

INCH/METRIC

WK20PM



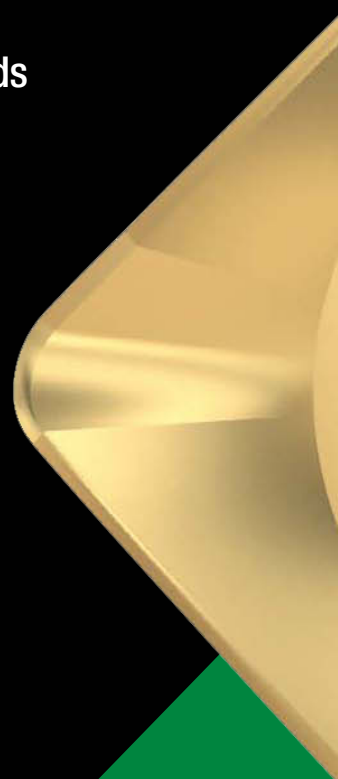
New PVD Grade for
Unmatched Performance in
Cast Iron, Ductile Iron and
Compacted Graphite Iron

WIDIA ™

WK20PM PVD indexable milling inserts are the perfect solution for high productivity in medium to rough machining applications, providing the cutting edge strength and wear resistance needed when machining short chips in all iron applications.

THE HIGH-POWER IMPULSE MAGNETRON SPUTTERING (HiPIMS) COATING

- ▽ Creates a smoother insert surface and optimal layer adhesion
- ▽ Enhances cutting edge strength and wear resistance
- ▽ Provides consistent, repeatable performance with longer tool life
- ▽ Features a gold top layer on the cutting edge for quick and easy wear detection
- ▽ Supports high metal removal rates through increased cutting speeds



Industries



General
Engineering



Automotive



Oil &
Gas



Wind &
Solar

Materials

K

Grey Cast Iron, Nodular Iron, Ductile Cast Iron, Compacted Graphite Iron (CGI)

Applications



Face
Milling



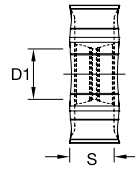
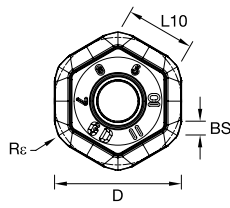
Shoulder
Milling



Slot
Milling

WIDIA ™





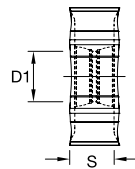
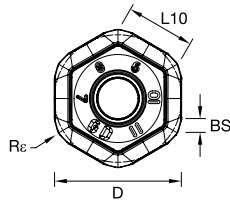
- Primary
- Secondary

P	
M	
K	●
N	
S	
H	

M1200

HNPJ-GD • WK20PM Grade

ISO Catalog Number	Cutting Edges	D		D1		L10		S		BS		R _c		WK20PM
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	
HNPJ0905ANSNGD	12	0.625	15,88	0.197	5	0.338	8,58	0.219	5,56	0.071	1,80	0.047	1,20	7209149



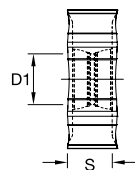
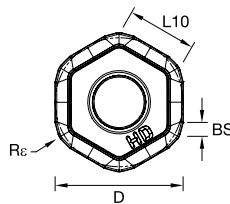
- Primary
- Secondary

P	
M	
K	●
N	
S	
H	

M1200

HNGJ-GD • WK20PM Grade

ISO Catalog Number	Cutting Edges	D		D1		L10		S		BS		R _c		WK20PM
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	
HNGJ0905ANSNGD	12	0.625	15,88	0.197	5	0.338	8,58	0.219	5,56	0.068	1,71	0.047	1,20	7209149



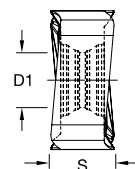
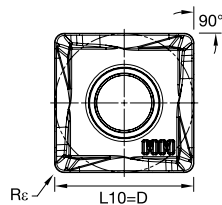
- Primary
- Secondary

P	
M	
K	●
N	
S	
H	

M1200 Mini

HNPJ-HD • WK20PM Grade

ISO Catalog Number	Cutting Edges	D		D1		L10		S		BS		R _c		WK20PM
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	
HNPJ0704ANSNHD	12	0.500	12,70	0.197	5	0.269	6,80	0.174	4,41	0.057	1,45	0.047	1,20	7255800



