



Leading Through Innovation



HSS, HSS-E & HSS Co8

STRAIGHT SHANK DRILLS

BOHRER MIT ZYLINDERSCHAFT

- For General Purpose (Soft & Tough Materials)
- Für allgemeine Anwendungen (weiche & zähe Materialien)

SELECTION GUIDE



SERIES	D2107	D1107	D2105
STANDARD	DIN 1897	DIN 1897	DIN 338
LENGTH	STUB	STUB	JOBBER
SIZE MIN	D1.0	D1.0	D1.0
SIZE MAX	D31.0	D13.0	D20.0
PAGE	A220	A224	A227

SURFACE TREATMENT	Gold Coloring	Vap	Gold Coloring
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HSS, HSS-E & HSS Co8 STRAIGHT SHANK DRILLS

For General Purpose (Soft & Tough Materials)



Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : p.A262

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		Ferritic	130		○	○	○
20	Malleable cast iron	Pearlitic	230	21				
N	21	Aluminum-wrought alloy	Not Curable	60		○	○	○
	22		Curable Hardened	100		○	○	○
	23		≤ 12% Si, Not Curable	75		○	○	○
	24	Aluminum-cast, alloyed	≤ 12% Si, Curable Hardened	90				
	25		> 12% Si, Not Curable	130				
	26		Copper and Copper Alloys (Bronze / Brass)	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		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				

SELECTION GUIDE



SERIES	DH100 DL510	DH100 DL508	DH100 DL509
STANDARD	DIN 1897	DIN 338	DIN 340
LENGTH	STUB	JOBBER	LONG
SIZE MIN	D2.0	D2.0	D2.0
SIZE MAX	D20.0	D16.0	D12.0
PAGE	A249	A251	A253

SURFACE TREATMENT

Bright

HSS-E STRAIGHT SHANK DRILLS

For General Purpose (Soft & Tough Materials)



Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : p.A262

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		Ferritic	130		○	○	○
20	Malleable cast iron	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		CuZn, CuSnZn (Brass)	90				
	28		CuSn, lead-free copper and electrolytic copper	100				
	29	Non Metallic Materials	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		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				



STRAIGHT SHANK DRILLS

D2107 SERIES

HSS Co8, STRAIGHT SHANK TWIST DRILLS

STUB

- HSS Co8, SPIRALBOHRER mit ZYLINDERSCHAFT
- Forets HSS Co8, queue cylindrique, Forme C, série extra-courte
- PUNTE ELICOIDALI, GAMBO CILINDRICO, HSS Co8

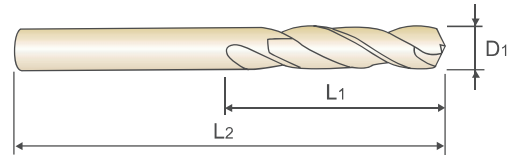
EXTRA KURZ
EXTRA-COURTE
EXTRA CORTA

► **Surface treatment** : Coloring(Gold color)
► **Application** : Suitable for drilling thin materials with portable electric drills.
Special twist drills for automatic and turret lathes

► **Oberflächenbehandlung** : Coloring(Goldfarbe)
► **Verwendung** : Sonderbohrer zum Einsatz auf Automaten und Revolverdrehbänken. Geeignet für den Einsatz in Handbohrmaschinen zum Bohren von dünnwandigem Material.



under 1.6mm 1.6mm & over



DIN 1897
HSS Co8
33°
h8
135°
Gold Coloring
p.A262

Plain Shank
 ER COLLET CHUCK

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
D2107010	1.0	6	26
D2107011	1.1	7	28
D2107012	1.2	8	30
D2107912	1.25	8	30
D2107013	1.3	8	30
D2107014	1.4	9	32
D2107015	1.5	9	32
D2107016	1.6	10	34
D2107017	1.7	10	34
D2107917	1.75	11	36
D2107018	1.8	11	36
D2107019	1.9	11	36
D2107020	2.0	12	38
D2107021	2.1	12	38
D2107022	2.2	13	40
D2107922	2.25	13	40
D2107023	2.3	13	40
D2107024	2.4	14	43
D2107025	2.5	14	43
D2107026	2.6	14	43
D2107027	2.7	16	46
D2107927	2.75	16	46
D2107028	2.8	16	46
D2107029	2.9	16	46
D2107030	3.0	16	46
D2107031	3.1	18	49

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
D2107032	3.2	18	49
D2107932	3.25	18	49
D2107033	3.3	18	49
D2107034	3.4	20	52
D2107035	3.5	20	52
D2107036	3.6	20	52
D2107037	3.7	20	52
D2107937	3.75	20	52
D2107038	3.8	22	55
D2107039	3.9	22	55
D2107040	4.0	22	55
D2107041	4.1	22	55
D2107042	4.2	22	55
D2107942	4.25	22	55
D2107043	4.3	24	58
D2107044	4.4	24	58
D2107045	4.5	24	58
D2107046	4.6	24	58
D2107946	4.65	24	58
D2107047	4.7	24	58
D2107947	4.75	24	58
D2107048	4.8	26	62
D2107049	4.9	26	62
D2107050	5.0	26	62
D2107051	5.1	26	62
D2107052	5.2	26	62

Unit : mm

- HSS-E(DL107) is available on your request.
- TiN(D4107), TiCN(D7107) and TiAlN(DQ107) are available on your request.

► 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	
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 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	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○						○							○					

YG STRAIGHT SHANK DRILLS

D2107 SERIES

HSS Co8, STRAIGHT SHANK TWIST DRILLS

STUB

- HSS Co8, SPIRALBOHRER mit ZYLINDERSCHAFT
- Forets HSS Co8, queue cylindrique, Forme C, série extra-courte
- PUNTE ELICOIDALI, GAMBO CILINDRICO, HSS Co8

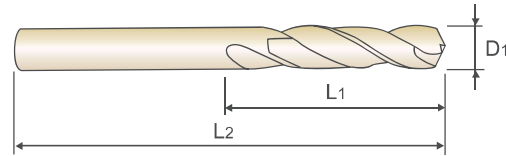
EXTRA KURZ
EXTRA-COURTE
EXTRA CORTA

► **Surface treatment** : Coloring(Gold color)
► **Application** : Suitable for drilling thin materials with portable electric drills.
Special twist drills for automatic and turret lathes

► **Oberflächenbehandlung** : Coloring(Goldfarbe)
► **Verwendung** : Sonderbohrer zum Einsatz auf Automaten und Revolverdrehbänken. Geeignet für den Einsatz in Handbohrmaschinen zum Bohren von dünnwandigem Material.



under 1.6mm 1.6mm & over



DIN 1897
HSS Co8
33°
h8
135°
Gold Coloring
p.A262

Plain Shank
 Recommended Tool Holder
 ER COLLET CHUCK

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
D2107993	9.35	40	84
D2107094	9.4	40	84
D2107095	9.5	40	84
D2107096	9.6	43	89
D2107097	9.7	43	89
D2107997	9.75	43	89
D2107098	9.8	43	89
D2107099	9.9	43	89
D2107100	10.0	43	89
D2107102	10.2	43	89
D2107802	10.25	43	89
D2107105	10.5	43	89
D2107807	10.75	47	95
D2107110	11.0	47	95
D2107812	11.25	47	95
D2107115	11.5	47	95
D2107817	11.75	47	95
D2107118	11.8	47	95
D2107120	12.0	51	102
D2107822	12.25	51	102
D2107125	12.5	51	102
D2107827	12.75	51	102
D2107130	13.0	51	102
D2107832	13.25	54	107
D2107135	13.5	54	107
D2107837	13.75	54	107

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
D2107138	13.8	54	107
D2107140	14.0	54	107
D2107842	14.25	56	111
D2107145	14.5	56	111
D2107847	14.75	56	111
D2107150	15.0	56	111
D2107852	15.25	58	115
D2107155	15.5	58	115
D2107857	15.75	58	115
D2107160	16.0	58	115
D2107862	16.25	60	119
D2107165	16.5	60	119
D2107867	16.75	60	119
D2107170	17.0	60	119
D2107872	17.25	62	123
D2107175	17.5	62	123
D2107877	17.75	62	123
D2107180	18.0	62	123
D2107882	18.25	64	127
D2107185	18.5	64	127
D2107887	18.75	64	127
D2107190	19.0	64	127
D2107892	19.25	66	131
D2107195	19.5	66	131
D2107897	19.75	66	131
D2107200	20.0	66	131

Unit : mm

- HSS-E(DL107) is available on your request.
- TiN(D4107), TiCN(D7107) and TiAlN(DQ107) are available on your request.

► 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	
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 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	200	280	250	350	320	15	30	25	38	34	400Rm	1050Rm	55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○						○							○					

YG STRAIGHT SHANK DRILLS

D1107 SERIES

HSS, STRAIGHT SHANK TWIST DRILLS

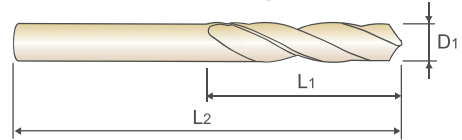
STUB

- HSS, SPIRALBOHRER mit ZYLINDERSCHAFT
- Forets HSS, queue cylindrique, série extra-courte
- PUNTE ELICOIDALI, GAMBO CILINDRICO, HSS

EXTRA KURZ
EXTRA-COURTE
EXTRA CORTA

- ▶ **Surface treatment** : Steam Tempered(Black Oxide Finish)
Bright Finish under 2mm
- ▶ **Application** : Suitable for drilling thin materials with portable electric drills.
Special twist drills for automatic and turret lathes.

