

Milling - Shoulder Milling - Cutter

Cutters for TPKT

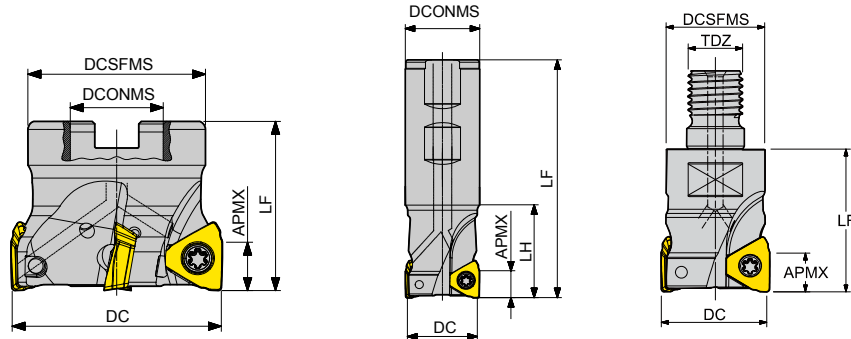
Entering Angle : 90°

3 Corner Positive

<S> Shellmill

<C> Weldon

<M> Modular



CICT : Number of Inserts
CBDP : Connection Bore Depth

□ : p. 128

Unit: inch

Series	APMX	Designation	EDP 1700..	DC	CICT	LF	TYPE	DCON	LH	CBDP	DCSFMS	
NEW TPKT 1104	.276	E90 - TP11 - D125Z3W125 - L450I	1054	1.250	3	4.500	Weldon	1.250	1.500	-	-	●
		E90 - TP11 - D125Z3W125 - L650I	1055	1.250	3	6.500		1.250	2.500	-	-	●
		E90 - TP11 - D150Z3W125 - L450I	1056	1.500	3	4.500		1.250	2.250	-	-	●
		E90 - TP11 - D150Z4W125 - L450I	1057	1.500	4	4.500		1.250	2.250	-	-	●
		E90 - TP11 - D200Z5W125 - L450I	1058	2.000	5	4.500		1.250	2.250	-	-	●
		F90 - TP11 - D150Z4S050I	1059	1.500	4	1.375	Shellmill	.500	-	.640	1.378	●
		F90 - TP11 - D200Z5S075I	1060	2.000	5	1.750		.750	-	.750	1.750	●
		F90 - TP11 - D250Z6S075I	1061	2.500	6	1.750		.750	-	.750	1.750	●
		F90 - TP11 - D300Z5S100I	1062	3.000	5	1.750		1.000	-	.750	2.189	●
		F90 - TP11 - D300Z8S100I	1063	3.000	8	1.750		1.000	-	.750	2.189	●
		F90 - TP11 - D400Z10S150I	1064	4.000	10	2.375		1.500	-	1.060	2.874	●
		F90 - TP11 - D400Z8S150I	1065	4.000	8	2.375		1.500	-	1.060	2.874	●
		F90 - TP11 - D500Z11S150I	1066	5.000	11	2.375		1.500	-	1.060	3.807	●
		M90 - TP11 - D125Z3M16I	1067	1.250	3	2.410	Modular	M16	1.500	-	1.130	●
		M90 - TP11 - D150Z4M16I	1068	1.750	4	2.410		M16	1.750	-	1.130	●

* Clamping Torque (Nm) 1.2Nm

TPKT1104 (D.750")	Screw	Wrench	Handle	BIT
Description	TP082562 - GS	TPWBTP08	DH - H4	DB - TP08
EDP	18000265	18000218	18000189	18000190
TPKT1104 (D1" and larger)	Screw	Wrench	Handle	BIT
Description	TP082506 - GS	TPWBTP08	DH - H4	DB - TP08
EDP	18000259	18000218	18000189	18000190

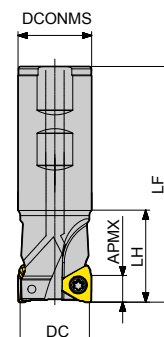
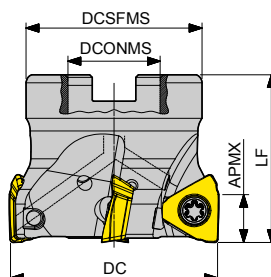
Cutters for TPKT

