

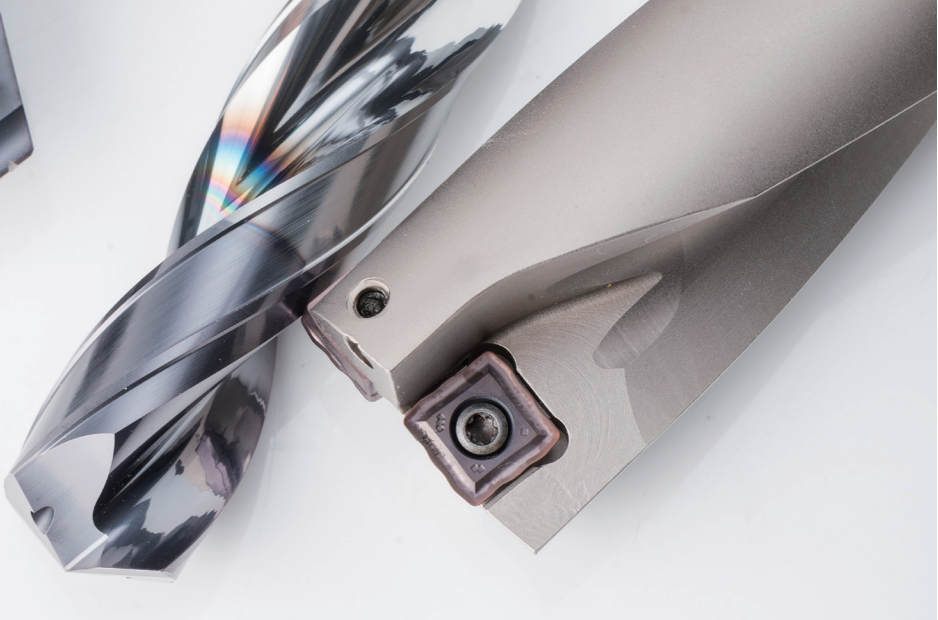
HOLEMAKING TOOLS

INDEXABLE DRILLING





Contents



Indexable Drill _____ **D**

GSD Spade Drills	506
GHD Indexable Drills	514

D

INDEXABLE DRILLING



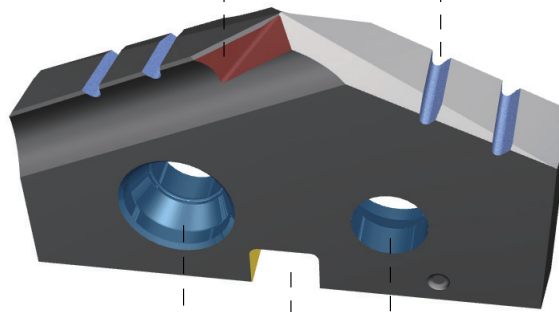
Spade Drill Inserts

XR chisel edge regrinding

- Strengthen cutting edges
- Increasing stability

Chip dividing groove

- Reducing cutting width
- Reducing drilling torque



Double Screw holes

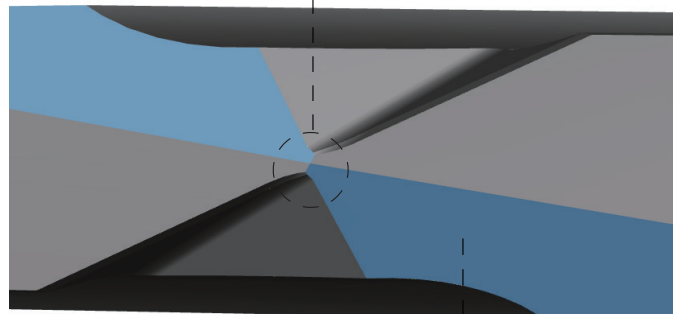
- Safe and reliable clamping
- Ensuring drilling Stability

Positioning slot

- Ensuring radial accuracy

Drilling Core

- Thinner Drilling Core, effectively reduce the axial resistance
- Better self-centering



Double flank

- Reduce the friction with the workpiece

Identification of Spade Drill

GSD – 125 – 08D – FC 20 – (S)



① Drill Type	
GSD	WINTECH Spade Drills

② Bore Diameter	
125	Dia. of mounting position Φ 12.5mm

③ Bore Diameter	
08D	Effective drilling depth is 8D

④ Shank Type	
FC	Flange-Plat
FMT	M—Morse taper shank

⑤ Shank Size			
FC	Φ 20	Φ 25	Φ 32
FMT	2	3	4

⑥ Groove Type	
-	Helical flute
S	Straight flute

Identification of Spade Drill Inserts

M C M G 0200 T3 – DS – M3225



① Shape	
M	Spade drill

② Relief Angle	
C	7°

③ Tolerance	
M	

④ Chip breaker/Hole Symbol	
G	Double-sided

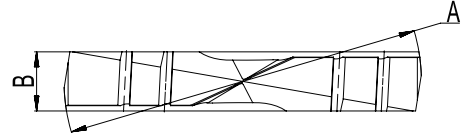
⑤ Diameter	
0200	20.0mm

⑥ Thickness(mm)	
T3	3.97

⑦ Chip breaker Symbol	
Indicates the cutting properties and chipbreaker	

⑧ Grade	
M3225	

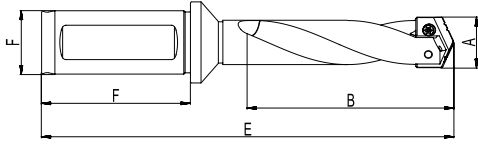
Spade Drill Inserts



Ordering Code	Diameter (mm)	Thickness (mm)	Grade	Ordering Code	Diameter (mm)	Thickness (mm)	Grade
			M3225				M3225
MCMG013003-DS	13.00	3.18	●	MCMG025004-DS	25.00	4.76	●
MCMG013503-DS	13.50		●	MCMG025504-DS	25.50		●
MCMG014003-DS	14.00		●	MCMG026004-DS	26.00		●
MCMG014503-DS	14.50		●	MCMG026504-DS	26.50		●
MCMG015003-DS	15.00		●	MCMG027004-DS	27.00		●
MCMG015503-DS	15.50		●	MCMG027504-DS	27.50		●
MCMG016003-DS	16.00		●	MCMG028004-DS	28.00		●
MCMG016503-DS	16.50		●	MCMG028504-DS	28.50		●
MCMG017003-DS	17.00		●	MCMG029004-DS	29.00		●
MCMG017503-DS	17.50		●	MCMG029504-DS	29.50		●
MCMG0180T3-DS	18.00		●	MCMG030004-DS	30.00		●
MCMG0185T3-DS	18.50		●	MCMG030504-DS	30.50		●
MCMG0190T3-DS	19.00		●	MCMG031004-DS	31.00		●
MCMG0195T3-DS	19.50		●	MCMG031504-DS	31.50		●
MCMG0200T3-DS	20.00	3.97	●	MCMG032004-DS	32.00	●	
MCMG0205T3-DS	20.50		●	MCMG032504-DS	32.50	●	
MCMG0210T3-DS	21.00		●	MCMG033004-DS	33.00	●	
MCMG0215T3-DS	21.50		●	MCMG033504-DS	33.50	●	
MCMG0220T3-DS	22.00		●	MCMG034004-DS	34.00	●	
MCMG0225T3-DS	22.50		●	MCMG034504-DS	34.50	●	
MCMG0230T3-DS	23.00		●	MCMG035004-DS	35.00	●	
MCMG0235T3-DS	23.50		●	MCMG035504-DS	35.50	●	
MCMG0240T3-DS	24.00		●	MCMG036004-DS	36.00	●	
MCMG0245T3-DS	24.50		●				

● Stock ○ Available upon order

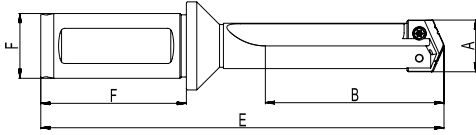
The Lateral Fixation Type Flange Shank and Helical Flute Holder



