

HSC3 Series Cutting Data

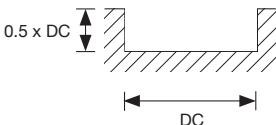
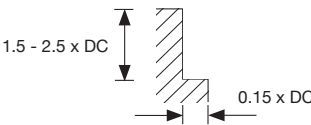
3 Flute HSc08 Slot Drill Cutting Data



STÄRKE



The speeds and feeds for TiAlN coated tools can be increased by up to 30%

HSC3 SERIES														
VDI Material Group			HRc	Slotting/ Side Cutting	Size (mm)									
					3.0	4.0	5.0	6.0	8.0	10.0	12.0	16.0	20.0	25.0
P	1-5	Non-Alloy Steel	<25	v_c (m/min)	30	30	30	30	30	30	30	30	30	30
				n	3200	2200	1800	1600	1100	900	800	560	450	400
				f_z	0.004	0.007	0.01	0.014	0.021	0.026	0.033	0.042	0.052	0.054
				f_z Side Cutting	0.006	0.011	0.018	0.023	0.036	0.044	0.056	0.071	0.089	0.092
	6-9	Low-Alloy Steel	25-35	v_c (m/min)	25	25	25	25	25	25	25	25	25	25
				n	2500	1800	1600	1200	900	800	630	450	400	310
				f_z	0.003	0.006	0.008	0.011	0.019	0.023	0.029	0.037	0.042	0.043
				f_z Side Cutting	0.006	0.00-	0.014	0.018	0.03	0.038	0.048	0.059	0.067	0.07
	10-11	High alloy Steel, Tool Steel	35-45	v_c (m/min)	15	15	15	15	15	15	15	15	15	15
				n	1600	1100	900	800	560	450	400	280	220	180
				f_z	0.003	0.006	0.007	0.01	0.018	0.022	0.029	0.036	0.045	0.37
				f_z Side Cutting	0.004	0.009	0.013	0.019	0.03	0.037	0.046	0.06	0.076	0.065
N	21-24	Aluminium/ Aluminium Alloys		v_c (m/min)	105	100	100	105	100	95	95	100	100	95
				n	11000	8000	6300	5600	4000	3100	2500	2000	1600	1200
				f_z	0.005	0.008	0.011	0.013	0.022	0.029	0.035	0.04	0.046	0.053
				f_z Side Cutting	0.008	0.014	0.019	0.021	0.037	0.048	0.057	0.067	0.075	0.089
Slotting					Side Cutting									
														

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: $v_c = \frac{n \cdot \pi \cdot \phi}{1000}$