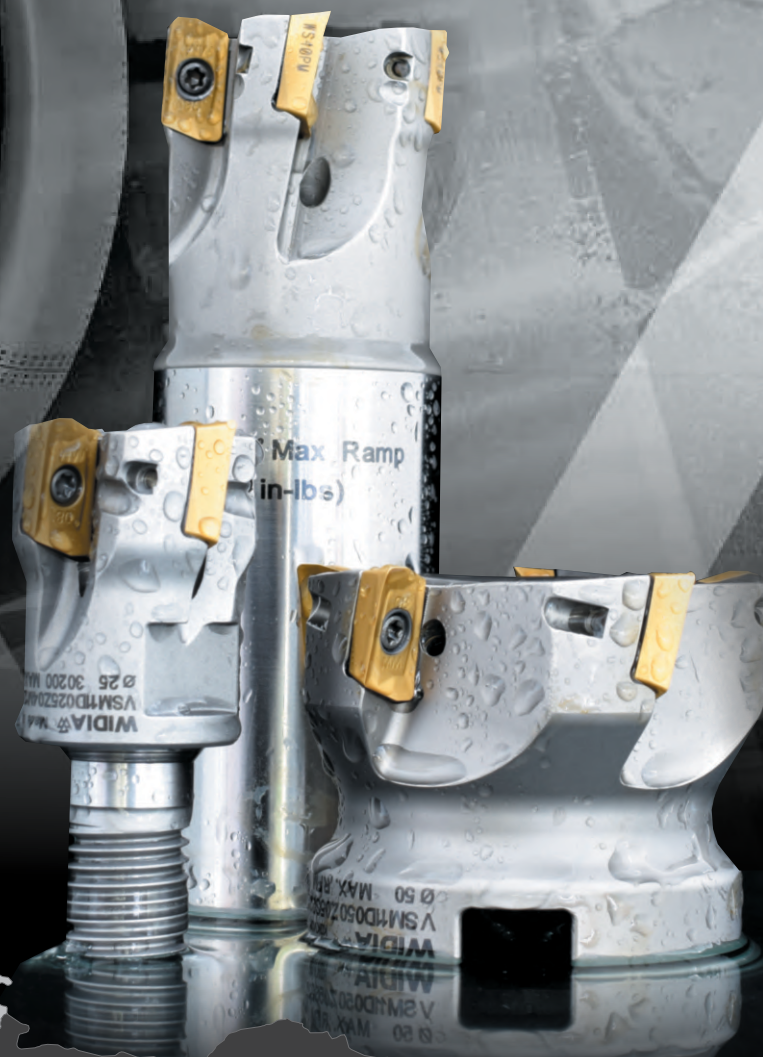


FRIDRO

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WIDIA VSM 11&17



03/25
special offer

WIDIATM

TECHNICAL DATA

VSM 11 TECHNICAL DATA

• Recommended Starting Speeds [m/min]

Material Group	WDN10U	WK15CM	WK15PM	WN10HM	WN25PM	WS40PM
P	1	—	—	—	—	—
	2	—	—	—	—	—
	3	—	—	—	—	—
	4	—	—	—	—	—
	5	—	—	—	—	—
	6	—	—	—	—	—
M	1	—	—	—	—	170 145 120
	2	—	—	—	—	150 110 80
	3	—	—	—	—	210 170 140
K	1	—	—	—	—	210 170 140
	2	—	—	—	—	180 145 120
	3	—	—	—	—	145 110 85
N	1	420 385 340	270 245 215	—	—	—
	2	335 295 275	210 190 175	—	—	—
	3	280 250 230	175 160 145	—	—	—
S	1	4010 3505 2990	—	795 695 600	1075 945 875	—
	2	1600 1495 1400	—	795 695 600	945 875 760	—
	3	1600 1495 1400	—	560 485 420	945 875 760	—
H	1	—	—	—	—	—

NOTE: FIRST choice starting speeds are in bold type. As the average chip thickness increases, the speed should be decreased.
 *Material groups P, M, K, and H show recommended starting speeds for dry machining. For wet machining, reduce speed by 20%.
 *Material groups N and S show recommended starting speeds for wet machining. Not recommended for dry machining.