Ordering Code	Drill Insert Range A	Max. Drill Depth B	Overall Length E	Shank F		Screw	Wrench
				Dia.	Length		
GSD-125-04D-FC20	13.0 ~ 15.0	63.5	142.1	20.0	50.0	PSI52M025060-03712C	PTT08PC
GSD-125-07D-FC20		114.3	192.9				
GSD-125-11D-FC20		177.8	256.4				
GSD-150-03D-FC20	15.5 ~ 17.5	63.5	142.1	25.0	56.0	PSI52M030075-04212C	PTT09PC
GSD-150-06D-FC20		114.3	192.9				
GSD-150-10D-FC20		177.8	256.4				
GSD-175-05D-FC25	18.0 ~ 21.5	117.5	210.8	32.0	60.0	PSI52M040095-05218C	PTT158PC
GSD-175-07D-FC25		168.3	261.6				
GSD-175-12D-FC25		269.9	363.2				
GSD-215-04D-FC25	22.0 ~ 24.0	117.5	210.8	25.0	56.0	PSI52M030075-04212C	PTT09PC
GSD-215-07D-FC25		168.3	261.6				
GSD-215-11D-FC25		269.9	363.2				
GSD-245-04D-FC32	25.0 ~ 29.0	136.5	239.4	20.0	50.0	PSI52M025060-03712C	PTT08PC
GSD-245-06D-FC32		187.3	290.2				
GSD-245-09D-FC32		288.9	391.8				
GSD-295-03D-FC32	30.0 ~ 36.0	136.5	239.4	25.0	56.0	PSI52M030075-04212C	PTT09PC
GSD-295-05D-FC32		187.3	290.2				
GSD-295-08D-FC32		288.9	391.8				

● Stock ○ Available upon order

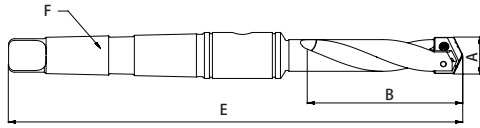
The Lateral Fixation Type Flange Shank and Straight Flute Holder



Ordering Code	Drill Insert Range A	Max. Drill Depth B	Overall Length E	Shank F		Screw	Wrench
				Dia.	Length		
GSD-125-01D-FC20-S	13.0 ~ 15.0	22.2	97.6	20.0	50.0	PSI52M025060-03712C	PTT08PC
GSD-125-02D-FC20-S		34.9	113.5				
GSD-125-19D-FC20-S		295.0	373.9				
GSD-125-25D-FC20-S		387.0	466.0				
GSD-150-01D-FC20-S	15.5 ~ 17.5	22.2	97.6	25.0	56.0	PSI52M030075-04212C	PTT09PC
GSD-150-02D-FC20-S		34.9	113.5				
GSD-150-16D-FC20-S		295.0	373.9				
GSD-150-22D-FC20-S		387.0	466.0				
GSD-175-02D-FC25-S	18.0 ~ 21.5	47.6	131.8	32.0	60.0	PSI52M040095-05218C	PTT158PC
GSD-175-03D-FC25-S		66.7	163.2				
GSD-175-21D-FC25-S		457.0	550.5				
GSD-175-26D-FC25-S		569.0	658.5				
GSD-215-01D-FC25-S	22.0 ~ 24.0	47.6	131.8	32.0	60.0	PSI52M040095-05218C	PTT158PC
GSD-215-02D-FC25-S		66.7	163.2				
GSD-215-19D-FC25-S		457.0	550.5				
GSD-215-23D-FC25-S		569.0	658.5				
GSD-245-01D-FC32-S	25.0 ~ 29.0	57.2	148.5	32.0	60.0	PSI52M040095-05218C	PTT158PC
GSD-245-02D-FC32-S		85.7	188.6				
GSD-245-17D-FC32-S		511.0	614.1				
GSD-245-23D-FC32-S		692.0	795.1				
GSD-295-01D-FC32-S	30.0 ~ 36.0	57.2	148.5	32.0	60.0	PSI52M040095-05218C	PTT158PC
GSD-295-02D-FC32-S		85.7	188.6				
GSD-295-14D-FC32-S		511.0	614.1				
GSD-295-19D-FC32-S		692.0	795.1				

● Stock ○ Available upon order

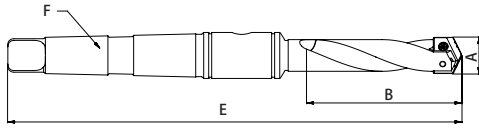
The Morse Taper-shank and Helical Flute Holder



Ordering Code	Drill Insert Range A	Max. Drill Depth B	Overall Length E	Shank F	Screw	Wrench
GSD-125-02D-FMT2	13.0 ~ 15.0	35.0	164.3	FMT2	PSI52M025060-03712C	PTT08PC
GSD-125-04D-FMT2		63.5	192.9			
GSD-125-07D-FMT2		114.3	243.7			
GSD-125-11D-FMT2		177.8	307.2			
GSD-150-02D-FMT2	15.5 ~ 17.5	35.0	164.3			
GSD-150-03D-FMT2		63.5	192.9			
GSD-150-06D-FMT2		114.3	243.7			
GSD-150-10D-FMT2		177.8	307.2			
GSD-175-03D-FMT3	18.0 ~ 21.5	69.8	232.5	FMT3	PSI52M030075-04212C	PTT09PC
GSD-175-05D-FMT3		120.7	283.3			
GSD-175-07D-FMT3		171.5	334.2			
GSD-175-12D-FMT3		273.1	435.8			
GSD-215-02D-FMT3	22.0 ~ 24.0	69.8	232.5			
GSD-215-05D-FMT3		120.7	283.3			
GSD-215-07D-FMT3		171.5	334.2			
GSD-215-11D-FMT3		273.1	435.8			
GSD-245-02D-FMT4	25.0 ~ 29.0	85.7	273.8	FMT4	PSI52M040095-05218C	PTT158PC
GSD-245-04D-FMT4		136.5	324.6			
GSD-245-06D-FMT4		187.3	375.4			
GSD-245-09D-FMT4		289.0	477.0			
GSD-295-02D-FMT4	30.0 ~ 35.0	85.7	281.0			
GSD-295-04D-FMT4		136.5	331.8			
GSD-295-05D-FMT4		187.3	382.6			
GSD-295-08D-FMT4		289.0	484.2			

● Stock ○ Available upon order

The Morse Taper-shank and Straight Flute Holder



Ordering Code	Drill Insert Range A	Max. Drill Depth B	Overall Length E	Shank F	Screw	Wrench
GSD-125-02D-FMT2-S	13.0 ~ 15.0	35.0	164.3	FMT2	PSI52M025060-03712C	PTT08PC
GSD-150-02D-FMT2-S	15.5 ~ 17.5	35.0	164.3			
GSD-175-03D-FMT3-S	18.0 ~ 21.5	69.8	232.5	FMT3	PSI52M030075-04212C	PTT09PC
GSD-215-02D-FMT3-S	22.0 ~ 24.0	69.8	232.5			
GSD-245-02D-FMT4-S	25.0 ~ 29.0	85.7	273.8	FMT4	PSI52M040095-05218C	PTT158PC
GSD-295-02D-FMT4-S	30.0 ~ 35.0	85.7	281.0			

● Stock ○ Available upon order

Spade Drill Body Parts

Screw		Wrench	
Type	Ordering Code	Type	Ordering Code
SI52M2.5*6.0	PSI52M025060-03712C	T08	PTT08PC
SI52M3.0*7.5	PSI52M030075-04212C	T09	PTT09PC
SI52M4.0*9.5	PSI52M040095-05218C	T15	PTT15PC



Recommended Cutting Data

GSD series spade drill

	Workpiece Materials	Material Hardness (HB)	Recommended Cutting Speed (m/min)	Feed (mm/rev)*Refer to Diameter Range *		
				Ø13.0 – 17.5	Ø18.0 – 24.0	Ø25.0 – 35.0
P	Low Carbon Steel	85 – 275	(100) 80 – 120	0.18-0.22	0.24-0.28	0.25-0.30
	Medium Carbon Steel	125 – 325	(90) 80 – 105	0.18-0.22	0.21-0.28	0.28-0.32
	Alloy Steel	125 – 375	(80) 60 – 100	0.12-0.16	0.16-0.22	0.22-0.28
	High Alloy Steel	225 – 400	(70) 50 – 90	0.12-0.16	0.15-0.20	0.20-0.25
	Structural Steel	100 – 350	(80) 60 – 100	0.16-0.20	0.18-0.22	0.22-0.28
M	Stainless Steel 300 Series	135 – 275	(60) 40 – 70	0.12-0.16	0.16-0.20	0.22-0.26
	Stainless Steel 400 Series	185 – 350	(50) 40 – 60	0.15-0.18	0.18-0.22	0.22-0.26
	Duplex Stainless Steel	135 – 275	(40) 30 – 50	0.10-0.15	0.15-0.18	0.18-0.22
K	Forged cast iron	150 – 230	(100) 80 – 120	0.18-0.25	0.25-0.30	0.30-0.35
	Gray cast iron	150 – 230	(100) 80 – 120	0.18-0.25	0.25-0.30	0.30-0.35
	Nodular cast iron	160 – 260	(80) 60 – 100	0.15-0.20	0.25-0.28	0.28-0.38

HOLDERS WITH DIFFERENT LENGTH

Parameters	Length of different holders				
	Drill Depth < 8D	8D ≥ Drill Depth < 12D	12D ≥ Drill Depth < 16D	16D ≥ Drill Depth < 20D	20D ≥ Drill Depth
Speed	Refer to the above sheet	0.9	0.85	0.8	0.75
Feed	Refer to the above sheet		0.95	0.9	0.9

Note: The parameters recommended in the table are based on the premise of perfect equipment and efficiency. Please according to the actual equipment situation, reduce the speed and feed (speed reduced by 20%, feed reduced by 10%) when application.

