

GUHRING



RT 100 FB

SOLID CARBIDE **FLAT BOTTOM DRILL**

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FLAT BOTTOM DRILL

The RT 100 FB solid carbide flat bottom drill is ideally suited for drilling into **oblique** or **curved** surfaces. A finish pass with an end mill is unnecessary because the drill's **180° point angle** produces holes with a **true flat bottom surface**. Therefore, subsequent drilling operations allow for extremely accurate centering with low vibration.

ADVANTAGES

- reduced process costs as spot-facing is omitted
- drilling of oblique or curved surfaces up to 45° without deflection
- exit of the hole is virtually burr-free, thus ideal for cross-drilled holes
- high process reliability due to precise alignment and roundness resulting in excellent surface quality
- The n7 diameter tolerance can be used to pilot for a subsequent drill of either the m7 or h7 tolerance class.



APPLICATIONS

oblique entry and exit
curved entry and exit
spot-facing
core drilling
pilot drilling

sheet metal
half hole
offset hole
flat-bottom hole
cross-drilled hole



RT 100 FB drills



Tool material Solid carbide

Coating nano-FIREX

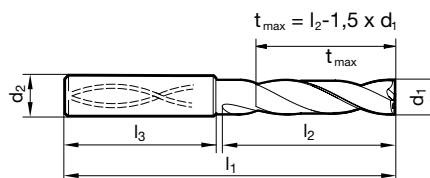
Shank form HA

Material Suitability

P	Steel	●
M	Stainless steel	●
K	Cast iron	●
N	Aluminum	○
S	Ni / Ti alloys	○
H	Hardened steel	○

●=Optimal ○=Limited

180° point geometry for flat bottom of the hole • for piloting, drilling, or finishing • low burr development • piloting in all positions and materials



Series										6596
d1	d1	d1	d1	d2	l1	l2	t _{max}	l3	Code	EDP No.
inch	fract. in	wire/ltr	mm	mm	mm	mm	mm	mm	no.	
0.1181			3.00	6.00	61.00	16.00	11.50	36.00	3.000	9065960030000
0.1220			3.10	6.00	61.00	16.00	11.35	36.00	3.100	9065960031000
0.1248	1/8		3.17	6.00	61.00	16.00	11.25	36.00	3.170	9065960031700
0.1260			3.20	6.00	61.00	16.00	11.20	36.00	3.200	9065960032000
0.1280			3.25	6.00	61.00	16.00	11.13	36.00	3.250	9065960032500
0.1299			3.30	6.00	61.00	16.00	11.05	36.00	3.300	9065960033000
0.1339			3.40	6.00	61.00	16.00	10.90	36.00	3.400	9065960034000
0.1378			3.50	6.00	61.00	16.00	10.75	36.00	3.500	9065960035000
0.1406	9/64	#28	3.57	6.00	61.00	16.00	10.65	36.00	3.570	9065960035700
0.1417			3.60	6.00	61.00	16.00	10.60	36.00	3.600	9065960036000
0.1457			3.70	6.00	61.00	16.00	10.45	36.00	3.700	9065960037000
0.1496		#25	3.80	6.00	65.00	18.00	12.30	36.00	3.800	9065960038000
0.1535			3.90	6.00	65.00	18.00	12.15	36.00	3.900	9065960039000
0.1563	5/32		3.97	6.00	65.00	18.00	12.05	36.00	3.970	9065960039700
0.1575			4.00	6.00	65.00	18.00	12.00	36.00	4.000	9065960040000
0.1591		#21	4.04	6.00	65.00	18.00	11.94	36.00	4.040	9065960040400
0.1614			4.10	6.00	65.00	18.00	11.85	36.00	4.100	9065960041000
0.1654			4.20	6.00	65.00	18.00	11.70	36.00	4.200	9065960042000
0.1693		#18	4.30	6.00	65.00	21.00	14.55	36.00	4.300	9065960043000
0.1720	11/64		4.37	6.00	65.00	21.00	14.45	36.00	4.370	9065960043700
0.1732			4.40	6.00	65.00	21.00	14.40	36.00	4.400	9065960044000
0.1772		#16	4.50	6.00	65.00	21.00	14.25	36.00	4.500	9065960045000
0.1811			4.60	6.00	65.00	21.00	14.10	36.00	4.600	9065960046000
0.1831			4.65	6.00	65.00	21.00	14.03	36.00	4.650	9065960046500
0.1850		#13	4.70	6.00	65.00	21.00	13.95	36.00	4.700	9065960047000
0.1874	3/16		4.76	6.00	65.00	26.00	18.86	36.00	4.760	9065960047600
0.1890		#12	4.80	6.00	65.00	26.00	18.80	36.00	4.800	9065960048000
0.1929			4.90	6.00	65.00	26.00	18.65	36.00	4.900	9065960049000
0.1969			5.00	6.00	65.00	26.00	18.50	36.00	5.000	9065960050000
0.2008			5.10	6.00	65.00	26.00	18.35	36.00	5.100	9065960051000
0.2012		#7	5.11	6.00	65.00	26.00	18.34	36.00	5.110	9065960051100
0.2031	13/64		5.16	6.00	65.00	26.00	18.26	36.00	5.160	9065960051600
0.2047			5.20	6.00	65.00	26.00	18.20	36.00	5.200	9065960052000
0.2087			5.30	6.00	65.00	26.00	18.05	36.00	5.300	9065960053000
0.2126			5.40	6.00	65.00	26.00	17.90	36.00	5.400	9065960054000
0.2130		#3	5.41	6.00	65.00	26.00	17.89	36.00	5.410	9065960054100



