

# MILLING



## APPLICATION GUIDE & INDEX

Holder	Type	Application	Size Range	Page No	Insert	Page No.
M15HF KAPR 10°			Ø40mm - Ø100mm	93	ENMX SDMT/W	95
M1645 KAPR 45°			Ø63mm - Ø160mm	96	ONMU ONHU	97
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G430 KAPR 43°			Ø50mm - Ø125mm	102	ODMT ODMW	103
G45S KAPR 45°			Ø40mm - Ø160mm	100	SEKT	101
G90AF KAPR 90°			Ø40mm - Ø160mm	107	APKT	107
G90RKF G90RF KAPR 0°			Ø40mm - Ø80mm	111, 115	RDKT/W RDMT/W	113, 117
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G90AE KAPR 90°			Ø16mm - Ø32mm	106	APKT	109

## APPLICATION GUIDE & INDEX

Holder	Type	Application	Size Range	Page No	Insert	Page No.	
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M200BS KAPR 0°			Ø12mm - Ø32mm	119	M200B M200R	127-128	
M200BT KAPR 0°			Ø8mm - Ø32mm	120	M200B M200R	127-128	
M200SS KAPR 90°			Ø12mm - Ø32mm	122	M200S M200H	124-126	
M200ST KAPR 90°			Ø8mm - Ø12mm	123	M200S M200H	124-126	
M15HM KAPR 10°			Ø32mm - Ø40mm	94	ENMX SDMT/W	93	
G90AM KAPR 90°			Ø16mm - Ø40mm	108	APKT	109	
G90RKM G90RM KAPR 0°			Ø16mm - Ø42mm	112, 116	RDKT/W RDMT/W	113, 117	
M200BM KAPR 0°			Ø10mm - Ø32mm	121	M200B M200R	127-128	
						MODULAR SHANKS	130-131
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						INSERT INFORMATION	88-91

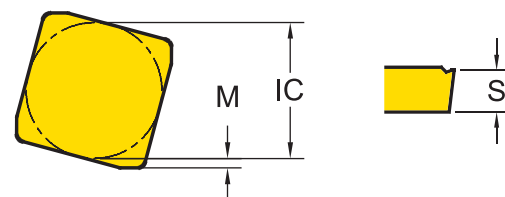
INSERT CODE GUIDE

1 <b>A</b> Shape	2 <b>P</b> Relief Angle (AN)	3 <b>K</b> Tolerance	4 <b>T</b> Clamping & Chipbreaker	5 <b>16</b> Insert Size	6 <b>04</b> Insert Thickness (S)	7 <b>08</b> Corner Radius
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8 <b>PDTR</b> Corner Geometry	9 <b>-HC</b> Chipbreaker	10 <b>ET602</b> Grade
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1 - Shape

Symbol	Shape	Diagram
H	Hexagonal	
O	Octagonal	
P	Pentagonal	
S	Square	
T	Triangular	
V	Rhombic 35°	
W	Trigon	
L	Rectangular	
A	Parallelogram 80°	
R	Round	



3 - Tolerance Class

Symbol	Inner Circle IC (mm)	Nose Height M (mm)	Thickness S (mm)
E	±0.025	±0.025	±0.025
G	±0.025	±0.025	±0.13
K	±0.05~0.15	±0.013	±0.025
M	±0.05~0.15	±0.08~0.2	±0.13
U	±0.08~0.25	±0.13~0.38	±0.13

4 - Clamping & Chipbreaker

Symbol	Clamping	Chipbreaker	Figure
N	No clamping hole	X	
R		One Face	
W	Screw Hole	X	
T		One Face	
U		Both Faces	
X		Special	

5 - Insert Size

\* No Standard for milling insert size

6 - Insert Thickness

\* No Standard for milling insert thickness

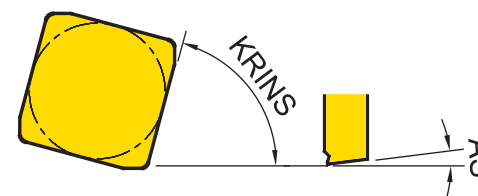
2 - Relief Angle (AN)

Symbol	Relief Angle (AN)	Diagram
N	No Relief Angle	
C	Relief 7°	
P	Relief 11°	
D	Relief 15°	
E	Relief 20°	
F	Relief 25°	
O	Special	

7 - Corner Radius (RE)

Symbol	Corner Radius - RE (mm)	Symbol	Corner Radius - RE (mm)
04	0.4	16	1.6
08	0.8	20	2.0
12	1.2	24	2.4

8 - Corner Geometry



8-1	8-2	8-3	8-4
<b>P</b>	<b>D</b>	<b>T</b>	<b>R</b>
Cutting Edge Angle (KRINS)	Wiper Edge Clearance (AS)	Edge Condition	Feed Direction

8-1 - Cutting Edge Angle (KRINS)

Symbol	Cutting Edge Angle (KRINS)
P	90°
A	45°
D	60°
E	75°
F	85°
Z	Special

8-3 - Edge Condition

Symbol	Edge Condition	Diagram
F	Sharp	
E	Rounded	
T	Chamfered	
S	Chamfered and Rounded	

8-2 - Wiper Edge Clearance (AS)

Symbol	Wiper Edge Clearance (AS)
N	0°
P	11°
D	15°
E	20°
F	25°
Z	Special

8-4 - Feed Direction

Symbol	Feed Direction	Diagram
R	Right-hand Insert	
N	Neutral Insert	
L	Left-hand Insert	



## TERMINOLOGY

- $n$  = Spindle speed in RPM
- $v_c$  = Cutting speed in m/min
- $v_f$  = Table feed rate in mm/min
- $z_n$  = Number of teeth/flutes
- $a_p$  = Axial depth of cut in mm
- $a_e$  = Radial depth of cut in mm
- $D_c$  = Cutter body diameter in mm
- $k_c$  = Specific cutting force in N/mm<sup>2</sup>
- $P_c$  = Power consumption in kW

## USEFUL FORMULAE

**SPINDLE SPEED ( $n$ )**  

$$n = \frac{v_c \times 1000}{\pi \times D_c} \text{ (rev/min)}$$

**CUTTING SPEED ( $v_c$ )**  

$$v_c = \frac{D_c \times \pi \times n}{1000} \text{ (m/min)}$$

**TABLE FEED RATE ( $v_f$ )**  

$$v_f = f_z \times z_n \times n \text{ (mm/min)}$$

**FEED PER TOOTH ( $f_z$ )**  

$$f_z = \frac{v_f}{n \times z_n} \text{ (mm)}$$

**POWER CONSUMPTION ( $P_c$ )**  

$$P_c = \frac{a_p \times a_e \times v_f \times k_c}{60 \times 10^6} \text{ (kW)}$$

**METAL REMOVAL RATE ( $Q$ )**  

$$Q = \frac{a_p \times a_e \times v_f}{1000} \text{ (cm}^3\text{/min)}$$

## INSERT GRADE GUIDE

	<b>P20 - P35</b> <b>M20 - M30</b> <b>K20 - K30</b> <b>S15 - S25</b> <b>H20 - H30</b>	<b>ET602</b> Ultra dense PVD coating with optimal thermal resistance, suitable for most materials.  PVD TiAlN		<b>K10 - K30</b> <b>P15 - P35</b> <b>P15 - P35</b>	<b>ET52C</b> Especially developed for high speed and high performance machining of cast iron.  CVD TiCN - Al <sub>2</sub> O <sub>3</sub>
	<b>P20 - P40</b> <b>K20 - K40</b> <b>P15 - P35</b>	<b>ET62P</b> Hard coating for tough applications with excellent wear and oxidation resistance.  PVD AlCrN		<b>K20 - K40</b> <b>P15 - P35</b> <b>P15 - P35</b>	<b>GM310</b> For M200 square and ball inserts, optimised grade for mould & die applications.  PVD TiAlN
	<b>M20 - M40</b> <b>S20 - S30</b> <b>P10 - P25</b>	<b>ET63P</b> First choice for stainless steel and HRSA materials. PVD coating optimised for milling applications  PVD TiAlN		<b>K10 - K25</b> <b>P10 - P25</b> <b>P10 - P25</b>	<b>GM320</b> For M200 high feed and full radius inserts, optimised grade for high speeds.  PVD TiAlN
	<b>P10 - P15</b> <b>H20 - H30</b> <b>H20 - H30</b>	<b>ET73P</b> Optimised grade for Hardened steels. PVD coating optimised for milling applications  PVD TiAlN		<b>P25 - P40</b> <b>H20 - H40</b> <b>H20 - H40</b>	<b>HM420</b> For M200 square and ball inserts, optimised grade for tough applications.  PVD AlCrN
	<b>N05 - N35</b> <b>H20 - H30</b> <b>H20 - H30</b>	<b>ET20P</b> Optimised grade for aluminium with unique CrN based coating.  PVD CrN		<b>M20 - M35</b> <b>H20 - H30</b> <b>H20 - H30</b>	<b>SS330</b> For M200 ball inserts, optimised grade for stainless steel mould & die applications.  PVD TiAlN

## INSERT GRADE GUIDE

		P STEEL				M STAINLESS STEEL				K CAST IRON			
		05	15	25	35	05	15	25	35	05	15	25	35
PVD	ET602			602				602				602	
	ET62P			62P								62P	
	ET63P							63P					
	ET73P		73P										
	ET20P												
CVD	ET52C											52C	
PVD	GM310			310								310	
	GM320		320									320	
	HM420			420									
	SS330							330					

HARDER ← TOUGHER → HARDER ← TOUGHER → HARDER ← TOUGHER →

		N NON-FERROUS				S HRSA				H Hardened steel			
		05	15	25	35	05	15	25	35	05	15	25	35
PVD	ET602							602				602	
	ET62P												
	ET63P							63P					
	ET73P											73P	
	ET20P			20P									
CVD	ET52C												
PVD	GM310												
	GM320												
	HM420											420	
	SS330												

HARDER ← TOUGHER → HARDER ← TOUGHER → HARDER ← TOUGHER →

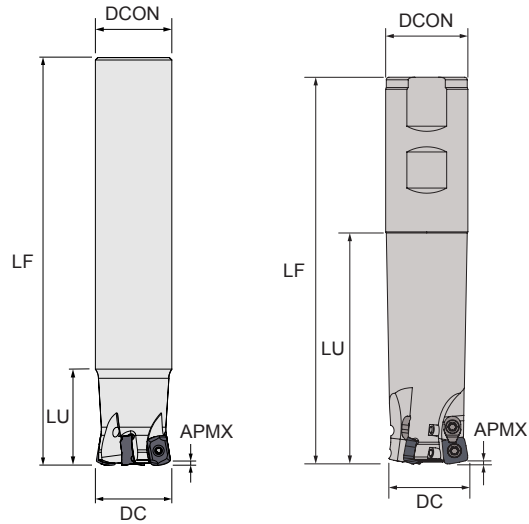
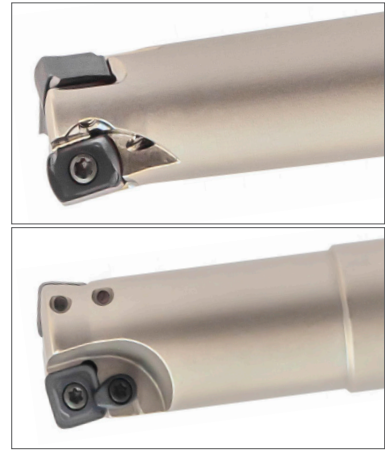
## INSERT EDGE PREPARATION GUIDE

P	M	K	N	S	H	Edge Preparation Guide	
•	•	•					Standard Edge Preparation General machining, first choice
			•				<b>AL</b> Very sharp geometry for Aluminium
	•			•			<b>MS</b> Sharp geometry for Stainless Steel and HRSA
•		•			•		<b>HC</b> Reinforced geometry for Hardened steels
•		•			•		<b>...W/...N</b> Flat insert for Hardened Material and Cast Iron



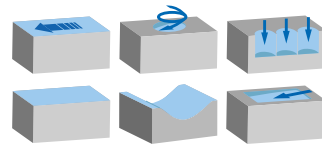
HIGH FEED MILLING

M15HE  
END MILL



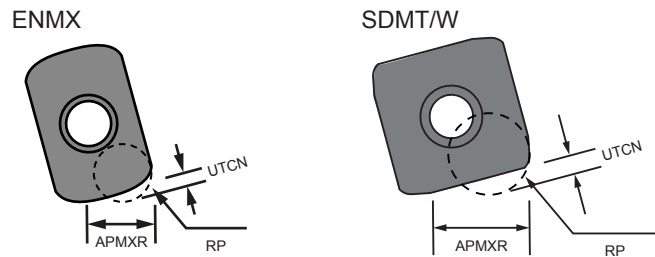
Inserts P.95

	ENMX 0604..
	SDMT 1204..
	SDMW 1204..