Indexable Drill Body Identification System

GHD - 200 - 3D - FC 25 - Q 06 A




① Tool type	
GHD	Indexable drill

② Dia of drill	
Range	Φ14-Φ51

③ Aspect Ratio	
2D/3D/4D/5D	

④ Shank type	
FC	Flange-Flat
FW	Flange-Weldone
FH	Flange-Whistle

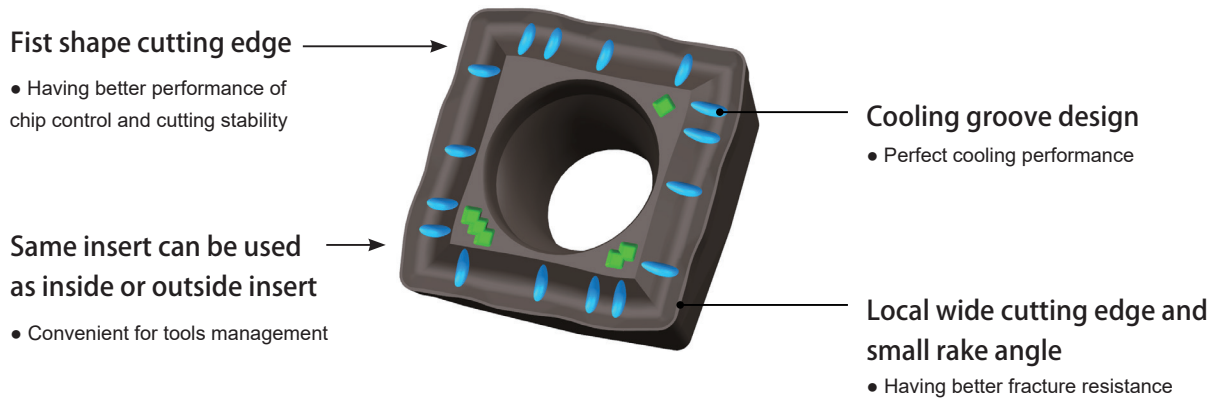
⑤ Shank size	
Φ20 Φ25	
Φ32 Φ40	

⑥ Insert shape	
Q	

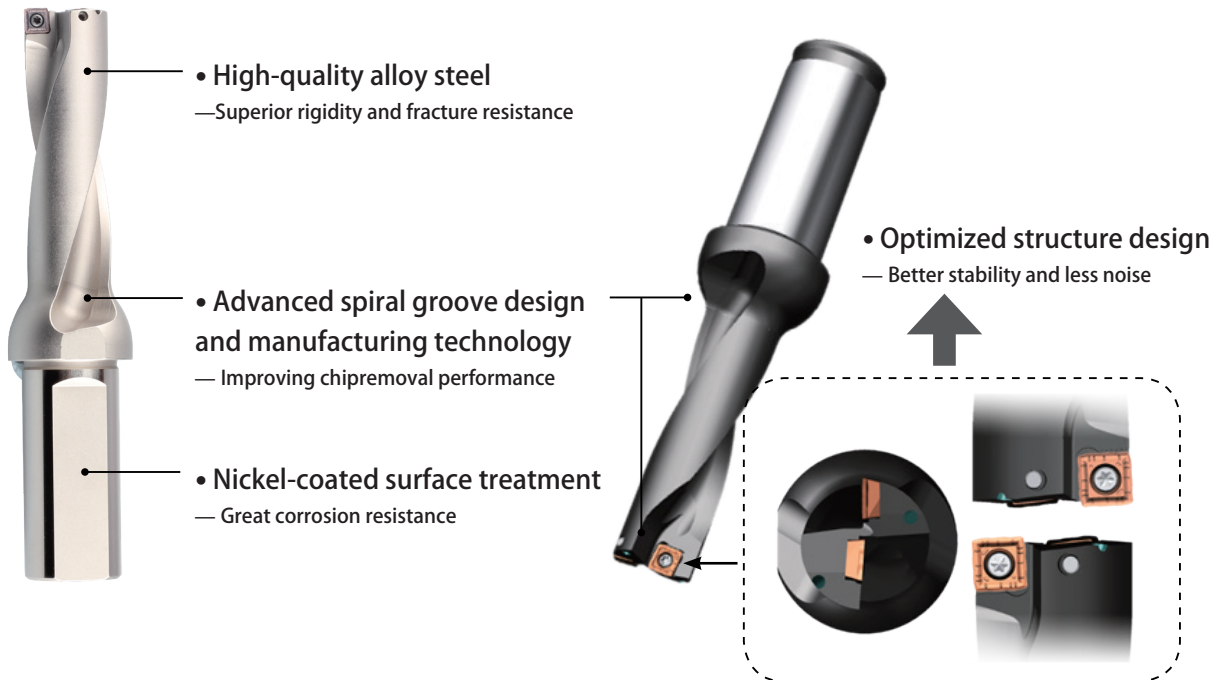
⑦ Cutting edge length	
04, 05, 06, 07	
09, 11, 13, 15	

⑧ Drill type	
A	General
D	Customer-made

QPMG Drilling Inserts

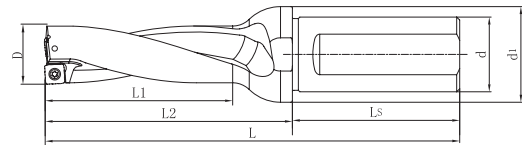


GHD Drill Body



GHD-2D

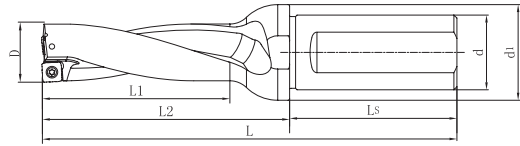
Indexable Drill (Patented)



Dia.	Drilling body	Dimension							Insert
		D	d	d1	Ls	L2	L1	L	
Φ 14.0	GHD-140-2D-FC20-Q04A	14.0	20	25	50	46	30	96	QPMG040204
Φ 14.5	GHD-145-2D-FC20-Q04A	14.5	20	25	50	46	30	96	
Φ 15.0	GHD-150-2D-FC20-Q04A	15.0	20	25	50	48	32	98	
Φ 15.5	GHD-155-2D-FC20-Q04A	15.5	20	25	50	48	32	98	
Φ 16.0	GHD-160-2D-FC20-Q05A	16.0	20	25	50	50	34	100	QPMG050204
Φ 16.5	GHD-165-2D-FC20-Q05A	16.5	20	25	50	50	34	100	
Φ 17.0	GHD-170-2D-FC25-Q05A	17.0	25	32	56	57	37	113	
Φ 17.5	GHD-175-2D-FC25-Q05A	17.5	25	32	56	57	37	113	
Φ 18.0	GHD-180-2D-FC25-Q05A	18.0	25	32	56	59	39	115	QPMG060204
Φ 18.5	GHD-185-2D-FC25-Q05A	18.5	25	32	56	59	39	115	
Φ 19.0	GHD-190-2D-FC25-Q06A	19.0	25	32	56	61	41	117	
Φ 19.5	GHD-195-2D-FC25-Q06A	19.5	25	32	56	61	41	117	
Φ 20.0	GHD-200-2D-FC25-Q06A	20.0	25	32	56	63	43	119	QPMG07T306
Φ 20.5	GHD-205-2D-FC25-Q06A	20.5	25	32	56	63	43	119	
Φ 21.0	GHD-210-2D-FC25-Q06A	21.0	25	32	56	65	45	121	
Φ 21.5	GHD-215-2D-FC25-Q06A	21.5	25	32	56	65	45	121	
Φ 22.0	GHD-220-2D-FC25-Q06A	22.0	25	32	56	67	47	123	QPMG07T306
Φ 22.5	GHD-225-2D-FC25-Q06A	22.5	25	32	56	67	47	123	
Φ 23.0	GHD-230-2D-FC25-Q07A	23.0	25	32	56	69	49	125	
Φ 23.5	GHD-235-2D-FC25-Q07A	23.5	25	32	56	69	49	125	
Φ 24.0	GHD-240-2D-FC25-Q07A	24.0	25	32	56	71	51	127	QPMG07T306
Φ 24.5	GHD-245-2D-FC25-Q07A	24.5	25	32	56	71	51	127	
Φ 25.0	GHD-250-2D-FC25-Q07A	25.0	25	32	56	73	53	129	
Φ 25.5	GHD-255-2D-FC32-Q07A	25.5	32	42	60	81	56	141	
Φ 26.0	GHD-260-2D-FC32-Q07A	26.0	32	42	60	81	56	141	QPMG07T306
Φ 26.5	GHD-265-2D-FC32-Q07A	26.5	32	42	60	81	56	141	
Φ 27.0	GHD-270-2D-FC32-Q07A	27.0	32	42	60	83	58	143	

