

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

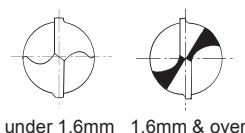
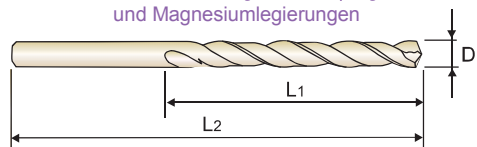
JOBBER

- HSS-E SPIRALBOHRER, GOLD-P BESCHICHTET
- Forets GOLD-P HSS-E queue cylindrique revêtus, série courte
- PUNTE IN HSS-E, GAMBO CILINDRICO, GOLD-P

KURZ
COURTE
CORTA

- ▶ **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



DIN 338
HSS-E
33°
h8
135°
P.219

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
DLGP195010	1.0	12	34
DLGP195011	1.1	14	36
DLGP195012	1.2	16	38
DLGP195013	1.3	16	38
DLGP195014	1.4	18	40
DLGP195015	1.5	18	40
DLGP195016	1.6	20	43
DLGP195017	1.7	20	43
DLGP195018	1.8	22	46
DLGP195019	1.9	22	46
DLGP195020	2.0	24	49
DLGP195021	2.1	24	49
DLGP195022	2.2	27	53
DLGP195023	2.3	27	53
DLGP195024	2.4	30	57
DLGP195025	2.5	30	57
DLGP195026	2.6	30	57
DLGP195027	2.7	33	61
DLGP195028	2.8	33	61
DLGP195029	2.9	33	61
DLGP195030	3.0	33	61
DLGP195031	3.1	36	65
DLGP195032	3.2	36	65
DLGP195033	3.3	36	65
DLGP195034	3.4	39	70
DLGP195035	3.5	39	70

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
DLGP195036	3.6	39	70
DLGP195037	3.7	39	70
DLGP195038	3.8	43	75
DLGP195039	3.9	43	75
DLGP195040	4.0	43	75
DLGP195041	4.1	43	75
DLGP195042	4.2	43	75
DLGP195043	4.3	47	80
DLGP195044	4.4	47	80
DLGP195045	4.5	47	80
DLGP195046	4.6	47	80
DLGP195047	4.7	47	80
DLGP195048	4.8	52	86
DLGP195049	4.9	52	86
DLGP195050	5.0	52	86
DLGP195051	5.1	52	86
DLGP195052	5.2	52	86
DLGP195053	5.3	52	86
DLGP195054	5.4	57	93
DLGP195055	5.5	57	93
DLGP195056	5.6	57	93
DLGP195057	5.7	57	93
DLGP195058	5.8	57	93
DLGP195059	5.9	57	93
DLGP195060	6.0	57	93
DLGP195061	6.1	63	101

▶ NEXT PAGE

◎ : Excellent ○ : Good

ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎	○	○	◎	○	○	○	○	○	◎	○	○	○	○	○	○	○	○

ISO	N										S					H					
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron	
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommended	○	○	○						○							○					



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

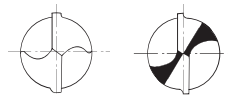
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- Forets GOLD-P HSS-E queue cylindrique revêtus, série courte
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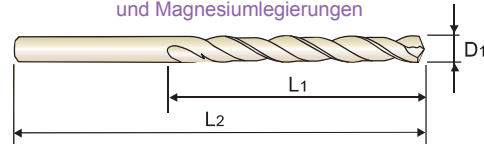
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COURTE
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under 1.6mm 1.6mm & over



DIN 338 HSS-E 33° h8 135° P.219

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
DLGP195062	6.2	63	101
DLGP195063	6.3	63	101
DLGP195064	6.4	63	101
DLGP195065	6.5	63	101
DLGP195066	6.6	63	101
DLGP195067	6.7	63	101
DLGP195068	6.8	69	109
DLGP195069	6.9	69	109
DLGP195070	7.0	69	109
DLGP195071	7.1	69	109
DLGP195072	7.2	69	109
DLGP195073	7.3	69	109
DLGP195074	7.4	69	109
DLGP195075	7.5	69	109
DLGP195076	7.6	75	117
DLGP195077	7.7	75	117
DLGP195078	7.8	75	117
DLGP195079	7.9	75	117
DLGP195080	8.0	75	117
DLGP195081	8.1	75	117
DLGP195082	8.2	75	117
DLGP195083	8.3	75	117
DLGP195084	8.4	75	117
DLGP195085	8.5	75	117
DLGP195086	8.6	81	125
DLGP195087	8.7	81	125

