

GÜHRING

CARBIDE

sintered for your success



Bars and stepped blanks
Ø 1 mm – 40 mm

From professionals for professionals:
Quality Made in Germany with Gühring Carbide

Divers sity

Whether your focus is on precision, durability or versatility, we offer an extensive range of high-quality products to perfectly meet your needs.





Our **diversity**, your benefit:

The largest **sintered product** range on the market

Our product range covers a wide range of carbide solutions to cover almost every requirement. From high-precision bars up to 40 mm in diameter through to wear parts and customised special parts, we have what you're looking for.

This huge range of products on offer allows you to find the ideal solution for your specific needs.

Quality

ty

With our high-quality carbide, which we also use for our own tools, you can rest assured that our products are the result of decades of our own experience.





Our **quality**, your benefit:

Carbide from the market leader

Behind our extensive range are our production facilities in Berlin and Bavaria,
where our carbide is manufactured with the highest level of precision
and using the latest technologies.

This not only guarantees a long tool life, but also superior performance
for your demanding applications.

**Because as manufacturers and users, we know exactly
what's important when it comes to carbide.**

Expert Advice

As a reliable partner,
Gühring carbide not only offers
you products, but also partners
that promote your success.





Our **expertise**, your benefit:

Advice from the tool manufacturer

With our personal advice, we guarantee
that you will receive the ideal carbide for your individual tasks.

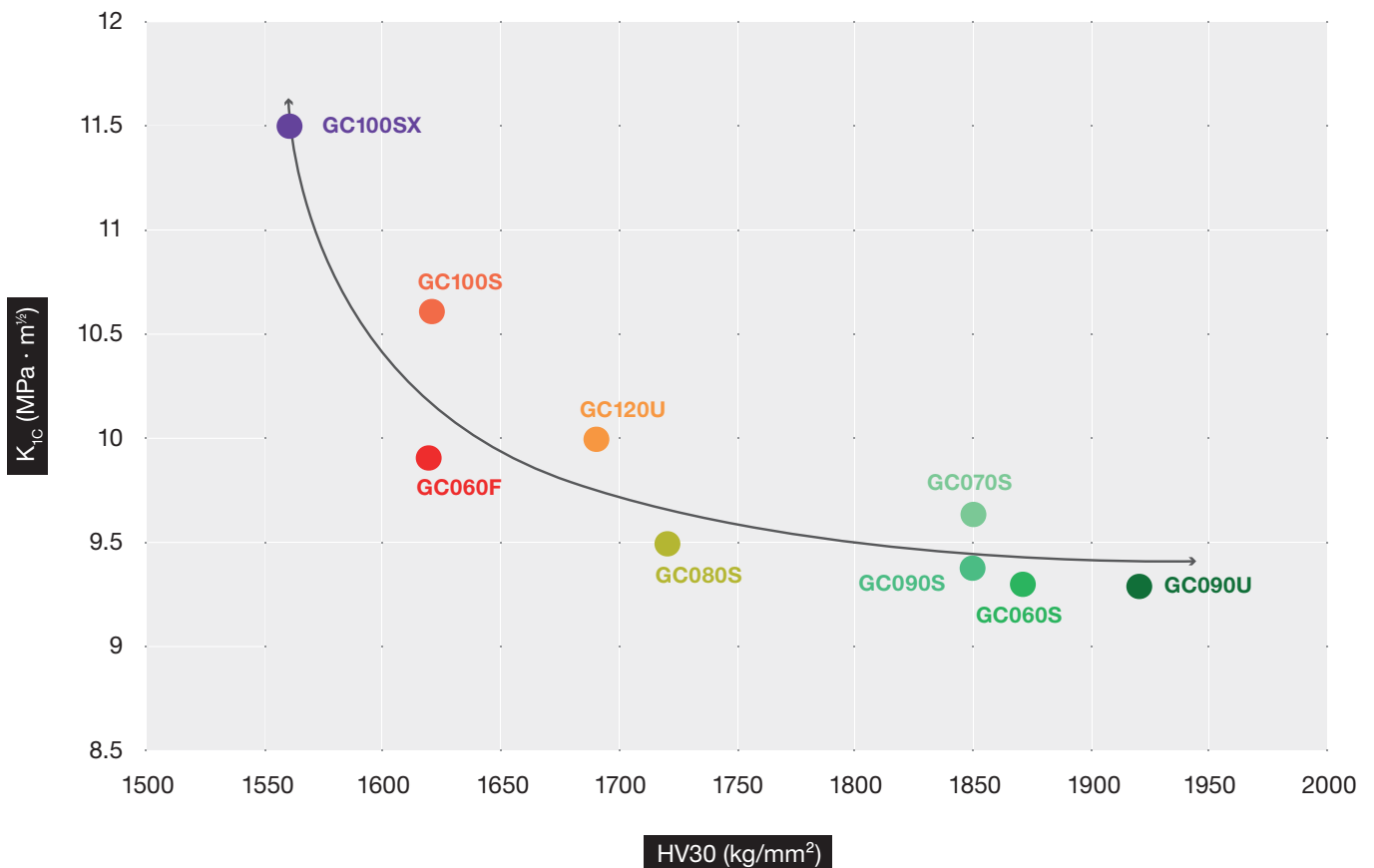
**With Gühring carbide, you not only get high-quality
German products, but also personal advice
from the market leader.**

Technical data

Type		GC100SX	GC060F	GC100S	GC120U	GC080S	GC070S	GC090S	GC060S	GC090U
Classification		K20-K40	K15-K20	K20-K40	K20-K30	K20-K30	K10	K10	K05-K10	K05-K10
Co	%	10.0	6.0	10.0	12.0	8.0	7.0	9.0	6.0	9.0
WC including doping	%	90.0	94.0	90.0	88.0	92.0	93.0	91.0	94.0	91.0
Hardness HV30 (±50)	kg/mm ²	1560	1620	1620	1690	1720	1850	1850	1870	1920
Fracture toughness K _{IC}	MPa · m ^{1/2}	11.5	9.9	10.6	10.0	9.5	9.6	9.4	9.3	9.3
Bending strength	N/mm ²	3700	3200	4100	4000	3800	3500	3800	3900	3800
Medium grain size	µm	0.5-0.8	0.8-1.3	0.5-0.8	0.2-0.5	0.5-0.8	0.5-0.8	0.5-0.8	0.5-0.8	0.2-0.5

Due to the dependence of the values measured for the critical intensity factor K_{IC} on the sample geometry and sample preparation, the measured values are only comparable with values determined under the same conditions. Valid porosity for all grades: A <02 / B 00 / C 00.

Fracture toughness vs. hardness





Applications

Type	GC100SX	GC060F	GC100S	GC120U	GC080S	GC070S	GC090S	GC060S	GC090U
Drilling	•	•	•	•	•	•		•	•
Milling	•		•	•	•		•		•
Reaming						•		•	
Thread cutting		•	•	•		•			
Titanium alloys	•		•	•				•	
Nickel alloys	•			•					
Aluminium alloys					•				•
Heat-resistant alloys			•	•				•	
High-alloyed steels				•		•			•
Stainless steels – austenitic			•		•	•			
Stainless steels – ferritic			•	•		•			
Grey cast iron			•	•	•				
Malleable cast iron			•	•	•			•	
Copper alloys			•		•				•
Super alloys (Fe/Ni/Co/Ti-based)			•	•		•			
Hardened steels				•	•			•	•
GFK/GRP				•		•		•	•
Composite materials			•	•		•		•	•
Plastics			•					•	•
Non-ferrous metals					•			•	
Wood			•		•				
Graphite						•			•

Our sales team is looking forward to your enquiry:
carbide@guehring.de | www.guehring.com



> 180,000
customers worldwide



8,000
employees worldwide



>7,000
articles in the standard range



Quality
Made in Germany



1.1 bn
turnover



2,400
tonnes of carbide/year



48
subsidiaries



Contents

Page

- 14 **Rods**
- 31 **Milling cutter blanks**
- 34 **Drill blanks**



Rods, blank



Type	GC060S	GC090U	GC100S	GC100S	GC100SX	GC120U
Article no.	30000	30001	30002	30020	30003	30004
Overall length	330	330	330	415	330	330
D mm	Order no.	Order no.	Order no.	Order no.	Order no.	Order no.
1.200 0.30	30000 1.200	30001 1.200	30002 1.200			30004 1.200
1.700 0.30	30000 1.700	30001 1.700	30002 1.700			30004 1.700
2.200 0.30	30000 2.200	30001 2.200	30002 2.200			30004 2.200
2.700 0.30	30000 2.700	30001 2.700	30002 2.700			30004 2.700
3.200 0.30	30000 3.200	30001 3.200	30002 3.200		30003 3.200	30004 3.200
3.700 0.30	30000 3.700	30001 3.700	30002 3.700			30004 3.700
4.200 0.30	30000 4.200	30001 4.200	30002 4.200		30003 4.200	30004 4.200
4.700 0.30	30000 4.700	30001 4.700	30002 4.700		30003 4.700	30004 4.700
5.200 0.30	30000 5.200	30001 5.200	30002 5.200		30003 5.200	30004 5.200
5.700 0.30	30000 5.700		30002 5.700			30004 5.700
6.200 0.30	30000 6.200	30001 6.200	30002 6.200	30020 6.200	30003 6.200	30004 6.200
6.700 0.30	30000 6.700	30001 6.700	30002 6.700			30004 6.700
7.200 0.30	30000 7.200	30001 7.200	30002 7.200		30003 7.200	30004 7.200
7.700 0.30	30000 7.700		30002 7.700			30004 7.700
8.200 0.30	30000 8.200	30001 8.200	30002 8.200	30020 8.200	30003 8.200	30004 8.200
8.700 0.30	30000 8.700		30002 8.700			30004 8.700
9.200 0.30	30000 9.200	30001 9.200	30002 9.200			30004 9.200
9.700 0.30	30000 9.700	30001 9.700	30002 9.700			30004 9.700
10.200 0.40	30000 10.200	30001 10.200	30002 10.200	30020 10.200	30003 10.200	30004 10.200
10.700 0.40	30000 10.700	30001 10.700	30002 10.700			30004 10.700
11.200 0.40	30000 11.200	30001 11.200	30002 11.200			30004 11.200
11.700 0.40	30000 11.700		30002 11.700			
12.200 0.50	30000 12.200	30001 12.200	30002 12.200	30020 12.200	30003 12.200	30004 12.200
12.700 0.50	30000 12.700		30002 12.700			30004 12.700
13.200 0.50	30000 13.200	30001 13.200	30002 13.200		30003 13.200	30004 13.200
13.700 0.50	30000 13.700	30001 13.700	30002 13.700			
14.200 0.60	30000 14.200	30001 14.200	30002 14.200	30020 14.200	30003 14.200	30004 14.200
14.700 0.60			30002 14.700			
15.200 0.60	30000 15.200	30001 15.200	30002 15.200			30004 15.200
15.700 0.60			30002 15.700			
16.200 0.60	30000 16.200	30001 16.200	30002 16.200	30020 16.200	30003 16.200	30004 16.200
16.700 0.60			30002 16.700			30004 16.700
17.200 0.60	30000 17.200	30001 17.200	30002 17.200			30004 17.200
17.700 0.60			30002 17.700			
18.200 0.60	30000 18.200	30001 18.200	30002 18.200	30020 18.200		30004 18.200
18.700 0.60			30002 18.700			30004 18.700
19.200 0.60	30000 19.200	30001 19.200	30002 19.200		30003 19.200	30004 19.200
19.700 0.60			30002 19.700			
20.200 0.60	30000 20.200	30001 20.200	30002 20.200	30020 20.200	30003 20.200	30004 20.200
20.700 0.60	30000 20.700		30002 20.700			30004 20.700
21.200 0.60	30000 21.200		30002 21.200			30004 21.200
22.200 0.60	30000 22.200	30001 22.200	30002 22.200			30004 22.200
23.200 0.60	30000 23.200		30002 23.200			30004 23.200
24.200 0.70	30000 24.200		30002 24.200			30004 24.200
25.200 0.70	30000 25.200	30001 25.200	30002 25.200	30020 25.200	30003 25.200	30004 25.200
25.700 0.50						30004 25.700
26.200 0.70	30000 26.200		30002 26.200			30004 26.200
27.200 0.70	30000 27.200		30002 27.200			
28.200 0.80	30000 28.200		30002 28.200			30004 28.200
29.200 0.80	30000 29.200		30002 29.200			
30.200 0.80	30000 30.200		30002 30.200	30020 30.200		30004 30.200
31.200 0.70	30000 31.200					
32.200 0.80	30000 32.200		30002 32.200	30020 32.200		30004 32.200
34.200 0.80			30002 34.200			
35.200 0.80			30002 35.200			
36.200 0.80			30002 36.200		30003 36.200	30004 36.200
38.200 0.80			30002 38.200			
40.200 0.80			30002 40.200			30004 40.200



