

GUHRING



RT 100 HF

Incredibly robust
and reliable!

We proudly present:

The new Ratio Drills

RT 100 HF

Robust und reliable
in high tensile materials
and special alloys

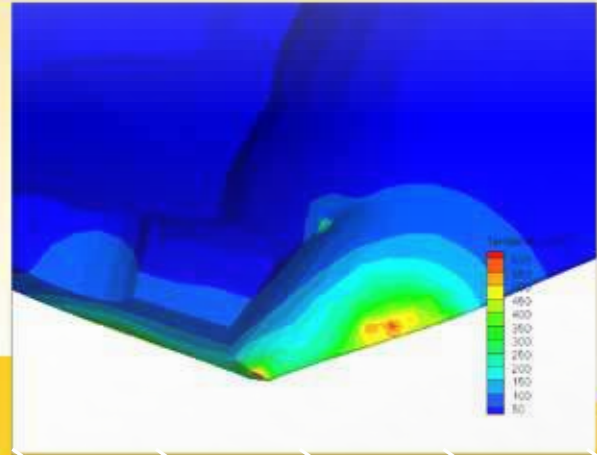
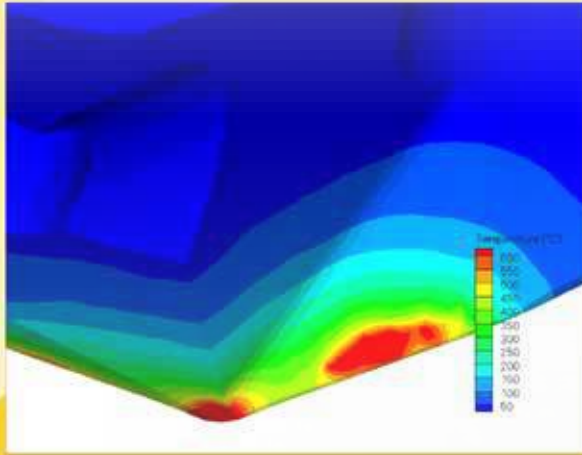
GUHRING



HEAT RESISTANT

Conventional Geometry

Ratio Drill RT 100 HF



The RT 100 HF comes with a new developed, extremely robust cutting edge geometry, that considerably reduces the thermic load to the drill point machining high tensile materials and special alloys.

Cutting material, geometry and coating perfectly concerted



GUHRING

EXTREM HARD

Additionally, the RT 100 HF is protected highly effectively against wear by the extremely hard and heat-resistant Signum coating.

The new, in-house developed Signum coating is one of the hardest nitride based coatings in the market. Thanks to its nano-composite structure with a layer composition of TiAlN and SiN it achieves the extreme hardness of 5500 HV.

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High Wear Long tool

A large industrial machine, possibly a lathe or mill, is shown in a close-up view. The machine is dark grey and has a large circular opening. Through this opening, a factory interior is visible, with several workers in white shirts and blue pants working on a large cylindrical component. The factory floor is light-colored, and there are various pieces of equipment and materials scattered around. The word "Challenging" is written in a large, yellow, sans-serif font across the bottom of the image.

Challenging

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Resistance life

The new Guhring Ratio drill RT 100 HF is the perfect solution for the process reliable and economic machining of difficult-to-machine, high tensile materials and special alloys.

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Its excellence results from the perfectly tuned package with robust cutting edge geometry, special solid carbide and new, extremely hard Signum coating.

So it is the optimal solution for applications in the automotive industry, the aerospace technology, the energy and the chemical industry.

Applications






The broad RT 100 HF standard range and customer specific special solutions offer completely new possibilities to benefit from the constructive advantages of difficult-to-machine materials.



Ratio drills

Standard	Type	Tool illustration		Drilling depth	Tool material	Surface	d1	Guhring no.	Discount group	Standard range page
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Ratio drills with oil feed

DIN 6537 K	RT 100 HF		<i>NEW</i>	3xD	Solid carbide	Ⓨ	3,000 - 20,000	8520	121	9
DIN 6537 K	RT 100 HF		<i>NEW</i>	3xD	Solid carbide	Ⓨ	3,000 - 20,000	8620	121	9
DIN 6537 L	RT 100 HF		<i>NEW</i>	5xD	Solid carbide	Ⓨ	3,000 - 20,000	8521	121	14
DIN 6537 L	RT 100 HF		<i>NEW</i>	5xD	Solid carbide	Ⓨ	3,000 - 20,000	8621	121	14
Guhring std.	RT 100 HF		<i>NEW</i>	7xD	Solid carbide	Ⓨ	3,000 - 16,000	8522	121	19

Ratio drills without oil feed

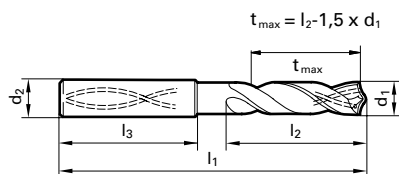
DIN 6537 K	RT 100 HF		<i>NEW</i>	3xD	Solid carbide	Ⓨ	3,000 - 20,000	8524	121	21
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Guhring no.	8520	8620
Standard	DIN 6537 K	
Tool material	Solid carbide	
Carbide grade	K/P	
Surface finish	Y	Y
Type	RT 100 HF	RT 100 HF
Drilling depth	3xD	3xD
Cutting direction	right-hand	right-hand
Tolerance	m7	m7
Discount group	121	121

