



# HEXMILL 45 MILLING PROGRAM

**PROMO PRICING EXPIRES 03-31-2021**

The **NEW TyCarb HexMill 45** offers exceptional Metal Removal Rates (MRR) at very competitive cost per corner. Ideal for light to medium roughing at Depth of Cut to .120".

- Double sided insert with 12 Cutting edges
- Improved cycle times
- Exceptionally smooth cutting action
- Premium carbide milling grades
- 3 cutting geometries for light, medium & heavy applications
- Excellent tool life in all applications
- All tools with through coolant
- Milling cutters manufactured in Canada



## End Mill Design with Weldon Shank

Designation	Dia.	Shank	O.A.L.	Reach	Flutes	List Price	*FREE w/ Insert Purchase	*1/2 PRICE w/ Insert Purchase
<b>Insert: HNGX-33.5-ANSN</b>								
HN33EM-1000-3.50F3	1.000	.750	3.50	1.47	3	\$259.48	40 Inserts	20 Inserts
HN33EM-1000-4.00H3	1.000	1.000	4.00	1.72	3	\$266.62	40 Inserts	20 Inserts
HN33EM-1250-4.00J3	1.250	1.250	4.00	1.72	3	\$278.51	40 Inserts	20 Inserts
HN33EM-1500-4.00J4	1.500	1.250	4.00	1.72	4	\$321.37	50 Inserts	30 Inserts

Insert Screw: TX9P-3007 • Flag Wrench: W-36548 S/D: W-36229 • T-Handle: W-36461



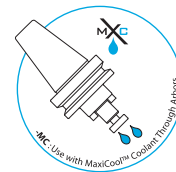
To arrive at the Outside Diameter (O.D.) of the above cutters please add .289" to the "D1" value listed.

\*Free and Half Price Cutter only valid with inserts shown below.

## Shell Mill Design with Through Coolant

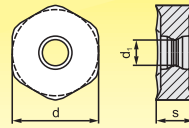
Designation	Dia.	Bore	Height	Flutes	List Price	*FREE w/ Insert Purchase	*1/2 PRICE w/ Insert Purchase
<b>Insert: HNGX-33.5-ANSN</b>							
HN33SM-2000-1.50F5	2.000	.750	1.50	5	\$366.60	60 Inserts	30 Inserts
HN33SM-2500-1.75H7	2.500	1.00	1.75	7	\$466.57	70 Inserts	30 Inserts
HN33SM-3000-2.00H8	3.000	1.00	2.00	8	\$540.37	80 Inserts	40 Inserts
HN33SM-4000-2.00L9	4.000	1.50	2.00	9	\$711.77	100 Inserts	50 Inserts

Insert Screw: TX9P-3007 • Flag Wrench: Flag: W-36548 S/D: W-36229 • T-Handle: W-36461



To arrive at the Outside Diameter (O.D.) of the above cutters please add .289" to the "D1" value listed.

\*Free and Half Price Cutter only valid with inserts shown below.



## Negative Insert Design with 12 Cutting Edges

Designation	d	s	d1	Ap Max	Price	P25MC	P30MP	P40MP	M40MC
HNGX-33.5-ANSN-TF	.413	.207	.146	.120	<b>\$13.95</b>		●		●
HNGX-33.5-ANSN-TM	.413	.207	.146	.120		●	●	●	●
HNGX-33.5-ANSN-TR	.413	.207	.146	.120		●	●	●	