Rods, ground h6

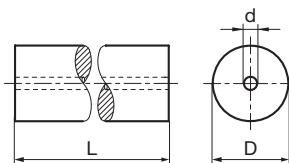


D h6 mm	Type	GC090U	GC100S	GC120U
	Article no.	30051	30052	30054
Overall length		330	330	330
	Order no.	Order no.	Order no.	Order no.
1.000			30052 1.000	
1.500			30052 1.500	
2.000			30052 2.000	
3.000		30051 3.000	30052 3.000	30054 3.000
3.500			30052 3.500	
4.000		30051 4.000	30052 4.000	30054 4.000
4.500			30052 4.500	
5.000		30051 5.000	30052 5.000	30054 5.000
5.500			30052 5.500	
6.000		30051 6.000	30052 6.000	30054 6.000
6.500			30052 6.500	
7.000		30051 7.000	30052 7.000	30054 7.000
7.500			30052 7.500	
8.000		30051 8.000	30052 8.000	30054 8.000
8.500			30052 8.500	
9.000			30052 9.000	30054 9.000
9.500			30052 9.500	
10.000		30051 10.000	30052 10.000	30054 10.000
10.500			30052 10.500	
11.000			30052 11.000	30054 11.000
11.500			30052 11.500	
12.000		30051 12.000	30052 12.000	30054 12.000
12.500			30052 12.500	
13.000			30052 13.000	30054 13.000
14.000		30051 14.000	30052 14.000	30054 14.000
15.000			30052 15.000	
16.000		30051 16.000	30052 16.000	30054 16.000
17.000			30052 17.000	
18.000		30051 18.000	30052 18.000	30054 18.000
19.000			30052 19.000	
20.000		30051 20.000	30052 20.000	30054 20.000
21.000			30052 21.000	
22.000		30051 22.000	30052 22.000	30054 22.000
23.000			30052 23.000	
24.000			30052 24.000	
25.000		30051 25.000	30052 25.000	30054 25.000
26.000			30052 26.000	
27.000			30052 27.000	
28.000			30052 28.000	
30.000			30052 30.000	30054 30.000
31.000			30052 31.000	
32.000			30052 32.000	30054 32.000
34.000			30052 34.000	
35.000			30052 35.000	
36.000			30052 36.000	
40.000			30052 40.000	



Rods, blank

with 1 central hole

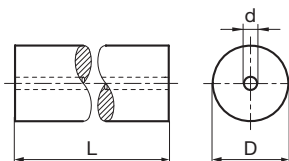


						Type	GC060S	GC100S
						Article no.	30100	30102
						Overall length	330	330
							Order no.	Order no.
D mm			d mm		Centre offset mm			
4.500	0.30	0.60	0.10	-0.10	0.07	30100 4.500	30102 4.500	
4.500	0.30	1.00	0.15	-0.15	0.07	30100 4.501		
6.300	0.30	1.00	0.15	-0.15	0.07	30100 6.300	30102 6.300	
6.300	0.30	1.80	0.15	-0.15	0.07	30100 6.301	30102 6.301	
8.300	0.30	1.30	0.15	-0.15	0.07	30100 8.300	30102 8.300	
8.300	0.30	1.80	0.15	-0.15	0.07	30100 8.302		
8.300	0.30	2.50	0.20	-0.20	0.07	30100 8.301	30102 8.301	
10.300	0.40	2.00	0.20	-0.20	0.10	30100 10.300	30102 10.300	
10.300	0.40	3.00	0.25	-0.25	0.10	30100 10.301	30102 10.301	
12.300	0.40	2.00	0.20	-0.20	0.10	30100 12.300	30102 12.300	
12.300	0.40	3.00	0.25	-0.25	0.10	30100 12.301	30102 12.301	
13.300	0.40	2.00	0.20	-0.20	0.12		30102 13.300	
14.300	0.40	2.00	0.20	-0.20	0.12	30100 14.300	30102 14.300	
14.300	0.40	3.00	0.25	-0.25	0.12	30100 14.301	30102 14.301	
16.300	0.50	2.00	0.20	-0.20	0.12	30100 16.300	30102 16.300	
16.300	0.50	2.50	0.20	-0.20	0.12	30100 16.301	30102 16.301	
16.300	0.50	3.00	0.25	-0.25	0.12		30102 16.304	
16.300	0.50	4.00	0.30	-0.30	0.12	30100 16.302	30102 16.302	
18.300	0.50	3.00	0.25	-0.25	0.15	30100 18.300	30102 18.300	
18.300	0.50	4.00	0.30	-0.30	0.15	30100 18.301		
20.300	0.50	3.00	0.25	-0.25	0.15	30100 20.300	30102 20.300	
20.300	0.50	4.00	0.30	-0.30	0.15	30100 20.301		
22.300	0.50	3.00	0.25	-0.25	0.15	30100 22.300	30102 22.300	
24.300	0.50	4.00	0.30	-0.30	0.15	30100 24.300	30102 24.300	
25.300	0.50	4.00	0.30	-0.30	0.15	30100 25.300	30102 25.300	
26.300	0.50	4.00	0.30	-0.30	0.15	30100 26.300	30102 26.300	
28.300	0.50	4.00	0.30	-0.30	0.15	30100 28.300	30102 28.300	
30.300	0.50	5.00	0.35	-0.35	0.15	30100 30.300	30102 30.300	
32.300	0.50	5.00	0.35	-0.35	0.15	30100 32.300	30102 32.300	



Rods, ground h6

with 1 central hole

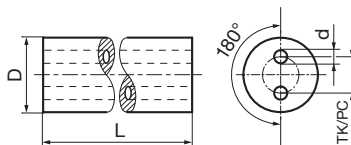


D h6 mm	d mm	Centre offset mm	Type	Article no.	Overall length	Order no.
			GC100S	30127	330	
4.000	0.60	-0.10				30127 4.000
6.000	1.00	-0.15				30127 6.000
6.000	1.80	-0.15				30127 6.001
8.000	1.30	-0.15				30127 8.000
8.000	2.50	-0.20				30127 8.001
10.000	2.00	-0.20				30127 10.000
10.000	3.00	-0.25				30127 10.001
12.000	2.00	-0.20				30127 12.000
12.000	3.00	-0.25				30127 12.001
14.000	2.00	-0.20				30127 14.000
14.000	3.00	-0.25				30127 14.001
16.000	2.00	-0.20				30127 16.000
16.000	2.50	-0.20				30127 16.001
16.000	3.00	-0.25				30127 16.004
16.000	4.00	-0.30				30127 16.002
18.000	3.00	-0.25				30127 18.000
20.000	3.00	-0.25				30127 20.000
22.000	3.00	-0.25				30127 22.000
24.000	4.00	-0.30				30127 24.000
25.000	3.00	-0.25				30127 25.001
25.000	4.00	-0.30				30127 25.000
26.000	4.00	-0.30				30127 26.000
28.000	4.00	-0.30				30127 28.000
30.000	5.00	-0.35				30127 30.000
32.000	5.00	-0.35				30127 32.000



Rods, blank

with 2 parallel coolant ducts

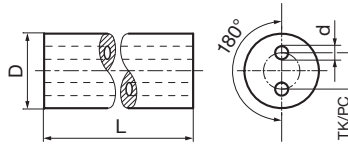


								Type	GC100S	GC100S
								Article no.	30152	30160
								Overall length	330	415
D		Pitch circle		d		Centre offset		Order no.	Order no.	
mm		mm	mm	mm	mm	mm	mm			
4.200	0.30	1.80	-0.15	0.80	0.10	-0.10	0.10	30152 4.200		
4.200	0.30	2.25	-0.15	0.60		-0.05	0.10	30152 4.201		
5.200	0.30	2.00	-0.15	0.80	0.10	-0.10	0.13	30152 5.200		
6.300	0.30	1.50	-0.20	0.80	0.10	-0.10	0.15	30152 6.300		
6.300	0.30	1.50	-0.20	0.60	0.10	-0.10	0.15	30152 6.302		
6.300	0.30	1.55	-0.10	0.65	0.15	-0.15	0.08	30152 6.303		
6.300	0.30	1.70	-0.20	0.70	0.10	-0.10	0.15	30152 6.304		
6.300	0.30	2.00	-0.15	0.80	0.05	-0.05	0.15	30152 6.305		
6.300	0.30	2.40	-0.30	1.00	0.10	-0.10	0.15	30152 6.306		
6.300	0.30	3.00	-0.20	1.00	0.10	-0.10	0.15	30152 6.301	30160 6.301	
7.300	0.30	1.80	-0.20	0.80	0.10	-0.10	0.15	30152 7.300		
7.300	0.30	3.50	-0.20	1.00	0.10	-0.10	0.15	30152 7.301		
8.300	0.30	1.50	-0.20	0.80	0.10	-0.10	0.15	30152 8.300	30160 8.300	
8.300	0.30	2.00	-0.30	0.80	0.10	-0.10	0.15	30152 8.303		
8.300	0.30	2.60	-0.30	1.00	0.10	-0.10	0.20	30152 8.301	30160 8.301	
8.300	0.30	4.00	-0.30	1.00	0.10	-0.10	0.15	30152 8.302	30160 8.302	
9.300	0.30	2.60	-0.30	1.00	0.15	-0.15	0.20	30152 9.300		
9.300	0.30	4.00	-0.30	1.40	0.15	-0.15	0.20	30152 9.301		
10.300	0.30	2.60	-0.30	1.00	0.15	-0.15	0.20	30152 10.300	30160 10.300	
10.300	0.30	3.50	-0.20	1.20	0.15	-0.15	0.15	30152 10.302		
10.300	0.30	5.00	-0.30	1.40	0.15	-0.15	0.20	30152 10.301	30160 10.301	
11.300	0.40	3.50	-0.30	1.20	0.15	-0.15	0.28	30152 11.300		
11.300	0.40	5.00	-0.30	1.40	0.15	-0.15	0.28	30152 11.301		
12.300	0.40	3.50	-0.30	1.20	0.15	-0.15	0.30	30152 12.300	30160 12.300	
12.300	0.40	6.00	-0.30	1.75	0.15	-0.15	0.30	30152 12.301	30160 12.301	
13.300	0.40	3.50	-0.30	1.20	0.15	-0.15	0.34	30152 13.300		
13.300	0.40	6.00	-0.30	1.75	0.15	-0.15	0.34	30152 13.301		
14.300	0.40	5.00	-0.30	1.50	0.15	-0.15	0.37	30152 14.300	30160 14.300	
14.300	0.40	7.00	-0.30	1.75	0.15	-0.15	0.37	30152 14.301	30160 14.301	
15.300	0.40	5.00	-0.30	1.50	0.15	-0.15	0.40	30152 15.300		
15.300	0.40	7.00	-0.30	2.00	0.20	-0.20	0.40	30152 15.301		
16.300	0.40	5.00	-0.30	1.50	0.15	-0.15	0.40	30152 16.300	30160 16.300	
16.300	0.40	8.00	-0.30	2.00	0.20	-0.20	0.40	30152 16.301	30160 16.301	
17.300	0.40	6.20	-0.30	2.00	0.20	-0.20	0.47	30152 17.300		
17.300	0.40	8.00	-0.30	2.00	0.20	-0.20	0.47	30152 17.301		
18.300	0.50	6.20	-0.30	2.00	0.20	-0.20	0.50	30152 18.300	30160 18.300	
18.300	0.50	9.00	-0.30	2.00	0.20	-0.20	0.50	30152 18.301	30160 18.301	
19.300	0.40	6.20	-0.30	2.00	0.20	-0.20	0.50	30152 19.300		
19.300	0.40	9.00	-0.30	2.00	0.20	-0.20	0.50	30152 19.301		
20.400	0.50	3.50	-0.30	1.50	0.15	-0.15	0.34	30152 20.402		
20.400	0.50	6.20	-0.40	2.00	0.20	-0.20	0.50	30152 20.400	30160 20.400	
20.400	0.50	10.00	-0.40	2.50	0.25	-0.25	0.50	30152 20.401	30160 20.401	
21.400	0.50	6.20	-0.40	2.00	0.20	-0.20	0.50	30152 21.400		
21.400	0.50	10.00	-0.40	2.50	0.25	-0.25	0.50	30152 21.401		
22.400	0.50	6.20	-0.40	2.00	0.20	-0.20	0.50	30152 22.400		
22.400	0.50	11.00	-0.40	2.50	0.25	-0.25	0.50	30152 22.401		
23.400	0.50	7.50	-0.40	2.00	0.20	-0.20	0.50	30152 23.400		
23.400	0.50	11.00	-0.40	2.50	0.25	-0.25	0.50	30152 23.401		
24.400	0.50	7.50	-0.40	2.00	0.20	-0.20	0.50	30152 24.400		
24.400	0.50	12.00	-0.50	3.00	0.25	-0.25	0.50	30152 24.401		
25.400	0.50	7.50	-0.40	2.00	0.20	-0.20	0.50	30152 25.400	30160 25.400	
25.400	0.50	12.00	-0.50	3.00	0.25	-0.25	0.50	30152 25.401	30160 25.401	
26.400	0.50	7.50	-0.40	2.00	0.20	-0.20	0.50	30152 26.400		
26.400	0.50	13.00	-0.50	3.00	0.25	-0.25	0.50	30152 26.401		
28.400	0.50	9.00	-0.40	2.50	0.20	-0.25	0.50	30152 28.400		
28.400	0.50	14.00	-0.50	3.00	0.25	-0.25	0.50	30152 28.401		
30.400	0.50	9.00	-0.40	2.50	0.25	-0.25	0.50	30152 30.401		
30.400	0.50	14.00	-0.50	3.00	0.25	-0.25	0.50	30152 30.400		
32.400	0.70	9.00	-0.40	2.50	0.25	-0.25	0.50	30152 32.400	30160 32.400	
32.400	0.70	14.00	-0.50	3.00	0.25	-0.25	0.50	30152 32.401	30160 32.401	