EDP Code	TOOL CODE	♠	DC	DCON	LU	LF	APMX	ZEFP	Shank	Insert	Screw	Clamp	Clamp Screw	Wrench
MTH0120	M15HE.16162PS-06	♠	16	16	30	100	0.9	2	PLAIN	ENMX06	TXS2507	-	-	TXW08
MTH0121	M15HE.16162PL-06	♠	16	16	50	150	0.9	2	PLAIN					
MTH0132	M15HE.20203PM-06	♠	20	20	50	130	1.0	3	PLAIN					
MTH0122	M15HE.20203PL-06	♠	20	20	80	160	1.0	3	PLAIN					
MTH0133	M15HE.25254PI-06	♠	25	25	60	140	1.0	4	PLAIN					
MTH0123	M15HE.25254PM-06	♠	25	25	80	180	1.0	4	PLAIN					
MTH0124	M15HE.25254PL-06	♠	25	25	120	250	1.0	4	PLAIN					
MTH0134	M15HE.32325PM-06	♠	32	32	70	150	1.0	5	PLAIN					
MTH0125	M15HE.32325PL-06	♠	32	32	100	200	1.0	5	PLAIN					
MTH0079	M15HE.32322-12*	♠	32	32	70	150	1.8	2	FLAT					
MTH0080	M15HE.40403-12*	♠	40	40	70	150	1.8	3	FLAT					

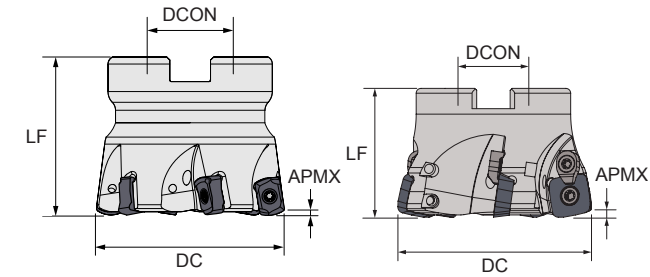
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Insert	Cutting Dia. DC	Axial Max Depth APMX	Radial Max Depth APMXR	Programmed Corner Radius RP	Uncut Thickness UTCN
ENMX	16	0.9	3.5	2.0	0.30
ENMX	20	1.0	3.7	2.0	0.31
ENMX	25	1.0	3.7	2.0	0.31
ENMX	32	1.0	3.7	2.0	0.31
SDMT/W	32	1.8	8.6	3.5	0.94
SDMT/W	40	1.8	8.6	3.5	0.94

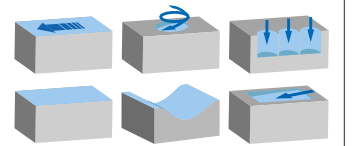
HIGH FEED MILLING

M15HF  
FACE MILL



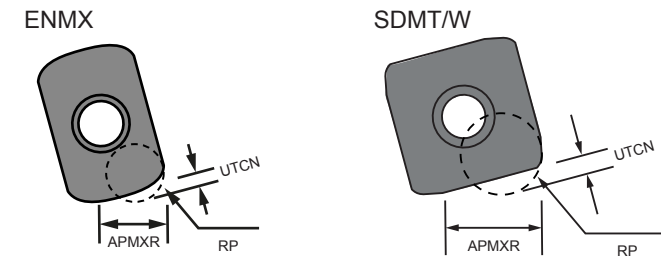
Inserts P.95

	ENMX 0604..
	SDMT 1204..
	SDMW 1204..



EDP Code	TOOL CODE	♠	DC	DCON	LF	APMX	ZEFP	Insert	Screw	Clamp	Clamp Screw	Wrench
MTH0126	M15HF.40166-06	♠	40	16	40	1.0	6	ENMX06	TXS2507	-	-	TXW08
MTH0127	M15HF.50226-06	♠	50	22	40	1.0	6					
MTH0135	M15HF.63228-06	♠	63	22	40	1.0	8					
MTH0081	M15HF.63225-12	♠	63	22	40	1.8	5	SDMT12 SDMW12	TXS4009	TTAP-3	TXS3511	TXW15
MTH0082	M15HF.63226-12*	♠	63	22	40	1.8	6					
MTH0083	M15HF.80275-12*	♠	80	27	50	1.8	5					
MTH0187	M15HF.80276-12	♠	80	27	50	1.8	6					
MTH0084	M15HF.80277-12*	♠	80	27	50	1.8	7					
MTH0085	M15HF.100326-12*	♠	100	32	50	1.8	6					
MTH0086	M15HF.100328-12	♠	100	32	50	1.8	8					

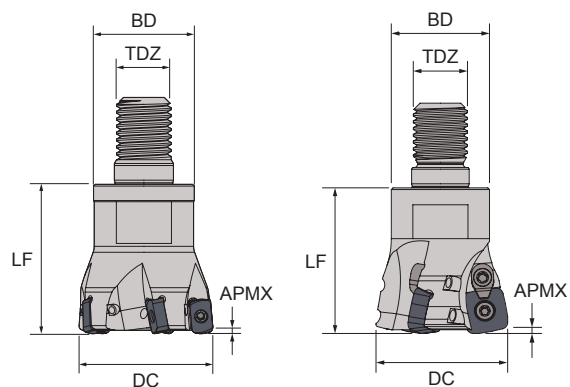
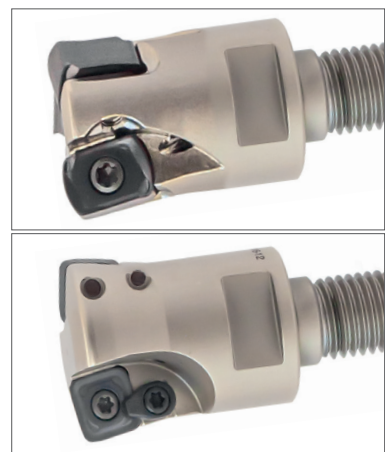
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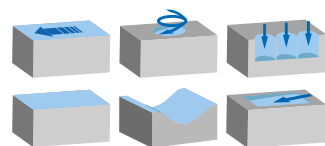
Insert	Cutting Dia. DC	Axial Max Depth APMX	Radial Max Depth APMXR	Programmed Corner Radius RP	Uncut Thickness UTCN
ENMX	40	1.0	3.7	2.0	0.31
ENMX	50	1.0	3.7	2.0	0.31
ENMX	63	1.0	3.7	2.0	0.31
SDMT/W	63	1.8	8.6	3.5	0.94
SDMT/W	80	1.8	8.6	3.5	0.94
SDMT/W	100	1.8	8.6	3.5	0.94

HIGH FEED MILLING

M15HM MODULAR HEAD

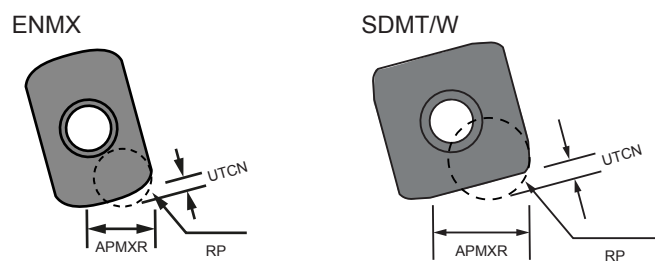


Inserts P.95	
	ENMX 0604..
	SDMT 1204..
	SDMW 1204..



EDP Code	TOOL CODE	▲	DC	BD	LF	TDZ	APMX	ZAFP	Insert	Screw	Clamp	Clamp Screw	Wrench
MTH0136	M15HM.16232M8-06	▲	16	13	23	M8	0.9	2	ENMX 06	TXS2507	-	-	TXW08
MTH0137	M15HM.20303M10-06	▲	20	18	30	M10	1.0	3					
MTH0138	M15HM.25354M12-06	▲	25	21	35	M12	1.0	4					
MTH0139	M15HM.32425M16-06	▲	32	29	42	M16	1.0	5					
MTH0140	M15HM.35425M16-06	▲	35	29	42	M16	1.0	5					
MTH0141	M15HM.40426M16-06	▲	40	29	42	M16	1.0	6					
MTH0142	M15HM.42426M16-06	▲	42	29	42	M16	1.0	6	SDMT12 SDMW12	TXS4009	TTAP-3	TXS3511	TXW15
MTH0089	M15HM.32452M16-12*	▲	32	30	45	M16	1.8	2					
MTH0087	M15HM.35452M16-12	▲	35	30	45	M16	1.8	2					
MTH0088	M15HM.40453M16-12	▲	40	30	45	M16	1.8	3					

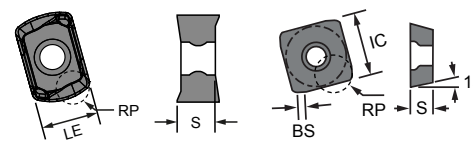
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Insert	Cutting Dia. DC	Axial Max Depth APMX	Radial Max Depth APMXR	Programmed Corner Radius RP	Uncut Thickness UTCN
ENMX	16	0.9	3.5	2.0	0.30
ENMX	20	1.0	3.7	2.0	0.31
ENMX	25	1.0	3.7	2.0	0.31
ENMX	32	1.0	3.7	2.0	0.31
ENMX	35	1.0	3.7	2.0	0.31
ENMX	40	1.0	3.7	2.0	0.31
ENMX	42	1.0	3.7	2.0	0.31
SDMT/W	32	1.8	8.6	3.5	0.94
SDMT/W	35	1.8	8.6	3.5	0.94
SDMT/W	40	1.8	8.6	3.5	0.94

ENMX/SDM- HIGH FEED

▶ EDP Code MI..... Example: ENMX 0604 ET602 = MI00116



INSERT	IC	S
ENMX 0604	6.0	3.83
SDM- 1204	12.7	4.76

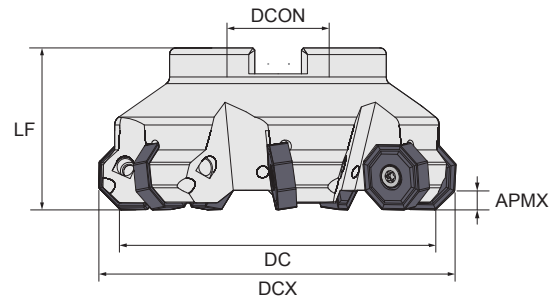
	P	M	K	N	S	H
ENMX 0604	●	●	●	●	●	●
SDM- 1204	●	●	●	●	●	●

ENMX SDMT/SDMW	ISO DESIGNATION	RE (mm)	BS (mm)	fz (mm/tooth)	CVD		PVD									
					ET52C	ET602	ET62P	ET63P	ET73P	ET20P	GM310	GM320	HM420	SS330		
	ENMX 0604	2.0	-	0.30 - 2.00		●	●	●								
	ENMX 0604-HC	2.0	-	0.30 - 2.50		●	●		●							
	ENMX 0604-MS	2.0	-	0.30 - 2.50		●		●								
	SDMT 120420-MS	3.5	1.45	0.60 - 1.20		●		●								
	SDMW 120420	3.5	1.4	0.60 - 1.40		●	●	●	●							

ISO	P			M		K	N	S	H	
MATERIAL	Non-alloy steel <25 HRC	Low alloy steel 25-35 HRC	High alloy steel, Tool steel 35-45 HRC	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel <55 HRC
VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38-41
Vc (m/min)	ET602	140 - 380	120 - 300	70 - 150	80 - 180	100 - 200	120 - 250	130 - 220	20 - 40	40 - 80
	ET62P	140 - 400	120 - 320	70 - 170	-	-	120 - 270	130 - 240	-	40 - 80
	ET63P	-	-	-	120 - 200	130 - 250	-	-	25 - 45	-
	ET73P	-	-	70 - 170	-	-	-	-	-	40-100
	ET20P	-	-	-	-	-	-	-	300 - 800	-
	ET52C	-	-	-	-	-	200 - 350	100 - 300	-	-
	GM310	160 - 700	120 - 550	100 - 500	-	-	160 - 550	160 - 700	-	-
	GM320	160 - 700	120 - 550	-	-	-	160 - 550	160 - 700	-	-
	HM420	-	-	100 - 500	-	-	-	-	-	80 - 400
	SS330	-	-	-	90 - 130	90 - 110	-	-	-	-

45° FACE MILLING

M1645  
FACE MILL



Inserts P.97	
	ONMU 0806..
	ONHU 0806..



EDP Code	TOOL CODE	▲	DC	DCX	DCON	LF	APMX	ZEFP	Insert	Screw	Clamp	Clamp Screw	Wrench				
MTH0014	M1645.63225-08	▲	63	75	22	40	5.5	5	ONMU 08 ONHU 08	TXS5013	-	-	TXW20F				
MTH0015	M1645.80276-08	▲	80	92	27	50	5.5	6									
MTH0016	M1645.80278-08	▲	80	92	27	50	5.5	8									
MTH0128	M1645.802710-08C	X	80	92	27	50	5.5	10						-	MMBC-16	HMBV16M	HA3
MTH0017	M1645.100327-08	▲	100	112	32	50	5.5	7									
MTH0018	M1645.1003210-08	▲	100	112	32	50	5.5	10									
MTH0129	M1645.1003214-08C	X	100	112	32	50	5.5	14						-	MMBC-16	HMBV16M	HA3
MTH0019	M1645.125408-08	X	125	137	40	63	5.5	8									
MTH0020	M1645.1254012-08	X	125	137	40	63	5.5	12									
MTH0130	M1645.1254018-08C	X	125	137	40	63	5.5	18						-	MMBC-16	HMBV16M	HA3
MTH0021	M1645.1604010-08	X	160	172	40	63	5.5	10									
MTH0022	M1645.1604015-08*	X	160	172	40	63	5.5	15									
MTH0131	M1645.1604022-08C	X	160	172	40	63	5.5	22						-	MMBC-16	HMBV16M	HA3

\*Available while stocks last

ONMU/ONHU 16 EDGE

▶ EDP Code MI..... Example: ONMU 080608 ET52C = MI00107

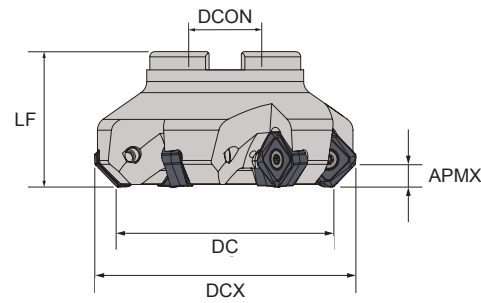
ONMU ONHU	ISO DESIGNATION	RE (mm)	BS (mm)	f <sub>z</sub> (mm/tooth)	Material Compatibility															
					ET52C	ET602	ET62P	ET63P	ET73P	ET20P	GM310	GM320	HM420	SS330						
	ONMU 080608	0.8	-	0.22 - 0.50	●	●														
	ONMU 080612	1.2	-	0.22 - 0.50	●			●												
	ONHU 080612	-	10.6	0.22 - 0.50	●															