• Recommended Starting Feeds [mm]

Programmed Feed per Tooth (fz) as a % of Radial Depth of Cut (ae)																		
Insert Geometry		5%			10%			20%			30%			40-100%			Insert Geometry	
F.PCD	0.12	0.18	0.29	0.08	0.13	0.21	0.06	0.10	0.16	0.06	0.09	0.14	0.05	0.08	0.12	F.PCD		
F.ALP	0.12	0.22	0.31	0.08	0.16	0.23	0.06	0.12	0.17	0.06	0.10	0.15	0.05	0.10	0.14	F.ALP		
E.ML	0.17	0.27	0.36	0.13	0.20	0.26	0.10	0.15	0.19	0.08	0.13	0.17	0.08	0.12	0.16	E.ML		
S.MM/S.MU	0.23	0.32	0.47	0.17	0.23	0.34	0.13	0.17	0.25	0.11	0.15	0.22	0.10	0.14	0.20	S.MM/S.MU		
S.MH	0.23	0.37	0.56	0.17	0.27	0.40	0.13	0.20	0.30	0.11	0.17	0.26	0.10	0.16	0.24	S.MH		

NOTE: Use "Light Machining" value as starting feed rate.

Light Machining	General Purpose	Heavy Machining
-----------------	-----------------	-----------------

VSM 17 TECHNICAL DATA

• Recommended Starting Speeds [m/min]

Material Group	WDN10U	WK15CM	WK15PM	WN10HM	WN25PM	WS40PM
P	1	—	—	—	—	—
	2	—	—	—	—	—
	3	—	—	—	—	—
	4	—	—	—	—	—
	5	—	—	—	—	—
	6	—	—	—	—	—
M	1	—	—	—	—	170 145 120
	2	—	—	—	—	150 110 80
	3	—	—	—	—	210 170 140
K	1	—	—	—	—	210 170 140
	2	—	—	—	—	180 145 120
	3	—	—	—	—	145 110 85
N	1	420 385 340	270 245 215	—	—	—
	2	335 295 275	210 190 175	—	—	—
	3	280 250 230	175 160 145	—	—	—
S	1	4010 3505 2990	—	795 695 600	1075 945 875	—
	2	1600 1495 1400	—	795 695 600	945 875 760	—
	3	1600 1495 1400	—	560 485 420	945 875 760	—
H	1	—	—	—	—	—

NOTE: FIRST choice starting speeds are in bold type. As the average chip thickness increases, the speed should be decreased.
 *Material groups P, M, K, and H show recommended starting speeds for dry machining. For wet machining, reduce speed by 20%.
 *Material groups N and S show recommended starting speeds for wet machining. Not recommended for dry machining.

• Recommended Starting Feeds [mm]

Insert Geometry	Programmed Feed per Tooth (fz) as a % of Radial Depth of Cut (ae)														Insert Geometry	
	5%			10%			20%			30%			40-100%			
F.ALP	0.12	0.23	0.40	0.08	0.17	0.29	0.06	0.13	0.22	0.06	0.11	0.19	0.05	0.10	0.18	F.ALP
E.ML	0.16	0.35	0.46	0.12	0.25	0.33	0.09	0.19	0.25	0.08	0.18	0.22	0.07	0.15	0.20	E.ML
S.MM/S.MU	0.16	0.40	0.64	0.12	0.29	0.46	0.09	0.22	0.34	0.08	0.19	0.30	0.07	0.18	0.28	S.MM/S.MU
S.MH	0.23	0.46	0.74	0.17	0.33	0.54	0.13	0.25	0.40	0.11	0.22	0.35	0.10	0.20	0.32	S.MH

NOTE: Use "Light Machining" value as starting feed rate.

Light Machining	General Purpose	Heavy Machining
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WIDIATM

VSM 11 INSERTS

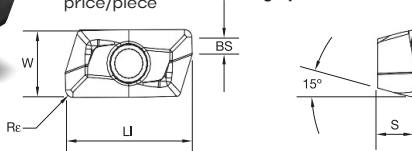
Insert XDCT 110408PDFRALP

• first choice
○ alternative



8,10
price/piece

For roughing and finishing
aluminum machining,
high precision!!