Rods, ground h6

with 2 parallel coolant ducts

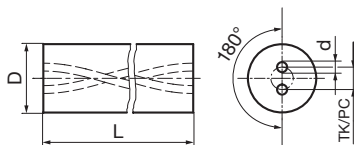


							Type	GC100S
							Article no.	30177
							Overall length	330
D h6 mm	Pitch circle mm		d mm			Centre offset mm	Order no.	
4.000	1.80	-0.15	0.80	0.10	-0.10	0.10	30177 4.000	
5.000	2.00	-0.15	0.80	0.10	-0.10	0.13	30177 5.000	
6.000	1.50	-0.20	0.80	0.10	-0.10	0.15	30177 6.000	
6.000	2.00	-0.20	0.80	0.10	-0.10	0.15	30177 6.005	
6.000	2.40	-0.20	1.00	0.10	-0.10	0.15	30177 6.006	
6.000	3.00	-0.20	1.00	0.10	-0.10	0.15	30177 6.001	
7.000	1.80	-0.20	0.80	0.10	-0.10	0.15	30177 7.000	
7.000	3.50	-0.20	1.00	0.10	-0.10	0.15	30177 7.001	
8.000	1.50	-0.20	0.80	0.10	-0.10	0.15	30177 8.000	
8.000	2.00	-0.20	0.80	0.10	-0.10	0.15	30177 8.003	
8.000	2.60	-0.20	1.00	0.10	-0.10	0.20	30177 8.001	
8.000	4.00	-0.20	1.00	0.10	-0.10	0.15	30177 8.002	
9.000	2.60	-0.30	1.00	0.15	-0.15	0.20	30177 9.000	
9.000	4.00	-0.30	1.40	0.15	-0.15	0.20	30177 9.001	
9.525	2.60	-0.30	1.00	0.15	-0.15	0.20	30177 9.520	
9.525	5.00	-0.30	1.40	0.15	-0.15	0.20	30177 9.521	
10.000	2.60	-0.30	1.00	0.15	-0.15	0.20	30177 10.000	
10.000	3.50	-0.30	1.20	0.15	-0.15	0.15	30177 10.002	
10.000	5.00	-0.30	1.40	0.15	-0.15	0.20	30177 10.001	
11.000	3.50	-0.30	1.20	0.15	-0.15	0.28	30177 11.000	
11.000	5.00	-0.30	1.40	0.15	-0.15	0.28	30177 11.001	
12.000	3.50	-0.30	1.20	0.15	-0.15	0.30	30177 12.000	
12.000	6.00	-0.30	1.75	0.15	-0.15	0.30	30177 12.001	
12.700	3.50	-0.30	1.20	0.15	-0.15	0.30	30177 12.700	
12.700	6.00	-0.30	1.75	0.15	-0.15	0.30	30177 12.701	
13.000	3.50	-0.30	1.20	0.15	-0.15	0.34	30177 13.000	
13.000	6.00	-0.30	1.75	0.15	-0.15	0.34	30177 13.001	
14.000	5.00	-0.30	1.50	0.15	-0.15	0.37	30177 14.000	
14.000	7.00	-0.30	1.75	0.15	-0.15	0.37	30177 14.001	
15.000	5.00	-0.30	1.50	0.15	-0.15	0.40	30177 15.000	
15.000	7.00	-0.30	2.00	0.15	-0.15	0.40	30177 15.001	
15.875	5.00	-0.30	1.50	0.15	-0.15	0.40	30177 15.870	
15.875	8.00	-0.30	2.00	0.15	-0.15	0.40	30177 15.871	
16.000	5.00	-0.30	1.50	0.15	-0.15	0.40	30177 16.000	
16.000	8.00	-0.30	2.00	0.15	-0.15	0.40	30177 16.001	
17.000	6.20	-0.30	2.00	0.20	-0.20	0.47	30177 17.000	
17.000	8.00	-0.30	2.00	0.20	-0.20	0.47	30177 17.001	
18.000	6.20	-0.30	2.00	0.20	-0.20	0.50	30177 18.000	
18.000	9.00	-0.30	2.00	0.20	-0.20	0.50	30177 18.001	
19.000	9.00	-0.30	2.00	0.20	-0.20	0.50	30177 19.001	
19.050	6.20	-0.30	2.00	0.20	-0.20	0.50	30177 19.050	
19.050	9.00	-0.30	2.00	0.20	-0.20	0.50	30177 19.051	
20.000	3.50	-0.40	1.50	0.20	-0.20	0.34	30177 20.002	
20.000	6.20	-0.40	2.00	0.20	-0.20	0.50	30177 20.000	
20.000	10.00	-0.40	2.50	0.20	-0.20	0.50	30177 20.001	
21.000	6.20	-0.40	2.00	0.20	-0.20	0.50	30177 21.000	
21.000	10.00	-0.40	2.50	0.20	-0.20	0.50	30177 21.001	
22.000	6.20	-0.40	2.00	0.20	-0.20	0.50	30177 22.000	
22.000	11.00	-0.40	2.50	0.20	-0.20	0.50	30177 22.001	
23.000	11.00	-0.40	2.50	0.25	-0.25	0.50	30177 23.000	
24.000	7.50	-0.40	2.00	0.20	-0.20	0.50	30177 24.000	
24.000	12.00	-0.40	3.00	0.20	-0.20	0.50	30177 24.001	
25.000	7.50	-0.40	2.00	0.20	-0.20	0.50	30177 25.000	
25.000	12.00	-0.40	3.00	0.20	-0.20	0.50	30177 25.001	
25.400	7.50	-0.30	2.00	0.15	-0.15	0.34	30177 25.402	
26.000	13.00	-0.50	3.00	0.25	-0.25	0.50	30177 26.000	
28.000	9.00	-0.40	2.50	0.20	-0.25	0.50	30177 28.000	
28.000	14.00	-0.40	3.00	0.20	-0.25	0.50	30177 28.001	
30.000	9.00	-0.50	2.50	0.25	-0.25	0.50	30177 30.001	
30.000	14.00	-0.50	3.00	0.25	-0.25	0.50	30177 30.000	
32.000	9.00	-0.40	2.50	0.25	-0.25	0.50	30177 32.000	
32.000	14.00	-0.40	3.00	0.25	-0.25	0.50	30177 32.001	



Rods, blank

with 2 coolant ducts, 15° twist

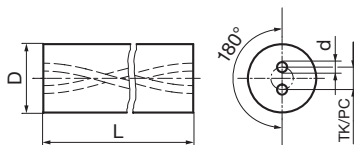


												Type	GC100S
												Article no.	30202
												Overall length	330
												Order no.	
D mm	Pitch circle mm			d mm			Centre offset mm			Pitch mm			Order no.
4.300	0.30	2.10	0.10	-0.10	0.60	0.10	-0.10	0.08	46.90	1.69	-1.59	30202 4.300	
5.300	0.30	2.60	0.15	-0.15	0.70	0.10	-0.10	0.13	58.62	2.12	-1.98	30202 5.300	
6.300	0.30	2.60		-0.40	0.70	0.10	-0.10	0.15	70.35	2.54	-2.38	30202 6.300	
8.300	0.30	3.60		-0.40	1.25	0.15	-0.15	0.15	93.80	3.38	-3.17	30202 8.300	
10.300	0.30	4.80		-0.60	1.40	0.15	-0.15	0.20	117.25	4.23	-3.96	30202 10.300	
12.300	0.40	6.25		-0.80	1.55	0.15	-0.15	0.30	140.70	5.08	-4.76	30202 12.300	
14.300	0.40	6.70		-0.80	1.90	0.20	-0.20	0.37	164.14	5.92	-5.55	30202 14.300	
16.300	0.40	8.00		-0.80	2.10	0.25	-0.25	0.40	187.59	6.77	-6.34	30202 16.300	
18.300	0.50	9.00		-0.80	2.30	0.25	-0.25	0.50	211.04	7.61	-7.13	30202 18.300	
20.300	0.50	10.00		-1.00	2.50	0.30	-0.30	0.50	234.49	8.46	-7.93	30202 20.300	
23.300	0.50	12.00		-1.00	2.50	0.30	-0.30	0.50	269.67	9.73	-9.12	30202 23.300	
26.300	0.50	12.00		-1.00	2.50	0.30	-0.30	0.50	304.84	11.00	-10.31	30202 26.300	



Rods, ground h6

with 2 coolant ducts, 15° twist

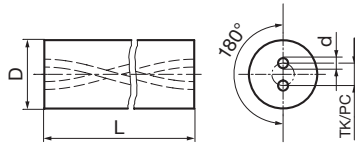


										Type	GC100S
										Article no.	30222
										Overall length	330
D h6 mm	Pitch circle mm		d mm			Centre offset mm		Pitch mm		Order no.	
6.000	2.60	-0.40	0.70	0.10	-0.10	0.15	70.35	2.54	-2.38	30222 6.000	
8.000	3.60	-0.40	1.25	0.15	-0.15	0.15	93.80	3.38	-3.17	30222 8.000	
10.000	4.80	-0.60	1.40	0.15	-0.15	0.20	117.25	4.23	-3.96	30222 10.000	
12.000	6.25	-0.80	1.55	0.15	-0.15	0.30	140.70	5.08	-4.76	30222 12.000	
14.000	6.70	-0.80	1.90	0.20	-0.20	0.37	164.14	5.92	-5.55	30222 14.000	
16.000	8.00	-0.80	2.10	0.25	-0.25	0.40	187.59	6.77	-6.34	30222 16.000	
18.000	9.00	-0.80	2.30	0.25	-0.25	0.50	211.04	7.61	-7.13	30222 18.000	
20.000	10.00	-1.00	2.50	0.30	-0.30	0.50	234.49	8.46	-7.93	30222 20.000	



