

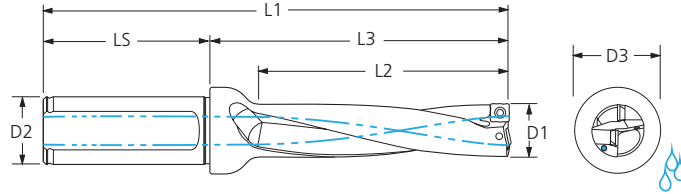
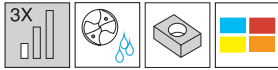
M.A. FORD EUROPE LTD



Combination Set Offer

Drill Body + 10 QPMG Inserts

GHDS 3xD Indexable Drill



Features

- Twisted "Double Helix" coolant channels
- Enlarged core thickness
- Optimised inner and outer inserts positions
- One insert for inner and outer
- Excels in steels and stainless steels

Benefits

- Improved chip evacuation and surface finish
- Improves drilling stability
- Self centres drill on entry
- Reduced stock inventory
- Increased tool-life and stable drilling process

EDP	Tool Number	Ø D1	Ø D2	D3	L1	L2	L3	LS	Insert QPMG	GBP
FE1078	GHD-140-3D-FC20-Q04S	14	20	25	108	45	58	50	040204	£165.00
FE1079	GHD-150-3D-FC20-Q04S	15	20	25	112	50	62	50	040204	£165.00
FE1080	GHD-160-3D-FC20-Q05S	16	20	25	116	51	66	50	050204	£165.00
FE1081	GHD-170-3D-FC25-Q05S	17	25	32	125	54	69	56	050204	£165.00
FE1082	GHD-180-3D-FC25-Q05S	18	25	32	129	58	73	56	050204	£165.00
FE1083	GHD-190-3D-FC25-Q06S	19	25	32	132	60	76	56	060204	£170.00
FE1084	GHD-200-3D-FC25-Q06S	20	25	32	137	64	81	56	060204	£170.00
FE1085	GHD-210-3D-FC25-Q06S	21	25	32	140	67	84	56	060204	£185.00
FE1086	GHD-220-3D-FC25-Q06S	22	25	32	143	69	87	56	060204	£185.00
FE1087	GHD-230-3D-FC25-Q07S	23	25	32	147	72	91	56	07T306	£185.00
FE1088	GHD-240-3D-FC25-Q07S	24	25	32	151	76	95	56	07T306	£185.00
FE1089	GHD-250-3D-FC25-Q07S	25	25	32	155	79	99	56	07T306	£185.00
FE1090	GHD-260-3D-FC32-Q07S	26	32	40	162	81	102	60	07T306	£205.00
FE1091	GHD-270-3D-FC32-Q07S	27	32	40	165	85	105	60	07T306	£205.00
FE1092	GHD-280-3D-FC32-Q09S	28	32	40	169	87	109	60	09T308	£210.00
FE1093	GHD-290-3D-FC32-Q09S	29	32	40	172	91	112	60	09T308	£210.00
FE1094	GHD-300-3D-FC32-Q09S	30	32	40	177	95	117	60	09T308	£210.00
FE1095	GHD-310-3D-FC40-Q09S	31	40	48	191	98	121	70	09T308	£225.00
FE1096	GHD-320-3D-FC40-Q09S	32	40	48	194	101	124	70	09T308	£225.00
FE1097	GHD-330-3D-FC40-Q09S	33	40	48	198	104	128	70	09T308	£225.00
FE1098	GHD-340-3D-FC40-Q11S	34	40	48	201	108	131	70	110408	£225.00
FE1099	GHD-350-3D-FC40-Q11S	35	40	48	205	112	135	70	110408	£225.00
FE1100	GHD-360-3D-FC40-Q11S	36	40	48	209	113	139	70	110408	£240.00
FE1101	GHD-370-3D-FC40-Q11S	37	40	48	212	117	142	70	110408	£245.00
FE1102	GHD-380-3D-FC40-Q11S	38	40	48	216	122	146	70	110408	£245.00
FE1103	GHD-390-3D-FC40-Q11S	39	40	48	219	125	149	70	110408	£245.00
FE1104	GHD-400-3D-FC40-Q11S	40	40	48	223	126	153	70	110408	£245.00


When ordering please confirm EDP code and insert grade required.



