

HSS



Leading Through Innovation



STRAIGHT SHANK DRILLS

BOHRER MIT ZYLINDERSCHAFT

- General Purpose (HSS & HSS-E & 8% Cobalt)
- Für allgemeinen Einsatz, HSS und HSSE-Co8

SELECTION GUIDE

STRAIGHT SHANK TWIST DRILLS

HSS Drills for soft materials & HSS cobalt Drills for tough materials

ITEM	MODEL	DESCRIPTION	SIZE		PAGE	
			MIN	MAX		
D2107		HSSCO8, STRAIGHT SHANK TWIST DRILLS, FORM C HSSCO8, SPIRALBOHRER MIT ZYLINDERSCHAFT	<i>STUB EXTRA KURZ</i>	D1.0	D31.0	212
D1107		HSS, STRAIGHT SHANK TWIST DRILLS HSS, SPIRALBOHRER MIT ZYLINDERSCHAFT	<i>STUB EXTRA KURZ</i>	D1.0	D13.0	215
D2105		HSSCO8, STRAIGHT SHANK TWIST DRILLS, FORM C HSSCO8, SPIRALBOHRER MIT ZYLINDERSCHAFT	<i>JOBBER KURZ</i>	D1.0	D20.0	217
DL105		HSS-E, STRAIGHT SHANK TWIST DRILLS, FORM C HSS-E, SPIRALBOHRER MIT ZYLINDERSCHAFT	<i>JOBBER KURZ</i>	D1.0	D20.0	220
D1105		HSS, STRAIGHT SHANK TWIST DRILLS HSS, SPIRALBOHRER MIT ZYLINDERSCHAFT	<i>JOBBER KURZ</i>	D0.3	D20.0	223
D1125		HSS, STRAIGHT SHANK TWIST DRILLS HSS, SPIRALBOHRER MIT ZYLINDERSCHAFT	<i>JOBBER KURZ</i>	D2.0	D20.0	227
D2104		HSSCO8, STRAIGHT SHANK TWIST DRILLS HSSCO8, SPIRALBOHRER MIT ZYLINDERSCHAFT	<i>LONG LANG</i>	D2.0	D12.0	230
D1121		HSS, STRAIGHT SHANK TWIST DRILLS HSS, SPIRALBOHRER MIT ZYLINDERSCHAFT	<i>EXTRA LONG ÜBERLANG</i>	D2.0	D13.0	232
DL109		HSS-E, STRAIGHT SHANK TWIST DRILLS FOR HEAVY DUTY HSS-E, SPIRALBOHRER FÜR HOHE LEISTUNGEN MIT ZYLINDERSCHAFT	<i>JOBBER KURZ</i>	D1.5	D13.0	233
D1100		HSS, STRAIGHT SHANK TWIST DRILLS FOR BRASS/BRONZE HSS, SPIRALBOHRER FÜR MESSING/BRONZE MIT ZYLINDERSCHAFT	<i>JOBBER KURZ</i>	D1.5	D13.0	234
D1106		HSS, STRAIGHT SHANK TWIST DRILLS FOR ALUMINUM, FORM C HSS, SPIRALBOHRER FÜR ALUMINIUM MIT ZYLINDERSCHAFT	<i>JOBBER KURZ</i>	D1.5	D13.0	236

HSS STRAIGHT SHANK DRILLS

◎ : Excellent ○ : Good

P			H		M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
◎	◎				○	○	○				○
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									◎		
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SELECTION GUIDE

DH100, DH50-WORM PATTERN DRILLS

DH100-For Deep hole drilling in general steels

ITEM	MODEL	DESCRIPTION	SIZE		PAGE	
			MIN	MAX		
DH100 DL510		HSS-E, STRAIGHT SHANK DRILLS for DEEP HOLES, FORM B HSS-E, SPIRALBOHRER für TIEFLOCH mit ZYLINDERSCHAFT	STUB EXTRA KURZ	D2.0	D20.0	238
DH100 DL508		HSS-E, STRAIGHT SHANK DRILLS for DEEP HOLES, FORM B HSS-E, SPIRALBOHRER für TIEFLOCH mit ZYLINDERSCHAFT	JOBBER KURZ	D2.0	D16.0	240
DH100 DL509		HSS-E, STRAIGHT SHANK DRILLS for DEEP HOLES, FORM B HSS-E, SPIRALBOHRER für TIEFLOCH mit ZYLINDERSCHAFT	LONG LANG	D2.0	D12.0	242
DH100 DL505		HSS-E, STRAIGHT SHANK DRILLS for DEEP HOLES, FORM C HSS-E, SPIRALBOHRER für TIEFLOCH mit ZYLINDERSCHAFT	JOBBER KURZ	D2.0	D13.0	244
DH100 DL504		HSS-E, STRAIGHT SHANK DRILLS for DEEP HOLES, FORM C HSS-E, SPIRALBOHRER für TIEFLOCH mit ZYLINDERSCHAFT	LONG LANG	D2.0	D13.0	246
DH100 DT600 DT692 DT693		HSS-E, STRAIGHT SHANK DRILLS for DEEP HOLES, FORM C HSS-E, SPIRALBOHRER für TIEFLOCH mit ZYLINDERSCHAFT	EXTRA LONG ÜBERLANG	D2.0 D3.0 D4.0	D10.5 D10.2 D10.0	247

DH50-For Deep hole drilling in aluminum

DH50 DL507		HSS-E, STRAIGHT SHANK DRILLS for ALUMINUM DEEP HOLES, FORM C HSS-E, SPIRALBOHRER für ALUMINIUM TIEFLOCH mit ZYLINDERSCHAFT	EXTRA LONG ÜBERLANG	D2.0	D13.0	249
RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDKONDITIONEN						251

HSS STRAIGHT SHANK DRILLS

◎ : Excellent ○ : Good

P			H		M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
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◎	◎					○	○				
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Y/G STRAIGHT SHANK DRILLS

D2107 SERIES

HSSCo8, STRAIGHT SHANK TWIST DRILLS

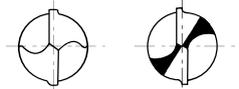
STUB

- 🇩🇪 HSSCo8, SPIRALBOHRER mit ZYLINDERSCHAFT
- 🇫🇷 Forets HSSCo8, queue cylindrique, Forme C, série extra-courte
- 🇮🇹 PUNTE ELICOIDALI, GAMBO CILINDRICO, HSSCo8

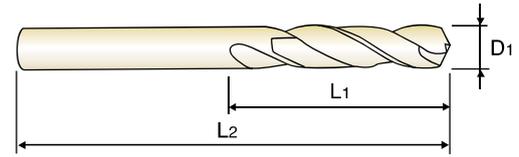
EXTRA KURZ
EXTRA-COURTE
EXTRA CORTA

▶ **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°
P.251

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
D2107010	1.0	6	26	D2107034	3.4	20	52
D2107011	1.1	7	28	D2107035	3.5	20	52
D2107012	1.2	8	30	D2107036	3.6	20	52
D2107912	1.25	8	30	D2107037	3.7	20	52
D2107013	1.3	8	30	D2107937	3.75	20	52
D2107014	1.4	9	32	D2107038	3.8	22	55
D2107015	1.5	9	32	D2107039	3.9	22	55
D2107016	1.6	10	34	D2107040	4.0	22	55
D2107017	1.7	10	34	D2107041	4.1	22	55
D2107917	1.75	11	36	D2107042	4.2	22	55
D2107018	1.8	11	36	D2107942	4.25	22	55
D2107019	1.9	11	36	D2107043	4.3	24	58
D2107020	2.0	12	38	D2107044	4.4	24	58
D2107021	2.1	12	38	D2107045	4.5	24	58
D2107022	2.2	13	40	D2107046	4.6	24	58
D2107922	2.25	13	40	D2107946	4.65	24	58
D2107023	2.3	13	40	D2107047	4.7	24	58
D2107024	2.4	14	43	D2107947	4.75	24	58
D2107025	2.5	14	43	D2107048	4.8	26	62
D2107026	2.6	14	43	D2107049	4.9	26	62
D2107027	2.7	16	46	D2107050	5.0	26	62
D2107927	2.75	16	46	D2107051	5.1	26	62
D2107028	2.8	16	46	D2107052	5.2	26	62
D2107029	2.9	16	46	D2107952	5.25	26	62
D2107030	3.0	16	46	D2107053	5.3	26	62
D2107031	3.1	18	49	D2107054	5.4	28	66
D2107032	3.2	18	49	D2107055	5.5	28	66
D2107932	3.25	18	49	D2107955	5.55	28	66
D2107033	3.3	18	49	D2107056	5.6	28	66

