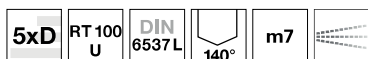


Ratio drills with oil feed


P • web thinning $\geq \varnothing 3.000$ • facet point grinding • main cutting edge form straight • optimised cutting geometry

M ○

K •

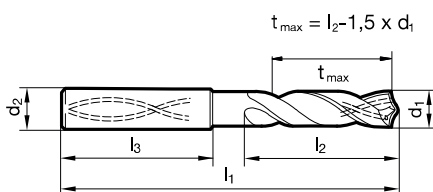
N ○ structural and case hardened steels • free-cutting steels, heat-treatable steels • steels (alloyed/unalloyed) up to 1200 N/mm² • cast materials • bronze, brass • high-alloyed AISI-alloys

S ○

H ○

GUHRING NAVIGATOR

Cutting data page 72



Tool material	Solid carbide		
Surface	F	F	F
Shank form	HA	HE	HB

Article no.	5511	5611	5650
Discount group	155	155	155
Cutting direction	(R)	(R)	(R)

d1		d2 h6	l1	l2	l3	Availability		
mm	inch	mm	mm	mm	mm			
3.000		6.00	66.00	28.00	36.00	●	●	●
3.100		6.00	66.00	28.00	36.00	●	●	●
3.170	1/8	6.00	66.00	28.00	36.00	●	●	●
3.200		6.00	66.00	28.00	36.00	●	●	●
3.250		6.00	66.00	28.00	36.00	●	●	●
3.300		6.00	66.00	28.00	36.00	●	●	●
3.400		6.00	66.00	28.00	36.00	●	●	●
3.500		6.00	66.00	28.00	36.00	●	●	●
3.570	9/64	6.00	66.00	28.00	36.00	●	●	●
3.600		6.00	66.00	28.00	36.00	●	●	●
3.700		6.00	66.00	28.00	36.00	●	●	●
3.800		6.00	74.00	36.00	36.00	●	●	●
3.900		6.00	74.00	36.00	36.00	●	●	●
3.970	5/32	6.00	74.00	36.00	36.00	●	●	●
4.000		6.00	74.00	36.00	36.00	●	●	●
4.100		6.00	74.00	36.00	36.00	●	●	●
4.200		6.00	74.00	36.00	36.00	●	●	●
4.300		6.00	74.00	36.00	36.00	●	●	●
4.370	11/64	6.00	74.00	36.00	36.00	●	●	●
4.400		6.00	74.00	36.00	36.00	●	●	●
4.500		6.00	74.00	36.00	36.00	●	●	●
4.600		6.00	74.00	36.00	36.00	●	●	●
4.650		6.00	74.00	36.00	36.00	●	●	●
4.700		6.00	74.00	36.00	36.00	●	●	●
4.760	3/16	6.00	82.00	44.00	36.00	●	●	●
4.800		6.00	82.00	44.00	36.00	●	●	●
4.900		6.00	82.00	44.00	36.00	●	●	●
5.000		6.00	82.00	44.00	36.00	●	●	●
5.100		6.00	82.00	44.00	36.00	●	●	●
5.160	13/64	6.00	82.00	44.00	36.00	●	●	●
5.200		6.00	82.00	44.00	36.00	●	●	●
5.300		6.00	82.00	44.00	36.00	●	●	●
5.400		6.00	82.00	44.00	36.00	●	●	●
5.500		6.00	82.00	44.00	36.00	●	●	●
5.550		6.00	82.00	44.00	36.00	●	●	●
5.560	7/32	6.00	82.00	44.00	36.00	●	●	●