Rods, blank

with 2 coolant ducts, 30° twist

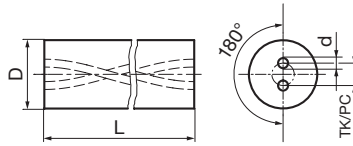


												Type	
												GC100S	GC100S
												30232	30242
												Article no.	Article no.
												Overall length	Overall length
												330	415
												Order no.	Order no.
D		Pitch circle				d	Centre offset		Pitch				
mm		mm			mm	mm	mm	mm	mm	mm	mm		
3.300	0.30	1.60	0.10	-0.10	0.40	0.10	-0.10	0.08	16.32	0.33	-0.32	30232 3.300	
3.800	0.30	1.80	0.10	-0.10	0.50	0.10	-0.10	0.09	19.04	0.39	-0.38	30232 3.800	
4.300	0.30	2.10	0.10	-0.10	0.60	0.10	-0.10	0.08	21.77	0.45	-0.43	30232 4.300	
4.800	0.30	2.30	0.10	-0.10	0.70	0.10	-0.10	0.08	24.49	0.50	-0.49	30232 4.800	
5.300	0.30	2.60	0.15	-0.15	0.70	0.10	-0.10	0.13	27.21	0.56	-0.54	30232 5.300	
5.800	0.30	2.60		-0.40	0.70	0.10	-0.10	0.14	29.93	0.61	-0.59	30232 5.800	
6.300	0.30	2.00		-0.20	0.80	0.10	-0.10	0.15	32.65	0.67	-0.65	30232 6.301	
6.300	0.30	2.60		-0.40	0.70	0.10	-0.10	0.15	32.65	0.67	-0.65	30232 6.300	30242 6.300
6.300	0.30	2.60		-0.40	0.90	0.10	-0.10	0.15	32.65	0.67	-0.65	30232 6.302	
6.800	0.30	3.50		-0.40	1.00	0.15	-0.15	0.15	35.37	0.72	-0.70	30232 6.800	
7.300	0.30	3.50		-0.40	1.00	0.15	-0.15	0.15	38.09	0.78	-0.76	30232 7.300	
7.800	0.30	3.50		-0.40	1.00	0.15	-0.15	0.15	40.81	0.84	-0.81	30232 7.800	
8.300	0.30	3.50		-0.40	0.90	0.10	-0.10	0.15	43.53	0.89	-0.86	30232 8.301	
8.300	0.30	3.60		-0.40	1.25	0.15	-0.15	0.15	43.53	0.89	-0.86	30232 8.300	30242 8.300
8.800	0.30	3.60		-0.40	1.25	0.15	-0.15	0.20	46.25	0.95	-0.92	30232 8.800	
9.300	0.30	4.80		-0.60	1.40	0.15	-0.15	0.20	48.97	1.00	-0.97	30232 9.300	
9.800	0.30	4.80		-0.60	1.40	0.15	-0.15	0.20	51.69	1.06	-1.03	30232 9.800	
10.300	0.30	4.80		-0.60	0.90	0.10	-0.10	0.20	54.41	1.11	-1.08	30232 10.301	
10.300	0.30	4.80		-0.60	1.40	0.15	-0.15	0.20	54.41	1.11	-1.08	30232 10.300	30242 10.300
10.800	0.30	4.80		-0.60	1.40	0.15	-0.15	0.28	57.13	1.17	-1.13	30232 10.800	
11.300	0.40	5.30		-0.80	1.40	0.15	-0.15	0.28	59.86	1.22	-1.19	30232 11.300	30242 11.300
11.800	0.30	5.80		-0.80	1.40	0.15	-0.15	0.30	62.58	1.28	-1.24	30232 11.800	
12.300	0.30	5.40		-0.80	1.50	0.15	-0.15	0.30	65.30	1.34	-1.30	30232 12.301	
12.300	0.40	6.25		-0.80	1.55	0.15	-0.15	0.30	65.30	1.34	-1.30	30232 12.300	30242 12.300
12.800	0.30	6.25		-0.80	1.55	0.15	-0.15	0.33	68.02	1.39	-1.35	30232 12.800	
13.300	0.30	6.50		-0.80	1.75	0.20	-0.20	0.34	70.74	1.45	-1.40	30232 13.300	
13.800	0.30	6.80		-0.80	1.75	0.20	-0.20	0.35	73.46	1.50	-1.46	30232 13.800	
14.300	0.40	6.70		-0.80	1.90	0.20	-0.20	0.37	76.18	1.56	-1.51	30232 14.300	30242 14.300
14.800	0.30	6.70		-0.80	1.90	0.20	-0.20	0.39	78.90	1.61	-1.57	30232 14.800	
15.300	0.30	7.40		-0.80	1.90	0.20	-0.20	0.40	81.62	1.67	-1.62	30232 15.300	
15.800	0.40	7.40		-0.80	1.90	0.20	-0.20	0.40	84.34	1.73	-1.67	30232 15.800	
16.300	0.40	8.00		-0.80	2.10	0.25	-0.25	0.40	87.06	1.78	-1.73	30232 16.300	30242 16.300
16.800	0.40	8.00		-0.80	2.10	0.25	-0.25	0.45	89.78	1.84	-1.78	30232 16.800	
17.300	0.40	8.00		-0.80	2.10	0.25	-0.25	0.47	92.50	1.89	-1.84	30232 17.300	
17.800	0.40	8.00		-0.80	2.10	0.25	-0.25	0.48	95.22	1.95	-1.89	30232 17.800	
18.300	0.50	9.00		-0.80	2.30	0.25	-0.25	0.50	97.95	2.00	-1.94	30232 18.300	30242 18.300
18.800	0.40	9.00		-0.80	2.30	0.25	-0.25	0.50	100.67	2.06	-2.00	30232 18.800	
19.300	0.40	9.00		-0.80	2.30	0.25	-0.25	0.50	103.39	2.12	-2.05	30232 19.300	
19.800	0.50	9.00		-0.80	2.30	0.25	-0.25	0.50	106.11	2.17	-2.11	30232 19.800	
20.300	0.50	10.00		-1.00	2.50	0.30	-0.30	0.50	108.83	2.23	-2.16	30232 20.300	30242 20.300
21.300	0.50	10.00		-1.00	2.50	0.30	-0.30	0.50	114.27	2.34	-2.27	30232 21.300	
22.300	0.50	10.00		-1.00	2.50	0.30	-0.30	0.50	119.71	2.45	-2.38	30232 22.300	
23.300	0.50	12.00		-1.00	2.50	0.30	-0.30	0.50	125.15	2.56	-2.48	30232 23.300	
24.300	0.50	12.00		-1.00	2.50	0.30	-0.30	0.50	130.59	2.67	-2.59	30232 24.300	
25.300	0.50	12.00		-1.00	2.50	0.30	-0.30	0.50	136.03	2.78	-2.70	30232 25.300	30242 25.300
26.300	0.50	12.00		-1.00	2.50	0.30	-0.30	0.50	141.48	2.90	-2.81	30232 26.300	
27.300	0.50	14.30		-1.20	2.50	0.30	-0.30	0.60	146.92	3.01	-2.92	30232 27.300	
28.300	0.50	14.80		-1.20	2.50	0.30	-0.30	0.60	152.36	3.12	-3.02	30232 28.300	
29.300	0.50	15.40		-1.20	2.50	0.30	-0.30	0.60	157.80	3.23	-3.13	30232 29.300	
30.300	0.50	16.00		-1.20	2.50	0.30	-0.30	0.70	163.24	3.34	-3.24	30232 30.300	
32.300	0.70	17.20		-1.20	3.00	0.30	-0.30	0.80	174.12	3.56	-3.46	30232 32.300	30242 32.300
33.300	0.70	17.80		-1.20	3.00	0.30	-0.30	0.80	179.57	3.67	-3.57	30232 33.300	



Rods, ground h6

with 2 coolant ducts, 30° twist

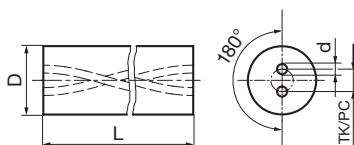


										Type	GC100S
										Article no.	30252
										Overall length	330
D h6 mm	Pitch circle mm		d mm			Centre offset mm	Pitch mm			Order no.	
6.000	2.60	-0.40	0.70	0.10	-0.10	0.15	32.65	0.67	-0.65	30252 6.000	
7.000	3.50	-0.40	1.00	0.15	-0.15	0.15	38.09	0.78	-0.76	30252 7.000	
8.000	3.60	-0.40	1.25	0.15	-0.15	0.15	43.53	0.89	-0.86	30252 8.000	
9.000	4.80	-0.60	1.40	0.15	-0.15	0.20	48.97	1.00	-0.97	30252 9.000	
10.000	4.80	-0.60	1.40	0.15	-0.15	0.20	54.41	1.11	-1.08	30252 10.000	
11.000	5.30	-0.80	1.40	0.15	-0.15	0.28	59.86	1.22	-1.19	30252 11.000	
12.000	6.25	-0.80	1.55	0.15	-0.15	0.30	65.30	1.34	-1.30	30252 12.000	
13.000	6.50	-0.80	1.75	0.20	-0.20	0.34	70.74	1.45	-1.40	30252 13.000	
14.000	6.70	-0.80	1.90	0.20	-0.20	0.37	76.18	1.56	-1.51	30252 14.000	
15.000	7.40	-0.80	1.90	0.20	-0.20	0.40	81.62	1.67	-1.62	30252 15.000	
16.000	8.00	-0.80	2.10	0.25	-0.25	0.40	87.06	1.78	-1.73	30252 16.000	
17.000	8.00	-0.80	2.10	0.25	-0.25	0.47	92.50	1.89	-1.84	30252 17.000	
18.000	9.00	-0.80	2.30	0.25	-0.25	0.50	97.95	2.00	-1.94	30252 18.000	
20.000	10.00	-1.00	2.50	0.30	-0.30	0.50	108.83	2.23	-2.16	30252 20.000	
21.000	10.00	-1.00	2.50	0.30	-0.30	0.50	114.27	2.34	-2.27	30252 21.000	
22.000	10.00	-1.00	2.50	0.30	-0.30	0.50	119.71	2.45	-2.38	30252 22.000	
24.000	12.80	-1.00	2.00	0.30	-0.30	0.50	130.59	2.67	-2.59	30252 24.000	
25.000	12.00	-1.00	2.50	0.30	-0.30	0.50	136.03	2.78	-2.70	30252 25.000	
26.000	12.00	-1.00	2.50	0.30	-0.30	0.50	141.48	2.90	-2.81	30252 26.000	
28.000	14.80	-1.20	2.50	0.30	-0.30	0.60	152.36	3.12	-3.02	30252 28.000	
30.000	16.00	-1.20	2.50	0.30	-0.30	0.70	163.24	3.34	-3.24	30252 30.000	
32.000	17.20	-1.20	3.00	0.30	-0.30	0.80	174.12	3.56	-3.46	30252 32.000	