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

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◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
◎	◎				○	○	○				○

YG STRAIGHT SHANK DRILLS

D2107 SERIES

CARBIDE

HSS

HSSCo8, STRAIGHT SHANK TWIST DRILLS

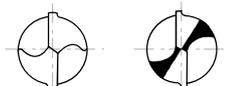
STUB

-  HSSCo8, SPIRALBOHRER mit ZYLINDERSCHAFT
-  Forets HSSCo8, queue cylindrique, Forme C, série extra-courte
-  PUNTE ELICOIDALI, GAMBO CILINDRICO, HSSCo8

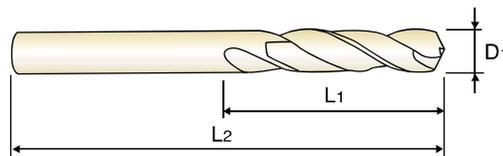
EXTRA KURZ
EXTRA-COURTE
EXTRA CORTA

- ▶ **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










Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
D2107057	5.7	28	66	D2107080	8.0	37	79
D2107957	5.75	28	66	D2107081	8.1	37	79
D2107058	5.8	28	66	D2107082	8.2	37	79
D2107059	5.9	28	66	D2107982	8.25	37	79
D2107060	6.0	28	66	D2107083	8.3	37	79
D2107061	6.1	31	70	D2107084	8.4	37	79
D2107062	6.2	31	70	D2107085	8.5	37	79
D2107962	6.25	31	70	D2107086	8.6	40	84
D2107063	6.3	31	70	D2107087	8.7	40	84
D2107064	6.4	31	70	D2107987	8.75	40	84
D2107065	6.5	31	70	D2107088	8.8	40	84
D2107066	6.6	31	70	D2107089	8.9	40	84
D2107067	6.7	31	70	D2107090	9.0	40	84
D2107967	6.75	34	74	D2107091	9.1	40	84
D2107068	6.8	34	74	D2107092	9.2	40	84
D2107069	6.9	34	74	D2107992	9.25	40	84
D2107070	7.0	34	74	D2107093	9.3	40	84
D2107071	7.1	34	74	D2107993	9.35	40	84
D2107072	7.2	34	74	D2107094	9.4	40	84
D2107972	7.25	34	74	D2107095	9.5	40	84
D2107073	7.3	34	74	D2107096	9.6	43	89
D2107074	7.4	34	74	D2107097	9.7	43	89
D2107974	7.45	34	74	D2107997	9.75	43	89
D2107075	7.5	34	74	D2107098	9.8	43	89
D2107076	7.6	37	79	D2107099	9.9	43	89
D2107077	7.7	37	79	D2107100	10.0	43	89
D2107977	7.75	37	79	D2107102	10.2	43	89
D2107078	7.8	37	79	D2107802	10.25	43	89
D2107079	7.9	37	79	D2107105	10.5	43	89

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

▶ NEXT PAGE

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○				○

I-ONE DRILLS

I-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

TECHNICAL DATA

Y/G STRAIGHT SHANK DRILLS

D2107 SERIES

HSSCo8, STRAIGHT SHANK TWIST DRILLS

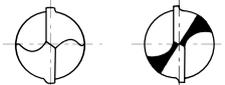
STUB

- 🇩🇪 HSSCo8, SPIRALBOHRER mit ZYLINDERSCHAFT
- 🇫🇷 Forets HSSCo8, queue cylindrique, Forme C, série extra-courte
- 🇮🇹 PUNTE ELICOIDALI, GAMBO CILINDRICO, HSSCo8

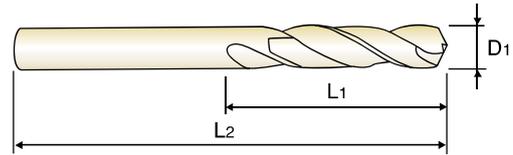
EXTRA KURZ
EXTRA-COURTE
EXTRA CORTA

- ▶ **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°
P.251

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
D2107807	10.75	47	95	D2107872	17.25	62	123
D2107110	11.0	47	95	D2107175	17.5	62	123
D2107812	11.25	47	95	D2107877	17.75	62	123
D2107115	11.5	47	95	D2107180	18.0	62	123
D2107817	11.75	47	95	D2107882	18.25	64	127
D2107118	11.8	47	95	D2107185	18.5	64	127
D2107120	12.0	51	102	D2107887	18.75	64	127
D2107822	12.25	51	102	D2107190	19.0	64	127
D2107125	12.5	51	102	D2107892	19.25	66	131
D2107827	12.75	51	102	D2107195	19.5	66	131
D2107130	13.0	51	102	D2107897	19.75	66	131
D2107832	13.25	54	107	D2107200	20.0	66	131
D2107135	13.5	54	107	D2107205	20.5	68	136
D2107837	13.75	54	107	D2107210	21.0	68	136
D2107138	13.8	54	107	D2107215	21.5	70	141
D2107140	14.0	54	107	D2107220	22.0	70	141
D2107842	14.25	56	111	D2107225	22.5	72	146
D2107145	14.5	56	111	D2107230	23.0	72	146
D2107847	14.75	56	111	D2107235	23.5	72	146
D2107150	15.0	56	111	D2107240	24.0	75	151
D2107852	15.25	58	115	D2107245	24.5	75	151
D2107155	15.5	58	115	D2107250	25.0	75	151
D2107857	15.75	58	115	D2107260	26.0	78	156
D2107160	16.0	58	115	D2107270	27.0	81	162
D2107862	16.25	60	119	D2107280	28.0	81	162
D2107165	16.5	60	119	D2107290	29.0	84	168
D2107867	16.75	60	119	D2107300	30.0	84	168
D2107170	17.0	60	119	D2107310	31.0	87	174

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

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
◎	◎				○	○	○				○

Y/G STRAIGHT SHANK DRILLS

D1107 SERIES

CARBIDE

HSS

HSS, STRAIGHT SHANK TWIST DRILLS

STUB

🇩🇪 HSS, SPIRALBOHRER mit ZYLINDERSCHAFT

EXTRA KURZ

🇫🇷 Forets HSS, queue cylindrique, série extra-courte

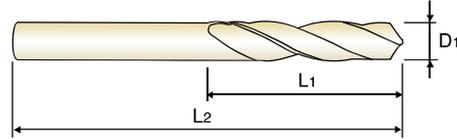
EXTRA-COURTE

🇮🇹 PUNTE ELICOIDALI, GAMBO CILINDRICO, HSS

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°
P.251

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D ₁	L ₁	L ₂		D ₁	L ₁	L ₂
D1107010	1.0	6	26	D1107036	3.6	20	52
D1107011	1.1	7	28	D1107037	3.7	20	52
D1107012	1.2	8	30	D1107937	3.75	20	52
D1107912	1.25	8	30	D1107038	3.8	22	55
D1107013	1.3	8	30	D1107039	3.9	22	55
D1107014	1.4	9	32	D1107040	4.0	22	55
D1107015	1.5	9	32	D1107041	4.1	22	55
D1107016	1.6	9	34	D1107042	4.2	22	55
D1107017	1.7	10	34	D1107942	4.25	22	55
D1107917	1.75	11	36	D1107043	4.3	24	58
D1107018	1.8	11	36	D1107044	4.4	24	58
D1107019	1.9	11	36	D1107045	4.5	24	58
D1107020	2.0	12	38	D1107046	4.6	24	58
D1107021	2.1	12	38	D1107047	4.7	24	58
D1107022	2.2	13	40	D1107947	4.75	24	58
D1107922	2.25	13	40	D1107048	4.8	26	62
D1107023	2.3	13	40	D1107049	4.9	26	62
D1107024	2.4	14	43	D1107050	5.0	26	62
D1107025	2.5	14	43	D1107051	5.1	26	62
D1107026	2.6	14	43	D1107052	5.2	26	62
D1107027	2.7	16	46	D1107952	5.25	26	62
D1107927	2.75	16	46	D1107053	5.3	26	62
D1107028	2.8	16	46	D1107054	5.4	28	66
D1107029	2.9	16	46	D1107055	5.5	28	66
D1107030	3.0	16	46	D1107056	5.6	28	66
D1107031	3.1	18	49	D1107057	5.7	28	66
D1107032	3.2	18	49	D1107957	5.75	28	66
D1107932	3.25	18	49	D1107058	5.8	28	66
D1107033	3.3	18	49	D1107059	5.9	28	66
D1107034	3.4	20	52	D1107060	6.0	28	66
D1107035	3.5	20	52	D1107061	6.1	31	70

► NEXT PAGE

◎ : Excellent ○ : Good

P				H	M	K	N			S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○				○

I-ONE DRILLS

I-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

TECHNICAL DATA



STRAIGHT SHANK DRILLS

D1107 SERIES

HSS, STRAIGHT SHANK TWIST DRILLS

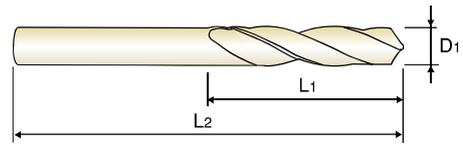
STUB

- 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.



Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D ₁	L ₁	L ₂		D ₁	L ₁	L ₂
D1107062	6.2	31	70	D1107087	8.7	40	84
D1107962	6.25	31	70	D1107987	8.75	40	84
D1107063	6.3	31	70	D1107088	8.8	40	84
D1107064	6.4	31	70	D1107089	8.9	40	84
D1107065	6.5	31	70	D1107090	9.0	40	84
D1107066	6.6	31	70	D1107091	9.1	40	84
D1107067	6.7	31	70	D1107092	9.2	40	84
D1107967	6.75	34	74	D1107992	9.25	40	84
D1107068	6.8	34	74	D1107093	9.3	40	84
D1107069	6.9	34	74	D1107094	9.4	40	84
D1107070	7.0	34	74	D1107095	9.5	40	84
D1107071	7.1	34	74	D1107096	9.6	43	89
D1107072	7.2	34	74	D1107097	9.7	43	89
D1107972	7.25	34	74	D1107997	9.75	43	89
D1107073	7.3	34	74	D1107098	9.8	43	89
D1107074	7.4	34	74	D1107099	9.9	43	89
D1107075	7.5	34	74	D1107100	10.0	43	89
D1107076	7.6	37	79	D1107802	10.25	43	89
D1107077	7.7	37	79	D1107105	10.5	43	89
D1107977	7.75	37	79	D1107807	10.75	47	95
D1107078	7.8	37	79	D1107110	11.0	47	95
D1107079	7.9	37	79	D1107812	11.25	47	95
D1107080	8.0	37	79	D1107115	11.5	47	95
D1107081	8.1	37	79	D1107817	11.75	47	95
D1107082	8.2	37	79	D1107120	12.0	51	102
D1107982	8.25	37	79	D1107822	12.25	51	102
D1107083	8.3	37	79	D1107125	12.5	51	102
D1107084	8.4	37	79	D1107827	12.75	51	102
D1107085	8.5	37	79	D1107130	13.0	51	102
D1107086	8.6	40	84				

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
◎	◎				○	○	○				○

◎ : Excellent ○ : Good

Y/G STRAIGHT SHANK DRILLS

D2105 SERIES

CARBIDE

HSS

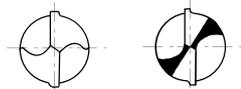
HSSCo8, STRAIGHT SHANK TWIST DRILLS

JOBBER
KURZ
COURTE
CORTA

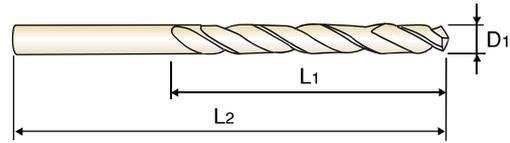
- HSSCo8, SPIRALBOHRER mit ZYLINDERSCHAFT
- Forets HSSCo8, queue cylindrique, Forme C, série courte
- PUNTE ELICOIDALI, GAMBO CILINDRICO, HSSCo8

- **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



Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D ₁	L ₁	L ₂		D ₁	L ₁	L ₂
D2105010	1.0	12	34	D2105031	3.1	36	65
D2105011	1.1	14	36	D2105032	3.2	36	65
D2105012	1.2	16	38	D2105932	3.25	36	65
D2105912	1.25	16	38	D2105033	3.3	36	65
D2105013	1.3	16	38	D2105034	3.4	39	70
D2105014	1.4	18	40	D2105035	3.5	39	70
D2105015	1.5	18	40	D2105036	3.6	39	70
D2105016	1.6	20	43	D2105037	3.7	39	70
D2105017	1.7	20	43	D2105937	3.75	39	70
D2105917	1.75	22	46	D2105038	3.8	43	75
D2105018	1.8	22	46	D2105039	3.9	43	75
D2105019	1.9	22	46	D2105040	4.0	43	75
D2105020	2.0	24	49	D2105041	4.1	43	75
D2105021	2.1	24	49	D2105042	4.2	43	75
D2105022	2.2	27	53	D2105942	4.25	43	75
D2105922	2.25	27	53	D2105043	4.3	47	80
D2105023	2.3	27	53	D2105044	4.4	47	80
D2105024	2.4	30	57	D2105045	4.5	47	80
D2105025	2.5	30	57	D2105046	4.6	47	80
D2105026	2.6	30	57	D2105047	4.7	47	80
D2105027	2.7	33	61	D2105947	4.75	47	80
D2105927	2.75	33	61	D2105048	4.8	52	86
D2105028	2.8	33	61	D2105049	4.9	52	86
D2105029	2.9	33	61	D2105050	5.0	52	86
D2105030	3.0	33	61	D2105051	5.1	52	86

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

► NEXT PAGE

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○				○

I-ONE DRILLS

I-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

TECHNICAL DATA

Y/G STRAIGHT SHANK DRILLS

D2105 SERIES

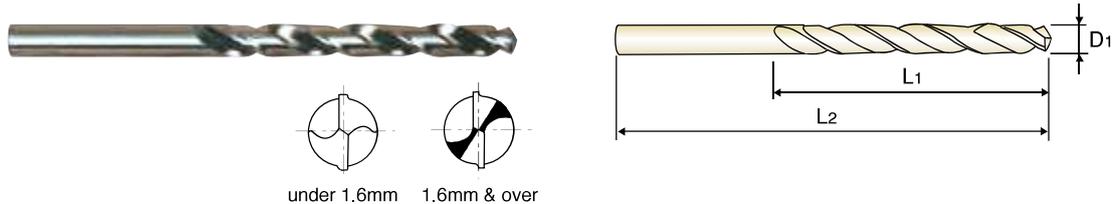
HSSCo8, STRAIGHT SHANK TWIST DRILLS

JOBBER
KURZ
COURTE
CORTA

- 🇩🇪 **HSSCo8, SPIRALBOHRER mit ZYLINDERSCHAFT**
- 🇫🇷 **Forets HSSCo8, queue cylindrique, Forme C, série courte**
- 🇮🇹 **PUNTE ELICOIDALI, GAMBO CILINDRICO, HSSCo8**

▶ **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 Co8
33°
h8
135°
P,251

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D ₁	L ₁	L ₂		D ₁	L ₁	L ₂
D2105052	5.2	52	86	D2105972	7.25	69	109
D2105952	5.25	52	86	D2105073	7.3	69	109
D2105053	5.3	52	86	D2105074	7.4	69	109
D2105054	5.4	57	93	D2105075	7.5	69	109
D2105055	5.5	57	93	D2105076	7.6	75	117
D2105056	5.6	57	93	D2105077	7.7	75	117
D2105057	5.7	57	93	D2105977	7.75	75	117
D2105957	5.75	57	93	D2105078	7.8	75	117
D2105058	5.8	57	93	D2105079	7.9	75	117
D2105059	5.9	57	93	D2105080	8.0	75	117
D2105060	6.0	57	93	D2105081	8.1	75	117
D2105061	6.1	63	101	D2105082	8.2	75	117
D2105062	6.2	63	101	D2105982	8.25	75	117
D2105962	6.25	63	101	D2105083	8.3	75	117
D2105063	6.3	63	101	D2105084	8.4	75	117
D2105064	6.4	63	101	D2105085	8.5	75	117
D2105065	6.5	63	101	D2105086	8.6	81	125
D2105066	6.6	63	101	D2105087	8.7	81	125
D2105067	6.7	63	101	D2105987	8.75	81	125
D2105967	6.75	69	109	D2105088	8.8	81	125
D2105068	6.8	69	109	D2105089	8.9	81	125
D2105069	6.9	69	109	D2105090	9.0	81	125
D2105070	7.0	69	109	D2105091	9.1	81	125
D2105071	7.1	69	109	D2105092	9.2	81	125
D2105072	7.2	69	109	D2105992	9.25	81	125

▶ TiN(D4105), TiCN(D7105) and TiAlN(DQ105) are available on your request.