ISO	P			M		K	N	S	H		
MATERIAL	Non-alloy steel <25 HRC	Low alloy steel 25-35 HRC	High alloy steel, Tool steel 35-45 HRC	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel <55 HRC	
VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38-41	
Vc (m/min)	ET602	140 - 380	120 - 300	70 - 150	80 - 180	100 - 200	120 - 250	130 - 220	-	20 - 40	40 - 80
	ET62P	140 - 400	120 - 320	70 - 170	-	-	120 - 270	130 - 240	-	-	40 - 80
	ET63P	-	-	-	120 - 200	130 - 250	-	-	-	25 - 45	-
	ET73P	-	-	70 - 170	-	-	-	-	-	-	40-100
	ET20P	-	-	-	-	-	-	-	300 - 800	-	-
	ET52C	-	-	-	-	-	200 - 350	100 - 300	-	-	-
	GM310	160 - 700	120 - 550	100 - 500	-	-	160 - 550	160 - 700	-	-	-
	GM320	160 - 700	120 - 550	-	-	-	160 - 550	160 - 700	-	-	-
	HM420	-	-	100 - 500	-	-	-	-	-	-	80 - 400
	SS330	-	-	-	90 - 130	90 - 110	-	-	-	-	-



45° FACE MILLING

M845  
FACE MILL

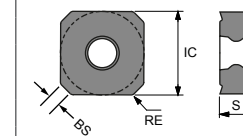


EDP Code	TOOL CODE	Material	DC	DCX	DCON	LF	APMX	ZAFP	Insert	Screw	Clamp	Clamp Screw	Wrench
MTH0056	M845.50224-12*	Blue	50	64	22	40	6	4	SNMX 12	TXS4011.1	-	-	TXW15
MTH0143	M845.50224-12C	Blue	50	64	22	40	6	4		TXS4011.1	TTAP-1	TXS4011	
MTH0057	M845.63226-12*	Blue	63	77	22	40	6	6		TXS4011.1	-	-	
MTH0144	M845.63226-12C	Blue	63	77	22	40	6	6		TXS4011.1	TTAP-1	TXS4011	
MTH0058	M845.80277-12*	Blue	80	94	27	50	6	7		TXS4011.1	-	-	
MTH0145	M845.80277-12C	Blue	80	94	27	50	6	7		TXS4011.1	TTAP-1	TXS4011	
MTH0059	M845.100328-12*	Blue	100	114	32	50	6	8		TXS4011.1	-	-	
MTH0146	M845.100328-12C	Blue	100	114	32	50	6	8		TXS4011.1	TTAP-1	TXS4011	
MTH0060	M845.1254010-12*	X	125	139	40	63	6	10		TXS4011.1	-	-	
MTH0147	M845.1254010-12C	X	125	139	40	63	6	10		TXS4011.1	TTAP-1	TXS4011	
MTH0061	M845.1604012-12*	X	160	174	40	63	6	12		TXS4011.1	-	-	
MTH0148	M845.1604012-12C	X	160	174	40	63	6	12		TXS4011.1	TTAP-1	TXS4011	

\*Available while stocks last

SNMX 8 EDGE

EDP Code MI..... Example: SNMX 1206ANN ET602 = MI00048



INSERT	IC	S
SNMX 1206	12.7	6.25

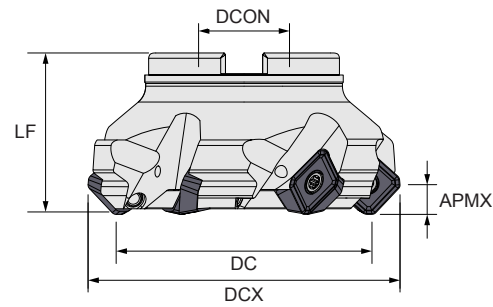
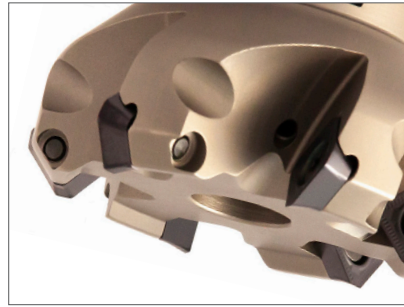
	P	M	K	N	S	H
ET602	●	●	●	●	●	●
ET62P	●	●	●	●	●	●
ET63P	●	●	●	●	●	●
ET73P	●	●	●	●	●	●
ET20P	●	●	●	●	●	●
GM310	●	●	●	●	●	●
GM320	●	●	●	●	●	●
HM420	●	●	●	●	●	●
SS330	●	●	●	●	●	●

SNMX	ISO DESIGNATION	RE (mm)	BS (mm)	fz (mm/tooth)	CVD		PVD									
					ET52C	ET602	ET62P	ET63P	ET73P	ET20P	GM310	GM320	HM420	SS330		
	SNMX 1206ANN	0.8	1.7	0.16 - 0.34		●00048		●00159	●00144							

ISO	P			M		K	N	S	H		
MATERIAL	Non-alloy steel <25 HRC	Low alloy steel 25-35 HRC	High alloy steel, Tool steel 35-45 HRC	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel <55 HRC	
VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38-41	
Vc (m/min)	ET602	140 - 380	120 - 300	70 - 150	80 - 180	100 - 200	120 - 250	130 - 220	-	20 - 40	40 - 80
	ET62P	140 - 400	120 - 320	70 - 170	-	-	120 - 270	130 - 240	-	-	40 - 80
	ET63P	-	-	-	120 - 200	130 - 250	-	-	-	25 - 45	-
	ET73P	-	-	70 - 170	-	-	-	-	-	-	40-100
	ET20P	-	-	-	-	-	-	-	300 - 800	-	-
	ET52C	-	-	-	-	-	200 - 350	100 - 300	-	-	-
	GM310	160 - 700	120 - 550	100 - 500	-	-	160 - 550	160 - 700	-	-	-
	GM320	160 - 700	120 - 550	-	-	-	160 - 550	160 - 700	-	-	-
	HM420	-	-	100 - 500	-	-	-	-	-	-	80 - 400
	SS330	-	-	-	90 - 130	90 - 110	-	-	-	-	-

45° FACE MILLING

G45S  
FACE MILL

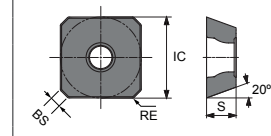


EDP Code	TOOL CODE	♦	DC	DCX	DCON	LF	APMX	ZEFP	Insert	Screw	Wrench
MTH0039	G45S.40164-12	♦	40	54	16	40	6	4	SEKT 1204	TXS4510	TXW20F
MTH0040	G45S.50225-12	♦	50	64	22	40	6	5			
MTH0041	G45S.63224-12*	♦	63	77	22	40	6	4			
MTH0042	G45S.63226-12	♦	63	77	22	40	6	6			
MTH0043	G45S.80274-12*	♦	80	94	27	50	6	4			
MTH0044	G45S.80277-12	♦	80	94	27	50	6	7			
MTH0045	G45S.100328-12	♦	100	114	32	50	6	8			
MTH0046	G45S.1254010-12	X	125	139	40	63	6	10			
MTH0047	G45S.1604012-12	X	160	174	40	63	6	12			

\*Available while stocks last

SEKT 45° POSITIVE

▶ EDP Code MI..... Example: SEKT 1204AFTN ET602 = MI00045



INSERT	IC	S
SEKT 1204	12.7	4.76
SEKT 13T3	13.4	3.97

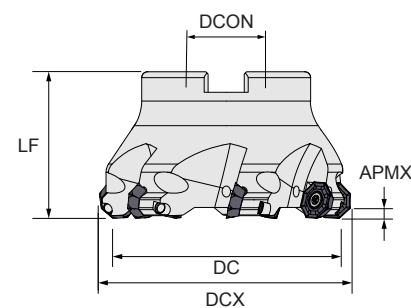
	P	M	K	N	S	H
ET52C	●	●	●	●	●	●
ET602	●	●	●	●	●	●
ET62P	●	●	●	●	●	●
ET63P	●	●	●	●	●	●
ET73P	●	●	●	●	●	●
ET20P	●	●	●	●	●	●
GM310	●	●	●	●	●	●
GM320	●	●	●	●	●	●
HM420	●	●	●	●	●	●
SS330	●	●	●	●	●	●

SEKT	ISO DESIGNATION	RE (mm)	BS (mm)	fz (mm/tooth)	CVD		PVD									
					ET52C	ET602	ET62P	ET63P	ET73P	ET20P	GM310	GM320	HM420	SS330		
	SEKT 1204AFTN	1.1	1.18	0.07 - 0.55	●	●										
	SEKT 13T3AGTN	1.5	1.30	0.07 - 0.55	●											
	SEKT 1204-MS	1.1	1.18	0.08 - 0.30	●											
	SEKT 13T3-MS	1.5	1.30	0.08 - 0.30	●											
	SEKT 1204-AL	1.1	1.18	0.20 - 0.35						●						
	SEKT 13T3-AL	1.5	1.30	0.15 - 0.30						●						

ISO	P			M		K	N	S	H		
MATERIAL	Non-alloy steel <25 HRC	Low alloy steel 25-35 HRC	High alloy steel, Tool steel 35-45 HRC	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel <55 HRC	
VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38-41	
Vc (m/min)	ET602	140 - 380	120 - 300	70 - 150	80 - 180	100 - 200	120 - 250	130 - 220	-	20 - 40	40 - 80
	ET62P	140 - 400	120 - 320	70 - 170	-	-	120 - 270	130 - 240	-	-	40 - 80
	ET63P	-	-	-	120 - 200	130 - 250	-	-	-	25 - 45	-
	ET73P	-	-	70 - 170	-	-	-	-	-	-	40-100
	ET20P	-	-	-	-	-	-	-	300 - 800	-	-
	ET52C	-	-	-	-	-	200 - 350	100 - 300	-	-	-
	GM310	160 - 700	120 - 550	100 - 500	-	-	160 - 550	160 - 700	-	-	-
	GM320	160 - 700	120 - 550	-	-	-	160 - 550	160 - 700	-	-	-
	HM420	-	-	100 - 500	-	-	-	-	-	-	80 - 400
SS330	-	-	-	90 - 130	90 - 110	-	-	-	-	-	

43° FACE MILLING

G430  
FACE MILL



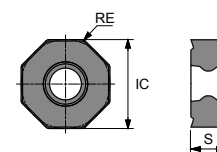
Inserts P.103	
	ODMT 0605..
	ODMW 0605..



EDP Code	TOOL CODE	⚡	DC	DCX	DCON	LF	APMX	ZEFP	Insert	Screw	Clamp	Clamp Screw	Wrench
MTH0115	G430.50224-06*	🔵	50	60	22	40	4	4	ODMT 06 ODMW 06	TXS5011	-	-	TXW20F
MTH0149	G430.80276-06C	🔵	80	90	27	50	4	6					
MTH0150	G430.100327-06C	🔵	100	110	32	50	4	7		TXS5011	TTAP-1	TXS4011	TXW20F
MTH0151	G430.125408-06C	✖	125	135	40	63	4	8					

\*Available while stocks last

ODMT/ODMW 43° POSITIVE



INSERT	IC	S
ODM-0605	15.9	5.6

▶ EDP Code MI..... Example: ODMT 060508 ET602 = MI00018

	P	M	K	N	S	H
●	●	●	●	●	●	●
○	○	○	○	○	○	○
●	●	●	●	●	●	●
○	○	○	○	○	○	○
●	●	●	●	●	●	●
○	○	○	○	○	○	○

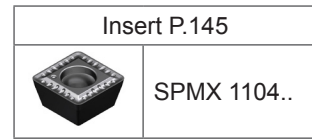
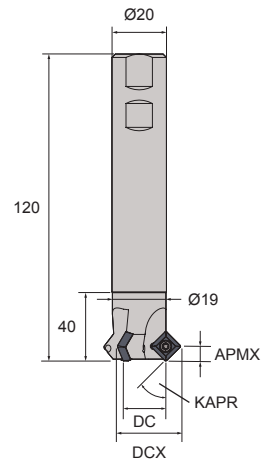
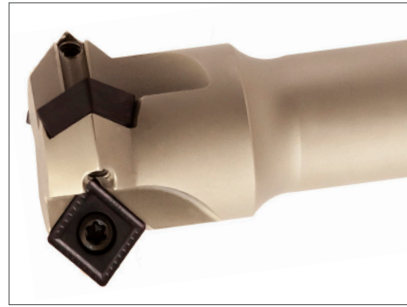
ODMT ODMW	ISO DESIGNATION	RE (mm)	BS (mm)	fz (mm/tooth)	CVD		PVD									
					ET52C	ET602	ET62P	ET63P	ET73P	ET20P	GM310	GM320	HM420	SS330		
	ODMT 060508	0.8	-	0.21 - 0.35		● 00018										
	ODMW 060508	0.8	-	0.26 - 0.40		● 00019										

ISO	P			M		K	N	S	H		
MATERIAL	Non-alloy steel <25 HRC	Low alloy steel 25-35 HRC	High alloy steel, Tool steel 35-45 HRC	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous ma- terial	Heat Resistant and Super Alloys	Hardened steel <55 HRC	
VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38-41	
Vc (m/min)	ET602	140 - 380	120 - 300	70 - 150	80 - 180	100 - 200	120 - 250	130 - 220	-	20 - 40	40 - 80
	ET62P	140 - 400	120 - 320	70 - 170	-	-	120 - 270	130 - 240	-	-	40 - 80
	ET63P	-	-	-	120 - 200	130 - 250	-	-	-	25 - 45	-
	ET73P	-	-	70 - 170	-	-	-	-	-	-	40-100
	ET20P	-	-	-	-	-	-	-	300 - 800	-	-
	ET52C	-	-	-	-	-	200 - 350	100 - 300	-	-	-
	GM310	160 - 700	120 - 550	100 - 500	-	-	160 - 550	160 - 700	-	-	-
	GM320	160 - 700	120 - 550	-	-	-	160 - 550	160 - 700	-	-	-
	HM420	-	-	100 - 500	-	-	-	-	-	-	80 - 400
SS330	-	-	-	90 - 130	90 - 110	-	-	-	-	-	