Rods, blank

with 2 coolant ducts, 40° twist

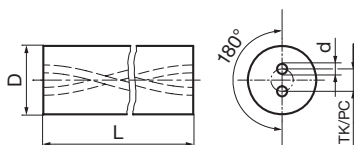


											Type	
											GC100S	GC100S
											30272	30282
											330	415
											Order no.	Order no.
											Article no.	
											Overall length	
D mm		Pitch circle mm		d mm		Centre offset mm		Pitch mm			Order no.	
6.300	0.30	1.30	-0.20	0.30	0.05	-0.05	0.10	22.46	0.40	-0.39	30272 6.301	
6.300	0.30	1.40	-0.20	0.40	0.05	-0.05	0.15	22.46	0.40	-0.39	30272 6.302	
6.300	0.30	2.20	-0.40	0.50	0.15	-0.15	0.15	22.46	0.40	-0.39	30272 6.300	
6.800	0.30	2.30	-0.40	0.50	0.15	-0.15	0.15	24.34	0.44	-0.43	30272 6.800	
7.300	0.30	2.40	-0.40	0.65	0.15	-0.15	0.15	26.21	0.47	-0.46	30272 7.300	
7.800	0.30	2.50	-0.40	0.65	0.15	-0.15	0.15	28.08	0.50	-0.49	30272 7.800	
8.300	0.30	1.70	-0.20	0.40	0.05	-0.05	0.10	29.95	0.54	-0.53	30272 8.301	
8.300	0.30	2.70	-0.60	0.65	0.15	-0.15	0.15	29.95	0.54	-0.53	30272 8.300	
8.800	0.30	2.90	-0.60	0.65	0.15	-0.15	0.20	31.82	0.57	-0.56	30272 8.800	
9.300	0.30	3.20	-0.60	0.75	0.15	-0.15	0.20	33.70	0.60	-0.59	30272 9.300	
9.800	0.30	3.50	-0.60	0.75	0.15	-0.15	0.20	35.57	0.64	-0.62	30272 9.800	
10.300	0.40	2.10	-0.20	0.50	0.10	-0.10	0.20	37.44	0.67	-0.66	30272 10.301	
10.300	0.40	3.00	-0.40	1.00	0.20	-0.20	0.20	37.44	0.67	-0.66	30272 10.302	
10.300	0.40	3.50	-0.80	0.80	0.15	-0.15	0.20	37.44	0.67	-0.66	30272 10.300	30282 10.300
10.800	0.40	3.50	-0.80	0.80	0.15	-0.15	0.28	39.31	0.70	-0.69	30272 10.800	
11.300	0.40	3.70	-0.80	0.80	0.15	-0.15	0.28	41.18	0.74	-0.72	30272 11.300	
11.800	0.40	4.00	-0.80	0.85	0.15	-0.15	0.30	43.06	0.77	-0.76	30272 11.800	
12.300	0.40	2.50	-0.40	0.60	0.10	-0.10	0.20	44.93	0.80	-0.79	30272 12.301	
12.300	0.40	4.20	-0.80	0.90	0.20	-0.20	0.30	44.93	0.80	-0.79	30272 12.300	30282 12.300
12.800	0.40	4.35	-0.80	0.90	0.20	-0.20	0.33	46.80	0.84	-0.82	30272 12.800	
13.300	0.40	4.40	-0.80	0.90	0.20	-0.20	0.34	48.67	0.87	-0.85	30272 13.300	
14.300	0.40	2.90	-0.40	0.70	0.10	-0.10	0.20	52.42	0.94	-0.92	30272 14.301	
14.300	0.40	4.70	-0.80	1.00	0.20	-0.20	0.37	52.42	0.94	-0.92	30272 14.300	30282 14.300
14.800	0.40	4.90	-0.80	1.10	0.20	-0.20	0.39	54.29	0.97	-0.95	30272 14.800	
15.300	0.50	5.10	-0.80	1.10	0.20	-0.20	0.40	56.16	1.01	-0.99	30272 15.300	
16.300	0.50	3.30	-0.40	0.80	0.10	-0.10	0.20	59.90	1.07	-1.05	30272 16.301	
16.300	0.50	5.50	-0.80	1.20	0.20	-0.20	0.40	59.90	1.07	-1.05	30272 16.300	30282 16.300
16.800	0.50	5.75	-0.80	1.20	0.20	-0.20	0.45	61.78	1.11	-1.08	30272 16.800	
17.300	0.50	5.90	-0.80	1.20	0.25	-0.25	0.47	63.65	1.14	-1.12	30272 17.300	
18.300	0.50	3.70	-0.40	0.90	0.15	-0.15	0.20	67.39	1.21	-1.18	30272 18.301	
18.300	0.50	6.30	-0.80	1.40	0.25	-0.25	0.50	67.39	1.21	-1.18	30272 18.300	30282 18.300
19.300	0.50	6.70	-1.00	1.40	0.25	-0.25	0.50	71.14	1.27	-1.25	30272 19.300	
20.300	0.50	4.10	-0.40	1.00	0.15	-0.15	0.20	74.88	1.34	-1.31	30272 20.301	
20.300	0.50	7.10	-1.00	1.50	0.25	-0.25	0.50	74.88	1.34	-1.31	30272 20.300	30282 20.300
21.300	0.50	7.40	-1.00	1.50	0.25	-0.25	0.50	78.62	1.41	-1.38	30272 21.300	
22.300	0.50	7.70	-1.00	1.70	0.25	-0.25	0.50	82.37	1.48	-1.44	30272 22.300	
24.300	0.50	8.00	-1.00	1.75	0.25	-0.25	0.50	89.86	1.61	-1.58	30272 24.300	
25.300	0.50	5.10	-0.60	1.30	0.15	-0.15	0.20	93.60	1.68	-1.64	30272 25.301	
25.300	0.50	8.10	-1.00	1.75	0.25	-0.25	0.50	93.60	1.68	-1.64	30272 25.300	30282 25.300
26.300	0.50	8.20	-1.00	1.75	0.25	-0.25	0.50	97.34	1.74	-1.71	30272 26.300	
28.300	0.50	9.00	-1.20	2.00	0.30	-0.30	0.50	104.83	1.88	-1.84	30272 28.300	
30.300	0.50	10.00	-1.20	2.00	0.30	-0.30	0.50	112.32	2.01	-1.97	30272 30.300	
32.300	0.50	6.50	-0.80	1.60	0.20	-0.20	0.25	119.81	2.15	-2.10	30272 32.301	
32.300	0.50	11.00	-1.20	2.00	0.30	-0.30	0.50	119.81	2.15	-2.10	30272 32.300	30282 32.300



Rods, ground h6

with 2 coolant ducts, 40° twist



Type
Article no.
Overall length

GC100S

30292

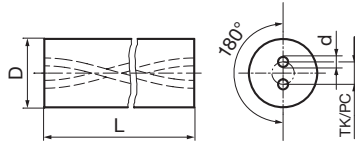
330.000

D h6 mm		Pitch circle mm		d mm			Centre offset mm	Pitch mm			Order no.
6.000	1.30	-0.20	0.30	0.05	-0.05	0.10	22.46	0.40	-0.39	30292 6.001	
6.000	1.40	-0.20	0.40	0.05	-0.05	0.15	22.46	0.40	-0.39	30292 6.002	
6.000	2.20	-0.40	0.50	0.15	-0.15	0.15	22.46	0.40	-0.39	30292 6.000	
7.000	2.40	-0.40	0.65	0.15	-0.15	0.15	26.21	0.47	-0.46	30292 7.000	
8.000	1.70	-0.20	0.40	0.05	-0.05	0.10	29.95	0.54	-0.53	30292 8.001	
8.000	2.70	-0.60	0.65	0.15	-0.15	0.15	29.95	0.54	-0.53	30292 8.000	
9.000	3.20	-0.60	0.75	0.15	-0.15	0.20	33.70	0.60	-0.59	30292 9.000	
10.000	2.10	-0.20	0.50	0.10	-0.10	0.20	37.44	0.67	-0.66	30292 10.001	
10.000	3.50	-0.80	0.80	0.15	-0.15	0.20	37.44	0.67	-0.66	30292 10.000	
11.000	3.70	-0.80	0.80	0.15	-0.15	0.28	41.18	0.74	-0.72	30292 11.000	
12.000	2.50	-0.40	0.60	0.10	-0.10	0.20	44.93	0.80	-0.79	30292 12.001	
12.000	4.20	-0.80	0.90	0.20	-0.20	0.30	44.93	0.80	-0.79	30292 12.000	
13.000	4.40	-0.80	0.90	0.20	-0.20	0.34	48.67	0.87	-0.85	30292 13.000	
14.000	2.90	-0.40	0.70	0.10	-0.10	0.20	52.42	0.94	-0.92	30292 14.001	
14.000	4.70	-0.80	1.00	0.20	-0.20	0.37	52.42	0.94	-0.92	30292 14.000	
15.000	5.10	-0.80	1.10	0.20	-0.20	0.40	56.16	1.01	-0.99	30292 15.000	
16.000	3.30	-0.40	0.80	0.10	-0.10	0.20	59.90	1.07	-1.05	30292 16.001	
16.000	5.50	-0.80	1.20	0.20	-0.20	0.47	59.90	1.07	-1.05	30292 16.000	
18.000	3.70	-0.40	0.90	0.15	-0.15	0.20	67.39	1.21	-1.18	30292 18.001	
18.000	6.30	-0.80	1.40	0.25	-0.25	0.50	67.39	1.21	-1.18	30292 18.000	
20.000	4.10	-0.40	1.00	0.15	-0.15	0.20	74.88	1.34	-1.31	30292 20.001	
20.000	7.10	-1.00	1.50	0.25	-0.25	0.50	74.88	1.34	-1.31	30292 20.000	
22.000	7.70	-1.00	1.70	0.25	-0.25	0.50	82.37	1.48	-1.44	30292 22.000	
25.000	5.10	-0.60	1.30	0.15	-0.15	0.20	93.60	1.68	-1.64	30292 25.001	
25.000	8.10	-1.00	1.75	0.25	-0.25	0.50	93.60	1.68	-1.64	30292 25.000	
26.000	8.20	-1.00	1.75	0.25	-0.25	0.50	97.34	1.74	-1.71	30292 26.000	



Rods, blank

with 2 coolant ducts, micro-twist



Type
Article no.
Overall length

GC100S

30712

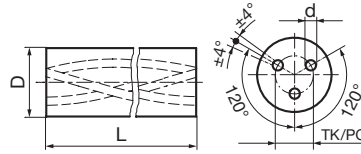
330

D mm		Pitch circle mm			d mm			Centre offset mm	Pitch mm			Order no.
4.300	0.30	0.50	0.10	-0.10	0.23	0.05	-0.05	0.05	10.79	0.20	-0.20	30712 4.125
4.300	0.30	0.80	0.10	-0.10	0.23	0.05	-0.05	0.05	11.12	0.20	-0.20	30712 4.165
4.300	0.30	1.00	0.20	-0.20	0.30	0.05	-0.05	0.05	10.61	0.20	-0.20	30712 4.195
6.300	0.30	1.00	0.20	-0.20	0.45	0.05	-0.05	0.05	12.79	0.30	-0.30	30712 6.225
6.300	0.30	1.20	0.20	-0.20	0.50	0.06	-0.06	0.05	15.24	0.30	-0.30	30712 6.275
6.300	0.30	1.50	0.20	-0.20	0.55	0.07	-0.07	0.05	17.68	0.30	-0.30	30712 6.325
6.300	0.30	1.70	0.20	-0.20	0.60	0.08	-0.08	0.05	20.41	0.30	-0.30	30712 6.375
6.300	0.30	2.00	0.20	-0.20	0.70	0.10	-0.10	0.05	23.13	0.30	-0.30	30712 6.425
6.300	0.30	2.30	0.20	-0.20	0.80	0.10	-0.10	0.05	25.85	0.30	-0.30	30712 6.475
6.300	0.30	2.60	0.20	-0.20	0.90	0.10	-0.10	0.05	28.57	0.30	-0.30	30712 6.525
6.300	0.30	2.80	0.20	-0.20	1.00	0.10	-0.10	0.05	31.29	0.30	-0.30	30712 6.575



Rods, blank

with 3 coolant ducts, 30° twist

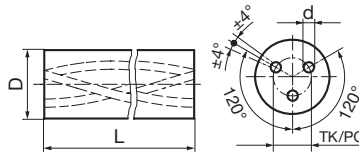


										Type	GC100S	GC100S
										Article no.	30302	30312
										Overall length	330	415
											Order no.	Order no.
D		Pitch circle		d			Pitch					
mm		mm		mm			mm					
6.300	0.30	2.90	-0.30	0.50	0.10	-0.10	32.65	0.67	-0.65		30302 6.300	
6.800	0.30	2.90	-0.30	0.50	0.10	-0.10	35.37	0.72	-0.70		30302 6.800	
8.300	0.30	4.00	-0.30	0.70	0.10	-0.10	43.53	0.89	-0.86		30302 8.300	
8.800	0.30	4.00	-0.30	0.70	0.10	-0.10	46.25	0.95	-0.92		30302 8.800	
9.300	0.30	5.10	-0.30	0.85	0.15	-0.15	48.97	1.00	-0.97		30302 9.300	
10.300	0.30	5.10	-0.30	0.85	0.15	-0.15	54.41	1.11	-1.08		30302 10.300	30312 10.300
10.800	0.30	5.10	-0.50	0.85	0.15	-0.15	57.13	1.17	-1.13		30302 10.800	
11.300	0.30	5.70	-0.50	1.10	0.15	-0.15	59.86	1.22	-1.19		30302 11.300	
11.800	0.30	6.10	-0.50	1.10	0.15	-0.15	62.58	1.28	-1.24		30302 11.800	
12.300	0.40	6.30	-0.50	1.10	0.15	-0.15	65.30	1.34	-1.30		30302 12.300	30312 12.300
12.800	0.30	6.30	-0.50	1.10	0.15	-0.15	68.02	1.39	-1.35		30302 12.800	
13.300	0.30	6.80	-0.50	1.20	0.15	-0.15	70.74	1.45	-1.40		30302 13.300	
14.300	0.40	7.30	-0.50	1.40	0.15	-0.15	76.18	1.56	-1.51		30302 14.300	30312 14.300
14.800	0.30	7.60	-0.50	1.40	0.15	-0.15	78.90	1.61	-1.57		30302 14.800	
15.300	0.30	7.80	-0.50	1.40	0.15	-0.15	81.62	1.67	-1.62		30302 15.300	
16.300	0.40	8.30	-0.50	1.60	0.15	-0.15	87.06	1.78	-1.73		30302 16.300	30312 16.300
16.800	0.40	8.30	-0.50	1.60	0.20	-0.20	89.78	1.84	-1.78		30302 16.800	
17.300	0.40	8.60	-0.50	1.60	0.20	-0.20	92.50	1.89	-1.84		30302 17.300	
18.300	0.50	9.50	-0.50	1.70	0.20	-0.20	97.95	2.00	-1.94		30302 18.300	30312 18.300
20.300	0.50	10.20	-0.70	1.90	0.25	-0.25	108.83	2.23	-2.16		30302 20.300	30312 20.300
21.300	0.50	11.10	-0.70	2.00	0.25	-0.25	114.27	2.34	-2.27		30302 21.300	
22.300	0.50	11.50	-0.70	2.00	0.25	-0.25	119.71	2.45	-2.38		30302 22.300	
23.300	0.50	11.80	-0.70	2.00	0.25	-0.25	125.15	2.56	-2.48		30302 23.300	
24.300	0.50	12.10	-0.70	2.00	0.25	-0.25	130.59	2.67	-2.59		30302 24.300	
25.300	0.50	12.50	-0.70	2.00	0.25	-0.25	136.03	2.78	-2.70		30302 25.300	30312 25.300
26.300	0.50	13.10	-0.70	2.00	0.25	-0.25	141.48	2.90	-2.81		30302 26.300	
27.300	0.50	13.60	-0.90	2.50	0.30	-0.30	146.92	3.01	-2.92		30302 27.300	
28.300	0.50	14.10	-0.90	2.50	0.30	-0.30	152.36	3.12	-3.02		30302 28.300	
29.300	0.50	14.60	-0.90	2.50	0.30	-0.30	157.80	3.23	-3.13		30302 29.300	
32.300	0.50	16.10	-1.20	3.00	0.30	-0.30	174.12	3.56	-3.46		30302 32.300	30312 32.300
33.300	0.70	16.60	-1.20	3.00	0.30	-0.30	179.57	3.67	-3.57		30302 33.300	