▶ NEXT PAGE

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
◎	◎				◎	○	○				○

◎ : Excellent ○ : Good

Y/G STRAIGHT SHANK DRILLS

D2105 SERIES

CARBIDE

HSS

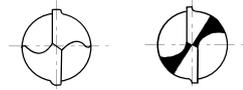
HSSCo8, STRAIGHT SHANK TWIST DRILLS

JOBBER
KURZ
COURTE
CORTA

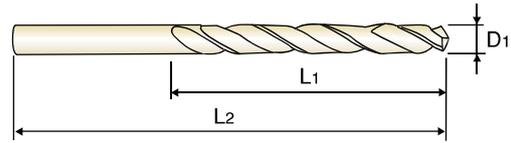
- HSSCo8, SPIRALBOHRER mit ZYLINDERSCHAFT
- Forets HSSCo8, queue cylindrique, Forme C, série courte
- PUNTE ELICOIDALI, GAMBO CILINDRICO, HSSCo8

- ▶ **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



Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
D2105093	9.3	81	125	D2105130	13.0	101	151
D2105094	9.4	81	125	D2105135	13.5	108	160
D2105095	9.5	81	125	D2105140	14.0	108	160
D2105096	9.6	87	133	D2105145	14.5	114	169
D2105097	9.7	87	133	D2105150	15.0	114	169
D2105997	9.75	87	133	D2105155	15.5	120	178
D2105098	9.8	87	133	D2105160	16.0	120	178
D2105099	9.9	87	133	D2105165	16.5	125	184
D2105100	10.0	87	133	D2105170	17.0	125	184
D2105102	10.2	87	133	D2105175	17.5	130	191
D2105105	10.5	87	133	D2105180	18.0	130	191
D2105110	11.0	94	142	D2105185	18.5	135	198
D2105115	11.5	94	142	D2105190	19.0	135	198
D2105120	12.0	101	151	D2105195	19.5	140	205
D2105125	12.5	101	151	D2105200	20.0	140	205

▶ TiN(D4105), TiCN(D7105) and TiAlN(DQ105) are available on your request.

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				◎	○	○				○

i-ONE DRILLS

i-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

TECHNICAL DATA

Y/G STRAIGHT SHANK DRILLS

DL105 SERIES

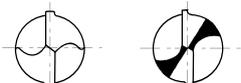
HSS-E, STRAIGHT SHANK TWIST DRILLS

JOBBER
KURZ
COURTE
CORTA

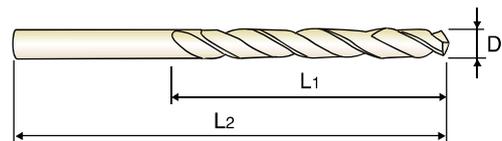
 **HSS-E, SPIRALBOHRER mit ZYLINDERSCHAFT**
 **Forets HSS-E, queue cylindrique, Forme C, série courte**
 **PUNTE ELICOIDALI, GAMBO CILINDRICO, HSS - E**

► 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










Unit : mm

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

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

► NEXT PAGE

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
◎	◎				◎	○	○				○

◎ : Excellent ○ : Good

YG STRAIGHT SHANK DRILLS

DL105 SERIES

CARBIDE

HSS

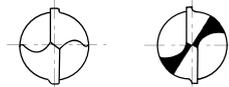
HSS-E, STRAIGHT SHANK TWIST DRILLS

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

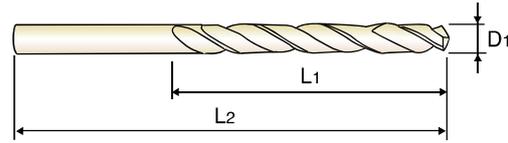
JOBBER
KURZ
COURTE
CORTA

- **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



Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D ₁	L ₁	L ₂		D ₁	L ₁	L ₂
DL105052	5.2	52	86	DL105972	7.25	69	109
DL105952	5.25	52	86	DL105073	7.3	69	109
DL105053	5.3	52	86	DL105074	7.4	69	109
DL105054	5.4	57	93	DL105075	7.5	69	109
DL105055	5.5	57	93	DL105076	7.6	75	117
DL105056	5.6	57	93	DL105077	7.7	75	117
DL105057	5.7	57	93	DL105977	7.75	75	117
DL105957	5.75	57	93	DL105078	7.8	75	117
DL105058	5.8	57	93	DL105079	7.9	75	117
DL105059	5.9	57	93	DL105080	8.0	75	117
DL105060	6.0	57	93	DL105081	8.1	75	117
DL105061	6.1	63	101	DL105082	8.2	75	117
DL105062	6.2	63	101	DL105982	8.25	75	117
DL105962	6.25	63	101	DL105083	8.3	75	117
DL105063	6.3	63	101	DL105084	8.4	75	117
DL105064	6.4	63	101	DL105085	8.5	75	117
DL105065	6.5	63	101	DL105086	8.6	81	125
DL105066	6.6	63	101	DL105087	8.7	81	125
DL105067	6.7	63	101	DL105987	8.75	81	125
DL105967	6.75	69	109	DL105088	8.8	81	125
DL105068	6.8	69	109	DL105089	8.9	81	125
DL105069	6.9	69	109	DL105090	9.0	81	125
DL105070	7.0	69	109	DL105091	9.1	81	125
DL105071	7.1	69	109	DL105092	9.2	81	125
DL105072	7.2	69	109	DL105992	9.25	81	125

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

► NEXT PAGE

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				◎	○	○				○

I-ONE DRILLS

I-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

TECHNICAL DATA

Y/G STRAIGHT SHANK DRILLS

DL105 SERIES

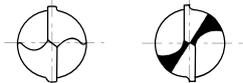
HSS-E, STRAIGHT SHANK TWIST DRILLS

**JOBBER
KURZ
COURTE
CORTA**

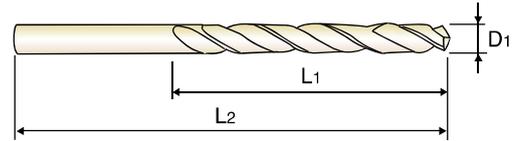
- 🇩🇪 HSS-E, SPIRALBOHRER mit ZYLINDERSCHAFT
- 🇫🇷 Forets HSS-E, queue cylindrique, Forme C, série courte
- 🇮🇹 PUNTE ELICOIDALI, GAMBO CILINDRICO, HSS - E

▶ **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°
P,251

Unit : mm

EDP No.	Drill Diameter		Flute Length		Overall Length		
	D1	L1	L2	D1	L1	L2	
DL105093	9.3	81	125	DL105130	13.0	101	151
DL105094	9.4	81	125	DL105135	13.5	108	160
DL105095	9.5	81	125	DL105140	14.0	108	160
DL105096	9.6	87	133	DL105145	14.5	114	169
DL105097	9.7	87	133	DL105150	15.0	114	169
DL105997	9.75	87	133	DL105155	15.5	120	178
DL105098	9.8	87	133	DL105160	16.0	120	178
DL105099	9.9	87	133	DL105165	16.5	125	184
DL105100	10.0	87	133	DL105170	17.0	125	184
DL105102	10.2	87	133	DL105175	17.5	130	191
DL105105	10.5	87	133	DL105180	18.0	130	191
DL105110	11.0	94	142	DL105185	18.5	135	198
DL105115	11.5	94	142	DL105190	19.0	135	198
DL105120	12.0	101	151	DL105195	19.5	140	205
DL105125	12.5	101	151	DL105200	20.0	140	205

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

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
◎	◎				◎	○	○				○

Y/G STRAIGHT SHANK DRILLS

D1105 SERIES

CARBIDE

HSS

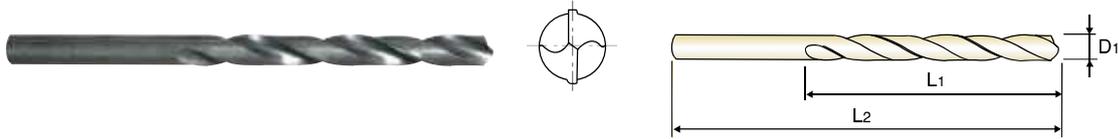
HSS, STRAIGHT SHANK TWIST DRILLS

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

JOBBER
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.



Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
D1105003	0.3	3	19	D1105921	2.15	27	53
D1105004	0.4	5	20	D1105022	2.2	27	53
D1105005	0.5	6	22	D1105922	2.25	27	53
D1105006	0.6	7	24	D1105023	2.3	27	53
D1105007	0.7	9	28	D1105923	2.35	27	53
D1105008	0.8	10	30	D1105024	2.4	30	57
D1105009	0.9	11	32	D1105924	2.45	30	57
D1105010	1.0	12	34	D1105025	2.5	30	57
D1105910	1.05	12	34	D1105925	2.55	30	57
D1105011	1.1	14	36	D1105026	2.6	30	57
D1105911	1.15	14	36	D1105926	2.65	30	57
D1105012	1.2	16	38	D1105027	2.7	33	61
D1105912	1.25	16	38	D1105927	2.75	33	61
D1105013	1.3	16	38	D1105028	2.8	33	61
D1105913	1.35	18	40	D1105928	2.85	33	61
D1105014	1.4	18	40	D1105029	2.9	33	61
D1105914	1.45	18	40	D1105929	2.95	33	61
D1105015	1.5	18	40	D1105030	3.0	33	61
D1105915	1.55	20	43	D1105930	3.05	36	65
D1105016	1.6	20	43	D1105031	3.1	36	65
D1105916	1.65	20	43	D1105931	3.15	36	65
D1105017	1.7	20	43	D1105032	3.2	36	65
D1105917	1.75	22	46	D1105932	3.25	36	65
D1105018	1.8	22	46	D1105033	3.3	36	65
D1105918	1.85	22	46	D1105933	3.35	36	65
D1105019	1.9	22	46	D1105034	3.4	39	70
D1105919	1.95	24	49	D1105934	3.45	39	70
D1105020	2.0	24	49	D1105035	3.5	39	70
D1105920	2.05	24	49	D1105935	3.55	39	70
D1105021	2.1	24	49	D1105036	3.6	39	70

▶ NEXT PAGE

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○				○

i-ONE DRILLS

i-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

TECHNICAL DATA

Y/G STRAIGHT SHANK DRILLS

D1105 SERIES

HSS, STRAIGHT SHANK TWIST DRILLS

JOBBER
KURZ
COURTE
CORTA

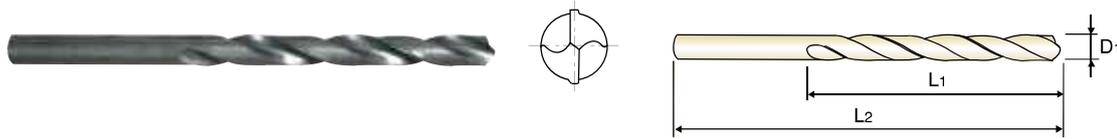
HSS, SPIRALBOHRER mit ZYLINDERSCHAFT
Forets HSS, queue cylindrique, série courte
PUNTE ELICOIDALI, GAMBO CILINDRICO, HSS

► **Surface treatment** : Steam Tempered(Black Oxide Finish)
Bright Finish under 2mm

► **Oberflächenbehandlung** : Steam Homo(Schwarzoxidation)
Helle Beschaffenheit unter 2mm

► **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, Graphite.



Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
D1105936	3.65	39	70	D1105951	5.15	52	86
D1105037	3.7	39	70	D1105052	5.2	52	86
D1105937	3.75	39	70	D1105952	5.25	52	86
D1105038	3.8	43	75	D1105053	5.3	52	86
D1105938	3.85	43	75	D1105953	5.35	57	93
D1105039	3.9	43	75	D1105054	5.4	57	93
D1105939	3.95	43	75	D1105954	5.45	57	93
D1105040	4.0	43	75	D1105055	5.5	57	93
D1105940	4.05	43	75	D1105955	5.55	57	93
D1105041	4.1	43	75	D1105056	5.6	57	93
D1105941	4.15	43	75	D1105956	5.65	57	93
D1105042	4.2	43	75	D1105057	5.7	57	93
D1105942	4.25	43	75	D1105957	5.75	57	93
D1105043	4.3	47	80	D1105058	5.8	57	93
D1105943	4.35	47	80	D1105958	5.85	57	93
D1105044	4.4	47	80	D1105059	5.9	57	93
D1105944	4.45	47	80	D1105959	5.95	57	93
D1105045	4.5	47	80	D1105060	6.0	57	93
D1105945	4.55	47	80	D1105960	6.05	63	101
D1105046	4.6	47	80	D1105061	6.1	63	101
D1105946	4.65	47	80	D1105961	6.15	63	101
D1105047	4.7	47	80	D1105062	6.2	63	101
D1105947	4.75	47	80	D1105962	6.25	63	101
D1105048	4.8	52	86	D1105063	6.3	63	101
D1105948	4.85	52	86	D1105963	6.35	63	101
D1105049	4.9	52	86	D1105064	6.4	63	101
D1105949	4.95	52	86	D1105964	6.45	63	101
D1105050	5.0	52	86	D1105065	6.5	63	101
D1105950	5.05	52	86	D1105965	6.55	63	101
D1105051	5.1	52	86	D1105066	6.6	63	101

► NEXT PAGE

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
◎	◎				○	○	○				○

Y/G STRAIGHT SHANK DRILLS

D1105 SERIES

CARBIDE

HSS

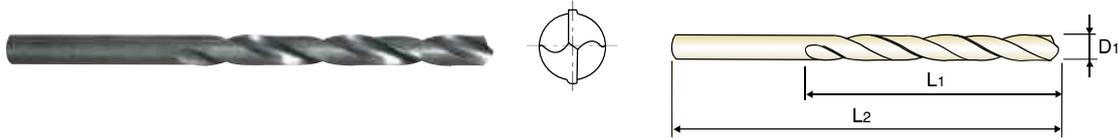
HSS, STRAIGHT SHANK TWIST DRILLS

JOBBER
KURZ
COURTE
CORTA

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

- ▶ **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°
P.251

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D ₁	L ₁	L ₂		D ₁	L ₁	L ₂
D1105966	6.65	63	101	D1105982	8.25	75	117
D1105067	6.7	63	101	D1105083	8.3	75	117
D1105967	6.75	69	109	D1105084	8.4	75	117
D1105068	6.8	69	109	D1105085	8.5	75	117
D1105968	6.85	69	109	D1105086	8.6	81	125
D1105069	6.9	69	109	D1105087	8.7	81	125
D1105969	6.95	69	109	D1105987	8.75	81	125
D1105070	7.0	69	109	D1105088	8.8	81	125
D1105970	7.05	69	109	D1105089	8.9	81	125
D1105071	7.1	69	109	D1105090	9.0	81	125
D1105971	7.15	69	109	D1105091	9.1	81	125
D1105072	7.2	69	109	D1105092	9.2	81	125
D1105972	7.25	69	109	D1105992	9.25	81	125
D1105073	7.3	69	109	D1105093	9.3	81	125
D1105973	7.35	69	109	D1105094	9.4	81	125
D1105074	7.4	69	109	D1105095	9.5	81	125
D1105974	7.45	69	109	D1105096	9.6	87	133
D1105075	7.5	69	109	D1105097	9.7	87	133
D1105975	7.55	75	117	D1105997	9.75	87	133
D1105076	7.6	75	117	D1105098	9.8	87	133
D1105976	7.65	75	117	D1105099	9.9	87	133
D1105077	7.7	75	117	D1105100	10.0	87	133
D1105977	7.75	75	117	D1105101	10.1	87	133
D1105078	7.8	75	117	D1105102	10.2	87	133
D1105978	7.85	75	117	D1105802	10.25	87	133
D1105079	7.9	75	117	D1105103	10.3	87	133
D1105979	7.95	75	117	D1105104	10.4	87	133
D1105080	8.0	75	117	D1105105	10.5	87	133
D1105081	8.1	75	117	D1105106	10.6	87	133
D1105082	8.2	75	117	D1105107	10.7	94	142

▶ NEXT PAGE

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○				○

I-ONE DRILLS

I-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

TECHNICAL DATA

Y/G STRAIGHT SHANK DRILLS

D1105 SERIES

HSS, STRAIGHT SHANK TWIST DRILLS

JOBBER
KURZ
COURTE
CORTA

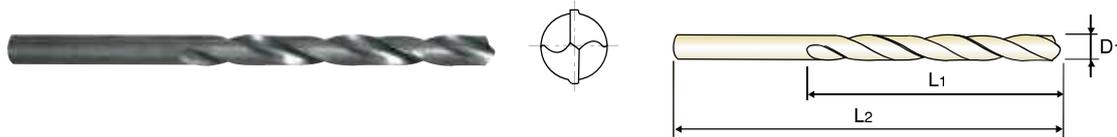
 HSS, SPIRALBOHRER mit ZYLINDERSCHAFT
 Forets HSS, queue cylindrique, série courte
 PUNTE ELICOIDALI, GAMBO CILINDRICO, HSS

► **Surface treatment** : Steam Tempered(Black Oxide Finish)
Bright Finish under 2mm

► **Oberflächenbehandlung** : Steam Homo(Schwarzoxidation)
Helle Beschaffenheit unter 2mm

► **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, Graphite.










Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
D1105807	10.75	94	142	D1105832	13.25	108	160
D1105108	10.8	94	142	D1105135	13.5	108	160
D1105109	10.9	94	142	D1105837	13.75	108	160
D1105110	11.0	94	142	D1105140	14.0	108	160
D1105111	11.1	94	142	D1105842	14.25	114	169
D1105112	11.2	94	142	D1105145	14.5	114	169
D1105812	11.25	94	142	D1105847	14.75	114	169
D1105113	11.3	94	142	D1105150	15.0	114	169
D1105114	11.4	94	142	D1105852	15.25	120	178
D1105115	11.5	94	142	D1105155	15.5	120	178
D1105116	11.6	94	142	D1105857	15.75	120	178
D1105117	11.7	94	142	D1105160	16.0	120	178
D1105817	11.75	94	142	D1105862	16.25	125	184
D1105118	11.8	94	142	D1105165	16.5	125	184
D1105119	11.9	101	151	D1105867	16.75	125	184
D1105120	12.0	101	151	D1105170	17.0	125	184
D1105121	12.1	101	151	D1105872	17.25	130	191
D1105122	12.2	101	151	D1105175	17.5	130	191
D1105822	12.25	101	151	D1105877	17.75	130	191
D1105123	12.3	101	151	D1105180	18.0	130	191
D1105124	12.4	101	151	D1105882	18.25	135	198
D1105125	12.5	101	151	D1105185	18.5	135	198
D1105126	12.6	101	151	D1105887	18.75	135	198
D1105127	12.7	101	151	D1105190	19.0	135	198
D1105827	12.75	101	151	D1105892	19.25	140	205
D1105128	12.8	101	151	D1105195	19.5	140	205
D1105129	12.9	101	151	D1105897	19.75	140	205
D1105130	13.0	101	151	D1105200	20.0	140	205

P		H		M	K	N				S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
◎	◎			○	○	○					○

◎ : Excellent ○ : Good

Y/G STRAIGHT SHANK DRILLS

D1125 SERIES

CARBIDE

HSS

HSS, STRAIGHT SHANK TWIST DRILLS

JOBBER

🇩🇪 HSS, SPIRALBOHRER mit ZYLINDERSCHAFT

KURZ

🇫🇷 Forets HSS, queue cylindrique, série courte

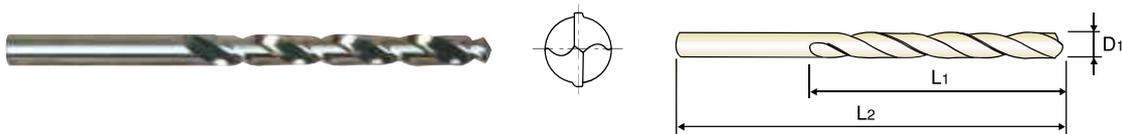
COURTE

🇮🇹 PUNTE ELICOIDALI, GAMBO CILINDRICO, HSS

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, Sintereisen, Graphite.



DIN 338
HSS
N 20~30°
h8
118°
P.251

Unit : mm

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

▶ NEXT PAGE

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○				○

i-ONE DRILLS

i-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

TECHNICAL DATA

Y/G STRAIGHT SHANK DRILLS

D1125 SERIES

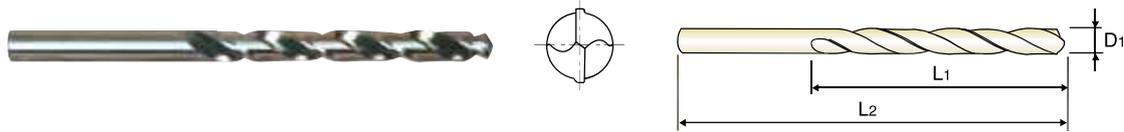
HSS, STRAIGHT SHANK TWIST DRILLS

JOBBER
KURZ
COURTE
CORTA

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

▶ **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.



Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D ₁	L ₁	L ₂		D ₁	L ₁	L ₂
D1125070	7.0	69	109	D1125095	9.5	81	125
D1125071	7.1	69	109	D1125096	9.6	87	133
D1125072	7.2	69	109	D1125097	9.7	87	133
D1125073	7.3	69	109	D1125098	9.8	87	133
D1125074	7.4	69	109	D1125099	9.9	87	133
D1125075	7.5	69	109	D1125100	10.0	87	133
D1125076	7.6	75	117	D1125101	10.1	87	133
D1125077	7.7	75	117	D1125102	10.2	87	133
D1125078	7.8	75	117	D1125103	10.3	87	133
D1125079	7.9	75	117	D1125104	10.4	87	133
D1125080	8.0	75	117	D1125105	10.5	87	133
D1125081	8.1	75	117	D1125106	10.6	87	133
D1125082	8.2	75	117	D1125107	10.7	94	142
D1125083	8.3	75	117	D1125108	10.8	94	142
D1125084	8.4	75	117	D1125109	10.9	94	142
D1125085	8.5	75	117	D1125110	11.0	94	142
D1125086	8.6	81	125	D1125111	11.1	94	142
D1125087	8.7	81	125	D1125112	11.2	94	142
D1125088	8.8	81	125	D1125113	11.3	94	142
D1125089	8.9	81	125	D1125114	11.4	94	142
D1125090	9.0	81	125	D1125115	11.5	94	142
D1125091	9.1	81	125	D1125116	11.6	94	142
D1125092	9.2	81	125	D1125117	11.7	94	142
D1125093	9.3	81	125	D1125118	11.8	94	142
D1125094	9.4	81	125	D1125119	11.9	101	151

▶ NEXT PAGE

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
◎	◎				○	○	○				○

Y/G STRAIGHT SHANK DRILLS

D1125 SERIES

CARBIDE

HSS

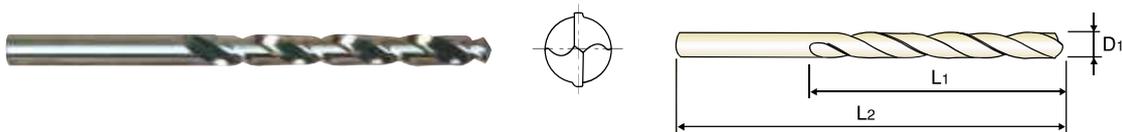
HSS, STRAIGHT SHANK TWIST DRILLS

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

JOBBER
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, Sintereisen, Graphite.



Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
D1125120	12.0	101	151	D1125140	14.0	108	160
D1125121	12.1	101	151	D1125145	14.5	114	169
D1125122	12.2	101	151	D1125150	15.0	114	169
D1125123	12.3	101	151	D1125155	15.5	120	178
D1125124	12.4	101	151	D1125160	16.0	120	178
D1125125	12.5	101	151	D1125165	16.5	125	184
D1125126	12.6	101	151	D1125170	17.0	125	184
D1125127	12.7	101	151	D1125175	17.5	130	191
D1125128	12.8	101	151	D1125180	18.0	130	191
D1125129	12.9	101	151	D1125185	18.5	135	198
D1125130	13.0	101	151	D1125190	19.0	135	198
D1125132	13.2	101	151	D1125195	19.5	140	205
D1125133	13.3	108	160	D1125200	20.0	140	205
D1125135	13.5	108	160				

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○				○

i-ONE DRILLS

i-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

TECHNICAL DATA

Y/G STRAIGHT SHANK DRILLS

D2104 SERIES

HSSCo8, STRAIGHT SHANK TWIST DRILLS

**LONG
LANG
LONGUE
LUNGA**

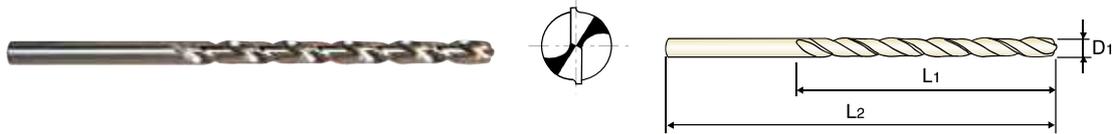
🇩🇪 HSSCo8, SPIRALBOHRER mit ZYLINDERSCHAFT

🇫🇷 Forets HSSCo8, queue cylindrique, série longue

🇮🇹 PUNTE ELICOIDALI, GAMBO CILINDRICO, HSSCo8

▶ **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 Bohrungen oder an tief liegenden Stellen. Zum Bohren von rostfreien und austenitischen Stählen, schwerzerspanbaren Werkstoffen wie Titan und Inconel.



Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
D2104020	2.0	56	85	D2104047	4.7	82	126
D2104021	2.1	56	85	D2104048	4.8	87	132
D2104022	2.2	59	90	D2104049	4.9	87	132
D2104023	2.3	59	90	D2104050	5.0	87	132
D2104024	2.4	62	95	D2104051	5.1	87	132
D2104025	2.5	62	95	D2104052	5.2	87	132
D2104026	2.6	62	95	D2104053	5.3	87	132
D2104027	2.7	66	100	D2104054	5.4	91	139
D2104028	2.8	66	100	D2104055	5.5	91	139
D2104029	2.9	66	100	D2104056	5.6	91	139
D2104030	3.0	66	100	D2104057	5.7	91	139
D2104031	3.1	69	106	D2104058	5.8	91	139
D2104032	3.2	69	106	D2104059	5.9	91	139
D2104033	3.3	69	106	D2104060	6.0	91	139
D2104034	3.4	73	112	D2104061	6.1	97	148
D2104035	3.5	73	112	D2104062	6.2	97	148
D2104036	3.6	73	112	D2104063	6.3	97	148
D2104037	3.7	73	112	D2104064	6.4	97	148
D2104038	3.8	78	119	D2104065	6.5	97	148
D2104039	3.9	78	119	D2104066	6.6	97	148
D2104040	4.0	78	119	D2104067	6.7	97	148
D2104041	4.1	78	119	D2104068	6.8	102	156
D2104042	4.2	78	119	D2104069	6.9	102	156
D2104043	4.3	82	126	D2104070	7.0	102	156
D2104044	4.4	82	126	D2104071	7.1	102	156
D2104045	4.5	82	126	D2104072	7.2	102	156
D2104046	4.6	82	126	D2104073	7.3	102	156

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

▶ NEXT PAGE

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRc45~55	HRc55~							
◎	◎				◎	○	○				○

◎ : Excellent ○ : Good

Y/G STRAIGHT SHANK DRILLS

D2104 SERIES

CARBIDE

HSS

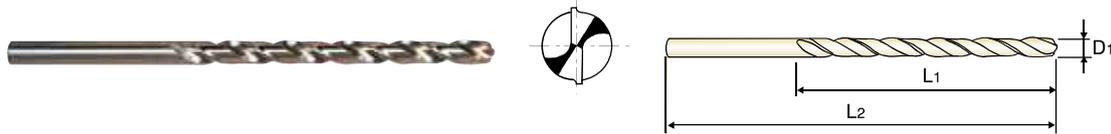
HSSCo8, STRAIGHT SHANK TWIST DRILLS

LONG LANG LONGUE LUNGA

- HSSCo8, SPIRALBOHRER mit ZYLINDERSCHAFT
- Forets HSSCo8, queue cylindrique, série longue
- PUNTE ELICOIDALI, GAMBO CILINDRICO, HSSCo8

► **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.



Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
D2104074	7.4	102	156	D2104092	9.2	115	175
D2104075	7.5	102	156	D2104093	9.3	115	175
D2104076	7.6	109	165	D2104094	9.4	115	175
D2104077	7.7	109	165	D2104095	9.5	115	175
D2104078	7.8	109	165	D2104096	9.6	121	184
D2104079	7.9	109	165	D2104097	9.7	121	184
D2104080	8.0	109	165	D2104098	9.8	121	184
D2104081	8.1	109	165	D2104099	9.9	121	184
D2104082	8.2	109	165	D2104100	10.0	121	184
D2104083	8.3	109	165	D2104102	10.2	121	184
D2104084	8.4	109	165	D2104105	10.5	121	184
D2104085	8.5	109	165	D2104108	10.8	128	195
D2104086	8.6	115	175	D2104110	11.0	128	195
D2104087	8.7	115	175	D2104112	11.2	128	195
D2104088	8.8	115	175	D2104115	11.5	128	195
D2104089	8.9	115	175	D2104118	11.8	128	195
D2104090	9.0	115	175	D2104120	12.0	134	205
D2104091	9.1	115	175				

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

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				◎	○	○				○

I-ONE DRILLS

I-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

TECHNICAL DATA

Y/G STRAIGHT SHANK DRILLS

D1121 SERIES

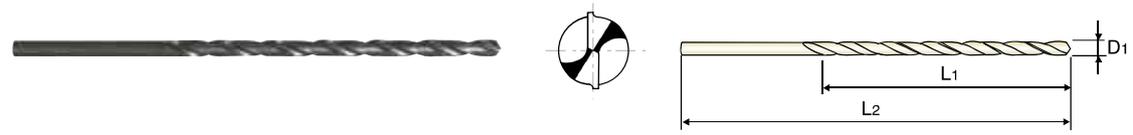
HSS, STRAIGHT SHANK TWIST DRILLS

EXTRA LONG
ÜBERLANG
EXTRA-LONGUE
EXTRA LUNGA

HSS, SPIRALBOHRER MIT ZYLINDERSCHAFT
Forets HSS, queue cylindrique, série extra-longue
PUNTE ELICOIDALI, GAMBO CILINDRICO, HSS

► **Surface treatment** : Steam Tempered(Black Oxide Finish)
► **Application** : Designed for drilling deep holes or deeply located holes
Drilling steels, cast steels alloyed and non-alloyed, grey cast iron, malleable cast iron and graphite.

► **Oberflächenbehandlung** : Steam Homo(Schwarzoxidation)
► **Verwendung** : Standardbohrer zum Bohren extrem tiefer Löcher, zum Bohren von Stahl und Stahlguß, Grauguß, Temperguß, Sphäroguß, Sintereisen, Graphit.



DIN 1869/1
HSS
N 20~30°
h8
118°
P.251

Unit : mm

EDP No.	Drill Diameter		Flute Length		Overall Length		
	D ₁	L ₁	L ₂	D ₁	L ₁	L ₂	
D1121020	2.0	85	125	D1121080	8.0	165	240
D1121025	2.5	95	140	D1121085	8.5	165	240
D1121030	3.0	100	150	D1121090	9.0	175	250
D1121035	3.5	115	165	D1121095	9.5	175	250
D1121040	4.0	120	175	D1121100	10.0	185	265
D1121045	4.5	125	185	D1121105	10.5	185	265
D1121050	5.0	135	195	D1121110	11.0	195	280
D1121055	5.5	140	205	D1121115	11.5	195	280
D1121060	6.0	140	205	D1121120	12.0	205	295
D1121065	6.5	150	215	D1121125	12.5	205	295
D1121070	7.0	155	225	D1121130	13.0	205	295
D1121075	7.5	155	225				

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
◎	◎				○	○	○				○

◎ : Excellent ○ : Good

- 1-ONE DRILLS
- i-DREAM DRILLS
- DREAM DRILLS -GENERAL
- DREAM DRILLS -HIGH FEED
- DREAM DRILLS -FLAT BOTTOM
- DREAM DRILLS -INOX
- DREAM DRILLS -ALU
- DREAM DRILLS -CFRP
- DREAM DRILLS -MQL
- DREAM DRILLS for HIGH HARDENED STEELS
- GENERAL CARBIDE DRILLS
- MULTI-1 DRILLS
- HPD DRILLS
- GOLD-P DRILLS
- SUPER-GP DRILLS
- STRAIGHT SHANK DRILLS
- TAPER SHANK DRILLS
- NC-SPOTTING DRILLS
- CENTER DRILLS
- SPADE DRILLS
- TECHNICAL DATA

Y/G STRAIGHT SHANK DRILLS

DL109 SERIES

CARBIDE

HSS

HSS-E, STRAIGHT SHANK TWIST DRILLS for HEAVY DUTY

JOBBER
KURZ
COURTE
CORTA

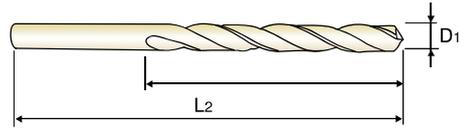
🇩🇪 HSS-E, SPIRALBOHRER für HOHE LEISTUNGEN mit ZYLINDERSCHAFT