GHD-2D

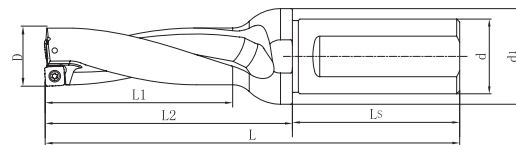
Indexable Drill (Patented)



Dia.	Drilling body	Dimension							Insert
		D	d	d1	Ls	L2	L1	L	
Φ 27.5	GHD-275-2D-FC32-Q09A	27.5	32	42	60	83	58	143	QPMG09T308
Φ 28.0	GHD-280-2D-FC32-Q09A	28.0	32	42	60	85	60	145	
Φ 28.5	GHD-285-2D-FC32-Q09A	28.5	32	42	60	85	60	145	
Φ 29.0	GHD-290-2D-FC32-Q09A	29.0	32	42	60	87	62	147	
Φ 29.5	GHD-295-2D-FC32-Q09A	29.5	32	42	60	87	62	147	
Φ 30.0	GHD-300-2D-FC32-Q09A	30.0	32	42	60	89	64	149	
Φ 30.5	GHD-305-2D-FC32-Q09A	30.5	32	42	60	89	64	149	
Φ 31.0	GHD-310-2D-FC32-Q09A	31.0	32	42	60	91	66	151	
Φ 31.5	GHD-315-2D-FC32-Q09A	31.5	32	42	60	91	66	151	
Φ 32.0	GHD-320-2D-FC32-Q09A	32.0	32	42	60	93	68	153	
Φ 32.5	GHD-325-2D-FC32-Q09A	32.5	32	48	60	93	68	153	
Φ 33.0	GHD-330-2D-FC40-Q09A	33.0	40	48	70	100	70	170	
Φ 33.5	GHD-335-2D-FC40-Q11A	33.5	40	48	70	100	70	170	
Φ 34.0	GHD-340-2D-FC40-Q11A	34.0	40	48	70	103	73	173	
Φ 34.5	GHD-345-2D-FC40-Q11A	34.5	40	48	70	103	73	173	
Φ 35.0	GHD-350-2D-FC40-Q11A	35.0	40	48	70	105	75	175	
Φ 35.5	GHD-355-2D-FC40-Q11A	35.5	40	48	70	105	75	175	
Φ 36.0	GHD-360-2D-FC40-Q11A	36.0	40	48	70	107	77	177	
Φ 36.5	GHD-365-2D-FC40-Q11A	36.5	40	48	70	107	77	177	
Φ 37.0	GHD-370-2D-FC40-Q11A	37.0	40	48	70	109	79	179	
Φ 37.5	GHD-375-2D-FC40-Q11A	37.5	40	48	70	109	79	179	
Φ 38.0	GHD-380-2D-FC40-Q11A	38.0	40	48	70	111	81	181	
Φ 38.5	GHD-385-2D-FC40-Q11A	38.5	40	48	70	111	81	181	
Φ 39.0	GHD-390-2D-FC40-Q11A	39.0	40	48	70	113	83	183	
Φ 39.5	GHD-395-2D-FC40-Q11A	39.5	40	48	70	113	83	183	
Φ 40.0	GHD-400-2D-FC40-Q11A	40.0	40	48	70	116	86	186	

GHD-2D

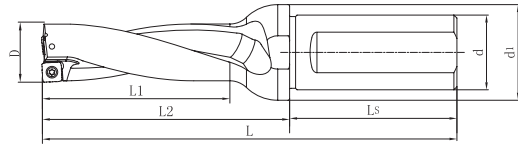
Indexable Drill (Patented)



Dia.	Drilling body	Dimension							Insert
		D	d	d1	Ls	L2	L1	L	
Φ40.5	GHD-405-2D-FC40-Q13A	40.5	40	48	70	116	86	186	QPMG130408
Φ41.0	GHD-410-2D-FC40-Q13A	41.0	40	48	70	118	88	188	
Φ41.5	GHD-415-2D-FC40-Q13A	41.5	40	48	70	118	88	188	
Φ42.0	GHD-420-2D-FC40-Q13A	42.0	40	48	70	120	90	190	
Φ42.5	GHD-425-2D-FC40-Q13A	42.5	40	48	70	120	90	190	
Φ43.0	GHD-430-2D-FC40-Q13A	43.0	40	48	70	122	92	192	
Φ43.5	GHD-435-2D-FC40-Q13A	43.5	40	48	70	122	92	192	
Φ44.0	GHD-440-2D-FC40-Q13A	44.0	40	48	70	124	94	194	
Φ44.5	GHD-445-2D-FC40-Q13A	44.5	40	48	70	124	94	194	
Φ45.0	GHD-450-2D-FC40-Q13A	45.0	40	48	70	126	96	196	
Φ45.5	GHD-455-2D-FC40-Q15A	45.5	40	48	70	126	96	196	
Φ46.0	GHD-460-2D-FC40-Q15A	46.0	40	48	70	128	98	198	
Φ46.5	GHD-465-2D-FC40-Q15A	46.5	40	48	70	128	98	198	
Φ47.0	GHD-470-2D-FC40-Q15A	47.0	40	48	70	130	100	200	
Φ47.5	GHD-475-2D-FC40-Q15A	47.5	40	48	70	130	100	200	
Φ48.0	GHD-480-2D-FC40-Q15A	48.0	40	48	70	132	102	202	QPMG150512
Φ48.5	GHD-485-2D-FC40-Q15A	48.5	40	48	70	132	102	202	
Φ49.0	GHD-490-2D-FC40-Q15A	49.0	40	49	70	134	104	204	
Φ49.5	GHD-495-2D-FC40-Q15A	49.5	40	49	70	134	104	204	
Φ50.0	GHD-500-2D-FC40-Q15A	50.0	40	50	70	136	106	206	
Φ50.5	GHD-505-2D-FC40-Q15A	50.5	40	50	70	136	106	206	
Φ51.0	GHD-510-2D-FC40-Q15A	51.0	40	51	70	138	108	208	

GHD-3D

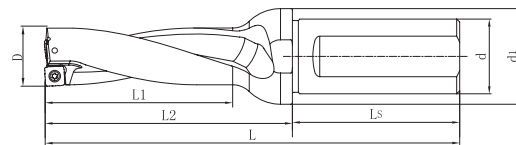
Indexable Drill (Patented)