- ▶ **Oberflächenbehandlung** : Steam Homo(Schwarzoxidation)
Helle Beschaffenheit unter 2mm
- ▶ **Verwendung** : Sonderbohrer zum Einsatz auf Automaten und Revolverdrehbänken.
Geeignet für den Einsatz in Handbohrmaschinen zum Bohren von dünnwandigem Material.



DIN 1897
HSS
N 20~30°
h8
118°
Vap
p.A262

Plain Shank
Recommended ToolHolder
ER COLLET CHUCK

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
D1107010	1.0	6	26
D1107011	1.1	7	28
D1107012	1.2	8	30
D1107912	1.25	8	30
D1107013	1.3	8	30
D1107014	1.4	9	32
D1107015	1.5	9	32
D1107016	1.6	9	34
D1107017	1.7	10	34
D1107917	1.75	11	36
D1107018	1.8	11	36
D1107019	1.9	11	36
D1107020	2.0	12	38
D1107021	2.1	12	38
D1107022	2.2	13	40
D1107922	2.25	13	40
D1107023	2.3	13	40
D1107024	2.4	14	43
D1107025	2.5	14	43
D1107026	2.6	14	43
D1107027	2.7	16	46
D1107927	2.75	16	46
D1107028	2.8	16	46
D1107029	2.9	16	46
D1107030	3.0	16	46
D1107031	3.1	18	49

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
D1107032	3.2	18	49
D1107932	3.25	18	49
D1107033	3.3	18	49
D1107034	3.4	20	52
D1107035	3.5	20	52
D1107036	3.6	20	52
D1107037	3.7	20	52
D1107937	3.75	20	52
D1107038	3.8	22	55
D1107039	3.9	22	55
D1107040	4.0	22	55
D1107041	4.1	22	55
D1107042	4.2	22	55
D1107942	4.25	22	55
D1107043	4.3	24	58
D1107044	4.4	24	58
D1107045	4.5	24	58
D1107046	4.6	24	58
D1107047	4.7	24	58
D1107947	4.75	24	58
D1107048	4.8	26	62
D1107049	4.9	26	62
D1107050	5.0	26	62
D1107051	5.1	26	62
D1107052	5.2	26	62
D1107952	5.25	26	62

Unit : mm

▶ 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	30	10	29	32	38	15	35	15	23	10	10	26	3	25	40	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	200	280	250	350	320	400Rm	1050Rm	550	630	400	550	550	630	400	550	
HB	60	100	75	90	130	110	90	100													
Recommended	○	○	○						○							○					

YG STRAIGHT SHANK DRILLS

D1107 SERIES

HSS, STRAIGHT SHANK TWIST DRILLS

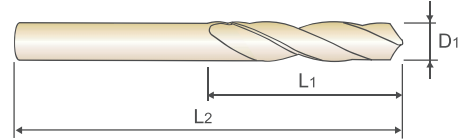
STUB

- HSS, SPIRALBOHRER mit ZYLINDERSCHAFT
- Forets HSS, queue cylindrique, série extra-courte
- PUNTE ELICOIDALI, GAMBO CILINDRICO, HSS

EXTRA KURZ
EXTRA-COURTE
EXTRA CORTA

► **Surface treatment** : Steam Tempered(Black Oxide Finish)
► **Application** : Suitable for drilling thin materials with portable electric drills.
Special twist drills for automatic and turret lathes.

► **Oberflächenbehandlung** : Steam Homo(Schwarzoxidation)
► **Verwendung** : Sonderbohrer zum Einsatz auf Automaten und Revolverdrehbänken. Geeignet für den Einsatz in Handbohrmaschinen zum Bohren von dünnwandigem Material.



DIN 1897
HSS
N 20~30°
h8
118°
Vap
p.A262

Plain Shank
Recommended ToolHolder
ER COLLET CHUCK

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
D1107097	9.7	43	89
D1107997	9.75	43	89
D1107098	9.8	43	89
D1107099	9.9	43	89
D1107100	10.0	43	89
D1107802	10.25	43	89
D1107105	10.5	43	89
D1107807	10.75	47	95
D1107110	11.0	47	95
D1107812	11.25	47	95
D1107115	11.5	47	95
D1107817	11.75	47	95

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
D1107120	12.0	51	102
D1107822	12.25	51	102
D1107125	12.5	51	102
D1107827	12.75	51	102
D1107130	13.0	51	102

◎ : 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	180	275	300	350	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	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○						○							○					

YG STRAIGHT SHANK DRILLS

D2105 SERIES

HSS Co8, STRAIGHT SHANK TWIST DRILLS

JOBBER

- HSS Co8, SPIRALBOHRER mit ZYLINDERSCHAFT
- Forets HSS Co8, queue cylindrique, Forme C, série courte
- PUNTE ELICOIDALI, GAMBO CILINDRICO, HSS Co8

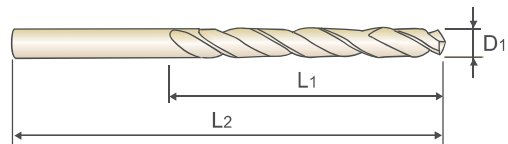
**KURZ
COURTE
CORTA**

► **Surface treatment** : Coloring(Gold color)
 ► **Application** : Drilling stainless steels and difficult - to - cut materials such as titanium and inconel.

► **Oberflächenbehandlung** : Coloring(Goldfarbe)
 ► **Verwendung** : Zum Bohren von rostfreien und austenitischen. Stählen, schwererspanbaren Werkstoffen wie Titan und Inconel.



under 1.6mm 1.6mm & over



DIN 338
HSS Co8
33°
h8
135°
Gold Coloring
p.A262

Recommended ToolHolder
Plain Shank
ER COLLET CHUCK

EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2	EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2
D2105053	5.3	52	86	D2105075	7.5	69	109
D2105054	5.4	57	93	D2105076	7.6	75	117
D2105055	5.5	57	93	D2105077	7.7	75	117
D2105056	5.6	57	93	D2105977	7.75	75	117
D2105057	5.7	57	93	D2105078	7.8	75	117
D2105957	5.75	57	93	D2105079	7.9	75	117
D2105058	5.8	57	93	D2105080	8.0	75	117
D2105059	5.9	57	93	D2105081	8.1	75	117
D2105060	6.0	57	93	D2105082	8.2	75	117
D2105061	6.1	63	101	D2105982	8.25	75	117
D2105062	6.2	63	101	D2105083	8.3	75	117
D2105962	6.25	63	101	D2105084	8.4	75	117
D2105063	6.3	63	101	D2105085	8.5	75	117
D2105064	6.4	63	101	D2105086	8.6	81	125
D2105065	6.5	63	101	D2105087	8.7	81	125
D2105066	6.6	63	101	D2105987	8.75	81	125
D2105067	6.7	63	101	D2105088	8.8	81	125
D2105967	6.75	69	109	D2105089	8.9	81	125
D2105068	6.8	69	109	D2105090	9.0	81	125
D2105069	6.9	69	109	D2105091	9.1	81	125
D2105070	7.0	69	109	D2105092	9.2	81	125
D2105071	7.1	69	109	D2105992	9.25	81	125
D2105072	7.2	69	109	D2105093	9.3	81	125
D2105972	7.25	69	109	D2105094	9.4	81	125
D2105073	7.3	69	109	D2105095	9.5	81	125
D2105074	7.4	69	109	D2105096	9.6	87	133

► TIN(D4105), TiCN(D7105) and TiAlN(DQ105) are available on your request.

► 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	
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 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	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○						○							○					

YG STRAIGHT SHANK DRILLS

DL105 SERIES

HSS-E, STRAIGHT SHANK TWIST DRILLS

JOBBER

- HSS-E, SPIRALBOHRER mit ZYLINDERSCHAFT
- Forets HSS-E, queue cylindrique, Forme C, série courte
- PUNTE ELICOIDALI, GAMBO CILINDRICO, HSS - E

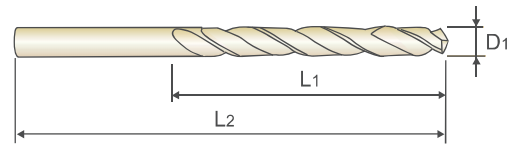
KURZ
COURTE
CORTA

► **Surface treatment** : Coloring(Gold color)
 ► **Application** : Drilling stainless steels and difficult - to - cut materials such as titanium and inconel.