CHAMFER MILLING

GCE  
CHAMFER MILL

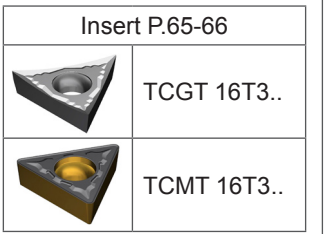
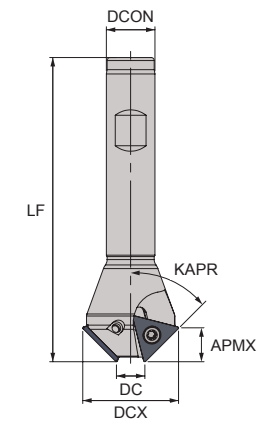


EDP Code	TOOL CODE	◆	DC	DCX	KAPR	APMX	ZEFP	Insert	Screw	Wrench
MTH0110	<b>G15CE.25202FS-11*</b>	<b>X</b>	<b>25</b>	30.5	15°	10.1	2	SPMX 1104	TXS4009	TXW15
MTH0114	<b>G45CE.25203FS-11*</b>	<b>X</b>	<b>25</b>	39.9	45°	7.2	3			

\*Available while stocks last

CHAMFER MILLING

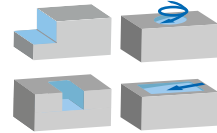
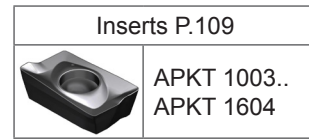
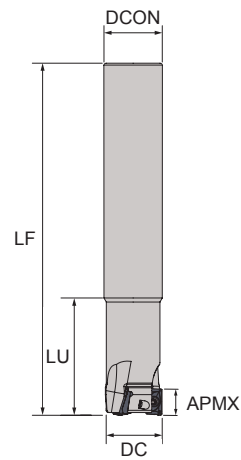
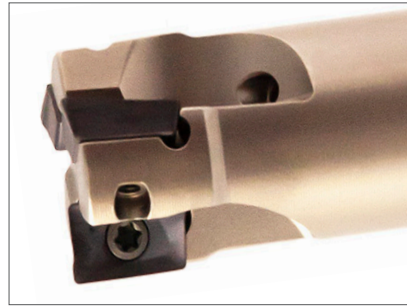
GCE  
CHAMFER MILL



EDP Code	TOOL CODE	◆	DC	DCX	DCON	LF	KAPR	APMX	ZEFP	Insert	Screw	Wrench
MTH0170	<b>G30CE.06161-16</b>	<b>X</b>	<b>6</b>	20	16	100	30°	13.3	1	TCGT 16 TCMT 16	TXS3509	TXW15
MTH0171	<b>G30CE.175202-16</b>	<b>X</b>	<b>17.5</b>	32.5	20	100	30°	13.3	2			
MTH0172	<b>G45CE.05161-16</b>	<b>X</b>	<b>5</b>	26	16	100	45°	10.8	1			
MTH0173	<b>G45CE.18202-16</b>	<b>X</b>	<b>18</b>	39	20	100	45°	10.8	2			
MTH0174	<b>G45CE.20202-16</b>	<b>X</b>	<b>20</b>	41	20	100	45°	10.8	2			

90° SHOULDER MILLING

**G90AE**  
END MILL

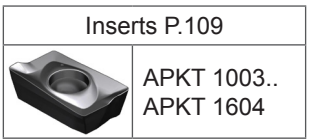
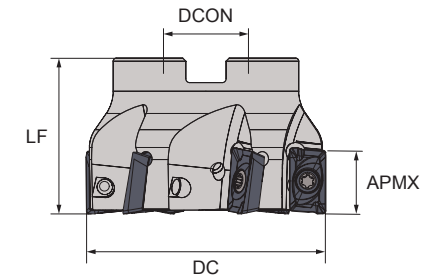
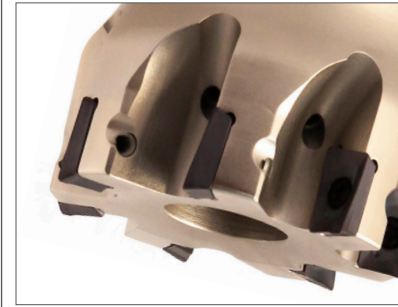


EDP Code	TOOL CODE	♠	DC	DCON	LU	LF	APMX	ZEFP	Shank Type	Insert	Screw	Wrench
HS16162FWS	<b>G90AE.16162FS-10*</b>	♠	16	16	37	85	10	2	FLAT	APKT10	TXS2505	TXW08
MTH0152	<b>G90AE.16162WS-10</b>	♠	16	16	30	100	10	2	FLAT			
MTH0001	<b>G90AE.16162PL-10*</b>	♠	16	16	30	100	10	2	PLAIN			
MTH0153	<b>G90AE.16162CL-10</b>	♠	16	16	30	120	10	2	PLAIN			
HS20203FWS	<b>G90AE.20203FS-10*</b>	♠	20	20	40	90	10	3	FLAT			
MTH0154	<b>G90AE.20203WS-10</b>	♠	20	20	30	100	10	3	FLAT			
HS20203FPM	<b>G90AE.20203PL-10*</b>	♠	20	20	40	150	10	3	PLAIN			
MTH0155	<b>G90AE.20203CL-10</b>	♠	20	20	50	150	10	3	PLAIN			
HS25202FWS	<b>G90AE.25202FS-16*</b>	♠	25	20	40	110	16	2	FLAT			
MTH0156	<b>G90AE.25252WS-16</b>	♠	25	25	35	100	16	2	FLAT			
MTH0003	<b>G90AE.25202PL-16*</b>	♠	25	20	40	150	16	2	PLAIN	APKT16	TXS4011	TXW15
MTH0157	<b>G90AE.25252WL-16</b>	X	25	25	50	150	16	2	FLAT			
HS32253FWS	<b>G90AE.32253FS-16*</b>	♠	32	25	50	110	16	3	FLAT			
MTH0158	<b>G90AE.32323WS-16</b>	♠	32	32	40	110	16	3	FLAT			
MTH0004	<b>G90AE.32253PL-16*</b>	♠	32	25	50	150	16	3	PLAIN			
MTH0159	<b>G90AE.32323WL-16</b>	♠	32	32	50	150	16	3	FLAT			

\*Available while stocks last

90° SHOULDER MILLING

**G90AF**  
FACE MILL

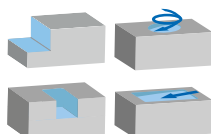
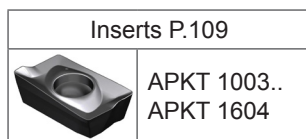
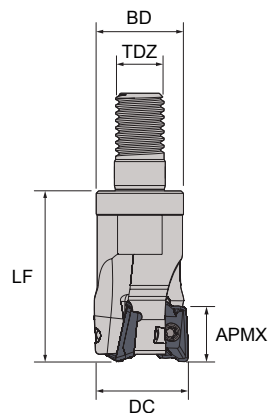


EDP Code	TOOL CODE	♠	DC	DCON	LF	APMX	ZEFP	Insert	Screw	Wrench
FM4090AP104	<b>G90AF.40164-10*</b>	♠	40	16	40	10	4	APKT10	TXS2506.1	TXW08
MTH0188	<b>G90AF.40165-10</b>	♠	40	16	40	10	5			
FM5090AP107	<b>G90AF.50227-10*</b>	♠	50	22	40	10	7			
MTH0186	<b>G90AF.50226-10</b>	♠	50	22	40	10	6			
MTH0005	<b>G90AF.63227-10</b>	♠	63	22	40	10	7			
MTH0006	<b>G90AF.50225-16</b>	♠	50	22	40	16	5			
FM6390AP166	<b>G90AF.63226-16</b>	♠	63	22	40	16	6			
FM8090AP167	<b>G90AF.80277-16</b>	♠	80	27	50	16	7			
MTH0007	<b>G90AF.100328-16</b>	♠	100	32	50	16	8			
MTH0008	<b>G90AF.125408-16*</b>	X	125	40	63	16	8			
MTH0160	<b>G90AF.125409-16</b>	X	125	40	63	16	9			
MTH0009	<b>G90AF.1604010-16</b>	X	160	40	63	16	10			

\*Available while stocks last

90° SHOULDER MILLING

**G90AM**  
MODULAR HEAD

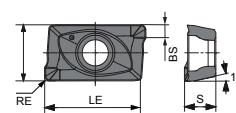


EDP Code	TOOL CODE	♦	DC	BD	Lf	TDZ	APMX	ZEFP	Insert	Screw	Wrench
M8-APKT10-2-16	<b>G90AM.16232M8-10</b>	X	16	13	23	M8	10	2	APKT10	TXS2506	TXW08
M10-APKT10-3-20	<b>G90AM.20303M10-10</b>	X	20	18	30	M10	10	3			
M12-APKT10-3-25	<b>G90AM.25353M12-10</b>	X	25	21	35	M12	10	3			
M16-APKT10-4-32	<b>G90AM.32434M16-10</b>	X	32	29	43	M16	10	4			
M16-APKT10-5-40	<b>G90AM.40435M16-10</b>	X	40	29	43	M16	10	5			
M12-APKT16-2-25	<b>G90AM.25352M12-16</b>	X	25	21	35	M12	16	2	APKT16	TXS4009	TXW15
M16-APKT16-3-32	<b>G90AM.32433M16-16</b>	X	32	29	43	M16	16	3			
M16-APKT16-3-40	<b>G90AM.40433M16-16*</b>	X	40	29	43	M16	16	3			

\*Available while stocks last

APKT SHOULDER MILLING

▶ EDP Code MI..... Example: APKT 100305PDTR ET602 = MI00045



INSERT	LE	W1	S
APKT 1003	9.9	6.7	3.6
APKT 1604	15.2	9.4	5.3

	P	M	K	N	S	H
●	●	●	●	●	●	●
○	○	○	○	○	○	○
●	●	●	●	●	●	●
○	○	○	○	○	○	○
●	●	●	●	●	●	●
○	○	○	○	○	○	○

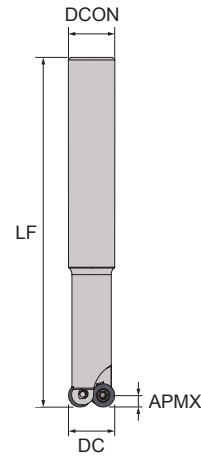
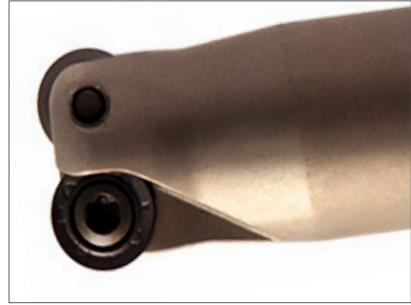
APKT	ISO DESIGNATION	RE (mm)	BS (mm)	fz (mm/tooth)	CVD		PVD									
					ET52C	ET602	ET62P	ET63P	ET73P	ET20P	GM310	GM320	HM420	SS330		
	APKT 100305PDTR	0.5	0.86	0.15 - 0.24	●	●	●	●	●	●	●	●	●	●	●	●
	APKT 100308PDTR	0.8	0.90	0.15 - 0.24	●	●	●	●	●	●	●	●	●	●	●	●
	APKT 100316PDTR	1.6	1.11	0.15 - 0.24	●	●	●	●	●	●	●	●	●	●	●	●
	APKT 160404PDTR	0.4	1.11	0.15 - 0.25	●	●	●	●	●	●	●	●	●	●	●	●
	APKT 160408PDTR	0.8	1.32	0.15 - 0.30	●	●	●	●	●	●	●	●	●	●	●	●
	APKT 160412PDTR	1.2	1.13	0.15 - 0.30	●	●	●	●	●	●	●	●	●	●	●	●
	APKT 160416PDTR	1.6	1.13	0.15 - 0.40	●	●	●	●	●	●	●	●	●	●	●	●
	APKT 160424PDTR	2.4	1.50	0.15 - 0.28	●	●	●	●	●	●	●	●	●	●	●	●
	APKT 160404-HC	0.4	1.11	0.26 - 0.40	●	●	●	●	●	●	●	●	●	●	●	●
	APKT 160408-HC	0.8	1.32	0.26 - 0.40	●	●	●	●	●	●	●	●	●	●	●	●
	APKT 160412-HC	1.2	1.13	0.26 - 0.40	●	●	●	●	●	●	●	●	●	●	●	●
	APKT 160416-HC	1.6	1.13	0.26 - 0.40	●	●	●	●	●	●	●	●	●	●	●	●
	APKT 160424-HC	2.4	1.50	0.26 - 0.40	●	●	●	●	●	●	●	●	●	●	●	●
	APKT 100305-MS	0.5	0.86	0.08 - 0.22	●	●	●	●	●	●	●	●	●	●	●	●
	APKT 160408-MS	0.8	1.32	0.08 - 0.25	●	●	●	●	●	●	●	●	●	●	●	●
	APKT 100305-AL	0.5	0.86	0.07 - 0.50	●	●	●	●	●	●	●	●	●	●	●	●
	APKT 160408-AL	0.8	1.32	0.07 - 0.55	●	●	●	●	●	●	●	●	●	●	●	●

ISO	P			M		K	N	S	H		
MATERIAL	Non-alloy steel <25 HRC	Low alloy steel 25-35 HRC	High alloy steel, Tool steel 35-45 HRC	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel <55 HRC	
VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38-41	
Vc (m/min)	ET602	140 - 380	120 - 300	70 - 150	80 - 180	100 - 200	120 - 250	130 - 220	-	20 - 40	40 - 80
	ET62P	140 - 400	120 - 320	70 - 170	-	-	120 - 270	130 - 240	-	-	40 - 80
	ET63P	-	-	-	120 - 200	130 - 250	-	-	-	25 - 45	-
	ET73P	-	-	70 - 170	-	-	-	-	-	-	40-100
	ET20P	-	-	-	-	-	-	-	300 - 800	-	-
	ET52C	-	-	-	-	-	200 - 350	100 - 300	-	-	-
	GM310	160 - 700	120 - 550	100 - 500	-	-	160 - 550	160 - 700	-	-	-
	GM320	160 - 700	120 - 550	-	-	-	160 - 550	160 - 700	-	-	-
	HM420	-	-	100 - 500	-	-	-	-	-	-	80 - 400
	SS330	-	-	-	90 - 130	90 - 110	-	-	-	-	-

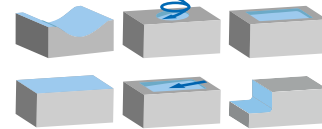


PROFILE MILLING

**G90RKE**  
END MILL



Inserts P.113	
	RDKT 0802.. RDKT 10T3.. RDKT 1204..
	RDKW 0802.. RDKW 10T3.. RDKW 1204..

