).

Optional extras: Vacuum creators No. 385010 – 385025.

modular version



38 4910

Modular Vac-Mat plate

Type		V1
31E 38 4910	VAC-MAT vacuum plate	eShop
Length	mm	300
Width	mm	200
Height	mm	30

WITTE Accessories for vacuum plates

Vac-Mat mats

Reusable, depending on the application.

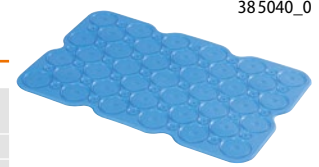
VAC-MAT mats can be used without restriction up to 40 °C.

Size 4 – Black, only for covering unoccupied vacuum fields.

Type		0	1	2	3	4	
38L 38 5040	VAC-MAT mats	eShop	eShop	eShop	eShop	eShop	10
Length	mm	300					
Width	mm	200					
Height	mm	2.5					
Colour		orange	blue	red	green	black	
Hardness		standard	standard	soft	hard	–	



38 5040_0



38 5040_1

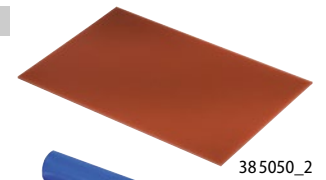


38

Rubber adapter mats for slit plates

- 38 5050 – Size 1-4 – medium coefficient of friction, ideal for drilling through holes, unsuitable for face milling.
 Size 5 – high coefficient of friction and good plane parallelism of 2-3 hundredths.
 38 5051 – Low coefficient of friction, permits face milling, for the best possible plane parallelism.

Type		2	3	4	5
38L 38 5050	Rubber mat / roll for slit plates	eShop	eShop	eShop	eShop
38L 38 5051	Elastomer rubber mat	eShop	eShop	eShop	—
Length	mm	300	400	600	2000
Width	mm	200	300	400	400
Height	mm	3	3	3	1
Version		Mat	Mat	Mat	Roll



Sealing cord for grid plates

- Application:**
- The neoprene sealing cord is laid in the suction groove of the grid plate, to limit the clamping area.
 - The diameter of the sealing cord depends on the cross-section of the groove.

Length×Ø (m×mm)		50×3	50×4
38L 38 5060	Sealing cord for grid plates	eShop	eShop

Other diameters on request.



WITTE Vacuum clamping technology

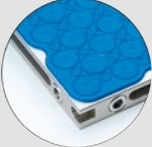
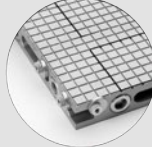
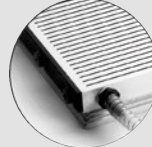


For vacuum clamping, a vacuum is produced under the workpiece to be clamped so that the workpiece is clamped to the clamping plate by the pressure differential. The surface structure, the size of the workpiece, and the pressure differential are crucial for the clamping force / movement resistance force of the workpiece.

Vacuum clamping technology is suitable for milling, grinding, turning, inspecting, spark eroding, measuring, coating, laser cutting, polishing, drilling, deburring, engraving, and assembly.

Advantages of vacuum clamping:

- Clamping of pressure-sensitive workpieces, therefore no damage or distortion to the component.
- Clamping of very thin sheets or films.
- 5-face machining in a single clamping.
- No vibration during machining.
- Reduced clamping times due to quick clamp / quick release process (< 1 second).
- Non-magnetic materials can be clamped.

Patented Vac-Mat system	Modular pitch vacuum plates	Slit Vacuum plate	Grid plates/slit plates Venturi system
			
A wide spectrum of shapes of workpieces can be clamped. Thin soft re-usable plastic mats with elastic lips on the upper face and fine holes in the centre. High clamping forces, clamping faces with high coefficient of friction. Milling of external and internal contours can be performed, yielding precise and clean burr-free cut edges on the workpiece.	For heavy-duty machining of simple-shaped workpieces with rough surfaces. Sealing cords compensate minor surface irregularities and bulges. High clamping forces, universal application, secure clamping of unmachined workpiece surfaces, since the clamping face has a high coefficient of friction.	Clamping is achieved using rubber adapter mats or covering films. These are placed between the workpiece and the vacuum plate. The mat is perforated to match the outline of the workpiece. The outstanding coefficient of friction offers good resistance to the movement forces that arise during machining.	For clamping full-surface components. Ensure the least possible "leakage air" entering the system Vacuum generation is easily performed using the available compressed air. The integral Venturi system requires an operating pressure of 3.5–6 bar. As compressed air accelerates it creates a suction effect (vacuum) within the nozzle. The final vacuum is a pressure of approx. 80 mbar (92% vacuum). The air consumption is 30 – 42 NL/min. Suction volume is approx. 96 l/min.

The selection criterion for vacuum power units and pumps is the size of the clamping area:

Clamping area	< 0.12 m ²	< 0.15 m ²	< 0.5 m ²	< 1.0 m ²	< 2.0 m ²	< 3.0 m ²
Suction power	5 m ³ /h	10 m ³ /h	16 m ³ /h	21 m ³ /h	63 m ³ /h	100 m ³ /h
Available systems for creating vacuum	Vacuum pump	Vacuum pump	Vacuum pump	Vacuum pump	Vacuum pump	Vacuum pump
		Vacuum power unit	Vacuum power unit	Vacuum power unit	Vacuum power unit	Vacuum power unit
				Water ring pump	Water ring pump	Water ring pump

Witte VAC-MAT

Number of mats	Required suction power
1	3 – 6 m ³ /h
≥ 8	16 – 21 m ³ /h
≥ 20	40 – 63 m ³ /h
≥ 50	100 – 160 m ³ /h

WITTE Vacuum creator

- 38 5010 – Vacuum pump (**only for dry machining**).
 38 5020 – Vacuum power unit with vacuum storage and integral liquid separator.
 38 5025 – ■ Cooling lubricant is fed to the operating medium circuit of the water ring pump.
 ■ Surplus liquid is returned to the machine tool.
 ■ No additional liquid separator necessary.

Application: Operation of vacuum clamping plates and systems.

Supplied with: 2 m vacuum hose, 3/2-way manual lever valve with ventilation, vacuum gauge.



Type		VP1	VP2	VP3	VA1	VA2	VA3	VA4	WR1	WR2	WR3
38L 38 5010	Vacuum pump	(eShop)	(eShop)	(eShop)	–	–	–	–	–	–	–
38L 38 5020	Vacuum power unit	–	–	–	(eShop)	(eShop)	(eShop)	(eShop)	–	–	–
38L 38 5025	Water ring pump	–	–	–	–	–	–	–	(eShop)	(eShop)	(eShop)
Length	mm	172	271	306	–	–	–	–	463	515	515
Width	mm	147	258	226	–	–	–	–	432	572	572
Ø	mm	–	–	–	500	500	500	990	–	–	–
Height	mm	143	296	182	630	630	630	1130	602	743	743
Suction power	m³/h	5	10	16	10	16	21	63	25	48	65
Motor voltage	V	230	230	230	230	230	230	400	400	400	400
Motor power	kW	0.25	0.4	0.55	0.37	0.55	0.75	1.5	0.83	1.2	2.4
Weight	kg	8	18	18	25	31	45	95	45.5	57	72

WITTE Vacuum clamping plates

High-tensile aluminium. Can be extended using connectors as part of a modular system.

38 5030 Size R1–R3/5032 Size V1–V3/5037 Size S2; S3 – **Supplied with ZeroClamp holes, 12M10, pitch 200 mm.**

Application: Vacuum clamping of plastic, glass, metals, non-ferrous metals, graphite, and other materials.

Supplied with: 1 hose adapter, 1 connection piece, 7 sealing plugs, 1 plug LW12, 2 clamping claws, vacuum hose (1 m), stop discs.

38 5030 – 10 m sealing cord (Ø 4 mm).

38 5032 – 10 VAC-MAT mats.

38 5037 – 1 rubber adapter mat.

All plates in modular version

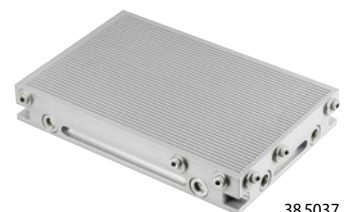
Note: Vacuum clamping plates can be extended using connectors as part of a modular system.



38 5030



38 5032



38 5037

Type		R1	R2	R3
38L 38 5030	Vacuum plate with grid	(eShop)	(eShop)	(eShop)
Length	mm	300	400	600
Width	mm	200	300	400
Height	mm		32.5	
Intervals	mm		12.5	
Weight	kg	5	10	20

Type		V1	V2	V3
38L 38 5032	VAC-MAT vacuum plate	(eShop)	(eShop)	(eShop)
Length	mm	300	400	600
Width	mm	200	300	400
Height	mm		30	
Weight	kg	5	10	20

Type		S1	S2	S3
38L 38 5037	Slit vacuum plate, modular	(eShop)	(eShop)	(eShop)
Length	mm	300	400	600
Width	mm	200	300	400
Height	mm		48	
Weight	kg	8	16	30

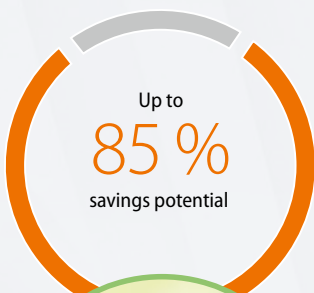


38

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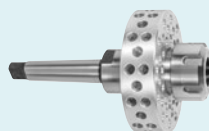
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Coolant systems
Coolant accessories

**1267 –
1272**

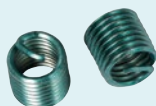


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Handbooks, data calculators

Machining handbook

- 11 0010 – The **machining handbook** is a comprehensive, **2-part** reference book, **consisting of Basics No. 110015** and detailed information for the cutting data **No. 110020**. Here, the ambitious machining professional will find all the important information about materials and their machinability – compact, not favouring any specific manufacturer, and in a clear format.
- 11 0015 – Theoretical basic principles of machining, individually.
- 11 0020 – Cutting data tables for Catalogue 50, single.

Note:

- 11 0015 – The machining theory handbook is also available in the languages Czech, Hungarian and Romanian.
Please contact your Hoffmann representative if you require a copy.



11 0010

Language		DE	EN	DE50	INT50
18A	11 0010	Machining handbook - 2-part	eShop	eShop	–
18A	11 0015	Machining handbook - basics part	eShop	eShop	–
18A	11 0020	Machining handbook - cutting data part	–	–	eShop

Reference books

- 11 0955 – The **Metal workshop tables book** is an indispensable reference source for all metal-working trades. (size DE: German **with** formulary, size EN: English **without** formulary). Mathematical and physical data, materials engineering, construction, manufacturing and control engineering, standard parts, NC programming. DIN A5, more than 400 pages.
- 11 0956 – Like no. 110955 with formulae and digital activation code for download.
- 11 0957 – The tutorial **metalworking reference book** is a reference book for education and training in the machine tool trades. The 8 chapters correspond to the elements of the education and training syllabus. Includes digital activation code for download.

Language		DE	EN
18A	11 0955	Engineer's reference book	eShop
18A	11 0956	Engineer's reference book with digital activation code	–
18A	11 0957	Fachkunde Metall metalworking reference book with digital activation code	–



11 0957

11 0955

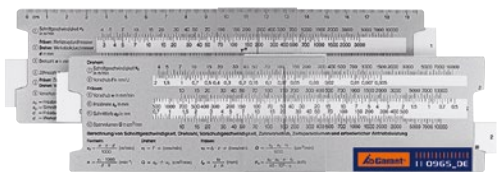
11 0956

Calculation aids, display units

- 11 0960 – **Drilling data calculator** (in the German language) as double-sided calculation disc Ø 130 mm of high quality plastic for determining speeds and feeds in different materials. Gives all individual values (cutting speed, spindle speed, feed rate) together with cycle times.
- 11 0965 – The **speeds and feeds calculator** in German (DE) and English (EN) quickly and easily finds the **correct speeds and feeds for all GARANT milling cutters and lathe tools**: $n = 10 - 30,000$ rpm.
- 11 0966 – **The tolerance slide** quickly and easily determines the upper and lower values of the ISO tolerance bands (up to nominal size 180 mm). The base body is printed on both sides and carries a read-off runner. Of high quality plastic. The **legends are printed in several languages** (German, English, French) for international use.
- 11 0971 – **The Tolerator indicates all tolerance values** according to ISO recommendation R286 – 1962 up to nominal size 500 mm. The legends are printed in **several languages** for international use. The housing protects it from dirt. Size: 110×60×30 mm.
- 11 0972 – **The Filetor indicates the thread name, the range, and all the respective defined sizes.**



11 0960



11 0965



11 0966

18A	11 0960	Garant Drilling data calculator with pocket case	eShop
Language		DE	EN
18A	11 0965	Garant Speeds and feeds calculator	eShop
18A	11 0966	Garant Tolerance slide	eShop
	Length	mm	280
	Width	mm	90
18A	11 0971	Tolerator (ISO tolerance key)	eShop
18A	11 0972	Filetor (thread indicator)	eShop



11 0972

11 0971



±10%

±15%

Garant TQ torque screwdriver with T-handle, fixed, automatic triggering

Torque screwdriver with easy-grip 2-component T-handle. The torque is fixed. Toolholder with permanent magnet.

