



GD Series

**A new generation twist drills
for universal purpose**



**ZHUZHOU CEMENTED CARBIDE
CUTTING TOOLS CO., LTD.**



Series A new generation twist drills for universal purpose

- Linear cutting edge with high strength

- Optimized drill point structure with better cutting performance

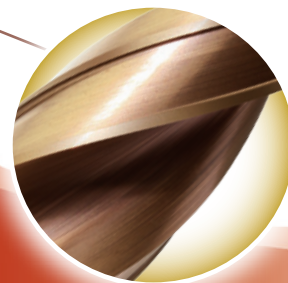
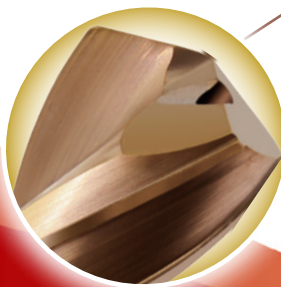
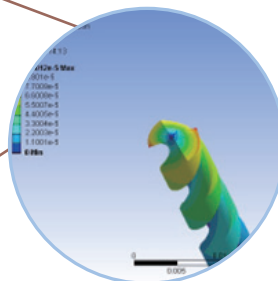
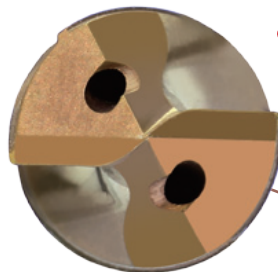
- Combination of drilling simulation and experiments for optimized performance.

- Double edge line design improve the machining stability.

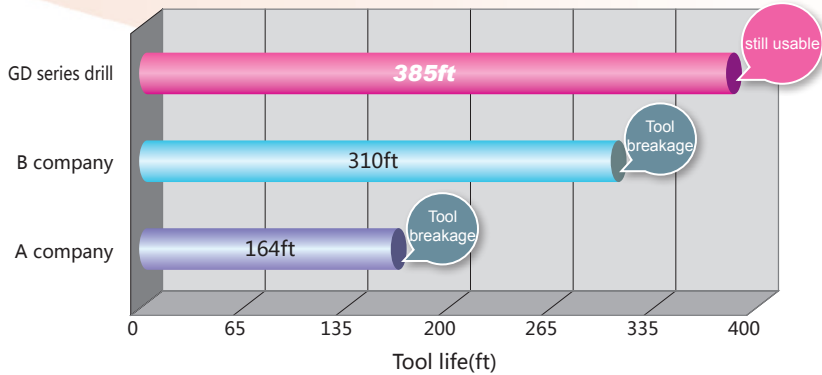
- Special surface treatment after coating, guarantees high efficient machining.

Application range

Universal purpose drill for high efficient machining of P type (steel), M type (stainless steel), K type (cast iron) and various materials.

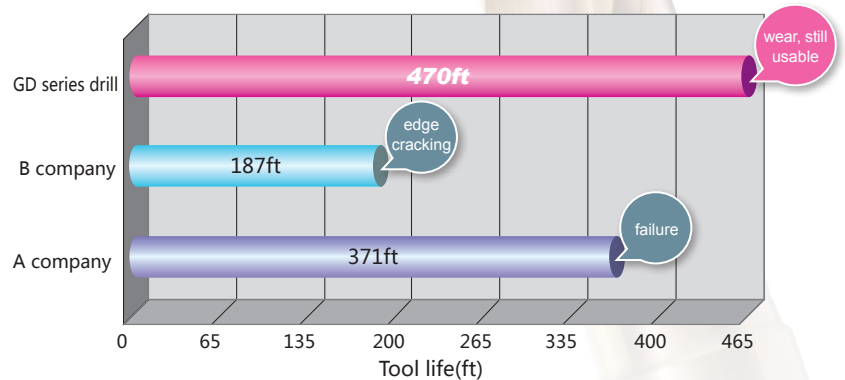


► **Stable and enduring tool life**



tool type: GD05C-0560
workpiece material: P20 mod
Vc=320SFPM ; fr=0.0059in/r ; H=1.063in
cooling system: water soluble cooling

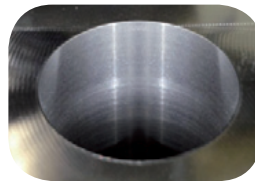
tool type: GD05C-1000
workpiece material : 1045
Vc=490SFPM ; fr=0.0098in/r ; H=1.575in
cooling system : water soluble cooling



► **outstanding machining precision**

quality of hole wall:

tool : GD03C-0820
workpiece material : P20 mod
Vc=380SFPM ; fr=0.0091in/r ; H=1.181in
cooling system : water soluble cooling



GD series drill



A company

► **excellent chip breaking performance**

chip breaking performance:

tool : GD05C-0600
workpiece material : 321
Vc=240SFPM ; fr=0.0079in/r ; H=1.181in
cooling system : water soluble cooling



GD series drill



A company

Solid carbide drills code key

Tool type

GD ▶ Universal-purpose twist drill

Mode of cooling

C ▶ internal cooling
Default ▶ External cooling

Type of shank

S ▶ slim shank
Default ▶ meet DIN6535HA standard

GD

03

C

-0600

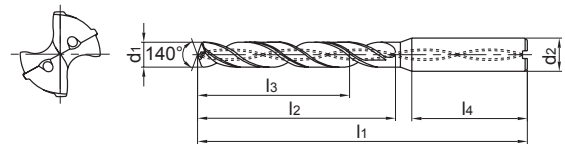
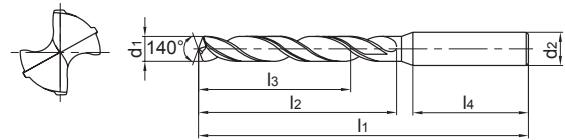
S

Length code

03 ▶ 3d
05 ▶ 5d
08 ▶ 8d

Specification

0600 ▶ Nominal diameter in compliance with DIN6535HA regulation



● Suitable for high efficiency drilling in a variety of materials e.g steel, stainless steel, cast iron.

Drill diameter d ₁ (m7)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade
mm	inch	Fraction					Shank diameter d ₂ (h6)	Overall length l ₁	Flute length l ₂	Recommended drilling depth l ₃	Shank length l ₄	cutting taps / tread milling cutters	forming taps	
2.0	0.0787	--	3	External coolant	Straight shank	GD03-0200	4	58	13	9	28		NO.2-64UNF	●
	0.0787	--	5			GD05-0200	4	58	18	14	28			●
2.1	0.0827	--	3			GD03-0210	4	58	13	9	28	NO.3-48UNC		●
	0.0827	--	5			GD05-0210	4	58	18	14	28			●
2.15	0.0846	--	3			GD03-0215	4	58	13	9	28	NO.3-56UNF		●
	0.0846	--	5			GD05-0215	4	58	18	14	28			●
2.2	0.0866	--	3			GD03-0220	4	58	13	9	28			●
	0.0866	--	5			GD05-0220	4	58	18	14	28			●
2.3	0.0906	--	3			GD03-0230	4	58	13	9	28		M2.5×0.45	●
	0.0906	--	5			GD05-0230	4	58	18	14	28		NO.3-56UNF	●
2.35	0.0925	--	3			GD03-0235	4	58	17	12	28	NO.4-40UNC		●
	0.0925	--	5			GD05-0235	4	58	22	17	28			●
2.4	0.0945	--	3			GD03-0240	4	58	17	12	28	NO.4-48UNF		●
	0.0945	--	5			GD05-0240	4	58	22	17	28			●
2.5	0.0984	--	3			GD03-0250	4	58	17	12	28	M3×0.5		●
	0.0984	--	5			GD05-0250	4	58	22	17	28			●
2.55	0.1004	--	3			GD03-0255	4	58	17	12	28	NO.4-40UNC		●
	0.1004	--	5			GD05-0255	4	58	22	17	28			●

● Stock available ○ Make-to-order

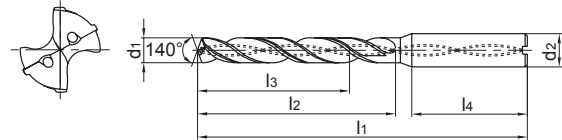
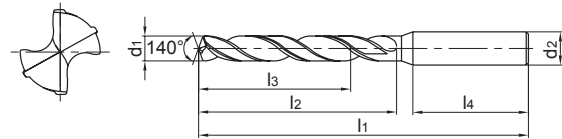


Drill diameter d ₁ (m7)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade
mm	inch	Fraction					Shank diameter	Overall length	Flute length	Recommended drilling depth	Shank length	cutting taps / tread milling cutters	forming taps	KDG3013
							d ₂ (h ₆)	l ₁	l ₂	l ₃	l ₄			
2.6	0.1024	--	3	External coolant	Straight shank	GD03-0260	4	58	17	12	28		NO.4-48UNF	●
	0.1024	--	5			GD05-0260	4	58	22	17	28			●
2.65	0.1043	--	3			GD03-0265	4	58	17	12	28	NO.5-40UNC		●
	0.1043	--	5			GD05-0265	4	58	22	17	28		●	
2.7	0.1063	--	3			GD03-0270	4	58	17	12	28	NO.5-44UNF		●
	0.1063	--	5			GD05-0270	4	58	22	17	28		●	
2.8	0.1102	--	3			GD03-0280	4	58	17	12	28	M3×0.5		●
	0.1102	--	5			GD05-0280	4	58	22	17	28		●	
2.85	0.1122	--	3			GD03-0285	4	58	17	12	28	NO.6-32UNC		●
	0.1122	--	5			GD05-0285	4	58	22	17	28		●	
2.9	0.1142	--	3			GD03-0290	4	58	17	12	28	NO.5-40UNC NO.5-44UNF		●
	0.1142	--	5			GD05-0290	4	58	22	17	28		●	
2.95	0.1161	--	3	External coolant		GD03-0295	4	58	17	12	28	NO.6-40UNF		●
	0.1161	--	5			GD05-0295	4	58	22	17	28		●	
3.0	0.1181	--	3	External coolant		GD03-0300	6	62	20	14	36			●
	0.1181	--	5			GD05-0300	6	66	28	23	36			●
	0.1181	--	3	Internal coolant		GD03C-0300	6	62	20	14	36			●
	0.1181	--	5			GD05C-0300	6	66	28	23	36			●
	0.1181	--	8			GD08C-0300	6	72	34	29	36			○
3.1	0.1220	--	3	External coolant		GD03-0310S	4	62	20	14	36			●
	0.1220	--	5			GD05-0310S	4	66	28	23	36			●
	0.1220	--	3	Internal coolant		GD03C-0310S	4	62	20	14	36			●
	0.1220	--	5			GD05C-0310S	4	66	28	23	36			●
	0.1220	--	3	External coolant		GD03-0310	6	62	20	14	36			○
	0.1220	--	5			GD05-0310	6	66	28	23	36			○
	0.1220	--	3	Internal coolant		GD03C-0310	6	62	20	14	36			○
	0.1220	--	5			GD05C-0310	6	66	28	23	36			○
	0.1220	--	8			GD08C-0310	6	72	34	29	36			○
3.175	0.1250	1/8	3	External coolant		GD03-03175S	4	62	20	14	36			●
	0.1250	1/8	5			GD05-03175S	4	66	28	23	36			●
	0.1250	1/8	3	Internal coolant		GD03C-03175S	4	62	20	14	36			●
	0.1250	1/8	5			GD05C-03175S	4	66	28	23	36			●
	0.1250	1/8	3	External coolant		GD03-03175	6	62	20	14	36			○
	0.1250	1/8	5			GD05-03175	6	66	28	23	36			○
	0.1250	1/8	3	Internal coolant		GD03C-03175	6	62	20	14	36			○
	0.1250	1/8	5			GD05C-03175	6	66	28	23	36			○
3.2	0.1260	--	3	External coolant		GD03-0320S	4	62	20	14	36	NO.6-40UNF		●
	0.1260	--	5			GD05-0320S	4	66	28	23	36			●
	0.1260	--	3	Internal coolant		GD03C-0320S	4	62	20	14	36			●
	0.1260	--	5			GD05C-0320S	4	66	28	23	36			●
	0.1260	--	3	External coolant		GD03-0320	6	62	20	14	36			○
	0.1260	--	5			GD05-0320	6	66	28	23	36			○

Note: For drilling depth (l/d) of 8, namely GD08C series, tolerance of shank diameter is h₅.

● Stock available

○ Make-to-order



- Suitable for high efficiency drilling in a variety of materials e.g steel, stainless steel, cast iron.