Entering Angle : 90°

3 Corner Positive

<S> Shellmill

<C> Weldon



CICT : Number of Inserts
CBDP : Connection Bore Depth

□ : p. 128

Unit: inch

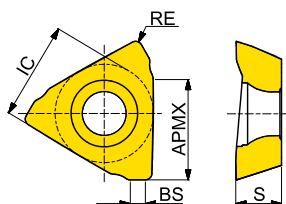
Series	APMX	Designation	EDP 1700..	DC	CICT	LF	TYPE	DCON	LH	CBDP	DCSFMS	
NEW TPKT 1605	.433	E90-TP16-D125Z2W125-L450I	1198	1.250	3	4.500	Weldon	1.250	1.500	-	-	●
		E90-TP16-D150Z3W125-L450I	1199	1.500	4	4.500		1.250	1.500	-	-	●
		E90-TP16-D200Z4W125-L450I	0957	2.000	4	4.500		1.250	1.500	-	-	●
		F90-TP16-D200Z4S075I	0959	2.000	4	1.750	Shellmill	.750	-	.750	1.750	●
		F90-TP16-D200Z5S075I	0960	2.000	5	1.750		.750	-	.750	1.750	●
		F90-TP16-D250Z6S075I	0961	2.500	6	1.750		.750	-	.750	1.750	●
		F90-TP16-D300Z6S100I	0962	3.000	6	1.750		1.000	-	.750	2.189	●
		F90-TP16-D300Z7S100I	0963	3.000	7	1.750		1.000	-	.750	2.189	●
		F90-TP16-D400Z6S150I	0964	4.000	6	2.375		1.500	-	1.417	2.874	●
		F90-TP16-D400Z8S150I	0965	4.000	8	2.375		1.500	-	1.417	2.874	●
		F90-TP16-D500Z9S150I	0966	5.000	9	2.375		1.500	-	1.417	3.807	●
		F90-TP16-D600Z12S150I	0967	6.000	12	2.375		1.500	-	1.417	4.882	●
		F90-TP16-D600Z8S150I	0968	6.000	8	2.375		1.500	-	1.417	4.882	●

* Clamping Torque (Nm) 5.3Nm

TPKT1605	Screw	Wrench	Handle	BIT
Description	TP2045105	TPWBTP20	DH - H6	DB - TP20
EDP	18000264	18000256	18000210	18000257

Milling - Shoulder Milling - Inserts

TPKT - Shoulder Milling Positive (3 Corner ISO)



Series	KRINS	IC	S
TP** 1104	90	.297	.168
TP** 1605	90	.459	.212

EDP 1200..

●: Stock item ○: Order made item

H20	P15	P25	P30	P30	P30	P40	K10	K15
P20			K30	M30	M30	M40		
			S30	S30	S30	S40		
YG012	YG712	YG713	YG622	YG612	YG602	YG613	YG5020	YG501
●	●			●			●	
0802	0807			0801			0808	
●	●			●			●	
0804	0811			0803			0812	
●	●			●			●	
0806	0815			0805			0816	
●	●			●			●	
0781	0779			0718			0780	
●	●			●			●	
0785	0786			0784			0787	
●	●			●			●	
0789	0790			0788			0791	
				●		●		
				0809		0810		
				●		●		
				0813		0814		
				●		●		
				0758		0759		

TPKT	Designation	RE (in)	Fz (in/tooth)	BS (in)
NEW TPKT General	TPKT 110404R - GN	.016	.002 ~ .009	.063
	TPKT 110408R - GN	.031	.002 ~ .009	.045
	TPKT 110416R - GN	.063	.002 ~ .009	.024
	TPKT 160508R - GN	.031	.002 ~ .011	.07
	TPKT 160516R - GN	.063	.002 ~ .011	.047
NEW - ST Stainless Steel Super Alloy	TPKT 160524R - GN	.094	.002 ~ .011	.028
	TPKT 110404R - ST	.016	.002 ~ .006	.063
	TPKT 110408R - ST	.031	.002 ~ .006	.045
	TPKT 160508R - ST	.031	.002 ~ .006	.07

Milling - Code System Insert ISO Code System

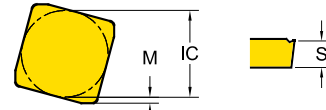
1	2	3	4	5	6	7
A	P	K	T	16	04	08
Shape	Relief Angle (AN)	Tolerance	Clamping & Chipbreaker	Insert Size	Insert Thickness (S)	Corner Radius

1 - Shape

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

2 - Relief Angle (AN)