NEW

NEW



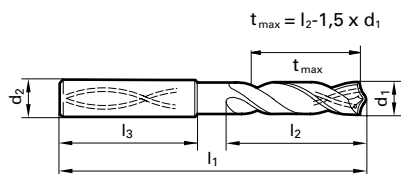
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mm	inch	mm	mm	mm	mm		
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8.600		10.000	89.00	47.00	40.00	●	●
8.700		10.000	89.00	47.00	40.00	●	●
8.730	11/32	10.000	89.00	47.00	40.00	●	●
8.800		10.000	89.00	47.00	40.00	●	●
8.900		10.000	89.00	47.00	40.00	●	●
9.000		10.000	89.00	47.00	40.00	●	●
9.100		10.000	89.00	47.00	40.00	●	●
9.130	23/64	10.000	89.00	47.00	40.00	●	●
9.200		10.000	89.00	47.00	40.00	●	●
9.250		10.000	89.00	47.00	40.00	●	●
9.300		10.000	89.00	47.00	40.00	●	●
9.400		10.000	89.00	47.00	40.00	●	●
9.500		10.000	89.00	47.00	40.00	●	●
9.520	3/8	10.000	89.00	47.00	40.00	●	●
9.600		10.000	89.00	47.00	40.00	●	●
9.700		10.000	89.00	47.00	40.00	●	●
9.800		10.000	89.00	47.00	40.00	●	●
9.900		10.000	89.00	47.00	40.00	●	●
9.920	25/64	10.000	89.00	47.00	40.00	●	●
10.000		10.000	89.00	47.00	40.00	●	●
10.100		12.000	102.00	55.00	45.00	●	●
10.200		12.000	102.00	55.00	45.00	●	●
10.300		12.000	102.00	55.00	45.00	●	●
10.320	13/32	12.000	102.00	55.00	45.00	●	●
10.400		12.000	102.00	55.00	45.00	●	●
10.500		12.000	102.00	55.00	45.00	●	●
10.600		12.000	102.00	55.00	45.00	●	●
10.700		12.000	102.00	55.00	45.00	●	●
10.800		12.000	102.00	55.00	45.00	●	●
10.900		12.000	102.00	55.00	45.00	●	●
11.000		12.000	102.00	55.00	45.00	●	●
11.100		12.000	102.00	55.00	45.00	●	●
11.110	7/16	12.000	102.00	55.00	45.00	●	●
11.200		12.000	102.00	55.00	45.00	●	●
11.300		12.000	102.00	55.00	45.00	●	●



Gühring no.	8520	8620
Standard	DIN 6537 K	
Tool material	Solid carbide	
Carbide grade	K/P	
Surface finish	Y	Y
Type	RT 100 HF	RT 100 HF
Drilling depth	3xD	3xD
Cutting direction	right-hand	right-hand
Tolerance	m7	m7
Discount group	121	121

NEW

NEW



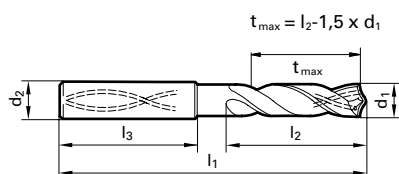
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mm	inch	d2 mm	l1 mm	l2 mm	l3 mm		
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11.500		12.000	102.00	55.00	45.00	●	●
11.600		12.000	102.00	55.00	45.00	●	●
11.700		12.000	102.00	55.00	45.00	●	●
11.800		12.000	102.00	55.00	45.00	●	●
11.900		12.000	102.00	55.00	45.00	●	●
11.910	15/32	12.000	102.00	55.00	45.00	●	●
12.000		12.000	102.00	55.00	45.00	●	●
12.200		14.000	107.00	60.00	45.00	●	●
12.500		14.000	107.00	60.00	45.00	●	●
12.700	1/2	14.000	107.00	60.00	45.00	●	●
12.800		14.000	107.00	60.00	45.00	●	●
13.000		14.000	107.00	60.00	45.00	●	●
13.300		14.000	107.00	60.00	45.00	●	●
13.500		14.000	107.00	60.00	45.00	●	●
13.700		14.000	107.00	60.00	45.00	●	●
14.000		14.000	107.00	60.00	45.00	●	●
14.200		16.000	115.00	65.00	48.00	●	●
14.290	9/16	16.000	115.00	65.00	48.00	●	●
14.300		16.000	115.00	65.00	48.00	●	●
14.500		16.000	115.00	65.00	48.00	●	●
14.700		16.000	115.00	65.00	48.00	●	●
15.000		16.000	115.00	65.00	48.00	●	●
15.200		16.000	115.00	65.00	48.00	●	●
15.300		16.000	115.00	65.00	48.00	●	●
15.500		16.000	115.00	65.00	48.00	●	●
15.700		16.000	115.00	65.00	48.00	●	●
16.000		16.000	115.00	65.00	48.00	●	●
16.300		18.000	123.00	73.00	48.00	●	●
16.500		18.000	123.00	73.00	48.00	●	●
16.900		18.000	123.00	73.00	48.00	●	●
17.000		18.000	123.00	73.00	48.00	●	●
17.300		18.000	123.00	73.00	48.00	●	●
17.500		18.000	123.00	73.00	48.00	●	●
18.000		18.000	123.00	73.00	48.00	●	●
18.500		20.000	131.00	79.00	50.00	●	●