Drill diameter d ₁ (m7)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade	
mm	inch	Fraction					Shank diameter d ₂ (h ₆)	Overall length l ₁	Flute length l ₂	Recommended drilling depth l ₃	Shank length l ₄	cutting taps / tread milling cutters	forming taps	KDG3013	
3.2	0.1260	--	3	Internal coolant	Straight shank	GD03C-0320	6	62	20	14	36			○	
	0.1260	--	5			GD05C-0320	6	66	28	23	36		NO.6-40UNF	○	
	0.1260	--	8			GD08C-0320	6	72	34	29	36			○	
3.25	0.1280	--	3	External coolant		GD03-0325S	4	62	20	14	36				●
	0.1280	--	5	External coolant		GD05-0325S	4	66	28	23	36				●
	0.1280	--	3			GD03C-0325S	4	62	20	14	36			●	
	0.1280	--	5	GD05C-0325S		4	66	28	23	36				●	
	0.1280	--	3	External coolant		GD03-0325	6	62	20	14	36				○
	0.1280	--	5	GD05-0325		6	66	28	23	36				○	
	0.1280	--	3	Internal coolant		GD03C-0325	6	62	20	14	36				○
	0.1280	--	5	GD05C-0325		6	66	28	23	36				○	
	0.1280	--	3	Internal coolant		GD03C-0325	6	62	20	14	36				○
	0.1280	--	5			GD05C-0325	6	66	28	23	36				○
3.3	0.1299	--	3	External coolant		GD03-0330S	4	62	20	14	36				●
	0.1299	--	5	External coolant		GD05-0330S	4	66	28	23	36				●
	0.1299	--	3			GD03C-0330S	4	62	20	14	36				●
	0.1299	--	5	GD05C-0330S		4	66	28	23	36				●	
	0.1299	--	3	External coolant		GD03-0330	6	62	20	14	36	M4×0.7			○
	0.1299	--	5	GD05-0330		6	66	28	23	36				○	
	0.1299	--	3	Internal coolant		GD03C-0330	6	62	20	14	36				○
	0.1299	--	5			GD05C-0330	6	66	28	23	36				○
	0.1299	--	8			GD08C-0330	6	72	34	29	36				○
	3.4	0.1339	--	3		External coolant	GD03-0340S	4	62	20	14	36			
0.1339		--	5	External coolant		GD05-0340S	4	66	28	23	36				●
0.1339		--	3			GD03C-0340S	4	62	20	14	36				●
0.1339		--	5	GD05C-0340S		4	66	28	23	36				●	
0.1339		--	3	External coolant		GD03-0340	6	62	20	14	36				○
0.1339		--	5			GD05-0340	6	66	28	23	36				○
0.1339		--	3	Internal coolant		GD03C-0340	6	62	20	14	36				○
0.1339		--	5			GD05C-0340	6	66	28	23	36				○
0.1339		--	8			GD08C-0340	6	72	34	29	36				○
3.5		0.1378	--	3		External coolant	GD03-0350S	4	62	20	14	36	M4×0.5 NO.8-32UNC NO.8-36UNF		
	0.1378	--	5	GD05-0350S		4	66	28	23	36				●	
	0.1378	--	3	Internal coolant	GD03C-0350S	4	62	20	14	36				●	
	0.1378	--	5	GD05C-0350S	4	66	28	23	36			●			

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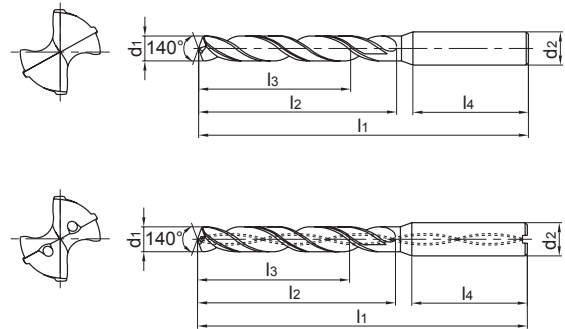


Drill diameter d ₁ (m7)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade
mm	inch	Fraction					Shank diameter	Overall length	Flute length	Recommended drilling depth	Shank length	cutting taps / tread milling cutters	forming taps	KDG3013
							d2(h ₆)	l ₁	l ₂	l ₃	l ₄			
3.5	0.1378	--	3	External coolant	Straight shank	GD03-0350	6	62	20	14	36	M4×0.5 NO.8-32UNC NO.8-36UNF		○
	0.1378	--	5			GD05-0350	6	66	28	23	36			○
	0.1378	--	3	GD03C-0350		6	62	20	14	36			○	
	0.1378	--	5	GD05C-0350		6	66	28	23	36			○	
	0.1378	--	8	GD08C-0350		6	72	34	29	36			○	
3.6	0.1417	--	3	External coolant		GD03-0360S	4	62	20	14	36			●
	0.1417	--	5			GD05-0360S	4	66	28	23	36			●
	0.1417	--	3	Internal coolant		GD03C-0360S	4	62	20	14	36			●
	0.1417	--	5			GD05C-0360S	4	66	28	23	36			●
	0.1417	--	3	External coolant		GD03-0360	6	62	20	14	36			○
	0.1417	--	5			GD05-0360	6	66	28	23	36			○
	0.1417	--	3	Internal coolant		GD03C-0360	6	62	20	14	36			○
	0.1417	--	5			GD05C-0360	6	66	28	23	36			○
	0.1417	--	8			GD08C-0360	6	72	34	29	36			○
3.7	0.1457	--	3			External coolant	GD03-0370S	4	62	20	14	36		
	0.1457	--	5	GD05-0370S			4	66	28	23	36			●
	0.1457	--	3	Internal coolant		GD03C-0370S	4	62	20	14	36			●
	0.1457	--	5			GD05C-0370S	4	66	28	23	36			●
	0.1457	--	3	External coolant		GD03-0370	6	62	20	14	36		M4×0.7	○
	0.1457	--	5			GD05-0370	6	66	28	23	36			○
	0.1457	--	3	Internal coolant		GD03C-0370	6	62	20	14	36			○
	0.1457	--	5			GD05C-0370	6	66	28	23	36			○
	0.1457	--	8			GD08C-0370	6	72	34	29	36			○
3.8	0.1496	--	3			External coolant	GD03-0380S	4	66	24	17	36		
	0.1496	--	5	GD05-0380S			4	74	36	29	36			●
	0.1496	--	3	Internal coolant		GD03C-0380S	4	66	24	17	36			●
	0.1496	--	5			GD05C-0380S	4	74	36	29	36			●
	0.1496	--	3	External coolant		GD03-0380	6	66	24	17	36		M4×0.5 NO.8-32UNC	○
	0.1496	--	5			GD05-0380	6	74	36	29	36			○
	0.1496	--	3	Internal coolant		GD03C-0380	6	66	24	17	36			○
	0.1496	--	5			GD05C-0380	6	74	36	29	36			○
	0.1496	--	8			GD08C-0380	6	81	43	36	36			○
3.85	0.1516	--	3			External coolant	GD03-0385S	4	66	24	17	36		
	0.1516	--	5	GD05-0385S			4	74	36	29	36			●
	0.1516	--	3	Internal coolant		GD03C-0385S	4	66	24	17	36			●
	0.1516	--	5			GD05C-0385S	4	74	36	29	36			●
	0.1516	--	3	External coolant		GD03-0385	6	66	24	17	36		NO.8-36UNF	○
	0.1516	--	5			GD05-0385	6	74	36	29	36			○
	0.1516	--	3	Internal coolant		GD03C-0385	6	66	24	17	36			○
	0.1516	--	5			GD05C-0385	6	74	36	29	36			○
3.9	0.1535	--	3	External coolant		GD03-0390S	4	66	24	17	36	NO.10- 24UNC		●
	0.1535	--	5			GD05-0390S	4	74	36	29	36			●

Note: For drilling depth (l/d) of 8 ,namely GD08C series, tolerance of shank diameter is h₅.

● Stock available

○ Make-to-order



● Suitable for high efficiency drilling in a variety of materials e.g steel, stainless steel, cast iron.

Drill diameter d ₁ (mm)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade
mm	inch	Fraction					Shank diameter d ₂ (h ₆)	Overall length l ₁	Flute length l ₂	Recommended drilling depth l ₃	Shank length l ₄	cutting taps / tread milling cutters	forming taps	
3.9	0.1535	--	3	Internal coolant	Straight shank	GD03C-0390S	4	66	24	17	36	NO.10-24UNC		●
	0.1535	--	5	Internal coolant		GD05C-0390S	4	74	36	29	36			●
	0.1535	--	3	External coolant		GD03-0390	6	66	24	17	36			○
	0.1535	--	5	External coolant		GD05-0390	6	74	36	29	36			○
	0.1535	--	3	Internal coolant		GD03C-0390	6	66	24	17	36			○
	0.1535	--	5	Internal coolant		GD05C-0390	6	74	36	29	36			○
3.97	0.1563	5/32	3	External coolant		GD08C-0390	6	81	43	36	36	NO.10-24UNC		○
	0.1563	5/32	5	External coolant		GD03-03970S	4	66	24	17	36			●
	0.1563	5/32	5	External coolant		GD05-03970S	4	74	36	29	36			●
	0.1563	5/32	3	Internal coolant		GD03C-03970S	4	66	24	17	36			●
	0.1563	5/32	5	Internal coolant		GD05C-03970S	4	74	36	29	36			●
	0.1563	5/32	3	External coolant		GD03-03970	6	66	24	17	36			○
4.0	0.1563	5/32	5	External coolant		GD05-03970	6	74	36	29	36	NO.10-24UNC		○
	0.1563	5/32	3	Internal coolant		GD03C-03970	6	66	24	17	36			○
	0.1563	5/32	5	Internal coolant		GD05C-03970	6	74	36	29	36			○
	0.1575	--	3	External coolant		GD03-0400S	4	66	24	17	36			●
	0.1575	--	5	External coolant		GD05-0400S	4	74	36	29	36			●
	0.1575	--	3	Internal coolant		GD03C-0400S	4	66	24	17	36			●
4.1	0.1575	--	5	Internal coolant		GD05C-0400S	4	74	36	29	36	NO.10-32UNF		●
	0.1575	--	3	External coolant		GD03-0400	6	66	24	17	36			○
	0.1575	--	5	External coolant		GD05-0400	6	74	36	29	36			○
	0.1575	--	3	Internal coolant		GD03C-0400	6	66	24	17	36			○
	0.1575	--	5	Internal coolant		GD05C-0400	6	74	36	29	36			○
	0.1575	--	8	External coolant		GD08C-0400	6	81	43	36	36			○
4.2	0.1614	--	3	External coolant		GD03-0410	6	66	24	17	36	NO.10-32UNF		●
	0.1614	--	5	External coolant		GD05-0410	6	74	36	29	36			●
	0.1614	--	3	Internal coolant		GD03C-0410	6	66	24	17	36			●
	0.1614	--	5	Internal coolant		GD05C-0410	6	74	36	29	36			●
	0.1614	--	8	External coolant		GD08C-0410	6	81	43	36	36			○
	0.1654	--	3	External coolant		GD03-0420	6	66	24	17	36	M5×0.8		●
	0.1654	--	5	External coolant		GD05-0420	6	74	36	29	36			●

● Stock available ○ Make-to-order

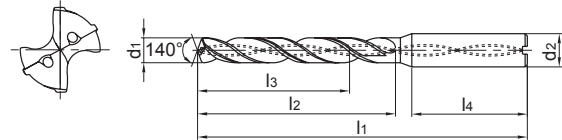
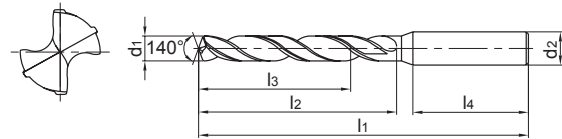


Drill diameter d ₁ (m7)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade
							Shank diameter	Overall length	Flute length	Recommended drilling depth	Shank length	cutting taps / tread milling cutters	forming taps	KDG3013
mm	inch	Fraction					d ₂ (h ₆)	l ₁	l ₂	l ₃	l ₄			
4.2	0.1654	--	3	Internal coolant	Straight shank	GD03C-0420	6	66	24	17	36	M5×0.8		●
	0.1654	--	5			GD05C-0420	6	74	36	29	36			●
	0.1654	--	8			GD08C-0420	6	81	43	36	36			○
4.3	0.1693	--	3	External coolant		GD03-0430	6	66	24	17	36			●
	0.1693	--	5			GD05-0430	6	74	36	29	36			●
	0.1693	--	3	Internal coolant		GD03C-0430	6	66	24	17	36			●
	0.1693	--	5			GD05C-0430	6	74	36	29	36			●
4.35	0.1713	--	3	External coolant		GD03-0435	6	66	24	17	36		NO.10-24UNC	●
	0.1713	--	5			GD05-0435	6	74	36	29	36			●
	0.1713	--	3	Internal coolant		GD03C-0435	6	66	24	17	36			●
	0.1713	--	5			GD05C-0435	6	74	36	29	36			●
4.4	0.1732	--	3	External coolant		GD03-0440	6	66	24	17	36			●
	0.1732	--	5			GD05-0440	6	74	36	29	36			●
	0.1732	--	3	Internal coolant		GD03C-0440	6	66	24	17	36			●
	0.1732	--	5			GD05C-0440	6	74	36	29	36			●
4.45	0.1752	--	3	External coolant		GD03-0445	6	66	24	17	36		NO.10-32UNF	●
	0.1752	--	5			GD05-0445	6	74	36	29	36			●
	0.1752	--	3	Internal coolant		GD03C-0445	6	66	24	17	36			●
	0.1752	--	5			GD05C-0445	6	74	36	29	36			●
4.5	0.1772	--	3	External coolant		GD03-0450	6	66	24	17	36	NO.12-24UNC M5×0.5		●
	0.1772	--	5			GD05-0450	6	74	36	29	36			●
	0.1772	--	3	Internal coolant		GD03C-0450	6	66	24	17	36			●
	0.1772	--	5			GD05C-0450	6	74	36	29	36			●
4.6	0.1811	--	3	External coolant		GD03-0460	6	66	24	17	36			●
	0.1811	--	5			GD05-0460	6	74	36	29	36			●
	0.1811	--	3	Internal coolant		GD03C-0460	6	66	24	17	36			●
	0.1811	--	5			GD05C-0460	6	74	36	29	36			●
4.65	0.1831	--	3	External coolant		GD03-0465	6	66	24	17	36		M5×0.8	●
	0.1831	--	5			GD05-0465	6	74	36	29	36			●
	0.1831	--	3	Internal coolant		GD03C-0465	6	66	24	17	36			●
	0.1831	--	5			GD05C-0465	6	74	36	29	36			●
4.7	0.1850	--	3	External coolant		GD03-0470	6	66	24	17	36	NO.12-28UNF		●
	0.1850	--	5			GD05-0470	6	74	36	29	36			●
	0.1850	--	3	Internal coolant		GD03C-0470	6	66	24	17	36			●
	0.1850	--	5			GD05C-0470	6	74	36	29	36			●
4.763	0.1875	3/16	3	External coolant		GD03-04763	6	66	24	17	36			●
	0.1875	3/16	5			GD05-04763	6	74	36	29	36			●

Note: For drilling depth (l/d) of 8 ,namely GD08C series, tolerance of shank diameter is h₅.

