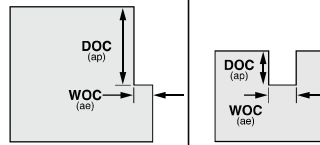


FEEDS & SPEEDS FOR RF100 U/HF, VA/NF, A/WF, RS100 U, F

INCH



Surface feet per minute - SFM



$$RPM = \frac{SFM}{d_1} \times 3.82$$

$$IPM = \text{No. of teeth} \times IPT \times RPM$$

For finishing use WOC (ae) .01 up to .1xd, use SFM from .25xd column, do not increase IPT from table values

Material	Hardness	TYPE	High Speed Milling					Rough		Slot	Feed Rate Inch per Tooth - IPT							
			DOC 2xd		DOC 1xd			DOC 1xd		d1 End Mill Diameter								
			WOC .05xd	WOC .1xd	WOC .25xd	WOC .4 to .9xd	WOC 1xd	WOC .4 to .9xd	WOC 1xd	1/8 3.17mm	1/4 6.35mm	5/16 7.94mm	3/8 9.52mm	1/2 12.70mm	5/8 15.87mm	3/4 19.05mm	1 25.40mm	
2.5	2.3	1.5	1	1	Multiply IPT x this factor based on WOC													
Structural + free-cutting steels, unalloyed heat-treatable + case hardened steels A283, 1151, 1215, L10, 10Lxx, 11Lxx, 12Lxx, 41Lxx, 51Lxx, 86Lxx, 86Lxx, 10xx	up to 28 HRc	VA/NF	920	840	700	520	440	.0004	.0008	.0001	.0012	.0016	.0020	.0023	.0032			
Free-cutting steels, unalloyed case hardened steels, nitriding steels 1151, 1215, L10, 10Lxx, 11Lxx, 12Lxx, 41Lxx, 51Lxx, 86Lxx, 86Lxx, 10xx, 11xx	28 to 38 HRc	VA/NF	820	740	620	460	390	.0004	.0008	.0001	.0012	.0016	.0020	.0023	.0032			
Alloyed heat-treatable, tool and high speed steels 13xx, 2340, 31xx, 32xx, 33xx, 34xx, 40xx, 41xx, 43xx, 4640, 50xx, 51xx, 61xx, 71xx, 86xx, 87xx, 92xx, 98xx, 98xx, Ax, Ox, Dx, Hxx, Lx, Wx, Mx, Tx	28 to 44 HRc	U/HF	700	625	525	390	330	.0003	.0005	.0009	.0012	.0016	.0020	.0023	.0032			
Hardened Steels Carbon and Alloy Steels, Tool & Die Steels	Up to 54 HRc	U/HF	425	400	290	260	180	.0003	.0005	.0006	.0008	.0011	.0016	.0015	.0024			
Stainless steel 303, 410, 420F, 430, 430F, 416	Up to 28 HRc	VA/NF	630	570	360	360	300	.0003	.0007	.0009	.0011	.0015	.0020	.0023	.0032			
Stainless steel 304, 304L, 420, 17-4PH, 17-7PH, 15-5PH, 13-8PH	up to 28 HRc	VA/NF	440	400	260	260	210	.0003	.0006	.0008	.0011	.0014	.0016	.0023	.0028			
Stainless steel 310, 316, 316B, 316L, 317, Duplex	over 28 HRc	VA/NF	380	340	230	230	180	.0003	.0005	.0007	.0009	.0013	.0016	.0019	.0024			
Titanium Alloys 6Al-4V, 5Al-2.5 Sn, 6Al-2Sn-4Zr-6Mo, 3Al-8V-6Cr4Mo-4Zr, 10V-2Fe-3Al, 13V-11Cr-3Al	up to 42 HRc	U/HF VA/NF	340	300	325	230	160	.0003	.0005	.0007	.0009	.0013	.0016	.0019	.0024			
High-Temperature Alloys Inconel, Nimonic, Monel, Hastelloy, Waspalloy, A286, Rene 41, Udmet, Stellite	up to 42 HRc	U/HF	170	150	130	130	80	.0003	.0005	.0006	.0008	.0011	.0016	.0015	.0024			
Cast iron, grey cast iron, spheroidal graphite and malleable cast iron 0.6010 EN-GL100 (GG10), 0.6020 EN-GJL-200 (GG20), 0.7050 EN-GJS-500-7 (GGG50), 0.8535 EN-GJMW-350-4 (GTW35)	up to 240 HB 30	VA/NF	820	740	620	460	390	.0004	.0008	.0009	.0012	.0016	.0020	.0023	.0032			
Cast iron, grey cast iron, spheroidal graphite and malleable cast iron 0.6025 EN-GL250 (GG25), 0.6035 EN-GJL-350 (GG35), 0.7070 EN-GJS-700-2 (GGG70), 0.8170 EN-GJMB-700-2 (GTS70)	over 240 HB 30	U/HF	710	650	540	430	340	.0003	.0007	.0009	.0011	.0015	.0020	.0019	.0032			
Aluminum, Al-wrought alloys, Al-alloys 2024, 6061, 7075, 1050, 6351, 5005, 2017, 7075	up to 3% Si	A/WF	2600	2350	2000	1440	1230	.0005	.0009	.0011	.0014	.0018	.0023	.0026	.0036			
Aluminium-cast alloys 3.2131 G-AISI5Cu1, 3.2153 G-AISI7Cu3, 3.2573 G-AISI9, 3.2581 G-AISI12, 3.2583 G-AISI12Cu, - G-AISI12CuNiMg	over 3% Si	A/WF	1250	1100	950	690	590	.0004	.0008	.0010	.0013	.0018	.0023	.0026	.0036			
Magnesium-alloys MgMn2, G-MgAl8Zn1, G-MgAl6Zn3	—	A/WF	1000	875	740	560	460	.0004	.0008	.0010	.0013	.0018	.0023	.0026	.0036			
Non-ferrous metals (copper, short- or long-chipping brass or bronze)	up to 28 HRc	VA/NF	1375	1250	1050	750	660	.0004	.0008	.0010	.0013	.0018	.0023	.0026	.0036			