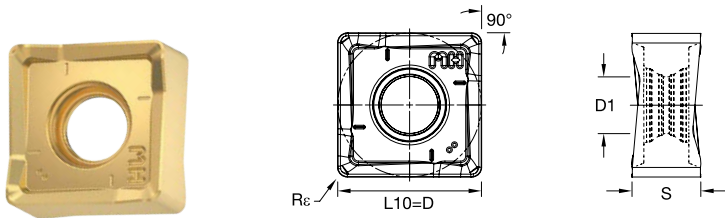
- Primary
- Secondary

P	
M	
K	●
N	
S	
H	

VSM890 SN12

SNHX-MM • WK20PM Grade

ISO Catalog Number	Cutting Edges	D		D1		L10		S		R _c		WK20PM
		in	mm	in	mm	in	mm	in	mm	in	mm	
SNHX120408PNSRMM	8	0.472	12	0.187	4,75	0.472	12	0.181	4,61	0.032	0,80	7209147



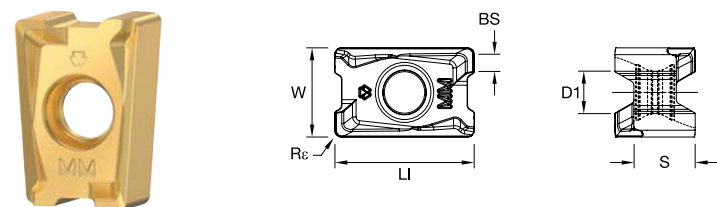
VSM890-12

SNPX12-MHD8 • WK20PM Grade

ISO Catalog Number	Cutting Edges	D		D1		L10		S		R _ε		WK20PM
		in	mm	in	mm	in	mm	in	mm	in	mm	
SNPX120408PNSRMHD8	8	0.472	12	0.187	4,75	0.472	12	0.187	4,76	0.032	0,80	7230955

- Primary
- Secondary

P	Blue
M	Yellow
K	Red
N	Green
S	Orange
H	Grey



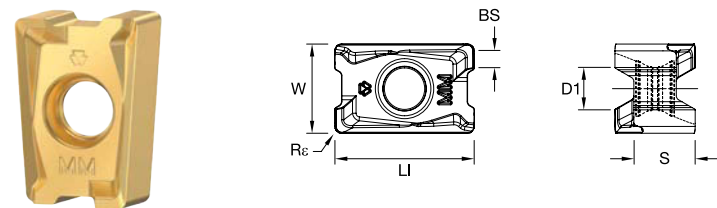
VSM490-10

XNPU-MM • WK20PM Grade

ISO Catalog Number	Cutting Edges	D1		W		L1		S		BS		R _ε		WK20PM
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	
XNPU100408SRMM	4	0.134	3,40	0.260	6,60	0.457	11,60	0.190	4,83	0.036	0,90	0.031	0,80	7255796
XNPU100412SRMM	4	0.134	3,40	0.260	6,60	0.457	11,61	0.190	4,83	0.022	0,50	0.047	1,20	7255797

- Primary
- Secondary

P	Blue
M	Yellow
K	Red
N	Green
S	Orange
H	Grey



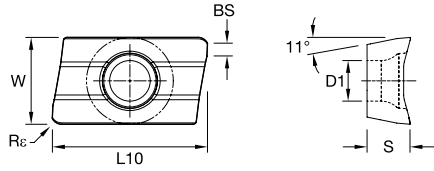
VSM490-15

XNPU-MM • WK20PM Grade

ISO Catalog Number	Cutting Edges	D1		W		L1		S		BS		R _ε		WK20PM
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	
XNPU15T608SRMM	4	0.183	4,65	0.394	10	0.634	16,10	0.271	6,88	0.076	1,90	0.032	0,80	7255794
XNPU15T612SRMM	4	0.183	4,65	0.394	10	0.634	16,10	0.271	6,88	0.059	1,50	0.047	1,20	7255795

- Primary
- Secondary

P	Blue
M	Yellow
K	Red
N	Green
S	Orange
H	Grey



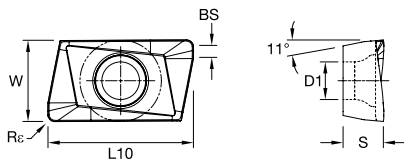
M680 Series

XPHT16 • WK20PM Grade

- Primary
○ Secondary

P	
M	
K	●
N	
S	
H	

ISO Catalog Number	Cutting Edges	D1		W		L10		S		BS		Rε		WK20PM
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	
XPHT160408	2	0.175	4,40	0.375	9,53	0.617	15,67	0.188	4,76	0.071	1,80	0.031	0,80	7255778
XPHT160412	2	0.175	4,40	0.375	9,53	0.617	15,67	0.188	4,76	0.059	1,50	0.047	1,20	