● Stock available

○ Make-to-order



- Suitable for high efficiency drilling in a variety of materials e.g steel, stainless steel, cast iron.

Drill diameter d ₁ (mm)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade
mm	inch	Fraction					Shank diameter d ₂ (h ₆)	Overall length l ₁	Flute length l ₂	Recommended drilling depth l ₃	Shank length l ₄	cutting taps / tread milling cutters	forming taps	
4.763	0.1875	3/16	3	Internal coolant	Straight shank	GD03C-04763	6	66	24	17	36			●
	0.1875	3/16	5	Internal coolant		GD05C-04763	6	74	36	29	36			●
4.8	0.1890	--	3	External coolant		GD03-0480	6	66	28	20	36			●
	0.1890	--	5	External coolant		GD05-0480	6	82	44	35	36			●
4.8	0.1890	--	3	Internal coolant		GD03C-0480	6	66	28	20	36		M5×0.5	●
	0.1890	--	5	Internal coolant		GD05C-0480	6	82	44	35	36			●
4.8	0.1890	--	8			GD08C-0480	6	95	57	48	36			○
4.9	0.1929	--	3	External coolant		GD03-0490	6	66	28	20	36			●
	0.1929	--	5	External coolant		GD05-0490	6	82	44	35	36			●
4.9	0.1929	--	3	Internal coolant		GD03C-0490	6	66	28	20	36			●
	0.1929	--	5	Internal coolant		GD05C-0490	6	82	44	35	36			●
4.9	0.1929	--	8			GD08C-0490	6	95	57	48	36			○
5.0	0.1969	--	3	External coolant		GD03-0500	6	66	28	20	36			●
	0.1969	--	5	External coolant		GD05-0500	6	82	44	35	36			●
5.0	0.1969	--	3	Internal coolant		GD03C-0500	6	66	28	20	36	M6×1	NO.12-24UNC	●
	0.1969	--	5	Internal coolant		GD05C-0500	6	82	44	35	36			●
5.0	0.1969	--	8			GD08C-0500	6	95	57	48	36			○
5.1	0.2008	--	3	External coolant		GD03-0510	6	66	28	20	36			●
	0.2008	--	5	External coolant		GD05-0510	6	82	44	35	36			●
5.1	0.2008	--	3	Internal coolant		GD03C-0510	6	66	28	20	36	1/4-20UNC	NO.12-28UNF	●
	0.2008	--	5	Internal coolant		GD05C-0510	6	82	44	35	36			●
5.1	0.2008	--	8			GD08C-0510	6	95	57	48	36			○
5.2	0.2047	--	3	External coolant		GD03-0520	6	66	28	20	36			●
	0.2047	--	5	External coolant		GD05-0520	6	82	44	35	36			●
5.2	0.2047	--	3	Internal coolant		GD03C-0520	6	66	28	20	36			●
	0.2047	--	5	Internal coolant		GD05C-0520	6	82	44	35	36			●
5.2	0.2047	--	8			GD08C-0520	6	95	57	48	36			○
5.25	0.2067	--	3	External coolant		GD03-0525	6	66	28	20	36			●
	0.2067	--	5	External coolant		GD05-0525	6	82	44	35	36			●
5.25	0.2067	--	3	Internal coolant		GD03C-0525	6	66	28	20	36	M6×0.75		●
	0.2067	--	5	Internal coolant		GD05C-0525	6	82	44	35	36			●

● Stock available ○ Make-to-order

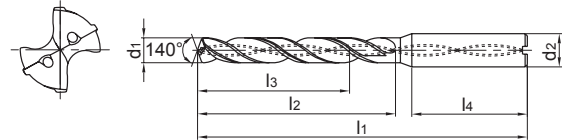
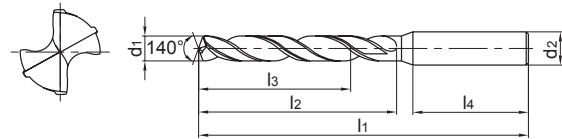


Drill diameter d ₁ (mm)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade			
							Shank diameter	Overall length	Flute length	Recommended drilling depth	Shank length	cutting taps / tread milling cutters	forming taps	KDG3013			
mm	inch	Fraction					d ₂ (h ₆)	l ₁	l ₂	l ₃	l ₄						
5.3	0.2087	--	3	External coolant	Straight shank	GD03-0530	6	66	28	20	36			●			
	0.2087	--	5			GD05-0530	6	82	44	35	36			●			
	0.2087	--	3	Internal coolant		GD03C-0530	6	66	28	20	36					●	
	0.2087	--	5			GD05C-0530	6	82	44	35	36					●	
	0.2087	--	8			GD08C-0530	6	95	57	48	36					○	
5.4	0.2126	--	3	External coolant		GD03-0540	6	66	28	20	36			●			
	0.2126	--	5			GD05-0540	6	82	44	35	36			●			
	0.2126	--	3	Internal coolant		GD03C-0540	6	66	28	20	36					●	
	0.2126	--	5			GD05C-0540	6	82	44	35	36					●	
	0.2126	--	8			GD08C-0540	6	95	57	48	36					○	
5.5	0.2165	--	3	External coolant	GD03-0550	6	66	28	20	36	1/4-28UNF		●				
	0.2165	--	5		GD05-0550	6	82	44	35	36			●				
	0.2165	--	3	Internal coolant	GD03C-0550	6	66	28	20	36					●		
	0.2165	--	5		GD05C-0550	6	82	44	35	36					●		
	0.2165	--	8		GD08C-0550	6	95	57	48	36					○		
5.558	0.2188	7/32	3	External coolant	GD03-05558	6	66	28	20	36					●		
	0.2188	7/32	5		GD05-05558	6	82	44	35	36					●		
	0.2188	7/32	3	Internal coolant	GD03C-05558	6	66	28	20	36							●
	0.2188	7/32	5		GD05C-05558	6	82	44	35	36							●
5.6	0.2205	--	3	External coolant	GD03-0560	6	66	28	20	36				M6×1	●		
	0.2205	--	5		GD05-0560	6	82	44	35	36	●						
	0.2205	--	3	Internal coolant	GD03C-0560	6	66	28	20	36					●		
	0.2205	--	5		GD05C-0560	6	82	44	35	36					●		
	0.2205	--	8		GD08C-0560	6	95	57	48	36					○		
5.7	0.2244	--	3	External coolant	GD03-0570	6	66	28	20	36		M6×0.75			●		
	0.2244	--	5		GD05-0570	6	82	44	35	36					●		
	0.2244	--	3	Internal coolant	GD03C-0570	6	66	28	20	36							●
	0.2244	--	5		GD05C-0570	6	82	44	35	36							●
	0.2244	--	8		GD08C-0570	6	95	57	48	36							○
5.75	0.2264	--	3	External coolant	GD03-0575	6	66	28	20	36				1/4-20UNC	●		
	0.2264	--	5		GD05-0575	6	82	44	35	36					●		
	0.2264	--	3	Internal coolant	GD03C-0575	6	66	28	20	36							●
	0.2264	--	5		GD05C-0575	6	82	44	35	36							●
5.8	0.2283	--	3	External coolant	GD03-0580	6	66	28	20	36							●
	0.2283	--	5		GD05-0580	6	82	44	35	36	●						
	0.2283	--	3	Internal coolant	GD03C-0580	6	66	28	20	36							●
	0.2283	--	5		GD05C-0580	6	82	44	35	36							●
	0.2283	--	8		GD08C-0580	6	95	57	48	36							○
5.9	0.2323	--	3	External coolant	GD03-0590	6	66	28	20	36					●		
	0.2323	--	5		GD05-0590	6	82	44	35	36			●				
	0.2323	--	3	Internal coolant	GD03C-0590	6	66	28	20	36					●		
	0.2323	--	5		GD05C-0590	6	82	44	35	36					●		
	0.2323	--	8		GD08C-0590	6	95	57	48	36					○		

Note: For drilling depth (l/d) of 8 ,namely GD08C series, tolerance of shank diameter is h₈.

● Stock available

○ Make-to-order



- Suitable for high efficiency drilling in a variety of materials e.g steel, stainless steel, cast iron.

Drill diameter d ₁ (m7)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade
mm	inch	Fraction					Shank diameter d ₂ (h ₆)	Overall length l ₁	Flute length l ₂	Recommended drilling depth l ₃	Shank length l ₄	cutting taps / tread milling cutters	forming taps	
5.95	0.2343	--	3	External coolant	Straight shank	GD03-0595	6	66	28	20	36		1/4-28UNF	●
	0.2343	--	5	External coolant		GD05-0595	6	82	44	35	36			●
	0.2343	--	3	Internal coolant		GD03C-0595	6	66	28	20	36			●
	0.2343	--	5	Internal coolant		GD05C-0595	6	82	44	35	36			●
6.0	0.2362	--	3	External coolant		GD03-0600	6	66	28	20	36	M7×1		●
	0.2362	--	5	External coolant		GD05-0600	6	82	44	35	36			●
	0.2362	--	3	Internal coolant		GD03C-0600	6	66	28	20	36			●
	0.2362	--	5	Internal coolant		GD05C-0600	6	82	44	35	36			●
	0.2362	--	8	Internal coolant		GD08C-0600	6	95	57	48	36			○
6.1	0.2402	--	3	External coolant		GD03-0610	8	79	34	24	36			●
	0.2402	--	5	External coolant		GD05-0610	8	91	53	43	36			●
	0.2402	--	3	Internal coolant		GD03C-0610	8	79	34	24	36			●
	0.2402	--	5	Internal coolant		GD05C-0610	8	91	53	43	36			●
	0.2402	--	8	Internal coolant		GD08C-0610	8	114	76	66	36			○
6.2	0.2441	--	3	External coolant		GD03-0620	8	79	34	24	36			●
	0.2441	--	5	External coolant		GD05-0620	8	91	53	43	36			●
	0.2441	--	3	Internal coolant		GD03C-0620	8	79	34	24	36			●
	0.2441	--	5	Internal coolant		GD05C-0620	8	91	53	43	36			●
	0.2441	--	8	Internal coolant		GD08C-0620	8	114	76	66	36			○
6.3	0.2480	--	3	External coolant		GD03-0630	8	79	34	24	36			●
	0.2480	--	5	External coolant		GD05-0630	8	91	53	43	36			●
	0.2480	--	3	Internal coolant		GD03C-0630	8	79	34	24	36			●
	0.2480	--	5	Internal coolant		GD05C-0630	8	91	53	43	36			●
	0.2480	--	8	Internal coolant		GD08C-0630	8	114	76	66	36			○
6.35	0.2500	1/4	3	External coolant		GD03-06350	8	79	34	24	36			●
	0.2500	1/4	5	External coolant		GD05-06350	8	91	53	43	36			●
	0.2500	1/4	3	Internal coolant		GD03C-06350	8	79	34	24	36			●
	0.2500	1/4	5	Internal coolant		GD05C-06350	8	91	53	43	36			●
6.4	0.2520	--	3	External coolant		GD03-0640	8	79	34	24	36			●
	0.2520	--	5	External coolant		GD05-0640	8	91	53	43	36			●

● Stock available ○ Make-to-order

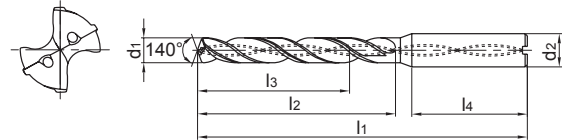
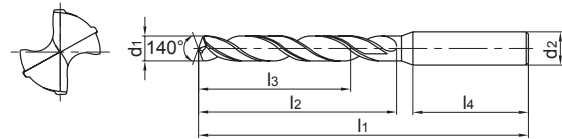


Drill diameter d ₁ (m7)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade
mm	inch	Fraction					Shank diameter	Overall length	Flute length	Recommended drilling depth	Shank length	cutting taps / tread milling cutters	forming taps	KDG3013
							d ₂ (h ₆)	l ₁	l ₂	l ₃	l ₄			
6.4	0.2520	--	3	Internal coolant	Straight shank	GD03C-0640	8	79	34	24	36			●
	0.2520	--	5			GD05C-0640	8	91	53	43	36			●
	0.2520	--	8			GD08C-0640	8	114	76	66	36			○
6.5	0.2559	--	3	External coolant		GD03-0650	8	79	34	24	36			●
	0.2559	--	5			GD05-0650	8	91	53	43	36			●
	0.2559	--	3	Internal coolant		GD03C-0650	8	79	34	24	36			●
	0.2559	--	5			GD05C-0650	8	91	53	43	36			●
	0.2559	--	8			GD08C-0650	8	114	76	66	36			○
6.6	0.2598	--	3	External coolant		GD03-0660	8	79	34	24	36	5/16-18UNC	M7×1	●
	0.2598	--	5			GD05-0660	8	91	53	43	36			●
	0.2598	--	3	Internal coolant		GD03C-0660	8	79	34	24	36			●
	0.2598	--	5			GD05C-0660	8	91	53	43	36			●
	0.2598	--	8			GD08C-0660	8	114	76	66	36			○
6.7	0.2638	--	3	External coolant		GD03-0670	8	79	34	24	36			●
	0.2638	--	5			GD05-0670	8	91	53	43	36			●
	0.2638	--	3	Internal coolant		GD03C-0670	8	79	34	24	36			●
	0.2638	--	5			GD05C-0670	8	91	53	43	36			●
	0.2638	--	8			GD08C-0670	8	114	76	66	36			○
6.746	0.2656	17/64	3	External coolant		GD03-06746	8	79	34	24	36			●
	0.2656	17/64	5			GD05-06746	8	91	53	43	36			●
	0.2656	17/64	3	Internal coolant		GD03C-06746	8	79	34	24	36			●
	0.2656	17/64	5			GD05C-06746	8	91	53	43	36			●
6.8	0.2677	--	3	External coolant		GD03-0680	8	79	34	24	36			●
	0.2677	--	5			GD05-0680	8	91	53	43	36			●
	0.2677	--	3	Internal coolant		GD03C-0680	8	79	34	24	36			●
	0.2677	--	5			GD05C-0680	8	91	53	43	36			●
	0.2677	--	8			GD08C-0680	8	114	76	66	36			○
6.9	0.2717	--	3	External coolant		GD03-0690	8	79	34	24	36	5/16-24UNF		●
	0.2717	--	5			GD05-0690	8	91	53	43	36			●
	0.2717	--	3	Internal coolant		GD03C-0690	8	79	34	24	36			●
	0.2717	--	5			GD05C-0690	8	91	53	43	36			●
	0.2717	--	8			GD08C-0690	8	114	76	66	36			○
7.0	0.2756	--	3	External coolant		GD03-0700	8	79	34	24	36	M8×1		●
	0.2756	--	5			GD05-0700	8	91	53	43	36			●
	0.2756	--	3	Internal coolant		GD03C-0700	8	79	34	24	36			●
	0.2756	--	5			GD05C-0700	8	91	53	43	36			●
	0.2756	--	8			GD08C-0700	8	116	76	66	36			○
7.1	0.2795	--	3	External coolant		GD03-0710	8	79	41	29	36			●
	0.2795	--	5			GD05-0710	8	91	53	43	36			●
	0.2795	--	3	Internal coolant		GD03C-0710	8	79	41	29	36			●
	0.2795	--	5			GD05C-0710	8	91	53	43	36			●
	0.2795	--	8			GD08C-0710	8	116	76	66	36			○

Note: For drilling depth (l/d) of 8 ,namely GD08C series, tolerance of shank diameter is h₅.

