

Trochoidal solution
for high productivity milling



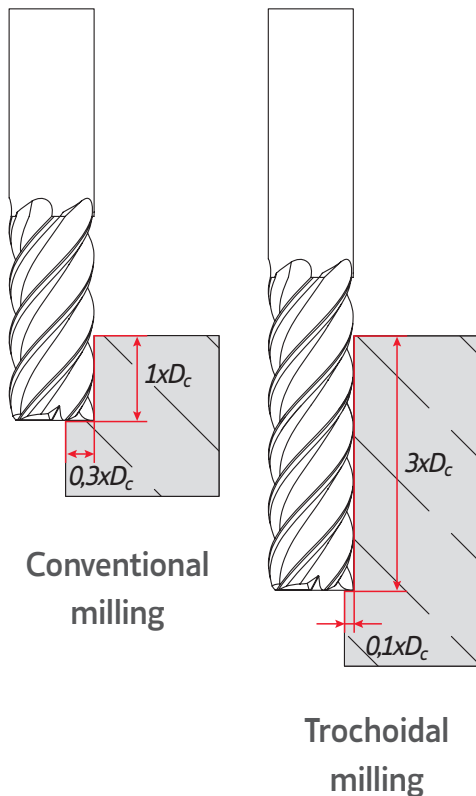
NEW
DYN-INTEG
Trochoidal Milling - TSP

PHP
NEW
GRADE



SINCE 1916

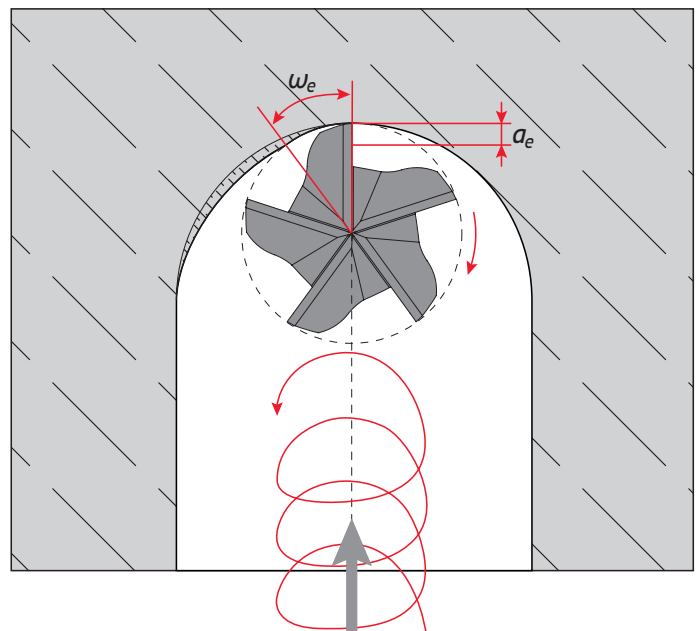
Trochoidal milling is a dynamic method of high-speed machining developed to increase the tool lifetime while also increasing productivity. This method is mostly used for slotting and consists of multiple circular cuts going forward.



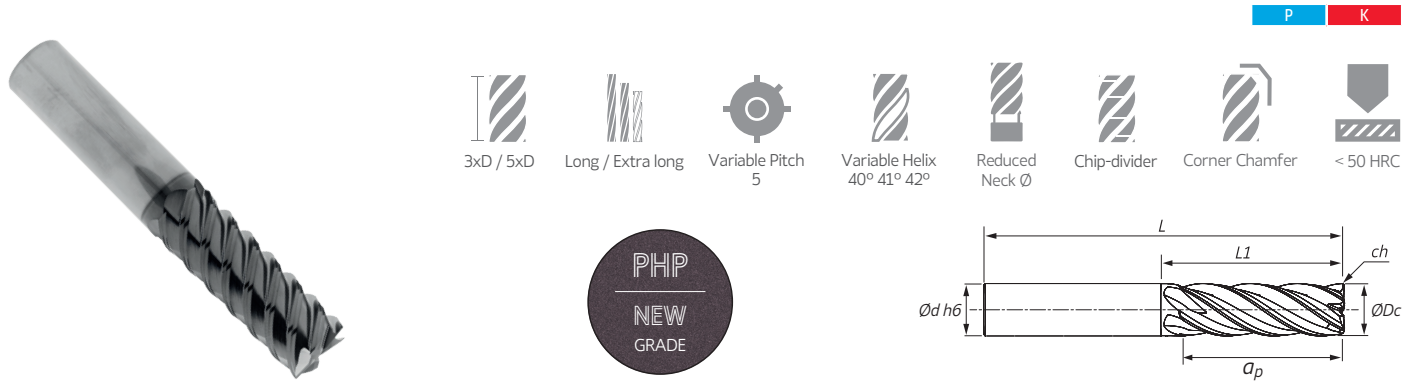
When using conventional machining strategies most endmills can only mill its cutting diameter in depth. With trochoidal strategy, DYN-INTEG mills can work up to three times their cutting diameter highly increasing **productivity**.