► **Oberflächenbehandlung** : Coloring(Goldfarbe)
 ► **Verwendung** : Zum Bohren von rostfreien und austenitischen. Stählen, schwererspanbaren Werkstoffen wie Titan und Inconel.



under 1.6mm 1.6mm & over



DIN 338
HSS-E
33°
h8
135°
Gold Coloring
p.A262

Recommended ToolHolder
Plain Shank
ER COLLET CHUCK

EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2	EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2
DL105010	1.0	12	34	DL105032	3.2	36	65
DL105011	1.1	14	36	DL105932	3.25	36	65
DL105012	1.2	16	38	DL105033	3.3	36	65
DL105912	1.25	16	38	DL105034	3.4	39	70
DL105013	1.3	16	38	DL105035	3.5	39	70
DL105014	1.4	18	40	DL105036	3.6	39	70
DL105015	1.5	18	40	DL105037	3.7	39	70
DL105016	1.6	20	43	DL105937	3.75	39	70
DL105017	1.7	20	43	DL105038	3.8	43	75
DL105917	1.75	22	46	DL105039	3.9	43	75
DL105018	1.8	22	46	DL105040	4.0	43	75
DL105019	1.9	22	46	DL105041	4.1	43	75
DL105020	2.0	24	49	DL105042	4.2	43	75
DL105021	2.1	24	49	DL105942	4.25	43	75
DL105022	2.2	27	53	DL105043	4.3	47	80
DL105922	2.25	27	53	DL105044	4.4	47	80
DL105023	2.3	27	53	DL105045	4.5	47	80
DL105024	2.4	30	57	DL105046	4.6	47	80
DL105025	2.5	30	57	DL105047	4.7	47	80
DL105026	2.6	30	57	DL105947	4.75	47	80
DL105027	2.7	33	61	DL105048	4.8	52	86
DL105927	2.75	33	61	DL105049	4.9	52	86
DL105028	2.8	33	61	DL105050	5.0	52	86
DL105029	2.9	33	61	DL105051	5.1	52	86
DL105030	3.0	33	61	DL105052	5.2	52	86
DL105031	3.1	36	65	DL105952	5.25	52	86

► TIN(DN105), TiCN(DX105) and TiAlN(DT105) are available on your request.

► 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	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 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	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○						○							○					

YG STRAIGHT SHANK DRILLS

DL105 SERIES

HSS-E, STRAIGHT SHANK TWIST DRILLS

JOBBER

- HSS-E, SPIRALBOHRER mit ZYLINDERSCHAFT
- Forets HSS-E, queue cylindrique, Forme C, série courte
- PUNTE ELICOIDALI, GAMBO CILINDRICO, HSS - E

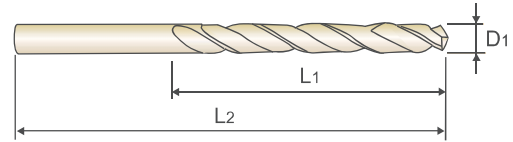
KURZ
COURTE
CORTA

► **Surface treatment** : Coloring(Gold color)
 ► **Application** : Drilling stainless steels and difficult - to - cut materials such as titanium and inconel.

► **Oberflächenbehandlung** : Coloring(Goldfarbe)
 ► **Verwendung** : Zum Bohren von rostfreien und austenitischen. Stählen, schwerzerspanbaren Werkstoffen wie Titan und Inconel.



under 1.6mm 1.6mm & over



DIN 338
HSS-E
33°
h8
135°
Gold Coloring
p.A262

Plain Shank
 Recommended ToolHolder

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
DL105097	9.7	87	133
DL105997	9.75	87	133
DL105098	9.8	87	133
DL105099	9.9	87	133
DL105100	10.0	87	133
DL105102	10.2	87	133
DL105105	10.5	87	133
DL105110	11.0	94	142
DL105115	11.5	94	142
DL105120	12.0	101	151
DL105125	12.5	101	151
DL105130	13.0	101	151
DL105135	13.5	108	160
DL105140	14.0	108	160

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
DL105145	14.5	114	169
DL105150	15.0	114	169
DL105155	15.5	120	178
DL105160	16.0	120	178
DL105165	16.5	125	184
DL105170	17.0	125	184
DL105175	17.5	130	191
DL105180	18.0	130	191
DL105185	18.5	135	198
DL105190	19.0	135	198
DL105195	19.5	140	205
DL105200	20.0	140	205

► TiN(DN105), TiCN(DX105) and TiAlN(DT105) are available on your request.

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

REAMERS

COUNTER SINKS

COUNTER BORES

TECHNICAL DATA

◎ : 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	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 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	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○						○							○					

YG STRAIGHT SHANK DRILLS

D1105 SERIES

HSS, STRAIGHT SHANK TWIST DRILLS

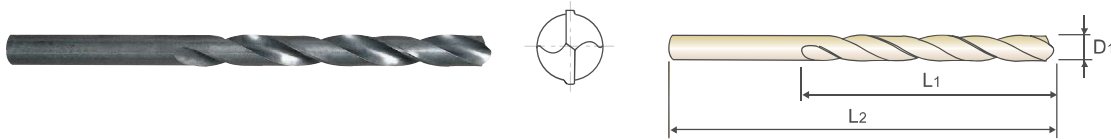
JOBBER

- HSS, SPIRALBOHRER mit ZYLINDERSCHAFT
- Forets HSS, queue cylindrique, série courte
- PUNTE ELICOIDALI, GAMBO CILINDRICO, HSS

KURZ
COURTE
CORTA

- ▶ **Surface treatment** : Steam Tempered(Black Oxide Finish)
Bright Finish under 2mm
- ▶ **Application** : Drilling steels, cast steels alloyed and non-alloyed, grey cast iron, malleable cast iron and graphite.

- ▶ **Oberflächenbehandlung** : Steam Homo(Schwarzoxidation)
Helle Beschaffenheit unter 2mm
- ▶ **Verwendung** : Zum Bohren von Stahl und Stahlguß, Grauguß, Temperguß, Sphäroguß, Sintereisen, Graphite.



DIN 338
HSS
N 20~30°
h8
118°
Vap
p.A262

Plain Shank
 Recommended ToolHolder

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
D1105932	3.25	36	65
D1105033	3.3	36	65
D1105933	3.35	36	65
D1105034	3.4	39	70
D1105934	3.45	39	70
D1105035	3.5	39	70
D1105935	3.55	39	70
D1105036	3.6	39	70
D1105936	3.65	39	70
D1105037	3.7	39	70
D1105937	3.75	39	70
D1105038	3.8	43	75
D1105938	3.85	43	75
D1105039	3.9	43	75
D1105939	3.95	43	75
D1105040	4.0	43	75
D1105940	4.05	43	75
D1105041	4.1	43	75
D1105941	4.15	43	75
D1105042	4.2	43	75
D1105942	4.25	43	75
D1105043	4.3	47	80
D1105943	4.35	47	80
D1105044	4.4	47	80
D1105944	4.45	47	80
D1105045	4.5	47	80

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
D1105945	4.55	47	80
D1105046	4.6	47	80
D1105946	4.65	47	80
D1105047	4.7	47	80
D1105947	4.75	47	80
D1105048	4.8	52	86
D1105948	4.85	52	86
D1105049	4.9	52	86
D1105949	4.95	52	86
D1105050	5.0	52	86
D1105950	5.05	52	86
D1105051	5.1	52	86
D1105951	5.15	52	86
D1105052	5.2	52	86
D1105952	5.25	52	86
D1105053	5.3	52	86
D1105953	5.35	57	93
D1105054	5.4	57	93
D1105954	5.45	57	93
D1105055	5.5	57	93
D1105955	5.55	57	93
D1105056	5.6	57	93
D1105956	5.65	57	93
D1105057	5.7	57	93
D1105957	5.75	57	93
D1105058	5.8	57	93

Unit : mm

▶ 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	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 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	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○						○							○					



STRAIGHT SHANK DRILLS

D1105 SERIES

HSS, STRAIGHT SHANK TWIST DRILLS

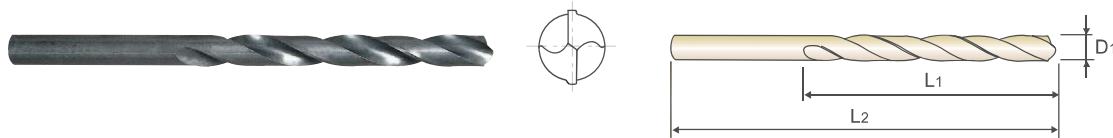
JOBBER

- HSS, SPIRALBOHRER mit ZYLINDERSCHAFT
- Forets HSS, queue cylindrique, série courte
- PUNTE ELICOIDALI, GAMBO CILINDRICO, HSS

**KURZ
COURTE
CORTA**

- ▶ **Surface treatment** : Steam Tempered(Black Oxide Finish)
Bright Finish under 2mm
- ▶ **Application** : Drilling steels, cast steels alloyed and non-alloyed, grey cast iron, malleable cast iron and graphite.

- ▶ **Oberflächenbehandlung** : Steam Homo(Schwarzoxidation)
Helle Beschaffenheit unter 2mm
- ▶ **Verwendung** : Zum Bohren von Stahl und Stahlguß, Grauguß, Temperguß, Sphäroguß, Sintereisen, Graphite.



