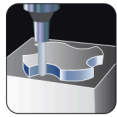


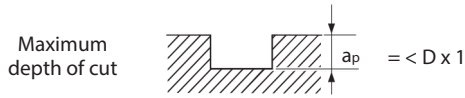
4 flute variable lead carbide endmill

SLOTTING

HYP-VG4-EMS / LN-VG4-EMS



Vc	Low Carbon / Alloy / Tool Steels						Cast Iron		Stainless Steel		Titanium		Nickel Alloy		Aluminium Alloy	
			< 30 HRC		< 40 HRC		< 180 HB									
	100 m/min		90 m/min		80 m/min		100 m/min		70 m/min		60 m/min		30 m/min		150 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.)	Speed (min-1)	Feed (mm/min.)
3	10600	760	9550	610	8500	510	10600	640	7450	480	6350	410	2100	170	15900	1270
4	7950	800	7150	660	6350	510	7950	640	5550	440	4750	380	1600	140	11950	1200
5	6350	840	5750	720	5100	610	6350	760	4450	390	3800	330	1250	130	9550	1260
6	5300	1060	4750	860	4250	680	5300	850	3700	370	3200	320	1050	130	7950	1590
8	4000	880	3600	720	3200	640	4000	800	2800	390	2400	340	800	130	5950	1430
10	3200	830	2850	680	2550	560	3200	700	2250	360	1900	300	650	130	4750	1330
12	2650	800	2400	670	2100	550	2650	690	1850	370	1600	320	550	120	4000	1200
16	2000	600	1800	500	1600	420	2000	520	1400	360	1200	310	400	90	3000	900
20	1600	510	1450	440	1250	350	1600	450	1100	310	950	270	300	70	2400	770

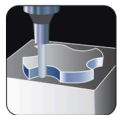


$a_p = 0.5$

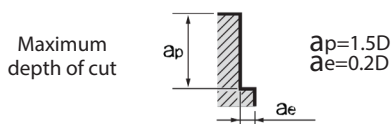
- (1) The above milling conditions are guideline based on an overhang length of 3 X D
 (2) Reduce speeds & feeds 20-30% for HYP-LN-VG4-EMS (Long with neck).

SIDE MILLING

HYP-VG4-EMS / LN-VG4-EMS



Vc	Low Carbon / Alloy / Tool Steels						Cast Iron		Stainless Steel		Titanium		Nickel Alloy		Aluminium Alloy	
			< 30 HRC		< 40 HRC		< 180 HB									
	150 m/min		130 m/min		110 m/min		130 m/min		110 m/min		100 m/min		40 m/min		200 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.)	Speed (min-1)	Feed (mm/min.)
3	15900	1910	13800	1100	11650	840	13800	990	11650	930	10600	850	3200	260	21200	3390
4	11950	2060	10350	1240	8750	880	10350	1040	8750	1050	7950	950	2400	240	15900	3180
5	9550	2290	8300	1330	7000	980	8300	1160	7000	1260	6350	1140	1900	230	12750	3570
6	7950	2390	6900	1660	5850	1170	6900	1380	5850	1170	5300	1060	1600	260	10600	3820
8	5950	2020	5150	1650	4400	1140	5150	1340	4400	1140	4000	1040	1200	220	7950	4130
10	4750	1900	4150	1490	3500	980	4150	1160	3500	1120	3200	1020	950	190	6350	4060
12	4000	1760	3450	1380	2900	810	3450	970	2900	1040	2650	950	800	210	5300	4030
16	3000	1440	2600	1140	2200	700	2600	830	2200	880	2000	800	600	190	4000	3840
20	2400	1150	2050	900	1750	560	2050	660	1750	840	1600	770	500	200	3200	3070



- (1) The above milling conditions are guideline based on an overhang length of 3 X D
 (2) Reduce speeds & feeds 20-30% for HYP-LN-VG4-EMS (Long with neck).