Series										6596
d1	d1	d1	d1	d2	l1	l2	t _{max}	l3	Code	EDP No.
inch	fract. in	wire/ltr	mm	mm	mm	mm	mm	mm	no.	
0.2165	7/32		5.50	6.00	65.00	26.00	17.75	36.00	5.500	9065960055000
0.2185			5.55	6.00	65.00	26.00	17.68	36.00	5.550	9065960055500
0.2189			5.56	6.00	65.00	26.00	17.66	36.00	5.560	9065960055600
0.2205			5.60	6.00	65.00	26.00	17.60	36.00	5.600	9065960056000
0.2244			5.70	6.00	65.00	26.00	17.45	36.00	5.700	9065960057000
0.2283			5.80	6.00	65.00	26.00	17.30	36.00	5.800	9065960058000
0.2323	15/64		5.90	6.00	65.00	26.00	17.15	36.00	5.900	9065960059000
0.2343			5.95	6.00	65.00	26.00	17.08	36.00	5.950	9065960059500
0.2362			6.00	6.00	65.00	26.00	17.00	36.00	6.000	9065960060000
0.2402			6.10	8.00	78.00	31.00	21.85	36.00	6.100	9065960061000
0.2441			6.20	8.00	78.00	31.00	21.70	36.00	6.200	9065960062000
0.2480			6.30	8.00	78.00	31.00	21.55	36.00	6.300	9065960063000
0.2500	1/4	E	6.35	8.00	78.00	31.00	21.48	36.00	6.350	9065960063500
0.2520			6.40	8.00	78.00	31.00	21.40	36.00	6.400	9065960064000
0.2559			6.50	8.00	78.00	31.00	21.25	36.00	6.500	9065960065000
0.2571		F	6.53	8.00	78.00	31.00	21.21	36.00	6.530	9065960065300
0.2579			6.55	8.00	78.00	31.00	21.18	36.00	6.550	9065960065500
0.2598			6.60	8.00	78.00	31.00	21.10	36.00	6.600	9065960066000
0.2638	17/64	H	6.70	8.00	78.00	31.00	20.95	36.00	6.700	9065960067000
0.2657			6.75	8.00	78.00	31.00	20.88	36.00	6.750	9065960067500
0.2677			6.80	8.00	78.00	31.00	20.80	36.00	6.800	9065960068000
0.2717		I	6.90	8.00	78.00	31.00	20.65	36.00	6.900	9065960069000
0.2756			7.00	8.00	78.00	31.00	20.50	36.00	7.000	9065960070000
0.2795			7.10	8.00	78.00	35.00	24.35	36.00	7.100	9065960071000
0.2811	9/32	K	7.14	8.00	78.00	35.00	24.29	36.00	7.140	9065960071400
0.2835			7.20	8.00	78.00	35.00	24.20	36.00	7.200	9065960072000
0.2874			7.30	8.00	78.00	35.00	24.05	36.00	7.300	9065960073000
0.2913	19/64		7.40	8.00	78.00	35.00	23.90	36.00	7.400	9065960074000
0.2953			7.50	8.00	78.00	35.00	23.75	36.00	7.500	9065960075000
0.2969			7.54	8.00	78.00	35.00	23.69	36.00	7.540	9065960075400
0.2972			7.55	8.00	78.00	35.00	23.68	36.00	7.550	9065960075500
0.2992			7.60	8.00	78.00	35.00	23.60	36.00	7.600	9065960076000
0.3012			7.65	8.00	78.00	35.00	23.53	36.00	7.650	9065960076500
0.3031			7.70	8.00	78.00	35.00	23.45	36.00	7.700	9065960077000
0.3071			7.80	8.00	78.00	35.00	23.30	36.00	7.800	9065960078000
0.3110			7.90	8.00	78.00	35.00	23.15	36.00	7.900	9065960079000
0.3126	5/16		7.94	8.00	78.00	35.00	23.09	36.00	7.940	9065960079400
0.3150			8.00	8.00	78.00	35.00	23.00	36.00	8.000	9065960080000
0.3189			8.10	10.00	87.00	43.00	30.85	40.00	8.100	9065960081000
0.3228	21/64	P	8.20	10.00	87.00	43.00	30.70	40.00	8.200	9065960082000
0.3268			8.30	10.00	87.00	43.00	30.55	40.00	8.300	9065960083000
0.3280			8.33	10.00	87.00	43.00	30.51	40.00	8.330	9065960083300
0.3307			8.40	10.00	87.00	43.00	30.40	40.00	8.400	9065960084000
0.3346			8.50	10.00	87.00	43.00	30.25	40.00	8.500	9065960085000
0.3386			8.60	10.00	87.00	43.00	30.10	40.00	8.600	9065960086000
0.3425	11/32		8.70	10.00	87.00	43.00	29.95	40.00	8.700	9065960087000
0.3437			8.73	10.00	87.00	43.00	29.91	40.00	8.730	9065960087300
0.3465			8.80	10.00	87.00	43.00	29.80	40.00	8.800	9065960088000
0.3504			8.90	10.00	87.00	43.00	29.65	40.00	8.900	9065960089000
0.3543			9.00	10.00	87.00	43.00	29.50	40.00	9.000	9065960090000
0.3583			9.10	10.00	87.00	43.00	29.35	40.00	9.100	9065960091000
0.3594	23/64		9.13	10.00	87.00	43.00	29.31	40.00	9.130	9065960091300
0.3622			9.20	10.00	87.00	43.00	29.20	40.00	9.200	9065960092000
0.3642			9.25	10.00	87.00	43.00	29.13	40.00	9.250	9065960092500
0.3661		U	9.30	10.00	87.00	43.00	29.05	40.00	9.300	9065960093000
0.3677			9.34	10.00	87.00	43.00	28.99	40.00	9.340	9065960093400
0.3701			9.40	10.00	87.00	43.00	28.90	40.00	9.400	9065960094000
0.3740			9.50	10.00	87.00	43.00	28.75	40.00	9.500	9065960095000



