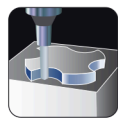


## 2 flute ball end carbide end mill for Aluminium

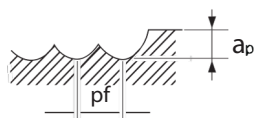
### PROFILING

### HYP-AL-LS-EBD



Aluminium Alloys				Copper Alloy			
A6061, A7075				C1100			
200 m/min				150 m/min			
Vc							
Ø	Speed (min-1)	Feed (mm/min.)		Speed (min-1)	Feed (mm/min.)		
3	21,200	1,550		15,900	1,150		
4	15,900	1,550		11,900	1,150		
5	12,750	1,575		9,500	1,150		
6	10,600	1,600		7,950	1,150		
8	7,950	1,950		5,950	1,450		
10	6,350	1,750		4,750	1,300		
12	5,300	1,650		3,950	1,200		

Maximum depth of cut



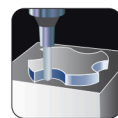
$$a_p = 0.1D$$

$$p_f = 0.2D$$

## 2 flute ball end carbide end mill for difficult materials

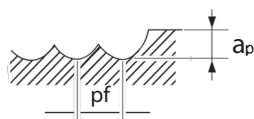
### PROFILING

### HYP-Ti-EBD



Vc	Cast Iron		Mild Steels Carbon Steels		Tool Steels Ti (Annealed)		Pre-hardened / Die / Alloy Steels Titanium (treated & aged) Inconel				Hardened Steels	
	210 m/min		< 225 HB 168 m/min		< 30 HRC 138 m/min		< 38 HRC 108 m/min		< 45 HRC 96 m/min		< 55 HRC 84 m/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.)
Ø												
3	21,212	1,350	17,244	1,100	14,475	906	11,628	588	10,188	432	8,736	312
4	16,740	1,350	13,800	1,100	11,560	906	9,228	636	8,064	528	6,910	384
5	13,320	1,512	10,656	1,230	8,890	918	7,068	642	6,228	534	5,316	408
6	10,944	1,572	8,736	1,280	7,280	990	5,770	690	5,076	576	4,332	432
8	8,652	1,860	6,912	1,500	5,740	1,128	4,570	792	3,996	648	3,420	462
10	6,648	1,704	5,316	1,360	4,420	1,056	3,500	744	3,072	618	2,640	474
12	4,000	1,554	4,296	1,240	3,610	990	2,870	696	2,508	594	2,120	438

Maximum depth of cut



$$a_p = 0.1D$$

$$p_f = 0.2D$$

$$a_p = 0.05D$$

$$p_f = 0.1D$$