Standard: Tested to DIN EN ISO 6789.

Function: When the torque is reached the screwdriver triggers **with clearly audible and perceptible signal**. The long-travel indication gives the user an unmistakable signal that the set torque has been reached.

Application: In conjunction with **1/4 inch bits** with **C 6.3** or **E 6.3 shank**, e.g. **Torx Plus® bit No. 674252**. Ideal for precise tightening of indexable inserts to the specified torque.

Note: Supplied **without** bit.



21 1750

set torque	218	21 1750	Torque measuring accuracy	Overall length L	Blade length
		Torque screwdriver, fixed setting			
Nm			%	mm	mm
0,2		eShop	±15	107	50
0,38		eShop	±15	107	50
0,45		eShop	±15	107	50
0,6		eShop	±15	107	50
0,9		eShop	±15	107	50
1,0		eShop	±15	107	50
1,2		eShop	±15	107	50
1,3		eShop	±15	107	50
1,5		eShop	±15	107	50
1,8		eShop	±15	107	50
2,2		eShop	±10	107	50
2,8		eShop	±10	107	50
3,0		eShop	±10	107	50
3,5		eShop	±10	107	50
3,8		eShop	±10	107	50
4,2		eShop	±10	107	50
5,0		eShop	±10	107	50
5,7		eShop	±10	107	50



System cleaner

Micro-bicide system cleaner with anti-corrosive characteristics for maintenance of circulation systems and production systems. Suitable for all steel alloys, non-ferrous alloys and aluminium alloys.

Attention: Use biocidal products carefully. Before use, always read the label and product information.

Note: **Hazardous substance!** Available only in Germany.



08 4340

Contents		10
08 08 4340	Grotanol FF1N system cleaner	—
Version		Can
Contents		10

Cutting compound, cutting oil, cooling lubricant concentrate, and grinding oil

General-purpose lubrication stick solid and cutting compound soft

Cutting compound for spot application. Straightforward application (dip or apply). Adheres to the cutting edge and only becomes liquid in use; very good lubrication properties, very high pressure stability.

08 4120 – Lubrication stick for spot application.

08 4160 – Soft cutting compound.

Application: Multi-purpose compound for **tapping, reaming, milling, broaching, and sawing**. Indispensable when cutting **difficult materials** such as stainless and heat-resistant steels, nickel alloys, titanium, and similar alloys.



08 4120



Chlorine-free,
no hazardous material



08 4160_120



08 4160_750

Contents	g		
		120	750
08 4120	Universal lubrication stick chlorine-free 300 g	—	—
08 4160	High performance cutting compound, chlorine-free	—	—

Cutting oils

08 4205 – Application by brush, spray can, spray bottle or lubrication system.

08 4205–4220 – Cutting oil for the most demanding applications. Recommended for mixing with normal mineral-based cutting oil (but not with water-soluble oils).

08 4210–4225 – Application by brush, spray can, spray bottle or lubrication system.

Application: Multi-purpose for **all machining operations** (turning, milling, drilling, tapping, reaming, broaching and sawing) and also for **forming**. Indispensable when cutting **difficult materials** such as stainless and heat-resistant steels, nickel alloys, titanium, and similar alloys. Ideal for **non-ferrous metals**.

08 4220 – **High viscosity product** based on mineral oil, very well suited for thread tapping, good adherence.

08 4225 – **Strongly clinging cutting oil foam** for spot application to the cutting zone. Contains no sulphur or mineral oils, can be precisely applied, and washed off with water.

08 4205/4210 – **Ideal when minimum lubrication is required**, due to being free of mineral oil.



08 4205_0,25



08 4210_0,5



08 4210_0,3



08 4220_20



08 4225_0,4

Contents		l	0,25	0,3	0,4	0,5	5	20
08 4205	High-performance cutting oil free of mineral oil UV 80		—	—	—	—	—	—
08 4210	High-performance cutting oil chlorine-free Alpha 93		—	—	—	—	—	—
08 4220	High-performance cutting oil high-viscosity, chlorine-free DAR 50 Visco		—	—	—	—	—	—
08 4225	High performance cutting oil foam, chlorine-free		—	—	—	—	—	—
Version			Spray bottle	Spray can	Spray can	Spray bottle	Can	Can

Cooling lubricant and grinding oil concentrate for mixing with water

Cooling lubricant for **demanding applications, free of hydrochlorous acid, formaldehyde and boric acid**. High-pressure additives prevent displacement of the lubricating film; it remains on the cutting tool in molecular concentrations even under the most severe loading.

08 4241 – High performance cooling lubricant concentrate, suitable for **internal coolant supply (ICS)** and high-pressure applications.

08 4242 – **High-performance cooling lubricant concentrate HPC VEG** is a boric-acid-free, water-miscible cooling lubricant with excellent long-term stability, an outstanding rinsing effect and low foaming. **Not a hazardous substance!** (Boron-free and amine-free).

08 4243 – **High-performance cooling lubricant concentrate Plus** is a boron-free and amine-free, water-miscible cooling lubricant containing mineral oil and has been specially formulated for heavy-duty machining on aluminium and high-alloy steels. Non-ferrous metals should only be machined after conducting preliminary tests. Emulsions with **high-performance cooling lubricant concentrate Plus** have a long service life, provide excellent corrosion protection and are particularly skin-friendly. **Shelf life: 12 months.**

08 4244 – **High-performance cooling lubricant concentrate and sawing oil WM** is a general-purpose, water-miscible cooling lubricant which is ideally suited to general machining. **Shelf life: 12 months. Not a hazardous substance!**

08 4270 – High performance **grinding concentrate** transparent for a clear view when grinding a wide variety of materials. **Mixing ratio 1: 40 (2.5%).**

Advantage: Concentrates **protect against rust**, do not attack paintwork, and are **physiologically harmless**, as well as very **resistant to bacterial contamination**, and kind to the skin.

Application:

08 4242/4244 – Suitable for internal coolant supply (ICS) and high-pressure applications.

Note:

08 4241/4270 – Jokisch slide oils and machine bed oils are available on request.



08 4241_5

08 4241_200

Contents		l	5	20	200	Refractometer value
08 4241	High-performance cooling lubricant concentrate and sawing oil CBF		—	—	—	2
08 4242	High-performance cooling lubricant concentrate HPC VEG		—	—	—	1.8
08 4243	High-performance cooling lubricant concentrate Plus		—	—	—	1
08 4244	High-performance cooling lubricant concentrate and sawing oil WM		—	—	—	1.7
08 4270	High-performance grinding oil concentrate		—	—	—	2



08 4242_20

Coolant metal hose system 1/4 and 1/2 inch INOX

08 4410/08 4411 – Flexible coolant hose system made of stainless steel for precise transfer of cooling lubricant and air.
The metal articulated hoses are pre-locked, meaning they reliably hold their position.
Suitable for up to 50 bar pressure.

Type	08 4410	Supplied with:	Type	08 4411	Supplied with:	
	Metal hose system			Metal hose system		
	1/4 inch			1/2 inch		
SET-1	eShop	Complete cable 135 mm Comprising: 1 pc. adapter 1/4 inch 5 pcs. base pieces 25mm 1 pc. round nozzle Ø4mm 1 pc. nut size 1	SET-1	eShop	Complete line 190 mm Comprising: 1x adapter 1/2 inch 6x base pieces 29.5 mm 1x round nozzle Ø 6 mm 1x nut size 2	 08 4411_SET1
SET-2	eShop	Complete cable 165 mm Comprising: 1 pc. adapter 1/4 inch 1x base piece 55 mm 4x base pieces 25 mm 1 pc. round nozzle Ø4mm 1 pc. nut size 1	SET-2	eShop	Complete line 245 mm Comprising: 1x adapter 1/2 inch 1x base piece 59.5 mm 6x base pieces 29.5 mm 1x round nozzle Ø 6 mm 1x nut size 2	 08 4411_SET-2
SET-3	eShop	Complete cable 195 mm Comprising: 1 pc. adapter 1/4 inch 1x base piece 85 mm 4x base pieces 25 mm 1 pc. round nozzle Ø4mm 1 pc. nut size 1	SET-3	eShop	Complete line 275 mm Comprising: 1x adapter 1/2 inch 1x base piece 89.5 mm 6x base pieces 29.5 mm 1x round nozzle Ø 6 mm 1x nut size 2	 08 4411_SET-3
SET-4	eShop	Complete cable 235 mm Comprising: 1 pc. adapter 1/4 inch 1x base piece 125 mm 4x base pieces 25 mm 1 pc. round nozzle Ø4mm 1 pc. nut size 1	SET-4	eShop	Complete line 315 mm Comprising: 1x adapter 1/2 inch 1x base piece 129.5 mm 6x base pieces 29.5 mm 1x round nozzle Ø 6 mm 1x nut size 2	 08 4411_SET-4

Coolant hose system kits

Content:

- Size 1/2 – 6 hose modules
1 pair assembly pliers, plastic
1 Y-piece junctions
1 shut-off valve
1 each flat nozzle 8-hole, 35 mm, 50 mm
1 each round nozzle Ø 6.4 mm, Ø 9.5 mm, Ø 12.7 mm
1 each 3/8 inch and 1/2 inch threaded connection
1 1/2 inch non-return valve
1 case with foam inlay
- Size 1/4 – 6 hose modules
1 pair assembly pliers, plastic
1 Y-piece junctions
1 shut-off valve
1 each flat nozzle 16-hole, 27 mm and 32 mm.
1 each round nozzle Ø 1.6 mm, Ø 3.2 mm, Ø 6.4 mm
1 each 1/4 inch and 1/8 inch threaded connection
1 1/4 inch non-return valve
1 case with foam inlay



08 4430

Internal Ø	in	1/2	1/4
08 4430	Coolant hose system kit including case	eShop	eShop

High pressure nozzles for cooling lubricants

High-pressure nozzle for up to 90 bar High-pressure cooling and pivoting range of 70°, up to 110°. Housing of high quality plastic granules.

- For space-saving insertion in the existing hose system.
- Nozzle with 360° rotation.
- Various pipe lengths.

Application: For retrofitting into the existing system.
Quick cutting when machining at high speeds thanks to high-pressure cooling.



Tube length	mm	1	6	12,5	31
08 4435	High pressure nozzle 1/8 inch external thread	eShop	eShop	eShop	eShop
08 4436	High pressure nozzle 1/4 inch external thread	eShop	eShop	eShop	eShop
Internal Ø nozzle	mm	2			

Flexible coolant hose system 1/4 inch and 1/2 inch

Plastic hose system for coolants and air. Operating pressure up to max. 6 bar, with clamps size CLAMP up to 60 bar.

- **Compatible** with almost all popular systems without adaptors.
 - **Modular plug-in system**, can be combined individually using the assembly pliers.
- 08 4400 – ■ Rate of flow: approx. 15 litres/min. (1/4 inch), largest outer Ø 17 mm.
08 4420 – ■ Rate of flow: approx. 28 litres/min. (1/2 inch), largest outer Ø 26 mm.

Application:

Size CLAMP – For permanent reliable process **fixing** of existing systems **up to 60 bar**.

Note:

08 4420 – 3/8 inch - version available on request.