Series										6596
d1	d1	d1	d1	d2	l1	l2	t _{max}	l3	Code	EDP No.
inch	fract. in	wire/ltr	mm	mm	mm	mm	mm	mm	no.	
0.3748	3/8	W	9.52	10.00	87.00	43.00	28.72	40.00	9.520	9065960095200
0.3760			9.55	10.00	87.00	43.00	28.68	40.00	9.550	9065960095500
0.3780	9.60		10.00	87.00	43.00	28.60	40.00	9.600	9065960096000	
0.3819	9.70		10.00	87.00	43.00	28.45	40.00	9.700	9065960097000	
0.3858	9.80		10.00	87.00	43.00	28.30	40.00	9.800	9065960098000	
0.3898	9.90		10.00	87.00	43.00	28.15	40.00	9.900	9065960099000	
0.3906	25/64		9.92	10.00	87.00	43.00	28.12	40.00	9.920	9065960099200
0.3937			10.00	10.00	87.00	43.00	28.00	40.00	10.000	9065960100000
0.3976	10.10		12.00	100.00	52.00	36.85	45.00	10.100	9065960101000	
0.4016	10.20		12.00	100.00	52.00	36.70	45.00	10.200	9065960102000	
0.4055	10.30		12.00	100.00	52.00	36.55	45.00	10.300	9065960103000	
0.4063	13/32		10.32	12.00	100.00	52.00	36.52	45.00	10.320	9065960103200
0.4094			10.40	12.00	100.00	52.00	36.40	45.00	10.400	9065960104000
0.4134	10.50		12.00	100.00	52.00	36.25	45.00	10.500	9065960105000	
0.4173	10.60		12.00	100.00	52.00	36.10	45.00	10.600	9065960106000	
0.4213	10.70		12.00	100.00	52.00	35.95	45.00	10.700	9065960107000	
0.4220	27/64		10.72	12.00	100.00	52.00	35.92	45.00	10.720	9065960107200
0.4252			10.80	12.00	100.00	52.00	35.80	45.00	10.800	9065960108000
0.4291	10.90		12.00	100.00	52.00	35.65	45.00	10.900	9065960109000	
0.4331	11.00		12.00	100.00	52.00	35.50	45.00	11.000	9065960110000	
0.4370	7/16		11.10	12.00	100.00	52.00	35.35	45.00	11.100	9065960111000
0.4374			11.11	12.00	100.00	52.00	35.34	45.00	11.110	9065960111100
0.4409	11.20		12.00	100.00	52.00	35.20	45.00	11.200	9065960112000	
0.4449	11.30		12.00	100.00	52.00	35.05	45.00	11.300	9065960113000	
0.4488	11.40		12.00	100.00	52.00	34.90	45.00	11.400	9065960114000	
0.4528	11.50		12.00	100.00	52.00	34.75	45.00	11.500	9065960115000	
0.4531	29/64		11.51	12.00	100.00	52.00	34.74	45.00	11.510	9065960115100
0.4547			11.55	12.00	100.00	52.00	34.68	45.00	11.550	9065960115500