P	●
M	●
K	●
N	●
S	●
H	●

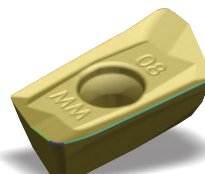
WN10HM
5936171

Cat. no.: 5936171

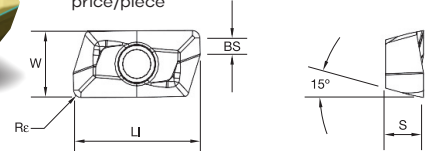
cutting edges	LI	BS	S	W	Rε	hm
2	13,44	1,69	4,00	6,90	0,80	0,02

Insert XDPT 110408PD SRMM

• first choice
○ alternative



7,30
price/piece



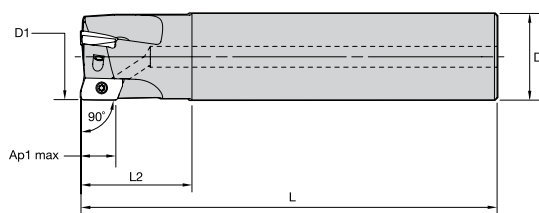
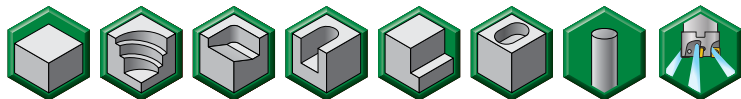
P	●
M	●
K	●
N	●
S	●
H	●

WS40PM
6180148

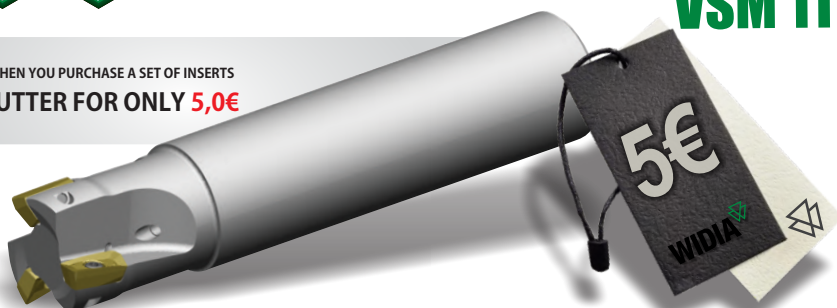
Cat. no.: 6180148

cutting edges	LI	BS	S	W	Rε	hm
2	13,50	1,66	4,13	6,94	0,78	0,06

Shank milling cutter VSM 11 with cylindrical clamping + insert set XD...



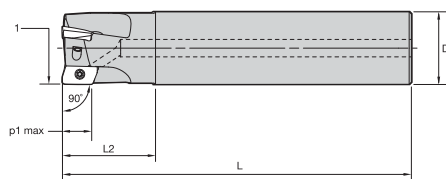
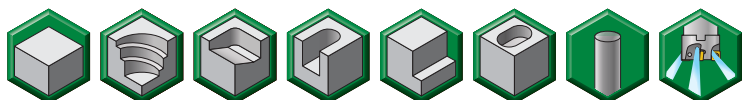
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CUTTER FOR ONLY **5,0€**



WIDIA
VSM 11

Cat. no.	label	D1	D	L	L2	Ap1 max	Z	max ramp angle	max RPM	coolant supply	kg	No. of inserts in the set	
5416633	VSM11D016Z02A16XD11L100	16	16	100	31	11,5	2	10,0	41.400	yes	0,12	20	
5416635	VSM11D020Z03A20XD11L110	20	20	110	31	11,6	3	7,8	35.100	yes	0,23	30	
5416636	VSM11D025Z03A25XD11L120	25	25	120	33	11,5	3	5,3	30.200	yes	0,39	30	
5416638	VSM11D032Z03A32XD11L130	32	32	130	41	11,4	3	3,6	25.800	yes	0,70	30	

Shank milling cutter VSM 11 with cylindrical clamping + insert set XD...