Rods, ground h6

with 3 coolant ducts, 30° twist



Type
Article no.
Overall length

GC100S

30322

330

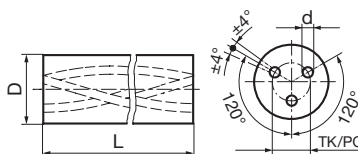
Order no.

D h6 mm	Pitch circle mm	d mm			Pitch mm			Order no.
6.000	2.90 -0.30	0.50	0.10	-0.10	32.65	0.67	-0.65	30322 6.000
8.000	4.00 -0.30	0.70	0.10	-0.10	43.53	0.89	-0.86	30322 8.000
10.000	5.10 -0.30	0.85	0.15	-0.15	54.41	1.11	-1.08	30322 10.000
12.000	6.30 -0.50	1.10	0.15	-0.15	65.30	1.34	-1.30	30322 12.000
14.000	7.30 -0.50	1.40	0.15	-0.15	76.18	1.56	-1.51	30322 14.000
16.000	8.30 -0.50	1.60	0.15	-0.15	87.06	1.78	-1.73	30322 16.000
18.000	9.50 -0.50	1.70	0.20	-0.20	97.95	2.00	-1.94	30322 18.000
20.000	10.20 -0.70	1.90	0.25	-0.25	108.83	2.23	-2.16	30322 20.000
22.000	11.50 -0.70	2.00	0.25	-0.25	119.71	2.45	-2.38	30322 22.000
25.000	12.50 -0.70	2.00	0.25	-0.25	136.03	2.78	-2.70	30322 25.000
26.000	13.10 -0.70	2.00	0.25	-0.25	141.48	2.90	-2.81	30322 26.000
28.000	14.10 -0.90	2.50	0.30	-0.30	152.36	3.12	-3.02	30322 28.000
32.000	16.10 -1.20	3.00	0.30	-0.30	174.12	3.56	-3.46	30322 32.000



Rods, blank

with 3 coolant ducts, 40° twist

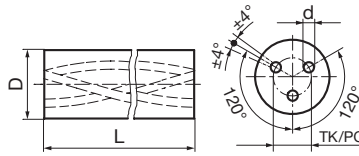


										Type	GC100S
										Article no.	30352
										Overall length	330
										Order no.	
D mm		Pitch circle mm		d mm			Pitch mm				
6.300	0.30	2.20	-0.30	0.50	0.15	-0.15	22.46	0.40	-0.39	30352 6.300	
8.300	0.30	2.70	-0.30	0.65	0.15	-0.15	29.95	0.54	-0.53	30352 8.300	
8.800	0.30	2.90	-0.30	0.65	0.15	-0.15	31.82	0.57	-0.56	30352 8.800	
10.300	0.30	3.50	-0.30	0.80	0.15	-0.15	37.44	0.67	-0.66	30352 10.300	
12.300	0.30	4.20	-0.50	0.90	0.20	-0.20	44.93	0.80	-0.79	30352 12.300	
12.800	0.30	4.35	-0.50	0.90	0.20	-0.20	46.80	0.84	-0.82	30352 12.800	
14.300	0.30	4.70	-0.50	1.00	0.20	-0.20	52.42	0.94	-0.92	30352 14.300	
15.300	0.30	5.10	-0.50	1.10	0.20	-0.20	56.16	1.01	-0.99	30352 15.300	
15.800	0.40	5.30	-0.50	1.10	0.20	-0.20	58.03	1.04	-1.02	30352 15.800	
16.300	0.40	5.50	-0.50	1.20	0.20	-0.20	59.90	1.07	-1.05	30352 16.300	
16.800	0.40	5.75	-0.50	1.20	0.20	-0.20	61.78	1.11	-1.08	30352 16.800	
18.300	0.40	6.30	-0.50	1.40	0.25	-0.25	67.39	1.21	-1.18	30352 18.300	
18.800	0.40	6.50	-0.50	1.40	0.25	-0.25	69.26	1.24	-1.21	30352 18.800	
19.300	0.40	6.70	-0.70	1.40	0.25	-0.25	71.14	1.27	-1.25	30352 19.300	
20.300	0.50	7.10	-0.70	1.50	0.25	-0.25	74.88	1.34	-1.31	30352 20.300	
21.300	0.50	7.40	-0.70	1.50	0.25	-0.25	78.62	1.41	-1.38	30352 21.300	
22.300	0.50	7.70	-0.70	1.70	0.25	-0.25	82.37	1.48	-1.44	30352 22.300	
24.300	0.50	8.00	-0.90	1.75	0.25	-0.25	89.86	1.61	-1.58	30352 24.300	
25.300	0.50	8.10	-0.90	1.75	0.25	-0.25	93.60	1.68	-1.64	30352 25.300	
26.300	0.50	8.20	-0.90	1.75	0.25	-0.25	97.34	1.74	-1.71	30352 26.300	
28.300	0.50	9.00	-0.90	2.00	0.30	-0.30	104.83	1.88	-1.84	30352 28.300	
30.300	0.50	10.00	-1.10	2.00	0.30	-0.30	112.32	2.01	-1.97	30352 30.300	
32.300	0.70	11.00	-1.10	2.00	0.30	-0.30	119.81	2.15	-2.10	30352 32.300	



Rods, ground h6

with 3 coolant ducts, 40° twist



Type
Article no.
Overall length

GC100S

30372

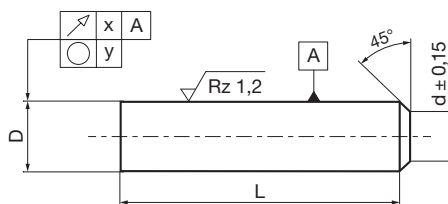
330

D h6 mm	Pitch circle mm		d mm			Pitch mm			Order no.
6.000	2.20	-0.30	0.50	0.15	-0.15	22.46	0.40	-0.39	30372 6.000
8.000	2.70	-0.30	0.65	0.15	-0.15	29.95	0.54	-0.53	30372 8.000
10.000	3.50	-0.30	0.80	0.15	-0.15	37.44	0.67	-0.66	30372 10.000
12.000	4.20	-0.50	0.90	0.20	-0.20	44.93	0.80	-0.79	30372 12.000
14.000	4.70	-0.50	1.00	0.20	-0.20	52.42	0.94	-0.92	30372 14.000
16.000	5.50	-0.50	1.20	0.20	-0.20	59.90	1.07	-1.05	30372 16.000
18.000	6.30	-0.50	1.40	0.25	-0.25	67.39	1.21	-1.18	30372 18.000
20.000	7.10	-0.70	1.50	0.25	-0.25	74.88	1.34	-1.31	30372 20.000
22.000	7.70	-0.70	1.70	0.25	-0.25	82.37	1.48	-1.44	30372 22.000
25.000	8.10	-0.90	1.75	0.25	-0.25	93.60	1.68	-1.64	30372 25.000



Milling cutter blanks, ground h6

with single-sided chamfer, according to company standard



Type
Article no.

				GC100S	
				30502	
				Order no.	
D h6 mm	d mm	L mm			
2.000		32.5	0.60	30502 2.000	
2.500		32.5	0.60	30502 2.500	
3.000	2.4	32.5	0.60	30502 3.000	
3.000	2.4	38.3	0.60	30502 3.003	
3.000	2.4	39.5	0.60	30502 3.001	
3.000	2.4	45.0	0.70	30502 3.007	
3.000	2.4	47.3	0.70	30502 3.004	
3.000	2.4	52.3	0.70	30502 3.005	
3.000	2.4	76.2	0.90	30502 3.002	
3.500	2.9	32.5	0.60	30502 3.500	
4.000	3.4	32.5	0.60	30502 4.002	
4.000	3.4	40.5	0.60	30502 4.001	
4.000	3.4	51.0	0.70	30502 4.000	
4.000	3.4	59.3	0.70	30502 4.004	
4.000	3.4	63.5	0.80	30502 4.005	
4.000	3.4	67.5	0.80	30502 4.006	
4.000	3.4	76.2	0.90	30502 4.003	
4.500	3.9	51.2	0.70	30502 4.500	
5.000	4.0	51.2	0.70	30502 5.000	
5.000	4.0	76.2	0.90	30502 5.001	
5.500	4.5	51.2	0.70	30502 5.500	
5.500	4.5	58.2	0.80	30502 5.501	
6.000	5.0	37.2	0.60	30502 6.005	
6.000	5.0	39.0	0.60	30502 6.003	
6.000	5.0	40.2	0.60	30502 6.006	
6.000	5.0	46.2	0.70	30502 6.007	
6.000	5.0	51.2	0.70	30502 6.000	
6.000	5.0	55.0	0.70	30502 6.001	
6.000	5.0	58.2	0.80	30502 6.002	
6.000	5.0	60.5	0.80	30502 6.009	
6.000	5.0	63.0	0.80	30502 6.013	
6.000	5.0	66.2	0.80	30502 6.008	
6.000	5.0	76.2	0.90	30502 6.004	
6.500	4.5	61.5	0.80	30502 6.500	
7.000	5.0	61.5	0.80	30502 7.000	
7.500	5.5	61.5	0.80	30502 7.500	
7.500	5.5	64.2	0.80	30502 7.501	
8.000	6.0	44.0	0.70	30502 8.002	
8.000	6.0	56.2	0.80	30502 8.006	
8.000	6.0	59.0	0.80	30502 8.000	
8.000	6.0	62.0	0.80	30502 8.003	
8.000	6.0	64.2	0.80	30502 8.001	
8.000	6.0	73.5	0.90	30502 8.015	
8.000	6.0	76.2	0.90	30502 8.004	
8.000	6.0	82.0	0.90	30502 8.007	
8.000	6.0	87.2	0.90	30502 8.008	
8.000	6.0	101.2	1.00	30502 8.005	
8.500	6.5	62.0	0.80	30502 8.500	
8.500	6.5	68.2	0.80	30502 8.501	
9.000	7.0	62.0	0.80	30502 9.000	
9.000	7.0	68.2	0.80	30502 9.001	
9.500	7.5	73.2	0.90	30502 9.501	
10.000	8.0	49.2	0.70	30502 10.005	
10.000	8.0	51.0	0.70	30502 10.003	
10.000	8.0	56.2	0.80	30502 10.006	
10.000	8.0	67.2	0.80	30502 10.000	
10.000	8.0	71.0	0.80	30502 10.001	
10.000	8.0	73.2	0.90	30502 10.002	
10.000	8.0	77.0	0.90	30502 10.007	
10.000	8.0	81.2	0.90	30502 10.008	
10.000	8.0	84.0	0.90	30502 10.012	
10.000	8.0	91.2	1.00	30502 10.009	
10.000	0.0	101.2	1.00	30502 10.004	
11.000	9.0	72.0	0.90	30502 11.000	
11.000	9.0	84.2	0.90	30502 11.001	
12.000	10.0	56.2	0.80	30502 12.006	