● Stock available

○ Make-to-order



- Suitable for high efficiency drilling in a variety of materials e.g steel, stainless steel, cast iron.

Drill diameter d1(m7)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade
mm	inch	Fraction					Shank diameter d2(h6)	Overall length l1	Flute length l2	Recommended drilling depth l3	Shank length l4	cutting taps / tread milling cutters	forming taps	
7.145	0.2813	9/32	3	External coolant	Straight shank	GD03-07145	8	79	41	29	36			●
	0.2813	9/32	5	External coolant		GD05-07145	8	91	53	43	36			●
	0.2813	9/32	3	Internal coolant		GD03C-07145	8	79	41	29	36			●
	0.2813	9/32	5	Internal coolant		GD05C-07145	8	91	53	43	36			●
7.2	0.2835	--	3	External coolant		GD03-0720	8	79	41	29	36			●
	0.2835	--	5	External coolant		GD05-0720	8	91	53	43	36			●
	0.2835	--	3	Internal coolant		GD03C-0720	8	79	41	29	36			●
	0.2835	--	5	Internal coolant		GD05C-0720	8	91	53	43	36			●
7.3	0.2835	--	8			GD08C-0720	8	116	76	66	36			○
	0.2874	--	3	External coolant		GD03-0730	8	79	41	29	36			●
	0.2874	--	5	External coolant		GD05-0730	8	91	53	43	36			●
	0.2874	--	3	Internal coolant		GD03C-0730	8	79	41	29	36		5/16-18UNC	●
7.4	0.2874	--	5	Internal coolant		GD05C-0730	8	91	53	43	36			●
	0.2874	--	8			GD08C-0730	8	116	76	66	36			○
	0.2913	--	3	External coolant		GD03-0740	8	79	41	29	36			●
	0.2913	--	5	External coolant		GD05-0740	8	91	53	43	36			●
7.45	0.2913	--	3	Internal coolant		GD03C-0740	8	79	41	29	36			●
	0.2913	--	5	Internal coolant		GD05C-0740	8	91	53	43	36			●
	0.2913	--	8			GD08C-0740	8	116	76	66	36			○
	0.2933	--	3	External coolant		GD03-0745	8	79	41	29	36			●
7.5	0.2933	--	5	External coolant		GD05-0745	8	91	53	43	36		M8×1.25	●
	0.2933	--	3	Internal coolant		GD03C-0745	8	79	41	29	36		5/16-24UNF	●
	0.2933	--	5	Internal coolant		GD05C-0745	8	91	53	43	36			●
	0.2953	--	3	External coolant		GD03-0750	8	79	41	29	36			●
7.541	0.2953	--	5	External coolant		GD05-0750	8	91	53	43	36			●
	0.2953	--	3	Internal coolant		GD03C-0750	8	79	41	29	36			●
	0.2953	--	5	Internal coolant		GD05C-0750	8	91	53	43	36			●
	0.2953	--	8			GD08C-0750	8	116	76	66	36			○
7.541	0.2969	19/64	3	External coolant		GD03-07541	8	79	41	29	36			●
	0.2969	19/64	5	External coolant		GD05-07541	8	91	53	43	36			●
	0.2969	19/64	3	Internal coolant		GD03C-07541	8	79	41	29	36			●
	0.2969	19/64	5	Internal coolant		GD05C-07541	8	91	53	43	36			●

● Stock available ○ Make-to-order

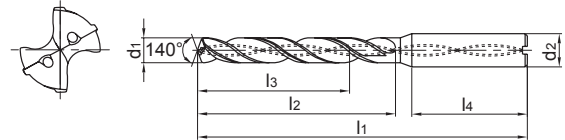
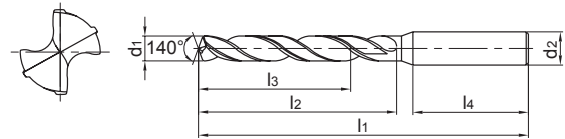


Drill diameter d ₁ (mm)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade
mm	inch	Fraction					Shank diameter	Overall length	Flute length	Recommended drilling depth	Shank length	cutting taps / tread milling cutters	forming taps	KDG3013
							d ₂ (h ₆)	l ₁	l ₂	l ₃	l ₄			
7.6	0.2992	--	3	External coolant	Straight shank	GD03-0760	8	79	41	29	36		M8×1	●
	0.2992	--	5			GD05-0760	8	91	53	43	36			●
	0.2992	--	3	Internal coolant		GD03C-0760	8	79	41	29	36			●
	0.2992	--	5			GD05C-0760	8	91	53	43	36			●
	0.2992	--	8			GD08C-0760	8	116	76	66	36			○
7.7	0.3031	--	3	External coolant		GD03-0770	8	79	41	29	36			●
	0.3031	--	5			GD05-0770	8	91	53	43	36			●
	0.3031	--	3	Internal coolant		GD03C-0770	8	79	41	29	36			●
	0.3031	--	5			GD05C-0770	8	91	53	43	36			●
	0.3031	--	8			GD08C-0770	8	116	76	66	36			○
7.8	0.3071	--	3	External coolant		GD03-0780	8	79	41	29	36			●
	0.3071	--	5			GD05-0780	8	91	53	43	36			●
	0.3071	--	3	Internal coolant		GD03C-0780	8	79	41	29	36			●
	0.3071	--	5			GD05C-0780	8	91	53	43	36			●
	0.3071	--	8			GD08C-0780	8	116	76	66	36			○
7.9	0.3110	--	3	External coolant		GD03-0790	8	79	41	29	36			●
	0.3110	--	5			GD05-0790	8	91	53	43	36			●
	0.3110	--	3	Internal coolant		GD03C-0790	8	79	41	29	36			●
	0.3110	--	5			GD05C-0790	8	91	53	43	36			●
	0.3110	--	8			GD08C-0790	8	116	76	66	36			○
7.938	0.3125	5/16	3	External coolant		GD03-07938	8	79	41	29	36			●
	0.3125	5/16	5			GD05-07938	8	91	53	43	36			●
	0.3125	5/16	3	Internal coolant		GD03C-07938	8	79	41	29	36			●
	0.3125	5/16	5			GD05C-07938	8	91	53	43	36			●
8.0	0.3150	--	3	External coolant		GD03-0800	8	79	41	29	36	3/8-16UNC		●
	0.3150	--	5			GD05-0800	8	91	53	43	36			●
	0.3150	--	3	Internal coolant		GD03C-0800	8	79	41	29	36			●
	0.3150	--	5			GD05C-0800	8	91	53	43	36			●
	0.3150	--	8			GD08C-0800	8	116	76	66	36			○
8.1	0.3189	--	3	External coolant		GD03-0810	10	89	47	35	40			●
	0.3189	--	5			GD05-0810	10	103	61	49	40			●
	0.3189	--	3	Internal coolant		GD03C-0810	10	89	47	35	40			●
	0.3189	--	5			GD05C-0810	10	103	61	49	40			●
	0.3189	--	8			GD08C-0810	10	142	95	83	40			○
8.2	0.3228	--	3	External coolant		GD03-0820	10	89	47	35	40			●
	0.3228	--	5			GD05-0820	10	103	61	49	40			●
	0.3228	--	3	Internal coolant		GD03C-0820	10	89	47	35	40			●
	0.3228	--	5			GD05C-0820	10	103	61	49	40			●
	0.3228	--	8			GD08C-0820	10	142	95	83	40			○
8.3	0.3268	--	3	External coolant		GD03-0830	10	89	47	35	40			●
	0.3268	--	5			GD05-0830	10	103	61	49	40			●

Note: For drilling depth (l/d) of 8, namely GD08C series, tolerance of shank diameter is h₅.

● Stock available

○ Make-to-order



- Suitable for high efficiency drilling in a variety of materials e.g steel, stainless steel, cast iron.

Drill diameter d ₁ (mm)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade
mm	inch	Fraction					Shank diameter d ₂ (h ₆)	Overall length l ₁	Flute length l ₂	Recommended drilling depth l ₃	Shank length l ₄	cutting taps / tread milling cutters	forming taps	KDGG3013
8.3	0.3268	--	3	Internal coolant	Straight shank	GD03C-0830	10	89	47	35	40			●
	0.3268	--	5			GD05C-0830	10	103	61	49	40			●
	0.3268	--	8			GD08C-0830	10	142	95	83	40			○
8.334	0.3281	21/64	3	External coolant		GD03-08334	10	89	47	35	40			●
	0.3281	21/64	5			GD05-08334	10	103	61	49	40			●
	0.3281	21/64	3	Internal coolant		GD03C-08334	10	89	47	35	40			●
	0.3281	21/64	5			GD05C-08334	10	103	61	49	40			●
8.4	0.3307	--	3	External coolant		GD03-0840	10	89	47	35	40			●
	0.3307	--	5			GD05-0840	10	103	61	49	40			●
	0.3307	--	3	Internal coolant		GD03C-0840	10	89	47	35	40			●
	0.3307	--	5			GD05C-0840	10	103	61	49	40			●
	0.3307	--	8			GD08C-0840	10	142	95	83	40			○
8.5	0.3346	--	3	External coolant		GD03-0850	10	89	47	35	40	M10×1.5 3/8-24UNF		●
	0.3346	--	5			GD05-0850	10	103	61	49	40			●
	0.3346	--	3	Internal coolant		GD03C-0850	10	89	47	35	40			●
	0.3346	--	5			GD05C-0850	10	103	61	49	40			●
	0.3346	--	8			GD08C-0850	10	142	95	83	40			○
8.6	0.3386	--	3	External coolant		GD03-0860	10	89	47	35	40			●
	0.3386	--	5			GD05-0860	10	103	61	49	40			●
	0.3386	--	3	Internal coolant		GD03C-0860	10	89	47	35	40			●
	0.3386	--	5			GD05C-0860	10	103	61	49	40			●
	0.3386	--	8			GD08C-0860	10	142	95	83	40			○
8.7	0.3425	--	3	External coolant		GD03-0870	10	89	47	35	40			●
	0.3425	--	5			GD05-0870	10	103	61	49	40			●
	0.3425	--	3	Internal coolant		GD03C-0870	10	89	47	35	40			●
	0.3425	--	5			GD05C-0870	10	103	61	49	40			●
	0.3425	--	8			GD08C-0870	10	142	95	83	40			○
8.733	0.3438	11/32	3	External coolant		GD03-08733	10	89	47	35	40			●
	0.3438	11/32	5			GD05-08733	10	103	61	49	40			●
	0.3438	11/32	3	Internal coolant		GD03C-08733	10	89	47	35	40			●
	0.3438	11/32	5			GD05C-08733	10	103	61	49	40			●

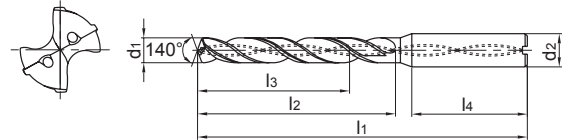
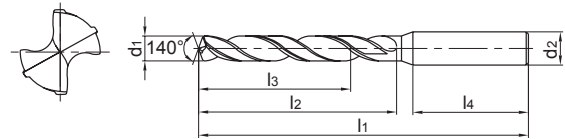
● Stock available ○ Make-to-order