Guhring no.	8520	8620
Standard	DIN 6537 K	
Tool material	Solid carbide	
Carbide grade	K/P	
Surface finish	Y	Y
Type	RT 100 HF	RT 100 HF
Drilling depth	3xD	3xD
Cutting direction	right-hand	right-hand
Tolerance	m7	m7
Discount group	121	121

NEW

NEW



d1		d2	l1	l2	l3
mm	inch	mm	mm	mm	mm
18.900		20.000	131.00	79.00	50.00
19.000		20.000	131.00	79.00	50.00
19.050	3/4	20.000	131.00	79.00	50.00
19.300		20.000	131.00	79.00	50.00
19.500		20.000	131.00	79.00	50.00
20.000		20.000	131.00	79.00	50.00

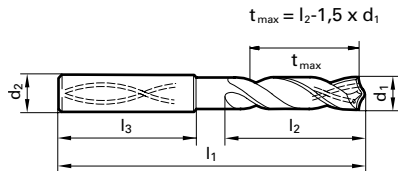
Availability	
●	●
●	●
●	●
●	●
●	●
●	●



Guhring no.	8521	8621
Standard	DIN 6537 L	
Tool material	Solid carbide	
Carbide grade	K/P	
Surface finish	Y	Y
Type	RT 100 HF	RT 100 HF
Drilling depth	5xD	5xD
Cutting direction	right-hand	right-hand
Tolerance	m7	m7
Discount group	121	121

NEW

NEW



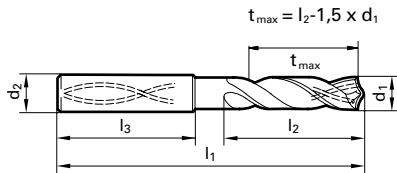
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mm	inch	d2 mm	l1 mm	l2 mm	l3 mm		
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5.700		6.000	82.00	44.00	36.00	●	●
5.800		6.000	82.00	44.00	36.00	●	●
5.900		6.000	82.00	44.00	36.00	●	●
5.950	15/64	6.000	82.00	44.00	36.00	●	●
6.000		6.000	82.00	44.00	36.00	●	●
6.100		8.000	91.00	53.00	36.00	●	●
6.200		8.000	91.00	53.00	36.00	●	●
6.300		8.000	91.00	53.00	36.00	●	●
6.350	1/4	8.000	91.00	53.00	36.00	●	●
6.400		8.000	91.00	53.00	36.00	●	●
6.500		8.000	91.00	53.00	36.00	●	●
6.600		8.000	91.00	53.00	36.00	●	●
6.700		8.000	91.00	53.00	36.00	●	●
6.750	17/64	8.000	91.00	53.00	36.00	●	●
6.800		8.000	91.00	53.00	36.00	●	●
6.900		8.000	91.00	53.00	36.00	●	●
7.000		8.000	91.00	53.00	36.00	●	●
7.100		8.000	91.00	53.00	36.00	●	●
7.140	9/32	8.000	91.00	53.00	36.00	●	●
7.200		8.000	91.00	53.00	36.00	●	●
7.300		8.000	91.00	53.00	36.00	●	●
7.400		8.000	91.00	53.00	36.00	●	●
7.500		8.000	91.00	53.00	36.00	●	●
7.540	19/64	8.000	91.00	53.00	36.00	●	●
7.600		8.000	91.00	53.00	36.00	●	●
7.700		8.000	91.00	53.00	36.00	●	●
7.800		8.000	91.00	53.00	36.00	●	●
7.900		8.000	91.00	53.00	36.00	●	●
7.940	5/16	8.000	91.00	53.00	36.00	●	●
8.000		8.000	91.00	53.00	36.00	●	●
8.100		10.000	103.00	61.00	40.00	●	●
8.200		10.000	103.00	61.00	40.00	●	●
8.300		10.000	103.00	61.00	40.00	●	●
8.330	21/64	10.000	103.00	61.00	40.00	●	●
8.400		10.000	103.00	61.00	40.00	●	●



Gühring no.	8521	8621
Standard	DIN 6537 L	
Tool material	Solid carbide	
Carbide grade	K/P	
Surface finish	Y	Y
Type	RT 100 HF	RT 100 HF
Drilling depth	5xD	5xD
Cutting direction	right-hand	right-hand
Tolerance	m7	m7
Discount group	121	121

NEW

NEW



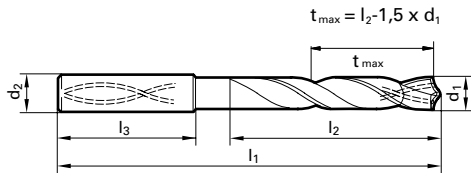
d1		d2	l1	l2	l3
mm	inch	mm	mm	mm	mm
18.900		20.000	153.00	101.00	50.00
19.000		20.000	153.00	101.00	50.00
19.050	3/4	20.000	153.00	101.00	50.00
19.300		20.000	153.00	101.00	50.00
19.500		20.000	153.00	101.00	50.00
20.000		20.000	153.00	101.00	50.00