Dia.	Drilling body	Dimension							Insert
		D	d	d1	Ls	L2	L1	L	
Φ 14.0	GHD-140-3D-FC20-Q04A	14.0	20	25	50	60	44	110	QPMG040204
Φ 14.5	GHD-145-3D-FC20-Q04A	14.5	20	25	50	60	44	110	
Φ 15.0	GHD-150-3D-FC20-Q04A	15.0	20	25	50	63	47	113	
Φ 15.5	GHD-155-3D-FC20-Q04A	15.5	20	25	50	63	47	113	
Φ 16.0	GHD-160-3D-FC20-Q05A	16.0	20	25	50	66	50	116	QPMG050204
Φ 16.5	GHD-165-3D-FC20-Q05A	16.5	20	25	50	66	50	116	
Φ 17.0	GHD-170-3D-FC25-Q05A	17.0	25	32	56	74	54	130	
Φ 17.5	GHD-175-3D-FC25-Q05A	17.5	25	32	56	74	54	130	
Φ 18.0	GHD-180-3D-FC25-Q05A	18.0	25	32	56	77	57	133	QPMG060204
Φ 18.5	GHD-185-3D-FC25-Q05A	18.5	25	32	56	77	57	133	
Φ 19.0	GHD-190-3D-FC25-Q06A	19.0	25	32	56	80	60	136	
Φ 19.5	GHD-195-3D-FC25-Q06A	19.5	25	32	56	80	60	136	
Φ 20.0	GHD-200-3D-FC25-Q06A	20.0	25	32	56	83	63	139	QPMG07T306
Φ 20.5	GHD-205-3D-FC25-Q06A	20.5	25	32	56	83	63	139	
Φ 21.0	GHD-210-3D-FC25-Q06A	21.0	25	32	56	86	66	142	
Φ 21.5	GHD-215-3D-FC25-Q06A	21.5	25	32	56	86	66	142	
Φ 22.0	GHD-220-3D-FC25-Q06A	22.0	25	32	56	89	69	145	QPMG07T306
Φ 22.5	GHD-225-3D-FC25-Q06A	22.5	25	32	56	89	69	145	
Φ 23.0	GHD-230-3D-FC25-Q07A	23.0	25	32	56	92	72	148	
Φ 23.5	GHD-235-3D-FC25-Q07A	23.5	25	32	56	92	72	148	
Φ 24.0	GHD-240-3D-FC25-Q07A	24.0	25	32	56	95	75	151	QPMG07T306
Φ 24.5	GHD-245-3D-FC25-Q07A	24.5	25	32	56	95	75	151	
Φ 25.0	GHD-250-3D-FC25-Q07A	25.0	25	32	56	98	78	154	
Φ 25.5	GHD-255-3D-FC32-Q07A	25.5	32	42	60	107	82	167	
Φ 26.0	GHD-260-3D-FC32-Q07A	26.0	32	42	60	107	82	167	QPMG07T306
Φ 26.5	GHD-265-3D-FC32-Q07A	26.5	32	42	60	107	82	167	
Φ 27.0	GHD-270-3D-FC32-Q07A	27.0	32	42	60	110	85	170	

GHD-3D

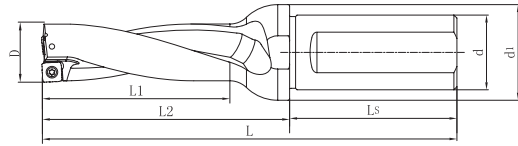
Indexable Drill (Patented)



Dia.	Drilling body	Dimension							Insert	
		D	d	d1	Ls	L2	L1	L		
Φ27.5	GHD-275-3D-FC32-Q09A	27.5	32	42	60	110	85	170	QPMG09T308	
Φ28.0	GHD-280-3D-FC32-Q09A	28.0	32	42	60	113	88	173		
Φ28.5	GHD-285-3D-FC32-Q09A	28.5	32	42	60	113	88	173		
Φ29.0	GHD-290-3D-FC32-Q09A	29.0	32	42	60	116	91	176		
Φ29.5	GHD-295-3D-FC32-Q09A	29.5	32	42	60	116	91	176		
Φ30.0	GHD-300-3D-FC32-Q09A	30.0	32	42	60	119	94	179		
Φ30.5	GHD-305-3D-FC32-Q09A	30.5	32	42	60	119	94	179		
Φ31.0	GHD-310-3D-FC32-Q09A	31.0	32	42	60	122	97	182		
Φ31.5	GHD-315-3D-FC32-Q09A	31.5	32	42	60	124	97	182		
Φ32.0	GHD-320-3D-FC32-Q09A	32.0	32	42	60	125	100	185		
Φ32.5	GHD-325-3D-FC32-Q09A	32.5	32	42	60	125	100	185		
Φ33.0	GHD-330-3D-FC40-Q09A	33.0	40	48	70	133	103	203		QPMG110408
Φ33.5	GHD-335-3D-FC40-Q11A	33.5	40	48	70	133	103	203		
Φ34.0	GHD-340-3D-FC40-Q11A	34.0	40	48	70	137	107	207		
Φ34.5	GHD-345-3D-FC40-Q11A	34.5	40	48	70	137	107	207		
Φ35.0	GHD-350-3D-FC40-Q11A	35.0	40	48	70	140	110	210		
Φ35.5	GHD-355-3D-FC40-Q11A	35.5	40	48	70	140	110	210		
Φ36.0	GHD-360-3D-FC40-Q11A	36.0	40	48	70	143	113	213		
Φ36.5	GHD-365-3D-FC40-Q11A	36.5	40	48	70	143	113	213		
Φ37.0	GHD-370-3D-FC40-Q11A	37.0	40	48	70	146	116	216		
Φ37.5	GHD-375-3D-FC40-Q11A	37.5	40	48	70	146	116	216		
Φ38.0	GHD-380-3D-FC40-Q11A	38.0	40	48	70	149	119	219		
Φ38.5	GHD-385-3D-FC40-Q11A	38.5	40	48	70	149	119	219		
Φ39.0	GHD-390-3D-FC40-Q11A	39.0	40	48	70	152	122	222		
Φ39.5	GHD-395-3D-FC40-Q11A	39.5	40	48	70	152	122	222		
Φ40.0	GHD-400-3D-FC40-Q11A	40.0	40	48	70	156	126	226		

GHD-3D

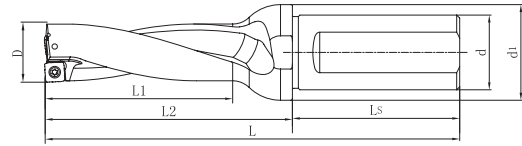
Indexable Drill (Patented)



Dia.	Drilling body	Dimension							Insert
		D	d	d1	Ls	L2	L1	L	
Φ40.5	GHD-405-3D-FC40-Q13A	40.5	40	48	70	156	126	226	QPMG130408
Φ41.0	GHD-410-3D-FC40-Q13A	41.0	40	48	70	159	129	229	
Φ41.5	GHD-415-3D-FC40-Q13A	41.5	40	48	70	159	129	229	
Φ42.0	GHD-420-3D-FC40-Q13A	42.0	40	48	70	162	132	232	
Φ42.5	GHD-425-3D-FC40-Q13A	42.5	40	48	70	162	132	232	
Φ43.0	GHD-430-3D-FC40-Q13A	43.0	40	48	70	165	135	235	
Φ43.5	GHD-435-3D-FC40-Q13A	43.5	40	48	70	165	135	235	
Φ44.0	GHD-440-3D-FC40-Q13A	44.0	40	48	70	168	138	238	
Φ44.5	GHD-445-3D-FC40-Q13A	44.5	40	48	70	168	138	238	
Φ45.0	GHD-450-3D-FC40-Q13A	45.0	40	48	70	171	141	241	
Φ45.5	GHD-455-3D-FC40-Q15A	45.5	40	48	70	171	141	241	
Φ46.0	GHD-460-3D-FC40-Q15A	46.0	40	48	70	174	144	244	
Φ46.5	GHD-465-3D-FC40-Q15A	46.5	40	48	70	174	144	244	
Φ47.0	GHD-470-3D-FC40-Q15A	47.0	40	48	70	177	147	247	
Φ47.5	GHD-475-3D-FC40-Q15A	47.5	40	48	70	177	147	247	
Φ48.0	GHD-480-3D-FC40-Q15A	48.0	40	48	70	180	150	250	QPMG150512
Φ48.5	GHD-485-3D-FC40-Q15A	48.5	40	48	70	180	150	250	
Φ49.0	GHD-490-3D-FC40-Q15A	49.0	40	49	70	183	153	253	
Φ49.5	GHD-495-3D-FC40-Q15A	49.5	40	49	70	183	153	253	
Φ50.0	GHD-500-3D-FC40-Q15A	50.0	40	50	70	186	156	256	
Φ50.5	GHD-505-3D-FC40-Q15A	50.5	40	50	70	186	156	256	
Φ51.0	GHD-510-3D-FC40-Q15A	51.0	40	51	70	189	159	259	

GHD-4D

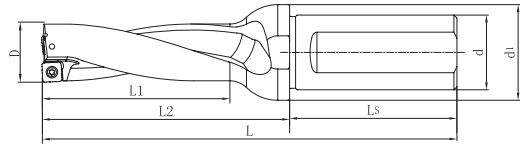
Indexable Drill (Patented)