Symbol	Relief Angle (AN)
N	No Relief Angle
B	Relief 5°
C	Relief 7°
P	Relief 11°
D	Relief 15°
E	Relief 20°
F	Relief 25°
O	Special



3 - Tolerance Class

Symbol	Inner Circle IC (in)	Nose Height M (in)	Thickness S (in)
C	±.0010	±.0005	±.0010
E	±.001	±.0010	±.001
G	±.001	±.0010	±.005
H	±.0005	±.0005	±.0010
K*	±.002~.006*	±.0005	±.005
M*	±.002~.006*	±.003~.010*	±.005
U*	±.003~.010*	±.005~.015*	±.005

* Tolerance is different by insert IC size. Please see ISO 1832

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

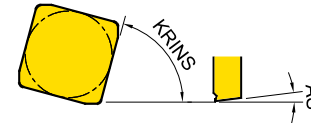
Milling - Code System Insert ISO Code System

8	9	10
(PDTR)	- TR	YG602
Corner Geometry	Chipbreaker	Grade

7 - Corner Radius (RE)

Symbol	Thickness - S (in)	Symbol	Thickness - S (in)
04	.016	16	.063
08	.031	20	.079
12	.047	24	.094

8 - Corner Geometry



8 - 1 - Cutting Edge Angle (KRINS)

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

8 - 2 - Wiper Edge Clearance (AS)

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

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

8 - 3 - Edge Condition

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

8 - 4 - Feed Direction

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

Milling Grades and Chip breakers

Milling Grades

Milling Grades		P Steel				M Stainless steel				K Cast iron				N Non - ferrous				S Super alloys				H Hardened Steel			
		P05	P15	P25	P35	P45	M05	M15	M25	M35	K05	K15	K25	K35	N05	N15	N25	N35	S05	S15	S25	S35	H05	H15	H25
PVD	YG012	012																				012			
	YG712	712																							
	YG713	713																							
	YG622	622								622															
	YG612	612				612												612							
	YG602	602				602				602								602							
	YG613	613				613																			
	YG501									501															
CVD	YG5020									5020															
Uncoated	YG50													50											

NEW	YG012 H10 - H30 P10 - P30		Optimized Milling Grade for Pre - Hardened & Hardened Steel - Applied Extreme Oxidation PVD layer and Crack - free Substrate - Excellent Cutting performance for Die & Mold application
	YG712 P10 - P30		Milling Grade for Medium of Steel Application - Superior wear resistance and excellent toughness in high speed machining - Coating layer with high hardness and oxidation resistance
	YG713 P15 - P25		Milling Grade for General Steel Application - Multi - layer TiAlN structure realizes stronger crater and flank wear resistance - Fine - grained carbide and balanced substrate
	YG622 P20 - P35 K20 - K40		Optimized Grade for High Alloyed or Prehardened Steel Excellent for High Temperature Hardness and Oxidation Resistance at High Speed
NEW	YG612 P20 - P40 M20 - M40 S20 - S40		Specialized Multi - Nano Coated Grade with high wear resistance and chipping resistance - Special Multi - Nano coating prevent crack and providing predictable tool life - Special universal Grade can achieve stable tool life in any workpiece

Milling Grades and Chip breakers

Milling Grades

YG602 P20 - P35 K20 - K40 M20 - M40 S15 - S25		Universal grade for General Milling Application - Ultra Dense PVD Coating with optimal thermal resistance & strength - Sub - Micron substrate designed for demanding application
YG613 P30 - P50 M30 - M40		Milling Grade for Stainless Steel Application - New coating layer with lubrication preventing built - up edge on ultra fine grain substrate with high toughness. - The toughest substrate provides excellent cutting performance in stainless steel
YG501 K05 - K25		Hard Milling grade for Cast Iron - Substrate especially designed for high wear resistance - Excellent wear resistance in cast iron milling application
YG5020 K01 - K30		CVD Milling grade for Cast Iron - CVD coating for Excellent wear resistance - Improved Toughness for chipping resistance
YG50 N05 - N20		Uncoated Milling Grade for Aluminium - Submicron carbide substrate for high wear resistance - Preventing built up edge with shining surface

Milling Chipbreakers

-AL		- For Aluminum - Very Sharp Geometry
-ST		- For Stainless Steel, Super Alloy - Sharp Geometry
-GN (General Type)		First Choice for General Application
-TR		- For Hardened Steels - Reinforced Geometry
...W / ...N		For Hardened Material and Cast Irons