Type	180	08 4400	Supplied with:	Type	180	08 4420	Supplied with:
		Hose system				Hose system	
		1/4 inch				1/2 inch	
SET	eShop	2 hose modules each 16 cm (= 32 cm); 3 round nozzles internal Ø = 1.6 / 3.2 / 6.4 mm; 1 flat nozzle 27 mm wide; 1 threaded connector 1/8 inch (Ø 9.7 mm); 1 threaded connector 1/4 inch (Ø 13 mm)		SET	eShop	2 hose modules each 15 cm (= 30 cm); 3 round nozzles internal Ø = 6.4 / 9.5 / 12.7 mm; 1 flat nozzle 35 mm wide; 1 threaded connector 3/8 inch (Ø 16.7 mm); 1 threaded connector 1/2 inch (Ø 20.7 mm)	
MODUL	eShop	2 pipe segments each 16 cm (2x10 individual components = 32 cm)		MODUL	eShop	2 pipe segments each 15 cm (2x5 individual components = 30 cm)	
CLAMP	eShop	11 clamps		CLAMP	eShop	11 clamps	
RD	eShop	2 each round nozzles with internal Ø: 1.6 / 3.2 / 6.4 mm		RD	eShop	2 each round nozzles with internal Ø: 6.4 / 9.5 / 12.7 mm	
FD	eShop	1 each flat nozzle 27 mm and 32 mm wide		FD	eShop	1 each flat nozzles 35 + 63 mm wide	
FL27	eShop	2 flat nozzles 27 mm wide		FL35	eShop	2 flat nozzles 35 mm wide	
Y	eShop	2 Y-piece junctions		YR	eShop	2 Y-piece junctions and 2 reducers from 1/2 inch to 1/4 inch	
H	eShop	1 each shut-off valve with and without internal thread		H	eShop	1 each shut-off valve with and without internal thread	
GA	eShop	2 NPT threaded connectors 1/8 inch (9.7mm); 2 NPT threaded connectors 1/4 inch (13mm)		GA	eShop	2 NPT threaded connectors 3/8 inch (16.7mm); 2 NPT threaded connectors 1/2 inch (20.7mm)	
ZANGE	eShop	Assembly pliers, plastic		ZANGE	eShop	Assembly pliers, plastic	
RD1,6	eShop	4 round nozzles with internal Ø 1.6 mm		RD6,4	eShop	4 round nozzles with internal Ø 6.4 mm	
RD3,2	eShop	4 round nozzles with internal Ø 3.2 mm		RD9,5	eShop	4 round nozzles with internal Ø 9.5 mm	
RD6,4	eShop	4 round nozzles with internal Ø 6.4 mm		RD12,7	eShop	4 round nozzles with internal Ø 12.7 mm	

Cold and hot air gun

For pin-point **heating or cooling** of metal and plastic parts on machine tools by means of compressed air.
Air temperature range from -30 °C to 60 °C.
Compressed air connection 3/8 inch, coolant hose 1/2 inch.



08 4440

180 08 4440 Cold and hot air gun

eShop

Garant Micro-lubrication system, patented

Sturdy stainless steel body with **3-chamber pressure system** for dispensing the lubricant very accurately.

Advantage:

- Very easy to operate.
- No problematic, inaccurate manual lubrication.
- Process reliability and longer tool life.

Application:

Can be used horizontally and vertically in machining centres. For all thread cutting oils up to 570 mm²/s viscosity (see No. 084210 and 084220). The oil is precisely distributed mechanically and hydraulically on to the tapping hole wall. Because the **micro lubrication system** efficiently uses only very small **quantities of oil**, an impairment of the consistency of the emulsion is prevented. It thus saves the significant expense of changing over to emulsion with a high fat content, which is essential for process reliability when tapping.

Supplied with:

Micro lubrication system, main cylinder type S, and one each nozzle type DL and GL filling injector.

Note:

- For accessories and spare parts see the spare parts list.



Type		S
13 0100	Micro-lubrication system	eShop
Overall length L_{tot}	mm	150
Length of body with nozzle L_2	mm	100
Shank $\varnothing D_s$ (-0.02 / -0.05 mm)	mm	20

**Cutting oils – universally suitable for machining****Cutting oils from Jokisch****08 4210–4220:**

Ideal for the

GARANT micro-lubrication system 13 0100.

08 4220:

High-viscosity product based on mineral oil, very well suited for thread tapping, good adherence.



08 4220_20



08 4210_20



08 4210_0,5

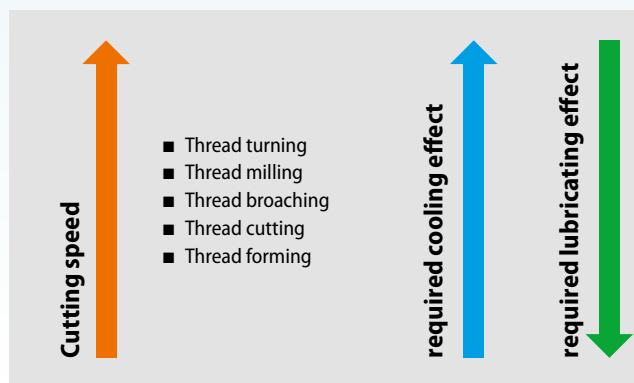
Cooling lubricants in thread production:**Selection of and recommendation for cooling lubricants:**

Cooling lubricants are primarily used for the following:

- **Cooling**
- **Lubricating**
- **Chip evacuation**

weighted according to the machining procedure (see graphic on the right).

Example for thread forming: Due to the low cutting speed, a lower cooling effect but a very high lubricating effect are required. It is also imperative to pay attention to the type of cooling lubricant.



To determine the intended cooling lubricant and the process, the respective specification in the application table under the products is used:

Example and explanation*							
	Oil lubrication		Minimal quantities of lubricant		Compressed air supply		Suitable only under restricted conditions
	Emulsion (for taps with at least 8% grease)		Dry machining		Suitable		Unsuitable

*In addition, the recommendations in the product description must be observed.

Can / drum mixer for emulsions

The mixer with the **universal screw fastening set** fits all commercially-available jerrycans and drums.
A needle valve allows the **mixing ratio to be set precisely**.
High repetition accuracy, mixing volume up to 370 l/h,
connections 1/2 inch (water feed and mixer outlet),
3/8 inch (concentrate inlet).
With safety non-return valve.



08J 08 4370

Mixer for cooling lubricant emulsion

eShop

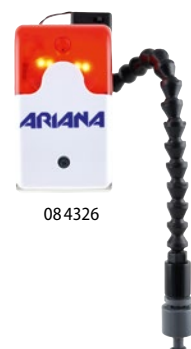
08 4370

Level display and overflow protection

- 08 4325 – Level display with float and volume scale. For use with conventional 60 ltr and 210 ltr drums. Suitable for cooling lubricant concentrate, emulsions, oils, antifreeze, heating oil and other liquid media.
- 08 4326 – The overflow protection siren is an important features on any machine that is filled with emulsion or oil. It warns the user acoustically and visually via a light against imminent overflowing. The flexible neck allows the level within the basin to be determined.



08 4325



08 4326

Type		60/210	15
08J 08 4325	Level display	eShop	–
08J 08 4326	Overflow protection	–	eShop

Accessories for the application of cutting oils and cooling lubricant concentrates

Application:

08 4310 – For all measurements to TRGS 611.

Content:

08 4310 – 100 pieces each of nitrite, nitrate, total hardness, pH test strips (made by Merck), empty spray bottles (3 pieces), and measuring jug for taking samples, **thermometer**, technical rules summary TRGS 611.



08 4310

			Measuring range pH value	Measuring range nitrite value g/m ³	Measuring range nitrate value g/m ³	Measuring range for water hardness
08J 08 4310	Coolant testing case to TRGS 611	eShop	–	–	–	–
08J 08 4311	Spare nitrite test strips 100 pieces	eShop	–	0 – 25	–	–
08J 08 4312	Spare nitrate test strips 100 pieces	eShop	–	–	0	–
08J 08 4313	Spare overall hardness test strips 100 pieces	eShop	–	–	–	0
08J 08 4314	Spare pH test strips 100 pieces	eShop	7	–	–	–
08J 08 4315	Spare pH-nitrite combination test strips 100 pieces	eShop	7 – 14	0	–	–



08 4311

08 4312

08 4313



08 4314

08 4315

Refractometer

08 4320 Size ANALOG – Measuring range: 0 to 32 %, adjustable eyepiece, adjustable measuring range.

08 4321 Size DIGITAL – ■ Measurement range: 0 to 50 %, resolution: 0.1% Brix

■ Accuracy: 0.2% Brix, can be calibrated

■ Automatic temperature compensation.

Application: For **quickly** and **precisely** determining the concentration of emulsions.
Suitable only for water-miscible cooling lubricants.

Supplied with:

08 4320 Size ANALOG – **Protective carrying bag, pipette**, and operating instructions.

08 4321 Size DIGITAL – **Supplied with hard shell packaging, pipette**, instruction manual, 1× AAA batteries.

Note: Refer to the correction factors for the cooling lubricants!
Multiply the grinding emulsion by e. g. a factor of 2.1
(size ANALOG, i.e. if 5 % is shown, the true value is 10.5 %)

Display		ANALOG	DIGITAL
08J 08 4320	Portable refractometer	eShop	–
08J 08 4321		–	eShop



08 4320_ANALOG



08 4321_DIGITAL

1271

Cooling lubricant oxygenation pump

Pump for increasing the working life of cooling lubricants.
Strongly recommended by trade associations. Suitable for continuous operation.

Application: For oxygenation of cooling lubricants. Up to 150 litres.
Prevents the oil film from closing on the surface,
thereby suppressing the growth of moulds and bacteria.
Ideal in combination with belt skimmer No. 084360.

08J 08 4364	Oxygenation pump		eShop
Body length	mm	153	
Body width	mm	75	
Body height	mm	82	
Power consumption	A	0.38	
Operating voltage	V	3 – 12	
Air delivery	l/h	180	

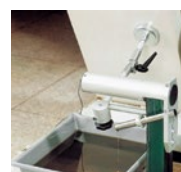


Accessories for the application of cutting oils and cooling lubricant concentrates

Speed-adjustable belt skimmer in low-hazard 12 V low voltage design (with mains adapter)
for mobile use wherever it is needed.

No tools required for fitting; a permanent magnet clamps it to the body of the machine.

Application: Oil belt skimmers are used to **skim off unwanted oils** and chip grit from cooling lubricants.
This **eliminates bacterial build-up** effectively, increases the **life time** of the coolant
significantly and reduces the resulting **smells and vapours**.



Application example

Belt skimmer

08J 08 4360	 Belt skimmer with mains adapter and magnetic clamp	eShop
-------------	--	-------



maximum magnetic trapping capability	kg	1	2	4
08Q 08 4362  Micromag magnetic filter		eShop	eShop	eShop
Manufacturer's designation		MM5	MM10	MM20
External Ø	mm	105	125	135
External height	mm	190	315	605
BSP connection thread	in	1	1	1.1/2
Weight	kg	3.2	5.2	9.5



Maintenance system for cooling lubricants

Advantage:

- Simultaneously removes tramp oils and solids.
- Works independently using the bypass principle, without the need for staff.
- Stops the formation of odours and the risk of infection.
- Longer service life for lubricants and tools.
- Lower disposal costs.

Type	1000
08 08 4372	Maintenance system
	(eShop)

1272



Flow drilling

Description: The polygon contour of the carbide flow drill generates frictional heat which plasticises all types of metal materials. This allows closed apertures to be created in a variety of thicknesses of materials, without chips, in just a few seconds.

Advantage:

- Large savings of time and costs compared to conventional processes (such as drawn-on nuts).
- Generates no chips or swarf; supersedes rivet nuts, weld nuts and press nuts.
- Solid basis for threads with high pull-out forces.
- For all popular material thicknesses and thread sizes (threads to DIN 13).



Flow drilling sets

Supplied with:

- 08 2710/2715 –
- 1 Special chuck MT2 with cooling ring.
 - 1 hook spanner and 1 open-ended spanner.
 - 4 ER25 collets in sizes suitable for M4 – M12.
 - 1 flow drill in the selected thread size.
 - 1 Flowtap fluteless tap in the selected thread size.
 - 1 bottle special parting agent for flow drilling, with brass brush (FDKS100; 100 g).
 - 1 bottle special thread forming oil, with bristle brush (FTMZ100; 100 ml).
 - 1 system case with brief user guide (comprehensive user manual available as PDF download).

Note: Other versions and sets for special applications (such as for thin sheet metal) available on request.
For suitable fluteless taps see items No. 139115 ff.



08 2710

for thread M		M4	M5	M6	M8	M10	M12
04D 08 2710	Starter set standard	(eShop)	(eShop)	(eShop)	(eShop)	(eShop)	(eShop)
04D 08 2715	Starter set flat	eShop	eShop	eShop	eShop	eShop	(eShop)

for thread M		M5-M8	M6-M10	M5-M12
04D 08 2721	Flow drilling set - standard including fluteless taps	(eShop)	(eShop)	(eShop)
04D 08 2726	Flow drilling set - flat including fluteless taps	eShop	eShop	eShop
Content:		Size M5; M6; M8	Size M6; M8; M10	Size M5; M6; M8; M10; M12
	1 each flowdrill and fluteless tap			



08 2721

Flow drill / accessories

08 2730/2735 – Carbide flow drills for production of tapping holes preliminary to thread forming.

for thread M		M4	M5	M6	M8	M10	M12
04D 08 2730	Flow drill - standard (with collar)	eShop	eShop	eShop	eShop	eShop	(eShop)
04D 08 2735	Flow drill - flat (no collar)	eShop	eShop	eShop	eShop	eShop	eShop
Tapping hole Ø	mm	3.7	4.5	5.4	7.3	9.2	10.9
Shank Ø	mm	6	6	6	8	10	12
maximum material thickness (08 2730)	mm	2.6	2.7	2.9	3.3	3.7	4
maximum material thickness (08 2735)	mm	4.2	4.6	5	5.9	6.6	7.2
recommended drive power	kW	0.7	0.8	1	1.3	1.5	1.7
recommended speed	min ⁻¹	2600	2500	2400	2200	2000	1800

Contents in l or kg		1
04D 08 2741	Parting agent	eShop
04D 08 2742	Thread forming oil	eShop

Flow drill for aluminium

Special flow drill with hard carbon coating for production of **core holes in aluminium** preliminary to thread forming. Coated aluminium profiles can be drilled without separating agent, without the risk of scratching or scorching the paint. The geometry and an extremely smooth surface coating prevent vibration and noise, and material pick-up.