Availability	
●	●
●	●
●	●
●	●
●	●
●	●



Guhring no.	8522
Standard	Guhring std.
Tool material	Solid carbide
Carbide grade	K/P
Surface finish	Y
Type	RT 100 HF
Drilling depth	7xD
Cutting direction	right-hand
Tolerance	m7
Discount group	121

NEW

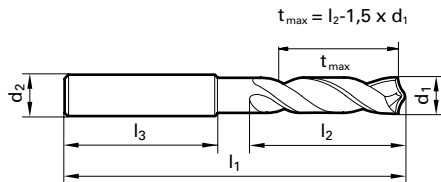


d1						Availability
mm	inch	d2 mm	l1 mm	l2 mm	l3 mm	
3.000		6.000	70.00	30.00	36.00	●
3.250		6.000	70.00	30.00	36.00	●
3.300		6.000	70.00	30.00	36.00	●
3.400		6.000	75.00	35.50	36.00	●
3.500		6.000	75.00	35.50	36.00	●
3.700		6.000	75.00	35.50	36.00	●
4.000		6.000	75.00	37.50	36.00	●
4.200		6.000	75.00	37.50	36.00	●
4.300		6.000	85.00	45.00	36.00	●
4.500		6.000	85.00	45.00	36.00	●
4.650		6.000	85.00	45.00	36.00	●
5.000		6.000	90.00	50.00	36.00	●
5.100		6.000	90.00	50.00	36.00	●
5.200		6.000	90.00	50.00	36.00	●
5.500		6.000	97.00	57.00	36.00	●
5.550		6.000	97.00	57.00	36.00	●
6.000		6.000	97.00	57.00	36.00	●
6.500		8.000	106.00	66.00	36.00	●
6.750	17/64	8.000	106.00	66.00	36.00	●
6.800		8.000	106.00	66.00	36.00	●
6.900		8.000	116.00	76.00	36.00	●
7.000		8.000	116.00	76.00	36.00	●
7.400		8.000	116.00	76.00	36.00	●
7.500		8.000	116.00	76.00	36.00	●
7.800		8.000	116.00	76.00	36.00	●
8.000		8.000	116.00	76.00	36.00	●
8.500		10.000	131.00	87.00	40.00	●
8.600		10.000	131.00	87.00	40.00	●
8.800		10.000	131.00	87.00	40.00	●
9.000		10.000	131.00	87.00	40.00	●
9.250		10.000	139.00	95.00	40.00	●
9.400		10.000	139.00	95.00	40.00	●
9.500		10.000	139.00	95.00	40.00	●
10.000		10.000	139.00	95.00	40.00	●
10.200		12.000	155.00	106.00	45.00	●
10.400		12.000	155.00	106.00	45.00	●



Guhring no.	8524
Standard	DIN 6537 K
Tool material	Solid carbide
Carbide grade	K/P
Surface finish	Y
Type	RT 100 HF
Drilling depth	3xD
Cutting direction	right-hand
Tolerance	m7
Discount group	121

NEW

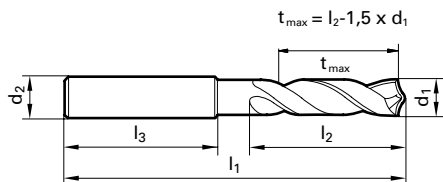


d1						Availability
mm	inch	d2 mm	l1 mm	l2 mm	l3 mm	
3.000		6.000	62.00	20.00	36.00	●
3.100		6.000	62.00	20.00	36.00	●
3.170	1/8	6.000	62.00	20.00	36.00	●
3.200		6.000	62.00	20.00	36.00	●
3.250		6.000	62.00	20.00	36.00	●
3.300		6.000	62.00	20.00	36.00	●
3.400		6.000	62.00	20.00	36.00	●
3.500		6.000	62.00	20.00	36.00	●
3.570	9/64	6.000	62.00	20.00	36.00	●
3.600		6.000	62.00	20.00	36.00	●
3.700		6.000	62.00	20.00	36.00	●
3.800		6.000	66.00	24.00	36.00	●
3.900		6.000	66.00	24.00	36.00	●
3.970	5/32	6.000	66.00	24.00	36.00	●
4.000		6.000	66.00	24.00	36.00	●
4.100		6.000	66.00	24.00	36.00	●
4.200		6.000	66.00	24.00	36.00	●
4.300		6.000	66.00	24.00	36.00	●
4.370	11/64	6.000	66.00	24.00	36.00	●
4.400		6.000	66.00	24.00	36.00	●
4.500		6.000	66.00	24.00	36.00	●
4.600		6.000	66.00	24.00	36.00	●
4.650		6.000	66.00	24.00	36.00	●
4.700		6.000	66.00	24.00	36.00	●
4.760	3/16	6.000	66.00	28.00	36.00	●
4.800		6.000	66.00	28.00	36.00	●
4.900		6.000	66.00	28.00	36.00	●
5.000		6.000	66.00	28.00	36.00	●
5.100		6.000	66.00	28.00	36.00	●
5.160	13/64	6.000	66.00	28.00	36.00	●
5.200		6.000	66.00	28.00	36.00	●
5.300		6.000	66.00	28.00	36.00	●
5.400		6.000	66.00	28.00	36.00	●
5.500		6.000	66.00	28.00	36.00	●
5.550		6.000	66.00	28.00	36.00	●
5.560	7/32	6.000	66.00	28.00	36.00	●