Drill diameter d1(m7)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade
mm	inch	Fraction					Shank diameter	Overall length	Flute length	Recommended drilling depth	Shank length	cutting taps / tread milling cutters	forming taps	KDG3013
							d2(h6)	l1	l2	l3	l4			
8.8	0.3465	--	3	External coolant	Straight shank	GD03-0880	10	89	47	35	40		3/8-16UNC	●
	0.3465	--	5			GD05-0880	10	103	61	49	40			●
	0.3465	--	3	GD03C-0880		10	89	47	35	40	●			
	0.3465	--	5	GD05C-0880		10	103	61	49	40	●			
	0.3465	--	8	GD08C-0880		10	142	95	83	40	○			
8.9	0.3504	--	3	External coolant		GD03-0890	10	89	47	35	40			●
	0.3504	--	5			GD05-0890	10	103	61	49	40			●
	0.3504	--	3	GD03C-0890		10	89	47	35	40	●			
	0.3504	--	5	GD05C-0890		10	103	61	49	40	●			
	0.3504	--	8	GD08C-0890		10	142	95	83	40	○			
9.0	0.3543	--	3	External coolant		GD03-0900	10	89	47	35	40	M10×1	3/8-24UNF	●
	0.3543	--	5			GD05-0900	10	103	61	49	40			●
	0.3543	--	3	GD03C-0900		10	89	47	35	40	●			
	0.3543	--	5	GD05C-0900		10	103	61	49	40	●			
	0.3543	--	8	GD08C-0900		10	142	95	83	40	○			
9.1	0.3583	--	3	External coolant		GD03-0910	10	89	47	35	40			●
	0.3583	--	5			GD05-0910	10	103	61	49	40			●
	0.3583	--	3	GD03C-0910		10	89	47	35	40	●			
	0.3583	--	5	GD05C-0910		10	103	61	49	40	●			
	0.3583	--	8	GD08C-0910		10	142	95	83	40	○			
9.129	0.3594	23/64	3	External coolant		GD03-09129	10	89	47	35	40			●
	0.3594	23/64	5			GD05-09129	10	103	61	49	40			●
	0.3594	23/64	3	Internal coolant		GD03C-09129	10	89	47	35	40			●
	0.3594	23/64	5			GD05C-09129	10	103	61	49	40			●
9.2	0.3622	--	3	External coolant		GD03-0920	10	89	47	35	40			●
	0.3622	--	5			GD05-0920	10	103	61	49	40			●
	0.3622	--	3	GD03C-0920		10	89	47	35	40	●			
	0.3622	--	5	GD05C-0920		10	103	61	49	40	●			
	0.3622	--	8	GD08C-0920		10	142	95	83	40	○			
9.3	0.3661	--	3	External coolant		GD03-0930	10	89	47	35	40			●
	0.3661	--	5			GD05-0930	10	103	61	49	40			●
	0.3661	--	3	GD03C-0930		10	89	47	35	40	●			
	0.3661	--	5	GD05C-0930		10	103	61	49	40	●			
	0.3661	--	8	GD08C-0930		10	142	95	83	40	○			
9.35	0.3681	--	3	External coolant		GD03-0935	10	89	47	35	40		M10×1.5	●
	0.3681	--	5			GD05-0935	10	103	61	49	40			●
	0.3681	--	3	Internal coolant		GD03C-0935	10	89	47	35	40			●
	0.3681	--	5			GD05C-0935	10	103	61	49	40			●
9.4	0.3701	--	3	External coolant		GD03-0940	10	89	47	35	40	7/16-14UNC		●
	0.3701	--	5			GD05-0940	10	103	61	49	40			●
	0.3701	--	3	GD03C-0940		10	89	47	35	40	●			
	0.3701	--	5	GD05C-0940		10	103	61	49	40	●			
	0.3701	--	8	GD08C-0940		10	142	95	83	40	○			

Note: For drilling depth (l/d) of 8 ,namely GD08C series, tolerance of shank diameter is h₅.

● Stock available ○ Make-to-order



- Suitable for high efficiency drilling in a variety of materials e.g steel, stainless steel, cast iron.

Drill diameter d ₁ (m7)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade
mm	inch	Fraction					Shank diameter	Overall length	Flute length	Recommended drilling depth	Shank length	cutting taps / tread milling cutters	forming taps	KDG3013
			d ₂ (h ₆)	l ₁	l ₂	l ₃	l ₄							
9.45	0.3720	--	3	External coolant	Straight shank	GD03-0945	10	89	47	35	40		M10×1.25	●
	0.3720	--	5			GD05-0945	10	103	61	49	40			●
	0.3720	--	3	Internal coolant		GD03C-0945	10	89	47	35	40			●
	0.3720	--	5			GD05C-0945	10	103	61	49	40			●
9.5	0.3740	--	3	External coolant		GD03-0950	10	89	47	35	40			●
	0.3740	--	5			GD05-0950	10	103	61	49	40			●
	0.3740	--	3	Internal coolant		GD03C-0950	10	89	47	35	40			●
	0.3740	--	5			GD05C-0950	10	103	61	49	40			●
	0.3740	--	8			GD08C-0950	10	142	95	83	40			○
9.525	0.3750	3/8	3	External coolant		GD03-09525	10	89	47	35	40			●
	0.3750	3/8	5			GD05-09525	10	103	61	49	40			●
	0.3750	3/8	3	Internal coolant		GD03C-09525	10	89	47	35	40			●
	0.3750	3/8	5			GD05C-09525	10	103	61	49	40			●
9.6	0.3780	--	3	External coolant		GD03-0960	10	89	47	35	40		M10×1	●
	0.3780	--	5			GD05-0960	10	103	61	49	40			●
	0.3780	--	3	Internal coolant		GD03C-0960	10	89	47	35	40			●
	0.3780	--	5			GD05C-0960	10	103	61	49	40			●
	0.3780	--	8			GD08C-0960	10	142	95	83	40			○
9.7	0.3819	--	3	External coolant		GD03-0970	10	89	47	35	40			●
	0.3819	--	5			GD05-0970	10	103	61	49	40			●
	0.3819	--	3	Internal coolant		GD03C-0970	10	89	47	35	40			●
	0.3819	--	5			GD05C-0970	10	103	61	49	40			●
	0.3819	--	8			GD08C-0970	10	142	95	83	40			○
9.8	0.3858	--	3	External coolant		GD03-0980	10	89	47	35	40			●
	0.3858	--	5			GD05-0980	10	103	61	49	40			●
	0.3858	--	3	Internal coolant		GD03C-0980	10	89	47	35	40			●
	0.3858	--	5			GD05C-0980	10	103	61	49	40			●
	0.3858	--	8			GD08C-0980	10	142	95	83	40			○
9.9	0.3898	--	3	External coolant		GD03-0990	10	89	47	35	40	7/16-20UNF		●
	0.3898	--	5			GD05-0990	10	103	61	49	40			●

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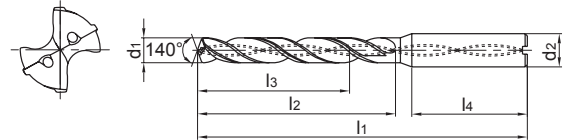
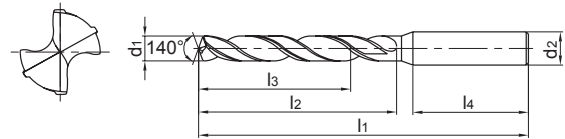


Drill diameter d ₁ (m7)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade	
mm	inch	Fraction					Shank diameter	Overall length	Flute length	Recommended drilling depth	Shank length	cutting taps / tread milling cutters	forming taps	KDG3013	
							d2(h6)	l ₁	l ₂	l ₃	l ₄				
9.9	0.3898	--	3	Internal coolant	Straight shank	GD03C-0990	10	89	47	35	40	7/16-20UNF		●	
	0.3898	--	5			GD05C-0990	10	103	61	49	40			●	
	0.3898	--	8			GD08C-0990	10	142	95	83	40			○	
9.921	0.3906	25/64	3	External coolant		GD03-09921	10	89	47	35	40			●	
	0.3906	25/64	5			GD05-09921	10	103	61	49	40			●	
	0.3906	25/64	3	Internal coolant		GD03C-09921	10	89	47	35	40			●	
	0.3906	25/64	5			GD05C-09921	10	103	61	49	40			●	
10.0	0.3937	--	3	External coolant		GD03-1000	10	89	47	35	40			●	
	0.3937	--	5			GD05-1000	10	103	61	49	40			●	
	0.3937	--	3	Internal coolant		GD03C-1000	10	89	47	35	40			●	
	0.3937	--	5			GD05C-1000	10	103	61	49	40			●	
	0.3937	--	8			GD08C-1000	10	142	95	83	40			○	
	0.3976	--	3			External coolant	GD03-1010	12	102	55	40	45			●
0.3976	--	5	GD05-1010	12			118	71	56	45			●		
10.1	0.3976	--	3	Internal coolant		GD03C-1010	12	102	55	40	45			●	
	0.3976	--	5			GD05C-1010	12	118	71	56	45			●	
	0.3976	--	8	External coolant		GD08C-1010	12	162	114	99	45			○	
	0.4016	--	3			External coolant	GD03-1020	12	102	55	40	45			●
	0.4016	--	5				GD05-1020	12	118	71	56	45			●
10.2	0.4016	--	3	Internal coolant		GD03C-1020	12	102	55	40	45			●	
	0.4016	--	5			GD05C-1020	12	118	71	56	45			●	
	0.4016	--	8	External coolant		GD08C-1020	12	162	114	99	45			○	
	0.4035	--	3			External coolant	GD03-1025	12	102	55	40	45	M12×1.75		●
	0.4035	--	5				GD05-1025	12	118	71	56	45			●
10.25	0.4035	--	3	Internal coolant		GD03C-1025	12	102	55	40	45				●
	0.4035	--	5			GD05C-1025	12	118	71	56	45			●	
	0.4055	--	3	External coolant		GD03-1030	12	102	55	40	45			●	
	0.4055	--	5			GD05-1030	12	118	71	56	45			●	
10.3	0.4055	--	3	Internal coolant		GD03C-1030	12	102	55	40	45		7/16-14UNC		●
	0.4055	--	5			GD05C-1030	12	118	71	56	45				●
	0.4055	--	8	External coolant		GD08C-1030	12	162	114	99	45				○
	0.4063	13/32	3			External coolant	GD03-10320	12	102	55	40	45			●
	0.4063	13/32	5				GD05-10320	12	118	71	56	45			●
10.32	0.4063	13/32	3	Internal coolant		GD03C-10320	12	102	55	40	45			●	
	0.4063	13/32	5			GD05C-10320	12	118	71	56	45			●	
	0.4094	--	3	External coolant		GD03-1040	12	102	55	40	45			●	
	0.4094	--	5			GD05-1040	12	118	71	56	45			●	
10.4	0.4094	--	3	Internal coolant		GD03C-1040	12	102	55	40	45			●	
	0.4094	--	5			GD05C-1040	12	118	71	56	45			●	
	0.4094	--	8	External coolant		GD08C-1040	12	162	114	99	45			○	
	0.4134	--	3			External coolant	GD03-1050	12	102	55	40	45	M12×1.5	7/16-20UNF	●
0.4134	--	5	GD05-1050	12			118	71	56	45	●				

Note: For drilling depth (l/d) of 8 ,namely GD08C series, tolerance of shank diameter is h₅.

● Stock available

○ Make-to-order



- Suitable for high efficiency drilling in a variety of materials e.g steel, stainless steel, cast iron.

Drill diameter d ₁ (m7)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade				
							Shank diameter	Overall length	Flute length	Recommended drilling depth	Shank length	cutting taps / tread milling cutters	forming taps		KDG3013			
mm	inch	Fraction					d ₂ (h ₆)	l ₁	l ₂	l ₃	l ₄							
10.5	0.4134	--	3	Internal coolant	Straight shank	GD03C-1050	12	102	55	40	45	M12×1.5	7/16-20UNF	●				
	0.4134	--	5			GD05C-1050	12	118	71	56	45			●				
	0.4134	--	8			GD08C-1050	12	162	114	99	45			○				
10.6	0.4173	--	3	External coolant		GD03-1060	12	102	55	40	45			●				
	0.4173	--	5			GD05-1060	12	118	71	56	45			●				
	0.4173	--	3			GD03C-1060	12	102	55	40	45			●				
10.6	0.4173	--	5	Internal coolant		GD05C-1060	12	118	71	56	45			●				
	0.4173	--	8			GD08C-1060	12	162	114	99	45			○				
	10.7	0.4213	--			3	External coolant	GD03-1070	12	102	55			40	45			●
0.4213		--	5	GD05-1070		12		118	71	56	45	●						
0.4213		--	3	GD03C-1070		12		102	55	40	45	●						
10.7	0.4213	--	5	Internal coolant		GD05C-1070	12	118	71	56	45			●				
	0.4213	--	8			GD08C-1070	12	162	114	99	45			○				
	10.716	0.4219	27/64			3	External coolant	GD03-10716	12	102	55			40	45			●
0.4219		27/64	5	GD05-10716		12		118	71	56	45	●						
0.4219		27/64	3	GD03C-10716		12		102	55	40	45	●						
10.716	0.4219	27/64	5	Internal coolant		GD05C-10716	12	118	71	56	45			●				
	10.75	0.4232	--			3	External coolant	GD03-1075	12	102	55			40	45	M12×1.25		●
		0.4232	--			5		GD05-1075	12	118	71			56	45			●
0.4232		--	3	GD03C-1075		12		102	55	40	45	●						
10.75	0.4232	--	5	Internal coolant		GD05C-1075	12	118	71	56	45			●				
	10.8	0.4252	--			3	External coolant	GD03-1080	12	102	55			40	45	1/2-13UNC		●
		0.4252	--			5		GD05-1080	12	118	71			56	45			●
0.4252		--	3	GD03C-1080		12		102	55	40	45	●						
10.8	0.4252	--	5	Internal coolant		GD05C-1080	12	118	71	56	45			●				
	0.4252	--	8			GD08C-1080	12	162	114	99	45			○				
	10.9	0.4291	--			3	External coolant	GD03-1090	12	102	55			40	45			●
0.4291		--	5	GD05-1090		12		118	71	56	45	●						
0.4291		--	3	GD03C-1090		12		102	55	40	45	●						
10.9	0.4291	--	5	Internal coolant		GD05C-1090	12	118	71	56	45			●				
	0.4291	--	8			GD08C-1090	12	162	114	99	45			○				

