

HSS, STRAIGHT SHANK DRILLS, GOLD-P COATED

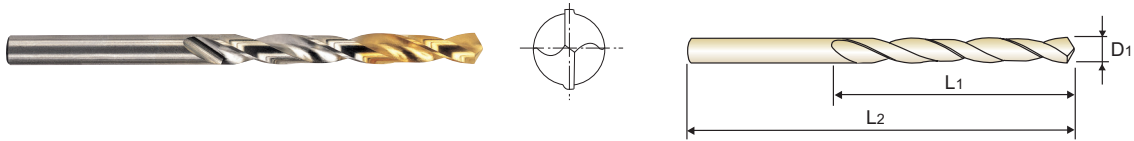
JOBBER

- 🇩🇪 HSS SPIRALBOHRER, GOLD-P BESCHICHTET
- 🇫🇷 Forets GOLD-P HSS queue cylindrique revêtus, série courte
- 🇮🇹 PUNTE IN HSS, GAMBO CILINDRICO, GOLD-P

**KURZ
COURTE
CORTA**

- ▶ **Flute Geometry** : Right hand helix
- ▶ **Point Angle** : 118°, Normal point
- ▶ **Surface treatment** : Bright body, TiN coating on working area
- ▶ **Application** : Drilling steels, Cast steels alloyed and Non-alloyed, Grey cast iron, Graphite, Malleable cast iron

- ▶ **Nutenform** : Rechtsspirale
- ▶ **Spitzenwinkel** : 118° Normalanschliff
- ▶ **Oberfläche** : Blank mit TiN-Beschichtung im Arbeitsbereich
- ▶ **Anwendung** : Stahl, legierter und unlegierter Stahlguss, Grauguss, Graphit, Temperguss



DIN 338
HSS
N 30°
h8
118°
P.219

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
D1GP125010	1.0	12	34	D1GP125036	3.6	39	70
D1GP125011	1.1	14	36	D1GP125037	3.7	39	70
D1GP125012	1.2	16	38	D1GP125038	3.8	43	75
D1GP125013	1.3	16	38	D1GP125039	3.9	43	75
D1GP125014	1.4	18	40	D1GP125040	4.0	43	75
D1GP125015	1.5	18	40	D1GP125041	4.1	43	75
D1GP125016	1.6	20	43	D1GP125042	4.2	43	75
D1GP125017	1.7	20	43	D1GP125043	4.3	47	80
D1GP125018	1.8	22	46	D1GP125044	4.4	47	80
D1GP125019	1.9	22	46	D1GP125045	4.5	47	80
D1GP125020	2.0	24	49	D1GP125046	4.6	47	80
D1GP125021	2.1	24	49	D1GP125047	4.7	47	80
D1GP125022	2.2	27	53	D1GP125048	4.8	52	86
D1GP125023	2.3	27	53	D1GP125049	4.9	52	86
D1GP125024	2.4	30	57	D1GP125050	5.0	52	86
D1GP125025	2.5	30	57	D1GP125051	5.1	52	86
D1GP125026	2.6	30	57	D1GP125052	5.2	52	86
D1GP125027	2.7	33	61	D1GP125053	5.3	52	86
D1GP125028	2.8	33	61	D1GP125054	5.4	57	93
D1GP125029	2.9	33	61	D1GP125055	5.5	57	93
D1GP125030	3.0	33	61	D1GP125056	5.6	57	93
D1GP125031	3.1	36	65	D1GP125057	5.7	57	93
D1GP125032	3.2	36	65	D1GP125058	5.8	57	93
D1GP125033	3.3	36	65	D1GP125059	5.9	57	93
D1GP125034	3.4	39	70	D1GP125060	6.0	57	93
D1GP125035	3.5	39	70	D1GP125061	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	32	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	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
HB											15	30	25	38	34			55	60	42	55
Recommended	○	○	○						○							○					

HSS, STRAIGHT SHANK DRILLS, GOLD-P COATED

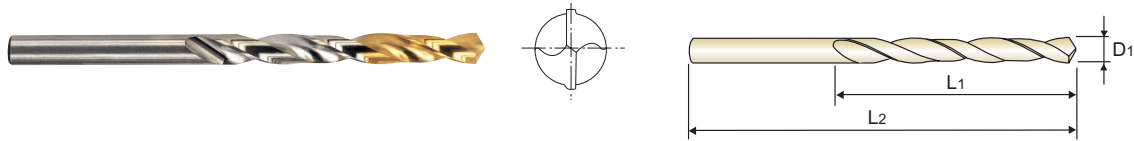
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- ▶Oberfläche : Blank mit TiN-Beschichtung im Arbeitsbereich
- ▶Anwendung : Stahl, legierter und unlegierter Stahlguss, Grauguss, Graphit, Temperguss