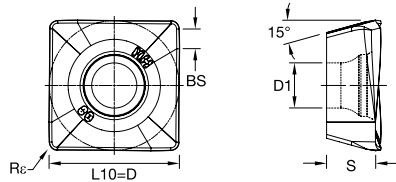
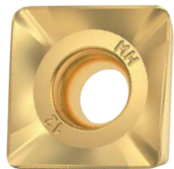
M680 Series

XPHT16-ERGE • WK20PM Grade

- Primary
○ Secondary

P	
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ISO Catalog Number	Cutting Edges	D1		W		L10		S		BS		Rε		WK20PM
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	
XPHT160408ERGE	2	0.175	4,40	0.372	9,44	0.617	15,67	0.188	4,76	0.071	1,80	0.031	0,80	7255780
XPHT160412ERGE	2	0.175	4,40	0.372	9,44	0.617	15,67	0.188	4,76	0.059	1,50	0.047	1,20	



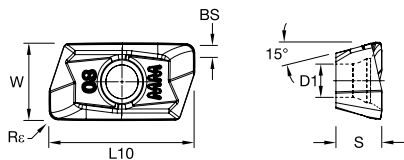
M690 Series

SDMX12-MH • WK20PM Grade

- Primary
○ Secondary

P	
M	
K	●
N	
S	
H	

ISO Catalog Number	Cutting Edges	D		D1		L10		S		BS		Rε		WK20PM
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	
SDMX120408RMH	4	0.500	12,70	0.173	4,40	0.500	12,70	0.188	4,76	0.076	1,93	0.031	0,80	7255793
SDMX120412RMH	4	0.500	12,70	0.173	4,40	0.500	12,70	0.188	4,76	0.061	1,54	0.047	1,20	



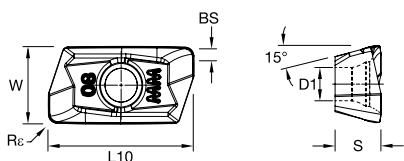
- Primary
- Secondary

P	
M	
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VSM11

XDPT-MM • WK20PM Grade

ISO Catalog Number	Cutting Edges	D1		W		L10		S		BS		Re		7255799
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	
XDPT110408PDSRMM	2	0.118	3	0.271	6,90	0.463	11,75	0.163	4,13	0.065	1,66	0.031	0,78	7255799



- Primary
- Secondary

P	
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VSM17

XDPT-MM • WK20PM Grade

ISO Catalog Number	Cutting Edges	D1		W		L10		S		BS		Re		7255798 7209172
		in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	
XDPT170408PESRMM	2	0.173	4,40	0.378	9,60	0.658	16,71	0.193	4,90	0.085	2,15	0.031	0,80	7255798 7209172
XDPT170412PESRMM	2	0.173	4,40	0.378	9,60	0.658	16,71	0.193	4,90	0.070	1,77	0.047	1,20	7255798 7209172

Recommended Starting Speeds

[m/min]

[SFM]

Material Group	WK20PM
P	1 - - -
P	2 - - -
P	3 - - -
P	4 - - -
P	5 - - -
P	6 - - -
M	1 - - -
M	2 - - -
M	3 - - -
K	1 360 290 245
K	2 280 230 195
K	3 210 175 140
N	1 - - -
N	2 - - -
N	3 - - -
S	1 - - -
S	2 - - -
S	3 - - -
S	4 - - -
H	1 - - -

Material Group	WK20PM
P	1 - - -
P	2 - - -
P	3 - - -
P	4 - - -
P	5 - - -
P	6 - - -
M	1 - - -
M	2 - - -
M	3 - - -
K	1 1180 950 805
K	2 920 755 640
K	3 690 575 460
N	1 - - -
N	2 - - -
N	3 - - -
S	1 - - -
S	2 - - -
S	3 - - -
S	4 - - -
H	1 - - -

NOTE: First choice starting feed (fz) is in bold type.

As the average chip thickness increases, the speed should be decreased.



PERFECT FOR HIGH PRODUCTIVITY IN MEDIUM TO ROUGH MACHINING FOR IRONS

