

# *CATP 90° Shoulder Milling*

## *Single sided, 3 cutting edges*



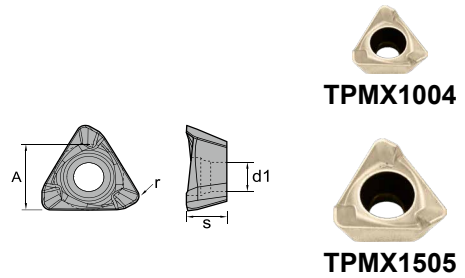
***Innovative & Economical milling with 3 cutting edges !***

- Ensures productive milling of true 90° machining.*
- Provide an improved low cost per cutting edge for various milling applications.*
- Low cutting force and excellent chip evacuation.*
- More economical compare to AP inserts.*



## Insert Specification

Insert	Dimensions (mm)			
	A	S	r	d1
TPMX100408	6.9	4	0.8	3
TPMX150508	10.7	5	0.8	4.85



## Insert Geometry

Shape	Chipbreaker	Application
	<b>MG</b>	Low cutting force for medium cutting in steel, stainless and cast iron.

## Insert Grade

Grade Type	Machining Application	Industry area
<b>CX22HS</b>	<ul style="list-style-type: none"> <li>Continuous semi-finishing machining</li> <li>For hardened steel and cast Iron</li> </ul>	<ul style="list-style-type: none"> <li>Die and mould</li> <li>Hardened parts</li> </ul>
<b>CX32HS</b>	<ul style="list-style-type: none"> <li>Medium machining</li> <li>For carbon steel, alloy steel and stainless steel</li> </ul>	<ul style="list-style-type: none"> <li>Auto parts</li> <li>Machinery parts</li> </ul>
<b>CX43TS</b>	<ul style="list-style-type: none"> <li>Roughing or interrupted machining</li> <li>For carbon steel, alloy steel, stainless steel and high temperature alloy.</li> </ul>	<ul style="list-style-type: none"> <li>Auto parts</li> <li>Machinery parts</li> <li>Aircraft parts</li> </ul>

※ Different grades for various applications are available to select, please contact us for more information.

## Recommended Cutting Conditions

for TPMX1004

Working Material	Vc	fz	ap
Carbon Steel (HB85-225)	120 ~ 250	0.08 ~ 0.20	0.3 ~ 7.0
Stainless 300 Series	100 ~ 180	0.05 ~ 0.15	0.3 ~ 4.0
Cast Iron (HB140-220)	120 ~ 250	0.08 ~ 0.20	0.3 ~ 6.0
High temp. & Titanium alloy	40 ~ 100	0.05 ~ 0.12	0.3 ~ 4.0
Hardened steel	50 ~ 100	0.05 ~ 0.13	0.3 ~ 4.0

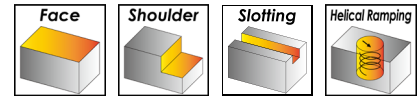
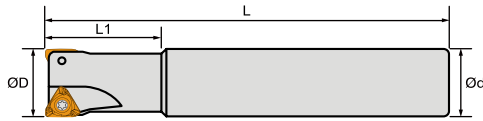
for TPMX1505

Working Material	Vc	fz	ap
Carbon Steel (HB85-225)	120 ~ 250	0.12 ~ 0.28	0.5 ~ 11.0
Stainless 300 Series	100 ~ 180	0.10 ~ 0.22	0.5 ~ 7.0
Cast Iron (HB140-220)	120 ~ 250	0.12 ~ 0.28	0.5 ~ 10.0
High temp. & Titanium alloy	40 ~ 100	0.10 ~ 0.18	0.5 ~ 7.0
Hardened steel	50 ~ 100	0.10 ~ 0.20	0.5 ~ 7.0

## Order Code

Insert	Order No.	Designation	Working Material					
			P	M	K	N	S	H
	ITPMX100408MG22HS	TPMX100408-MG-CX22HS	●	○	●		○	●
	ITPMX100408MG32HS	TPMX100408-MG-CX32HS	●	●	●		○	○
	ITPMX100408MG43TS	TPMX100408-MG-CX43TS	●	●	●		●	
	ITPMX150508MG22HS	TPMX150508-MG-CX22HS	●	○	●		○	●
	ITPMX150508MG32HS	TPMX150508-MG-CX32HS	●	●	●		○	○
	ITPMX150508MG43TS	TPMX150508-MG-CX43TS	●	●	●		●	

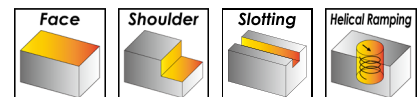
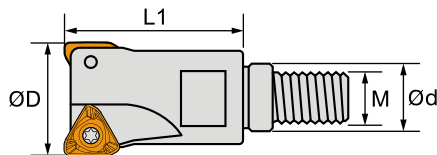
## CATPE - Milling tools



Order No.	D	L1	L	d	T	Inserts	Screw	Wrench
ICATPE102020130	20	50	130	20	2	TPMX1004	ITS2517	ITK08
ICATPE103025150	25	55	150	25	3			
ICATPE503033200	33	45	200	32	3	TPMX1505	ITS4014	ITK15
ICATPE504040200	40	45	200	32	4			

Customize available.

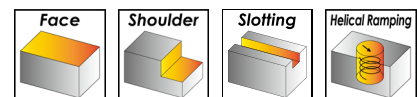
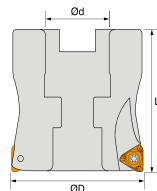
## CATPM - Modular tools



Order No.	D	L1	d	M	T	Inserts	Screw	Wrench
ICATPM102021100	21	35	18	M10	2	TPMX1004	ITS2517	ITK08
ICATPM103026120	26	35	21	M12	3			
ICATPM105033160	33	43	29	M16	5			

Customize available.

## CATPF - Milling tools



Order No.	D	L	d	T	Inserts	Screw	Wrench
ICATPF107050220	50	50	22	7	TPMX1004	ITS2517	ITK08
ICATPF109063220	63	50	22	9			

Customize available.

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