DIN 338 HSS N 30° h8 118° P.219

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
D1GP125062	6.2	63	101
D1GP125063	6.3	63	101
D1GP125064	6.4	63	101
D1GP125065	6.5	63	101
D1GP125066	6.6	63	101
D1GP125067	6.7	63	101
D1GP125068	6.8	69	109
D1GP125069	6.9	69	109
D1GP125070	7.0	69	109
D1GP125071	7.1	69	109
D1GP125072	7.2	69	109
D1GP125073	7.3	69	109
D1GP125074	7.4	69	109
D1GP125075	7.5	69	109
D1GP125076	7.6	75	117
D1GP125077	7.7	75	117
D1GP125078	7.8	75	117
D1GP125079	7.9	75	117
D1GP125080	8.0	75	117
D1GP125081	8.1	75	117
D1GP125082	8.2	75	117
D1GP125083	8.3	75	117
D1GP125084	8.4	75	117
D1GP125085	8.5	75	117
D1GP125086	8.6	81	125
D1GP125087	8.7	81	125

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
D1GP125088	8.8	81	125
D1GP125089	8.9	81	125
D1GP125090	9.0	81	125
D1GP125091	9.1	81	125
D1GP125092	9.2	81	125
D1GP125093	9.3	81	125
D1GP125094	9.4	81	125
D1GP125095	9.5	81	125
D1GP125096	9.6	87	133
D1GP125097	9.7	87	133
D1GP125098	9.8	87	133
D1GP125099	9.9	87	133
D1GP125100	10.0	87	133
D1GP125101	10.1	87	133
D1GP125102	10.2	87	133
D1GP125103	10.3	87	133
D1GP125104	10.4	87	133
D1GP125105	10.5	87	133
D1GP125106	10.6	87	133
D1GP125107	10.7	94	142
D1GP125108	10.8	94	142
D1GP125109	10.9	94	142
D1GP125110	11.0	94	142
D1GP125111	11.1	94	142
D1GP125112	11.2	94	142
D1GP125113	11.3	94	142

Unit : mm

▶ NEXT PAGE

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	
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
VDI 3323																				
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	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
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
HRc	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
HB											15	30	25	38	34			55	60	42	55
Recommended	○	○	○						○							○					

◎ : Excellent ○ : Good

HSS, STRAIGHT SHANK DRILLS, GOLD-P COATED

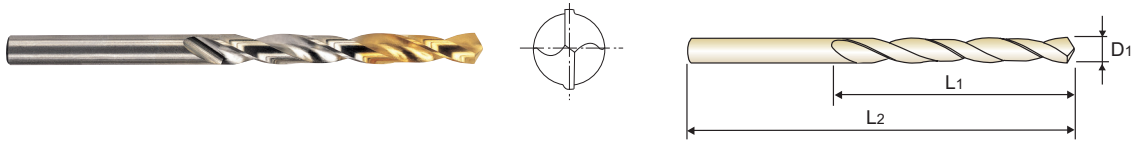
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HSS
N 30°
h8
118°
P.219

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
D1GP125114	11.4	94	142
D1GP125115	11.5	94	142
D1GP125116	11.6	94	142
D1GP125117	11.7	94	142
D1GP125118	11.8	94	142
D1GP125119	11.9	101	151
D1GP125120	12.0	101	151
D1GP125121	12.1	101	151
D1GP125122	12.2	101	151

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
D1GP125123	12.3	101	151
D1GP125124	12.4	101	151
D1GP125125	12.5	101	151
D1GP125126	12.6	101	151
D1GP125127	12.7	101	151
D1GP125128	12.8	101	151
D1GP125129	12.9	101	151
D1GP125130	13.0	101	151

GOLD-P DRILLS

◎ : Excellent ○ : Good

ISO	P										M				K						
Material Description	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	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					
Material Description	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	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
HB											15	30	25	38	34			55	60	42	55
Recommended	○	○	○						○							○					



RECOMMENDED CUTTING CONDITIONS
EMPHOHLENE SCHNEIDPARAMETER

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

SELECTION GUIDE



SERIES

D1GP125

D1GP165

STANDARD

DIN338

DIN338

LENGTH

JOBBER

JOBBER

SIZE MIN

D1.0

D1.6

SIZE MAX

D13.0

D13.0

PAGE

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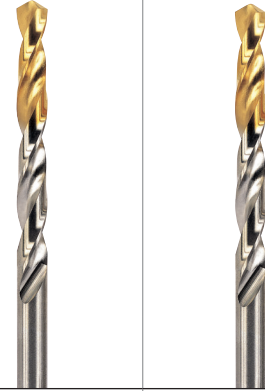
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SURFACE TREATMENT

