HSS-E 3 FLUTE COUNTERSINKS (M483_AM, M0431_AM)

MATERIAL GROUP	Vc (m/min)	HRc HARDNESS	fn (mm/rev)			
			Ø4.3 -6.3	Ø7.0 - 10.0	Ø10.4 - 15.0	Ø16.5 - 23.0
P	28 (25 - 30)	≤30	0.08 (0.06 - 0.10)	0.10 (0.08 - 0.12)	0.15 (0.13 - 0.17)	0.18 (0.16 - 0.20
	18 (15 - 20)	30 - 45	0.06 (0.04 - 0.08)	0.08 (0.06 - 0.10)	0.12 (0.10 - 0.14)	0.15 (0.13 - 0.17)
H	8 (5 - 10)	≥50	0.05 (0.04 - 0.06)	0.06 (0.04 - 0.08)	0.10 (0.08 - 0.12)	0.12 (0.10 - 0.14)
M	7 (6 - 8)	30 - 45	0.05 (0.04 - 0.06)	0.06 (0.04 - 0.08)	0.10 (0.08 - 0.12)	0.12 (0.10 - 0.14
K	20 (15 - 25)		0.08 (0.06 - 0.10)	0.10 (0.08 - 0.12)	0.15 (0.13 - 0.17)	0.18 (0.16 - 0.20)
	10 (8 - 12)		0.06 (0.04 - 0.08)	0.08 (0.06 - 0.10)	0.12 (0.10 - 0.14)	0.15 (0.13 - 0.17)
S	11 (10 - 12)		0.08 (0.06 - 0.10)	0.10 (0.08 - 0.12)	0.15 (0.13 - 0.17)	0.18 (0.16 0.20)
	10 (8 - 12)		0.06 (0.04 - 0.08)	0.08 (0.06 - 0.10)	0.12 (0.10 - 0.14)	0.15 (0.13 - 0.17)
N	23 (20 - 25)		0.05 (0.04 - 0.06)	0.06 (0.04 - 0.08)	0.10 (0.08 - 0.12)	0.12 (0.10 - 0.14)
	28 (25 - 30)		0.10 (0.08 - 0.12)	0.12 (0.10 - 0.14)	0.16 (0.14 - 0.18)	0.20 (0.18 - 0.22)
	20 (18 - 22)		0.08 (0.06 - 0.10)	0.10 (0.08 - 0.12)	0.15 (0.13 - 0.17)	0.18 (0.16 - 0.20)

Key		
Vc	Cutting speed (m/min)	
n	RPM (rev/min)	
Fz	Feed rate (mm/tooth)	
f	Feed rate (mm/rev)	
z	No. of teeth	
fn	Feed Rate	
Ø	Tool Diameter	

To calculate RPM from cutting speed: $n =$

To calculate cutting speed from RPM: $v_c =$

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.

Ø25.0 - 31.0
0.23 (0.22 - 0.25)
0.18 (0.16 - 0.20)
0.14 (0.12 - 0.16)
0.14 (0.12 - 0.16)
0.23 (0.22 - 0.25)
0.18 (0.16 - 0.20)
0.23 (0.22 - 0.25)
0.18 (0.16 - 0.20)
0.14 (0.12 - 0.16)
0.22 (0.20 - 0.24)
0.23 (0.22 - 0.25)

$$\frac{v_c \cdot 1000}{\pi \cdot \varnothing}$$

$$\frac{n \cdot \pi \cdot \varnothing}{1000}$$