Guhring no.	8524
Standard	DIN 6537 K
Tool material	Solid carbide
Carbide grade	K/P
Surface finish	Y
Type	RT 100 HF
Drilling depth	3xD
Cutting direction	right-hand
Tolerance	m7
Discount group	121

NEW

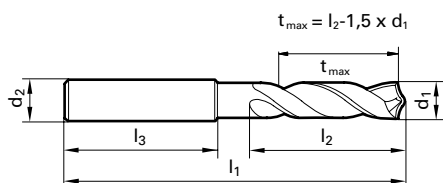


d1						Availability
mm	inch	d2 mm	l1 mm	l2 mm	l3 mm	
5.600		6.000	66.00	28.00	36.00	●
5.700		6.000	66.00	28.00	36.00	●
5.800		6.000	66.00	28.00	36.00	●
5.900		6.000	66.00	28.00	36.00	●
5.950	15/64	6.000	66.00	28.00	36.00	●
6.000		6.000	66.00	28.00	36.00	●
6.100		8.000	79.00	34.00	36.00	●
6.200		8.000	79.00	34.00	36.00	●
6.300		8.000	79.00	34.00	36.00	●
6.350	1/4	8.000	79.00	34.00	36.00	●
6.400		8.000	79.00	34.00	36.00	●
6.500		8.000	79.00	34.00	36.00	●
6.600		8.000	79.00	34.00	36.00	●
6.700		8.000	79.00	34.00	36.00	●
6.750	17/64	8.000	79.00	34.00	36.00	●
6.800		8.000	79.00	34.00	36.00	●
6.900		8.000	79.00	34.00	36.00	●
7.000		8.000	79.00	34.00	36.00	●
7.100		8.000	79.00	41.00	36.00	●
7.140	9/32	8.000	79.00	41.00	36.00	●
7.200		8.000	79.00	41.00	36.00	●
7.300		8.000	79.00	41.00	36.00	●
7.400		8.000	79.00	41.00	36.00	●
7.500		8.000	79.00	41.00	36.00	●
7.540	19/64	8.000	79.00	41.00	36.00	●
7.600		8.000	79.00	41.00	36.00	●
7.700		8.000	79.00	41.00	36.00	●
7.800		8.000	79.00	41.00	36.00	●
7.900		8.000	79.00	41.00	36.00	●
7.940	5/16	8.000	79.00	41.00	36.00	●
8.000		8.000	79.00	41.00	36.00	●
8.100		10.000	89.00	47.00	40.00	●
8.200		10.000	89.00	47.00	40.00	●
8.300		10.000	89.00	47.00	40.00	●
8.330	21/64	10.000	89.00	47.00	40.00	●
8.400		10.000	89.00	47.00	40.00	●



Guhring no.	8524
Standard	DIN 6537 K
Tool material	Solid carbide
Carbide grade	K/P
Surface finish	Y
Type	RT 100 HF
Drilling depth	3xD
Cutting direction	right-hand
Tolerance	m7
Discount group	121

NEW

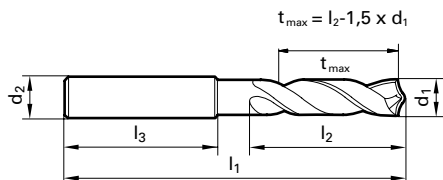


d1						Availability
mm	inch	d2 mm	l1 mm	l2 mm	l3 mm	
8.500		10.000	89.00	47.00	40.00	●
8.600		10.000	89.00	47.00	40.00	●
8.700		10.000	89.00	47.00	40.00	●
8.730	11/32	10.000	89.00	47.00	40.00	●
8.800		10.000	89.00	47.00	40.00	●
8.900		10.000	89.00	47.00	40.00	●
9.000		10.000	89.00	47.00	40.00	●
9.100		10.000	89.00	47.00	40.00	●
9.130	23/64	10.000	89.00	47.00	40.00	●
9.200		10.000	89.00	47.00	40.00	●
9.250		10.000	89.00	47.00	40.00	●
9.300		10.000	89.00	47.00	40.00	●
9.400		10.000	89.00	47.00	40.00	●
9.500		10.000	89.00	47.00	40.00	●
9.520	3/8	10.000	89.00	47.00	40.00	●
9.600		10.000	89.00	47.00	40.00	●
9.700		10.000	89.00	47.00	40.00	●
9.800		10.000	89.00	47.00	40.00	●
9.900		10.000	89.00	47.00	40.00	●
9.920	25/64	10.000	89.00	47.00	40.00	●
10.000		10.000	89.00	47.00	40.00	●
10.100		12.000	102.00	55.00	45.00	●
10.200		12.000	102.00	55.00	45.00	●
10.300		12.000	102.00	55.00	45.00	●
10.320	13/32	12.000	102.00	55.00	45.00	●
10.400		12.000	102.00	55.00	45.00	●
10.500		12.000	102.00	55.00	45.00	●
10.600		12.000	102.00	55.00	45.00	●
10.700		12.000	102.00	55.00	45.00	●
10.800		12.000	102.00	55.00	45.00	●
10.900		12.000	102.00	55.00	45.00	●
11.000		12.000	102.00	55.00	45.00	●
11.100		12.000	102.00	55.00	45.00	●
11.110	7/16	12.000	102.00	55.00	45.00	●
11.200		12.000	102.00	55.00	45.00	●
11.300		12.000	102.00	55.00	45.00	●