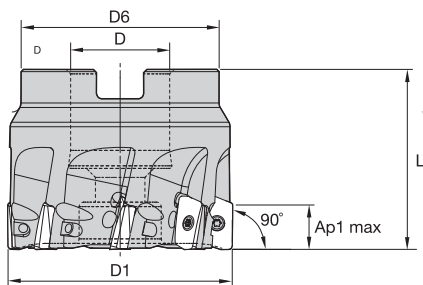
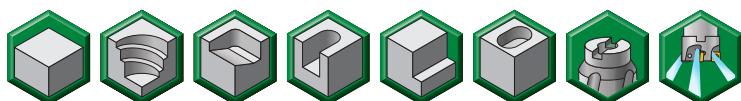
WHEN YOU PURCHASE A SET OF INSERTS
CUTTER FOR ONLY **5,0€**



WIDIA
VSM 11

Cat. no.	label	D1	D	L	L2	Ap1 max	Z	max ramp angle	max RPM	coolant supply	kg	No. of inserts in the set	
5416700	VSM11D016Z02A16XD11L170	16	16	170	25	11,5	2	10,0°	41400	yes	0,23	20	
5416701	VSM11D018Z02A16XD11L170	18	16	170	25	11,6	2	9,7°	37900	yes	0,23	20	
5416703	VSM11D020Z03A20XD11L170	20	20	170	41	11,6	3	7,8°	35100	yes	0,36	30	
5416704	VSM11D022Z03A20XD11L170	22	20	170	30	11,5	3	6,6°	32900	yes	0,37	30	

Milling head VSM 11 + insert set XD...



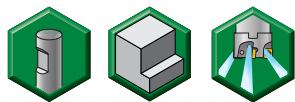
WHEN YOU PURCHASE A SET OF INSERTS
CUTTER FOR ONLY **5,0€**



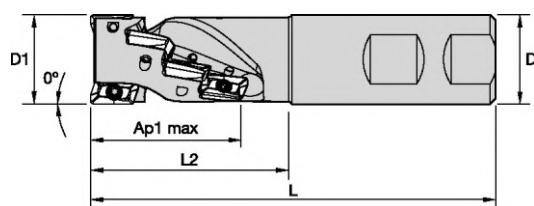
WIDIA
VSM 11

Cat. no.	label	D1	D	D6	L	Ap1 max	Z	max ramp angle	max RPM	coolant supply	kg	No. of inserts in the set	
5416316	VSM11D040Z04S016XD11	40	16	37	40	11,4	4	2,6	22.600	yes	0,22	40	
5416318	VSM11D050Z05S022XD11	50	22	44	40	11,3	5	1,9	19.900	yes	0,33	40	
5416340	VSM11D063Z06S022XD11	63	22	44	40	11,3	6	1,5	17.500	yes	0,50	50	
5416342	VSM11D080Z08S027XD11	80	27	60	50	11,3	8	1,1	15.300	yes	1,14	60	
5416345	VSM11D100Z09S032XD11	100	32	80	50	11,3	9	0,9	13.600	yes	1,79	60	
5416347	VSM11D125Z011S040XD11	125	40	80	63	11,3	11	0,7	12.100	yes	3,01	60	

Helical End Mill VSM11 with Weldon Shank + insert set XD...



WIDIA
VSM 11

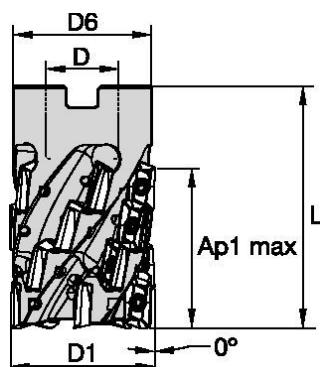
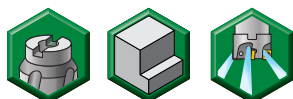


WHEN YOU PURCHASE A SET OF INSERTS
CUTTER FOR ONLY 19€



Cat. no.	label	D1	D	L	L2	Ap1 max	Z	max ramp angle	Z U	coolant supply	No. of inserts in the set	
6738387	VSM11D016Z02A16XD11L100	25	25	113	56	43,1	8	3,2	2	yes	40	
6738389	VSM11D020Z03A20XD11L110	32	32	117	56	42,7	12	3,2	3	yes	40	
6738411	VSM11D025Z03A25XD11L120	32	32	117	56	42,2	16	4,5	4	yes	50	

Helical Shell Mill VSM11 + insert set XD...