0.4567	11.60		12.00	100.00	52.00	34.60	45.00	11.600	9065960116000	
0.4606	11.70		12.00	100.00	52.00	34.45	45.00	11.700	9065960117000	
0.4646	11.80		12.00	100.00	52.00	34.30	45.00	11.800	9065960118000	
0.4685	11.90		12.00	100.00	52.00	34.15	45.00	11.900	9065960119000	
0.4689	15/32		11.91	12.00	100.00	52.00	34.14	45.00	11.910	9065960119100
0.4724			12.00	12.00	100.00	52.00	34.00	45.00	12.000	9065960120000
0.4764	12.10		14.00	104.00	57.00	38.85	45.00	12.100	9065960121000	
0.4803	31/64		12.20	14.00	104.00	57.00	38.70	45.00	12.200	9065960122000
0.4843			12.30	14.00	104.00	57.00	38.55	45.00	12.300	9065960123000
0.4882	12.40		14.00	104.00	57.00	38.40	45.00	12.400	9065960124000	
0.4921	12.50		14.00	104.00	57.00	38.25	45.00	12.500	9065960125000	
0.4961	12.60		14.00	104.00	57.00	38.10	45.00	12.600	9065960126000	
0.5000	1/2		12.70	14.00	104.00	57.00	37.95	45.00	12.700	9065960127000
0.5039			12.80	14.00	104.00	57.00	37.80	45.00	12.800	9065960128000
0.5079	12.90		14.00	104.00	57.00	37.65	45.00	12.900	9065960129000	
0.5118	13.00		14.00	104.00	57.00	37.50	45.00	13.000	9065960130000	
0.5157	33/64		13.10	14.00	104.00	57.00	37.35	45.00	13.100	9065960131000
0.5197			13.20	14.00	104.00	57.00	37.20	45.00	13.200	9065960132000
0.5236	13.30		14.00	104.00	57.00	37.05	45.00	13.300	9065960133000	
0.5276	17/32		13.40	14.00	104.00	57.00	36.90	45.00	13.400	9065960134000
0.5311			13.49	14.00	104.00	57.00	36.77	45.00	13.490	9065960134900
0.5315	13.50		14.00	104.00	57.00	36.75	45.00	13.500	9065960135000	
0.5354	13.60		14.00	104.00	57.00	36.60	45.00	13.600	9065960136000	
0.5394	13.70		14.00	104.00	57.00	36.45	45.00	13.700	9065960137000	
0.5433	13.80		14.00	104.00	57.00	36.30	45.00	13.800	9065960138000	
0.5469	35/64		13.89	14.00	104.00	57.00	36.17	45.00	13.890	9065960138900
0.5472			13.90	14.00	104.00	57.00	36.15	45.00	13.900	9065960139000
0.5512	14.00		14.00	104.00	57.00	36.00	45.00	14.000	9065960140000	
0.5551	14.10		16.00	112.00	62.00	40.85	48.00	14.100	9065960141000	
0.5591	14.20		16.00	112.00	62.00	40.70	48.00	14.200	9065960142000	