● Stock available ○ Make-to-order

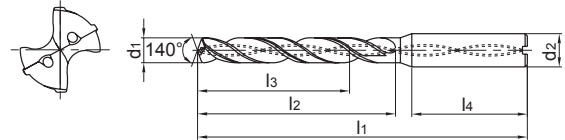
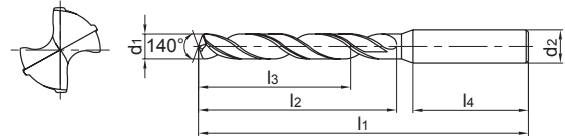


Drill diameter d ₁ (m7)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade
mm	inch	Fraction					Shank diameter	Overall length	Flute length	Recommended drilling depth	Shank length	cutting taps / tread milling cutters	forming taps	KDG3013
			d ₂ (h ₆)	l ₁	l ₂	l ₃	l ₄							
11.0	0.4331	--	3	External coolant	Straight shank	GD03-1100	12	102	55	40	45			●
	0.4331	--	5			GD05-1100	12	118	71	56	45			●
	0.4331	--	3	Internal coolant		GD03C-1100	12	102	55	40	45			●
	0.4331	--	5			GD05C-1100	12	118	71	56	45			●
	0.4331	--	8			GD08C-1100	12	162	114	99	45			○
11.1	0.4370	--	3	External coolant		GD03-1110	12	102	55	40	45			●
	0.4370	--	5			GD05-1110	12	118	71	56	45			●
	0.4370	--	3	Internal coolant		GD03C-1110	12	102	55	40	45			●
	0.4370	--	5			GD05C-1110	12	118	71	56	45			●
	0.4370	--	8			GD08C-1110	12	162	114	99	45			○
11.113	0.4375	7/16	3	External coolant		GD03-11113	12	102	55	40	45			●
	0.4375	7/16	5			GD05-11113	12	118	71	56	45			●
	0.4375	7/16	3	Internal coolant		GD03C-11113	12	102	55	40	45			●
	0.4375	7/16	5			GD05C-11113	12	118	71	56	45			●
11.2	0.4409	--	3	External coolant		GD03-1120	12	102	55	40	45			●
	0.4409	--	5			GD05-1120	12	118	71	56	45			●
	0.4409	--	3	Internal coolant		GD03C-1120	12	102	55	40	45			●
	0.4409	--	5			GD05C-1120	12	118	71	56	45			●
	0.4409	--	8			GD08C-1120	12	162	114	99	45			○
11.25	0.4429	--	3	External coolant		GD03-1125	12	102	55	40	45		M12×1.75	●
	0.4429	--	5			GD05-1125	12	118	71	56	45			●
	0.4429	--	3	Internal coolant		GD03C-1125	12	102	55	40	45			●
	0.4429	--	5			GD05C-1125	12	118	71	56	45			●
11.3	0.4449	--	3	External coolant		GD03-1130	12	102	55	40	45			●
	0.4449	--	5			GD05-1130	12	118	71	56	45			●
	0.4449	--	3	Internal coolant		GD03C-1130	12	102	55	40	45			●
	0.4449	--	5			GD05C-1130	12	118	71	56	45			●
	0.4449	--	8			GD08C-1130	12	162	114	99	45			○
11.35	0.4469	--	3	External coolant		GD03-1135	12	102	55	40	45		M12×1.5	●
	0.4469	--	5			GD05-1135	12	118	71	56	45			●
	0.4469	--	3	Internal coolant		GD03C-1135	12	102	55	40	45			●
	0.4469	--	5			GD05C-1135	12	118	71	56	45			●
11.4	0.4488	--	3	External coolant		GD03-1140	12	102	55	40	45			●
	0.4488	--	5			GD05-1140	12	118	71	56	45			●
	0.4488	--	3	Internal coolant		GD03C-1140	12	102	55	40	45			●
	0.4488	--	5			GD05C-1140	12	118	71	56	45			●
	0.4488	--	8			GD08C-1140	12	162	114	99	45			○
11.45	0.4508	--	3	External coolant		GD03-1145	12	102	55	40	45		M12×1.25	●
	0.4508	--	5			GD05-1145	12	118	71	56	45			●
	0.4508	--	3	Internal coolant		GD03C-1145	12	102	55	40	45			●
	0.4508	--	5			GD05C-1145	12	118	71	56	45			●

Note: For drilling depth (l/d) of 8, namely GD08C series, tolerance of shank diameter is h₅.

● Stock available

○ Make-to-order



- Suitable for high efficiency drilling in a variety of materials e.g steel, stainless steel, cast iron.

Drill diameter d ₁ (m7)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade
mm	inch	Fraction					Shank diameter	Overall length	Flute length	Recommended drilling depth	Shank length	cutting taps / tread milling cutters	forming taps	KDG3013
							d ₂ (h ₆)	l ₁	l ₂	l ₃	l ₄			
11.5	0.4528	--	3	External coolant	Straight shank	GD03-1150	12	102	55	40	45	1/2-20UNF		●
	0.4528	--	5			GD05-1150	12	118	71	56	45			●
	0.4528	--	3	GD03C-1150		12	102	55	40	45			●	
	0.4528	--	5	GD05C-1150		12	118	71	56	45			●	
	0.4528	--	8	GD08C-1150		12	162	114	99	45			○	
11.6	0.4567	--	3	External coolant		GD03-1160	12	102	55	40	45			●
	0.4567	--	5			GD05-1160	12	118	71	56	45		●	
	0.4567	--	3	Internal coolant		GD03C-1160	12	102	55	40	45			●
	0.4567	--	5			GD05C-1160	12	118	71	56	45		●	
	0.4567	--	8			GD08C-1160	12	162	114	99	45		○	
11.7	0.4606	--	3	External coolant		GD03-1170	12	102	55	40	45			●
	0.4606	--	5			GD05-1170	12	118	71	56	45		●	
	0.4606	--	3	Internal coolant		GD03C-1170	12	102	55	40	45			●
	0.4606	--	5			GD05C-1170	12	118	71	56	45		●	
	0.4606	--	8			GD08C-1170	12	162	114	99	45		○	
11.8	0.4646	--	3	External coolant		GD03-1180	12	102	55	40	45		1/2-13UNC	●
	0.4646	--	5			GD05-1180	12	118	71	56	45			●
	0.4646	--	3	Internal coolant		GD03C-1180	12	102	55	40	45			●
	0.4646	--	5			GD05C-1180	12	118	71	56	45			●
	0.4646	--	8			GD08C-1180	12	162	114	99	45			○
11.9	0.4685	--	3	External coolant		GD03-1190	12	102	55	40	45			●
	0.4685	--	5			GD05-1190	12	118	71	56	45		●	
	0.4685	--	3	Internal coolant		GD03C-1190	12	102	55	40	45			●
	0.4685	--	5			GD05C-1190	12	118	71	56	45		●	
	0.4685	--	8			GD08C-1190	12	162	114	99	45		○	
12.0	0.4724	--	3	External coolant		GD03-1200	12	102	55	40	45	M14×2		●
	0.4724	--	5			GD05-1200	12	118	71	56	45			●
	0.4724	--	3	Internal coolant		GD03C-1200	12	102	55	40	45			●
	0.4724	--	5			GD05C-1200	12	118	71	56	45			●
	0.4724	--	8			GD08C-1200	12	162	114	99	45			○
12.1	0.4764	--	3	External coolant		GD03-1210	14	107	60	43	45	1/2-20UNF		●
	0.4764	--	5			GD05-1210	14	124	77	60	45			●

● Stock available ○ Make-to-order

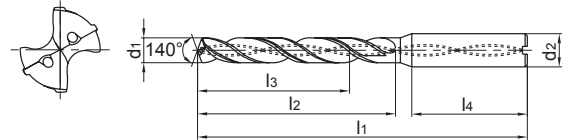
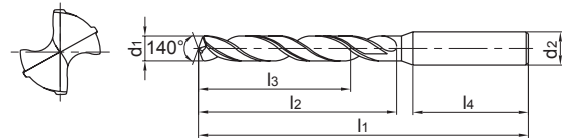


Drill diameter d ₁ (m7)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade		
mm	inch	Fraction					Shank diameter	Overall length	Flute length	Recommended drilling depth	Shank length	cutting taps / tread milling cutters	forming taps	KDG3013		
							d ₂ (h ₆)	l ₁	l ₂	l ₃	l ₄					
12.1	0.4764	--	3	Internal coolant	Straight shank Straight shank	GD03C-1210	14	107	60	43	45		1/2-20UNF	●		
	0.4764	--	5			GD05C-1210	14	124	77	60	45			●		
12.2	0.4803	--	3	External coolant		GD03-1220	14	107	60	43	45	9/16-12UNC		●		
	0.4803	--	5			GD05-1220	14	124	77	60	45			●		
	0.4803	--	3	Internal coolant		GD03C-1220	14	107	60	43	45			●		
	0.4803	--	5			GD05C-1220	14	124	77	60	45			●		
12.25	0.4823	--	3	External coolant		GD03-1225	14	107	60	43	45					●
	0.4823	--	5			GD05-1225	14	124	77	60	45					●
	0.4823	--	3	Internal coolant		GD03C-1225	14	107	60	43	45	●				
	0.4823	--	5			GD05C-1225	14	124	77	60	45	●				
12.304	0.4844	31/64	3	External coolant		GD03-12304	14	107	60	43	45					●
	0.4844	31/64	5			GD05-12304	14	124	77	60	45					●
	0.4844	31/64	3	Internal coolant		GD03C-12304	14	107	60	43	45			●		
	0.4844	31/64	5			GD05C-12304	14	124	77	60	45			●		
12.5	0.4921	--	3	External coolant		GD03-1250	14	107	60	43	45			M14×1.5		●
	0.4921	--	5			GD05-1250	14	124	77	60	45					●
	0.4921	--	3	Internal coolant		GD03C-1250	14	107	60	43	45	●				
	0.4921	--	5			GD05C-1250	14	124	77	60	45	●				
	0.4921	--	8			GD08C-1250	14	178	133	116	45	○				
12.7	0.5000	1/2	3	External coolant		GD03-1270	14	107	60	43	45					●
	0.5000	1/2	5			GD05-1270	14	124	77	60	45			●		
	0.5000	1/2	3	Internal coolant		GD03C-1270	14	107	60	43	45			●		
	0.5000	1/2	5			GD05C-1270	14	124	77	60	45			●		
	0.5000	1/2	8			GD08C-1270	14	178	133	116	45			○		
12.75	0.5020	--	3	External coolant		GD03-1275	14	107	60	43	45					●
	0.5020	--	5			GD05-1275	14	124	77	60	45	●				
	0.5020	--	3	Internal coolant		GD03C-1275	14	107	60	43	45	●				
	0.5020	--	5			GD05C-1275	14	124	77	60	45	●				
12.8	0.5039	--	3	External coolant		GD03-1280	14	107	60	43	45					●
	0.5039	--	5			GD05-1280	14	124	77	60	45					●
	0.5039	--	3	Internal coolant		GD03C-1280	14	107	60	43	45			●		
	0.5039	--	5			GD05C-1280	14	124	77	60	45			●		
	0.5039	--	8			GD08C-1280	14	178	133	116	45			○		
12.9	0.5079	--	3	External coolant		GD03-1290	14	107	60	43	45			9/16-18UNF		●
	0.5079	--	5			GD05-1290	14	124	77	60	45	●				
	0.5079	--	3	Internal coolant		GD03C-1290	14	107	60	43	45	●				
	0.5079	--	5			GD05C-1290	14	124	77	60	45	●				
13.0	0.5118	--	3	External coolant		GD03-1300	14	107	60	43	45					●
	0.5118	--	5			GD05-1300	14	124	77	60	45					●
	0.5118	--	3	Internal coolant		GD03C-1300	14	107	60	43	45			●		
	0.5118	--	5			GD05C-1300	14	124	77	60	45			●		
	0.5118	--	8			GD08C-1300	14	178	133	116	45			○		

Note: For drilling depth (l/d) of 8 ,namely GD08C series, tolerance of shank diameter is h₅.

● Stock available

○ Make-to-order



- Suitable for high efficiency drilling in a variety of materials e.g steel, stainless steel, cast iron.