## Speeds and Feeds for HexMill 45

	Work Material	Hardness	P25MC		P30MP		M40MP		M40MC	
			SFM	Feed	SFM	Feed	SFM	Feed	SFM	Feed
<b>P</b>	Steel, Unalloyed low carbon		850 - 1115	.004 - .012	740 - 1000	.005 - .015	650 - 880	.005 - .015	825 - 1050	.005 - .015
	Steel, Low to Medium Alloy 160 - 255 Hbn		730 - 960	.004 - .012	635 - 790	.005 - .015	560 - 700	.005 - .015	700 - 950	.005 - .015
	Steel, Alloy and Tool Steels 200 - 340 Hbn		545 - 720	.004 - .010	420 - 660	.004 - .012	370 - 580	.004 - .012	530 - 670	.004 - .012
	High Tensile steels 240 - 375 Hbn		375 - 490	.004 - .010	325 - 420	.004 - .012	285 - 370	.004 - .012	360 - 460	.004 - .012
<b>M</b>	Austenitic (304, 304L, 316, 316L)		650 - 770	.004 - .012	485 - 600	.005 - .015	425 - 530	.005 - .015	500 - 620	.005 - .015
	Duplex (323, 329, F55, 2205)		590 - 700	.004 - .012	440 - 540	.005 - .015	390 - 475	.005 - .015	460 - 560	.005 - .015
	Super Austenitic (310 Modified)		530 - 630	.004 - .012	400 - 485	.004 - .012	350 - 425	.004 - .012	415 - 505	.004 - .012
	Stainless, PH Series (17-4, 630)		425 - 500	.004 - .012	320 - 390	.004 - .012	280 - 690	.004 - .012	330 - 400	.004 - .012
<b>K</b>	Grey Cast Iron	Ferritic/Pearl			560 - 950	.005 - .015	500 - 800	.005 - .015		
		Pearlitic			460 - 720	.005 - .015	410 - 650	.005 - .015		
	Nodular Cast Iron	Ferritic			490 - 790	.005 - .015	440 - 710	.005 - .015		
		Pearlitic			260 - 590	.005 - .015	230 - 530	.005 - .015		
<b>S</b>	High Temp	G 200 HB	140 - 200	.004 - .010			105 - 150	.004 - .012	110 - 160	.004 - .012
	Alloy FE	AG 280 HB	100 - 160	.004 - .010			75 - 125	.004 - .012	80 - 130	.004 - .012
	Ni / Co	GO 320 HB	65 - 140	.004 - .010			45 - 140	.004 - .010	50 - 150	.004 - .010
	Titanium Alloys		130 - 280	.004 - .010			95 - 190	.004 - .012	100 - 230	.004 - .012
<b>H</b>	Hardened Steel 41 HRC - 50 HRC				160 - 320	.003 - .008				
	Hardened Steel 51 HRC - 55 HRC				125 - 180	.003 - .008				
	Hardened Steel 55 HRC +									

Please Note: Recommendations for feedrates are when applying the 'TM' Geometry Insert. When applying the 'TF' geometry lower feedrate recommendations by 20% - 25%. When applying 'TR' geometry increase feedrate recommendations by 20% - 25%.

**P25MC** is a Universal CVD coated grade and is the first choice for general steel milling applications. It provides the user with a unique combination of wear resistance, toughness and reliability. P25MC comprises a fine-grained substrate with a thin MT-CVD coating including a unique Al<sub>2</sub>O<sub>3</sub> layer. Suitable for machining material group P and conditionally also groups M & S.

**P30MP** excels in medium to heavy roughing of steel in the P family of materials. This grade is a sub micron substrate with a PVD applied thin Nano-Structure coating containing a high content of Al. P30MP is a highly versatile grade combining good abrasion resistance, toughness and reliability. Suitable for materials in the P, M & K groups.

**P40MP** is our toughest grade designed for applications with severe shock and/or heavy interruptions. The substrate is a sub-micron carbide with a high cobalt content. The coating is a Nano structure thin coating with a high Al content and applied by the PVD process. Suitable for machining material groups P, M, S & K. Can be used with or without coolant.

**M40MC** is our first choice grade for Stainless Steel milling applications. M40MC is a MT-CVD coated grade suitable for low cutting speeds and unstable conditions such as vibrations and/or interrupted cuts. The MT-CVD coating is comprised of a TiCN layer as well as a unique outer Al<sub>2</sub>O<sub>3</sub> layer. Suitable for machining in the M, S and conditionally also P material groups. Can be used with or without coolant.

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Available From:

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