Note: Other versions and sets for special applications (such as for thin sheet metal) available on request. Use fluteless taps without oil grooves.
See items No. 139115 ff for suitable fluteless taps.



08 2745

for thread M		M4	M5	M6	M8	M10
04D 08 2745	Flow drill for aluminium, AluDrill special	(eShop)	(eShop)	eShop	eShop	(eShop)
Tapping hole Ø	mm	3.6	4.3	5.2	7.1	9
Shank Ø	mm	8	10	10	12	14
maximum material thickness	mm	3.5	4	5	5.5	6
recommended drive power	kW	1.5	1.5	1.5	2	2
recommended speed	min ⁻¹	4000 – 8000				

Standard – with collar



08 2730

Flat – no collar



08 2735

HOLEX Flow drilling M-Drill

Very quickly produce core holes in thin-walled materials using frictional heat. Can be used on CNC, NC and pillar drilling machines.

Suitable for: HOLEX ER collets No. 308964.
ER chuck key No. 309680.
HOLEX fluteless tap No. 139130 or No. 139180.

NEW



08 0750

Holder M-Drill

Shank		MK2	MK3	ZS20
08 0750	Holder M-Drill	eShop	eShop	eShop
for ER collets			25	

Flow drill M-Drill standard

- 08 0751 – Flow drill - standard (with collar).
- 08 0752 – Flow drill - standard (with collar), for use in stainless materials.
- 08 0753 – Flow drill - flat (no collar).
- 08 0754 – Flow drill - flat (no collar), for use in stainless materials.

Application:

- 08 0751/0753 – Suitable for steel, aluminium, copper, brass.
- 08 0752/0754 – Particularly suitable for stainless steels.



08 0751



08 0753

Threads		M3	M4	M5	M6	M8	M10	M12
08 0751	Flow drill - standard (with collar) Uni	eShop	eShop	eShop	eShop	eShop	eShop	eShop
08 0752	Flow drill - standard (with collar) Inox	—	—	eShop	eShop	eShop	eShop	—
08 0753	Flow drill - flat (no collar) Uni	eShop	eShop	eShop	eShop	eShop	eShop	eShop
08 0754	Flow drill - flat (no collar) Inox	—	—	eShop	eShop	eShop	eShop	—
Tapping hole Ø (08 0751, 08 0753)	mm	2.7	3.7	4.5	5.3	7.3	9.2	10.9
Tapping hole Ø (08 0752, 08 0754)	mm	—	—	4.6	5.4	7.4	9.3	—
Shank Ø	mm	6	6	6	8	8	10	12
Material thickness (08 0751, 08 0753)	mm	0.7 – 2.5						
Material thickness (08 0752, 08 0754)	mm	—	—	0.7 – 1	0.7 – 1	0.7 – 1	0.7 – 1	—
recommended drive power	kW	0.7	0.8	1	1.3	1.5	1.7	1.9
recommended speed	min ⁻¹	3000	2700	2600	2500	2300	2100	2000

Flow drill M-Drill long

- 08 0755 – Flow drill - standard (with collar).
- 08 0756 – Flow drill - standard (with collar), for use in stainless materials.
- 08 0757 – Flow drill - flat (no collar).
- 08 0758 – Flow drill - flat (no collar), for use in stainless materials.

Application:

- 08 0755/0757 – Suitable for steel, aluminium, copper, brass.
- 08 0756/0758 – Particularly suitable for stainless steels.



Application example



08 0755



08 0757

Threads		M3	M4	M5	M6	M8	M10	M12
08 0755	Flow drill - standard (with collar) long Uni	eShop	eShop	eShop	eShop	eShop	eShop	eShop
08 0756	Flow drill - standard (with collar) long Inox	—	—	eShop	eShop	eShop	eShop	—
08 0757	Flow drill - flat (no collar) long Uni	eShop	eShop	eShop	eShop	eShop	eShop	eShop
08 0758	Flow drill - flat (no collar) long Inox	—	—	eShop	eShop	eShop	eShop	—
Tapping hole Ø (08 0755, 08 0757)	mm	2.7	3.7	4.5	5.3	7.3	9.2	10.9
Tapping hole Ø (08 0756, 08 0758)	mm	—	—	4.5	5.4	7.4	9.3	—
Shank Ø	mm	6	6	6	8	8	10	12
Material thickness (08 0755, 08 0757)	mm	0.7 – 4						
Material thickness (08 0756, 08 0758)	mm	—	—	0.7 – 3	0.7 – 3	0.7 – 3	0.7 – 3	—
recommended drive power	kW	0.7	0.8	1	1.3	1.5	1.7	1.9
recommended speed	min ⁻¹	3000	2700	2600	2500	2300	2100	2000



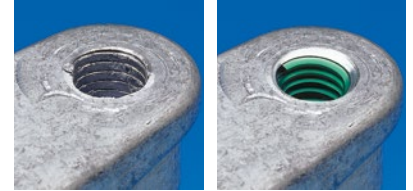
Thread repair DIN 8140

High-strength HeliCoil®plus thread inserts for through bolts, of **stainless steel with high wear-resistance, low thread friction** in close tolerances, **high surface quality** as well as **corrosion** and **heat resistance**. The flexible construction allows an even distribution of load and tension forces and thus allows creation of very high quality **permanent** screw connections with **ideal force transfer** for all **working loads** (static, dynamic). Uncomplicated quick insertion, resulting in an internal thread that can be used from both ends.

Application: For economic **repair of damaged or worn threads** and as a design element for **thread reinforcement** in materials which have low shear strength (e.g. aluminium, aluminium-magnesium alloys).

Note:

- For suitable plug gauges for thread checking see No. 486000 onwards.
- Self-locking inserts, inserts with other dimensions and UNC/UNF thread inserts are available on request.



Thread repair sets

08 2800 – Complete repair set, for one each metric thread size in a plastic case.

08 2805 – HSS one-pass hand tap for through holes.

08 2807 – HSS machine taps, straight flutes, 4-turn lead chamfer for through holes or blind holes with deep-drilled tapping hole in tolerance class 6H.

Supplied with:

- 08 2800 – ■ 1 HSS hand tap
 ■ 1 insertion spindle.
 ■ 1 plastic case L×W×H 180×165×45 mm (up to size M8)
 245×225×50 mm (size M10 and above).
 ■ 20 each (up to size M6) or 10 each (size M8 and above) stainless steel thread inserts for through bolts in each length (1×D / 1.5×D / 2×D).

08 2800 Size M2–M12 – 1 drill.

1 tang breaker.

Note: For TiCN coated HSS-E-PM machine taps see No. 133560 and No. 138210.



08 2800

Thread M (×pitch)	08 2800	08 2805	08 2807	Tapping hole Ø	Number of thread inserts
	Thread repair set DIN 8140	Spare hand tap 6H	Machine tap 6H		08 2800
				mm	
M2	eShop	eShop	–	2.1	60
M2,5	eShop	eShop	–	2.6	60
M3	eShop	eShop	–	3.2	60
M4	eShop	eShop	eShop	4.2	60
M5	eShop	eShop	eShop	5.2	60
M6	eShop	eShop	eShop	6.3	60
M8	eShop	eShop	eShop	8.4	30
M8×1	eShop	eShop	–	8.3	30
M10	eShop	eShop	eShop	10.5	30
M10×1	eShop	eShop	–	10.2	30
M12	eShop	eShop	eShop	12.5	30
M14	eShop	eShop	–	14.5	30
M16	eShop	eShop	–	16.5	30



08 2805



08 2807

Thread repair set

Thread repair set composed of various repair sets for metric ISO threads.

Size M2,5–M6 – **320 pieces:** (20 each inserts 1×D; 1.5×D; 2×D – M2.5; M3; M4; M5; M6)

Size M5–M12 – **230 pieces:**

(20 each inserts 1×D; 1.5×D; 2×D – M5; M6)

(10 each inserts 1×D; 1.5×D; 2×D – M8; M10; M12)

Supplied with: HeliCoil®plus thread inserts of various dimensions and lengths, 5 jobber drills, 5 HSS hand taps, 5 insertion spindles, 5 tang breakers, 1 plastic case (L×W×H) 420×340×120 mm.

Note: For TiCN coated HSS-E-PM machine taps see No. 133550 and No. 138200.



08 2820

Contents	08 2820	Number of inserts thread length 1×D	Number of inserts thread length 1.5×D	Number of inserts thread length 2×D
	Thread repair set			
M2,5–M6	eShop	100	100	100
M5–M12	eShop	70	70	70

Thread inserts

08 2808 – Insertion tool for HeliCoil®plus thread inserts.

08 2810–2818 – Metric thread inserts of stainless steel wire, which resemble springs. Free-running thread, turn for turn, the drive tag is broken off at the notch (design fracture point) after installation. Optimised shape with innovative introduction zone that allows the insert to be attached and turned like a screw to insert it.



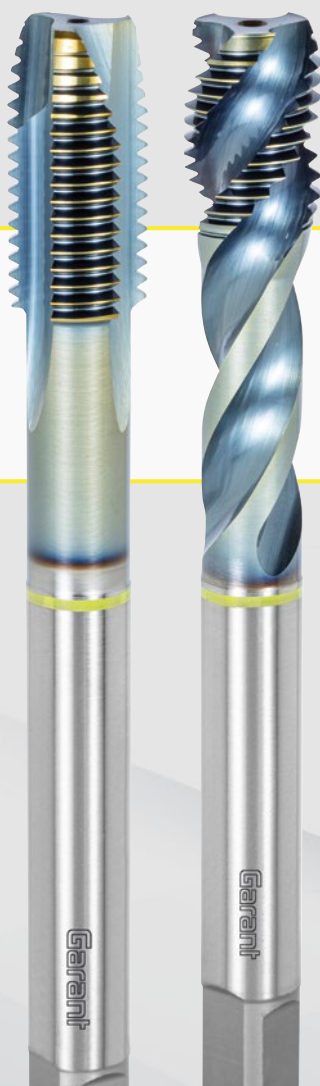
08 2808



08 2810

Thread type / size			M2	M2,5	M3	M4	M5	M6	M8	M8×1	M10	M10×1	M12	M14	M16	
04D	08 2808	Insertion spindle	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	
04D	08 2810	Thread insert set, 10 or 20 pieces	1×D	(eShop)	(eShop)	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	(eShop)	eShop	
04D	08 2812		1.5×D	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	eShop	
04D	08 2814		2×D	(eShop)	eShop	eShop	eShop	eShop	eShop	eShop	(eShop)	eShop	(eShop)	eShop	(eShop)	eShop
Set contents (08 2810, 08 2812, 08 2814)			20	20	20	20	20	20	10	10	10	10	10	10	10	
Thread type / size			M3		M4		M5		M6		M8		M10		M12	
04D	08 2818	Thread insert set, 100 pieces	1.5×D		eShop		eShop		eShop		eShop		eShop		eShop	
Set contents			100													

Garant MASTER TAP HIGH-PERFORMANCE TAPS FOR WIRE INSERTS.



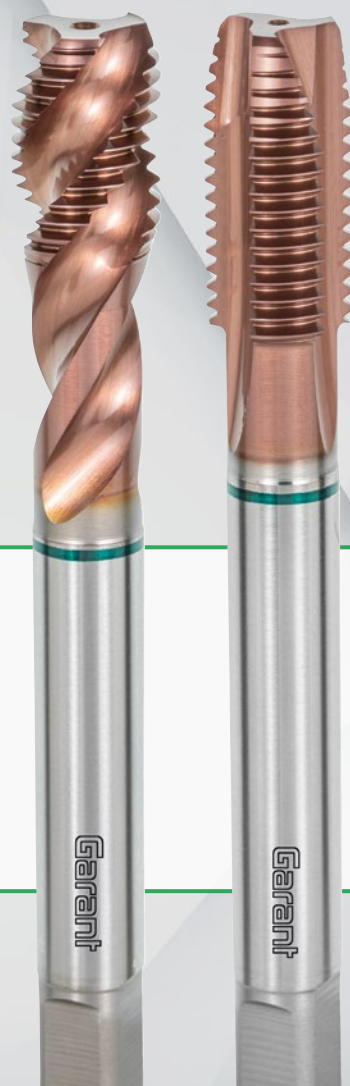
GARANT Master Tap Alu – the professional.