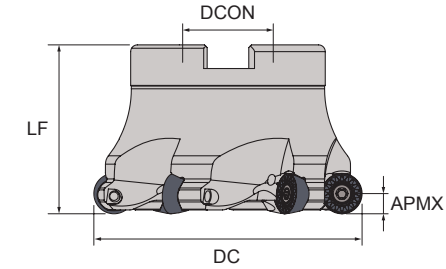


EDP Code	TOOL CODE	♦	DC	DCON	LF	APMX	ZEFP	Shank Type	Insert	Screw	Clamp	Clamp Screw	Wrench
MTH0097	<b>G90RKE.16162PL-08*</b>	♦	16	16	160	4	2	PLAIN	RDKT08 RDKW08	TXS25055	-	-	TXW08
MTH0090	<b>G90RKE.20202PL-08*</b>	♦	20	20	180	4	2	PLAIN					
MTH0091	<b>G90RKE.25203PL-08*</b>	♦	25	25	180	4	3	PLAIN					
MTH0092	<b>G90RKE.20202PL-10*</b>	♦	20	20	180	5	2	PLAIN	RDKT10 RDKW10	TXS3509	TTAP-3	TXS3511	TXW15
MTH0161	<b>G90RKE.20202CL-10C</b>	X	20	20	150	5	2	PLAIN					
MTH0093	<b>G90RKE.25252PL-10*</b>	♦	25	25	180	5	2	PLAIN					
MTH0189	<b>G90RKE.25252CL-10C</b>	♦	25	25	200	5	2	PLAIN					
MTH0094	<b>G90RKE.25252PL-12*</b>	♦	25	25	180	6	2	PLAIN	RDKT12 RDKW12	TXS3509	-	-	TXW15
MTH0095	<b>G90RKE.32323PM-12*</b>	♦	32	32	160	6	3	PLAIN					
MTH0163	<b>G90RKE.32323CM-12C</b>	X	32	32	160	6	3	PLAIN					
MTH0096	<b>G90RKE.32322PL-12*</b>	♦	32	32	200	6	2	PLAIN					
MTH0164	<b>G90RKE.32322CL-12C</b>	X	32	32	200	6	2	PLAIN					

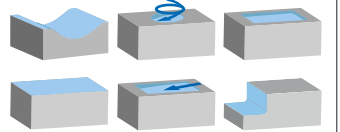
\*Available while stocks last

PROFILE MILLING

**G90RKF**  
FACE MILL



Inserts P.113	
	RDKT 10T3.. RDKT 1204..
	RDKW 10T3.. RDKW 1204..

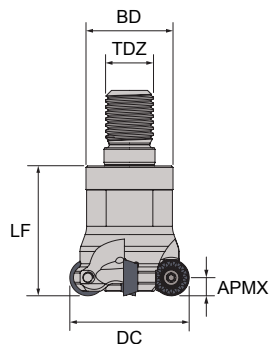


EDP Code	TOOL CODE	♦	DC	DCON	LF	APMX	ZEFP	Insert	Screw	Clamp	Clamp Screw	Wrench
MTH0102	<b>G90RKF.40165-10*</b>	♦	40	16	40	5	5	RDKT10 RDKW10	TXS3511	-	-	TXW15
MTH0098	<b>G90RKF.50226-10*</b>	♦	50	22	40	5	6					
MTH0165	<b>G90RKF.50225-10C</b>	♦	50	22	40	5	5					
MTH0099	<b>G90RKF.40164-12*</b>	♦	40	16	40	6	4	RDKT12 RDKW12	TXS3509	-	-	TXW15
MTH0166	<b>G90RKF.40164-12C</b>	♦	40	16	40	6	4					
MTH0100	<b>G90RKF.50225-12*</b>	♦	50	22	50	6	5					
MTH0167	<b>G90RKF.50225-12C</b>	♦	50	22	50	6	5					
MTH0101	<b>G90RKF.63226-12*</b>	♦	63	22	50	6	6					
MTH0168	<b>G90RKF.63226-12C</b>	♦	63	22	50	6	6					
FM8090RD126	<b>G90RKF.80276-12*</b>	♦	80	27	50	6	6					
MTH0169	<b>G90RKF.80277-12C</b>	♦	80	27	50	6	7					

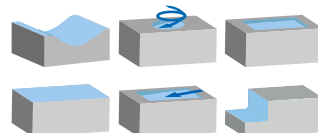
\*Available while stocks last

PROFILE MILLING

**G90RKM**  
MODULAR HEAD



Inserts P.113		
	RDKT 0802..	
	RDKT 10T3..	
	RDKT 1204..	
	RDKW 0802..	
	RDKW 10T3..	
	RDKW 1204..	



EDP Code	TOOL CODE	DC	BD	LF	TDZ	APMX	ZEFP	Insert	Screw	Wrench
MTH0109	G90RKM.16232M08-08	16	13	23	M8	4	2	RDKT08 RDKW08	TXS3006	TXW08
MTH0108	G90RKM.20302M10-08*	20	18	30	M10	4	2		TXS2505	
MTH0103	G90RKM.25353M12-08*	25	21	35	M12	4	3	RDKT10 RDKW10	TXS4008	TXW15
MTH0104	G90RKM.20302M10-10*	20	18	30	M10	5	2		TXS3509	
MTH0105	G90RKM.25353M12-10	25	21	35	M12	5	3	RDKT12 RDKW12	TXS3509	TXW15
MTH0106	G90RKM.25352M12-12	25	21	35	M12	6	2			
MTH0107	G90RKM.32423M16-12	32	29	42	M16	6	3			

\*Available while stocks last

RDKT/RDKW PROFILE MILLING

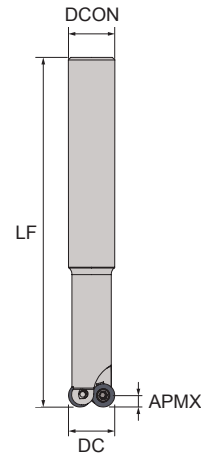
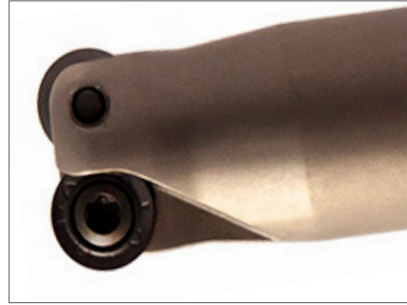
▶ EDP Code MI..... Example: RDKT 0802MO ET602 = MI00084

RDKT RDKW	ISO DESIGNATION	RE (mm)	BS (mm)	fz (mm/tooth)	Material Compatibility																
					ET52C	ET602	ET62P	ET63P	ET73P	ET20P	GM310	GM320	HM420	SS330							
	RDKT 0802MO	-	-	0.15 - 0.25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	RDKT 10T3MO	-	-	0.15 - 0.28	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	RDKT 1204MO	-	-	0.20 - 0.30	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	RDKT 1604MO	-	-	0.20 - 0.35	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	RDKT 0802MO-HC	-	-	0.18 - 0.35	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	RDKT 10T3MO-HC	-	-	0.22 - 0.40	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	RDKT 1204MO-HC	-	-	0.22 - 0.40	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	RDKT 0802MO-MS	-	-	0.08 - 0.25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	RDKT 10T3MO-MS	-	-	0.08 - 0.28	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	RDKT 1204MO-MS	-	-	0.10 - 0.30	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	RDKW 0501MO	-	-	0.10 - 0.20	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	RDKW 0702MO	-	-	0.12 - 0.25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	RDKW 0802MO	-	-	0.13 - 0.25	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	RDKW 10T3MO	-	-	0.16 - 0.30	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	RDKW 1204MO	-	-	0.16 - 0.35	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

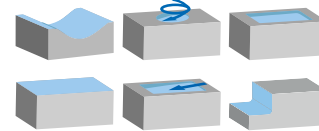
ISO	P			M		K	N	S	H		
MATERIAL	Non-alloy steel <25 HRC	Low alloy steel 25-35 HRC	High alloy steel, Tool steel 35-45 HRC	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel <55 HRC	
VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38-41	
Vc (m/min)	ET602	140 - 380	120 - 300	70 - 150	80 - 180	100 - 200	120 - 250	130 - 220	-	20 - 40	40 - 80
	ET62P	140 - 400	120 - 320	70 - 170	-	-	120 - 270	130 - 240	-	-	40 - 80
	ET63P	-	-	-	120 - 200	130 - 250	-	-	-	25 - 45	-
	ET73P	-	-	70 - 170	-	-	-	-	-	-	40-100
	ET20P	-	-	-	-	-	-	-	300 - 800	-	-
	ET52C	-	-	-	-	-	200 - 350	100 - 300	-	-	-
	GM310	160 - 700	120 - 550	100 - 500	-	-	160 - 550	160 - 700	-	-	-
	GM320	160 - 700	120 - 550	-	-	-	160 - 550	160 - 700	-	-	-
	HM420	-	-	100 - 500	-	-	-	-	-	-	80 - 400
	SS330	-	-	-	90 - 130	90 - 110	-	-	-	-	-

PROFILE MILLING

**G90RE**  
END MILL



Inserts P.117	
	RDMT 0803.. RDMT 10T3.. RDMT 1204..
	RDMW 0803.. RDMW 10T3.. RDMW 1204..

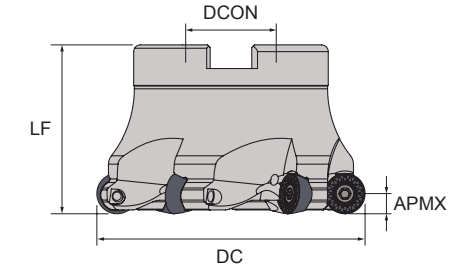


EDP Code	TOOL CODE	♠	DC	DCON	LF	APMX	ZEFP	Shank Type	Insert	Screw	Wrench
HR20202FPS	<b>G90RE.20202PS-08*</b>	♠	20	20	100	4	2	PLAIN	RDMT08 RDMW08	TXS3006	TXW08
HR20202FPM	<b>G90RE.20202PL-08*</b>	♠	20	20	150	4	2	PLAIN			
HR25253FPS	<b>G90RE.25253PS-10*</b>	♠	25	25	107	5	3	PLAIN	RDMT10 RDMW10	TXS3507	TXW15
HR32323FPS	<b>G90RE.32323PS-10*</b>	♠	32	32	100	5	3	PLAIN			
HR32323FPM	<b>G90RE.32323PM-10*</b>	♠	32	32	250	5	3	PLAIN			
HR32323FPL	<b>G90RE.32323PL-10*</b>	♠	32	32	300	5	3	PLAIN	RDMT12 RDMW12	TXS3508	TXW15
HR32322FPS	<b>G90RE.32322PS-12*</b>	♠	32	32	200	6	2	PLAIN			
HR32322FPM	<b>G90RE.32322PM-12*</b>	♠	32	32	250	6	2	PLAIN			
HR32322FPL	<b>G90RE.32322PL-12*</b>	♠	32	32	300	6	2	PLAIN			

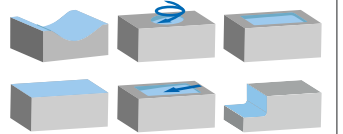
\*Available while stocks last. Use G90RKE End Mills

PROFILE MILLING

**G90RF**  
FACE MILL



Inserts P.117	
	RDMT 10T3.. RDMT 1204..
	RDMW 10T3.. RDMW 1204..



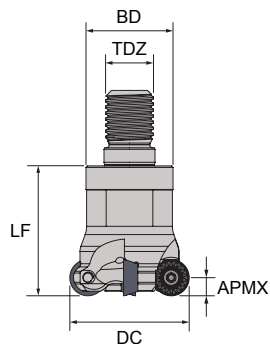
EDP Code	TOOL CODE	♠	DC	DCON	LF	APMX	ZEFP	Insert	Screw	Wrench
FM4090RD104	<b>G90RF.40164-10*</b>	♠	40	16	40	5	4	RDMT10 RDMW10	TXS3507	TXW15
FM5090RD104	<b>G90RF.50224-10*</b>	♠	50	22	40	5	4			
MTH0078	<b>G90RF.52224-10*</b>	♠	52	22	40	5	4			
FM5090RD124	<b>G90RF.50224-12*</b>	♠	50	22	40	6	4	RDMT12 RDMW12	TXS3508	TXW15
FM6390RD125	<b>G90RF.63225-12*</b>	♠	63	22	40	6	5			
FM8090RD126	<b>G90RF.80276-12*</b>	♠	80	27	50	6	6			

\*Available while stocks last. Use G90RKF Face Mills

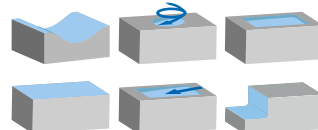


PROFILE MILLING

**G90RM**  
MODULAR HEAD



Inserts P.117	
	RDMT 10T3.. RDMT 1204..
	RDMW 10T3.. RDMW 1204..