Dia.	Drilling body	Dimension							Insert
		D	d	d1	Ls	L2	L1	L	
Φ 14.0	GHD-140-4D-FC20-Q04A	14.0	20	25	50	74	58	124	QPMG040204
Φ 14.5	GHD-145-4D-FC20-Q04A	14.5	20	25	50	74	58	124	
Φ 15.0	GHD-150-4D-FC20-Q04A	15.0	20	25	50	78	62	128	
Φ 15.5	GHD-155-4D-FC20-Q04A	15.5	20	25	50	78	62	128	
Φ 16.0	GHD-160-4D-FC20-Q05A	16.0	20	25	50	82	66	132	QPMG050204
Φ 16.5	GHD-165-4D-FC20-Q05A	16.5	20	25	50	82	66	132	
Φ 17.0	GHD-170-4D-FC25-Q05A	17.0	25	32	56	91	71	147	
Φ 17.5	GHD-175-4D-FC25-Q05A	17.5	25	32	56	91	71	147	
Φ 18.0	GHD-180-4D-FC25-Q05A	18.0	25	32	56	95	75	151	QPMG060204
Φ 18.5	GHD-185-4D-FC25-Q05A	18.5	25	32	56	95	75	151	
Φ 19.0	GHD-190-4D-FC25-Q06A	19.0	25	32	56	99	79	155	
Φ 19.5	GHD-195-4D-FC25-Q06A	19.5	25	32	56	99	79	155	
Φ 20.0	GHD-200-4D-FC25-Q06A	20.0	25	32	56	103	83	159	QPMG07T306
Φ 20.5	GHD-205-4D-FC25-Q06A	20.5	25	32	56	103	83	159	
Φ 21.0	GHD-210-4D-FC25-Q06A	21.0	25	32	56	107	87	163	
Φ 21.5	GHD-215-4D-FC25-Q06A	21.5	25	32	56	107	87	163	
Φ 22.0	GHD-220-4D-FC25-Q06A	22.0	25	32	56	111	91	167	QPMG07T306
Φ 22.5	GHD-225-4D-FC25-Q06A	22.5	25	32	56	111	91	167	
Φ 23.0	GHD-230-4D-FC25-Q07A	23.0	25	32	56	115	95	171	
Φ 23.5	GHD-235-4D-FC25-Q07A	23.5	25	32	56	115	95	171	
Φ 24.0	GHD-240-4D-FC25-Q07A	24.0	25	32	56	119	99	175	QPMG07T306
Φ 24.5	GHD-245-4D-FC25-Q07A	24.5	25	32	56	119	99	175	
Φ 25.0	GHD-250-4D-FC25-Q07A	25.0	25	32	56	123	103	179	
Φ 25.5	GHD-255-4D-FC32-Q07A	25.5	32	42	60	133	108	193	
Φ 26.0	GHD-260-4D-FC32-Q07A	26.0	32	42	60	133	108	193	QPMG07T306
Φ 26.5	GHD-265-4D-FC32-Q07A	26.5	32	42	60	133	108	193	
Φ 27.0	GHD-270-4D-FC32-Q07A	27.0	32	42	60	137	112	197	

GHD-4D

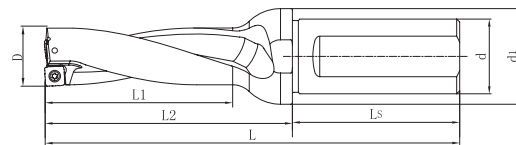
Indexable Drill (Patented)



Dia.	Drilling body	Dimension							Insert
		D	d	d1	Ls	L2	L1	L	
Φ27.5	GHD-275-4D-FC32-Q09A	27.5	32	42	60	137	112	197	QPMG09T308
Φ28.0	GHD-280-4D-FC32-Q09A	28.0	32	42	60	141	116	201	
Φ28.5	GHD-285-4D-FC32-Q09A	28.5	32	42	60	141	116	201	
Φ29.0	GHD-290-4D-FC32-Q09A	29.0	32	42	60	145	120	205	
Φ29.5	GHD-295-4D-FC32-Q09A	29.5	32	42	60	145	120	205	
Φ30.0	GHD-300-4D-FC32-Q09A	30.0	32	42	60	149	124	209	
Φ30.5	GHD-305-4D-FC32-Q09A	30.5	32	42	60	149	124	209	
Φ31.0	GHD-310-4D-FC32-Q09A	31.0	32	42	60	153	128	213	
Φ31.5	GHD-315-4D-FC32-Q09A	31.5	32	42	60	153	128	213	
Φ32.0	GHD-320-4D-FC32-Q09A	32.0	32	42	60	157	132	217	
Φ32.5	GHD-325-4D-FC32-Q09A	32.5	32	42	60	157	132	217	
Φ33.0	GHD-330-4D-FC40-Q09A	33.0	40	48	70	166	136	236	
Φ33.5	GHD-335-4D-FC40-Q11A	33.5	40	48	70	166	136	236	
Φ34.0	GHD-340-4D-FC40-Q11A	34.0	40	48	70	171	141	241	
Φ34.5	GHD-345-4D-FC40-Q11A	34.5	40	48	70	171	141	241	
Φ35.0	GHD-350-4D-FC40-Q11A	35.0	40	48	70	175	145	245	
Φ35.5	GHD-355-4D-FC40-Q11A	35.5	40	48	70	175	145	245	
Φ36.0	GHD-360-4D-FC40-Q11A	36.0	40	48	70	179	149	249	
Φ36.5	GHD-365-4D-FC40-Q11A	36.5	40	48	70	179	149	249	
Φ37.0	GHD-370-4D-FC40-Q11A	37.0	40	48	70	183	153	253	QPMG110408
Φ37.5	GHD-375-4D-FC40-Q11A	37.5	40	48	70	183	153	253	
Φ38.0	GHD-380-4D-FC40-Q11A	38.0	40	48	70	187	157	257	
Φ38.5	GHD-385-4D-FC40-Q11A	38.5	40	48	70	187	157	257	
Φ39.0	GHD-390-4D-FC40-Q11A	39.0	40	48	70	191	161	261	
Φ39.5	GHD-395-4D-FC40-Q11A	39.5	40	48	70	191	161	261	
Φ40.0	GHD-400-4D-FC40-Q11A	40.0	40	48	70	196	166	266	

GHD-4D

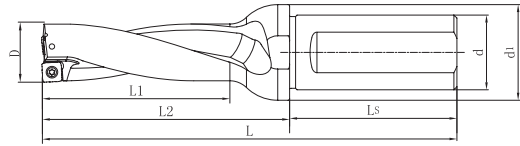
Indexable Drill (Patented)



Dia.	Drilling body	Dimension							Insert	
		D	d	d1	Ls	L2	L1	L		
Φ40.5	GHD-405-4D-FC40-Q13A	40.5	40	48	70	196	166	266	QPMG130408	
Φ41.0	GHD-410-4D-FC40-Q13A	41.0	40	48	70	200	170	270		
Φ41.5	GHD-415-4D-FC40-Q13A	41.5	40	48	70	200	170	270		
Φ42.0	GHD-420-4D-FC40-Q13A	42.0	40	48	70	204	174	274		
Φ42.5	GHD-425-4D-FC40-Q13A	42.5	40	48	70	204	174	274		
Φ43.0	GHD-430-4D-FC40-Q13A	43.0	40	48	70	208	178	278		
Φ43.5	GHD-435-4D-FC40-Q13A	43.5	40	48	70	208	178	278		
Φ44.0	GHD-440-4D-FC40-Q13A	44.0	40	48	70	212	182	282		
Φ44.5	GHD-445-4D-FC40-Q13A	44.5	40	48	70	212	182	282		
Φ45.0	GHD-450-4D-FC40-Q13A	45.0	40	48	70	216	186	286		
Φ45.5	GHD-455-4D-FC40-Q15A	45.5	40	48	70	216	186	286		QPMG150512
Φ46.0	GHD-460-4D-FC40-Q15A	46.0	40	48	70	220	190	290		
Φ46.5	GHD-465-4D-FC40-Q15A	46.5	40	48	70	220	190	290		
Φ47.0	GHD-470-4D-FC40-Q15A	47.0	40	48	70	224	194	294		
Φ47.5	GHD-475-4D-FC40-Q15A	47.5	40	48	70	224	194	294		
Φ48.0	GHD-480-4D-FC40-Q15A	48.0	40	48	70	228	198	298		
Φ48.5	GHD-485-4D-FC40-Q15A	48.5	40	48	70	228	198	298		
Φ49.0	GHD-490-4D-FC40-Q15A	49.0	40	49	70	232	202	302		
Φ49.5	GHD-495-4D-FC40-Q15A	49.5	40	49	70	232	202	302		
Φ50.0	GHD-500-4D-FC40-Q15A	50.0	40	50	70	236	206	306		
Φ50.5	GHD-505-4D-FC40-Q15A	50.5	40	50	70	236	206	306		
Φ51.0	GHD-510-4D-FC40-Q15A	51.0	40	51	70	240	210	310		