Series										6596
d1	d1	d1	d1	d2	l1	l2	t _{max}	l3	Code	EDP No.
inch	fract. in	wire/ltr	mm	mm	mm	mm	mm	mm	no.	
0.5626	9/16		14.29	16.00	112.00	62.00	40.57	48.00	14.290	9065960142900
0.5630			14.30	16.00	112.00	62.00	40.55	48.00	14.300	9065960143000
0.5669			14.40	16.00	112.00	62.00	40.40	48.00	14.400	9065960144000
0.5709			14.50	16.00	112.00	62.00	40.25	48.00	14.500	9065960145000
0.5748			14.60	16.00	112.00	62.00	40.10	48.00	14.600	9065960146000
0.5780			14.68	16.00	112.00	62.00	39.98	48.00	14.680	9065960146800
0.5787			14.70	16.00	112.00	62.00	39.95	48.00	14.700	9065960147000
0.5827			14.80	16.00	112.00	62.00	39.80	48.00	14.800	9065960148000
0.5866			14.90	16.00	112.00	62.00	39.65	48.00	14.900	9065960149000
0.5906			15.00	16.00	112.00	62.00	39.50	48.00	15.000	9065960150000
0.5937			15.08	16.00	112.00	62.00	39.38	48.00	15.080	9065960150800
0.5945			15.10	16.00	112.00	62.00	39.35	48.00	15.100	9065960151000
0.5984			15.20	16.00	112.00	62.00	39.20	48.00	15.200	9065960152000
0.6024			15.30	16.00	112.00	62.00	39.05	48.00	15.300	9065960153000
0.6063			15.40	16.00	112.00	62.00	38.90	48.00	15.400	9065960154000
0.6094	39/64		15.48	16.00	112.00	62.00	38.78	48.00	15.480	9065960154800
0.6102			15.50	16.00	112.00	62.00	38.75	48.00	15.500	9065960155000
0.6122			15.55	16.00	112.00	62.00	38.68	48.00	15.550	9065960155500
0.6142			15.60	16.00	112.00	62.00	38.60	48.00	15.600	9065960156000
0.6181			15.70	16.00	112.00	62.00	38.45	48.00	15.700	9065960157000
0.6220	5/8		15.80	16.00	112.00	62.00	38.30	48.00	15.800	9065960158000
0.6248			15.87	16.00	112.00	62.00	38.20	48.00	15.870	9065960158700
0.6260			15.90	16.00	112.00	62.00	38.15	48.00	15.900	9065960159000
0.6299			16.00	16.00	112.00	62.00	38.00	48.00	16.000	9065960160000
0.6406			16.27	18.00	120.00	70.00	45.60	48.00	16.270	9065960162700
0.6417			16.30	18.00	120.00	70.00	45.55	48.00	16.300	9065960163000
0.6496			16.50	18.00	120.00	70.00	45.25	48.00	16.500	9065960165000
0.6563			16.67	18.00	120.00	70.00	45.00	48.00	16.670	9065960166700
0.6575			16.70	18.00	120.00	70.00	44.95	48.00	16.700	9065960167000
0.6654			16.90	18.00	120.00	70.00	44.65	48.00	16.900	9065960169000
0.6693			17.00	18.00	120.00	70.00	44.50	48.00	17.000	9065960170000
0.6720			17.07	18.00	120.00	70.00	44.40	48.00	17.070	9065960170700
0.6874			17.46	18.00	120.00	70.00	43.81	48.00	17.460	9065960174600
0.6890			17.50	18.00	120.00	70.00	43.75	48.00	17.500	9065960175000
0.6909			17.55	18.00	120.00	70.00	43.68	48.00	17.550	9065960175500
0.6969			17.70	18.00	120.00	70.00	43.45	48.00	17.700	9065960177000
0.7031			17.86	18.00	120.00	70.00	43.21	48.00	17.860	9065960178600
0.7087			18.00	18.00	120.00	70.00	43.00	48.00	18.000	9065960180000
0.7189			18.26	20.00	128.00	76.00	48.61	50.00	18.260	9065960182600
0.7283			18.50	20.00	128.00	76.00	48.25	50.00	18.500	9065960185000
0.7362	23/32		18.70	20.00	128.00	76.00	47.95	50.00	18.700	9065960187000
0.7441			18.90	20.00	128.00	76.00	47.65	50.00	18.900	9065960189000
0.7480			19.00	20.00	128.00	76.00	47.50	50.00	19.000	9065960190000
0.7500			19.05	20.00	128.00	76.00	47.43	50.00	19.050	9065960190500
0.7579			19.25	20.00	128.00	76.00	47.13	50.00	19.250	9065960192500
0.7598	3/4		19.30	20.00	128.00	76.00	47.05	50.00	19.300	9065960193000
0.7657			19.45	20.00	128.00	76.00	46.83	50.00	19.450	9065960194500
0.7677			19.50	20.00	128.00	76.00	46.75	50.00	19.500	9065960195000
0.7697			19.55	20.00	128.00	76.00	46.68	50.00	19.550	9065960195500
0.7756			19.70	20.00	128.00	76.00	46.45	50.00	19.700	9065960197000
0.7795			19.80	20.00	128.00	76.00	46.30	50.00	19.800	9065960198000
0.7811			19.84	20.00	128.00	76.00	46.24	50.00	19.840	9065960198400
0.7874			20.00	20.00	128.00	76.00	46.00	50.00	20.000	9065960200000