				Type	GC100S
				Article no.	30502
D h6 mm	d mm	L mm		Order no.	
12.000	10.0	70.0	0.80	30502	12.002
12.000	10.0	72.0	0.90	30502	12.003
12.000	10.0	74.2	0.90	30502	12.000
12.000	10.0	84.2	0.90	30502	12.001
12.000	10.0	94.2	1.00	30502	12.007
12.000	10.0	101.2	1.00	30502	12.004
12.000	10.0	110.0	1.10	30502	12.013
12.000	10.0	121.0	1.20	30502	12.008
12.000	10.0	151.2	1.60	30502	12.005
13.000	11.0	77.0	0.90	30502	13.000
13.000	11.0	84.2	0.90	30502	13.001
14.000	12.0	59.2	0.80	30502	14.003
14.000	12.0	76.2	0.90	30502	14.001
14.000	12.0	84.2	0.90	30502	14.000
14.000	12.0	101.2	1.00	30502	14.004
14.000	12.0	151.2	1.60	30502	14.002
15.000	12.0	77.0	0.90	30502	15.000
15.000	12.0	93.2	1.00	30502	15.001
16.000	13.0	63.2	0.80	30502	16.005
16.000	13.0	75.0	0.90	30502	16.002
16.000	13.0	77.0	0.90	30502	16.003
16.000	13.0	83.2	0.90	30502	16.001
16.000	13.0	93.2	1.00	30502	16.000
16.000	13.0	109.2	1.10	30502	16.006
16.000	13.0	126.0	1.20	30502	16.007
16.000	13.0	151.2	1.60	30502	16.004
18.000	15.0	71.2	0.80	30502	18.004
18.000	15.0	85.0	0.90	30502	18.001
18.000	15.0	93.0	1.00	30502	18.002
18.000	15.0	101.0	1.00	30502	18.000
18.000	15.0	151.2	1.60	30502	18.003
20.000	17.0	76.2	0.90	30502	20.005
20.000	17.0	93.2	1.00	30502	20.000
20.000	17.0	100.0	1.00	30502	20.002
20.000	17.0	102.0	1.00	30502	20.003
20.000	17.0	105.0	1.10	30502	20.001
20.000	17.0	127.2	1.30	30502	20.006
20.000	17.0	151.2	1.60	30502	20.004
20.000	17.0	175.7	2.10	30502	20.007
25.000	22.0	103.0	1.00	30502	25.000
25.000	22.0	123.0	1.20	30502	25.001
25.000	22.0	151.2	1.60	30502	25.002
25.000	22.0	175.7	2.10	30502	25.003
32.000	28.0	134.2	1.30	30502	32.000
32.000	28.0	187.2	2.40	30502	32.001
32.000	28.0	311.5	10.00	30502	32.002



Milling cutter blanks, ground h6

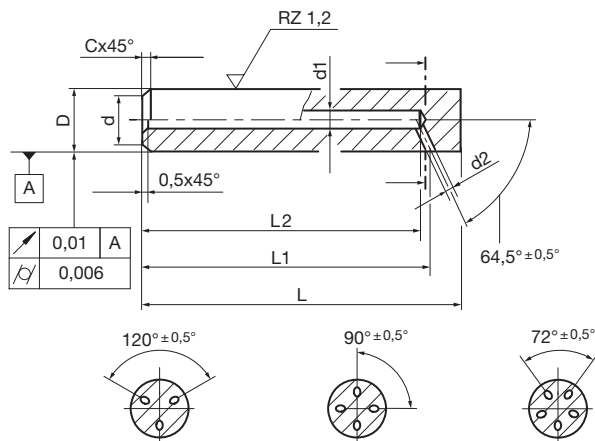
with central coolant duct, radial exits, single-sided chamfer

• Assignment art. no./number of exits:

art. no. 30632: 3 exits

art. no. 30652: 4 exits

art. no. 30672: 5 exits



Type	GC100S	GC100S	GC100S
Article no.	30632	30652	30672
Order no.	Order no.	Order no.	Order no.
	30632 6.058	30652 6.058	
	30632 6.076	30652 6.076	
	30632 8.064	30652 8.064	
	30632 8.101	30652 8.101	30672 8.101
	30632 10.073	30652 10.073	
	30632 10.101	30652 10.101	
		30652 12.074	
	30632 12.084	30652 12.084	30672 12.084
	30632 12.101	30652 12.101	30672 12.101
	30632 14.084	30652 14.084	
	30632 14.101	30652 14.101	30672 14.101
		30652 16.083	30672 16.083
	30632 16.093	30652 16.093	30672 16.093
	30632 16.101	30652 16.101	30672 16.101
	30632 18.093	30652 18.093	
	30632 18.102	30652 18.102	
	30632 18.151	30652 18.151	
	30632 20.093	30652 20.093	
	30632 20.105	30652 20.105	30672 20.105
	30632 20.151	30652 20.151	30672 20.151
	30632 25.122	30652 25.122	30672 25.122
	30632 25.152	30652 25.152	30672 25.152

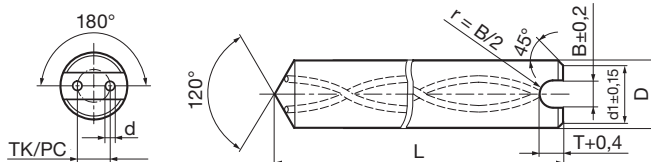
D h6 mm	L mm	d mm	d1 mm	d2 mm	L1 mm	L2 mm	
6.000	58.0	0.80	5.0	1.75	1.0	55.0	54.6
6.000	76.5	0.90	5.0	1.75	1.0	73.0	72.6
8.000	64.2	0.80	6.0	1.75	1.2	60.0	59.1
8.000	101.2	1.00	6.0	1.75	1.2	97.0	96.1
10.000	67.2	0.80	8.0	2.00	1.2	62.0	60.6
10.000	73.2	0.90	8.0	2.00	1.2	68.0	66.6
10.000	101.2	1.00	8.0	2.00	1.2	96.0	94.6
12.000	74.2	0.90	10.0	2.00	1.5	68.0	66.1
12.000	84.2	0.90	10.0	2.00	1.5	78.0	76.1
12.000	101.1	1.00	10.0	2.00	1.5	95.0	93.1
14.000	84.2	0.90	12.0	2.00	1.5	77.0	74.7
14.000	101.2	1.00	12.0	2.00	1.5	94.0	91.7
16.000	83.2	0.90	13.0	4.00	1.5	75.0	72.2
16.000	93.2	1.00	13.0	4.00	1.5	85.0	82.2
16.000	101.2	1.00	13.0	4.00	1.5	93.0	90.2
18.000	93.2	1.00	15.0	4.00	2.0	84.0	80.7
18.000	102.0	1.00	15.0	4.00	2.0	93.0	89.7
18.000	151.3	1.60	15.0	4.00	2.0	142.0	138.7
20.000	93.2	1.00	17.0	4.00	2.0	83.0	79.2
20.000	105.0	1.10	17.0	4.00	2.0	95.0	91.2
20.000	151.2	1.60	17.0	4.00	2.0	141.0	137.2
25.000	122.0	1.20	22.0	4.00	2.0	109.5	104.5
25.000	152.0	1.60	22.0	4.00	2.0	139.5	134.5



Drill blanks, ground h6

3xD, with 2 coolant ducts, 30° helix, chamfered one end

3xD



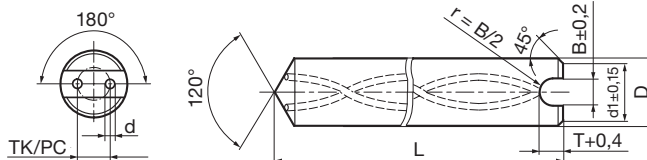
											Type	GC100S	
											Article no.	30532	
D h6 mm	d1 mm	L mm		Pitch circle mm		d mm			Centre offset mm	Pitch mm		Order no.	
6.000	4.8	63.0	1.50	1.50	-0.20	0.60	0.05	-0.05	0.08	20.40	0.42	-0.40	30532 6.002
6.000	4.8	63.0	1.50	1.75	-0.20	0.40	0.05	-0.05	0.08	20.40	0.42	-0.40	30532 6.004
6.000	4.8	67.0	1.50	2.00	-0.20	0.80	0.10	-0.10	0.10	25.84	0.54	-0.51	30532 6.003
6.000	4.8	67.0	1.50	2.00	-0.20	0.80	0.10	-0.10	0.15	32.65	0.67	-0.65	30532 6.001
6.000	4.8	67.0	1.50	2.10	-0.20	0.50	0.05	-0.05	0.08	25.84	0.54	-0.51	30532 6.005
6.000	4.8	67.0	1.50	2.60	-0.40	0.60	0.10	-0.10	0.08	25.84	0.54	-0.51	30532 6.006
6.000	4.8	67.0	1.50	2.60	-0.40	0.70	0.10	-0.10	0.15	32.65	0.67	-0.65	30532 6.000
8.000	6.8	80.5	1.50	3.60	-0.40	1.25	0.15	-0.15	0.00	43.53	0.89	-0.86	30532 8.000
10.000	8.8	90.5	1.50	4.80	-0.60	1.40	0.15	-0.15	0.00	54.41	1.11	-1.08	30532 10.000
12.000	10.5	77.0	1.50	6.25	-0.80	1.55	0.15	-0.15	0.30	65.30	1.34	-1.30	30532 12.001
12.000	10.5	104.0	1.50	6.25	-0.80	1.55	0.15	-0.15	0.00	65.30	1.34	-1.30	30532 12.000
14.000	12.5	109.0	1.50	6.70	-0.80	1.90	0.20	-0.20	0.00	76.18	1.56	-1.51	30532 14.000
16.000	14.5	117.5	1.50	8.00	-0.80	2.10	0.25	-0.25	0.00	87.06	1.78	-1.73	30532 16.000
18.000	16.5	125.5	2.00	9.00	-0.80	2.30	0.25	-0.25	0.00	97.95	2.00	-1.94	30532 18.000
20.000	18.5	134.0	2.00	10.00	-1.00	2.50	0.30	-0.30	0.00	108.83	2.23	-2.16	30532 20.000
25.000	23.0	150.0	2.00	12.00	-1.00	2.50	0.30	-0.30	0.50	136.03	2.78	-2.70	30532 25.000
25.000	23.0	157.7	2.00	12.00	-1.00	2.50	0.30	-0.30	0.50	136.03	2.78	-2.70	30532 25.001



Drill blanks, ground h6

5xD, with 2 coolant ducts, 30° twist, single-sided chamfer

5xD



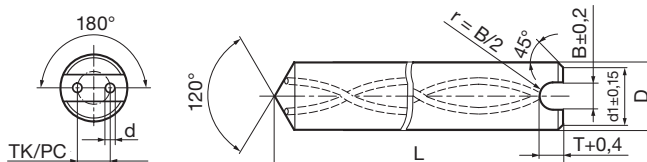
D h6 mm	d1 mm	L mm		Pitch circle mm			d mm			Centre offset mm			Pitch mm			Type	Order no.
																GC100S	
														Article no.	30542		
6.000	4.8	67.0	1.50	1.50	-0.20	0.60	0.05	-0.05	0.08	20.40	0.42	-0.40	30542	6.002			
6.000	4.8	67.0	1.50	1.75	-0.20	0.40	0.05	-0.05	0.08	20.40	0.42	-0.40	30542	6.004			
6.000	4.8	75.0	1.50	2.00	-0.20	0.80	0.10	-0.10	0.10	25.84	0.54	-0.51	30542	6.003			
6.000	4.8	75.0	1.50	2.00	-0.20	0.80	0.10	-0.10	0.15	32.65	0.67	-0.65	30542	6.001			
6.000	4.8	75.0	1.50	2.10	-0.20	0.50	0.05	-0.05	0.08	25.84	0.54	-0.51	30542	6.005			
6.000	4.8	75.0	1.50	2.60	-0.40	0.60	0.10	-0.10	0.08	25.84	0.54	-0.51	30542	6.006			
6.000	4.8	83.0	1.50	2.60	-0.40	0.70	0.10	-0.10	0.15	32.65	0.67	-0.65	30542	6.000			
8.000	6.8	92.5	1.50	3.60	-0.40	1.25	0.15	-0.15	0.15	43.53	0.89	-0.86	30542	8.000			
10.000	8.8	104.5	1.50	4.80	-0.60	1.40	0.15	-0.15	0.20	54.41	1.11	-1.08	30542	10.000			
12.000	10.5	120.0	2.00	6.25	-0.80	1.55	0.15	-0.15	0.30	65.30	1.34	-1.30	30542	12.000			
14.000	12.5	126.0	2.00	6.70	-0.80	1.90	0.20	-0.20	0.37	76.18	1.56	-1.51	30542	14.000			
16.000	14.5	135.5	2.00	8.00	-0.80	2.10	0.25	-0.25	0.40	87.06	1.78	-1.73	30542	16.000			
18.000	16.5	145.5	2.00	9.00	-0.80	2.30	0.25	-0.25	0.50	97.95	2.00	-1.94	30542	18.000			
20.000	18.5	156.0	2.00	10.00	-1.00	2.50	0.30	-0.30	0.50	108.83	2.23	-2.16	30542	20.000			
25.000	23.0	169.0	2.00	12.00	-1.00	2.50	0.30	-0.30	0.50	136.03	2.78	-2.70	30542	25.000			
25.000	23.0	184.0	2.00	12.00	-1.00	2.50	0.30	-0.30	0.50	136.03	2.78	-2.70	30542	25.001			