- Maximum dynamic response.
- Maximum process reliability.
- Maximum performance.

Taps can be found in the Hoffmann Group Catalogue 1 Machining and clamping technology.

GARANT Master Tap – the all-round talent.

Master Tap taps combine very high process reliability with maximum universality. Be it steel, stainless steel, aluminium or cast iron – the special geometry ensures optimum chip formation, thus increasing efficiency.



13 3555/8205 – 3560/8210

For production of EG mounting thread according to metric ISO thread DIN 8140 for STI wire thread inserts (Screw Thread Insert)

Marking tool

35 8725 – Body of tool steel with Weldon shank.

35 8740/8752 – Body of aluminium with Weldon shank. Stepless adjustment of the pre-load force. Character depth 0.1 - 0.3 mm.

Advantage:

35 8725 – Cleaning of the workpiece surface by compressed air channels with different approach angles max. 10 bar. Adjustment of the font width by adjusting the contact force, no different needle radii required! High wear resistance of the marking tip due to **rolling ball**. No burr formation.

35 8725/8740/8752 – Surface sealing without weakening or damaging the material. Inscription speed corresponds to the maximum feed rate. High wear resistance, with long working life for the special needles. Suitable for inscriptions on round surfaces. Can be used on the lathe. High process reliability. Needles easily withdrawn, therefore **quick needle change**. Irregularities up to 7 mm in the workpiece surface (depending on profile) can be compensated.

Application:

35 8725/8740/8752 – For marking on a wide variety of materials such as aluminium, titanium, steel, bronze, copper, brass, plastics etc. Smaller needle tips allow inscriptions on harder surfaces up to 57 HRC.

Supplied with:

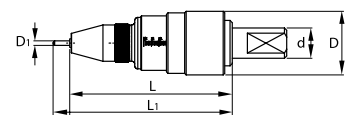
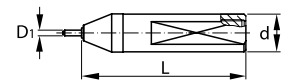
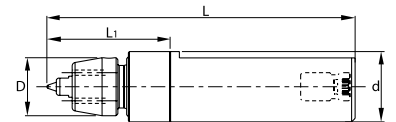
35 8725 – Supplied with 1x marking tip No. 358729.

35 8740 – size 12 – including **3 needles** No. 358745 size 0.3 – 0.5 – 0.8.

Size 20 – including **3 needles** No. 358745 size 0.3 – 0.6 – 1.0.

Note:

35 8752 – Order marking needle No. 550468; 550469 **separately**.



Shank Ø d	mm	20
31E 35 8725 Garant Marker		eShop
L ₁	mm	35.2
L	mm	87.7
Ø D ₁	mm	0.5
Ø d	mm	20
Ø D	mm	16.5

Shank Ø d	mm	12	20
32B 35 8740 HOLEX Marker		eShop	eShop
L	mm	66	73
Ø D ₁	mm	3	
Ø d	mm	12	20

38D 35 8752 AMF Marker L		eShop
L ₁	mm	119
L	mm	108
Ø D ₁	mm	3
Ø d	mm	20
Ø D	mm	42

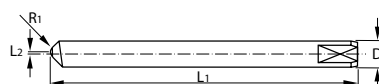
Marking tips

Radius	mm	0,5		L ₁ mm	L ₂ mm	R ₁ mm
31Z 35 8729 Garant Marking tip		eShop	1	53.5	0	0.5
suitable for		358725				



Radius	mm	0,3	0,5	0,6	0,8	1,0
32B 35 8745 HOLEX Spare needle		eShop	eShop	eShop	eShop	eShop
suitable for						

358740



Ø D ₁	mm	3	L ₁ mm	L ₂ mm	R ₁ mm
38D 35 8755 AMF Marking needle		(eShop)	53.5	0	0.5
suitable for		358752			

Disc brushes

Disc brushes with **extremely tightly packed abrasive bristles (right to the edge of the brush)** embedded in the plastic pad. The bristles support each other, giving a **highly stable shape**. Very long working life.

Advantage:

- Workpiece post-processing **directly after the machining process**.
- **Reproducible results** due to continuous exposure of the abrasive grit.
- **Process reliability** thanks to high stability and accuracy of the shape.
- Quick and secure **mounting** without further accessories.
- Very high **concentricity**.

Application:

On **CNC machining centres** and when used by **robots**, preferably **wet grinding** with cooling lubricant. Machining of flat components: precise **deburring**, **edge rounding**, **finish machining** after milling, **surface finishing** e.g. of sealing and mating faces.

Note: Special versions available on request.



Brush Ø	Speed recommended (when wet grinding) (rpm)	Maximum speed (rpm)	Feed rate (mm/min)	Infeed (mm)
Ø 20 mm	1500 – 2500	5000	Material (hard) Geometry (complex) Surface finish (coarse) 800 mm/min ↓ 3000 mm/min Material (soft) Geometry (simple) Surface finish (fine)	0.8 mm (fine)
Ø 25 mm	1500 – 2500	5000		
Ø 50 mm	1200 – 2400	4500		
Ø 63 mm	1200 – 2400	4500		
Ø 70 mm	1200 – 2400	4500		
Ø 100 mm	1000 – 1700	3500		
Ø 119 mm	1000 – 1700	3000		
Ø 144 mm	900 – 1200	2500		2.0 mm (coarse)

	AlMg					Carbide	INOX	Ti	GG(G)	CuZn	Plastics & GRP	Wood	Stone	Varnish	Uni		
57 5002–57 5018	●	○	○	○	○		○	○	○	●					●	●	○
57 5022–57 5038	●	●	○	○	○		○		●						●	●	○

Disc brushes, shank mounting

6 mm shank, solidly cast in place.

57 5002–5005 – Nylon bristles with very high **silicon carbide grit content** for general-purpose use.

57 5022–5026 – Nylon bristles with **ceramic grit content**. More aggressive abrasive effect.

Grit			80	120	Disc dia. D ₂ mm	Length of brush section H ₁ mm
57 5002	Disc brush with shank, silicon carbide (SiC)	Ø 20 mm	eShop	eShop	24	25
57 5004		Ø 25 mm	eShop	eShop	29	25
57 5005		Ø 50 mm	eShop	eShop	55	25
57 5022	Disc brush with shank, ceramic grit (CER)	Ø 20 mm	eShop	eShop	24	25
57 5024		Ø 25 mm	eShop	eShop	29	25
57 5026		Ø 50 mm	eShop	eShop	55	25
Shank Ø D ₁		mm	6			
Grit designation			coarse	medium		
Bristle thickness		mm	1.2	0.6		

Disc brushes, face mill arbor mounting

With longitudinal groove for clamping on face mill arbors (DIN 6357) and combination face mill adapters (DIN 6358).

57 5006–5018 – Nylon bristles with very high **silicon carbide grit content** for general-purpose use.

57 5006/5008 – Conical brushes for inaccessible places. Greater flexibility.

57 5030–5038 – Nylon bristles with **ceramic grit content**. More aggressive abrasive effect.

Grit			80	120	180	Disc dia. D ₂ mm	Bore Ø d ₁ mm	Length of brush section H ₁ mm
57 5006	Disc brush, silicon carbide (SiC)	Ø 50 mm	eShop	eShop	–	45	16 with groove	30
57 5008		Ø 63 mm	eShop	eShop	–	58	16 with groove	30
57 5010		Ø 70 mm	eShop	eShop	eShop	76	22 with groove	35
57 5012		Ø 100 mm	eShop	eShop	eShop	106	22 with groove	35
57 5015		Ø 119 mm	eShop	eShop	eShop	125	27 with groove	38
57 5018	Disc brush, ceramic grit (CER)	Ø 144 mm	eShop	eShop	eShop	150	32 with groove	43
57 5030		Ø 70 mm	eShop	eShop	–	76	22 with groove	35
57 5032		Ø 100 mm	eShop	eShop	–	106	22 with groove	35
57 5035		Ø 119 mm	eShop	eShop	–	125	27 with groove	38
57 5038		Ø 144 mm	eShop	eShop	–	150	32 with groove	43
Grit designation			coarse	medium	fine			
Bristle thickness (57 5006, 57 5008)		mm	1.2	0.6	–			
Bristle thickness (57 5010, 57 5012, 57 5015, 57 5018, 57 5030, 57 5032, 57 5035, 57 5038)		mm	1.2	1.1	1			

SiC CER



SiC

Wheel brushes

Round brushes with **extremely tightly packed abrasive bristles (right to the edge of the brush)** embedded in the plastic pad. The bristles support each other, giving a **highly stable shape**. Very long working life. Nylon bristles with very high **silicon carbide grit content** for general-purpose use.

Advantage:

- Workpiece post-processing **directly after the machining process**.
- **Reproducible results** due to continuous exposure of the abrasive grit.
- **Process reliability** thanks to high stability and accuracy of the shape.
- Quick and secure **mounting** without further accessories.
- Very high **concentricity**.

Application: On **CNC machining centres** and when used by robots, preferably **wet grinding** with cooling lubricant. **For grinding side faces and inner faces:** precise deburring (e.g. threads), edge rounding, delicate work after milling, surface finishing.

Note: Special versions available on request.



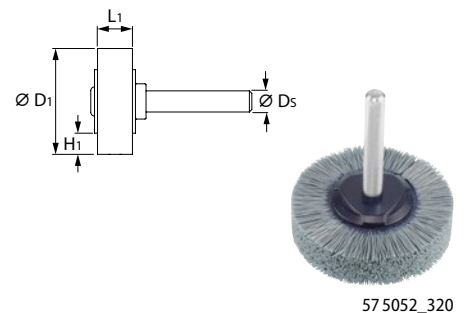
Brush Ø	Speed recommended (when wet grinding) (rpm)	Maximum speed (rpm)	Feed rate (mm/min)	Infeed (mm)
Ø 38 mm	3000 – 4000	8000	Material (hard) Geometry (complex) Surface finish (coarse) 800 mm/min Material (soft) Geometry (simple) Surface finish (fine) 3000 mm/min	0.5 mm (fine) – 2.0 mm (coarse)
Ø 50 mm	2400 – 3200	7000		
Ø 76 mm	2400 – 3200	7000		
Ø 100 mm	1800 – 2500	6000		
Ø 125 mm	1800 – 2500	6000		
Ø 150 mm	1300 – 1800	4000		

	AlMg						Carbide	INOX	Ti	GG(G)	CuZn	Plastics & GRP	Wood	Stone	Varnish	Uni		
57 5050–57 5066	●	●	○	○	○	○		○	○	○	●					●	●	○

Wheel brushes, shank mounting

6 mm shank, solidly cast in place.

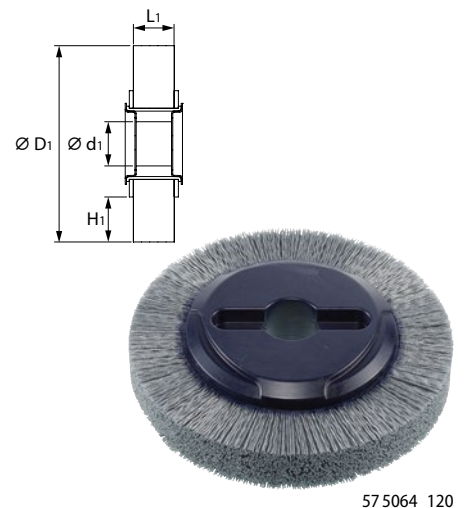
Grit			120	320	Bristle width L_1 mm
51P 57 5050	Wheel brushes with shank, silicon carbide (SiC)	Ø 38 mm	eShop	eShop	10
51P 57 5052		Ø 50 mm	eShop	eShop	13
Grit designation			medium	fine	
Bristle thickness	mm		0.6	0.3	
Shank Ø D_s	mm		6		



Wheel brushes, face mill arbor mounting

With longitudinal groove for clamping on face mill arbors (DIN 6357) and combination face mill adapters (DIN 6358).