OPERATING PARAMETERS RT 100 FB

Material group	Hardness		SFM	Feed Rate - IPR					
	HRC	BHN		1/8 in. 3.17 mm	1/4 in. 6.35 mm	3/8 in. 9.52 mm	1/2 in. 12.70 mm	5/8 in. 15.87 mm	3/4 in. 19.05 mm
Common structural steels	- < 32	≤ 150 < 301	360 280	0.0025 0.0025	0.0040 0.0040	0.0065 0.0065	0.0065 0.0065	0.0080 0.0080	0.0100 0.0100
Free-cutting steels	≤ 25 < 32	≤ 255 < 301	360 280	0.0025 0.0025	0.0040 0.0040	0.0065 0.0065	0.0065 0.0065	0.0080 0.0080	0.0100 0.0100
Unalloyed heat-treatable steels	≤ 20 ≤ 25 < 32	≤ 220 ≤ 255 < 301	295 280 260	0.0025 0.0025 0.0025	0.0040 0.0040 0.0040	0.0065 0.0065 0.0065	0.0065 0.0065 0.0065	0.0080 0.0080 0.0080	0.0100 0.0100 0.0100
Alloyed heat-treatable steels	≤ 32 < 43	≤ 301 < 402	295 215	0.0025 0.0025	0.0040 0.0040	0.0065 0.0065	0.0065 0.0065	0.0080 0.0080	0.0100 0.0100
Unalloyed case hardened steels	< 25	< 255	330	0.0025	0.0040	0.0065	0.0065	0.0080	0.0100
Alloyed case hardened steels	≤ 32 < 43	≤ 301 < 402	295 215	0.0025 0.0025	0.0040 0.0040	0.0065 0.0065	0.0065 0.0065	0.0080 0.0080	0.0100 0.0100
Nitriding steels	≤ 32 < 43	≤ 301 < 402	245 230	0.0025 0.0025	0.0040 0.0040	0.0065 0.0065	0.0065 0.0065	0.0080 0.0080	0.0100 0.0100
Tool steels	≤ 25 < 43	≤ 255 < 402	165 130	0.0025 0.0025	0.0040 0.0040	0.0065 0.0065	0.0065 0.0065	0.0080 0.0080	0.0100 0.0100
High speed steels	< 43	< 402	130	0.0025	0.0040	0.0065	0.0065	0.0080	0.0100
Spring steels	< 38	< 354	115	0.0025	0.0040	0.0065	0.0065	0.0080	0.0100
Hardened steels	≤ 48 < 66	≤ 460 -	115	0.0015	0.0020	0.0030	0.0030	0.0040	0.0050
Stainless steels, sulphured austenitic martensitic	≤ 28 ≤ 36 < 46	≤ 273 ≤ 337 < 435	130 50 115	0.0020 0.0020 0.0020	0.0030 0.0030 0.0030	0.0050 0.0050 0.0050	0.0050 0.0050 0.0050	0.0065 0.0065 0.0065	0.0080 0.0080 0.0080
Cast iron	≤ 23 < 38	≤ 242 < 354	525 395	0.0025 0.0025	0.0040 0.0040	0.0065 0.0065	0.0065 0.0065	0.0080 0.0080	0.0100 0.0100
Spheroidal graphite iron and malleable cast iron	≤ 23 < 38	≤ 242 < 354	395 310	0.0025 0.0025	0.0040 0.0040	0.0065 0.0065	0.0065 0.0065	0.0080 0.0080	0.0100 0.0100