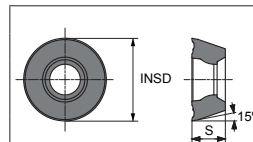


EDP Code	TOOL CODE	♦	DC	BD	Lf	TDZ	APMX	ZEFP	Insert	Screw	Wrench
M12RDMT10325	<b>G90RM.25353M12-10*</b>	♦	25	20.7	35	M12	5	3	RDMT10 RDMW10	TXS3507	TXW15
M16RDMT10432	<b>G90RM.32424M16-10*</b>	♦	32	28.7	42	M16	5	4			
M16RDMT10435	<b>G90RM.35424M16-10*</b>	♦	35	28.7	42	M16	5	4			
M16RDMT10542	<b>G90RM.42425M16-10*</b>	♦	42	28.7	42	M16	5	5			
M16RDMT12232	<b>G90RM.32422M16-12*</b>	♦	32	28.7	42	M16	6	2	RDMT12 RDMW12	TXS3508	TXW15
M16RDMT12235	<b>G90RM.35422M16-12*</b>	♦	35	28.7	42	M16	6	2			
M16RDMT12442	<b>G90RM.42424M16-12*</b>	♦	42	28.7	42	M16	6	4			

\*Available while stocks last. Use G90RKM Modular Heads

RDMT/RDMW PROFILE MILLING

▶ EDP Code MI..... Example: RDMT 0602MO ET602 = MI00024



INSERT	INSD	S
RDM- 0602	6.0	2.38
RDM- 0803	8.0	3.18
RDM- 10T3	10.0	3.97
RDM- 1204	12.0	4.76

P	M	K	N	S	H
●	●	●	●	●	●
●	●	●	●	●	●
●	●	●	●	●	●
●	●	●	●	●	●
●	●	●	●	●	●
●	●	●	●	●	●

RDKT RDKW	ISO DESIGNATION	RE (mm)	BS (mm)	fz (mm/tooth)	CVD		PVD									
					ET52C	ET602	ET62P	ET63P	ET73P	ET20P	GM310	GM320	HM420	SS330		
	<b>RDMT 0602MO</b>	-	-	0.10 - 0.20	●	00024										
	<b>RDMT 0803MO</b>	-	-	0.15 - 0.25	●	00025										
	<b>RDMT 10T3MO</b>	-	-	0.15 - 0.28	●	00026										
	<b>RDMT 1204MO</b>	-	-	0.20 - 0.30	●	00027										
	<b>RDMW 0602MO</b>	-	-	0.12 - 0.25	●	00028										
	<b>RDMW 0803MO</b>	-	-	0.13 - 0.25	●	00029										
	<b>RDMW 10T3MO</b>	-	-	0.16 - 0.30	●	00030										
	<b>RDMW 1204MO</b>	-	-	0.16 - 0.35	●	00031										

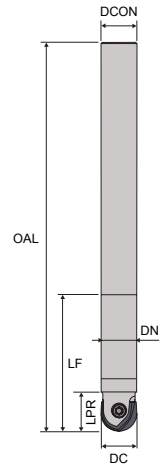
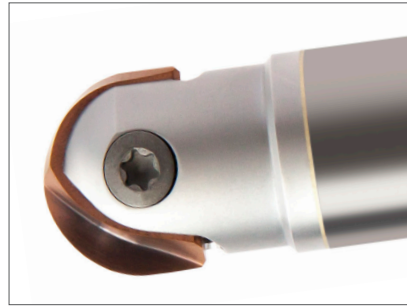
ISO	P			M		K	N	S	H		
MATERIAL	Non-alloy steel <25 HRC	Low alloy steel 25-35 HRC	High alloy steel, Tool steel 35-45 HRC	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel <55 HRC	
VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38-41	
Vc (m/min)	ET602	140 - 380	120 - 300	70 - 150	80 - 180	100 - 200	120 - 250	130 - 220	-	20 - 40	40 - 80
	ET62P	140 - 400	120 - 320	70 - 170	-	-	120 - 270	130 - 240	-	-	40 - 80
	ET63P	-	-	-	120 - 200	130 - 250	-	-	-	25 - 45	-
	ET73P	-	-	70 - 170	-	-	-	-	-	-	40-100
	ET20P	-	-	-	-	-	-	-	300 - 800	-	-
	ET52C	-	-	-	-	-	200 - 350	100 - 300	-	-	-
	GM310	160 - 700	120 - 550	100 - 500	-	-	160 - 550	160 - 700	-	-	-
	GM320	160 - 700	120 - 550	-	-	-	160 - 550	160 - 700	-	-	-
	HM420	-	-	100 - 500	-	-	-	-	-	-	80 - 400
	SS330	-	-	-	90 - 130	90 - 110	-	-	-	-	-

PROFILE MILLING

**MASTERMILL M200**



**M200BC**  
CARBIDE SHANK



Inserts P.124-128	
	M200B M200R
	M200S M200H



EDP Code	TOOL CODE	♦	DC	DCON	DN	LPR	LF	OAL	Insert	Screw	Wrench
204350080L	<b>M200BC.0808CS</b>	X	8	8	7.6	12	25	130	M200B08 M200R08	TXS2508	TXW07
204350081L	<b>M200BC.0808CM</b>	X	8	8	7.6	12	40	M200S08 M200H08			
204350082L	<b>M200BC.0808CL</b>	X	8	8	7.6	12	65	M200H08			
204350100L	<b>M200BC.1010CS</b>	X	10	10	9.5	15	30	140	M200B10 M200R10	TXS3010	TXW08
204350101L	<b>M200BC.1010CM</b>	X	10	10	9.5	15	50	M200S10 M200H10			
204350102L	<b>M200BC.1010CL</b>	X	10	10	9.5	15	75	M200H10			
204350120L	<b>M200BC.1212CS</b>	X	12	12	11.4	17	35	150	M200B12 M200R12	TXS3512	TXW10
204350121L	<b>M200BC.1212CM</b>	X	12	12	11.4	17	60	M200S12 M200H12			
204350122L	<b>M200BC.1212CL</b>	X	12	12	11.4	17	85	M200H12			
204350160L	<b>M200BC.1616CS</b>	X	16	16	15.0	20	50	200	M200B16 M200R16	TXS4016	TXW15
204350161L	<b>M200BC.1616CM</b>	X	16	16	15.0	20	80	M200S16 M200H16			
204350162L	<b>M200BC.1616CL</b>	X	16	16	15.0	20	120	M200H16			
204350163L	<b>M200BC.1616CX</b>	X	16	16	15.0	20	80	250			
204350200L	<b>M200BC.2020CS</b>	X	20	20	19.0	25	60	200	M200B20 M200R20	TXS5020	TXW20
204350201L	<b>M200BC.2020CM</b>	X	20	20	19.0	25	80	M200S20 M200H20			
204350202L	<b>M200BC.2020CL</b>	X	20	20	19.0	25	100	M200H20			
204350203L	<b>M200BC.2020CX</b>	X	20	20	19.0	25	150	250			
204350250L	<b>M200BC.2525CS</b>	X	25	25	24.0	30	75	200	M200B25 M200R25	TXS6025	TXW25
204350251L	<b>M200BC.2525CM</b>	X	25	25	24.0	30	120	M200S25 M200H25			
204350252L	<b>M200BC.2525CL</b>	X	25	25	24.0	30	190	M200H25			
204350300L	<b>M200BC.3032CS</b>	X	30, 32	32	29.0	40	90	250	M200B30/32 M200R30/32	TXS8030	TXW30
204350301L	<b>M200BC.3032CM</b>	X	30, 32	32	29.0	40	150	M200S30/32 M200H30/32			
204350302L	<b>M200BC.3032CL</b>	X	30, 32	32	29.0	40	190	M200H30/32			

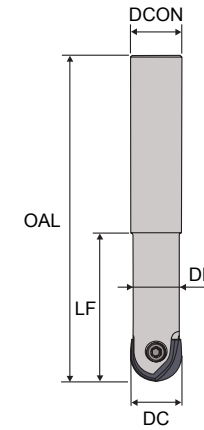
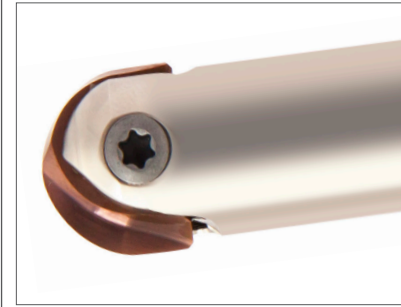
► For assembly instructions see P.129

PROFILE MILLING

**MASTERMILL M200**



**M200BS**  
STEEL SHANK, STRAIGHT



Inserts P.127-128	
	M200B
	M200R



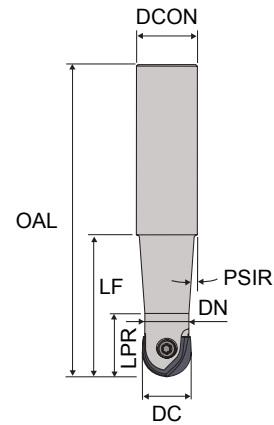
EDP Code	TOOL CODE	♦	DC	DCON	DN	LF	OAL	Insert	Screw	Wrench
203350120S	<b>M200BS.1212SS</b>	X	12	12	10.5	35	90	M200B12 M200R12	TXS3512	TXW10
203350120R	<b>M200BS.1212SL</b>	X	12	12	10.5	55	110	M200B12 M200R12	TXS3512	TXW10
203350160S	<b>M200BS.1616SS</b>	X	16	16	14.5	35	95	M200B16 M200R16	TXS4016	TXW15
203350160R	<b>M200BS.1616SL</b>	X	16	16	14.5	65	125	M200B16 M200R16	TXS4016	TXW15
203350200S	<b>M200BS.2020SS</b>	X	20	20	18.0	40	110	M200B20 M200R20	TXS5020	TXW20
203350200R	<b>M200BS.2020SL</b>	X	20	20	18.0	75	145	M200B20 M200R20	TXS5020	TXW20
203350250S	<b>M200BS.2525SS</b>	X	25	25	22.5	45	125	M200B25 M200R25	TXS6025	TXW25
203350250R	<b>M200BS.2525SL</b>	X	25	25	22.5	90	170	M200B25 M200R25	TXS6025	TXW25
203350300S	<b>M200BS.3032SS</b>	X	30, 32	32	27.0	55	140	M200B30/32 M200R30/32	TXS8030	TXW30
203350300R	<b>M200BS.3032SL</b>	X	30, 32	32	27.0	110	195	M200B30/32 M200R30/32	TXS8030	TXW30

► For assembly instructions see P.129

PROFILE MILLING

**MASTERMILL M200**

**M200BT**  
STEEL SHANK, TAPERED



Inserts P.127-128	
	M200B
	M200R



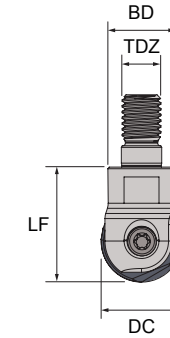
EDP Code	TOOL CODE	◆	DC	DCON	DN	LPR	LF	OAL	PSIR	Insert	Screw	Wrench
202350080S	<b>M200BT.0812SS</b>	X	8	12	7.2	12	35	90	4°43'	M200B08 M200R08	TXS2508	TXW07
202350080R	<b>M200BT.0812SL</b>	X	8	12	7.2	25	55	110	3°37'			
202350100S	<b>M200BT.1012SS</b>	X	10	12	9.0	15	35	90	2°51'	M200B10 M200R10	TXS3010	TXW08
202350100R	<b>M200BT.1012SL</b>	X	10	12	9.0	17	55	110	2°17'			
202350120S	<b>M200BT.1216SS</b>	X	12	16	10.5	17	55	110	3°23'	M200B12 M200R12	TXS3512	TXW10
202350160S	<b>M200BT.1620SS</b>	X	16	20	14.5	20	65	125	2°51'	M200B16 M200R16	TXS4016	TXW15
202350200S	<b>M200BT.2025SS</b>	X	20	25	18.0	25	75	145	3°56'	M200B20 M200R20	TXS5020	TXW20
202350250S	<b>M200BT.2532SS</b>	X	25	32	22.5	30	90	170	4°03'	M200B25 M200R25	TXS6025	TXW25
202350300S	<b>M200BT.3032SS</b>	X	30, 32	32	27.0	40	110	190	1°38'	M200B30/32 M200R30/32	TXS8030	TXW30

► For assembly instructions see P.129

PROFILE MILLING

**MASTERMILL M200**

**M200BM**  
MODULAR HEAD



Inserts P.127-128	
	M200B
	M200R



EDP Code	TOOL CODE	◆	DC	BD	LF	TDZ	Insert	Screw	Wrench
M6-10MM	<b>M200BM.1020M6</b>	X	10	9.8	20	M6	M200B10 M200R10	TXS3010	TXW08
M6-12MM	<b>M200BM.1223M6</b>	X	12	9.8	23	M6	M200B12 M200R12	TXS3512	TXW10
M8-16MM	<b>M200BM.1630M8</b>	X	16	13	30	M8	M200B16 M200R16	TXS4016	TXW15
M10-20MM	<b>M200BM.2030M10</b>	X	20	18	30	M10	M200B20 M200R20	TXS5020	TXW20
M12-25MM	<b>M200BM.2535M12</b>	X	25	21	35	M12	M200B25 M200R25	TXS6025	TXW25
M16-32MM	<b>M200BM.3043M16</b>	X	30, 32	29	43	M16	M200B30/32 M200R30/32	TXS8030	TXW30

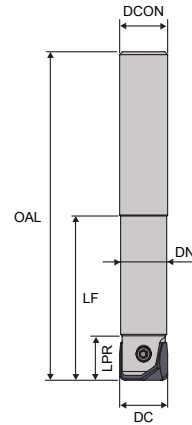
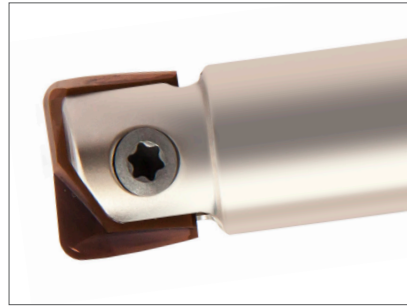
► For assembly instructions see P.129