Trochoidal milling strategy

As depth of cut (a_p) increases, the cutting width (a_e) must decrease. Because this strategy consists of circular cuts the engagement angle (w_e) is also small. For those reasons the cutting forces are very low and less heat is generated, increasing the tool lifetime.



HC40TSP Corner chamfer, variable helix 40°-42° || Trochoidal Speed Cutting



- 3xD / 5xD
- Long / Extra long
- Variable Pitch 5
- Variable Helix 40° 41° 42°
- Reduced Neck Ø
- Chip-divider
- Corner Chamfer
- < 50 HRC icon"/> < 50 HRC



⁽¹⁾ Order code		⁽²⁾ Grade code	T1	Dimensions Dimensões Dimensiones (mm)							
				Reference Referência Referencia		PHP920	ØDc	Ød (h6)	ap max	CH	L1
HA (Cylindrical)	HB (Weldon)										
HC40TSPL											
1180118	1180456	HC40TSPL 5 060 20	5		6	6	20	0,15 x 45°	26	60	
1180119	1180457	HC40TSPL 5 080 25	5		8	8	25	0,15 x 45°	32	63	
1180225	1180458	HC40TSPL 5 100 32	5		10	10	32	0,20 x 45°	38	79	
1180690	1180689	HC40TSPL 5 120 41	5		12	12	41	0,20 x 45°	48	100	
1180226	1180460	HC40TSPL 5 160 50	5		16	16	50	0,25 x 45°	56	110	
1180123	1180461	HC40TSPL 5 180 60	5		18	18	60	0,30 x 45°	66	130	
1180462	1180463	HC40TSPL 5 200 64	5		20	20	64	0,35 x 45°	70	130	
HC40TSPXL											
1180507	1180514	HC40TSPXL 5 060 30	5		6	6	30	0,15 x 45°	36	75	
1180508	1180515	HC40TSPXL 5 080 40	5		8	8	40	0,15 x 45°	46	81	
1180509	1180516	HC40TSPXL 5 100 50	5		10	10	50	0,20 x 45°	59	100	
1180510	1180517	HC40TSPXL 5 120 60	5		12	12	60	0,20 x 45°	67	120	
1180511	1180518	HC40TSPXL 5 160 80	5		16	16	80	0,20 x 45°	85	136	
1180512	1180519	HC40TSPXL 5 180 90	5		18	18	90	0,30 x 45°	100	150	
1180513	1180520	HC40TSPXL 5 200 100	5		20	20	100	0,35 x 45°	104	162	

Stock item | Produto de stock | Itens de stock Available under request | Disponível sobre consulta | Disponible bajo consulta

Endmill order code = (1) Geometry Code + (2) Grade Code

Note: For HB (weldon) endmills, the reference ends with "-W"

RECOMMENDED CUTTING CONDITIONS || Condições de corte recomendadas | Condiciones de corte recomendables

ISO	Workpiece Material	fz (mm/t)			Vc (m/min)		
		ae (mm)			ae (mm)		
		5,0%	15%	30%	5,0%	15%	30%
P	Unalloyed Steel	0,009 x ØDc	0,009 x ØDc	0,008 x ØDc	180	170	170
	Low-Alloyed Steel	0,008 x ØDc	0,007 x ØDc	0,007 x ØDc	160	160	150
	High-Alloyed Steel	0,007 x ØDc	0,007 x ØDc	0,006 x ØDc	140	140	140
K	Malleable Cast Iron	0,009 x ØDc	0,009 x ØDc	0,008 x ØDc	210	210	200
	Grey Cast Iron	0,009 x ØDc	0,009 x ØDc	0,008 x ØDc	210	200	200
	Nodular Cast Iron	0,009 x ØDc	0,008 x ØDc	0,007 x ØDc	190	190	180



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