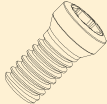
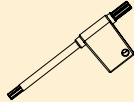

GHDS 3xD Indexable Drill

Inserts & Spare Parts

Inserts

Insert Number	Grades			DP
	FA6230	FM3120	FS6030	
	EDP			
QPMG040204-DP	FW1400	FW4808	FW1401	
QPMG050204-DP	FW1402	FW4809	FW1403	
QPMG060204-DP	FW1404	FW4810	FW1405	
QPMG07T306-DP	FW1406	FW4811	FW1407	
QPMG09T308-DP	FW1408	FW4812	FW1409	
QPMG110408-DP	FW1410	FW4813	FW1411	

Spare Parts

			Insert Screw		Torx Plus Flag Key	
						
Insert		Nm	EDP	Part No.	EDP	Part Number
QPMG040204-DP	5IP	0.4	FS1138	MS20050GIP	FS1149	FH180-IP5
QPMG050204-DP	6IP	0.6	FS1139	MS22055GIP	FS1150	FH180-IP6
QPMG060204-DP	6IP	0.6	FS1139	MS22055GIP	FS1150	FH180-IP6
QPMG07T306-DP	7IP	0.9	FS1140	MS25070GIP	FS1151	FH180-IP7
QPMG09T308-DP	9IP	1.4	FS1141	MS30080GIP	FS1153	FH180-IP9
QPMG110408-DP	15IP	3.0	FS1142	MS40100GIP	FS1147	FH180-IP15

GHDS 3xD Indexable Drill

Recommended cutting data

Recommended Speeds by Material Group

Workpiece Material Group	Material Type	Coolant	Low	Mid	High	
		Max	Vc-m/min			
Steels	P	Low Carbon Steels $\leq 180\text{HB}$	●	160	180	250
		Med Carbon / Alloy Steels 180-350HB	●	140	160	200
		Pre-Hardened Steels 35-45HRC	●	100	120	150
Stainless Steels	M	Free Machining Stainless	●	130	160	200
		Austenitic Stainless	●	110	140	180
		Duplex Stainless	●	60	80	120
Special Alloys	S	High Temp Alloys	●	20	30	40
		Titanium Alloys	●	30	50	70
Cast Irons	K	Grey Cast Iron	●	140	180	230
		Ductile Cast Iron	●	130	160	210

Recommended Feed per Rev by Material Group

Workpiece Material Group	Material Type	Feed / Diameter Range				
		Ø14.0 - 22.5	Ø23.0 - 27.0	Ø27.5 - 33.0	Ø33.5 - 40.0	
Steels	P	Low Carbon Steels $\leq 180\text{HB}$	0.04 - 0.10	0.04 - 0.12	0.06 - 0.16	0.08 - 0.18
		Med Carbon / Alloy Steels 180-350HB	0.04 - 0.10	0.04 - 0.12	0.06 - 0.16	0.08 - 0.18
		Pre-Hardened Steels 35-45HRC	0.04 - 0.06	0.04 - 0.06	0.04 - 0.08	0.04 - 0.08
Stainless Steels	M	Free Machining Stainless	0.04 - 0.10	0.04 - 0.12	0.06 - 0.16	0.08 - 0.18
		Austenitic Stainless	0.04 - 0.10	0.04 - 0.12	0.06 - 0.16	0.08 - 0.18
		Duplex Stainless	0.03 - 0.08	0.04 - 0.12	0.06 - 0.14	0.08 - 0.16
Special Alloys	S	High Temp Alloys	0.03 - 0.06	0.04 - 0.08	0.04 - 0.10	0.06 - 0.12
		Titanium Alloys	0.03 - 0.08	0.04 - 0.10	0.06 - 0.10	0.08 - 0.11
Cast Irons	K	Grey Cast Iron	0.04 - 0.12	0.06 - 0.16	0.06 - 0.18	0.08 - 0.20
		Ductile Cast Iron	0.04 - 0.10	0.06 - 0.14	0.06 - 0.16	0.08 - 0.18

Notes:

For long chipping carbon/mild steel reduce feed per rev and increase cutting speed.

For unstable or interrupted cutting conditions it is recommended to start with a speed and feed value reduced by 20-30% than the above recommendations

Grades & Applications

Grade	Type	Coating	Application
FA6230	PVD	TiAlN	Universal grade that works in a wide range of materials including steels, stainless steels and cast irons
FM3120	PVD	TiAlSiN	First choice for stainless steels, and also works well in carbon and alloy steels. High cobalt content offers increased toughness with excellent wear resistance. Suitable for medium and low cutting speeds.
FS6030	PVD	TiAlN	Stainless steels, titaniums and high temperature alloys. Suitable for unstable conditions