Grit			80	120	Bristle width L_1 mm	Working length L_3 mm	Bore Ø d_1 mm
51P 57 5060	Wheel brushes, silicon carbide (SiC)	Ø 76 mm	eShop	eShop	18	22	16 with groove
51P 57 5062		Ø 100 mm	eShop	eShop	20	22	22 with groove
51P 57 5064		Ø 125 mm	eShop	eShop	20	22	22 with groove
51P 57 5066		Ø 150 mm	eShop	eShop	25	35	32 with groove
Grit designation			coarse	medium			
Bristle thickness	mm		1.2	0.6			



Cleaning stick

3 integrated cleaning nozzles for efficient cleaning of the workpiece, clamping device and machine tool.
Can be used with both cooling lubricant and compressed air.
Application recommendation: 60 rpm.



35 8945

Diameter	mm	16
32E 35 8945	HOLEX Cleaning stick for side lock arbor	eShop
Ø D	mm	16
L	mm	85

Cleaning ball - cleaning the machine space and the workpiece

- Advantage:**
- Attractively priced unit for flexible automation of the machine.
 - Quick automatic cleaning for maximum machine utilisation.
 - Machine ancillary times reduced to a minimum.
 - Increase safety for the machine operator.
 - 360° working range.
 - For installation in any toolholder with through-coolant capability.

Shank Ø d ₁	mm	20
33T 35 8952	Cleaning ball	eShop
Length L	mm	78
L ₁	mm	35
Ø D	mm	37
maximum speed	min ⁻¹	100
max. coolant pressure	bar	80
Working range	degrees	360



35 8952

Garant

Cleaning propeller - cleaning the machine space and the workpiece

- Robust design.
- Opening and closing the vane by the speed of the spindle.
- **Marked ends to the vanes**, for optimum visibility.
- For installation in any toolholder with through-coolant capability.

Size 160 – The machine must be started at 2000 rpm and slowly increased to 6000 rpm – 12000 rpm.

Size 260 – The machine must be started at 2000 rpm and slowly increased to 5000 rpm – 8000 rpm.

- Advantage:**
- Efficient cleaning of clamping equipment, workpieces and work tables.
 - Removal of accumulated chips and blowing out pockets of water.
 - Perfect complement to the automated work process.

Optional extras:

Size 160 – Spare cleaning propeller No. 358951 1K and 4K.

Size 260 – Spare cleaning propeller No. 358951 1 and 4.



35 8950_160

35 8950_260

Blade Ø		160	260
31E 35 8950	Cleaning propeller	eShop	eShop
Shank Ø	mm	20	
Speed range	min ⁻¹	6000 – 12000	5000 – 8000

Spare cleaning propeller

Suitable for: Cleaning propeller No. 358950.

Supplied with: Supplied with spring, positioning pin and retainer pin.

Type		1	1K	4	4K
31E 35 8951	Spare cleaning propeller	eShop	eShop	eShop	eShop
maximum speed	min ⁻¹	8000	12000	8000	12000
Number of vanes	pcs.	1	1	4	4

Spare springs

Suitable for: 358950 260.

		4
31E 35 8953	Spare spring set 4 pcs	eShop



35 8951_4



35 8953

Garant Bar holder

- New type of bar holder concept – permits both lateral and frontal gripping.
- It permits automatic use in machine operation and programmed cycles, with hydraulic actuation of the grippers by coolant pressure (3 – 50 bar).
- High-quality components: anodised aluminium base body, wearing components of hardened and ground steel or hard machined steel.
- Unique mechanism with double ball guidance and double piston principle for maximum wear resistance and capability to handle heavy workpieces (traction 26 kg, lifting 16 kg).

Advantage:

- No traces of scratches on the component (even when gripping finished parts).
- Lateral gripping – the gripper can be brought extremely close to the lathe chuck.
- Movement of heavy weights.
- Extremely flexible – various bolt-on adapters allow the gripper to be used on both VDI turrets and also BMT turrets. Jaws interface 1/16 inch × 90°, thus standard top jaws can be used. (BMT only with boring bar holder)
- The pressure and hence the gripping force are configurable to an extent (75 – 100 %).
- Exceptionally low-maintenance.

Application:

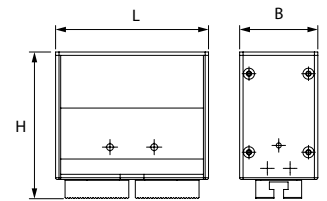
Drawing the bar into the machine, including for machines without a bar loader. Finished components can be automatically removed and handed over from the headstock to the tailstock. Clamping range (with jaws No. 319718) 8 – 65 mm.

Optional extras: Adapters No. 319713; 319714; 319716 and top jaws No. 319718.

Note: For programming instructions see the operating instructions.



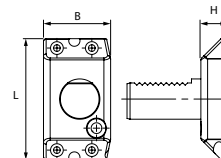
319711



max. workpiece Ø	mm	65
31V 319711	Bar holder	eShop
Length	mm	90
Width	mm	46
Height	mm	85.6

Adapter for VDI radial turret

Suitable for: Bar holder No. 319711.

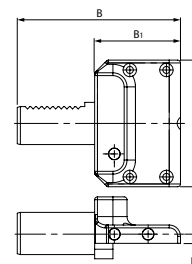


319714

Type		30	40
31V 319714	VDI adapter for bar holder	eShop	eShop
Length L	mm	90	
Width B	mm	50	52
Height H	mm	20	

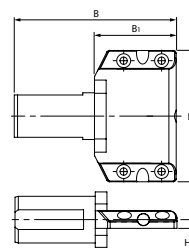
Angled adapter for VDI disc turret

Suitable for: Bar holder No. 319711.



319716

Type		30-A	40-A
31V 319716	VDI adapter angled for bar holder	eShop	eShop
Length L	mm	90	
Width B	mm	116	124
B ₁	mm	61	
Height H	mm	7	

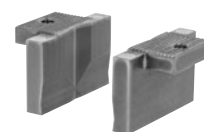
Angled adapter for shank Ø 32**Suitable for:** Bar holder No. 319711.

319713

Shank Ø D ₁	mm	20	32
31V 319713	Bar holder adapter	eShop	eShop
Length L	mm	90	
Width B	mm	61	111
B ₁	mm	46	56
Height H	mm	6.5	6

Jaws for bar holder**Suitable for:** Bar holder No. 319711.

Note: Standard jaw serration 1/16 inch × 90°.
Size ALU – Soft jaws for in-house machining.

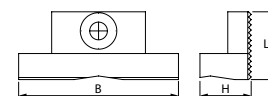


319718_20-45



319718_ALU

Clamping range	mm	8-20	20-45	45-65	ALU
31V 319718	Top jaws for bar holder	eShop	eShop	eShop	eShop
Length L	mm	19.5	19.5	22.5	27
Width B	mm	46			
Height H	mm	14.75	14.75	42.75	42.75

**HOLEX Bar holder**

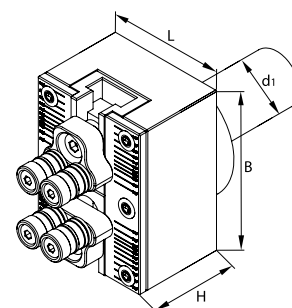
- Anodised housing of high-tensile aluminium with diamond dust-coated roller bodies.
- Steplessly adjustable from 1 – 70 mm.
- Suitable for round, hexagonal and square material.
- Integral adjustment aid with scales.
- General-purpose cylindrical bar holder.

Advantage: For quick adjustment to the material diameter.**Application:** Suitable for disc turrets and radial turrets.**Supplied with:** Bar gripper with roller bodies, interchangeable jaws and L-wrench for hexagon socket screws for changing the roller bodies and interchangeable jaws.

Note: Suitable VDI adaptor in the spare parts list, see No. 319707 size 20 / 30.



319705



Shank Ø d ₁	mm	25
32B 319705	Bar holder	eShop
Length	mm	55
Width	mm	75
Height	mm	42

Garant Magnetic gripper

- Optimised and **safe working procedure**.
- **Collision protection** when approaching thanks to **compression spring safety compensation** of 10mm.
- By exchanging the inserts, individual workpiece geometries can be automatically separated, transported and stored.
- Machine running times without long interruptions.
- High efficiency due to optimised utilisation.
- Significantly less contamination by oil mist.
- Permits **unmanned operation**.
- Reduces the risk of injuries.
- Can be used in all commonly-used Weldon arbors.

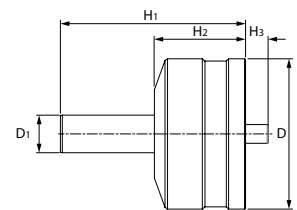
Application: The tool can lift and release ferro-magnetic workpieces. Activation of the magnet by coolant (IKZ) or compressed air. Positive engagement of the machined workpiece by closure with the matching contour of the exchangeable plate, for transport to the desired destination within the machine room.

Supplied with: Supplied with exchangeable plate 358716 with height 20 mm. Supplied with spring and clamping screw for the Weldon arbor.



35 8711

Ø D	mm	80	120	160
3V 35 8711	Magnetic gripper	(eShop)	(eShop)	(eShop)
Ø D ₁	mm	20		
Height H ₁	mm	98.5	98.5	108.5
Height H ₂	mm	48.5	48.5	58.5
Height H ₃	mm	12		
Magnet Ø	mm	10	13	16
Magnet retaining force	kg	4.5	7.5	15
Operation mode		Compressed air; Cooling lubricant	Compressed air; Cooling lubricant	Cooling lubricant



Interchangeable insert for magnetic gripper

35 8716 – Exchangeable plates in polyamide PA6.

35 8717 – Exchangeable plate in aluminium.

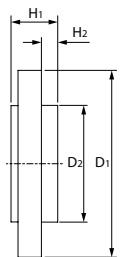
Application: Introduction of the matching contour of the finished workpiece for close-fitting parting off (max. 50 rpm) and transport of the component. Connection to the magnetic gripper by 4 screws.

Note: The exchangeable plates can also be made in-house. As well as the introduction of workpiece geometries for machining, additive printing processes can also be used.



35 8716

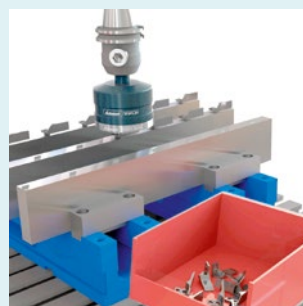
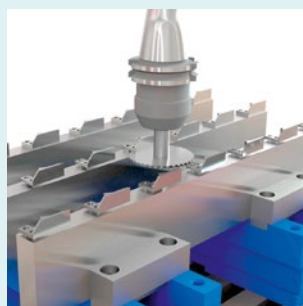
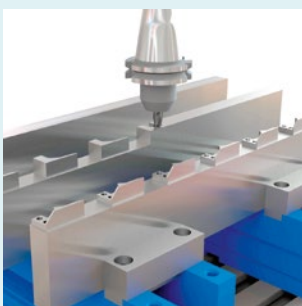
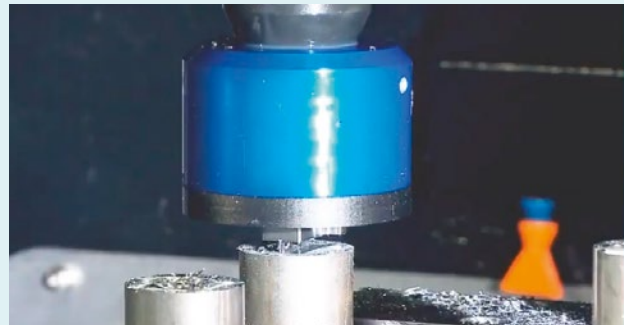
Ø / height	mm	80/20	80/40	120/20	120/40	160/20	160/40
3V 35 8716	Interchangeable insert for magnetic gripper, PA	eShop	eShop	eShop	eShop	eShop	eShop
3V 35 8717	Interchangeable insert for magnetic gripper, aluminium	eShop	eShop	eShop	eShop	eShop	eShop
Ø D ₁	mm	80	80	120	120	160	160
Ø D ₂	mm	50	50	90	90	130	130
Height H ₁	mm	20	40	20	40	20	40
Height H ₂	mm	7	27	7	27	7	27



Garant Magnetic gripper – automation for your existing machine



- Lifting and rotating ferromagnetic workpieces.
- The magnet is activated by the headstock by means of coolant or compressed air.
- Can be used in all commonly-used Weldon arbors.
- Individual machining of the interchangeable inserts to suit your workpiece geometries.

