

EB452 Series Cutting Data

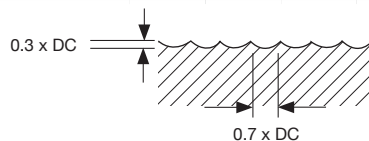
2 Flute Carbide Ball Nose Slot Drill Cutting Data

STÄRKE

eco
MILL

The feed rate for long, long reach and uncoated tools should be reduced by up to 50%

EB452 SERIES														
VDI Material Group		HRc	Side Cutting	Size (mm)										
				2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	14.0	16.0	20.0
P	1-5	Non-Alloy Steel	<25	v_c (m/min)	80	105	110	125	135	155	170	190	200	225
				n	12730	11140	8755	7960	7160	6165	5410	5040	4545	3580
				f_z	0.026	0.025	0.035	0.045	0.06	0.089	0.122	0.15	0.165	0.201
				f (mm/min)	660	555	615	715	860	1100	1320	1510	1500	1440
	6-9	Low-Alloy Steel	25-35	v_c (m/min)	80	105	110	125	135	155	170	190	200	225
				n	12730	11140	8755	7960	7160	6165	5410	5040	4545	3580
				f_z	0.026	0.025	0.035	0.045	0.06	0.089	0.122	0.15	0.165	0.201
				f (mm/min)	660	555	615	715	860	1100	1320	1510	1500	1440
K	15-20	Cast Iron		v_c (m/min)	65	65	65	65	65	65	65	65	60	65
				n	10345	6895	5170	4140	3450	2585	2070	1725	1365	1035
				f_z	0.01	0.016	0.028	0.04	0.053	0.092	0.112	0.131	0.164	0.2
				f (mm/min)	205	220	290	330	365	475	460	450	445	415
N	21-24	Aluminium/ Aluminium Alloys		v_c (m/min)	195	195	195	190	195	200	195	195	190	195
				n	31035	20690	15520	12095	10345	7960	6205	5170	4320	2945
				f_z	0.006	0.01	0.013	0.019	0.023	0.034	0.044	0.061	0.073	0.092
				f (mm/min)	370	415	400	460	475	540	545	630	630	540



All recommendations are based on ideal machining conditions.
Adjustments may need to be made according to your set-up.

The recommendations for speeds, feeds and other parameters presented in this chart are nominal recommendations and should be considered only as good starting points.

v_c - cutting speed (m/min)
 n - RPM (rev/min)
 f_z - feed per tooth (mm)
 f - feed rate (mm/min)
 z - No. of Teeth
 a_p - axial depth of cut
 a_e - radial depth of cut

To calculate RPM from cutting speed: $n = \frac{v_c \cdot 1000}{\pi \cdot \phi}$

To calculate cutting speed from RPM: $v_c = \frac{n \cdot \pi \cdot \phi}{1000}$