						Article no.	5511	5611	5650
						Discount group	155	155	155
						Cutting direction	(R)	(R)	(R)
d1		d2 h6	l1	l2	l3	Availability			
mm	inch	mm	mm	mm	mm				
5.600		6.00	82.00	44.00	36.00	●	●	●	
5.700		6.00	82.00	44.00	36.00	●	●	●	
5.800		6.00	82.00	44.00	36.00	●	●	●	
5.900		6.00	82.00	44.00	36.00	●	●	●	
5.950	15/64	6.00	82.00	44.00	36.00	●	●	●	
6.000		6.00	82.00	44.00	36.00	●	●	●	
6.100		8.00	91.00	53.00	36.00	●	●	●	
6.200		8.00	91.00	53.00	36.00	●	●	●	
6.300		8.00	91.00	53.00	36.00	●	●	●	
6.350	1/4	8.00	91.00	53.00	36.00	●	●	●	
6.400		8.00	91.00	53.00	36.00	●	●	●	
6.500		8.00	91.00	53.00	36.00	●	●	●	
6.600		8.00	91.00	53.00	36.00	●	●	●	
6.700		8.00	91.00	53.00	36.00	●	●	●	
6.750	17/64	8.00	91.00	53.00	36.00	●	●	●	
6.800		8.00	91.00	53.00	36.00	●	●	●	
6.900		8.00	91.00	53.00	36.00	●	●	●	
7.000		8.00	91.00	53.00	36.00	●	●	●	
7.100		8.00	91.00	53.00	36.00	●	●	●	
7.140	9/32	8.00	91.00	53.00	36.00	●	●	●	
7.200		8.00	91.00	53.00	36.00	●	●	●	
7.300		8.00	91.00	53.00	36.00	●	●	●	
7.400		8.00	91.00	53.00	36.00	●	●	●	
7.500		8.00	91.00	53.00	36.00	●	●	●	
7.540	19/64	8.00	91.00	53.00	36.00	●	●	●	
7.600		8.00	91.00	53.00	36.00	●	●	●	
7.700		8.00	91.00	53.00	36.00	●	●	●	
7.800		8.00	91.00	53.00	36.00	●	●	●	
7.900		8.00	91.00	53.00	36.00	●	●	●	
7.940	5/16	8.00	91.00	53.00	36.00	●	●	●	
8.000		8.00	91.00	53.00	36.00	●	●	●	
8.100		10.00	103.00	61.00	40.00	●	●	●	
8.200		10.00	103.00	61.00	40.00	●	●	●	
8.300		10.00	103.00	61.00	40.00	●	●	●	
8.330	21/64	10.00	103.00	61.00	40.00	●	●	●	
8.400		10.00	103.00	61.00	40.00	●	●	●	
8.500		10.00	103.00	61.00	40.00	●	●	●	
8.600		10.00	103.00	61.00	40.00	●	●	●	
8.700		10.00	103.00	61.00	40.00	●	●	●	
8.730	11/32	10.00	103.00	61.00	40.00	●	●	●	
8.800		10.00	103.00	61.00	40.00	●	●	●	
8.900		10.00	103.00	61.00	40.00	●	●	●	
9.000		10.00	103.00	61.00	40.00	●	●	●	
9.100		10.00	103.00	61.00	40.00	●	●	●	
9.130	23/64	10.00	103.00	61.00	40.00	●	●	●	
9.200		10.00	103.00	61.00	40.00	●	●	●	
9.250		10.00	103.00	61.00	40.00	●	●	●	
9.300		10.00	103.00	61.00	40.00	●	●	●	
9.340		10.00	103.00	61.00	40.00	●	●	●	
9.400		10.00	103.00	61.00	40.00	●	●	●	
9.500		10.00	103.00	61.00	40.00	●	●	●	
9.520	3/8	10.00	103.00	61.00	40.00	●	●	●	
9.600		10.00	103.00	61.00	40.00	●	●	●	
9.700		10.00	103.00	61.00	40.00	●	●	●	
9.800		10.00	103.00	61.00	40.00	●	●	●	
9.900		10.00	103.00	61.00	40.00	●	●	●	
9.920	25/64	10.00	103.00	61.00	40.00	●	●	●	
10.000		10.00	103.00	61.00	40.00	●	●	●	
10.100		12.00	118.00	71.00	45.00	●	●	●	
10.200		12.00	118.00	71.00	45.00	●	●	●	