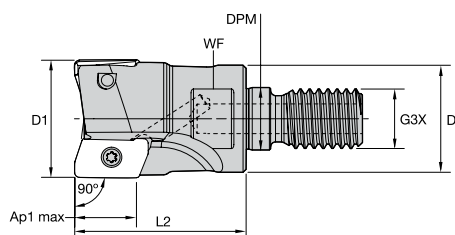
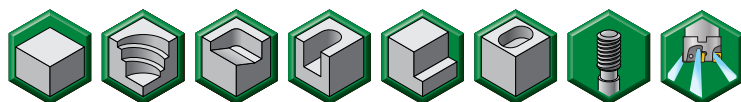
WHEN YOU PURCHASE A SET OF INSERTS
CUTTER FOR ONLY 39€



WIDIA
VSM 11

Cat. no.	label	D1	D	D6	L	Ap1 max	Z	max ramp angle	Z U	coolant supply	No. of inserts in the set	
6738412	VSM11H040Z04S016XD11	40	16	37	60	42,3	16	2,4	4	yes	40	
6738413	VSM11H040Z05S016XD11	40	16	37	60	42,7	20	2,4	5	yes	50	
6738414	VSM11H050Z04S022XD11	50	22	44	70	51,6	20	1,8	4	yes	40	
6738415	VSM11H050Z06S022XD11	50	22	44	70	51,6	30	1,8	6	yes	60	

Milling cutter VSM 11 + Insert set XD



WHEN YOU PURCHASE A SET OF INSERTS
CUTTER FOR ONLY 5,0€

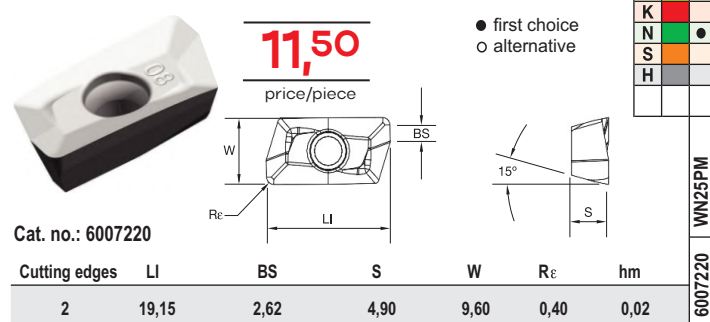


WIDIA
VSM 11

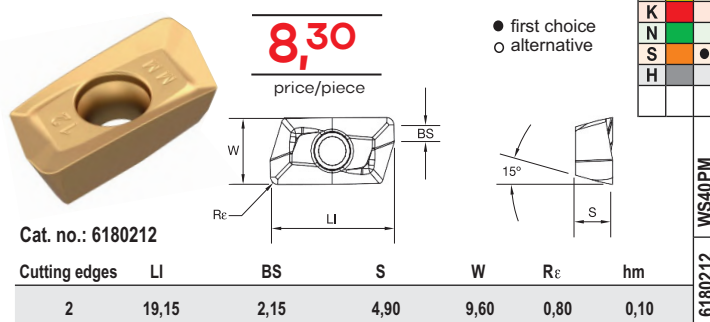
Cat. no.	label	D1	D	DPM	G3X	L2	WF	Ap1 max	Z	max ramp angle	max RPM	coolant supply	kg	No. of inserts in the set	
5417011	VSM11D016Z02M08XD11	16	13	8,5	M8	25	10	11,5	2	10,0	41.400	yes	0,02	20	
5417013	VSM11D020Z03M10XD11	20	18	10,5	M10	28	15	11,6	3	7,8	35.100	yes	0,05	30	
5417015	VSM11D025Z04M12XD11	25	21	12,5	M12	32	17	11,5	4	5,3	30.200	yes	0,08	40	
5417017	VSM11D032Z04M16XD11	32	29	17,0	M16	40	24	11,4	4	3,6	25.800	yes	0,18	40	
5417019	VSM11D040Z06M16XD11	40	29	17,0	M16	40	24	11,4	6	2,6	22.600	yes	0,24	40	

