

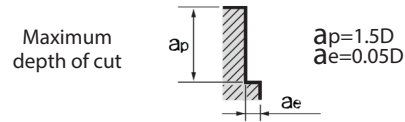
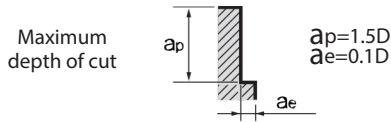
MILLING CONDITIONS

Multi-flute carbide end mill

SIDE MILLING

HYP-ROCKET-MILL, LS-ROCKET-MILL

Vc	Mild Steels Cast Iron		Alloy Steels Tool Steels		Hardened Steels Tool Steels				Titanium Alloy		Nickel Base Alloys	
	< 25 HRC		< 45 HRC		< 55 HRC		< 60 HRC		< 40 HRC		< 45 HRC	
	132 m/min		72 m/min		39 m/min		22 m/min		66 m/min		20 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.)
3	11,400	1,800	6,360	480	3,240	192	2,280	120	5,040	840	1,680	54
4	8,640	1,800	4,800	480	2,640	240	1,800	120	3,840	900	1,260	66
5	6,840	1,560	3,840	480	2,160	264	1,560	120	3,000	900	984	84
6	6,360	3,120	3,480	1,020	1,920	360	1,320	192	2,520	1,080	840	108
8	4,800	2,880	2,640	1,020	1,440	360	996	180	1,920	1,080	624	108
10	3,840	2,520	2,160	1,020	1,152	336	804	180	1,560	960	480	108
12	3,480	2,520	1,920	924	960	336	672	156	1,260	900	408	96
16	2,640	1,920	1,440	696	720	264	528	120	960	840	312	84
20	2,160	1,560	1,140	552	576	192	420	102	780	720	240	84
25	1,500	1,440	900	570	450	216	300	96	720	600	216	72

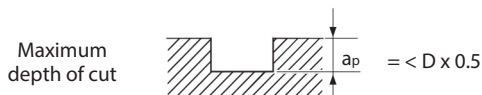


1 Flute carbide end mill

SLOTTING

HYP-F1

Vc	Aluminium		Plastics	
	Speed (min-1)	Feed (mm/min.)	Speed (min-1)	Feed (mm/min.)
Ø				
3	40,000	2,500	20,000	2,000
4	35,000	2,500	20,000	2,000
5	30,000	3,000	20,000	3,000
6	25,000	3,000	20,000	3,000
8	25,000	3,000	20,000	3,000
10	22,300	3,000	16,000	3,000
12	18,600	3,000	13,500	3,000



2 Flute carbide end mill

COUNTERBORING

HYP-ZDS

Vc	GG, S55C SS400, GG25 ~750N/mm2		SCM SKS, SKT SKD		NAK55 HPMI, SKT SKD		Stainless Steel Sus 304 SKD		Aluminium Alloy A7075		Aluminium Alloy Casting < Si 13%	
	< 30 HRC		< 38 HRC		< 45 HRC		A7075		< Si 13%			
	60~80 m/min		40~60 m/min		30~50 m/min		20~40 m/min		80~200 m/min		40~150 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.)
4	5.950	360	4.950	295	4.000	240	3.200	155	12.500	915	9.350	575
5	4.800	360	3.950	295	3.200	240	2.550	155	10.000	915	7.650	575
6	4.000	360	3.300	295	2.700	240	2.150	155	8.400	915	6.400	575
7	3.400	360	2.800	295	2.300	240	1.850	155	7.200	915	5.500	575
8	3.000	360	2.450	295	2.000	240	1.600	155	6.350	915	4.750	575
9	2.650	360	2.200	295	1.800	240	1.450	155	5.600	915	4.200	575
10	2.400	360	2.000	295	1.600	240	1.300	155	5.000	915	3.800	575

