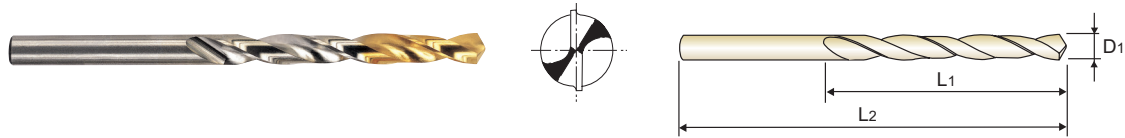


HSS, STRAIGHT SHANK DRILLS, GOLD-P COATED JOBBER

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

- | | |
|--|--|
| ▶ Flute Geometry : Right hand helix | ▶ Nutenform : Rechtsspirale |
| ▶ Point Angle : 118°, Split point | ▶ Spitzenwinkel : 118° Kreuzanschliff |
| ▶ Surface treatment : Bright body, TiN coating on working area | ▶ Oberfläche : Blank mit TiN-Beschichtung im Arbeitsbereich |
| ▶ Application : Drilling steels, Cast steels alloyed and Non-alloyed, Grey cast iron, Graphite, Malleable cast iron | ▶ Anwendung : Stahl, legierter und unlegierter Stahlguss, Grauguss, Graphit, Temperguss |



EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
D1GP165016	1.6	20	43	D1GP165042	4.2	43	75
D1GP165017	1.7	20	43	D1GP165043	4.3	47	80
D1GP165018	1.8	22	46	D1GP165044	4.4	47	80
D1GP165019	1.9	22	46	D1GP165045	4.5	47	80
D1GP165020	2.0	24	49	D1GP165046	4.6	47	80
D1GP165021	2.1	24	49	D1GP165047	4.7	47	80
D1GP165022	2.2	27	53	D1GP165048	4.8	52	86
D1GP165023	2.3	27	53	D1GP165049	4.9	52	86
D1GP165024	2.4	30	57	D1GP165050	5.0	52	86
D1GP165025	2.5	30	57	D1GP165051	5.1	52	86
D1GP165026	2.6	30	57	D1GP165052	5.2	52	86
D1GP165027	2.7	33	61	D1GP165053	5.3	52	86
D1GP165028	2.8	33	61	D1GP165054	5.4	57	93
D1GP165029	2.9	33	61	D1GP165055	5.5	57	93
D1GP165030	3.0	33	61	D1GP165056	5.6	57	93
D1GP165031	3.1	36	65	D1GP165057	5.7	57	93
D1GP165032	3.2	36	65	D1GP165058	5.8	57	93
D1GP165033	3.3	36	65	D1GP165059	5.9	57	93
D1GP165034	3.4	39	70	D1GP165060	6.0	57	93
D1GP165035	3.5	39	70	D1GP165061	6.1	63	101
D1GP165036	3.6	39	70	D1GP165062	6.2	63	101
D1GP165037	3.7	39	70	D1GP165063	6.3	63	101
D1GP165038	3.8	43	75	D1GP165064	6.4	63	101
D1GP165039	3.9	43	75	D1GP165065	6.5	63	101
D1GP165040	4.0	43	75	D1GP165066	6.6	63	101
D1GP165041	4.1	43	75	D1GP165067	6.7	63	101

▶ 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	
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