WIDIA VSM 17 INSERTS

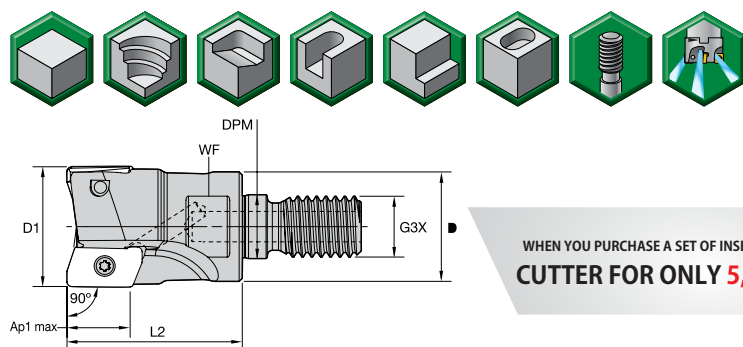
Insert XDCT 170404PEFRALP



Insert XDPT 170408PESRMM

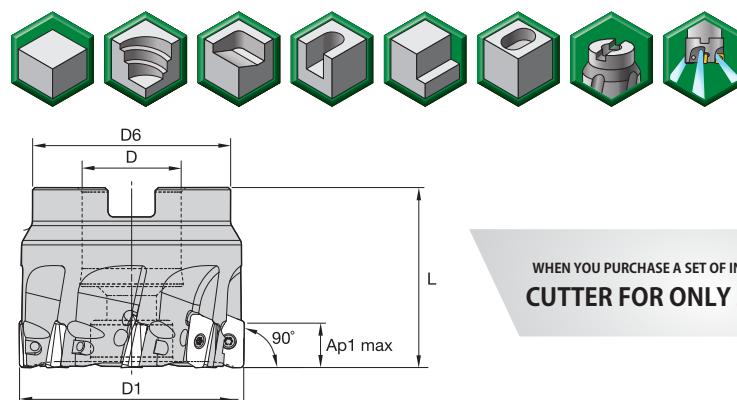


Milling cutter VSM 17 + Insert set XD ...



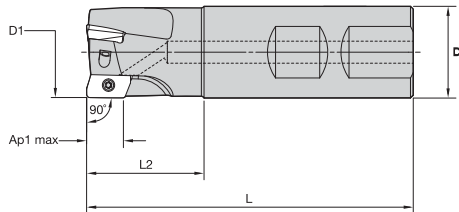
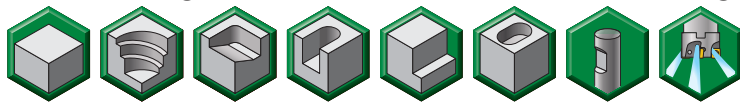
Cat. no.	label	D1	D	DPM	G3X	L2	WF	Ap1 max	Z	max ramp angle	max RPM	coolant supply	kg	No. of inserts in the set
5988091	VSM17D025Z02M12XD17	25	21	12,5	M12	35	17	16,3	2	8.8°	41800	yes	0,08	20
5988092	VSM17D032Z03M16XD17	32	29	17,0	M16	40	24	16,3	3	5.7°	34700	yes	0,17	30
5988131	VSM17D40Z03M016XD17	40	29	17,0	M16	40	24	16,2	3	4.0°	29800	yes	0,20	30
5988093	VSM17D040Z04M16XD17	40	29	17,0	M16	40	24	16,2	4	4.0°	29800	yes	0,20	40

Milling head VSM 17 + insert set XD...