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
DLGP195088	8.8	81	125
DLGP195089	8.9	81	125
DLGP195090	9.0	81	125
DLGP195091	9.1	81	125
DLGP195092	9.2	81	125
DLGP195093	9.3	81	125
DLGP195094	9.4	81	125
DLGP195095	9.5	81	125
DLGP195096	9.6	87	133
DLGP195097	9.7	87	133
DLGP195098	9.8	87	133
DLGP195099	9.9	87	133
DLGP195100	10.0	87	133
DLGP195101	10.1	87	133
DLGP195102	10.2	87	133
DLGP195103	10.3	87	133
DLGP195104	10.4	87	133
DLGP195105	10.5	87	133
DLGP195106	10.6	87	133
DLGP195107	10.7	94	142
DLGP195108	10.8	94	142
DLGP195109	10.9	94	142
DLGP195110	11.0	94	142
DLGP195111	11.1	94	142
DLGP195112	11.2	94	142
DLGP195113	11.3	94	142

▶ NEXT PAGE

◎ : Excellent ○ : Good

ISO Material Description	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron	
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	38	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎	○	○	◎	○	○	○	○	○	◎	○	○	○	○	○	○	○	○

ISO Material Description	N										S						H				
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials		Heat Resistant Super Alloys						Titanium Alloys		Hardened steel	Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommended	○	○	○						○							○					

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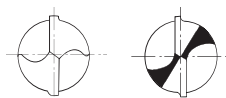
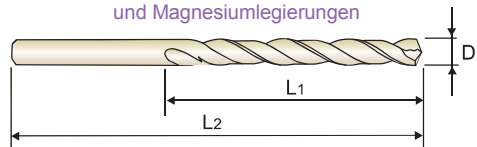
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under 1.6mm 1.6mm & over

DIN 338
HSS-E
33°
h8
135°
P.219

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
DLGP195114	11.4	94	142
DLGP195115	11.5	94	142
DLGP195116	11.6	94	142
DLGP195117	11.7	94	142
DLGP195118	11.8	94	142
DLGP195119	11.9	101	151
DLGP195120	12.0	101	151
DLGP195121	12.1	101	151
DLGP195122	12.2	101	151

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
DLGP195123	12.3	101	151
DLGP195124	12.4	101	151
DLGP195125	12.5	101	151
DLGP195126	12.6	101	151
DLGP195127	12.7	101	151
DLGP195128	12.8	101	151
DLGP195129	12.9	101	151
DLGP195130	13.0	101	151

◎ : Excellent ○ : Good

ISO	P										M			K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel			Grey cast iron		Nodular cast iron		Malleable cast iron
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
HRc	13	25	28	32	30	10	29	32	38	15	35	15	23	10	10	26	3	25		21
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎	○	◎	◎	○	○	○	○	○	◎	○	○	○	○	○	○	○	○

ISO	N					S					H										
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)		Non Metallic Materials			Heat Resistant Super Alloys					Titanium Alloys		Hardened steel		Chilled Cast Iron	Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommended	○	○	○						○							○					



D1GP125, D1GP165, DLGP195, DLGP506 SERIES

HSS & HSS-E GOLD-P DRILLS

RPM = rev./min.
FEED = mm/rev.