DIN 338
HSS
N 20~30°
h8
118°
Vap
p.A262

Plain Shank
 Recommended ToolHolder

EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2	EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2
D1105987	8.75	81	125	D1105109	10.9	94	142
D1105088	8.8	81	125	D1105110	11.0	94	142
D1105089	8.9	81	125	D1105111	11.1	94	142
D1105090	9.0	81	125	D1105112	11.2	94	142
D1105091	9.1	81	125	D1105812	11.25	94	142
D1105092	9.2	81	125	D1105113	11.3	94	142
D1105992	9.25	81	125	D1105114	11.4	94	142
D1105093	9.3	81	125	D1105115	11.5	94	142
D1105094	9.4	81	125	D1105116	11.6	94	142
D1105095	9.5	81	125	D1105117	11.7	94	142
D1105096	9.6	87	133	D1105817	11.75	94	142
D1105097	9.7	87	133	D1105118	11.8	94	142
D1105997	9.75	87	133	D1105119	11.9	101	151
D1105098	9.8	87	133	D1105120	12.0	101	151
D1105099	9.9	87	133	D1105121	12.1	101	151
D1105100	10.0	87	133	D1105122	12.2	101	151
D1105101	10.1	87	133	D1105822	12.25	101	151
D1105102	10.2	87	133	D1105123	12.3	101	151
D1105802	10.25	87	133	D1105124	12.4	101	151
D1105103	10.3	87	133	D1105125	12.5	101	151
D1105104	10.4	87	133	D1105126	12.6	101	151
D1105105	10.5	87	133	D1105127	12.7	101	151
D1105106	10.6	87	133	D1105827	12.75	101	151
D1105107	10.7	94	142	D1105128	12.8	101	151
D1105807	10.75	94	142	D1105129	12.9	101	151
D1105108	10.8	94	142	D1105130	13.0	101	151

▶ 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	
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 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	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○						○							○					

YG STRAIGHT SHANK DRILLS

D1125 SERIES

HSS, STRAIGHT SHANK TWIST DRILLS

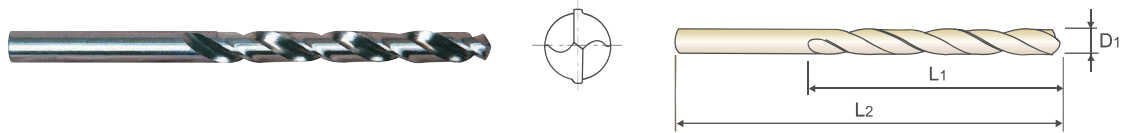
JOBBER

- HSS, SPIRALBOHRER mit ZYLINDERSCHAFT
- Forets HSS, queue cylindrique, série courte
- PUNTE ELICOIDALI, GAMBO CILINDRICO, HSS

**KURZ
COURTE
CORTA**

▶ **Surface treatment** : Bright Finish
 ▶ **Application** : Drilling steels, cast steels alloyed and non-alloyed, grey cast iron, malleable cast iron and graphite.

▶ **Oberflächenbehandlung** : Helle Beschaffenheit
 ▶ **Verwendung** : Zum Bohren von Stahl und Stahlguß, Grauguß, Temperguß, Sphäroguß, Sinterisen, Graphite.



DIN 338
HSS
N 20~30°
h8
118°
Bright
p.A262

Plain Shank
 Recommended ToolHolder

EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2	EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2
D1125020	2.0	24	49	D1125046	4.6	47	80
D1125021	2.1	24	49	D1125047	4.7	47	80
D1125022	2.2	27	53	D1125048	4.8	52	86
D1125023	2.3	27	53	D1125049	4.9	52	86
D1125024	2.4	30	57	D1125050	5.0	52	86
D1125025	2.5	30	57	D1125051	5.1	52	86
D1125026	2.6	30	57	D1125052	5.3	52	86
D1125027	2.7	33	61	D1125053	5.3	52	86
D1125028	2.8	33	61	D1125054	5.4	57	93
D1125029	2.9	33	61	D1125055	5.5	57	93
D1125030	3.0	33	61	D1125056	5.6	57	93
D1125031	3.1	36	65	D1125057	5.7	57	93
D1125032	3.2	36	65	D1125058	5.8	57	93
D1125033	3.3	36	65	D1125059	5.9	57	93
D1125034	3.4	39	70	D1125060	6.0	57	93
D1125035	3.5	39	70	D1125061	6.1	63	101
D1125036	3.6	39	70	D1125062	6.2	63	101
D1125037	3.7	39	70	D1125063	6.3	63	101
D1125038	3.8	43	75	D1125064	6.4	63	101
D1125039	3.9	43	75	D1125065	6.5	63	101
D1125040	4.0	43	75	D1125066	6.6	63	101
D1125041	4.1	43	75	D1125067	6.7	63	101
D1125042	4.2	43	75	D1125068	6.8	69	109
D1125043	4.3	47	80	D1125069	6.9	69	109
D1125044	4.4	47	80	D1125070	7.0	69	109
D1125045	4.5	47	80	D1125071	7.1	69	109

▶ 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	
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 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	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○						○							○					

YG STRAIGHT SHANK DRILLS

D1125 SERIES

HSS, STRAIGHT SHANK TWIST DRILLS

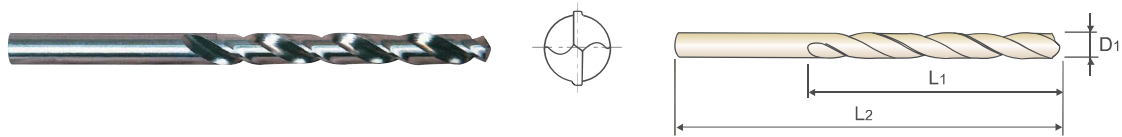
JOBBER

- HSS, SPIRALBOHRER mit ZYLINDERSCHAFT
- Forets HSS, queue cylindrique, série courte
- PUNTE ELICOIDALI, GAMBO CILINDRICO, HSS

KURZ
COURTE
CORTA

► **Surface treatment** : Bright Finish
 ► **Application** : Drilling steels, cast steels alloyed and non-alloyed, grey cast iron, malleable cast iron and graphite.

► **Oberflächenbehandlung** : Helle Beschaffenheit
 ► **Verwendung** : Zum Bohren von Stahl und Stahlguß, Grauguß, Temperguß, Sphäroguß, Sinterisen, Graphite.



Plain Shank
 Recommended ToolHolder
 ER COLLET CHUCK

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
D1125124	12.4	101	151
D1125125	12.5	101	151
D1125126	12.6	101	151
D1125127	12.7	101	151
D1125128	12.8	101	151
D1125129	12.9	101	151
D1125130	13.0	101	151
D1125132	13.2	101	151
D1125133	13.3	108	160
D1125135	13.5	108	160
D1125140	14.0	108	160
D1125145	14.5	114	169

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
D1125150	15.0	114	169
D1125155	15.5	120	178
D1125160	16.0	120	178
D1125165	16.5	125	184
D1125170	17.0	125	184
D1125175	17.5	130	191
D1125180	18.0	130	191
D1125185	18.5	135	198
D1125190	19.0	135	198
D1125195	19.5	140	205
D1125200	20.0	140	205

◎ : 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	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 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	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○						○							○					



STRAIGHT SHANK DRILLS

D2104 SERIES

HSS Co8, STRAIGHT SHANK TWIST DRILLS

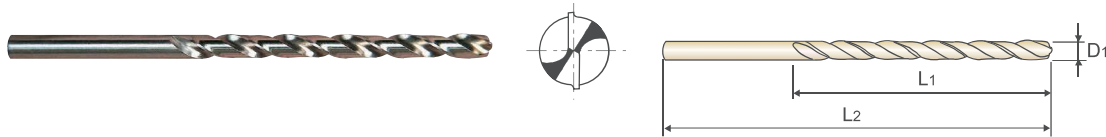
LONG

- 🇩🇪 HSS Co8, SPIRALBOHRER mit ZYLINDERSCHAFT
- 🇫🇷 Forets HSS Co8, queue cylindrique, série longue
- 🇮🇹 PUNTE ELICOIDALI, GAMBO CILINDRICO, HSS Co8

LANG
LONGUE
LUNGA

▶ **Surface treatment** : Coloring(Gold color)
▶ **Application** : Drilling deep holes in stainless steels and difficult - to - cut materials such as titanium and inconel.

▶ **Oberflächenbehandlung** : Coloring(Goldfarbe)
▶ **Verwendung** : Für Bohrarbeiten mit Bohrbuchsen oder an tief liegenden Stellen. Zum Bohren von rostfreien und austenitischen. Stählen, schwerzerspanbaren Werkstoffen wie Titan und Inconel.



DIN 340
HSS Co8
33°
h8
135°
Gold Coloring
p.A262

Plain Shank
Recommended ToolHolder
ER COLLET CHUCK

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
D2104072	7.2	102	156
D2104073	7.3	102	156
D2104074	7.4	102	156
D2104075	7.5	102	156
D2104076	7.6	109	165
D2104077	7.7	109	165
D2104078	7.8	109	165
D2104079	7.9	109	165
D2104080	8.0	109	165
D2104081	8.1	109	165
D2104082	8.2	109	165
D2104083	8.3	109	165
D2104084	8.4	109	165
D2104085	8.5	109	165
D2104086	8.6	115	175
D2104087	8.7	115	175
D2104088	8.8	115	175
D2104089	8.9	115	175
D2104090	9.0	115	175
D2104091	9.1	115	175

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
D2104092	9.2	115	175
D2104093	9.3	115	175
D2104094	9.4	115	175
D2104095	9.5	115	175
D2104096	9.6	121	184
D2104097	9.7	121	184
D2104098	9.8	121	184
D2104099	9.9	121	184
D2104100	10.0	121	184
D2104102	10.2	121	184
D2104105	10.5	121	184
D2104108	10.8	128	195
D2104110	11.0	128	195
D2104112	11.2	128	195
D2104115	11.5	128	195
D2104118	11.8	128	195
D2104120	12.0	134	205

- ▶ HSS-E(DL104) is available on your request.
- ▶ TiN(D4104), TiCN(D7104) and TiAlN(DQ104) are available on your request.