Guhring no.	8524
Standard	DIN 6537 K
Tool material	Solid carbide
Carbide grade	K/P
Surface finish	Y
Type	RT 100 HF
Drilling depth	3xD
Cutting direction	right-hand
Tolerance	m7
Discount group	121

NEW

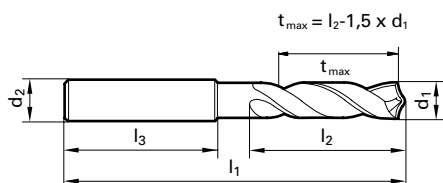


d1						Availability
mm	inch	d2 mm	l1 mm	l2 mm	l3 mm	
11.400		12.000	102.00	55.00	45.00	●
11.500		12.000	102.00	55.00	45.00	●
11.600		12.000	102.00	55.00	45.00	●
11.700		12.000	102.00	55.00	45.00	●
11.800		12.000	102.00	55.00	45.00	●
11.900		12.000	102.00	55.00	45.00	●
11.910	15/32	12.000	102.00	55.00	45.00	●
12.000		12.000	102.00	55.00	45.00	●
12.200		14.000	107.00	60.00	45.00	●
12.500		14.000	107.00	60.00	45.00	●
12.700	1/2	14.000	107.00	60.00	45.00	●
12.800		14.000	107.00	60.00	45.00	●
13.000		14.000	107.00	60.00	45.00	●
13.300		14.000	107.00	60.00	45.00	●
13.500		14.000	107.00	60.00	45.00	●
13.700		14.000	107.00	60.00	45.00	●
14.000		14.000	107.00	60.00	45.00	●
14.200		16.000	115.00	65.00	48.00	●
14.290	9/16	16.000	115.00	65.00	48.00	●
14.300		16.000	115.00	65.00	48.00	●
14.500		16.000	115.00	65.00	48.00	●
14.700		16.000	115.00	65.00	48.00	●
15.000		16.000	115.00	65.00	48.00	●
15.200		16.000	115.00	65.00	48.00	●
15.300		16.000	115.00	65.00	48.00	●
15.500		16.000	115.00	65.00	48.00	●
15.700		16.000	115.00	65.00	48.00	●
16.000		16.000	115.00	65.00	48.00	●
16.300		18.000	123.00	73.00	48.00	●
16.500		18.000	123.00	73.00	48.00	●
16.900		18.000	123.00	73.00	48.00	●
17.000		18.000	123.00	73.00	48.00	●
17.300		18.000	123.00	73.00	48.00	●
17.500		18.000	123.00	73.00	48.00	●
18.000		18.000	123.00	73.00	48.00	●
18.500		20.000	131.00	79.00	50.00	●



Guhring no.	8524
Standard	DIN 6537 K
Tool material	Solid carbide
Carbide grade	K/P
Surface finish	Y
Type	RT 100 HF
Drilling depth	3xD
Cutting direction	right-hand
Tolerance	m7
Discount group	121

NEW



d1		d2	l1	l2	l3	Availability
mm	inch	mm	mm	mm	mm	
18.900		20.000	131.00	79.00	50.00	●
19.000		20.000	131.00	79.00	50.00	●
19.050	3/4	20.000	131.00	79.00	50.00	●
19.300		20.000	131.00	79.00	50.00	●
19.500		20.000	131.00	79.00	50.00	●
20.000		20.000	131.00	79.00	50.00	●



Tools with bold feed column no. are preferred choice.

To select the optimal tool and the recommended machining parameters for your application, please also use the electronic version of the GuhringNavigator on the internet: www.guehring.de.

Guhring no.
Standard/DIN
Tool material
Carbide grade
Type
Surface finish
Cooling

Drill Ø mm	Feed column no.								
	1	2	3	4	5	6	7	8	9
	f (mm/rev.)								
0.500	0.004	0.006	0.007	0.008	0.010	0.012	0.014	0.016	0.019
1.000	0.006	0.008	0.012	0.014	0.016	0.018	0.020	0.023	0.025
2.000	0.020	0.025	0.032	0.040	0.050	0.063	0.080	0.100	0.125
2.500	0.025	0.032	0.040	0.050	0.063	0.080	0.100	0.125	0.160
3.150	0.032	0.040	0.050	0.063	0.080	0.100	0.125	0.160	0.160
4.000	0.040	0.050	0.063	0.080	0.100	0.125	0.160	0.200	0.200
5.000	0.040	0.050	0.063	0.080	0.100	0.125	0.160	0.200	0.250
6.300	0.050	0.063	0.080	0.100	0.125	0.160	0.200	0.250	0.315
8.000	0.063	0.080	0.100	0.125	0.160	0.200	0.250	0.315	0.315
10.000	0.080	0.100	0.125	0.160	0.200	0.250	0.315	0.400	0.400
12.500	0.080	0.100	0.125	0.160	0.200	0.250	0.315	0.400	0.500
16.000	0.100	0.125	0.160	0.200	0.250	0.315	0.400	0.500	0.630
20.000	0.125	0.160	0.200	0.250	0.315	0.400	0.500	0.630	0.630
25.000	0.160	0.200	0.250	0.315	0.400	0.500	0.630	0.800	0.800
31.500	0.160	0.200	0.250	0.315	0.400	0.500	0.630	0.800	1.000
40.000	0.200	0.250	0.315	0.400	0.500	0.630	0.800	1.000	1.250
50.000	0.250	0.310	0.400	0.500	0.630	0.800	1.000	1.250	1.250
63.000	0.315	0.400	0.500	0.630	0.800	1.000	1.250	1.600	1.600
80.000	0.400	0.500	0.630	0.800	1.000	1.250	1.600	1.600	2.000