ISO	VDI 3323	Material Description	Vc (m/min)	Parameter	Drill Diameter (mm)						
					2.0	3.0	4.0	6.0	8.0	10.0	13.0
P	1	Non-alloy steel	40	RPM FEED	6370 0.04-0.08	4240 0.06-0.10	3180 0.08-0.12	2120 0.12-0.16	1590 0.12-0.18	1270 0.16-0.22	980 0.18-0.24
	2		35	RPM FEED	5570 0.04-0.08	3710 0.06-0.10	2790 0.08-0.12	1860 0.12-0.16	1390 0.12-0.18	1110 0.16-0.22	860 0.18-0.24
	3		30	RPM FEED	4770 0.04-0.08	3180 0.06-0.10	2390 0.08-0.12	1590 0.12-0.16	1190 0.12-0.18	950 0.16-0.22	730 0.18-0.24
	4		20	RPM FEED	3180 0.02-0.05	2120 0.02-0.06	1590 0.04-0.08	1060 0.04-0.10	800 0.06-0.12	640 0.08-0.14	490 0.12-0.18
	5										
	6	Low alloy steel	35	RPM FEED	5570 0.04-0.08	3710 0.06-0.10	2790 0.08-0.12	1860 0.12-0.16	1390 0.12-0.18	1110 0.16-0.22	860 0.18-0.24
	7		30	RPM FEED	4770 0.04-0.08	3180 0.06-0.10	2390 0.08-0.12	1590 0.12-0.16	1190 0.12-0.18	950 0.16-0.22	730 0.18-0.24
	8		30	RPM FEED	4770 0.02-0.05	3180 0.02-0.06	2390 0.04-0.08	1590 0.04-0.10	1190 0.06-0.12	950 0.08-0.14	730 0.12-0.18
	9										
	10	High alloyed steel, and tool steel	20	RPM FEED	3180 0.04-0.08	2120 0.06-0.10	1590 0.08-0.12	1060 0.12-0.16	800 0.12-0.18	640 0.16-0.22	490 0.18-0.24
	11										
M	12	Stainless steel	25	RPM FEED	3980 0.04-0.08	2650 0.06-0.10	1990 0.08-0.12	1330 0.12-0.16	990 0.12-0.18	800 0.16-0.22	610 0.18-0.24
	13		20	RPM FEED	3180 0.04-0.08	2120 0.06-0.10	1590 0.08-0.12	1060 0.12-0.16	800 0.12-0.18	640 0.16-0.22	490 0.18-0.24
	14		15	RPM FEED	2390 0.02-0.05	1590 0.02-0.06	1190 0.04-0.08	800 0.04-0.10	600 0.06-0.12	480 0.08-0.14	370 0.12-0.18
K	15	Grey cast iron	40	RPM FEED	6370 0.04-0.08	4240 0.06-0.10	3180 0.08-0.12	2120 0.12-0.16	1590 0.12-0.18	1270 0.16-0.22	980 0.18-0.24
	16		35	RPM FEED	5570 0.02-0.05	3710 0.02-0.06	2790 0.04-0.08	1860 0.04-0.10	1390 0.06-0.12	1110 0.08-0.14	860 0.12-0.18
	17	Nodular cast iron	40	RPM FEED	6370 0.04-0.08	4240 0.06-0.10	3180 0.08-0.12	2120 0.12-0.16	1590 0.12-0.18	1270 0.16-0.22	980 0.18-0.24
	18		30	RPM FEED	4770 0.02-0.05	3180 0.02-0.06	2390 0.04-0.08	1590 0.04-0.10	1190 0.06-0.12	950 0.08-0.14	730 0.12-0.18
	19	Malleable cast iron	35	RPM FEED	5570 0.04-0.08	3710 0.06-0.10	2790 0.08-0.12	1860 0.12-0.16	1390 0.12-0.18	1110 0.16-0.22	860 0.18-0.24
	20		30	RPM FEED	4770 0.02-0.05	3180 0.02-0.06	2390 0.04-0.08	1590 0.04-0.10	1190 0.06-0.12	950 0.08-0.14	730 0.12-0.18
N	21	Aluminum- wrought alloy	65	RPM FEED	10350 0.05-0.09	6900 0.07-0.11	5170 0.12-0.16	3450 0.12-0.18	2590 0.14-0.20	2070 0.16-0.22	1590 0.22-0.28
	22		65	RPM FEED	10350 0.05-0.09	6900 0.07-0.11	5170 0.12-0.16	3450 0.12-0.18	2590 0.14-0.20	2070 0.16-0.22	1590 0.22-0.28
	23	Aluminum-cast, alloyed	50	RPM FEED	7960 0.05-0.09	5310 0.07-0.11	3980 0.12-0.16	2650 0.12-0.18	1990 0.14-0.20	1590 0.16-0.22	1220 0.22-0.28
	24										
	25										
	26										
	27	Copper and Copper Alloys (Bronze / Brass)									
	28										
	29	Non Metallic Materials	30	RPM FEED	4770 0.04-0.08	3180 0.06-0.10	2390 0.08-0.12	1590 0.12-0.16	1190 0.12-0.18	950 0.16-0.22	730 0.18-0.24
	30										
S	31	Heat Resistant Super Alloys									
	32										
	33										
	34										
	35										
	36	Titanium Alloys	20	RPM FEED	3180 0.02-0.05	2120 0.02-0.06	1590 0.04-0.08	1060 0.05-0.09	800 0.06-0.10	640 0.07-0.13	490 0.08-0.14
	37										
H	38	Hardened steel									
	39										
	40	Chilled Cast Iron									
	41	Hardened Cast Iron									