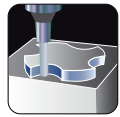


MILLING CONDITIONS

4 flute variable carbide endmills.

MILLING


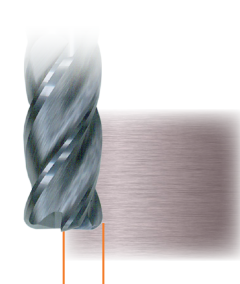
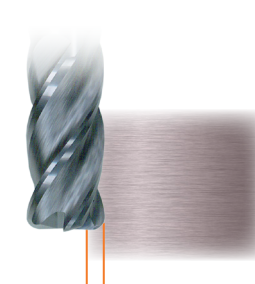
HYP-HI-EMS / (W)EMS / CR-HI-(W)EMS / CR-HD-(W)EMS



Vc	Low Carbon / Alloy / Tool Steel						Cast Iron		Stainless Steel		Aluminium / Mg		Titanium	
	500 ~ 800 N/mm ²		< 30 HRC		< 40 HRC		> HB 180		< 20 HRC				< 50 HRC	
	160 m/min		120 m/min		100 m/min		140 m/min		50 m/min		180 m/min		65 m/min	
Ø	Speed (min ⁻¹)	Feed (mm/min.)	Speed (min ⁻¹)	Feed (mm/min.)	Speed (min ⁻¹)	Feed (mm/min.)	Speed (min ⁻¹)	Feed (mm/min.)	Speed (min ⁻¹)	Feed (mm/min.)	Speed (min ⁻¹)	Feed (mm/min.)	Speed (min ⁻¹)	Feed (mm/min.)
4	12,730	1.79	9,550	1.15	7,960	960	11,150	1.57	3,980	480	14,330	2.01	5,180	520
6	8,490	1.36	6,370	900	5,310	750	7,430	1.19	2,660	380	9,550	1.53	3,450	380
8	6,370	1.79	4,780	1.25	3,980	1040	5,580	1.57	1,990	520	7,170	2.01	2,590	330
10	5,090	2.04	3,820	1.23	3,190	1030	4,460	1.79	1,600	520	5,730	2.3	2,070	320
12	4,240	2.04	3,190	1.28	2,660	1070	3,720	1.79	1,330	540	4,780	2.3	1,730	320
16	3,180	1.66	2,390	1.15	1,990	960	2,790	1.46	1,000	480	3,590	1.87	1,300	280
20	2,550	1.53	1,910	920	1,600	770	2,230	1.34	800	390	2,870	1.73	1,040	250

a_e = width of cut / a_p = depth of cut

When changing milling type from slotting to side milling please reduce speeds and feeds using the coefficients below

	ap		Coe.		ap		Coe.		ap		Cow.	
	0.5	1.0	1.5		2.0	0.5	1.0		1.5	2.0	0.5	1.0
	0.5	1.0	1.0		0.5	1.2	1.2		0.5	1.3	1.3	
	1.0	0.7	0.7		1.0	1.0	1.0		1.0	1.2	1.2	
	1.5	0.5	0.5		1.5	0.7	0.7		1.5	1.0	1.0	
	2.0	0.3	0.3		2.0	0.5	0.5		2.0	0.8	0.8	

$a_e = 1 \times D$ $a_e = 0.5 \times D$ $a_e = 0.2 \times D$

The above stated milling conditions are based on using the RED marked parameters