						Article no.	5511	5611	5650
						Discount group	155	155	155
						Cutting direction	(R)	(R)	(R)
d1		d2 h6	l1	l2	l3	Availability			
mm	inch	mm	mm	mm	mm				
10.300		12.00	118.00	71.00	45.00	●	●	●	
10.320	13/32	12.00	118.00	71.00	45.00	●	●	●	
10.400		12.00	118.00	71.00	45.00	●	●	●	
10.500		12.00	118.00	71.00	45.00	●	●	●	
10.600		12.00	118.00	71.00	45.00	●	●	●	
10.700		12.00	118.00	71.00	45.00	●	●	●	
10.800		12.00	118.00	71.00	45.00	●	●	●	
10.900		12.00	118.00	71.00	45.00	●	●	●	
11.000		12.00	118.00	71.00	45.00	●	●	●	
11.100		12.00	118.00	71.00	45.00	●	●	●	
11.110	7/16	12.00	118.00	71.00	45.00	●	●	●	
11.200		12.00	118.00	71.00	45.00	●	●	●	
11.300		12.00	118.00	71.00	45.00	●	●	●	
11.400		12.00	118.00	71.00	45.00	●	●	●	
11.500		12.00	118.00	71.00	45.00	●	●	●	
11.600		12.00	118.00	71.00	45.00	●	●	●	
11.700		12.00	118.00	71.00	45.00	●	●	●	
11.800		12.00	118.00	71.00	45.00	●	●	●	
11.900		12.00	118.00	71.00	45.00	●	●	●	
11.910	15/32	12.00	118.00	71.00	45.00	●	●	●	
12.000		12.00	118.00	71.00	45.00	●	●	●	
12.100		14.00	124.00	77.00	45.00	●	●	●	
12.200		14.00	124.00	77.00	45.00	●	●	●	
12.500		14.00	124.00	77.00	45.00	●	●	●	
12.600		14.00	124.00	77.00	45.00	●	●	●	
12.700	1/2	14.00	124.00	77.00	45.00	●	●	●	
12.800		14.00	124.00	77.00	45.00	●	●	●	
12.900		14.00	124.00	77.00	45.00	●	●	●	
13.000		14.00	124.00	77.00	45.00	●	●	●	
13.300		14.00	124.00	77.00	45.00	●	●	●	
13.400		14.00	124.00	77.00	45.00	●	●	●	
13.500		14.00	124.00	77.00	45.00	●	●	●	
13.700		14.00	124.00	77.00	45.00	●	●	●	
13.800		14.00	124.00	77.00	45.00	●	●	●	
14.000		14.00	124.00	77.00	45.00	●	●	●	
14.100		16.00	133.00	83.00	48.00	●	●	●	
14.200		16.00	133.00	83.00	48.00	●	●	●	
14.290	9/16	16.00	133.00	83.00	48.00	●	●	●	
14.400		16.00	133.00	83.00	48.00	●	●	●	
14.500		16.00	133.00	83.00	48.00	●	●	●	
14.700		16.00	133.00	83.00	48.00	●	●	●	
14.800		16.00	133.00	83.00	48.00	●	●	●	
15.000		16.00	133.00	83.00	48.00	●	●	●	
15.100		16.00	133.00	83.00	48.00	●	●	●	
15.200		16.00	133.00	83.00	48.00	●	●	●	
15.300		16.00	133.00	83.00	48.00	●	●	●	
15.500		16.00	133.00	83.00	48.00	●	●	●	
15.700		16.00	133.00	83.00	48.00	●	●	●	
15.800		16.00	133.00	83.00	48.00	●	●	●	
16.000		16.00	133.00	83.00	48.00	●	●	●	
16.500		18.00	143.00	93.00	48.00	●	●	●	
16.700		18.00	143.00	93.00	48.00	●	●	●	
17.000		18.00	143.00	93.00	48.00	●	●	●	
17.500		18.00	143.00	93.00	48.00	●	●	●	
17.700		18.00	143.00	93.00	48.00	●	●	●	
18.000		18.00	143.00	93.00	48.00	●	●	●	
18.500		20.00	153.00	101.00	50.00	●	●	●	
18.900		20.00	153.00	101.00	50.00	●	●	●	
19.000		20.00	153.00	101.00	50.00	●	●	●	
19.050	3/4	20.00	153.00	101.00	50.00	●	●	●	

						Article no.	5511	5611	5650
						Discount group	155	155	155
						Cutting direction			
d1		d2 h6	l1	l2	l3	Availability			
mm	inch	mm	mm	mm	mm				
19.500		20.00	153.00	101.00	50.00	•	•	•	
20.000		20.00	153.00	101.00	50.00	•	•	•	

SL Twist drills



GM 300

Tool holders and clamping devices
for every application

An Overview and Selection Guide can be found on page 138.