GHD-5D

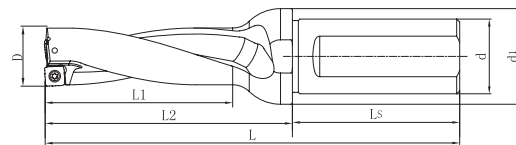
Indexable Drill (Patented)



Dia.	Drilling body	Dimension							Insert
		D	d	d1	Ls	L2	L1	L	
Φ 14.0	GHD-140-5D-FC20-Q04A	14.0	20	25	50	88	72	138	QPMG040204
Φ 14.5	GHD-145-5D-FC20-Q04A	14.5	20	25	50	88	72	138	
Φ 15.0	GHD-150-5D-FC20-Q04A	15.0	20	25	50	93	77	143	
Φ 15.5	GHD-155-5D-FC25-Q04A	15.5	25	32	56	102	82	158	
Φ 16.0	GHD-160-5D-FC25-Q05A	16.0	25	32	56	102	82	158	QPMG050204
Φ 16.5	GHD-165-5D-FC25-Q05A	16.5	25	32	56	102	82	158	
Φ 17.0	GHD-170-5D-FC25-Q05A	17.0	25	32	56	108	87	164	
Φ 17.5	GHD-175-5D-FC25-Q05A	17.5	25	32	56	108	87	164	
Φ 18.0	GHD-180-5D-FC25-Q05A	18.0	25	32	56	113	93	169	QPMG060204
Φ 18.5	GHD-185-5D-FC25-Q05A	18.5	25	32	56	113	93	169	
Φ 19.0	GHD-190-5D-FC25-Q06A	19.0	25	32	56	118	98	174	
Φ 19.5	GHD-195-5D-FC25-Q06A	19.5	25	32	56	118	98	174	
Φ 20.0	GHD-200-5D-FC25-Q06A	20.0	25	32	56	123	103	179	QPMG07T306
Φ 20.5	GHD-205-5D-FC25-Q06A	20.5	25	32	56	123	103	179	
Φ 21.0	GHD-210-5D-FC25-Q06A	21.0	25	32	56	128	108	184	
Φ 21.5	GHD-215-5D-FC25-Q06A	21.5	25	32	56	128	108	184	
Φ 22.0	GHD-220-5D-FC25-Q06A	22.0	25	32	56	133	113	189	QPMG07T306
Φ 22.5	GHD-225-5D-FC25-Q06A	22.5	25	32	56	133	113	189	
Φ 23.0	GHD-230-5D-FC32-Q07A	23.0	32	42	56	143	118	203	
Φ 23.5	GHD-235-5D-FC32-Q07A	23.5	32	42	56	143	118	203	
Φ 24.0	GHD-240-5D-FC32-Q07A	24.0	32	42	56	148	123	208	QPMG07T306
Φ 24.5	GHD-245-5D-FC32-Q07A	24.5	32	42	56	148	123	208	
Φ 25.0	GHD-250-5D-FC32-Q07A	25.0	32	42	56	153	128	213	
Φ 25.5	GHD-255-5D-FC32-Q07A	25.5	32	42	56	153	128	213	
Φ 26.0	GHD-260-5D-FC32-Q07A	26.0	32	42	60	159	134	219	QPMG07T306
Φ 26.5	GHD-265-5D-FC32-Q07A	26.5	32	42	60	159	134	219	
Φ 27.0	GHD-270-5D-FC32-Q07A	27.0	32	42	60	164	139	224	

GHD-5D

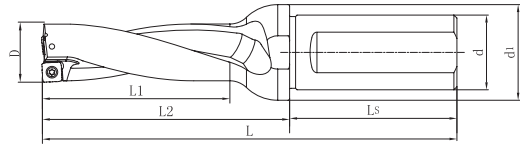
Indexable Drill (Patented)



Dia.	Drilling body	Dimension							Insert	
		D	d	d1	Ls	L2	L1	L		
Φ27.5	GHD-275-5D-FC32-Q09A	27.5	32	42	60	164	139	224	QPMG09T308	
Φ28.0	GHD-280-5D-FC32-Q09A	28.0	32	42	60	169	144	229		
Φ28.5	GHD-285-5D-FC32-Q09A	28.5	32	42	60	169	144	229		
Φ29.0	GHD-290-5D-FC32-Q09A	29.0	32	42	60	174	149	234		
Φ29.5	GHD-295-5D-FC32-Q09A	29.5	32	42	60	174	149	234		
Φ30.0	GHD-300-5D-FC32-Q09A	30.0	32	42	60	179	154	239		
Φ30.5	GHD-305-5D-FC32-Q09A	30.5	32	42	60	179	154	239		
Φ31.0	GHD-310-5D-FC32-Q09A	31.0	32	42	60	184	159	244		
Φ31.5	GHD-315-5D-FC32-Q09A	31.5	32	42	60	184	159	244		
Φ32.0	GHD-320-5D-FC32-Q09A	32.0	32	42	60	194	164	254		
Φ32.5	GHD-325-5D-FC40-Q09A	32.5	40	48	60	199	169	269		
Φ33.0	GHD-330-5D-FC40-Q09A	33.0	40	48	60	199	169	269		
Φ33.5	GHD-335-5D-FC40-Q11A	33.5	40	48	70	199	169	269		QPMG110408
Φ34.0	GHD-340-5D-FC40-Q11A	34.0	40	48	70	205	175	275		
Φ34.5	GHD-345-5D-FC40-Q11A	34.5	40	48	70	205	175	275		
Φ35.0	GHD-350-5D-FC40-Q11A	35.0	40	48	70	210	180	280		
Φ35.5	GHD-355-5D-FC40-Q11A	35.5	40	48	70	210	180	280		
Φ36.0	GHD-360-5D-FC40-Q11A	36.0	40	48	70	215	185	285		
Φ36.5	GHD-365-5D-FC40-Q11A	36.5	40	48	70	215	185	285		
Φ37.0	GHD-370-5D-FC40-Q11A	37.0	40	48	70	220	190	290		
Φ37.5	GHD-375-5D-FC40-Q11A	37.5	40	48	70	220	190	290		
Φ38.0	GHD-380-5D-FC40-Q11A	38.0	40	48	70	225	195	295		
Φ38.5	GHD-385-5D-FC40-Q11A	38.5	40	48	70	225	195	295		
Φ39.0	GHD-390-5D-FC40-Q11A	39.0	40	48	70	230	200	300		
Φ39.5	GHD-395-5D-FC40-Q11A	39.5	40	48	70	230	200	300		
Φ40.0	GHD-400-5D-FC40-Q11A	40.0	40	48	70	236	206	306		

GHD-5D

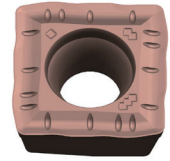
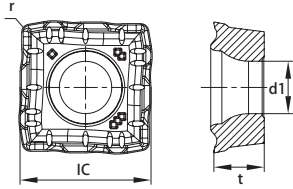
Indexable Drill (Patented)



Dia.	Drilling body	Dimension							Insert	
		D	d	d1	Ls	L2	L1	L		
Φ40.5	GHD-405-5D-FC40-Q13A	40.5	40	48	70	236	206	306	QPMG130408	
Φ41.0	GHD-410-5D-FC40-Q13A	41.0	40	48	70	241	211	311		
Φ41.5	GHD-415-5D-FC40-Q13A	41.5	40	48	70	241	211	311		
Φ42.0	GHD-420-5D-FC40-Q13A	42.0	40	48	70	246	216	316		
Φ42.5	GHD-425-5D-FC40-Q13A	42.5	40	48	70	246	216	316		
Φ43.0	GHD-430-5D-FC40-Q13A	43.0	40	48	70	251	221	321		
Φ43.5	GHD-435-5D-FC40-Q13A	43.5	40	48	70	251	221	321		
Φ44.0	GHD-440-5D-FC40-Q13A	44.0	40	48	70	256	226	326		
Φ44.5	GHD-445-5D-FC40-Q13A	44.5	40	48	70	256	226	326		
Φ45.0	GHD-450-5D-FC40-Q13A	45.0	40	48	70	261	231	331		
Φ45.5	GHD-455-5D-FC40-Q15A	45.5	40	48	70	261	231	331		QPMG150512
Φ46.0	GHD-460-5D-FC40-Q15A	46.0	40	48	70	266	236	336		
Φ46.5	GHD-465-5D-FC40-Q15A	46.5	40	48	70	266	236	336		
Φ47.0	GHD-470-5D-FC40-Q15A	47.0	40	48	70	271	241	341		
Φ47.5	GHD-475-5D-FC40-Q15A	47.5	40	48	70	271	241	341		
Φ48.0	GHD-480-5D-FC40-Q15A	48.0	40	48	70	276	246	346		
Φ48.5	GHD-485-5D-FC40-Q15A	48.5	40	48	70	276	246	346		
Φ49.0	GHD-490-5D-FC40-Q15A	49.0	40	49	70	281	251	351		
Φ49.5	GHD-495-5D-FC40-Q15A	49.5	40	49	70	281	251	351		
Φ50.0	GHD-500-5D-FC40-Q15A	50.0	40	50	70	286	256	356		
Φ50.5	GHD-505-5D-FC40-Q15A	50.5	40	50	70	286	256	356		
Φ51.0	GHD-510-5D-FC40-Q15A	51.0	40	51	70	291	261	361		

