

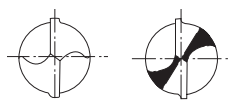
HSS-E STRAIGHT SHANK DRILLS, GOLD-P COATED
HSS-E SPIRALBOHRER, GOLD-P BESCHICHTET

JOBBER

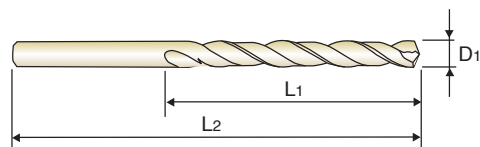
KURZ

- ▶ **Flute Geometry** : Right hand helix
- ▶ **Point Angle** : 135°, under 1.6mm : Normal point
1.6mm & over : Split point
- ▶ **Surface treatment**: Bright body, TiN coating on working area
- ▶ **Application** : Drilling stainless steels, difficult to cut materials such as titanium alloys and inconel.

- ▶ **Nutenform** : Rechtsspirale
- ▶ **Spitzenwinkel** : 135°, unter 1.6mm : Normalanschliff
1.6mm & über : Kreuzanschliff
- ▶ **Oberfläche** : Blank mit TiN-Beschichtung im Arbeitsbereich
- ▶ **Anwendung** : Tiefe Bohrungen in unlegierten und legierten Stählen, Grauguss, Temperguss, Aluminium- und Magnesiumlegierungen



under 1.6mm 1.6mm & over



DIN 338 HSS-E N 33° h8 135° P.169

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
DLGP195010	1.0	12	34	DLGP195041	4.1	43	75
DLGP195011	1.1	14	36	DLGP195042	4.2	43	75
DLGP195012	1.2	16	38	DLGP195043	4.3	47	80
DLGP195013	1.3	16	38	DLGP195044	4.4	47	80
DLGP195014	1.4	18	40	DLGP195045	4.5	47	80
DLGP195015	1.5	18	40	DLGP195046	4.6	47	80
DLGP195016	1.6	20	43	DLGP195047	4.7	47	80
DLGP195017	1.7	20	43	DLGP195048	4.8	52	86
DLGP195018	1.8	22	46	DLGP195049	4.9	52	86
DLGP195019	1.9	22	46	DLGP195050	5.0	52	86
DLGP195020	2.0	24	49	DLGP195051	5.1	52	86
DLGP195021	2.1	24	49	DLGP195052	5.2	52	86
DLGP195022	2.2	27	53	DLGP195053	5.3	52	86
DLGP195023	2.3	27	53	DLGP195054	5.4	57	93
DLGP195024	2.4	30	57	DLGP195055	5.5	57	93
DLGP195025	2.5	30	57	DLGP195056	5.6	57	93
DLGP195026	2.6	30	57	DLGP195057	5.7	57	93
DLGP195027	2.7	33	61	DLGP195058	5.8	57	93
DLGP195028	2.8	33	61	DLGP195059	5.9	57	93
DLGP195029	2.9	33	61	DLGP195060	6.0	57	93
DLGP195030	3.0	33	61	DLGP195061	6.1	63	101
DLGP195031	3.1	36	65	DLGP195062	6.2	63	101
DLGP195032	3.2	36	65	DLGP195063	6.3	63	101
DLGP195033	3.3	36	65	DLGP195064	6.4	63	101
DLGP195034	3.4	39	70	DLGP195065	6.5	63	101
DLGP195035	3.5	39	70	DLGP195066	6.6	63	101
DLGP195036	3.6	39	70	DLGP195067	6.7	63	101
DLGP195037	3.7	39	70	DLGP195068	6.8	69	109
DLGP195038	3.8	43	75	DLGP195069	6.9	69	109
DLGP195039	3.9	43	75	DLGP195070	7.0	69	109
DLGP195040	4.0	43	75	DLGP195071	7.1	69	109

◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze	CFRP
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~								
◎	◎					○	○	○	○			



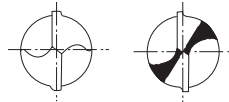
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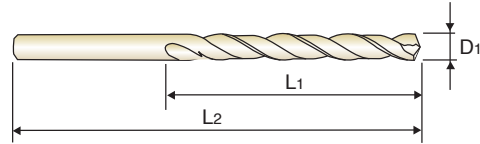
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under 1.6mm 1.6mm & over



Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
DLGP195072	7.2	69	109	DLGP195102	10.2	87	133
DLGP195073	7.3	69	109	DLGP195103	10.3	87	133
DLGP195074	7.4	69	109	DLGP195104	10.4	87	133
DLGP195075	7.5	69	109	DLGP195105	10.5	87	133
DLGP195076	7.6	75	117	DLGP195106	10.6	87	133
DLGP195077	7.7	75	117	DLGP195107	10.7	94	142
DLGP195078	7.8	75	117	DLGP195108	10.8	94	142
DLGP195079	7.9	75	117	DLGP195109	10.9	94	142
DLGP195080	8.0	75	117	DLGP195110	11.0	94	142
DLGP195081	8.1	75	117	DLGP195111	11.1	94	142
DLGP195082	8.2	75	117	DLGP195112	11.2	94	142
DLGP195083	8.3	75	117	DLGP195113	11.3	94	142
DLGP195084	8.4	75	117	DLGP195114	11.4	94	142
DLGP195085	8.5	75	117	DLGP195115	11.5	94	142
DLGP195086	8.6	81	125	DLGP195116	11.6	94	142
DLGP195087	8.7	81	125	DLGP195117	11.7	94	142
DLGP195088	8.8	81	125	DLGP195118	11.8	94	142
DLGP195089	8.9	81	125	DLGP195119	11.9	101	151
DLGP195090	9.0	81	125	DLGP195120	12.0	101	151
DLGP195091	9.1	81	125	DLGP195121	12.1	101	151
DLGP195092	9.2	81	125	DLGP195122	12.2	101	151
DLGP195093	9.3	81	125	DLGP195123	12.3	101	151
DLGP195094	9.4	81	125	DLGP195124	12.4	101	151
DLGP195095	9.5	81	125	DLGP195125	12.5	101	151
DLGP195096	9.6	87	133	DLGP195126	12.6	101	151
DLGP195097	9.7	87	133	DLGP195127	12.7	101	151
DLGP195098	9.8	87	133	DLGP195128	12.8	101	151
DLGP195099	9.9	87	133	DLGP195129	12.9	101	151
DLGP195100	10.0	87	133	DLGP195130	13.0	101	151
DLGP195101	10.1	87	133				