Drill blanks, ground h6

7xD, with 2 coolant ducts, 30° twist, single-sided chamfer

7xD



D h6 mm	d1 mm	L mm		Pitch circle mm		d mm			Centre offset mm			Pitch mm			Type
															GC100S
														Article no.	
														30552	
														Order no.	
6.000	4.8	71.0	1.50	1.50	-0.20	0.60	0.05	-0.05	0.15	20.40	0.42	-0.40		30552 6.004	
6.000	4.8	71.0	1.50	1.75	-0.20	0.40	0.05	-0.05	0.15	20.40	0.42	-0.40		30552 6.010	
6.000	4.8	76.0	1.50	1.50	-0.20	0.60	0.05	-0.05	0.15	20.40	0.42	-0.40		30552 6.005	
6.000	4.8	76.0	1.50	1.75	-0.20	0.40	0.05	-0.05	0.15	20.40	0.42	-0.40		30552 6.011	
6.000	4.8	76.0	1.50	2.00	-0.20	0.80	0.10	-0.10	0.15	25.84	0.42	-0.40		30552 6.008	
6.000	4.8	76.0	1.50	2.00	-0.20	0.80	0.10	-0.10	0.15	32.65	0.54	-0.51		30552 6.002	
6.000	4.8	76.0	1.50	2.10	-0.20	0.50	0.05	-0.05	0.15	25.84	0.42	-0.40		30552 6.012	
6.000	4.8	86.0	1.50	2.00	-0.20	0.80	0.10	-0.10	0.15	25.84	0.42	-0.40		30552 6.009	
6.000	4.8	86.0	1.50	2.00	-0.20	0.80	0.10	-0.10	0.15	32.65	0.54	-0.51		30552 6.003	
6.000	4.8	86.0	1.50	2.60	-0.40	0.60	0.10	-0.10	0.15	25.84	0.42	-0.40		30552 6.013	
6.000	4.8	91.0	1.50	2.60	-0.20	0.70	0.10	-0.10	0.15	32.65	0.54	-0.51		30552 6.001	
6.000	4.8	98.0	1.50	2.60	-0.20	0.70	0.10	-0.10	0.15	32.65	0.54	-0.51		30552 6.000	
8.000	6.8	107.5	1.50	3.60	-0.40	1.25	0.15	-0.15	0.15	43.53	0.89	-0.86		30552 8.000	
8.000	6.8	117.5	1.50	3.60	-0.40	1.25	0.15	-0.15	0.15	43.53	0.89	-0.86		30552 8.001	
10.000	8.8	132.5	1.50	4.80	-0.60	1.40	0.15	-0.15	0.15	54.41	1.11	-1.08		30552 10.000	
10.000	8.8	140.5	1.50	4.80	-0.60	1.40	0.15	-0.15	0.20	54.41	1.11	-1.08		30552 10.001	
12.000	10.5	157.0	2.00	6.25	-0.80	1.55	0.15	-0.15	0.30	65.30	1.34	-1.30		30552 12.000	
12.000	10.5	165.0	2.00	6.25	-0.80	1.55	0.15	-0.15	0.30	65.30	1.34	-1.30		30552 12.001	
14.000	12.5	184.0	2.00	6.70	-0.80	1.90	0.20	-0.20	0.37	76.18	1.56	-1.51		30552 14.000	
16.000	14.5	206.5	2.00	8.00	-0.80	2.10	0.25	-0.25	0.40	87.06	1.78	-1.73		30552 16.000	
18.000	16.5	225.5	2.00	9.00	-0.80	2.30	0.25	-0.25	0.50	97.95	2.00	-1.94		30552 18.000	
20.000	18.5	247.0	2.00	10.00	-1.00	2.50	0.30	-0.30	0.50	108.83	2.23	-2.16		30552 20.000	

GÜHRING **CARBIDE**

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From professionals for professionals:
Quality Made in Germany with Gühring Carbide

From powder to carbide blank

Dry pressing



Mixing & grinding

Different formulations of tungsten carbide, cobalt and doped carbide are ground for several hours in attritors and then filtered or spray dried. This produces powders or granules for the various production technologies.



Dry pressing

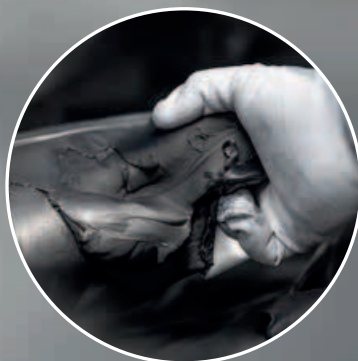
From powder to green parts: In seconds, the punch and die press parts with a wide range of geometries into moulds.

Innovative pressing technology is then used to produce a wide range of internal and external geometries from the plasticized material.

Mixing & grinding



Kneading



Extruding



Extruding



Sintering



Grinding

A portion of the added liquid is then slowly removed from the products under strictly controlled conditions in climate chambers and special drying ovens. The drying time varies depending on the diameter of the rods.

At about 1380 °C, the cobalt melts and flows into the spaces between the tungsten carbide grains. The sinter-HIP process produces pore-free moulded parts with shrinkage of up to 25 %.

After quality control, the bars go either to the logistics centre or to the centerless grinding plant for finishing.

Drying



Sintering



Grinding



Article overview

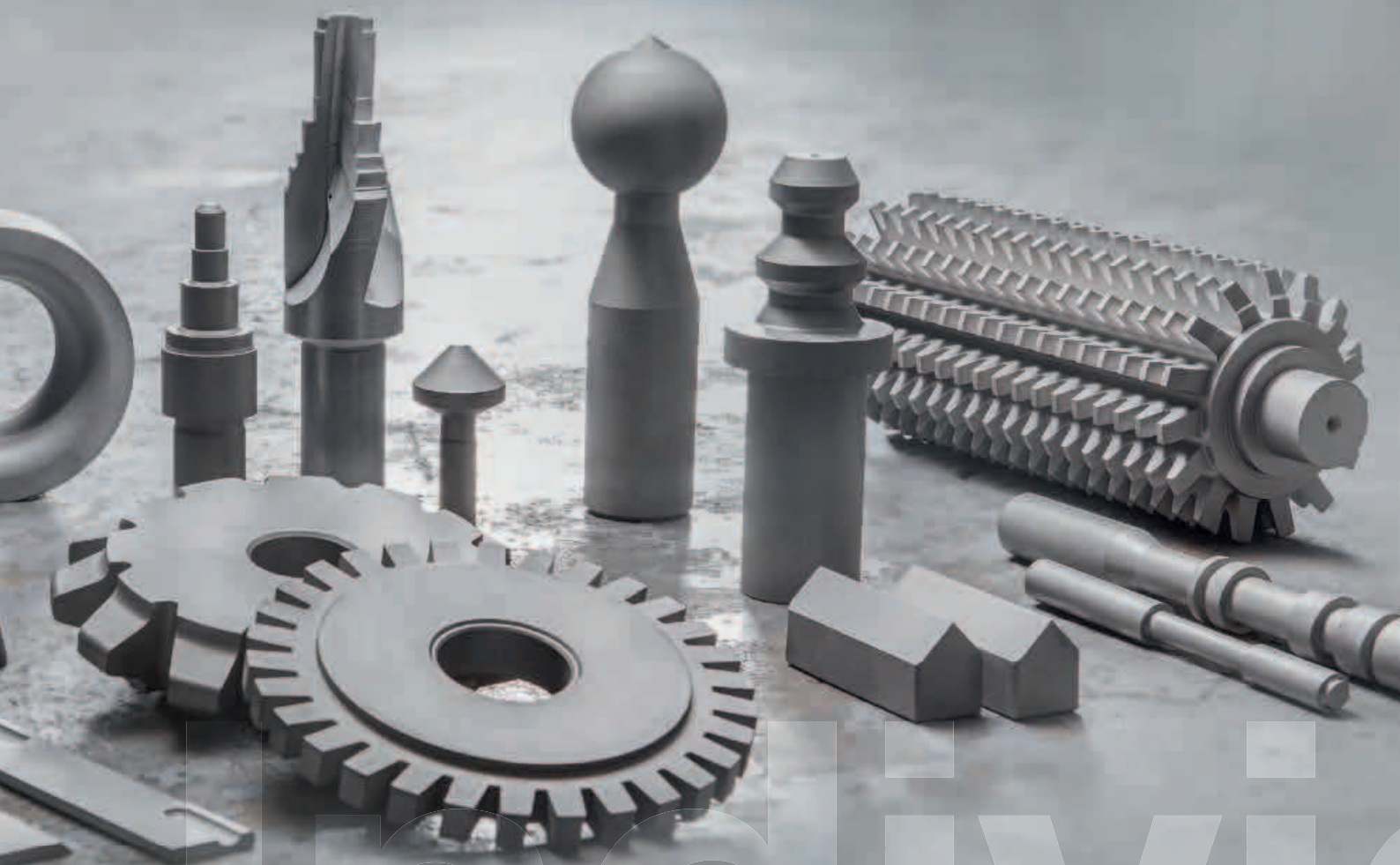
Type	GC100SX	GC100S	GC120U	GC060S	GC090U	Page	
Solid rods							
Overall length	330 mm	330 mm	415 mm	330 mm	330 mm	330 mm	
blank	30003	30002	30020	30004	30000	30001	14
ground h6		30052		30054		30051	15
Rods with coolant ducts							
Overall length		330 mm	415 mm		330 mm		
blank central		30102			30100		16
ground h6 central		30127					17
blank parallel		30152	30160				18
ground h6 parallel		30177					19
blank 2x15°		30202					20
ground h6 2x15°		30222					21
blank 2x30°		30232	30242				22
ground h6 2x30°		30252					23
blank 2x40°		30272	30282				24
ground h6 2x40°		30292					25
blank micro-twist		30712					26
blank 3x30°		30302	30312				27
ground h6 3x30°		30322					28
blank 3x40°		30352					29
ground h6 3x40°		30372					30
Milling cutter blanks							
ground h6 single-sided chamfer		30502					31
cent. cool. duct, single-s. chamfer, + 3 rad. exits		30632					33
ground h6 cent. cool. duct, single-s. chamfer, + 4 rad. exits		30652					33
ground h6 cent. cool. duct, single-s. chamfer, + 5 rad. exits		30672					33
Drill blanks							
ground h6 3xD, 2x30°, single-sided chamfer		30532					34
ground h6 5xD, 2x30°, single-sided chamfer		30542					35
ground h6 7xD, 2x30°, single-sided chamfer		30552					36



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In addition to our standard range, we offer carbides for your specific application – please contact us for more information.

Our expert sales team will be happy to answer your questions – and we can deliver you a bespoke solution.



Individual
Quality



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From professionals for professionals:
Quality Made in Germany with Gühring Carbide



Bars and stepped blanks

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GÜHRING

Gühring KG | P.O. Box 100247 | 72423 Albstadt | Germany
Gühring KG | Herderstrasse 50-54 | 72458 Albstadt | Germany
Telephone: +49 74 31 17-0 | carbide@guehring.de | www.guehring.com

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