◎ : 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	
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	40	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	21	22	23	24	25	26	27	28	29	30	15	30	25	38	34	40	41	55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	○	○	○						○							○					



STRAIGHT SHANK DRILLS

DL109 SERIES

HSS-E, STRAIGHT SHANK TWIST DRILLS for HEAVY DUTY

JOBBER

🇩🇪 HSS-E, SPIRALBOHRER für HOHE LEISTUNGEN mit ZYLINDERSCHAFT

KURZ

🇫🇷 Forets HSS-E, queue cylindrique pour matériaux durs, série courte

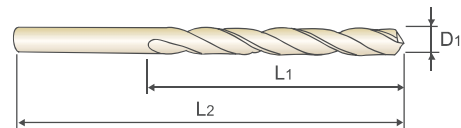
COURTE

🇮🇹 PUNTE ELICOIDALI PER IMPIEGHI GRAVOSI, GAMBO CILINDRICO, HSS - E

CORTA

▶ **Application** : Drilling steels, cast steels alloyed and non-alloyed, grey cast iron, malleable cast iron and graphite.

▶ **Verwendung** : Zum Bohren von Stahl und Stahlguß, Grauguß, Temperguß, Sphäroguß, Sintereisen, Graphit.



DIN 338
HSS-E
N 20~30°
h8
118°
Bright
p.A262

Plain Shank
 Recommended ToolHolder
 ER COLLET CHUCK

EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2
DL109015	1.5	18	40
DL109917	1.75	22	46
DL109020	2.0	24	49
DL109922	2.25	27	53
DL109025	2.5	30	57
DL109927	2.75	33	61
DL109030	3.0	33	61
DL109932	3.25	36	65
DL109035	3.5	39	70
DL109937	3.75	39	70
DL109040	4.0	43	75
DL109942	4.25	43	75
DL109045	4.5	47	80
DL109947	4.75	47	80
DL109050	5.0	52	86
DL109952	5.25	52	86
DL109055	5.5	57	93
DL109957	5.75	57	93
DL109060	6.0	57	93
DL109962	6.25	63	101
DL109065	6.5	63	101
DL109967	6.75	69	109
DL109070	7.0	69	109
DL109972	7.25	69	109
DL109075	7.5	69	109
DL109977	7.75	75	117

Unit : mm

EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2
DL109080	8.0	75	117
DL109982	8.25	75	117
DL109085	8.5	75	117
DL109987	8.75	81	125
DL109090	9.0	81	125
DL109992	9.25	81	125
DL109095	9.5	81	125
DL109997	9.75	87	133
DL109100	10.0	87	133
DL109105	10.5	87	133
DL109110	11.0	94	142
DL109115	11.5	94	142
DL109120	12.0	101	151
DL109125	12.5	101	151
DL109130	13.0	101	151

▶ TiN(DN109), TiCN(DX109) and TiAlN(DT109) are available on your request.

◎ : 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	30	10	29	32	38	15	35	15	23	10	10	26	3	25	21	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	30	25	38	34					15	30	25	38	34	400 Rm	1050 Rm	550	630	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	○	○	○						○							○					

YIG STRAIGHT SHANK DRILLS

D1100 SERIES

HSS, STRAIGHT SHANK TWIST DRILLS for BRASS/BRONZE

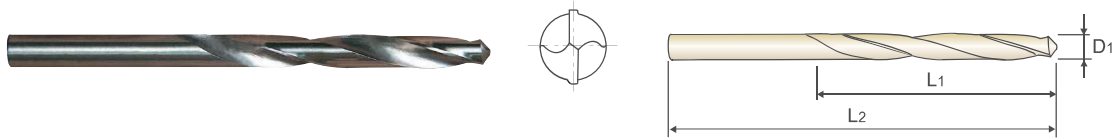
JOBBER

- HSS, SPIRALBOHRER für MESSING/BRONZE mit ZYLINDERSCHAFT
- Forets HSS, queue cylindrique pour Laiton/Bronze, série courte
- PUNTE ELICOIDALI, GAMBO CILINDRICO PER OTTONE (HSS)

KURZ
COURTE
CORTA

► **Application** : Drilling hard, brittle and short-chip materials. i.e., brass, bronze, phosphor bronze and magnesium alloys.

► **Verwendung** : Zum Bohren von harten und spröden Werkstoffen wie Messing, Magnesium-Legierungen, Bronze, Phosphorbronze.



DIN 338
HSS
N 15~20°
h8
118°
Bright
p.A263

Plain Shank
 Recommended ToolHolder

Unit : mm			
EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2
D1100067	6.7	63	101
D1100068	6.8	69	109
D1100069	6.9	69	109
D1100070	7.0	69	109
D1100071	7.1	69	109
D1100072	7.2	69	109
D1100073	7.3	69	109
D1100074	7.4	69	109
D1100075	7.5	69	109
D1100076	7.6	75	117
D1100077	7.7	75	117
D1100078	7.8	75	117
D1100079	7.9	75	117
D1100080	8.0	75	117
D1100081	8.1	75	117
D1100082	8.2	75	117
D1100083	8.3	75	117
D1100084	8.4	75	117
D1100085	8.5	75	117
D1100086	8.6	81	125
D1100087	8.7	81	125
D1100088	8.8	81	125
D1100089	8.9	81	125
D1100090	9.0	81	125
D1100091	9.1	81	125
D1100092	9.2	81	125
D1100093	9.3	81	125
D1100094	9.4	81	125
D1100095	9.5	81	125
D1100096	9.6	87	133
D1100097	9.7	87	133
D1100098	9.8	87	133
D1100099	9.9	87	133
D1100100	10.0	87	133
D1100105	10.5	87	133
D1100110	11.0	94	142
D1100115	11.5	94	142
D1100120	12.0	101	151
D1100125	12.5	101	151
D1100130	13.0	101	151

◎ : 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	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					
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											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																					



STRAIGHT SHANK DRILLS

D1106 SERIES

HSS, STRAIGHT SHANK TWIST DRILLS for ALUMINUM

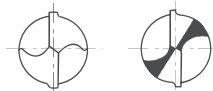
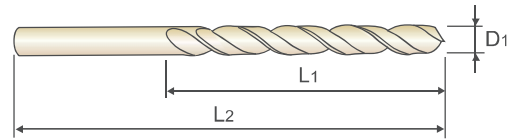
JOBBER

- 🇩🇪 HSS, SPIRALBOHRER für ALUMINIUM mit ZYLINDERSCHAFT
- 🇫🇷 Forets HSS, queue cylindrique pour ALU, Forme C, série courte
- 🇮🇹 PUNTE ELICOIDALI, GAMBO CILINDRICO, PER ALLUMINIO (HSS)

**KURZ
COURTE
CORTA**

► **Application** : Drilling hard, brittle and short-chip materials. i.e., brass, bronze, phosphor bronze aluminum and magnesium alloys.

► **Verwendung** : Zum Bohren von harten und spröden Werkstoffen wie Messing, Magnesium-Legierungen, Bronze, Phosphorbronze.



under 1.6mm 1.6mm & over

DIN 338
HSS
38°
h8
135°
Bright
p.A263

Plain Shank
 ER COLLET CHUCK

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
D1106067	6.7	63	101
D1106068	6.8	69	109
D1106069	6.9	69	109
D1106070	7.0	69	109
D1106071	7.1	69	109
D1106072	7.2	69	109
D1106073	7.3	69	109
D1106074	7.4	69	109
D1106075	7.5	69	109
D1106076	7.6	75	117
D1106077	7.7	75	117
D1106078	7.8	75	117
D1106079	7.9	75	117
D1106080	8.0	75	117
D1106081	8.1	75	117
D1106082	8.2	75	117
D1106083	8.3	75	117
D1106084	8.4	75	117
D1106085	8.5	75	117
D1106086	8.6	81	125

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
D1106087	8.7	81	125
D1106088	8.8	81	125
D1106089	8.9	81	125
D1106090	9.0	81	125
D1106091	9.1	81	125
D1106092	9.2	81	125
D1106093	9.3	81	125
D1106094	9.4	81	125
D1106095	9.5	81	125
D1106096	9.6	87	133
D1106097	9.7	87	133
D1106098	9.8	87	133
D1106099	9.9	87	133
D1106100	10.0	87	133
D1106105	10.5	87	133
D1106110	11.0	94	142
D1106115	11.5	94	142
D1106120	12.0	101	151
D1106125	12.5	101	151
D1106130	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	15	23	10	10	10	26	3	25	21	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	◎	◎	◎	◎																	

YG STRAIGHT SHANK DRILLS

DL510 SERIES

HSS-E, STRAIGHT SHANK TWIST DRILLS for DEEP HOLES

STUB

● HSS-E, SPIRALBOHRER für TIEFLOCH mit ZYLINDERSCHAFT

EXTRA KURZ

● Forets HSS-E, queue cylindrique pour perçage profond, série extra-courte

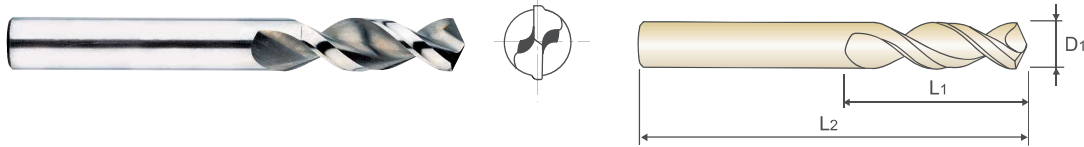
EXTRA-COURTE

● PUNTA IN HSS-E, GAMBO CILINDRICO PER FORI NON - STOP

EXTRA CORTA

► **Application** : Drilling deep holes in non alloy steels, alloy steels, grey cast iron, malleable cast iron, special aluminum or magnesium alloys.