PROFILE MILLING

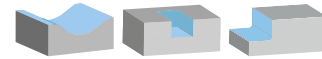
**MASTERMILL M200**



**M200SS**  
STEEL SHANK, STRAIGHT



Inserts P.124-126	
	M200S
	M200H



EDP Code	TOOL CODE	♦	DC	DCON	DN	LPR	LF	OAL	Insert	Screw	Wrench
206350120R	<b>M200SS.1212SS</b>	X	12, 13	12	11.0	13	30	110	M200S12/13 M200H12	TXS3512	TXW10
206350160R	<b>M200SS.1616SS</b>	X	16, 17	16	15.0	15	50	130	M200S16/17 M200H16	TXS4016	TXW15
206350160I	<b>M200SS.1616SL</b>	X	16, 17	16	15.0	15	65	165			
206350200R	<b>M200SS.2020SS</b>	X	20, 21	20	19.0	18	60	140	M200S20/21 M200H20	TXS5020	TXW20
206350200I	<b>M200SS.2020SL</b>	X	20, 21	20	19.0	18	80	180			
206350250R	<b>M200SS.2525SS</b>	X	25, 26	25	24.0	23	70	150	M200S25/26 M200H25	TXS6025	TXW25
206350250I	<b>M200SS.2525SL</b>	X	25, 26	25	24.0	23	90	200			
206350300R	<b>M200SS.3032SS</b>	X	30	32	29.0	27	80	160	M200S30 M200H30	TXS8030	TXW30
206350300I	<b>M200SS.3032SL</b>	X	30	32	29.0	27	100	220			
206350320R	<b>M200SS.3232SS*</b>	X	32	32	31.0	28	80	160	M200S32 M200H32	TXS8030	TXW30
206350320I	<b>M200SS.3232SL*</b>	X	32	32	31.0	28	100	220			

\*Available while stocks last

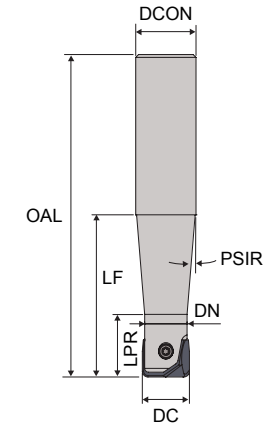
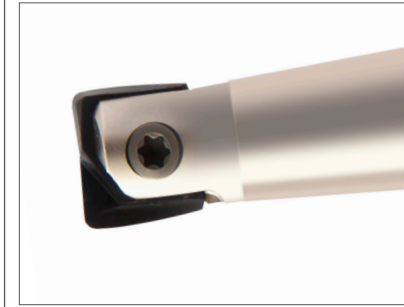
► For assembly instructions see P.129

PROFILE MILLING

**MASTERMILL M200**



**M200ST**  
STEEL SHANK, TAPERED



Inserts P.124-126	
	M200S
	M200H



EDP Code	TOOL CODE	♦	DC	DCON	DN	LPR	LF	OAL	PSIR	Insert	Screw	Wrench
205350080R	<b>M200ST.0812SS</b>	X	8	12	6.7	10	22	100	9°	M200S08 M200H08	TXS2508	TXW07
205350080L	<b>M200ST.0812SL</b>	X	8	12	6.7	10	50	130	2°43'			
205350100R	<b>M200ST.1012SS</b>	X	10	12	8.6	13	25	100	4°45'	M200S10 M200H10	TXS3010	TXW08
205350100L	<b>M200ST.1012SL</b>	X	10	12	8.6	13	50	150	1°32'			
205350120L	<b>M200ST.1216SL</b>	X	12, 13	16	10.2	15	60	160	2°32'	M200S12/13 M200H12	TXS3512	TXW10

► For assembly instructions see P.129



## M200S CORNER RADIUS

▶ EDP Code GM310 200120.... Example: M200S0803 GM310 = 2001200803  
 ▶ EDP Code HM420 200151.... Example: M200S0803 HM420 = 2001510803

INSERT	W1	LE	S	INSERT	W1	LE	S	P	M	K	N	S	H
M200S08	8.0	8.0	2.4	M200S08	8.0	8.0	2.4	●	○	●	●	●	●
M200S10	10.0	9.5	2.7	M200S10	10.0	9.5	2.7	●	○	●	●	●	●
M200S12	12.0	11.0	3.2	M200S12	12.0	11.0	3.2	●	○	●	●	●	●
M200S13	13.0	11.2	3.2	M200S13	13.0	11.2	3.2	●	○	●	●	●	●

M200S	ISO DESIGNATION	RE (mm)	HOLDER TYPE	fz (mm/tooth)	ET52C		ET602		ET62P		ET63P		ET73P		ET20P		GM310		GM320		HM420		SS330		
					CVD	PVD	CVD	PVD	CVD	PVD	CVD	PVD	CVD	PVD	CVD	PVD	CVD	PVD	CVD	PVD	CVD	PVD	CVD	PVD	CVD
	M200S0803	0.3	M200SS M200ST M200BC	0.05 - 0.20													●	●							
	M200S0805	0.5		0.05 - 0.20														●	●						
	M200S0810	1.0		0.05 - 0.20														●	●						
	M200S1005	0.5		0.05 - 0.20														●	●						
	M200S1010	1.0		0.05 - 0.20														●	●						
	M200S1020	2.0		0.05 - 0.20														●	●						
	M200S1205	0.5		0.05 - 0.20														●	●						
	M200S1210	1.0		0.05 - 0.20														●	●						
	M200S1220	2.0		0.05 - 0.20														●	●						
	M200S1305	0.5		0.05 - 0.20														●	●						
	M200S1310	1.0		0.05 - 0.20														●	●						
	M200S1320	2.0		0.05 - 0.20														●	●						
	M200S1605	0.5		0.06 - 0.25														●	●						
	M200S1610	1.0		0.06 - 0.25														●	●						
	M200S1620	2.0		0.06 - 0.25														●	●						
	M200S1705	0.5		0.06 - 0.25														●	●						
	M200S1710	1.0		0.06 - 0.25														●	●						
	M200S1720	2.0		0.06 - 0.25														●	●						
	M200S2005	0.5		0.06 - 0.25														●	●						
	M200S2010	1.0		0.06 - 0.25														●	●						
	M200S2020	2.0	0.06 - 0.25														●	●							

▶ For depth of cut see P.129

ISO	P			M		K		N		S		H	
MATERIAL	Non-alloy steel <25 HRC	Low alloy steel 25-35 HRC	High alloy steel, Tool steel 35-45 HRC	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel <55 HRC			
VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38-41			
ET602	140 - 380	120 - 300	70 - 150	80 - 180	100 - 200	120 - 250	130 - 220	-	20 - 40	40 - 80			
ET62P	140 - 400	120 - 320	70 - 170	-	-	120 - 270	130 - 240	-	-	40 - 80			
ET63P	-	-	-	120 - 200	130 - 250	-	-	-	25 - 45	-			
ET73P	-	-	70 - 170	-	-	-	-	-	-	40-100			
ET20P	-	-	-	-	-	-	-	300 - 800	-	-			
ET52C	-	-	-	-	-	200 - 350	100 - 300	-	-	-			
GM310	160 - 700	120 - 550	100 - 500	-	-	160 - 550	160 - 700	-	-	-			
GM320	160 - 700	120 - 550	-	-	-	160 - 550	160 - 700	-	-	-			
HM420	-	-	100 - 500	-	-	-	-	-	-	80 - 400			
SS330	-	-	-	90 - 130	90 - 110	-	-	-	-	-			

## M200S CORNER RADIUS

▶ EDP Code GM310 200120.... Example: M200S2105 GM310 = 2001202105  
 ▶ EDP Code HM420 200151.... Example: M200S2105 HM420 = 2001512105

INSERT	W1	LE	S	INSERT	W1	LE	S	P	M	K	N	S	H
M200S21	21.0	16.0	5.2	M200S30	30.0	23.5	7.2	●	○	●	●	●	●
M200S25	25.0	19.5	6.2	M200S32	32.0	23.5	7.2	●	○	●	●	●	●
M200S26	26.0	19.5	6.2					●	○	●	●	●	●


M200S	ISO DESIGNATION	RE (mm)	HOLDER TYPE	fz (mm/tooth)	ET52C		ET602		ET62P		ET63P		ET73P		ET20P		GM310		GM320		HM420		SS330		
					CVD	PVD	CVD	PVD	CVD	PVD	CVD	PVD	CVD	PVD	CVD	PVD	CVD	PVD	CVD	PVD	CVD	PVD	CVD	PVD	CVD
	M200S2105	0.5	M200SS M200ST M200BC	0.06 - 0.25													●	●							
	M200S2110	1.0		0.06 - 0.25														●	●						
	M200S2120	2.0		0.06 - 0.25														●	●						
	M200S2505	0.5		0.06 - 0.25														●	●						
	M200S2510	1.0		0.06 - 0.25														●	●						
	M200S2520	2.0		0.06 - 0.25														●	●						
	M200S2605	0.5		0.06 - 0.25														●	●						
	M200S2610	1.0		0.06 - 0.25														●	●						
	M200S2620	2.0		0.06 - 0.25														●	●						
	M200S3005	0.5		0.06 - 0.25														●	●						
	M200S3010	1.0		0.06 - 0.25														●	●						
	M200S3020	2.0		0.06 - 0.25														●	●						
	M200S3205	0.5		0.06 - 0.25														●	●						
	M200S3210	1.0		0.06 - 0.25														●	●						
	M200S3220	2.0		0.06 - 0.25														●	●						

▶ For depth of cut see P.129

ISO	P			M		K		N		S		H	
MATERIAL	Non-alloy steel <25 HRC	Low alloy steel 25-35 HRC	High alloy steel, Tool steel 35-45 HRC	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel <55 HRC			
VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38-41			
ET602	140 - 380	120 - 300	70 - 150	80 - 180	100 - 200	120 - 250	130 - 220	-	20 - 40	40 - 80			
ET62P	140 - 400	120 - 320	70 - 170	-	-	120 - 270	130 - 240	-	-	40 - 80			
ET63P	-	-	-	120 - 200	130 - 250	-	-	-	25 - 45	-			
ET73P	-	-	70 - 170	-	-	-	-	-	-	40-100			
ET20P	-	-	-	-	-	-	-	300 - 800	-	-			
ET52C	-	-	-	-	-	200 - 350	100 - 300	-	-	-			
GM310	160 - 700	120 - 550	100 - 500	-	-	160 - 550	160 - 700	-	-	-			
GM320	160 - 700	120 - 550	-	-	-	160 - 550	160 - 700	-	-	-			
HM420	-	-	100 - 500	-	-	-	-	-	-	80 - 400			
SS330	-	-	-	90 - 130	90 - 110	-	-	-	-	-			

## M200H HIGH FEED

▶ EDP Code GM320 200720.... Example: M200H0808 GM320 = 2007200800

M200H	ISO DESIGNATION	RP (mm)	HOLDER TYPE	fz (mm/tooth)	Material Compatibility																	
					ET52C	ET602	ET62P	ET63P	ET73P	ET20P	GM310	GM320	HM420	SS330								
	M200H0808	0.8	M200SS M200ST M200BC	0.40 - 0.60																		
	M200H1010	1.0		0.40 - 0.75																		
	M200H1210	1.0		0.60 - 0.90																		
	M200H1615	1.5		0.80 - 1.20																		
	M200H2020	2.0		1.00 - 1.50																		
	M200H2525	2.5		1.50 - 2.00																		
	M200H3030	3.0		1.80 - 2.30																		
	M200H3232	3.0		1.80 - 2.30																		

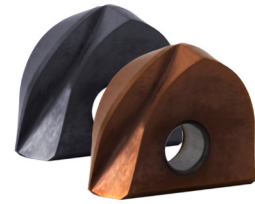
▶ For depth of cut see P.129

## M200B BALL

▶ EDP Code GM310 200320.... Example: M200S0800 GM310 = 2003200800

▶ EDP Code HM420 200351.... Example: M200S0800 HM420 = 2003510800

▶ EDP Code SS330 200323.... Example: M200S0800 SS330 = 2003230800

M200B	ISO DESIGNATION	RE (mm)	HOLDER TYPE	fz (mm/tooth)	Material Compatibility																	
					ET52C	ET602	ET62P	ET63P	ET73P	ET20P	GM310	GM320	HM420	SS330								
	M200B0800	4.0	M200BC M200BS M200BT M200BM	0.10 - 0.20																		
	M200B1000	5.0		0.10 - 0.20																		
	M200B1200	6.0		0.10 - 0.20																		
	M200B1600	8.0		0.15 - 0.30																		
	M200B2000	10.0		0.15 - 0.40																		
	M200B2500	12.5		0.15 - 0.50																		
	M200B3000	15.0		0.15 - 0.60																		
	M200B3200	16.0		0.15 - 0.60																		