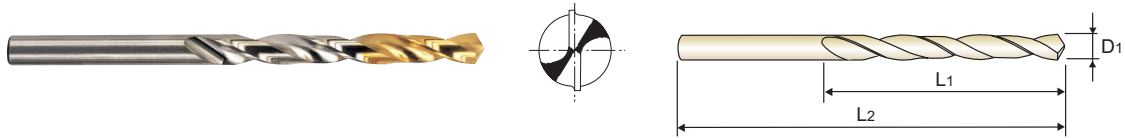
JOBBER

- 🇩🇪 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°, Split 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° Kreuzanschliff
- ▶ **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
D1GP165068	6.8	69	109	D1GP165094	9.4	81	125
D1GP165069	6.9	69	109	D1GP165095	9.5	81	125
D1GP165070	7.0	69	109	D1GP165096	9.6	87	133
D1GP165071	7.1	69	109	D1GP165097	9.7	87	133
D1GP165072	7.2	69	109	D1GP165098	9.8	87	133
D1GP165073	7.3	69	109	D1GP165099	9.9	87	133
D1GP165074	7.4	69	109	D1GP165100	10.0	87	133
D1GP165075	7.5	69	109	D1GP165101	10.1	87	133
D1GP165076	7.6	75	117	D1GP165102	10.2	87	133
D1GP165077	7.7	75	117	D1GP165103	10.3	87	133
D1GP165078	7.8	75	117	D1GP165104	10.4	87	133
D1GP165079	7.9	75	117	D1GP165105	10.5	87	133
D1GP165080	8.0	75	117	D1GP165106	10.6	87	133
D1GP165081	8.1	75	117	D1GP165107	10.7	94	142
D1GP165082	8.2	75	117	D1GP165108	10.8	94	142
D1GP165083	8.3	75	117	D1GP165109	10.9	94	142
D1GP165084	8.4	75	117	D1GP165110	11.0	94	142
D1GP165085	8.5	75	117	D1GP165111	11.1	94	142
D1GP165086	8.6	81	125	D1GP165112	11.2	94	142
D1GP165087	8.7	81	125	D1GP165113	11.3	94	142
D1GP165088	8.8	81	125	D1GP165114	11.4	94	142
D1GP165089	8.9	81	125	D1GP165115	11.5	94	142
D1GP165090	9.0	81	125	D1GP165116	11.6	94	142
D1GP165091	9.1	81	125	D1GP165117	11.7	94	142
D1GP165092	9.2	81	125	D1GP165118	11.8	94	142
D1GP165093	9.3	81	125	D1GP165119	11.9	101	151

▶ 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	10	29	32	38	15	35	15	23	10	10	26	3	25			
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎	○	◎	○	○	○	○	◎	○	○	○	○	○	○	○	○	○	○

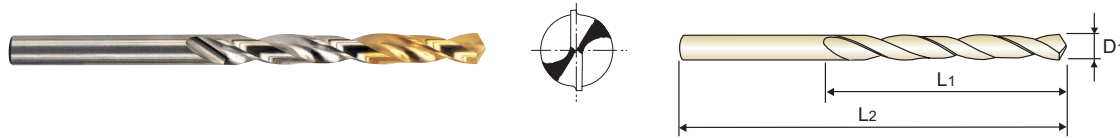
ISO	N								S							H					
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials	Heat Resistant Super Alloys				Titanium Alloys			Hardened steel	Chilled Cast Iron	Hardened Cast Iron		
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	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 JOBBER

● HSS SPIRALBOHRER, GOLD-P BESCHICHTET KURZ
● Forets GOLD-P HSS queue cylindrique revêtus, série courte COURTE
● PUNTE IN HSS, GAMBO CILINDRICO, GOLD-P CORTA

- ▶ **Flute Geometry** : Right hand helix
- ▶ **Point Angle** : 118°, Split point
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- ▶ **Application** : Drilling steels, Cast steels alloyed and Non-alloyed, Grey cast iron, Graphite, Malleable cast iron

- ▶ **Nutenform** : Rechtsspirale
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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
D1GP165120	12.0	101	151
D1GP165121	12.1	101	151
D1GP165122	12.2	101	151
D1GP165123	12.3	101	151
D1GP165124	12.4	101	151
D1GP165125	12.5	101	151

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
D1GP165126	12.6	101	151
D1GP165127	12.7	101	151
D1GP165128	12.8	101	151
D1GP165129	12.9	101	151
D1GP165130	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	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				
				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			
					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						
	20	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						
	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				
				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				
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								
20	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					
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				
				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							
15	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				
	35	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					
	40	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				
	30	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					
35	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					
30	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				
	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					
	50	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				
	S	31	Heat Resistant Super Alloys	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			
					20	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
38					Hardened steel	38	39	Chilled Cast Iron	40	Hardened 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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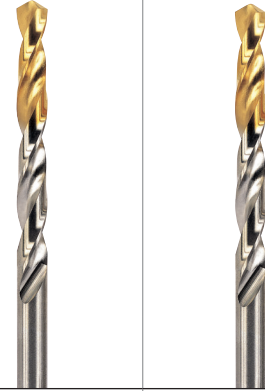
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SURFACE TREATMENT

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		About 0.75% C Quenched & Tempered	300	32		
	6	Low alloy steel	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		Cured	280	30		
	33		Annealed	250	25		
	34		Ni or Co Based Cured	350	38		
	35		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		