► **Verwendung** : Zum Bohren von legiertem und unlegiertem stahl, Grauguß, Temperguß, Sphäroguß, Druckguß, Alu-Legierungen kurzspanend, Bronze, Messing zäh, Neusilber.



► DH100 worm pattern drills

DIN 1897
HSS-E
42°
h8
130°
Bright
p.A264

Plain Shank
Recommended ToolHolder
ER COLLET CHUCK

EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2
DL510072	7.2	34	74
DL510073	7.3	34	74
DL510074	7.4	34	74
DL510075	7.5	34	74
DL510076	7.6	37	79
DL510077	7.7	37	79
DL510078	7.8	37	79
DL510079	7.9	37	79
DL510080	8.0	37	79
DL510081	8.1	37	79
DL510082	8.2	37	79
DL510083	8.3	37	79
DL510084	8.4	37	79
DL510085	8.5	37	79
DL510086	8.6	40	84
DL510087	8.7	40	84
DL510088	8.8	40	84
DL510089	8.9	40	84
DL510090	9.0	40	84
DL510091	9.1	40	84
DL510092	9.2	40	84
DL510093	9.3	40	84
DL510094	9.4	40	84
DL510095	9.5	40	84
DL510096	9.6	43	89
DL510097	9.7	43	89
DL510098	9.8	43	89
DL510099	9.9	43	89

Unit : mm

EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2
DL510100	10.0	43	89
DL510102	10.2	43	89
DL510105	10.5	43	89
DL510108	10.8	47	95
DL510110	11.0	47	95
DL510112	11.2	47	95
DL510115	11.5	47	95
DL510118	11.8	47	95
DL510120	12.0	51	102
DL510125	12.5	51	102
DL510130	13.0	51	102
DL510135	13.5	54	107
DL510140	14.0	54	107
DL510145	14.5	56	111
DL510150	15.0	56	111
DL510155	15.5	58	115
DL510160	16.0	58	115
DL510165	16.5	60	119
DL510170	17.0	60	119
DL510175	17.5	62	123
DL510180	18.0	62	123
DL510185	18.5	64	127
DL510190	19.0	64	127
DL510195	19.5	66	131
DL510200	20.0	66	131

◎ : 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	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 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	400Rm	1050Rm	550	630	400	550
Recommended																					

YG STRAIGHT SHANK DRILLS

DL508 SERIES

HSS-E, STRAIGHT SHANK TWIST DRILLS

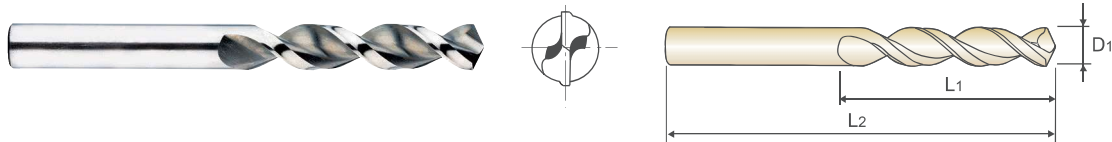
JOBBER

- HSS-E, SPIRALBOHRER für TIEFLOCH mit ZYLINDERSCHAFT
- Forets HSS-E, queue cylindrique pour perçage profond, série courte
- PUNTA IN HSS-E, GAMBO CILINDRICO PER FORI NON - STOP

KURZ
COURTE
CORTA

► **Application** : Drilling deep holes in non alloy steels, alloy steels, grey cast iron, malleable cast iron, special aluminum or magnesium alloys.

► **Verwendung** : Zum Bohren von legiertem und unlegiertem stahl, Grauguß, Temperguß, Sphäroguß, Druckguß, Alu-Legierungen kurzspanend, Bronze, Messing zäh, Neusilber.



► DH100 worm pattern drills

DIN 338
HSS-E
42°
h8
130°
Bright
p.A264

Plain Shank
Recommended ToolHolder
ER COLLET CHUCK

EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2
DL508072	7.2	69	109
DL508073	7.3	69	109
DL508074	7.4	69	109
DL508075	7.5	69	109
DL508076	7.6	75	117
DL508077	7.7	75	117
DL508078	7.8	75	117
DL508079	7.9	75	117
DL508080	8.0	75	117
DL508081	8.1	75	117
DL508082	8.2	75	117
DL508083	8.3	75	117
DL508084	8.4	75	117
DL508085	8.5	75	117
DL508086	8.6	81	125
DL508087	8.7	81	125
DL508088	8.8	81	125
DL508089	8.9	81	125
DL508090	9.0	81	125
DL508091	9.1	81	125
DL508092	9.2	81	125
DL508093	9.3	81	125
DL508094	9.4	81	125
DL508095	9.5	81	125

Unit : mm

EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2
DL508096	9.6	87	133
DL508097	9.7	87	133
DL508098	9.8	87	133
DL508099	9.9	87	133
DL508100	10.0	87	133
DL508102	10.2	87	133
DL508105	10.5	87	133
DL508110	11.0	94	142
DL508112	11.2	94	142
DL508115	11.5	94	142
DL508120	12.0	101	151
DL508125	12.5	101	151
DL508130	13.0	101	151
DL508135	13.5	108	160
DL508140	14.0	108	160
DL508145	14.5	114	169
DL508150	15.0	114	169
DL508155	15.5	120	178
DL508160	16.0	120	178

◎ : 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	
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	15	35	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	400Rm	1050Rm	550	630	400	550
Recommended																					

YG STRAIGHT SHANK DRILLS

DL509 SERIES

HSS-E, STRAIGHT SHANK TWIST DRILLS for DEEP HOLES

LONG

- 🇩🇪 HSS-E, SPIRALBOHRER für TIEFLOCH mit ZYLINDERSCHAFT
- 🇫🇷 Forets HSS-E, queue cylindrique pour perçage profond, série longue
- 🇮🇹 PUNTA IN HSS-E, GAMBO CILINDRICO PER FORI NON - STOP

LANG
LONGUE
LUNGA

► **Application** : Drilling deep holes in non alloy steels, alloy steels, grey cast iron, malleable cast iron, special aluminum or magnesium alloys.

► **Verwendung** : Zum Bohren von legiertem und unlegiertem stahl, Grauguß, Temperguß, Sphärguß, Druckguß, Alu-Legierungen kurzspanend, Bronze, Messing zäh, Neusilber.



► DH100 worm pattern drills

DIN 340
HSS-E
42°
h8
130°
Bright
p.A264

Plain Shank
Recommended ToolHolder
ER COLLET CHUCK

EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2
DL509072	7.2	102	156
DL509073	7.3	102	156
DL509074	7.4	102	156
DL509075	7.5	102	156
DL509076	7.6	109	165
DL509077	7.7	109	165
DL509078	7.8	109	165
DL509079	7.9	109	165
DL509080	8.0	109	165
DL509081	8.1	109	165
DL509082	8.2	109	165
DL509083	8.3	109	165
DL509084	8.4	109	165
DL509085	8.5	109	165
DL509086	8.6	115	175
DL509087	8.7	115	175
DL509088	8.8	115	175
DL509089	8.9	115	175
DL509090	9.0	115	175
DL509091	9.1	115	175
DL509092	9.2	115	175
DL509093	9.3	115	175
DL509094	9.4	115	175
DL509095	9.5	115	175
DL509096	9.6	121	184
DL509097	9.7	121	184

Unit : mm

EDP No.	Drill Diameter D1	Flute Length L1	Overall Length L2
DL509098	9.8	121	184
DL509099	9.9	121	184
DL509100	10.0	121	184
DL509102	10.2	121	184
DL509105	10.5	121	184
DL509110	11.0	128	195
DL509115	11.5	128	195
DL509120	12.0	134	205

◎ : 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	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				
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											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended																					



STRAIGHT SHANK DRILLS

DL505 SERIES

HSS-E, STRAIGHT SHANK TWIST DRILLS

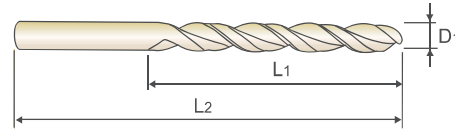
JOBBER

- HSS-E, SPIRALBOHRER für TIEFLOCH mit ZYLINDERSCHAFT
- Forets HSS-E, queue cylindrique pour perçage profond, série courte
- PUNTA IN HSS-E, GAMBO CILINDRICO PER FORI NON - STOP

**KURZ
COURTE
CORTA**

► **Surface treatment** : Steam Tempered(Black Oxide Finish)
 ► **Application** : Drilling deep holes in non alloy steels, alloy steels, grey cast iron, malleable cast iron, special aluminum or magnesium alloys.