QPMG

Indexable Drill Insert (Patented)



Type	Grade		Dimension				Dia. of Drill
	A4230	S4130	IC	t	r	d1	
QPMG040204-DP	●	●	4.7	2.3	0.4	2.2	Φ14.0 ~ Φ15.9
QPMG050204-DP	●	●	5.7	2.5	0.4	2.6	Φ16.0 ~ Φ18.9
QPMG060204-DP	●	●	6.5	2.5	0.4	2.6	Φ19.0 ~ Φ22.5
QPMG07T306-DP	●	●	7.94	3.5	0.6	2.85	Φ22.6 ~ Φ27.0
QPMG09T308-DP	●	●	9.7	3.97	0.8	3.5	Φ27.1 ~ Φ33.0
QPMG110408-DP	●	●	11.5	4.76	0.8	4.4	Φ33.1 ~ Φ40.0
QPMG130408-DP	●	●	13.2	4.76	0.8	4.4	Φ40.1 ~ Φ45.0
QPMG150512-DP	●	●	15.2	5.2	1.2	5.5	Φ45.1 ~ Φ51.0

A4230—Universal Grade

S4130—Suitable for titanium alloys and heat resistant alloys, and unstable conditions

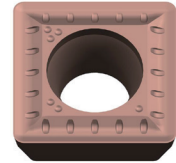
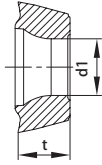
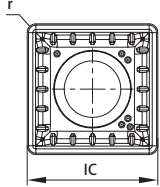
● Stock ○ Order

Drill Body Parts

Insert Type	Screw		Wrench		N · m Torque
	Type	Ordering Code	Type	Ordering Code	
QPMG040204	SI60M020050-02704	PSI60M020050-02704K	TT06P	PTT06PK	0.6
QPMG050204	SI60M022055-03107	PSI60M022055-03107K	TT07P	PTT07PK	0.8
QPMG060204	SI60M022055-03107	PSI60M022055-03107K	TT07P	PTT07PK	0.8
QPMG07T306	SI60M025070-03509	PSI60M025070-03509K	TT08P	PTT08PK	0.8
QPMG09T308	SI60M030080-04210	PSI60M030080-04210K	TT09P	PTT09PK	1.2
QPMG110408	SI60M040100-05510	PSI60M040100-05510K	TT15P	PTT15PK	2.0
QPMG130408	SI60M022055-03107	PSI60M022055-03107K	TT15P	PTT15PK	2.0
QPMG150512	SI60M050110-07212	PSI60M050110-07212K	TT20P	PTT20PK	2.5

SPMG

General Drill Insert



Type	Grade		Dimension				Dia. of Drill
	A4230	S4130	IC	t	r	d1	
SPMG050204-DM	●	●	5	2.38	0.4	2.2	Φ13.0 ~ Φ15.0
SPMG060204-DM	●	●	6	2.38	0.4	2.6	Φ15.5 ~ Φ21.5
SPMG07T308-DM	●	●	7.94	3.97	0.8	2.8	Φ22.0 ~ Φ27.5
SPMG090408-DM	●	●	9.8	4.3	0.8	4.23	Φ28.0 ~ Φ33.0
SPMG110408-DM	●	●	11.5	4.76	0.8	4.4	Φ33.0 ~ Φ41.0
SPMG140512-DM	●	●	14.3	5.2	1.2	5.75	Φ42.0 ~ Φ50.0

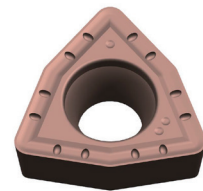
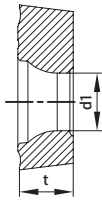
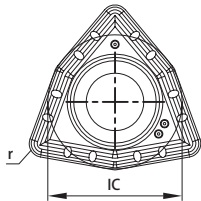
A4230— Universal Grade

S4130—Suitable for titanium alloys and heat resistant alloys, and unstable conditions

● Stock ○ Order

WCMT

General Drill Insert



Type	Grade	Dimension				Dia. of Drill	Stock
		IC	t	r	d1		
WCMT030208-DU	A4230	5.56	2.38	0.8	2.8	Φ15.0 ~ Φ20.5	●
WCMT040208-DU	A4230	6.35	2.38	0.8	2.9	Φ21.0 ~ Φ24.5	●
WCMT050308-DU	A4230	7.94	3.18	0.8	3.4	Φ25.0 ~ Φ30.0	●
WCMT06T308-DU	A4230	9.52	3.97	0.8	3.8	Φ30.5 ~ Φ39.5	●
WCMT080412-DU	A4230	12.7	4.76	1.2	4.4	Φ40.0 ~ Φ60.0	●

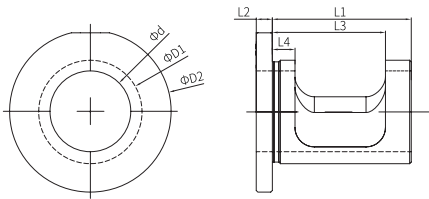
● Stock ○ Order

Recommended Cutting Data

Indexable Drill

	Workpiece Materials	Material Hardness (HB)	Vc Recommended Cutting Speed (m/min)	Feed (mm/rev)*Refer to Diameter Range *			
				Ø14.0 – 22.5	Ø23.0 – 27.0	Ø27.5 – 33.0	Ø33.5 – 51.0
P	Low Carbon Steel	80 – 170	(240) 160 – 300	0.04-0.06	0.04-0.06	0.04-0.08	0.04-0.08
	High Carbon Steel	170 – 250	(180) 140 – 220	0.04-0.10	0.04-0.12	0.06-0.16	0.08-0.18
	Low Alloy Steel	140 – 260	(180) 160 – 250	0.04-0.10	0.06-0.12	0.08-0.16	0.08-0.18
	High Alloy Steel	180 – 300	(160) 140 – 200	0.04-0.10	0.06-0.12	0.08-0.16	0.08-0.18
	Cast Steel	180 – 300	(160) 140 – 200	0.05-0.08	0.06-0.12	0.08-0.14	0.08-0.16
M	(Fer/Mar) Stainless Steel	150 – 270	(140) 120 – 200	0.04-0.10	0.06-0.12	0.06-0.14	0.06-0.16
	Austenitic	150 – 270	(140) 110 – 200	0.04-0.10	0.06-0.12	0.06-0.14	0.06-0.16
K	Forged Cast Iron	150 – 230	(160) 120 – 220	0.04-0.10	0.06-0.14	0.06-0.16	0.08-0.20
	Gray Cast Iron	150 – 230	(180) 140 – 230	0.04-0.10	0.06-0.14	0.06-0.16	0.08-0.20
	Nodular Cast Iron	160 – 260	(160) 130 – 210	0.04-0.12	0.06-0.16	0.08-0.18	0.08-0.20
S	(Ni+/Fe+/Co+)HRSA	130 – 400	(50) 30 – 80	0.04-0.06	0.04-0.08	0.04-0.10	0.06-0.12
	(Ti+)HRSA	130 – 400	(50) 30 – 70	0.04-0.08	0.04-0.10	0.06-0.12	0.08-0.11
H	Hardened Steel	400 –	(45) 30 – 60	0.04-0.08	0.04-0.10	0.06-0.12	0.08-0.14

ES Eccentric Sleeve



Type	Dimension							Adjustment Range
	ϕd	$\phi D1$	$\phi D2$	L1	L2	L3	L4	
ES2025A	20	25	40	45	5	36	3.0	-0.2 - +0.4
ES2532A	25	32	50	48	5	38	2.5	-0.2 - +0.4
ES3240A	32	40	60	55	5	43	2.5	-0.2 - +0.4
ES4050A	40	50	70	65	5	49	3.0	-0.2 - +0.4

Instructions for ES Eccentric Sleeve

-0.20 mm

0.0 mm

+0.40 mm