- Cooling:
- without coolant ducts
 - with coolant ducts
- Coolant:
- Air
 - Neat oil
 - Soluble oil
- Cutting direction:
- right-hand cutting
 - left-hand cutting

Material group	Material examples, new description (old description in brackets) Figures in bold = material no. to DIN EN	Tensile strength MPa (N/mm ²)	Hardness	Coolant
Common structural steels	1.0035 S185(St33), 1.0486 P275N(StE285), 1.0345 P235GH(H1), 1.0425 P265GH(H2) 1.0050 E295 (St50-2), 1.0070 E360 (St70-2), 1.8937 P500NH (WStE500)	≤500 ≤1000		<input type="radio"/>
Free-cutting steels	1.0718 11SMnPb30 (9SMnPb28), 1.0736 11SMn37 (9SMn36) 1.0727 46S20 (45S20), 1.0728 (60S20), 1.0757 46SPb20 (45SPb20)	≤850 ≤1000		<input type="radio"/>
Unalloyed heat-treatable steels	1.0402 C22, 1.1178 C30E (Ck30) 1.0503 C45, 1.1191 C45E (Ck45) 1.0601 C60, 1.1221 C60E (Ck60)	≤700 ≤850 ≤1000		<input type="radio"/>
Alloyed heat-treatable steels	1.5131 50MnSi4, 1.7003 38Cr2, 1.7030 28Cr4 1.5710 36NiCr6, 1.7035 41Cr4, 1.7225 42CrMo4	≤1000 ≤1400		<input type="radio"/>
Unalloyed case hardened steels	1.0301 (C10), 1.1121 C10E (Ck10)	≤850		<input type="radio"/>
Alloyed case hardened steels	1.7276 10CrMo11, 1.5125 11MnSi6 1.5752 15NiCr13, 1.7131 16MnCr5, 1.7264 20CrMo5	≤1000 ≤1400		<input checked="" type="radio"/>
Nitriding steels	1.8504 34CrAl6 1.8519 31CrMoV9, 1.8550 34CrAlNi7	≤1000 ≤1400		<input type="radio"/>
Tool steels	1.1750 C75W, 1.2067 102Cr6, 1.2307 29CrMoV9 1.2080 X210Cr12, 1.2083 X42Cr13, 1.2419 105WCr6, 1.2767 X45NiCrMo4	≤850 ≤1400		<input checked="" type="radio"/>
High speed steels	1.3243 S 6-5-2-5, 1.3343 S 6-5-2, 1.3344 S 6-5-3	≤1400		<input checked="" type="radio"/>
Spring steels	1.5026 55Si7, 1.7176 55Cr3, 1.8159 51CrV4 (51CrV4)		≤350 HB	<input checked="" type="radio"/>
Stainless steels, sulphured	1.4005 X12CrS13, 1.4104 X14CrMoS17, 1.4105 X6CrMoS17, 1.4305 X8CrNiS18-9	≤900		<input checked="" type="radio"/>
austenitic	1.4301 X5CrNi18-10 (V2A), 1.4541 X6CrNiTi18-10, 1.4571 X6CrNiMoTi 17-12-2 (V4A)	≤1100		<input checked="" type="radio"/>
martensitic	1.4057 X20CrNi172 (X17CrNi16-2), 1.4122 X39CrMo17-1, 1.4521 X2CrMoTi18-2	≤1500		<input checked="" type="radio"/>
Hardened steels	-		≤48 HRC ≤66 HRC	<input checked="" type="radio"/>
Special alloys	Nimonic, Inconel, Monel, Hastelloy	≤2000		<input checked="" type="radio"/>
Cast iron	0.6010 EN-GJL-100 (GG10), 0.6020 EN-GJL-200 (GG20) 0.6025 EN-GJL-250 (GG25), 0.6035 EN-GJL-350 (GG35)		≤240 HB ≤350 HB	<input type="radio"/>
Spheroidal graphite iron and malleable cast iron	0.7050 EN-GJS-500-7 (GGG50), 0.8035 EN-GJMW-350-4 (GTW35) 0.7070 EN-GJS-700-2 (GGG70), 0.8170 EN-GJMB-700-2 (GTS70)		≤240 HB ≤350 HB	<input type="radio"/>
Chilled cast iron	-		≤350 HB	<input type="radio"/>
Ti and Ti-alloys	3.7024 Ti99,5, 3.7114 TiAl5Sn2,5, 3.7124 TiCu2 3.7154 TiAl6Zr5, 3.7165 TiAl6V4, 3.7184 TiAl4Mo4Sn2,5, - TiAl8Mo1V1	≤850 ≤1400		<input checked="" type="radio"/>
Aluminium and Al-alloys	3.0255 Al99,5, 3.2315 AlMgSi1, 3.3515 AlMg1	≤400		<input type="radio"/>
Al wrought alloys	3.0615 AlMgSiPb, 3.1325 AlCuMg1, 3.3245 AlMg3Si, 3.4365 AlZnMgCu1,5	≤650		<input type="radio"/>
Al cast alloys ≤ 10 % Si	3.2131 G-AlSi5Cu1, 3.2153 G-AlSi7Cu3, 3.2573 G-AlSi9	≤600		<input type="radio"/>
≤ 24 % Si	3.2581 G-AlSi12, 3.2583 G-AlSi12Cu, - G-AlSi12CuNiMg	≤600		<input type="radio"/>
Magnesium alloys	3.5200 MgMn2, 3.5812.05 G-MgAl8Zn1, 3.5612.05 G-MgAl6Zn1	≤400		<input type="radio"/>
Copper, low-alloyed	2.0070 SE-Cu, 2.1020 CuSn6, 2.1096 G-CuSn5ZnPb	≤500		<input type="radio"/>
Brass, short-chipping	2.0380 CuZn39Pb2, 2.0401 CuZn39Pb3, 2.0410 CuZn43Pb2	≤600		<input type="radio"/>
long-chipping	2.0250 CuZn20, 2.0280 CuZn33, 2.0332 CuZn37Pb0,5	≤600		<input type="radio"/>
Bronze, short-chipping	2.1090 CuSn7ZnPb, 2.1170 CuPb5Sn5, 2.1176 CuPb10Sn 2.0790 CuNi18Zn19Pb	≤600 ≤850		<input checked="" type="radio"/>
Bronze, long-chipping	2.0916 CuAl5, 2.0960 CuAl9Mn, 2.1050 CuSn10 2.0980 CuAl11Ni, 2.1247 CuBe2	≤850 ≤1000		<input checked="" type="radio"/>
Duroplastics	Bakelit, Resopal, Pertinax, Moltopren	≤150		<input type="radio"/>
Thermoplastics	Plexiglass, Hostalen, Novodur, Makralon	≤100		<input type="radio"/>
New cast materials GGV	EN-GJV250 (GGV25), EN-GJV350 (GGV35) EN-GJV400 (GGV40), EN-GJV500 (GGV50), SiMo 6		≤220 HB ≤300 HB	<input type="radio"/>
New cast materials ADI	EN-GJS-800-8 (ADI800), EN-GJS-1000-5 (ADI1000) EN-GJS-1200-2 (ADI1200), EN-GJS-1400-1 (ADI1400)	≤1000 ≤1400		<input type="radio"/>
Kevlar	Kevlar	≤1000		<input type="radio"/>
Glass, carbon concentrated plastics	GFK/CFK	≤1000		<input type="radio"/>