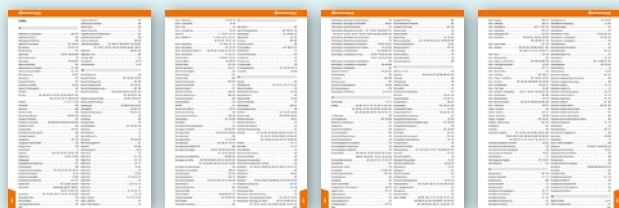




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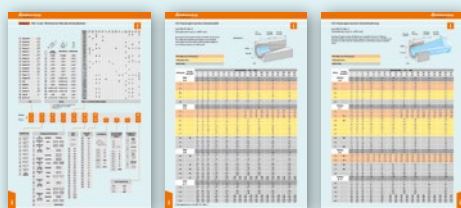
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Index from A – Z

1286 –
1293



Insert ISO code,
ISO fits (standard shafts and holes)

1294 –
1296

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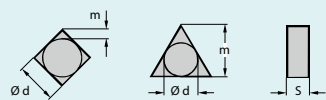
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Garant ISO code / factory standard indexable inserts


A	Rhomboid 85°	
B	Rhomboid 82°	
C	Rhombus 80°	
D	Rhombus 55°	
E	Rhombus 75°	
F	Rhombus 50°	
G	Rhombus 45°	
H	Hexagon 120°	
K	Rhomboid 55°	
L	Orthogon 90°	
M	Rhombus 86°	
O	Octagon 135°	
P	Pentagon 108°	
R	Round	
S	Square 90°	
T	Triangle 60°	
V	Rhombus 35°	
W	Trigon 80°	
X/Z	Special shape	
Shape		



	Tolerance with radius	Tolerance in circle	Thickness tolerance
	m	Ø d	S
	mm	mm	mm
A	± 0.005	± 0.025	± 0.025
C	± 0.013	± 0.025	± 0.025
E	± 0.025	± 0.025	± 0.025
F	± 0.005	± 0.013	± 0.025
G	± 0.025	± 0.025	± 0.13
H	± 0.013	± 0.013	± 0.025
J	± 0.005	± 0.05 up to ± 0.15	± 0.025
K	± 0.013	± 0.05 up to ± 0.15	± 0.025
L	± 0.025	± 0.05 up to ± 0.15	± 0.025
M	± 0.08 up to ± 0.20	± 0.05 up to ± 0.15	± 0.13
N	± 0.08 up to ± 0.20	± 0.0 up to ± 0.15	± 0.025
P*	± 0.04	± 0.04	± 0.04
U	± 0.13 up to ± 0.38	± 0.08 up to ± 0.25	± 0.13
Tolerance			

* Manufacturer's standard

Inner circle (mm)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
3.970			03															03	06				02
4.100	06		S4		S5																		
4.600		07																					
4.920					06																		
5.000																		05					03
5.560			05																09				
6.000																		06					
6.350	09		06	07						06								06	11	11	04		
6.680	10	11																					
7.000	13																	07					
7.870	12																						
7.940			08	09														07	13	05			
8.000																		08	08				
8.200																				14			
9.525	16		09	11		16												09	16	16	06		
9.600		17							12														
10.000																		10					
10.200	18																						
11.000																		11					
11.110																							
12.000																		12					07
12.700			12	15						04	12							12	22	22	08		
14.290																							
15.875			16	19		08												15	27		10		
16.000																		16					
19.050			19	23															19	33			
20.000																		20					
21.000																							13
22.225			22	27															22	38			
25.000																		25					
25.400			25	31															25	44			
26.194																							17
31.750			32	38															31	55			
32.000																		32					
Inner circle Ø for insert size																							

Turning

Milling

C	N	M	G	12	04	08																	(N)
A	P	K	T	16	04	08	P	D	F														R

Main clearance angle	
A	3°
B	5°
C	7°
D	15°
E	20°
F	25°
G	30°
N	0°
P	11°
O	further clearance angles

Fastening and chip breaker			
	Hole configuration	Chip breaker	Insert type
A	Cylindrical hole	none	
B	Cylindrical hole	none	
C	Cylindrical hole + Countersink (70 ≈ 90°)	none	
F	-	double-sided	
G	Cylindrical hole	double-sided	
H	Cylindrical hole	single-sided	
J	Cylindrical hole + Countersink (70 ≈ 90°)	double-sided	
M	Cylindrical hole	single-sided	
N	-	none	
Q	Cylindrical hole + Countersink (40 ≈ 60°)	none	
R	-	single-sided	
T	Cylindrical hole	single-sided	
U	Cylindrical hole + Countersink (40 ≈ 60°)	double-sided	
W	-	none	
X	-	-	Special design

Thickness	
	mm
S4	1.16
01	1.59
T1	1.98
02	2.38
T2	2.78
03	3.18
35	3.58
36	3.60
T3	3.97
04	4.76
48	4.84
L5	5.00
M5	5.00
05	5.56
T5	5.90
T6	6.10
06	6.35
67	6.74
T7	7.00
07	7.94
09	9.52
14	14.29
19	19.05

Corner radius	
	mm
00	without
01	0.1
02	0.2
03	0.3
04	0.4
05	0.5
06	0.6
08	0.8
10	1.0
12	1.2
15	1.5
16	1.6
20	2.0
24	2.4
25	2.5
28	2.8
30	3.0
31	3.1
32	3.2
40	4.0
50	5.0
60	6.0

Adjustment angle	
A	45°
D	60°
E	75°
F	85°
M O	Round
P	90°
Z	special

Standard clearance angle of the wide smooth flat chamfer	
C	7°
D	15°
E	20°
F	25°
N	0°
P	11°
T	22°
Z	special

Cutting edge version	
F	sharp-edged
E	honed
T	chamfered
S	chamfered and honed

Direction of machining	
R	right-hand
L	left-hand
N	neutral

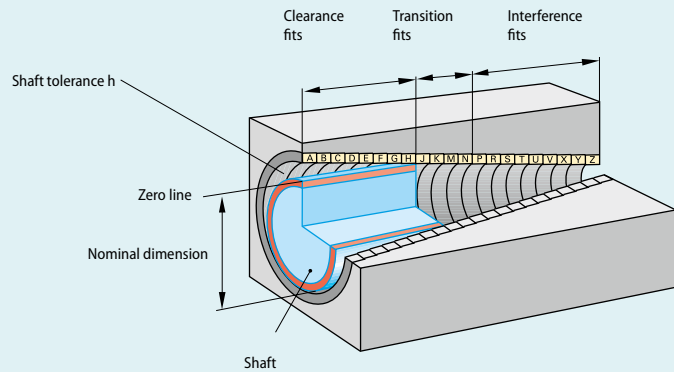
ISO system of standardised fits for shafts



(see DIN ISO 286-2)

Size limits in μm (= 0.001 mm).

In the standardised shaft system, all shafts are given h tolerances. The largest dimension of a shaft is taken as both the zero line and the nominal size. The smallest dimension is smaller than the nominal size by the amount of the tolerance.



Interference fit (press fit)
Transition fit
Clearance fit

Holes	Preferred fit*)	Nominal dimension over. . . to. . . mm																		
		1	3	6	10	14	18	24	30	40	50	65	80	100	120	140	160	180	200	225
		3	6	10	14	18	24	30	40	50	65	80	100	120	140	160	180	200	225	250
Shaft h 5		0 -4	0 -5	0 -6	0 -8		0 -9		0 -11		0 -13		0 -15		0 -18		0 -20			
P 6		-6 -12	-9 -17	-12 -21	-15 -26		-18 -31		-21 -37		-26 -45		-30 -52		-36 -61		-41 -70			
	N 6	-4 -10	-5 -13	-7 -16	-9 -20		-11 -24		-12 -28		-14 -33		-16 -38		-20 -45		-22 -51			
M 6		-2 -8	-1 -9	-3 -12	-4 -15		-4 -17		-4 -20		-5 -24		-6 -28		-8 -33		-8 -37			
J 6		+2 -4	+5 -3	+5 -4	+6 -5		+8 -5		+10 -6		+13 -6		+16 -6		+18 -7		+22 -7			
H 6		+6 0	+8 0	+9 0	+11 0		+13 0		+16 0		+19 0		+22 0		+25 0		+29 0			
Shaft h 6		0 -6	0 -8	0 -9	0 -11		0 -13		0 -16		0 -19		0 -22		0 -25		0 -29			
S 7		-14 -24	-15 -27	-17 -32	-21 -39		-27 -48		-34 -59		-42 -72	-48 -78	-58 -93	-66 -101	-77 -117	-85 -125	-93 -133	-105 -151	-113 -159	-123 -169
	R 7	-10 -20	-11 -23	-13 -28	-16 -34		-20 -41		-25 -50		-30 -60	-32 -62	-38 -73	-41 -76	-48 -88	-50 -90	-53 -93	-60 -106	-63 -109	-67 -113
N 7		-4 -14	-4 -16	-4 -19	-5 -23		-7 -28		-8 -33		-9 -39		-10 -45		-12 -52		-14 -60			
M 7		-2 -12	0 -12	0 -15	0 -18		0 -21		0 -25		0 -30		0 -35		0 -40		0 -46			
K 7		0 -10	+3 -9	+5 -10	+6 -12		+6 -15		+7 -18		+9 -21		+10 -25		+12 -28		+13 -33			
J 7		+4 -6	+6 -6	+8 -7	+10 -8		+12 -9		+14 -11		+18 -12		+22 -13		+26 -14		+30 -16			
H 7	●	+10 0	+12 0	+15 0	+18 0		+21 0		+25 0		+30 0		+35 0		+40 0		+46 0			
G 7		+12 +2	+16 +4	+20 +5	+24 +6		+28 +7		+34 +9		+40 +10		+47 +12		+54 +14		+61 +15			
F 7		+16 +6	+22 +10	+28 +13	+34 +16		+41 +20		+50 +25		+60 +30		+71 +36		+83 +43		+96 +50			
Shaft h 9		0 -25	0 -30	0 -36	0 -43		0 -52		0 -62		0 -74		0 -87		0 -100		0 -115			
H 8	●	+14 0	+18 0	+22 0	+27 0		+33 0		+39 0		+46 0		+54 0		+63 0		+72 0			
H 11		+60 0	+75 0	+90 0	+110 0		+130 0		+160 0		+190 0		+220 0		+250 0		+290 0			
F 8	●	+20 +6	+28 +10	+35 +13	+43 +16		+53 +20		+64 +25		+76 +30		+90 +36		+106 +43		+122 +50			
E 9	●	+39 +14	+50 +20	+61 +25	+75 +32		+92 +40		+112 +50		+134 +60		+159 +72		+185 +85		+215 +100			
D 10	●	+60 +20	+78 +30	+98 +40	+120 +50		+149 +65		+180 +80		+220 +100		+260 +120		+305 +145		+355 +170			
C 11	●	+120 +60	+145 +70	+170 +80	+205 +95		+240 +110		+280 +110	+290 +130	+330 +140	+340 +150	+390 +170	+400 +180	+450 +200	+460 +210	+480 +230	+530 +240	+550 +260	+570 +280
Shaft h 11		0 -60	0 -75	0 -90	0 -110		0 -130		0 -160		0 -190		0 -220		0 -250		0 -290			
H 11		+60 0	+75 0	+90 0	+110 0		+130 0		+160 0		+190 0		+220 0		+250 0		+290 0			
D 11		+80 +20	+105 +30	+130 +40	+160 +50		+195 +65		+240 +80		+290 +100		+340 +120		+395 +145		+460 +170			
C 11		+120 +60	+145 +70	+170 +80	+205 +95		+240 +110		+280 +120	+290 +130	+330 +140	+340 +150	+390 +170	+400 +180	+450 +200	+460 +210	+480 +230	+530 +240	+550 +260	+570 +280
A 11		+330 +270	+345 +270	+370 +280	+400 +290		+430 +300		+470 +310	+480 +320	+530 +340	+550 +360	+600 +380	+630 +410	+710 +460	+770 +520	+830 +580	+950 +660	+1030 +740	+1110 +820

*) Preferred fits to DIN 7157, series 1.

ISO system of standardised fits for holes

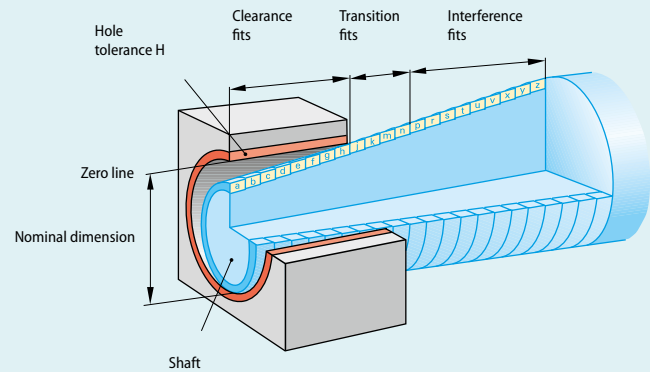
(see DIN ISO 286-2)

Limit dimensions in μm ($= 0.001 \text{ mm}$).

In this system, all holes are produced with a standard H tolerance.

The smallest dimension is taken as both the zero line and the nominal size.

The largest dimension is larger than the zero line by the amount of the tolerance.