Drill diameter d ₁ (m7)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade	
mm	inch	Fraction					Shank diameter	Overall length	Flute length	Recommended drilling depth	Shank length	cutting taps / tread milling cutters	forming taps	KDG3013	
							d ₂ (h ₆)	l ₁	l ₂	l ₃	l ₄				
13.1	0.5157	--	3	External coolant	Straight shank	GD03-1310	14	107	60	43	45		M14×2	●	
	0.5157	--	5			GD05-1310	14	124	77	60	45			●	
	0.5157	--	3	Internal coolant		GD03C-1310	14	107	60	43	45			●	
	0.5157	--	5	GD05C-1310		14	124	77	60	45	●				
13.35	0.5256	--	3	External coolant		GD03-1335	14	107	60	43	45		M14×1.5	●	
	0.5256	--	5			GD05-1335	14	124	77	60	45			●	
	0.5256	--	3	Internal coolant		GD03C-1335	14	107	60	43	45			9/16-12UNC	●
	0.5256	--	5	GD05C-1335		14	124	77	60	45	●				
13.5	0.5315	--	3	External coolant		GD03-1350	14	107	60	43	45	5/8-11UNC		●	
	0.5315	--	5			GD05-1350	14	124	77	60	45			●	
	0.5315	--	3	Internal coolant		GD03C-1350	14	107	60	43	45			●	
	0.5315	--	5			GD05C-1350	14	124	77	60	45			●	
	0.5315	--	8			GD08C-1350	14	178	133	116	45			○	
	0.5374	--	3			External coolant	GD03-1365	14	107	60	43			45	9/16-18UNF
0.5374	--	5	GD05-1365	14		124	77	60	45	●					
0.5374	--	3	Internal coolant	GD03C-1365		14	107	60	43	45	●				
0.5374	--	5	GD05C-1365	14		124	77	60	45	●					
13.8	0.5433	--	3	External coolant		GD03-1380	14	107	60	43	45			●	
	0.5433	--	5			GD05-1380	14	124	77	60	45			●	
	0.5433	--	3	Internal coolant		GD03C-1380	14	107	60	43	45			●	
	0.5433	--	5			GD05C-1380	14	124	77	60	45			●	
14.0	0.5512	--	3	External coolant		GD03-1400	14	107	60	43	45	M16×2		●	
	0.5512	--	5			GD05-1400	14	124	77	60	45			●	
	0.5512	--	3	Internal coolant		GD03C-1400	14	107	60	43	45			●	
	0.5512	--	5			GD05C-1400	14	124	77	60	45			●	
	0.5512	--	8			GD08C-1400	14	178	133	116	45			○	
14.25	0.5610	--	3	External coolant		GD03-1425	16	115	65	45	48			●	
	0.5610	--	5			GD05-1425	16	133	83	63	48			●	
	0.5610	--	3	Internal coolant		GD03C-1425	16	115	65	45	48			●	
	0.5610	--	5			GD05C-1425	16	133	83	63	48			●	
14.288	0.5625	9/16	3	External coolant		GD03-14288	16	115	65	45	48			●	
	0.5625	9/16	5		GD05-14288	16	133	83	63	48	●				

● Stock available ○ Make-to-order

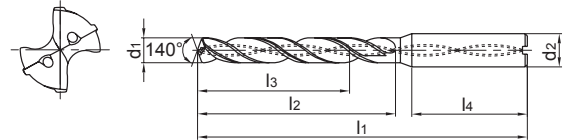
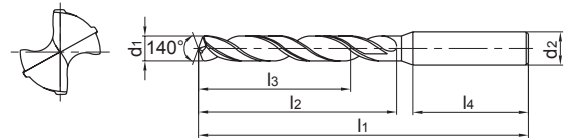


Drill diameter d1(m7)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade					
							Shank diameter	Overall length	Flute length	Recommended drilling depth	Shank length	cutting taps / tread milling cutters	forming taps	KDG3013					
mm	inch	Fraction					d2(h6)	l1	l2	l3	l4								
14.288	0.5625	9/16	3	Internal coolant	Straight shank	GD03C-14288	16	115	65	45	48	M16×1.5 5/8-18UNF		●					
	0.5625	9/16	5			GD05C-14288	16	133	83	63	48			●					
14.3	0.5630	--	3	External coolant		GD03-1430	16	115	65	45	48					●			
	0.5630	--	5			GD05-1430	16	133	83	63	48					●			
	0.5630	--	3	Internal coolant		GD03C-1430	16	115	65	45	48					●			
	0.5630	--	5			GD05C-1430	16	133	83	63	48					●			
14.5	0.5709	--	3	External coolant		GD03-1450	16	115	65	45	48					●			
	0.5709	--	5			GD05-1450	16	133	83	63	48					●			
	0.5709	--	3	Internal coolant		GD03C-1450	16	115	65	45	48							●	
	0.5709	--	5			GD05C-1450	16	133	83	63	48							●	
	0.5709	--	8			GD08C-1450	16	204	152	132	48							○	
	0.5781	37/64	3			External coolant	GD03-14684	16	115	65	45							48	
0.5781	37/64	5	GD05-14684	16			133	83	63	48	●								
14.684	0.5781	37/64	3	Internal coolant		GD03C-14684	16	115	65	45	48					●			
	0.5781	37/64	5			GD05C-14684	16	133	83	63	48					●			
	14.75	0.5807	--	3		External coolant	GD03-1475	16	115	65	45					48			●
		0.5807	--	5			GD05-1475	16	133	83	63					48			●
0.5807		--	3	Internal coolant		GD03C-1475	16	115	65	45	48					●			
0.5807		--	5			GD05C-1475	16	133	83	63	48					●			
14.8	0.5827	--	3	External coolant		GD03-1480	16	115	65	45	48							●	
	0.5827	--	5			GD05-1480	16	133	83	63	48							●	
	0.5827	--	3	Internal coolant		GD03C-1480	16	115	65	45	48	5/8-11UNC		●					
	0.5827	--	5			GD05C-1480	16	133	83	63	48			●					
	0.5827	--	8			GD08C-1480	16	204	152	132	48			○					
	0.5906	--	3			External coolant	GD03-1500	16	115	65	45			48					●
0.5906	--	5	GD05-1500	16			133	83	63	48	●								
15.0	0.5906	--	3	Internal coolant		GD03C-1500	16	115	65	45	48					●			
	0.5906	--	5			GD05C-1500	16	133	83	63	48	●							
	0.5906	--	8	GD08C-1500		16	204	152	132	48	○								
	15.1	0.5945	--	3		External coolant	GD03-1510	16	115	65	45	48				M16×2	●		
0.5945		--	5	GD05-1510			16	133	83	63	48	●							
0.5945		--	3	Internal coolant		GD03C-1510	16	115	65	45	48	5/8-18UNF			●				
0.5945		--	5			GD05C-1510	16	133	83	63	48				●				
15.25	0.6004	--	3	External coolant		GD03-1525	16	115	65	45	48					●			
	0.6004	--	5			GD05-1525	16	133	83	63	48					●			
	0.6004	--	3	Internal coolant		GD03C-1525	16	115	65	45	48	M16×1.5				●			
	0.6004	--	5			GD05C-1525	16	133	83	63	48					●			
15.35	0.6043	--	3	External coolant		GD03-1535	16	115	65	45	48					●			
	0.6043	--	5			GD05-1535	16	133	83	63	48					●			
	0.6043	--	3	Internal coolant		GD03C-1535	16	115	65	45	48	M18×2.5				●			
	0.6043	--	5			GD05C-1535	16	133	83	63	48					●			
15.5	0.6102	--	3	External coolant		GD03-1550	16	115	65	45	48					●			
	0.6102	--	5			GD05-1550	16	133	83	63	48					●			

Note: For drilling depth (l/d) of 8 ,namely GD08C series, tolerance of shank diameter is h₈.

● Stock available

○ Make-to-order



- Suitable for high efficiency drilling in a variety of materials e.g steel, stainless steel, cast iron.

Drill diameter d ₁ (m7)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade
mm	inch	Fraction					Shank diameter d ₂ (h ₆)	Overall length l ₁	Flute length l ₂	Recommended drilling depth l ₃	Shank length l ₄	cutting taps / tread milling cutters	forming taps	KDG3013
15.5	0.6102	--	3	Internal coolant	Straight shank	GD03C-1550	16	115	65	45	48	M18×2.5		●
	0.6102	--	5			GD05C-1550	16	133	83	63	48			●
	0.6102	--	8			GD08C-1550	16	204	152	132	48			○
15.8	0.6220	--	3	External coolant		GD03-1580	16	115	65	45	48			●
	0.6220	--	5			GD05-1580	16	133	83	63	48		●	
	0.6220	--	3	Internal coolant		GD03C-1580	16	115	65	45	48		●	
	0.6220	--	5			GD05C-1580	16	133	83	63	48		●	
15.875	0.6250	5/8	3	External coolant		GD03-15875	16	115	65	45	48			●
	0.6250	5/8	5			GD05-15875	16	133	83	63	48		●	
	0.6250	5/8	3	Internal coolant		GD03C-15875	16	115	65	45	48		●	
	0.6250	5/8	5			GD05C-15875	16	133	83	63	48		●	
16.0	0.6299	--	3	External coolant		GD03-1600	16	115	65	45	48	M18×2		●
	0.6299	--	5			GD05-1600	16	133	83	63	48			●
	0.6299	--	3	Internal coolant		GD03C-1600	16	115	65	45	48			●
	0.6299	--	5			GD05C-1600	16	133	83	63	48			●
	0.6299	--	8			GD08C-1600	16	204	152	132	48			○
16.5	0.6496	--	3	External coolant		GD03-1650	18	123	73	51	48	3/4-10UNC		●
	0.6496	--	5			GD05-1650	18	143	93	71	48			●
	0.6496	--	3	Internal coolant		GD03C-1650	18	123	73	51	48			●
	0.6496	--	5			GD05C-1650	18	143	93	71	48			●
	0.6496	--	8			GD08C-1650	18	223	171	149	48			○
16.75	0.6594	--	3	External coolant		GD03-1675	18	123	73	51	48			●
	0.6594	--	5			GD05-1675	18	143	93	71	48		●	
	0.6594	--	3	Internal coolant		GD03C-1675	18	123	73	51	48		●	
	0.6594	--	5			GD05C-1675	18	143	93	71	48		●	
16.8	0.6614	--	3	External coolant		GD03-1680	18	123	73	51	48	M18×2.5		●
	0.6614	--	5			GD05-1680	18	143	93	71	48			●
	0.6614	--	3	Internal coolant		GD03C-1680	18	123	73	51	48			●
	0.6614	--	5			GD05C-1680	18	143	93	71	48			●
17.0	0.6693	--	3	External coolant		GD03-1700	18	123	73	51	48			●
	0.6693	--	5			GD05-1700	18	143	93	71	48		●	

● Stock available ○ Make-to-order

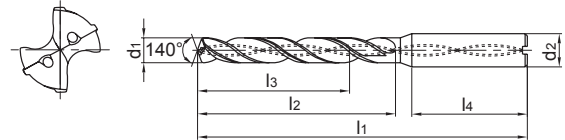
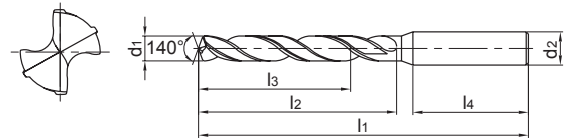


Drill diameter d1(m7)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade
mm	inch	Fraction					Shank diameter	Overall length	Flute length	Recommended drilling depth	Shank length	cutting taps / tread milling cutters	forming taps	KDG3013
							d2(ha)	l1	l2	l3	l4			
17.0	0.6693	--	3	Internal coolant	Straight shank	GD03C-1700	18	123	73	51	48	M20×2.5 3/4-16UNF		●
	0.6693	--	5			GD05C-1700	18	143	93	71	48			●
	0.6693	--	8			GD08C-1700	18	223	171	149	48			○
17.463	0.6875	11/16	3	External coolant		GD03-17463	18	123	73	51	48			●
	0.6875	11/16	5	GD05-17463		18	143	93	71	48			●	
	0.6875	11/16	3	Internal coolant		GD03C-17463	18	123	73	51	48			●
	0.6875	11/16	5	GD05C-17463		18	143	93	71	48			●	
17.5	0.6890	--	3	External coolant		GD03-1750	18	123	73	51	48			●
	0.6890	--	5	GD05-1750		18	143	93	71	48	●			
	0.6890	--	3	Internal coolant		GD03C-1750	18	123	73	51	48			●
	0.6890	--	5			GD05C-1750	18	143	93	71	48			●
	0.6890	--	8			GD08C-1750	18	223	171	149	48			○
17.8	0.7008	--	3	External coolant		GD03-1780	18	123	73	51	48			●
	0.7008	--	5	GD05-1780		18	143	93	71	48			●	
	0.7008	--	3	Internal coolant		GD03C-1780	18	123	73	51	48			●
	0.7008	--	5	GD05C-1780		18	143	93	71	48			●	
17.9	0.7047	--	3	External coolant		GD03-1790	18	123	73	51	48			●
	0.7047	--	5	GD05-1790		18	143	93	71	48	●			
	0.7047	--	3	Internal coolant		GD03C-1790	18	123	73	51	48			●
	0.7047	--	5	GD05C-1790		18	143	93	71	48	●			
18.0	0.7087	--	3	External coolant		GD03-1800	18	123	73	51	48	M20×2	●	
	0.7087	--	5	GD05-1800		18	143	93	71	48	●			
	0.7087	--	3	Internal coolant		GD03C-1800	18	123	73	51	48		●	
	0.7087	--	5			GD05C-1800	18	143	93	71	48		●	
	0.7087	--	8			GD08C-1800	18	223	171	149	48		○	
18.3	0.7205	--	3	External coolant		GD03-1830	20	131	79	55	50	3/4-16UNF	●	
	0.7205	--	5	GD05-1830		20	153	101	77	50	●			
	0.7205	--	3	Internal coolant		GD03C-1830	20	131	79	55	50		●	
	0.7205	--	5	GD05C-1830		20	153	101	77	50	●			
18.5	0.7283	--	3	External coolant		GD03-1850	20	131	79	55	50		●	
	0.7283	--	5	GD05-1850		20	153	101	77	50	●			
	0.7283	--	3	Internal coolant		GD03C-1850	20	131	79	55	50		●	
	0.7283	--	5	GD05C-1850		20	153	101	77	50	●			
18.8	0.7402	--	3	External coolant		GD03-1880	20	131	79	55	50	M20×2.5	●	
	0.7402	--	5	GD05-1880		20	153	101	77	50	●			
	0.7402	--	3	Internal coolant		GD03C-1880	20	131	79	55	50		●	
	0.7402	--	5	GD05C-1880		20	153	101	77	50	●			
19.0	0.7480	--	3	External coolant		GD03-1900	20	131	79	55	50		●	
	0.7480	--	5	GD05-1900		20	153	101	77	50	●			
	0.7480	--	3	Internal coolant		GD03C-1900	20	131	79	55	50		●	
	0.7480	--	5	GD05C-1900		20	153	101	77	50	●			

Note: For drilling depth (l/d) of 8, namely GD08C series, tolerance of shank diameter is h₅.