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Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze	CFRP
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~								
◎	◎					○	○	○	○			



GOLD-P COATED DRILLS GOLD-P BESCHICHTET BOHRER

D1GP125, D1GP165, DLGP195 SERIES

WORK MATERIAL	CARBON STEELS		CARBON STEELS		ALLOY STEELS		STAINLESS STEELS		TITANIUM ALLOYS		ALUMINUM ALLOYS, ZINC ALLOYS		MAGNESIUM ALLOYS	
	N	S	N	S	N	S	N	S	N	S	N	S	N	S
HARDNESS			~ HRC23		~ HRC23 ~ 34		HRC23							
STRENGTH	~ 570 N/mm ²		~ 830 N/mm ²		810 ~ 1110 N/mm ²		~ 830 N/mm ²		~ 410 N/mm ²					
DRILLING SPEED	35 ~ 45 m/min		30 ~ 40 m/min		20 ~ 25 m/min		20 ~ 25 m/min		20 ~ 25 m/min		85 ~ 95 m/min		30 ~ 35 m/min	
DIAMETER	N	S	N	S	N	S	N	S	N	S	N	S	N	S
1.0	14000	0.02	12500	0.02	7700	0.02	7000	0.02	8050	0.02	30000	0.02	11500	0.03
2.0	7000	0.06	6100	0.06	3850	0.06	3500	0.06	4050	0.06	15000	0.06	5800	0.09
3.0	4650	0.10	4100	0.08	2550	0.08	2350	0.08	2700	0.08	9900	0.10	3850	0.13
4.0	3500	0.11	3050	0.11	1950	0.10	1750	0.10	2000	0.09	7450	0.11	2900	0.15
5.0	2800	0.12	2450	0.11	1550	0.10	1400	0.10	1600	0.10	5950	0.12	2300	0.17
6.0	2350	0.14	2050	0.13	1300	0.12	1150	0.12	1350	0.12	4950	0.14	1950	0.19
7.0	2000	0.16	1750	0.15	1100	0.14	1000	0.14	1150	0.14	4250	0.16	1650	0.22
8.0	1750	0.18	1550	0.18	960	0.15	875	0.15	1000	0.15	3700	0.18	1450	0.24
9.0	1550	0.20	1350	0.22	855	0.18	780	0.18	895	0.17	3300	0.20	1280	0.27
10.0	1400	0.21	1250	0.22	770	0.18	700	0.18	805	0.18	3000	0.23	1150	0.29
11.0	1250	0.22	1100	0.22	700	0.18	650	0.18	730	0.18	2700	0.23	1050	0.30
12.0	1150	0.23	1000	0.22	650	0.20	585	0.20	670	0.20	2480	0.23	960	0.31
13.0	1050	0.23	950	0.22	595	0.20	540	0.20	620	0.20	2300	0.23	890	0.31

N = R.P.M
S = Feed per Revolution (mm/rev.)

GOLD-P COATED DRILLS for DEEP HOLES GOLD-P BESCHICHTET BOHRER für TIEFLOCH MIT ZYLINDERSCHAFT

DLGP506 SERIES

WORK MATERIAL	CARBON STEELS ALLOY STEELS		TOOL STEELS HARDENED STEELS		SOFT GREY CAST IRON		HARD GREY CAST IRON	
	N	S	N	S	N	S	N	S
HARDNESS	HRC15 ~ 30		HRC20 ~ 40					
STRENGTH	700 ~ 1000 N/mm ²		800 ~ 1200 N/mm ²					
DRILLING SPEED	23 ~ 28 m/min		15 ~ 20 m/min		40 ~ 50 m/min		25 ~ 30 m/min	
DIAMETER	N	S	N	S	N	S	N	S
1.0	8750	0.02	6300	0.02	16000	0.02	9800	0.02
2.0	4400	0.06	3150	0.06	7900	0.07	4900	0.07
3.0	2900	0.08	2100	0.08	5250	0.11	3250	0.11
4.0	2200	0.09	1600	0.09	3950	0.14	2450	0.14
5.0	1750	0.10	1250	0.10	3150	0.14	1950	0.14
6.0	1450	0.12	1050	0.12	2650	0.18	1650	0.18
7.0	1250	0.14	900	0.14	2250	0.20	1400	0.20
8.0	1100	0.15	790	0.15	1950	0.22	1250	0.22
9.0	975	0.17	700	0.17	1750	0.24	1100	0.24
10.0	875	0.18	630	0.18	1600	0.28	980	0.28
11.0	800	0.20	575	0.20	1450	0.28	890	0.28
12.0	730	0.20	525	0.20	1300	0.28	815	0.28
13.0	675	0.20	485	0.20	1200	0.28	755	0.28

N = R.P.M
S = Feed per Revolution (mm/rev.)