► **Oberflächenbehandlung** : Steam Homo(Schwarzoxidation)
 ► **Verwendung** : Zum Bohren von legiertem und unlegiertem stahl, Grauguß, Temperguß, Sphäroguß, Druckguß, Alu-Legierungen kurzspanend, Bronze, Messing zäh, Neusilber.



► DH100 worm pattern drills

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
DL505072	7.2	69	109
DL505073	7.3	69	109
DL505074	7.4	69	109
DL505075	7.5	69	109
DL505076	7.6	75	117
DL505077	7.7	75	117
DL505078	7.8	75	117
DL505079	7.9	75	117
DL505080	8.0	75	117
DL505081	8.1	75	117
DL505082	8.2	75	117
DL505083	8.3	75	117
DL505084	8.4	75	117
DL505085	8.5	75	117
DL505086	8.6	81	125
DL505087	8.7	81	125
DL505088	8.8	81	125
DL505089	8.9	81	125
DL505090	9.0	81	125
DL505091	9.1	81	125
DL505092	9.2	81	125
DL505093	9.3	81	125
DL505094	9.4	81	125
DL505095	9.5	81	125
DL505096	9.6	87	133
DL505097	9.7	87	133

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
DL505098	9.8	87	133
DL505099	9.9	87	133
DL505100	10.0	87	133
DL505101	10.1	87	133
DL505102	10.2	87	133
DL505105	10.5	87	133
DL505108	10.8	94	142
DL505110	11.0	94	142
DL505112	11.2	94	142
DL505115	11.5	94	142
DL505118	11.8	94	142
DL505120	12.0	101	151
DL505122	12.2	101	151
DL505125	12.5	101	151
DL505128	12.8	101	151
DL505130	13.0	101	151

► TiN(DN505), TiCN(DX505) and TiAlN(DT505) are available on your request.

◎ : 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	30	10	29	32	38	15	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																					

YG STRAIGHT SHANK DRILLS

DT692 SERIES

DT600 SERIES

DT693 SERIES

HSS-E, STRAIGHT SHANK TWIST DRILLS for DEEP HOLES

EXTRA LONG

● HSS-E, SPIRALBOHRER für TIEFLOCH mit ZYLINDERSCHAFT

ÜBERLANG

● Forets HSS-E, queue cylindrique pour perçage profond, Forme C, série extra-longue

EXTRA-LONGUE

● PUNTA IN HSS-E, GAMBO CILINDRICO PER FORI NON - STOP

EXTRA LUNGA

► **Surface treatment** : TiAIN coating on working area.
 ► **Application** : Drilling deep holes in non alloy steels, alloy steels, grey cast iron, malleable cast iron, special aluminum or magnesium alloys.

► **Verwendung** : Zum Bohren von legiertem und unlegiertem stahl, Grauguß, Temperguß, Sphäroguß, Druckguß, Alu-Legierungen kurzspanend, Bronze, Messing zäh, Neusilber.



► DH100 worm pattern drills

DIN 1869/1
DIN 1869/2
DIN 1869/3
HSS-E
38°
h8
130°
TiAIN
p.A265

Plain Shank
Recommended ToolHolder
ER COLLET CHUCK

DT600 SERIES (DIN 1869/1)

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
DT600020	2.0	85	125
DT600025	2.5	95	140
DT600030	3.0	100	150
DT600035	3.5	115	165
DT600040	4.0	120	175
DT600045	4.5	125	185
DT600050	5.0	135	195
DT600055	5.5	140	205
DT600060	6.0	140	205
DT600065	6.5	150	215
DT600070	7.0	155	225
DT600075	7.5	155	225
DT600080	8.0	165	240
DT600085	8.5	165	240
DT600090	9.0	175	250
DT600095	9.5	175	250
DT600100	10.0	185	265
DT600105	10.5	185	265

DT692 SERIES (DIN 1869/2)

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
DT692030	3.0	130	190
DT692035	3.5	145	210
DT692040	4.0	150	220
DT692045	4.5	160	235
DT692050	5.0	170	245
DT692055	5.5	180	260
DT692060	6.0	180	260
DT692065	6.5	190	275
DT692070	7.0	200	290
DT692075	7.5	200	290
DT692080	8.0	210	305
DT692085	8.5	210	305
DT692090	9.0	220	320
DT692095	9.5	220	320
DT692100	10.0	235	340
DT692102	10.2	235	340

► TiN(DN600) and TiCN(DX600) are available on your request.

DT693 SERIES (DIN 1869/3)

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
DT693040	4.0	190	280
DT693050	5.0	210	315
DT693060	6.0	225	330
DT693080	8.0	265	390
DT693100	10.0	295	430

◎ : 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	30	18	27	30	35	20	32	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	400Rm	1050Rm	550	630	400	550
Recommended																					

YIG STRAIGHT SHANK DRILLS

DL507 SERIES

HSS-E, STRAIGHT SHANK TWIST DRILLS for ALUMINUM DEEP HOLES

EXTRA LONG

● HSS-E, SPIRALBOHRER für ALUMINIUM TIEFLOCH mit ZYLINDERSCHAFT

ÜBERLANG

● Forets HSS-E, queue cylindrique pour ALU, perçage profond, série extra-longue

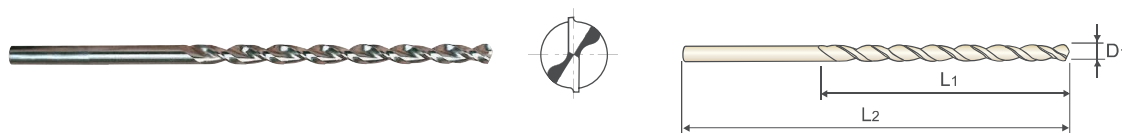
EXTRA-LONGUE

● PUNTE HSS-E, GAMBO CILINDRICO PER FORATURE NON - STOP SU ALLUMINIO

EXTRA LUNGA

► **Application** : Drilling deep holes in aluminum and its alloys, silumin, zinc, refined copper, wood and other soft synthetic materials.

► **Verwendung** : Zum Bohren von weichen und langspanenden Werkstoffen wie Alu-Legierungen, Zink, Kupfer, Kunststoffe und Holz.



► DH50 worm pattern drills

HSS-E
38°
h8
118°
Bright
p.A265

Plain Shank
Recommended ToolHolder
ER COLLET CHUCK

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
DL507120	2.0	40	75
DL507121	2.1	40	75
DL507220	2.0	50	100
DL507221	2.1	50	100
DL507225	2.5	50	100
DL507227	2.7	50	100
DL507230	3.0	50	100
DL507233	3.3	50	100
DL507235	3.5	50	100
DL507320	2.0	75	150
DL507321	2.1	75	150
DL507325	2.5	75	150
DL507327	2.7	75	150
DL507330	3.0	75	150
DL507333	3.3	75	150
DL507335	3.5	75	150
DL507340	4.0	75	150
DL507342	4.2	75	150
DL507345	4.5	75	150
DL507350	5.0	75	150
DL507353	5.3	75	150
DL507355	5.5	75	150
DL507360	6.0	75	150

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
DL507430	3.0	100	200
DL507433	3.3	100	200
DL507435	3.5	100	200
DL507440	4.0	100	200
DL507442	4.2	100	200
DL507445	4.5	100	200
DL507450	5.0	100	200
DL507453	5.3	100	200
DL507455	5.5	100	200
DL507460	6.0	100	200
DL507465	6.5	100	200
DL507468	6.8	100	200
DL507470	7.0	100	200
DL507475	7.5	100	200
DL507480	8.0	100	200
DL507485	8.5	100	200
DL507488	8.8	100	200
DL507490	9.0	100	200
DL507495	9.5	100	200
DL507700	10.0	100	200
DL507540	4.0	150	250
DL507542	4.2	150	250
DL507545	4.5	150	250
DL507550	5.0	150	250
DL507553	5.3	150	250

► 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	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 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	◎	◎	○																		



