



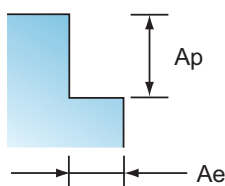


# SPEED TIGER

## CUTTING CONDITION - INTA SERIES

**FRACTIONAL**

Side Milling 	CARBON STEELS 1018, 1040, 1080, 1090, 10L50, 1140, 1212, 12L15, 1525, 1536			Side Milling 	ALLOY STEELS 4140, 4150, 4320, 5120, 5150, 8630, 86L20, 50100		
Hardness BRINELL	≤ 175			Hardness BRINELL	≤ 275		
Vc (SFM)	500	(400-600)		Vc (SFM)	365	(292-438)	
ae/ap	ae ≤ 0.5 ap ≤ 1.5			ae/ap	ae ≤ 0.5 ap ≤ 1.5		
MILL DIA. (inch)	RPM	Fz	Feed(IPM) 4 flutes	MILL DIA. (inch)	RPM	Fz	Feed(IPM) 4 flutes
1/4	7640	0.0006	13.8	1/4	5577	0.0004	4.5
5/16	6089	0.0008	15.8	5/16	4471	0.0005	5.1
3/8	5093	0.0011	16.8	3/8	3718	0.0008	5.9
1/2	3820	0.0014	21.4	1/2	2789	0.0011	6.1
5/8	3044	0.0015	18.8	5/8	2231	0.0012	5.37
3/4	2547	0.0017	17.3	3/4	1859	0.0013	4.8
1	1910	0.0020	19.1	1	1394	0.0015	4.2
Side Milling 	TOOL STEELS A2, D2, H13, L2, M2, P20, S7, T15, W2			Side Milling 	CAST IRONS Gray, Malleable, Ductile		
Hardness BRINELL	≤ 250			Hardness BRINELL	≤ 220		
Vc (SFM)	345	(276-414)		Vc (SFM)	365	(292-438)	
ae/ap	ae ≤ 0.5 ap ≤ 1.5			ae/ap	ae ≤ 0.5 ap ≤ 1.5		
MILL DIA. (inch)	RPM	Fz	Feed(IPM) 4 flutes	MILL DIA. (inch)	RPM	Fz	Feed(IPM) 4 flutes
1/4	5272	0.0006	6.3	1/4	5577	0.0008	8.9
5/16	4218	0.001	6.3	5/16	4461	0.0014	10.21
3/8	3514	0.0009	6.3	3/8	3718	0.0015	11.2
1/2	2636	0.0015	7.9	1/2	2789	0.002	11.2
5/8	2042	0.0016	6.96	5/8	2231	0.0022	9.8
3/4	1757	0.0018	6.3	3/4	1859	0.0024	8.9
1	1318	0.0021	5.5	1	1394	0.0028	7.8
Depth of cut							





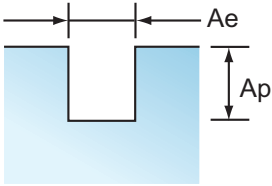
$$\text{rpm} = \text{sfm} \times 3.82 / D1$$

$$\text{ipm} = (\text{inch/flute}) \times 4 \times \text{rpm}$$



## CUTTING CONDITION - INTA SERIES

**FRACTIONAL**

Slot Milling 	CARBON STEELS 1018,1040,1080,1090,10L50, 1140,1212,12L15,1525,1536			Slot Milling 	ALLOY STEELS 4140,4150,4320,5120,5150,8630, 86L20,50100		
Hardness BRINELL	≤ 175			Hardness BRINELL	≤ 275		
Vc (SFM)	400	(320-480)		Vc (SFM)	295	(236-354)	
ae/ap	ae=1 ap ≤ 1			ae/ap	ae=1 ap ≤ 1		
MILL DIA. (inch)	RPM	Fz	Feed(IPM) 4 flutes	MILL DIA. (inch)	RPM	Fz	Feed(IPM) 4 flutes
1/4	6112	0.0006	7.3	1/4	4508	0.0004	3.6
5/16	4890	0.0008	8.4	5/16	3606	0.0005	4.1
3/8	4075	0.0011	9.0	3/8	3005	0.0008	4.8
1/2	3056	0.0014	8.6	1/2	2254	0.0011	5.0
5/8	2445	0.0015	7.6	5/8	1803	0.0012	4.4
3/4	2037	0.0017	6.9	3/4	1503	0.0013	3.9
1	1528	0.0020	6.1	1	1127	0.0015	3.4
Slot Milling 	TOOL STEELS A2,D2,H13,L2,M2,P20,S7,T15,W2			Slot Milling 	CAST IRONS Gray,Mallable,Ductile		
Hardness BRINELL	≤ 250			Hardness BRINELL	≤ 220		
Vc (SFM)	275	(220-330)		Vc (SFM)	295	(236-354)	
ae/ap	ae=1 ap ≤ 1			ae/ap	ae=1 ap ≤ 1		
MILL DIA. (inch)	RPM	Fz	Feed(IPM) 4 flutes	MILL DIA. (inch)	RPM	Fz	Feed(IPM) 4 flutes
1/4	4202	0.0006	5.0	1/4	4508	0.0008	7.2
5/16	3361	0.0008	5.0	5/16	3606	0.0012	8.3
3/8	2801	0.0009	5.0	3/8	3005	0.0015	9.0
1/2	2101	0.0015	6.3	1/2	2254	0.0020	9.0
5/8	1680	0.0016	5.5	5/8	1803	0.0022	7.9
3/4	1401	0.0018	5.0	3/4	1503	0.0024	7.2
1	1051	0.0021	4.4	1	1127	0.0028	6.3
Depth of cut							

$$\text{rpm} = \text{sfm} \times 3.82 / D1$$

$$\text{ipm} = (\text{inch/flute}) \times 4 \times \text{rpm}$$