Chilled cast iron	≤ 38	≤ 354	80	0.0015	0.0025	0.0040	0.0040	0.0050	0.0065
New cast materials GGV	≤ 20 < 32	≤ 220 < 301	330 295	0.0025 0.0025	0.0040 0.0040	0.0065 0.0065	0.0065 0.0065	0.0080 0.0080	0.0100 0.0100
New cast materials ADI	≤ 32 < 43	≤ 301 < 402	260 230	0.0020 0.0020	0.0030 0.0030	0.0050 0.0050	0.0050 0.0050	0.0065 0.0065	0.0080 0.0080
Special alloys	< 54	< 549	65	0.0020	0.0030	0.0050	0.0050	0.0065	0.0080
Ti and Ti-alloys	≤ 25 < 43	≤ 255 < 402	50 50	0.0020 0.0020	0.0030 0.0030	0.0050 0.0050	0.0050 0.0050	0.0065 0.0065	0.0080 0.0080
Aluminium and Al-alloys	-	< 120	655	0.0025	0.0040	0.0065	0.0065	0.0080	0.0100
Al wrought alloys	-	< 200	655	0.0025	0.0040	0.0065	0.0065	0.0080	0.0100
Al cast alloys ≤ 10 % Si ≤ 24 % Si	- -	≤ 180 ≤ 180	560 460	0.0025 0.0025	0.0040 0.0040	0.0065 0.0065	0.0065 0.0065	0.0080 0.0080	0.0100 0.0100
Magnesium alloys	-	< 120	655	0.0025	0.0040	0.0065	0.0065	0.0080	0.0100
Copper, low-alloyed	-	< 150	260	0.0025	0.0040	0.0065	0.0065	0.0080	0.0100
Brass, short-chipping long-chipping	- -	≤ 180 ≤ 180	690 460	0.0025 0.0025	0.0040 0.0040	0.0065 0.0065	0.0065 0.0065	0.0080 0.0080	0.0100 0.0100
Bronze, short-chipping	- ≤ 25	≤ 180 ≤ 255	260 215	0.0025 0.0020	0.0040 0.0030	0.0065 0.0050	0.0065 0.0050	0.0080 0.0065	0.0100 0.0080
Bronze, long-chipping	≤ 25 < 32	≤ 255 < 301	195 150	0.0020 0.0020	0.0030 0.0030	0.0050 0.0050	0.0050 0.0050	0.0065 0.0065	0.0080 0.0080
Duroplastics Thermoplastics Reinforced plastics - Kevlar Reinforced plastics - GFK / CFK									

Application recommendation:

When drilling into flat surfaces, either spot drilling with an NC spot drill, or running a G73 peck cycle is required to prevent walking and ensure reliable positional accuracy. When drilling on inclined surfaces up to 15° = reduce feed by 25%, up to 30° = reduce feed by 50%, and up to max. 45° = reduce feed by 75%.



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