▶ For depth of cut see P.129

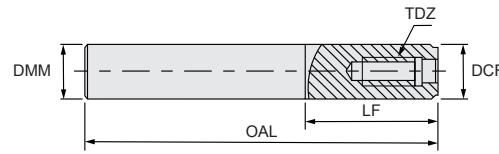
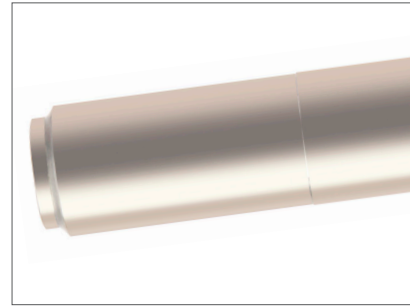
ISO	P			M		K		N	S	H	
MATERIAL	Non-alloy steel <25 HRC	Low alloy steel 25-35 HRC	High alloy steel, Tool steel 35-45 HRC	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel <55 HRC	
VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38-41	
Vc (m/min)	ET602	140 - 380	120 - 300	70 - 150	80 - 180	100 - 200	120 - 250	130 - 220	-	20 - 40	40 - 80
	ET62P	140 - 400	120 - 320	70 - 170	-	-	120 - 270	130 - 240	-	-	40 - 80
	ET63P	-	-	-	120 - 200	130 - 250	-	-	-	25 - 45	-
	ET73P	-	-	70 - 170	-	-	-	-	-	-	40-100
	ET20P	-	-	-	-	-	-	-	300 - 800	-	-
	ET52C	-	-	-	-	-	200 - 350	100 - 300	-	-	-
	GM310	160 - 700	120 - 550	100 - 500	-	-	160 - 550	160 - 700	-	-	-
	GM320	160 - 700	120 - 550	-	-	-	160 - 550	160 - 700	-	-	-
	HM420	-	-	100 - 500	-	-	-	-	-	-	80 - 400
	SS330	-	-	-	90 - 130	90 - 110	-	-	-	-	-

ISO	P			M		K		N	S	H	
MATERIAL	Non-alloy steel <25 HRC	Low alloy steel 25-35 HRC	High alloy steel, Tool steel 35-45 HRC	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel <55 HRC	
VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38-41	
Vc (m/min)	ET602	140 - 380	120 - 300	70 - 150	80 - 180	100 - 200	120 - 250	130 - 220	-	20 - 40	40 - 80
	ET62P	140 - 400	120 - 320	70 - 170	-	-	120 - 270	130 - 240	-	-	40 - 80
	ET63P	-	-	-	120 - 200	130 - 250	-	-	-	25 - 45	-
	ET73P	-	-	70 - 170	-	-	-	-	-	-	40-100
	ET20P	-	-	-	-	-	-	-	300 - 800	-	-
	ET52C	-	-	-	-	-	200 - 350	100 - 300	-	-	-
	GM310	160 - 700	120 - 550	100 - 500	-	-	160 - 550	160 - 700	-	-	-
	GM320	160 - 700	120 - 550	-	-	-	160 - 550	160 - 700	-	-	-
	HM420	-	-	100 - 500	-	-	-	-	-	-	80 - 400
	SS330	-	-	-	90 - 130	90 - 110	-	-	-	-	-



## SHANKS FOR MODULAR HEADS

### MSSN STRAIGHT NECK



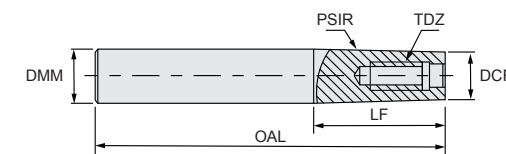
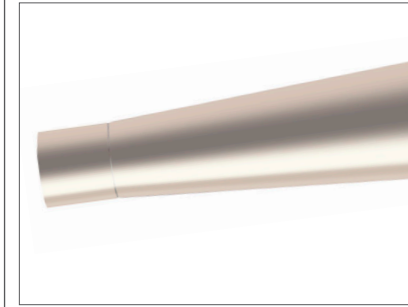
Head Type
M15HM
M200BM
G90AM
G90RKM
G90RM

EDP Code	TOOL CODE	Head Ø	DCF	DMM	LF	OAL	TDZ
207350SNM6R	<b>MSSN.2080M6*</b>	10.0, 12.0	9.7	10	20	80	M6
207350SNM8R	<b>MSSN.2080M8*</b>	16.0	15.7	16	20	80	M8
MTH0175	<b>MSSN.16100M8</b>	16.0	13	16	40	100	M8
207350SNM8L	<b>MSSN.40110M8*</b>	16.0	15.7	16	40	110	M8
MTH0175	<b>MSSN.16130M8</b>	16.0	15	16	70	130	M8
207350SNM10R	<b>MSSN.3090M10*</b>	20.0	19.7	20	30	90	M10
MTH0176	<b>MSSN.20130M10</b>	20.0	18	20	70	130	M10
207350SNM10L	<b>MSSN.50110M10*</b>	20.0	19.7	20	50	110	M10
MTH0177	<b>MSSN.20160M10</b>	20.0	18	20	80	160	M10
207350SNM12R	<b>MSSN.3090M12*</b>	25.0	24.7	25	30	90	M12
MTH0178	<b>MSSN.25150M12</b>	25.0	23	25	70	150	M12
207350SCM12R	<b>MSSN.40115M12*</b>	25.0	24.7	25	40	115	M12
MTH0179	<b>MSSN.25200M12</b>	25.0	23	25	100	200	M12
207350SNM12L	<b>MSSN.55125M12*</b>	25.0	24.7	25	55	125	M12
MTH0180	<b>MSSN.25250M12</b>	25.0	23	25	150	250	M12
207350SNM16R	<b>MSSN.2590M16*</b>	32.0 - 42.0	29.7	32	25	90	M16
MTH0181	<b>MSSN.32150M16</b>	32.0 - 42.0	30	32	70	150	M16
207350SCM16R	<b>MSSN.40125M16*</b>	32.0 - 42.0	29.7	32	40	125	M16
MTH0182	<b>MSSN.32200M16</b>	32.0 - 42.0	30	32	100	200	M16
207350SNM16L	<b>MSSN.55125M16*</b>	32.0 - 42.0	29.7	32	55	125	M16
MTH0183	<b>MSSN.32250M16</b>	32.0 - 42.0	30	32	150	250	M16
207350SNM16E	<b>MSSN.80160M16*</b>	32.0 - 42.0	29.7	32	80	160	M16
MTH0184	<b>MSSN.32300M16</b>	32.0 - 42.0	30	32	200	300	M16

\*Available while stocks last.

## SHANKS FOR MODULAR HEADS

### MSTN TAPERED NECK

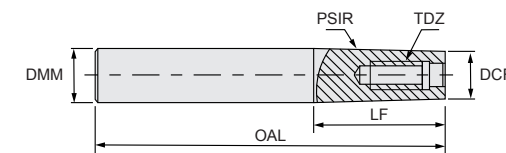


Head Type
M15HM
M200BM
G90AM
G90RKM
G90RM

EDP Code	TOOL CODE	Head Ø	DCF	DMM	LF	OAL	TDZ	PSIR
207350TNM6R	<b>MSTN.10105M6*</b>	10.0, 12.0	9.7	10	20	105	M6	1°36'
207350TNM6L	<b>MSTN.16125M6*</b>	10.0, 12.0	9.7	16	40	125	M6	3°
207350TNM8R	<b>MSTN.20110M8*</b>	16.0	15.7	20	30	110	M8	4°19'
207350TNM8L	<b>MSTN.20140M8*</b>	16.0	15.7	20	30	140	M8	2°57'
207350TNM10R	<b>MSTN.25140M10*</b>	20.0	19.7	25	70	140	M10	2°48'
207350TNM10L	<b>MSTN.25160M10*</b>	20.0	19.7	25	80	160	M10	2°25'
207350TCM12R	<b>MSTN.25200M12*</b>	20.0	19.7	25	110	200	M12	2°36'
207350TNM12R	<b>MSTN.32125M12*</b>	25.0	24.7	32	55	125	M12	6°
207350TNM12L	<b>MSTN.32150M12*</b>	25.0	24.7	32	80	150	M12	3°40'
207350TNM12E	<b>MSTN.32180M12*</b>	25.0	24.7	32	100	180	M12	4°
207350TNM16R	<b>MSTN.32160M16*</b>	32.0 - 42.0	29.7	32	80	160	M16	4°
207350TCM16R	<b>MSTN.32200M16*</b>	32.0 - 42.0	29.7	32	110	200	M16	2°36'
207350TNM16L	<b>MSTN.40200M16*</b>	32.0 - 42.0	29.7	40	110	200	M16	2°36'

\*Available while stocks last.

### MSVD VIBRATION DAMPENED



Head Type
M15HM
M200BM
G90AM
G90RKM
G90RM

EDP Code	TOOL CODE	Head Ø	DCF	DMM	LF	OAL	TDZ	PSIR
207350VCM6	<b>MSVD.40130M6*</b>	10.0, 12.0	9.7	16	40	130	M6	2°
207350VDM8	<b>MSVD.50190M8*</b>	16.0	15.7	20	50	190	M8	3°
207350VDM10	<b>MSVD.50190M10*</b>	20.0	19.7	25	50	190	M10	3°
207350VDM12	<b>MSVD.90190M12*</b>	25.0	24.7	32	90	190	M12	3°
207350VDM16	<b>MSVD.100230M16*</b>	32.0 - 42.0	29.7	40	100	230	M16	3°

\*Available while stocks last.



MISCELLANEOUS MILLING INSERTS

SHAPE	ORD CODE	ISO DESIGNATION	ET602	fz (mm/tooth)	DIMENSIONS				GEOMETRY
					LE	W1/IC	S	RE	
	MI00077	ADKT 150508PDTR	●	0.16 - 0.30	13.7	9.7	5.8	0.8	
	MI00076	AOMT 123604PDTR	●	0.08 - 0.22	10.5	6.6	3.6	0.4	
	MI00001	AOMT 123608PDTR	●	0.08 - 0.24	10.5	6.6	3.6	0.8	
	MI00007	APMT 1135PDTR	●	0.15 - 0.22	9.5	6.2	3.5	0.4	
	MI00008	APMT 113508PDTR	●	0.15 - 0.25	9.5	6.2	3.5	0.8	
	MI00009	APMT 1604PDTR	●	0.16 - 0.30	14.6	9.2	4.76	0.8	
	MI00081	OFER 070405	●	0.22 - 0.50	-	18.05	4.78	0.5	
	MI00021	OFMT 05T308	●	0.15 - 0.25	-	12.7	4.06	0.8	
	MI00037	RPMT 08T2MO	●	0.10 - 0.24	-	8.0	2.78	-	
	MI00038	RPMT 10T3MO	●	0.16 - 0.30	-	10.0	3.97	-	
	MI00039	RPMT 1204MO	●	0.20 - 0.35	-	12.0	4.76	-	
	MI00063	RPMT 1204MO-MS	●	0.10 - 0.30	-	12.0	4.76	-	
	MI00040	RPMW 1003MO	●	0.16 - 0.30	-	10.0	3.18	-	
	MI00041	RPMW 1204MO	●	0.16 - 0.35	-	12.0	4.76	-	
	MI00100	SDKN 1203AFTN	●	0.22 - 0.35	-	12.7	3.18	-	
	MI00101	SDKN 1504AFTN	●	0.22 - 0.40	-	15.88	4.8	-	
	MI00042	SEKN 1203AFTN	●	0.22 - 0.35	-	12.7	3.18	-	
	MI00164	SEKN 1504AFTN-GW	●	0.22 - 0.35	-	12.7	3.18	-	
	MI00044	SEKR 1203AFTN	●	0.14 - 0.30	-	12.7	3.18	-	

MISCELLANEOUS MILLING INSERTS

SHAPE	ORD CODE	ISO DESIGNATION	ET602	fz (mm/tooth)	DIMENSIONS				GEOMETRY
					LE	IC	S	RE	
	MI00103	SEMT 1204AFTN	●	0.25 - 0.50	-	12.7	4.76	-	
	MI00104	SEMT 13T3AFTN	●	0.15 - 0.30	-	13.4	3.97	-	
	MI00105	SEMT 13T3AGSN	●	0.15 - 0.30	-	13.4	3.97	-	
	MI00049	SPKN 1203EDTR	●	0.16 - 0.34	-	12.7	3.2	-	
	MI00051	SPKN 1504EDTR	●	0.15 - 0.34	-	15.88	4.8	-	
	MI00052	SPKR 1203EDTR	●	0.15 - 0.35	-	12.7	3.2	-	
	MI00054	SPUN 120308	●	0.16 - 0.34	-	12.7	3.2	-	
	MI00055	TPKN 1603PDTR	●	0.15 - 0.30	-	9.52	3.18	-	
	MI00056	TPKN 2204PDTR	●	0.17 - 0.30	-	12.7	4.76	-	
	MI00057	TPKR 1603PDTR	●	0.15 - 0.28	-	9.52	3.18	-	
	MI00058	TPKR 2204PDTR	●	0.18 - 0.35	-	12.7	4.76	-	
	MI00059	TPUN 160308	●	0.08 - 0.15	-	9.52	3.18	-	

ISO	P			M		K	N	S	H		
MATERIAL	Non-alloy steel <25 HRC	Low alloy steel 25-35 HRC	High alloy steel, Tool steel 35-45 HRC	Ferritic / Martensitic Stainless steel	Austenitic Stainless steel	Grey Cast iron	Nodular Cast iron	Aluminium & Non-ferrous material	Heat Resistant and Super Alloys	Hardened steel <55 HRC	
VDI GROUP	1-5	6-9	10-11	12-13	14	15-16	17-20	21-30	31-37	38-41	
VC (m/min)	ET602	140 - 380	120 - 300	70 - 150	80 - 180	100 - 200	120 - 250	130 - 220	-	20 - 40	40 - 80
	ET62P	140 - 400	120 - 320	70 - 170	-	-	120 - 270	130 - 240	-	-	40 - 80
	ET63P	-	-	-	120 - 200	130 - 250	-	-	-	25 - 45	-
	ET73P	-	-	70 - 170	-	-	-	-	-	-	40-100
	ET20P	-	-	-	-	-	-	-	300 - 800	-	-
	ET52C	-	-	-	-	-	200 - 350	100 - 300	-	-	-
	GM310	160 - 700	120 - 550	100 - 500	-	-	160 - 550	160 - 700	-	-	-
	GM320	160 - 700	120 - 550	-	-	-	160 - 550	160 - 700	-	-	-
	HM420	-	-	100 - 500	-	-	-	-	-	-	80 - 400
SS330	-	-	-	90 - 130	90 - 110	-	-	-	-	-	