STRAIGHT SHANK DRILLS

RECOMMENDED CUTTING CONDITIONS EMPFOLHENE SCHNEIDPARAMETER

D2107, D1107, D2105, DL105, D1105, D1125, D2104, D1121, DL109 SERIES

HSS, HSS-E & HSS Co8 COBALT DRILLS

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

ISO	VDI 3323	Material Description	Vc	Parameter	Drill Diameter (mm)										
					2.0	3.0	4.0	6.0	8.0	10.0	13.0	16.0	18.0	20.0	30.0
P	1	Non-alloy steel	30	RPM	4770	3180	2390	1590	1190	950	730	600	530	480	320
				FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	0.12-0.18	0.14-0.20	0.19-0.25	0.22-0.28
			25	RPM	3980	2650	1990	1330	990	800	610	500	440	400	270
				FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	0.12-0.18	0.14-0.20	0.19-0.25	0.22-0.28
	20		RPM	3180	2120	1590	1060	800	640	490	400	350	320	210	
			FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	0.12-0.18	0.14-0.20	0.19-0.25	0.22-0.28	
	20		RPM	3180	2120	1590	1060	800	640	490	400	350	320	210	
			FEED	0.01-0.02	0.01-0.03	0.02-0.04	0.02-0.05	0.03-0.06	0.03-0.06	0.04-0.10	0.06-0.12	0.08-0.14	0.10-0.16	0.12-0.18	
	6	25	Low alloy steel	RPM	3980	2650	1990	1330	990	800	610	500	440	400	270
				FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	0.12-0.18	0.14-0.20	0.19-0.25	0.22-0.28
7	20	Low alloy steel	RPM	3180	2120	1590	1060	800	640	490	400	350	320	210	
			FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	0.12-0.18	0.14-0.20	0.19-0.25	0.22-0.28	
8	20	Low alloy steel	RPM	3180	2120	1590	1060	800	640	490	400	350	320	210	
			FEED	0.01-0.02	0.01-0.03	0.02-0.04	0.02-0.05	0.03-0.06	0.03-0.06	0.04-0.10	0.06-0.12	0.08-0.14	0.10-0.16	0.12-0.18	
10	15	High alloyed steel, and tool steel	RPM	2390	1590	1190	800	600	480	370	300	270	240	160	
			FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	0.12-0.18	0.14-0.20	0.19-0.25	0.22-0.28	
M	12	Stainless steel	20	RPM	3180	2120	1590	1060	800	640	490	400	350	320	210
				FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	0.12-0.18	0.14-0.20	0.19-0.25	0.22-0.28
			15	RPM	2390	1590	1190	800	600	480	370	300	270	240	160
FEED	0.02-0.04			0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	0.12-0.18	0.14-0.20	0.19-0.25	0.22-0.28		
10	RPM		1590	1060	800	530	400	320	240	200	180	160	110		
	FEED		0.01-0.02	0.01-0.03	0.02-0.04	0.02-0.05	0.03-0.06	0.03-0.06	0.04-0.10	0.06-0.12	0.08-0.14	0.10-0.16	0.12-0.18		
K	15	Grey cast iron	30	RPM	4770	3180	2390	1590	1190	950	730	600	530	480	320
				FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	0.12-0.18	0.14-0.20	0.19-0.25	0.22-0.28
	25		RPM	3980	2650	1990	1330	990	800	610	500	440	400	270	
			FEED	0.01-0.02	0.01-0.03	0.02-0.04	0.02-0.05	0.03-0.06	0.03-0.06	0.04-0.10	0.06-0.12	0.08-0.14	0.10-0.16	0.12-0.18	
17	30	Nodular cast iron	RPM	4770	3180	2390	1590	1190	950	730	600	530	480	320	
			FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	0.12-0.18	0.14-0.20	0.19-0.25	0.22-0.28	
19	25	Malleable cast iron	RPM	3980	2650	1990	1330	990	800	610	500	440	400	270	
			FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	0.12-0.18	0.14-0.20	0.19-0.25	0.22-0.28	
N	21	Aluminum-wrought alloy	55	RPM	8750	5840	4380	2920	2190	1750	1350	1090	970	880	580
				FEED	0.03-0.06	0.05-0.09	0.07-0.11	0.12-0.16	0.12-0.18	0.14-0.20	0.16-0.22	0.18-0.24	0.20-0.28	0.20-0.30	0.28-0.38
	55		RPM	8750	5840	4380	2920	2190	1750	1350	1090	970	880	580	
			FEED	0.03-0.06	0.05-0.09	0.07-0.11	0.12-0.16	0.12-0.18	0.14-0.20	0.16-0.22	0.18-0.24	0.20-0.28	0.20-0.30	0.28-0.38	
23	40	Aluminum-cast, alloyed	RPM	6370	4240	3180	2120	1590	1270	980	800	710	640	420	
			FEED	0.03-0.06	0.05-0.09	0.07-0.11	0.12-0.16	0.12-0.18	0.14-0.20	0.16-0.22	0.18-0.24	0.20-0.28	0.20-0.30	0.28-0.38	
29	20	Non Metallic Materials	RPM	3180	2120	1590	1060	800	640	490	400	350	320	210	
			FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	0.12-0.18	0.14-0.20	0.19-0.25	0.22-0.28	
S	36	Titanium Alloys	10	RPM	1590	1060	800	530	400	320	240	200	180	160	110
				FEED	0.01-0.03	0.02-0.04	0.03-0.05	0.04-0.07	0.05-0.08	0.05-0.09	0.06-0.10	0.05-0.11	0.06-0.12	0.09-0.13	0.12-0.18

YG STRAIGHT SHANK DRILLS

RECOMMENDED CUTTING CONDITIONS EMPFOLHENE SCHNEIDPARAMETER

DL510, DL508, DL509, DL505, DL504, DL608 SERIES

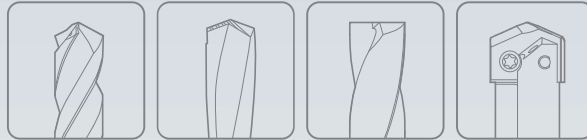
HSS-E, DH100 WORM PATTERN DRILLS

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

ISO	VDI 3323	Material Description	Vc	Parameter	Drill Diameter (mm)											
					2.0	3.0	4.0	6.0	8.0	10.0	13.0	16.0	18.0	20.0	30.0	
P	1	Non-alloy steel	30	RPM	4770	3180	2390	1590	1190	950	730	600	530	480	320	
				FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	0.12-0.18	0.14-0.20	0.19-0.25	0.22-0.28	
			25	RPM	3980	2650	1990	1330	990	800	610	500	440	400	270	
				FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	0.12-0.18	0.14-0.20	0.19-0.25	0.22-0.28	
	20		RPM	3180	2120	1590	1060	800	640	490	400	350	320	210		
			FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	0.12-0.18	0.14-0.20	0.19-0.25	0.22-0.28		
	20		RPM	3180	2120	1590	1060	800	640	490	400	350	320	210		
			FEED	0.01-0.02	0.01-0.03	0.02-0.04	0.02-0.05	0.03-0.06	0.03-0.06	0.04-0.10	0.06-0.12	0.08-0.14	0.10-0.16	0.12-0.18		
	6	Low alloy steel	25	RPM	3980	2650	1990	1330	990	800	610	500	440	400	270	
				FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	0.12-0.18	0.14-0.2	0.19-0.25	0.22-0.28	
20	RPM		3180	2120	1590	1060	800	640	490	400	350	320	210			
	FEED		0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	0.12-0.18	0.14-0.2	0.19-0.25	0.22-0.28			
20	RPM		3180	2120	1590	1060	800	640	490	400	350	320	210			
	FEED		0.01-0.02	0.01-0.03	0.02-0.04	0.02-0.05	0.03-0.06	0.03-0.06	0.04-0.10	0.06-0.12	0.08-0.14	0.10-0.16	0.12-0.18			
10	High alloyed steel, and tool steel		15	RPM	2390	1590	1190	800	600	480	370	300	270	240	160	
				FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	0.12-0.18	0.14-0.20	0.19-0.25	0.22-0.28	
30		RPM	4770	3180	2390	1590	1190	950	730	600	530	480	320			
		FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	0.12-0.18	0.14-0.20	0.19-0.25	0.22-0.28			
25		RPM	3980	2650	1990	1330	990	800	610	500	440	400	270			
		FEED	0.01-0.02	0.01-0.03	0.02-0.04	0.02-0.05	0.03-0.06	0.03-0.06	0.04-0.10	0.06-0.12	0.08-0.14	0.10-0.16	0.12-0.18			
K		15	Grey cast iron	30	RPM	4770	3180	2390	1590	1190	950	730	600	530	480	320
					FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	0.12-0.18	0.14-0.20	0.19-0.25	0.22-0.28
	25	RPM		3980	2650	1990	1330	990	800	610	500	440	400	270		
		FEED		0.01-0.02	0.01-0.03	0.02-0.04	0.02-0.05	0.03-0.06	0.03-0.06	0.04-0.10	0.06-0.12	0.08-0.14	0.10-0.16	0.12-0.18		
	30	Nodular cast iron	30	RPM	4770	3180	2390	1590	1190	950	730	600	530	480	320	
				FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	0.12-0.18	0.14-0.20	0.19-0.25	0.22-0.28	
20	RPM		3180	2120	1590	1060	800	640	490	400	350	320	210			
	FEED		0.01-0.02	0.01-0.03	0.02-0.04	0.02-0.05	0.03-0.06	0.03-0.06	0.04-0.10	0.06-0.12	0.08-0.14	0.10-0.16	0.12-0.18			
25	Malleable cast iron	25	RPM	3980	2650	1990	1330	990	800	610	500	440	400	270		
			FEED	0.02-0.04	0.03-0.05	0.04-0.06	0.05-0.08	0.10-0.13	0.11-0.15	0.11-0.17	0.12-0.18	0.14-0.20	0.19-0.25	0.22-0.28		
20		RPM	3180	2120	1590	1060	800	640	490	400	350	320	210			
		FEED	0.01-0.02	0.01-0.03	0.02-0.04	0.02-0.05	0.03-0.06	0.03-0.06	0.04-0.10	0.06-0.12	0.08-0.14	0.10-0.16	0.12-0.18			



Global Cutting Tool Leader **YG-1**



HOLEMAKING