TiN

HSS & HSS-E GOLD-P DRILLS

Same Performance as Full TiN-coated Drills



Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : P.219

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment	HB	HRc	
P	1	Non-alloy steel	About 0.15% C Annealed	125		
	2		About 0.45% C Annealed	190	13	
	3		About 0.45% C Quenched & Tempered	250	25	
	4		About 0.75% C Annealed	270	28	
	5	Low alloy steel	About 0.75% C Quenched & Tempered	300	32	
	6		Annealed	180	10	
	7		Quenched & Tempered	275	29	
	8		Quenched & Tempered	300	32	
	9		Quenched & Tempered	350	38	
	10		High alloyed steel, and tool steel	Annealed	200	15
	11			Quenched & Tempered	325	35
M	12	Stainless steel	Ferritic / Martensitic Annealed	200	15	
	13		Martensitic Quenched & Tempered	240	23	
	14		Austenitic	180	10	
K	15	Grey cast iron	Pearlitic / ferritic	180	10	
	16		Pearlitic (Martensitic)	260	26	
	17	Nodular cast iron	Ferritic	160	3	
	18		Pearlitic	250	25	
	19	Malleable cast iron	Ferritic	130		
	20		Pearlitic	230	21	
N	21	Aluminum-wrought alloy	Not Curable	60		
	22		Curable Hardened	100		
	23	Aluminum-cast, alloyed	≤ 12% Si, Not Curable	75		
	24		≤ 12% Si, Curable Hardened	90		
	25		> 12% Si, Not Curable	130		
	26		Copper and Copper Alloys (Bronze / Brass)	Cutting Alloys, PB>1%	110	
	27	Non Metallic Materials	CuZn, CuSnZn (Brass)	90		
	28		CuSn, lead-free copper and electrolytic copper	100		
	29		Duroplastic, Fiber Reinforced Plastic			
	30	Rubber, Wood, etc.				
S	31	Heat Resistant Super Alloys	Fe Based Annealed	200	15	
	32		Fe Based Cured	280	30	
	33		Fe Based Annealed	250	25	
	34		Ni or Co Based Cured	350	38	
	35	Ni or Co Based Cast	320	34		
	36	Titanium Alloys	Pure Titanium	400 Rm		
	37		Alpha + Beta Alloys Hardened	1050 Rm		
H	38	Hardened steel	Hardened	550	55	
	39		Hardened	630	60	
	40	Chilled Cast Iron	Cast	400	42	
	41	Hardened Cast Iron	Hardened	550	55	

ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment	HB	HRc	D1GP125	D1GP165	
P	1	Non-alloy steel	About 0.15% C Annealed	125		◎	◎	
	2		About 0.45% C Annealed	190	13	◎	◎	
	3		About 0.45% C Quenched & Tempered	250	25	◎	◎	
	4		About 0.75% C Annealed	270	28	○	○	
	5	Low alloy steel	About 0.75% C Quenched & Tempered	300	32			
	6		Annealed	180	10	◎	◎	
	7		Quenched & Tempered	275	29	○	○	
	8		Quenched & Tempered	300	32	○	○	
	9		Quenched & Tempered	350	38	○	○	
	10		High alloyed steel, and tool steel	Annealed	200	15	○	○
	11			Quenched & Tempered	325	35		
M	12	Stainless steel	Ferritic / Martensitic Annealed	200	15	◎	◎	
	13		Martensitic Quenched & Tempered	240	23	○	○	
	14		Austenitic	180	10	○	○	
K	15	Grey cast iron	Pearlitic / ferritic	180	10	○	○	
	16		Pearlitic (Martensitic)	260	26	○	○	
	17	Nodular cast iron	Ferritic	160	3	○	○	
	18		Pearlitic	250	25			
	19	Malleable cast iron	Ferritic	130		○	○	
	20		Pearlitic	230	21			
N	21	Aluminum-wrought alloy	Not Curable	60		○	○	
	22		Curable Hardened	100		○	○	
	23	Aluminum-cast, alloyed	≤ 12% Si, Not Curable	75		○	○	
	24		≤ 12% Si, Curable Hardened	90				
	25		> 12% Si, Not Curable	130				
	26		Copper and Copper Alloys (Bronze / Brass)	Cutting Alloys, PB>1%	110			
	27	Non Metallic Materials	CuZn, CuSnZn (Brass)	90				
	28		CuSn, lead-free copper and electrolytic copper	100				
	29		Duroplastic, Fiber Reinforced Plastic			○	○	
	30	Rubber, Wood, etc.						
S	31	Heat Resistant Super Alloys	Fe Based Annealed	200	15			
	32		Fe Based Cured	280	30			
	33		Fe Based Annealed	250	25			
	34		Ni or Co Based Cured	350	38			
	35	Ni or Co Based Cast	320	34				
	36	Titanium Alloys	Pure Titanium	400 Rm		○	○	
	37		Alpha + Beta Alloys Hardened	1050 Rm				
H	38	Hardened steel	Hardened	550	55			
	39		Hardened	630	60			
	40	Chilled Cast Iron	Cast	400	42			
	41	Hardened Cast Iron	Hardened	550	55			