≤3xD drilling depth

8520	8620
DIN 6537 K	DIN 6537 K
Solid carbide	Solid carbide
K/P	K/P
RT 100 HF	RT 100 HF



≤5xD drilling depth

8521	8621
DIN 6537 L	DIN 6537 L
Solid carbide	Solid carbide
K/P	K/P
RT 100 HF	RT 100 HF



≤7xD

8522
Gühring std.
Solid carbide
K/P
RT 100 HF



V _c m/min	Feed column no.	
145	7	7
120	6	6
170	8	8
145	8	8
130	8	8
125	7	7
120	7	7
120	7	7
105	7	7
145	8	8
120	7	7
85	5	5
110	7	7
105	5	5
80	6	6
65	5	5
60	4	4
60	3	3
55	3	3
35	2	2
35	4	4
45	4	4
40	3	3

V _c m/min	Feed column no.	
130	7	7
110	6	6
145	8	8
110	7	7
120	7	7
110	7	7
105	7	7
105	7	7
100	6	6
130	8	8
120	7	7
85	5	5
100	6	6
90	5	5
65	6	6
55	5	5
55	4	4
45	3	3
45	3	3
25	2	2
25	4	4
40	3	3
35	3	3

V _c m/min	Feed column no.	
145	7	7
120	6	6
170	8	8
145	8	8
130	8	8
125	7	7
120	7	7
120	7	7
105	7	7
105	7	7
145	8	8
120	7	7
85	5	5
110	7	7
105	5	5
80	6	6
65	5	5
60	4	4
60	3	3
55	3	3
35	2	2
35	4	4
45	4	4
40	3	3

V _c m/min	Feed column no.	
145	6	6
120	5	5
170	7	7
145	7	7
130	7	7
125	6	6
120	6	6
120	6	6
105	6	6
145	7	7
120	6	6
85	4	4
110	6	6
105	4	4
80	5	5
65	4	4
60	3	3
60	2	2
55	2	2
35	1	1
35	3	3
45	3	3
40	3	3

DRILLING

TAPPING/THREAD
MILLING/FLUTELESS
TAPPING

MILLING

REAMING

PCD/PCB



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