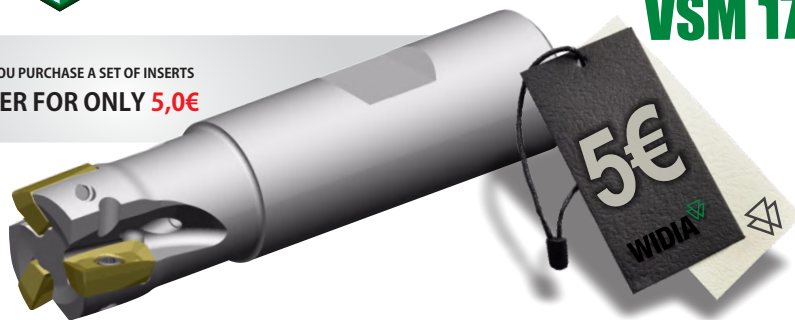


Cat. no.	label	D1	D	D6	L	Ap1 max	Z	max ramp angle	max RPM	coolant supply	kg	No. of inserts in the set
5988094	VSM17D040Z04S16XD17	40	16	37	40	16,2	4	4.0	29800	yes	0,19	40
5988095	VSM17D050Z04S22XD17	50	22	45	40	16,1	4	3.0	25800	yes	0,28	40
5988096	VSM17D050Z05S22XD17	50	22	45	40	16,1	5	3.0	25800	yes	0,29	50
5988134	VSM17D050Z06S22XD17	50	22	45	40	16,1	6	3.0	25800	yes	0,28	50
5988097	VSM17D063Z05S22XD17	63	22	50	40	16,0	5	2.1	22400	yes	0,45	50
5988135	VSM17D063Z06S22XD17	63	22	50	40	16,0	6	2.1	22400	yes	0,45	50
5988098	VSM17D080Z06S27XD17	80	27	60	50	15,9	6	1.6	19500	yes	0,98	50
5988133	VSM17D080Z07S27XD17	80	27	60	50	15,9	7	1.6	19500	yes	0,96	50
5988099	VSM17D100Z08S32XD17	100	32	80	50	15,8	8	1.2	17200	yes	1,63	70
5988100	VSM17D125Z09S40XD17	125	40	90	63	15,7	9	0.9	15200	yes	2,94	70
5988101	VSM17D160Z12S40XD17	160	40	100	63	15,6	12	0.7	13300	yes	3,66	70

Shank milling cutter VSM 17 with Weldon clamping + insert set XD...



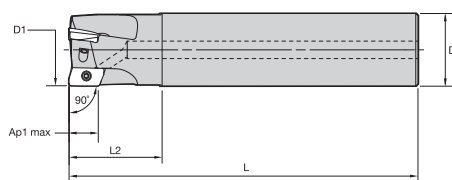
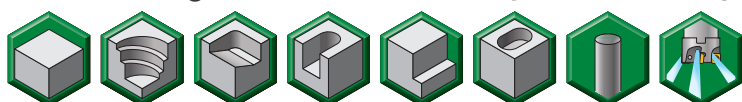
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CUTTER FOR ONLY **5,0€**



WIDIA
VSM 17

Cat. no.	label	D1	D	L	L2	Ap1 max	Z	max ramp angle	max RPM	coolant supply	kg	No. of inserts in the set
5988102	VSM17D025Z02B25XD17	25	25	90	33	16,3	2	8.8°	41800	yes	0,26	20
5988103	VSM17D032Z03B32XD17	32	32	100	39	16,3	3	5.7°	34700	yes	0,48	30
5988104	VSM17D040Z04B40XD17	40	40	110	39	16,2	4	4.0°	29800	yes	0,87	40

Shank milling cutter VSM 17 with cylindrical clamping + insert set XD...



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Cat. no.	label	D1	D	L	L2	Ap1 max	Z	max ramp angle	max RPM	coolant supply	kg	No. of inserts in the set
5988055	VSM17D025Z02A25XD17L110	25	25	110	44	16,3	2	8.8°	41800	yes	0,32	20
5988056	VSM17D025Z02A25XD17L170	25	25	170	44	16,3	2	8.8°	41800	yes	0,54	20
5988107	VSM17D032Z02A32XD17L120	32	32	120	50	16,3	2	5.7°	34700	yes	0,60	20
5988057	VSM17D032Z03A32XD17L120	32	32	120	50	16,3	3	5.7°	34700	yes	0,60	30
5988109	VSM17D040Z03A32XD17L130	40	32	130	50	16,2	3	4.0°	29800	yes	0,77	30
5988059	VSM17D040Z04A32XD17L130	40	32	130	50	16,2	4	4.0°	29800	yes	0,77	40
5988060	VSM17D040Z04A32XD17L250	40	32	250	50	16,2	4	4.0°	29800	yes	1,49	40

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