● Stock available

○ Make-to-order



- Suitable for high efficiency drilling in a variety of materials e.g steel, stainless steel, cast iron.

Drill diameter d ₁ (mm)			Drilling depth (l/d)	Cooling mode	Shank type	Type	Basic dimension(mm)					Suitable for thread		Grade
mm	inch	Fraction					Shank diameter d ₂ (h ₆)	Overall length l ₁	Flute length l ₂	Recommended drilling depth l ₃	Shank length l ₄	cutting taps / tread milling cutters	forming taps	
19.05	0.7500	3/4	3	External coolant	Straight shank	GD03-1905	20	131	79	55	50			●
	0.7500	3/4	5	External coolant		GD05-1905	20	153	101	77	50			●
	0.7500	3/4	3	Internal coolant		GD03C-1905	20	131	79	55	50			●
	0.7500	3/4	5	Internal coolant		GD05C-1905	20	153	101	77	50			●
19.5	0.7677	--	3	External coolant		GD03-1950	20	131	79	55	50	M22×2.5 7/8-9UNC		●
	0.7677	--	5	External coolant		GD05-1950	20	153	101	77	50			●
	0.7677	--	3	Internal coolant		GD03C-1950	20	131	79	55	50			●
	0.7677	--	5	Internal coolant		GD05C-1950	20	153	101	77	50			●
19.8	0.7795	--	3	External coolant		GD03-1980	20	131	79	55	50			●
	0.7795	--	5	External coolant		GD05-1980	20	153	101	77	50			●
	0.7795	--	3	Internal coolant		GD03C-1980	20	131	79	55	50			●
	0.7795	--	5	Internal coolant		GD05C-1980	20	153	101	77	50			●
20.0	0.7874	--	3	External coolant		GD03-2000	20	131	79	55	50	M22×2		●
	0.7874	--	5	External coolant		GD05-2000	20	153	101	77	50			●
	0.7874	--	3	Internal coolant		GD03C-2000	20	131	79	55	50			●
	0.7874	--	5	Internal coolant		GD05C-2000	20	153	101	77	50			●

Note: For drilling depth (l/d) of 8 ,namely GD08C series, tolerance of shank diameter is h₈.

● Stock available ○ Make-to-order

● Applicable material table

● Very suitable ○ Suitable

Grade	Workpiece material										
	Mild steel HB≤180	Carbon steel, Alloy steel	Pre-hardened steel, Hardened steel			Stainless steel	Cast iron	Nodular cast iron	Aluminum alloy	Copper alloy	Heat resistant alloy
			~40HRC	~50HRC	~60HRC						
KDG3013	○	⊙	⊙			○	⊙	⊙			○



GD series twist drills(external coolant)

3D

5D

workpiece material	Mild steel HB≤180		Carbon steel, alloy steel ~30HRC		Pre-hardened steel ~40HRC		Stainless steel		Cast iron		Nodular cast iron		Heat resistant alloy	
Cutting speed	200~395SFPM		200~395SFPM		135~230SFPM		85~135SFPM		200~395SFPM		165~330SFPM		50~85SFPM	
Diameter (mm)	Rotating speed (r/min)	Feed rate (in/rev)	Rotating speed (r/min)	Feed rate (in/rev)	Rotating speed (r/min)	Feed rate (in/rev)	Rotating speed (r/min)	Feed rate (in/rev)	Rotating speed (r/min)	Feed rate (in/rev)	Rotating speed (r/min)	Feed rate (in/rev)	Rotating speed (r/min)	Feed rate (in/rev)
2	14000	0.0024~0.0031	14000	0.0024~0.0031	9500	0.0024~0.0031	5500	0.0008~0.002	14000	0.0024~0.0031	11000	0.0024~0.0031	3200	0.0008~0.0016
3	9500	0.0035~0.0047	9500	0.0035~0.0047	6300	0.0035~0.0047	3700	0.0012~0.0028	9500	0.0035~0.0047	7400	0.0035~0.0047	2100	0.0012~0.0024
4	7000	0.0039~0.0059	7000	0.0039~0.0059	4700	0.0039~0.0059	2700	0.0016~0.0031	7000	0.0039~0.0059	5600	0.0039~0.0059	1600	0.0016~0.0028
5	5700	0.0047~0.0071	5700	0.0047~0.0071	3800	0.0047~0.0071	2200	0.002~0.0039	5700	0.0047~0.0071	4500	0.0047~0.0071	1250	0.002~0.0035
6	4700	0.0055~0.0079	4700	0.0055~0.0079	3100	0.0055~0.0079	1850	0.0024~0.0047	4700	0.0055~0.0079	3700	0.0055~0.0079	1050	0.0024~0.0043
8	3600	0.0063~0.0094	3600	0.0063~0.0094	2400	0.0063~0.0094	1400	0.0031~0.0063	3600	0.0063~0.0094	2800	0.0063~0.0094	800	0.0031~0.0055
10	2800	0.0071~0.0106	2800	0.0071~0.0106	1900	0.0071~0.0106	1100	0.0039~0.0071	2800	0.0071~0.0106	2200	0.0071~0.0106	600	0.0039~0.0063
12	2400	0.0079~0.0118	2400	0.0079~0.0118	1600	0.0079~0.0118	930	0.0047~0.0079	2400	0.0079~0.0118	1900	0.0079~0.0118	500	0.0047~0.0071
14	2100	0.0087~0.0138	2100	0.0087~0.0138	1400	0.0087~0.0138	800	0.0051~0.0087	2100	0.0087~0.0138	1600	0.0087~0.0138	450	0.0051~0.0079
16	1800	0.0098~0.0142	1800	0.0098~0.0142	1200	0.0098~0.0142	700	0.0055~0.0098	1800	0.0098~0.0142	1400	0.0098~0.0142	400	0.0055~0.0091
18	1600	0.0110~0.0150	1600	0.0110~0.0150	1100	0.0110~0.0150	620	0.0059~0.011	1600	0.0110~0.0150	1200	0.0110~0.0150	350	0.0059~0.0098
20	1400	0.0118~0.0157	1400	0.0118~0.0157	950	0.0118~0.0157	550	0.0063~0.0118	1400	0.0118~0.0157	1100	0.0118~0.0157	320	0.0063~0.011

1. When the tool is used for the first time, please do a test cutting with 90% of the cutting speed or 85% of the feed rate stated above. As cutting conditions become stable, gradually increase the cutting speed and feed rate.
2. The cutting conditions above are applicable for drilling with water-soluble cutting liquid.
3. When clamping drill, please use a collet without any defect or dust, and keep the radial run-out of drill under 0.02mm.
4. These conditions above are applicable for cutting depth under 5D.

GD series twist drills(internal coolant)

3D
5D

workpiece material	Mild steel HB≤180		Carbon steel, alloy steel ~30HRC		Pre-hardened steel ~40HRC		Stainless steel		Cast iron		Nodular cast iron		Heat resistant alloy	
Cutting speed	265~500SFPM		265~500SFPM		165~265SFPM		165~265SFPM		265~500SFPM		200~395SFPM		50~85SFPM	
Diameter (mm)	Rotating speed (r/min)	Feed rate (in/rev)	Rotating speed (r/min)	Feed rate (in/rev)	Rotating speed (r/min)	Feed rate (in/rev)	Rotating speed (r/min)	Feed rate (in/rev)	Rotating speed (r/min)	Feed rate (in/rev)	Rotating speed (r/min)	Feed rate (in/rev)	Rotating speed (r/min)	Feed rate (in/rev)
3	12700	0.0035-0.0047	12700	0.0035-0.0047	7400	0.0035-0.0047	6300	0.0012-0.0028	12700	0.0035-0.0047	9500	0.0035-0.0047	2100	0.0012-0.0024
4	9600	0.0039-0.0059	9600	0.0039-0.0059	5600	0.0039-0.0059	4700	0.0016-0.0031	9600	0.0039-0.0059	7000	0.0039-0.0059	1600	0.0016-0.0028
5	7600	0.0047-0.0071	7600	0.0047-0.0071	4500	0.0047-0.0071	3800	0.002-0.0039	7600	0.0047-0.0071	5700	0.0047-0.0071	1250	0.002-0.0035
6	6400	0.0055-0.0079	6400	0.0055-0.0079	3700	0.0055-0.0079	3200	0.0024-0.0047	6400	0.0055-0.0079	4700	0.0055-0.0079	1050	0.0024-0.0043
8	4800	0.0063-0.0094	4800	0.0063-0.0094	2800	0.0063-0.0094	2400	0.0031-0.0063	4800	0.0063-0.0094	3600	0.0063-0.0094	800	0.0031-0.0055
10	3800	0.0071-0.0106	3800	0.0071-0.0106	2200	0.0071-0.0106	1900	0.0039-0.0071	3800	0.0071-0.0106	2800	0.0071-0.0106	600	0.0039-0.0063
12	3200	0.0079-0.0118	3200	0.0079-0.0118	1900	0.0079-0.0118	1600	0.0047-0.0079	3200	0.0079-0.0118	2400	0.0079-0.0118	500	0.0047-0.0071
14	2700	0.0087-0.0138	2700	0.0087-0.0138	1600	0.0087-0.0138	1350	0.0051-0.0087	2700	0.0087-0.0138	2100	0.0087-0.0138	450	0.0051-0.0079
16	2400	0.0098-0.0142	2400	0.0098-0.0142	1400	0.0098-0.0142	1200	0.0055-0.0098	2400	0.0098-0.0142	1800	0.0098-0.0142	400	0.0055-0.0091
18	2100	0.011-0.015	2100	0.011-0.015	1200	0.011-0.015	1050	0.0059-0.011	2100	0.011-0.015	1600	0.011-0.015	350	0.0059-0.0098
20	1900	0.0118-0.0157	1900	0.0118-0.0157	1100	0.0118-0.0157	950	0.0063-0.0118	1900	0.0118-0.0157	1400	0.0118-0.0157	320	0.0063-0.011

1. When the tool is used for the first time, please do a test cutting with 90% of the cutting speed or 85% of the feed rate stated above. As cutting conditions become stable, gradually increase the cutting speed and feed rate.
2. The cutting conditions above are applicable for drilling with water-soluble cutting liquid.
3. When clamping drill, please use a collet without any defect or dust, and keep the radial run-out of drill under 0.02mm.
4. These conditions above are applicable for cutting depth under 5D.



GD series twist drills(internal coolant)

8D

workpiece material	Mild steel HB≤180		Carbon steel, alloy steel ~30HRC		Pre-hardened steel ~40HRC		Stainless steel		Cast iron		Nodular cast iron		Heat resistant alloy	
Cutting speed	265~500SFPM		265~500SFPM		165~265SFPM		135~200SFPM		265~500SFPM		200~395SFPM		50~85SFPM	
Diameter (mm)	Rotating speed (r/min)	Feed rate (in/rev)	Rotating speed (r/min)	Feed rate (in/rev)	Rotating speed (r/min)	Feed rate (in/rev)	Rotating speed (r/min)	Feed rate (in/rev)	Rotating speed (r/min)	Feed rate (in/rev)	Rotating speed (r/min)	Feed rate (in/rev)	Rotating speed (r/min)	Feed rate (in/rev)
3	12700	0.0024-0.0039	12700	0.0024-0.0039	7400	0.0024-0.0039	5300	0.0012-0.0028	12700	0.0024-0.0039	9500	0.0024-0.0039	2100	0.0012-0.0024
4	9600	0.0031-0.0047	9600	0.0031-0.0047	5600	0.0031-0.0047	4000	0.0016-0.0031	9600	0.0031-0.0047	7000	0.0031-0.0047	1600	0.0016-0.0028
5	7600	0.0039-0.0055	7600	0.0039-0.0055	4500	0.0039-0.0055	3200	0.002-0.0039	7600	0.0039-0.0055	5700	0.0039-0.0055	1250	0.002-0.0035
6	6400	0.0043-0.0063	6400	0.0043-0.0063	3700	0.0043-0.0063	2700	0.0024-0.0047	6400	0.0043-0.0063	4700	0.0043-0.0063	1050	0.0024-0.0043
8	4800	0.0051-0.0075	4800	0.0051-0.0075	2800	0.0051-0.0075	2000	0.0031-0.0063	4800	0.0051-0.0075	3600	0.0051-0.0075	800	0.0031-0.0055
10	3800	0.0055-0.0087	3800	0.0055-0.0087	2200	0.0055-0.0087	1600	0.0039-0.0071	3800	0.0055-0.0087	2800	0.0055-0.0087	600	0.0039-0.0063
12	3200	0.0063-0.0094	3200	0.0063-0.0094	1900	0.0063-0.0094	1300	0.0047-0.0079	3200	0.0063-0.0094	2400	0.0063-0.0094	500	0.0047-0.0071
14	2700	0.0071-0.011	2700	0.0071-0.011	1600	0.0071-0.011	1100	0.0051-0.0087	2700	0.0071-0.011	2100	0.0071-0.011	450	0.0051-0.0079
16	2400	0.0079-0.0114	2400	0.0079-0.0114	1400	0.0079-0.0114	1000	0.0055-0.0098	2400	0.0079-0.0114	1800	0.0079-0.0114	400	0.0055-0.0091
18	2100	0.0094-0.0126	2100	0.0094-0.0126	1200	0.0094-0.0126	880	0.0059-0.011	2100	0.0094-0.0126	1600	0.0094-0.0126	350	0.0059-0.0098

1. When the tool is used for the first time, please do a test cutting with 90% of the cutting speed or 85% of the feed rate stated above. As cutting conditions become stable, gradually increase the cutting speed and feed rate.
2. The cutting conditions above are applicable for drilling with emulsion.
3. When clamping drill, please use a collet without any defect or dust, and keep the radial run-out of drill under 0.02mm.
4. These conditions above are applicable for cutting depth under 8D.



ZCC-CT