Interference fit (press fit)

Transition fit

Clearance fit

Shafts	Preferred fit*)	Nominal dimension over... to... mm																			
		1 3	3 6	6 10	10 14	14 18	18 24	24 30	30 40	40 50	50 65	65 80	80 100	100 120	120 140	140 160	160 180	180 200	200 225	225 250	
Hole H 6		+6 0	+8 0	+9 0	+11 0	+13 0		+16 0		+19 0		+22 0		+25 0			+29 0				
p5		+10 +6	+17 +12	+21 +15	+26 +18	+31 +22		+37 +26		+45 +32		+52 +37		+61 +43			+70 +50				
n5		+8 +4	+13 +18	+16 +10	+20 +12	+24 +15		+28 +17		+33 +20		+38 +23		+45 +27			+51 +31				
k6		+6 0	+9 +1	+10 +1	+12 +1	+15 +2		+18 +2		+21 +2		+25 +3		+28 +3			+33 +4				
j6		+4 -2	+6 -2	+7 -2	+8 -3	+9 -4		+11 -5		+12 -7		+13 -9		+14 -11			+16 -13				
h5		0 -4	0 -5	0 -6	0 -8	0 -9		0 -11		0 -13		0 -15		0 -18			0 -20				
Hole H 7		+10 0	+12 0	+15 0	+18 0	+21 0		+25 0		+30 0		+35 0		+40 0			+46 0				
s6		+20 +14	+27 +19	+32 +23	+39 +28	+48 +35		+59 +43		+72 +53	+78 +59	+93 +71	+101 +79	+117 +92	+125 +100	+133 +108	+151 +122	+159 +130	+169 +140		
r6	●	+16 +10	+23 +15	+28 +19	+34 +23	+41 +28		+50 +34		+60 +41	+62 +43	+73 +51	+76 +54	+88 +63	+90 +65	+93 +68	+106 +77	+109 +80	+113 +84		
n6	●	+10 +4	+16 +8	+19 +10	+23 +12	+28 +15		+33 +17		+39 +20		+45 +23		+52 +27			+60 +31				
m6		+8 +2	+12 +4	+15 +6	+18 +7	+21 +8		+25 +9		+30 +11		+35 +13		+40 +15			+46 +17				
k6		+6 0	+9 +1	+10 +1	+12 +1	+15 +2		+18 +2		+21 +2		+25 +3		+28 +3			+33 +4				
j6		+4 -2	+6 -2	+7 -2	+8 -3	+9 -4		+11 -5		+12 -7		+13 -9		+14 -11			+16 -13				
h6	●	0 -6	0 -8	0 -9	0 -11	0 -13		0 -16		0 -19		0 -22		0 -25			0 -29				
g6		-2 -8	-4 -12	-5 -14	-6 -17	-7 -20		-9 -25		-10 -29		-12 -34		-14 -39			-15 -44				
r7	●	-6 -16	-10 -22	-13 -28	-16 -34	-20 -41		-25 -50		-30 -60		-36 -71		-43 -83			-50 -96				
Hole H 8		+14 0	+18 0	+22 0	+27 0	+33 0		+39 0		+46 0		+54 0		+63 0			+72 0				
x8	●	+34 +20	+46 +28	+56 +34	+67 +40	+72 +45	+87 +54	+97 +64	+119 +70	+136 +97	+168 +122	+192 +146	+232 +178	+264 +210	+311 +248	+343 +280	+373 +310	+422 +350	+457 +385	+497 +425	
u8	●	+32 +18	+41 +23	+50 +28	+60 +33	+60 +33	+74 +41	+81 +48	+99 +60	+109 +70	+133 +87	+148 +102	+178 +124	+198 +144	+233 +170	+253 +190	+273 +210	+308 +236	+330 +258	+356 +284	
h9	●	0 -25	0 -30	0 -36	0 -43	0 -52		0 -62		0 -74		0 -87		0 -100			0 -115				
f7	●	-6 -16	-10 -22	-13 -28	-16 -34	-20 -41		-25 -50		-30 -60		-36 -71		-43 -83			-50 -96				
d9		-20 -45	-30 -60	-40 -76	-50 -93	-65 -117		-80 -142		-100 -174		-120 -207		-145 -245			-170 -285				
Hole H 11		+60 0	+75 0	+90 0	+110 0	+130 0		+160 0		+190 0		+220 0		+250 0			+290 0				
h9		0 -25	0 -30	0 -36	0 -43	0 -52		0 -62		0 -74		0 -87		0 -100			0 -115				
h11		0 -60	0 -75	0 -90	0 -110	0 -130		0 -160		0 -190		0 -220		0 -250			0 -290				
d9		-20 -45	-30 -60	-40 -76	-50 -93	-65 -117		-80 -142		-100 -174		-120 -207		-145 -245			-170 -285				
c11		-60 -120	-70 -145	-80 -170	-95 -205	-110 -240		-120 -280		-130 -290	-140 -330	-150 -340	-170 -390	-180 -400	-200 -450	-210 -460	-230 -480	-240 -530	-260 -550	-280 -570	
a11		-270 -330	-270 -345	-280 -370	-290 -400	-300 -430		-310 -470		-320 -480	-340 -530	-360 -550	-380 -600	-410 -630	-460 -710	-520 -770	-580 -830	-660 -950	-740 -1030	-820 -1110	



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Industrial Tooling and Equipment by Hoffmann Group



Information on deliveries

Electrical equipment (ElectroG)

Old equipment must be disposed of separately to household waste. Any (rechargeable) batteries and lamps (bulbs) that are not fixed in place must be removed and disposed of separately in an environmentally friendly manner. As a retailer, we are legally obligated to take back old equipment free of charge. It can be returned to us when it is not being used any more. It will then be disposed of properly or recycled in line with the legal regulations.

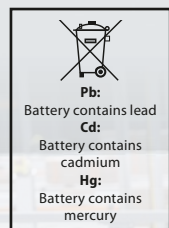
The icon with the bin crossed out indicates that the device must not be disposed of with household waste once it reaches the end of its service life, and instead must be disposed of at an approved collection or disposal point.

The end user themselves is responsible for deleting any personal data that may be on the old equipment intended for disposal.

We are registered with the German electronic waste recycling register "Stiftung Elektro-Altgeräte Register" (EAR) under registration number DE35368485.

Batteries and rechargeable batteries (BattG)

End users are legally obligated to return old (rechargeable) batteries. (Rechargeable) batteries can be returned to us free of charge after reaching the end of their service life. This ensures that you comply with your legal obligations and help to protect the environment. We will recycle the materials in an environmentally responsible manner. In order to prevent short circuits, mask off any exposed battery poles before returning the products.



The "Collect batteries separately" icon indicates that batteries must be disposed of at special recycling points rather than with general household waste. Batteries containing substances like mercury (Hg), cadmium (Cd) or lead (Pb) are also marked with a chemical identifier.

Like all other batteries, lithium batteries must never be disposed of with general rubbish.

German Packaging Act (VerpackG)

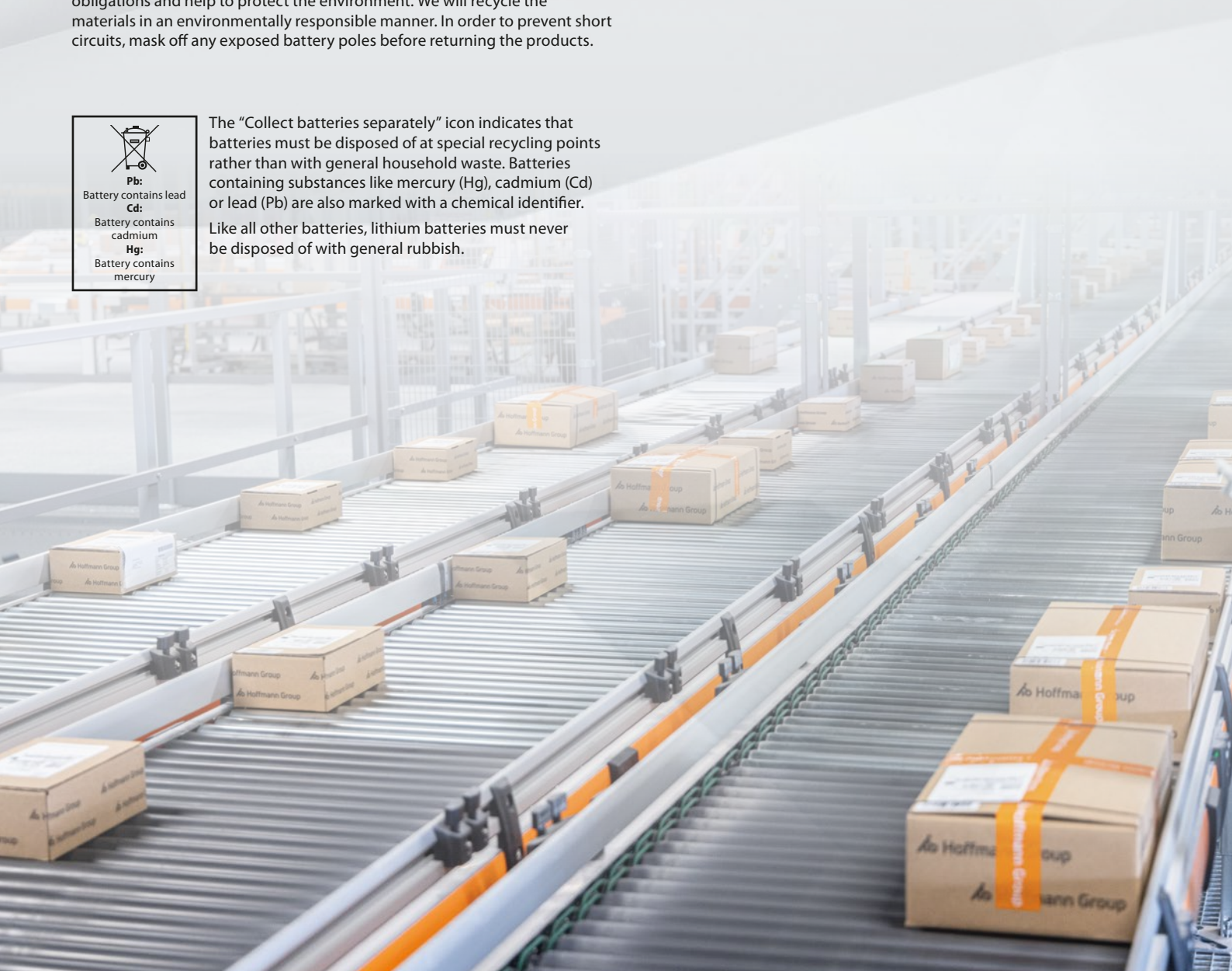
The German Packaging Act (VerpackG) obligates us to participate in a dual system for waste recycling and disposal, which is why we take part in the "Der Grüne Punkt" (The Green Dot) system. We are registered in the LUCID packaging register under number DE3394933750264.

According to the German Packaging Act (VerpackG), we are obligated to take back transport packaging free of charge pursuant to Art. 15 Paragraph 1 Sentence 1. This must be done at the location where it is actually handed over or in its immediate vicinity. If this cannot be done, you are able to send the packaging back to us.

We restrict the volume of packaging to whatever is really necessary and we promote re-usable materials.

Information on express delivery

For some products, we are prevented by law from offering express delivery (by air freight) outside Germany. These products are therefore indicated by a special note in the catalogue. Certain products cannot currently be delivered to some countries.



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for external nut Ø		20-42	95-165
62 8510	Adjustable C-hook spanner with square pin	(eshop)	(eshop)
62 8520	Adjustable C-hook spanner, for torque wrench with square pin	(eshop)	(eshop)
overall length (62 8510)	mm	180	335
effective length A (62 8520)	mm	100	220
overall length (62 8520)	mm	135	298

Order quantity	Article no.	Size
2	6 2 8 5 1 0	2 0 - 4 2

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If shown **with brackets ()** = supplied from the **manufacturer**

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Quantities less than a pack unit are subject to a repackaging charge.

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... and the desired **size required** (printed bold in the catalogue, and highlighted in grey) **even if there is only one size listed** ...

... together with your **customer number**, or enter this information in the appropriate field – **done!**



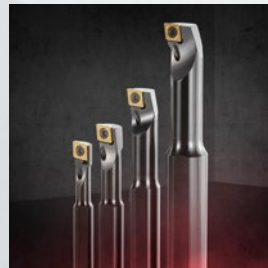
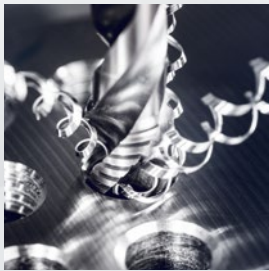
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