RF 100 U/HF (4-flute) - Inch - Long Length



center cutting



Long



No. Flutes



Helix angle



Chamfer



Rake Angle



Roughing



Ramping



Helix



HA



HB

Tool material

Solid Carbide

Surface finish

FIREX®

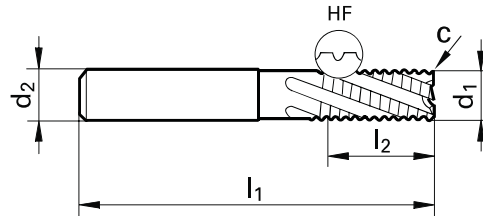
Series

4256

Application group	Material examples	Ideal for
P	Steel	●
M	Stainless steel	○
K	Cast iron	●
N	Aluminum	—
S	Ni / Ti alloys	○
H	Hardened steel	○

●=Optimal ○=Secondary

Speed and Feed data found on page 291



d1 h10	d2 h6	l1	l2	c	No. of Flutes	Code no.	EDP Number
inch	inch	inch	inch	inch x 45°			
1/4	1/4	3 1/4	1 1/4	0.012	4	6.350	9042560063500
5/16	5/16	3 1/4	1 1/2	0.012	4	7.940	9042560079400
3/8	3/8	4	1 3/4	0.012	4	9.520	9042560095200
1/2	1/2	4 1/2	2	0.020	4	12.700	9042560127000
5/8	5/8	5	2 1/4	0.020	4	15.870	9042560158700
3/4	3/4	5	2 1/4	0.020	4	19.050	9042560190500
1	1	5	2 1/4	0.031	4	25.400	9042560254000

RF 100 U/HF

High-performance roughing end mills for steel and cast materials



RF 100 U/HF · Guhring series 3508

P M K N S H

The suitable solution for multiple materials: Steel, cast iron, stainless materials, titanium- and special alloys and aluminum

with neck clearance
(on select series)

Innovative roughing geometry produces smaller chips, slotting and roughing with large cutting widths and depths, low power consumption and cutting forces therefore suitability on non-rigid machines

HF
Guh. no. 3507