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

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

► **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°
P.252

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
DL109015	1.5	18	40	DL109967	6.75	69	109
DL109917	1.75	22	46	DL109070	7.0	69	109
DL109020	2.0	24	49	DL109972	7.25	69	109
DL109922	2.25	27	53	DL109075	7.5	69	109
DL109025	2.5	30	57	DL109977	7.75	75	117
DL109927	2.75	33	61	DL109080	8.0	75	117
DL109030	3.0	33	61	DL109982	8.25	75	117
DL109932	3.25	36	65	DL109085	8.5	75	117
DL109035	3.5	39	70	DL109987	8.75	81	125
DL109937	3.75	39	70	DL109090	9.0	81	125
DL109040	4.0	43	75	DL109992	9.25	81	125
DL109942	4.25	43	75	DL109095	9.5	81	125
DL109045	4.5	47	80	DL109997	9.75	87	133
DL109947	4.75	47	80	DL109100	10.0	87	133
DL109050	5.0	52	86	DL109105	10.5	87	133
DL109952	5.25	52	86	DL109110	11.0	94	142
DL109055	5.5	57	93	DL109115	11.5	94	142
DL109957	5.75	57	93	DL109120	12.0	101	151
DL109060	6.0	57	93	DL109125	12.5	101	151
DL109962	6.25	63	101	DL109130	13.0	101	151
DL109065	6.5	63	101				

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

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○	○				○

I-ONE DRILLS

I-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

TECHNICAL DATA

Y/G STRAIGHT SHANK DRILLS

D1100 SERIES

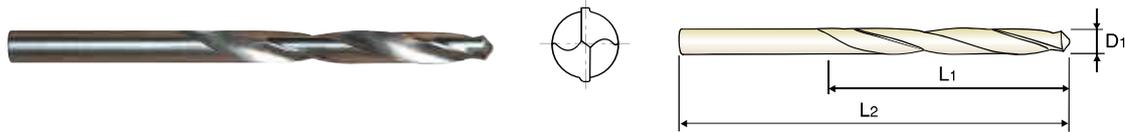
HSS, STRAIGHT SHANK TWIST DRILLS for BRASS/BRONZE

JOBBER
KURZ
COURTE
CORTA

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

► **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.



Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D ₁	L ₁	L ₂		D ₁	L ₁	L ₂
D1100015	1.5	18	40	D1100043	4.3	47	80
D1100016	1.6	20	43	D1100044	4.4	47	80
D1100017	1.7	20	43	D1100045	4.5	47	80
D1100018	1.8	22	46	D1100046	4.6	47	80
D1100019	1.9	22	46	D1100047	4.7	47	80
D1100020	2.0	24	49	D1100048	4.8	52	86
D1100021	2.1	24	49	D1100049	4.9	52	86
D1100022	2.2	27	53	D1100050	5.0	52	86
D1100023	2.3	27	53	D1100051	5.1	52	86
D1100024	2.4	30	57	D1100052	5.2	52	86
D1100025	2.5	30	57	D1100053	5.3	52	86
D1100026	2.6	30	57	D1100054	5.4	57	93
D1100027	2.7	33	61	D1100055	5.5	57	93
D1100028	2.8	33	61	D1100056	5.6	57	93
D1100029	2.9	33	61	D1100057	5.7	57	93
D1100030	3.0	33	61	D1100058	5.8	57	93
D1100031	3.1	36	65	D1100059	5.9	57	93
D1100032	3.2	36	65	D1100060	6.0	57	93
D1100033	3.3	36	65	D1100061	6.1	63	101
D1100034	3.4	39	70	D1100062	6.2	63	101
D1100035	3.5	39	70	D1100063	6.3	63	101
D1100036	3.6	39	70	D1100064	6.4	63	101
D1100037	3.7	39	70	D1100065	6.5	63	101
D1100038	3.8	43	75	D1100066	6.6	63	101
D1100039	3.9	43	75	D1100067	6.7	63	101
D1100040	4.0	43	75	D1100068	6.8	69	109
D1100041	4.1	43	75	D1100069	6.9	69	109
D1100042	4.2	43	75	D1100070	7.0	69	109

► NEXT PAGE

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
◎											

Y/G STRAIGHT SHANK DRILLS

D1100 SERIES

CARBIDE

HSS

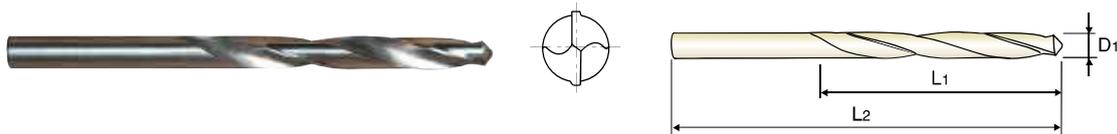
HSS, STRAIGHT SHANK TWIST DRILLS for BRASS/BRONZE

JOBBER
KURZ
COURTE
CORTA

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

► **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.



Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D ₁				L ₁		
D1100071	7.1	69	109	D1100089	8.9	81	125
D1100072	7.2	69	109	D1100090	9.0	81	125
D1100073	7.3	69	109	D1100091	9.1	81	125
D1100074	7.4	69	109	D1100092	9.2	81	125
D1100075	7.5	69	109	D1100093	9.3	81	125
D1100076	7.6	75	117	D1100094	9.4	81	125
D1100077	7.7	75	117	D1100095	9.5	81	125
D1100078	7.8	75	117	D1100096	9.6	87	133
D1100079	7.9	75	117	D1100097	9.7	87	133
D1100080	8.0	75	117	D1100098	9.8	87	133
D1100081	8.1	75	117	D1100099	9.9	87	133
D1100082	8.2	75	117	D1100100	10.0	87	133
D1100083	8.3	75	117	D1100105	10.5	87	133
D1100084	8.4	75	117	D1100110	11.0	94	142
D1100085	8.5	75	117	D1100115	11.5	94	142
D1100086	8.6	81	125	D1100120	12.0	101	151
D1100087	8.7	81	125	D1100125	12.5	101	151
D1100088	8.8	81	125	D1100130	13.0	101	151

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
									◎		

I-ONE DRILLS

I-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

TECHNICAL DATA

Y/G STRAIGHT SHANK DRILLS

D1106 SERIES

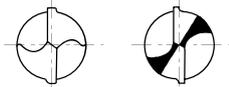
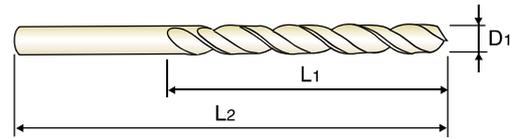
HSS, STRAIGHT SHANK TWIST DRILLS for ALUMINUM

JOBBER
KURZ
COURTE
CORTA

■ HSS, SPIRALBOHRER für ALUMINIUM mit ZYLINDERSCHAFT
■ Forets HSS, queue cylindrique pour ALU, Forme C, série courte
■ PUNTE ELICOIDALI, GAMBO CILINDRICO, PER ALLUMINIO (HSS)

► **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°
P.253

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
D1106015	1.5	18	40	D1106043	4.3	47	80
D1106016	1.6	20	43	D1106044	4.4	47	80
D1106017	1.7	20	43	D1106045	4.5	47	80
D1106018	1.8	22	46	D1106046	4.6	47	80
D1106019	1.9	22	46	D1106047	4.7	47	80
D1106020	2.0	24	49	D1106048	4.8	52	86
D1106021	2.1	24	49	D1106049	4.9	52	86
D1106022	2.2	27	53	D1106050	5.0	52	86
D1106023	2.3	27	53	D1106051	5.1	52	86
D1106024	2.4	30	57	D1106052	5.2	52	86
D1106025	2.5	30	57	D1106053	5.3	52	86
D1106026	2.6	30	57	D1106054	5.4	57	93
D1106027	2.7	33	61	D1106055	5.5	57	93
D1106028	2.8	33	61	D1106056	5.6	57	93
D1106029	2.9	33	61	D1106057	5.7	57	93
D1106030	3.0	33	61	D1106058	5.8	57	93
D1106031	3.1	36	65	D1106059	5.9	57	93
D1106032	3.2	36	65	D1106060	6.0	57	93
D1106033	3.3	36	65	D1106061	6.1	63	101
D1106034	3.4	39	70	D1106062	6.2	63	101
D1106035	3.5	39	70	D1106063	6.3	63	101
D1106036	3.6	39	70	D1106064	6.4	63	101
D1106037	3.7	39	70	D1106065	6.5	63	101
D1106038	3.8	43	75	D1106066	6.6	63	101
D1106039	3.9	43	75	D1106067	6.7	63	101
D1106040	4.0	43	75	D1106068	6.8	69	109
D1106041	4.1	43	75	D1106069	6.9	69	109
D1106042	4.2	43	75	D1106070	7.0	69	109

► NEXT PAGE

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
						◎			○		

Y/G STRAIGHT SHANK DRILLS

D1106 SERIES

CARBIDE

HSS

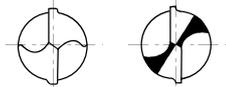
HSS, STRAIGHT SHANK TWIST DRILLS for ALUMINUM

JOBBER
KURZ
COURTE
CORTA

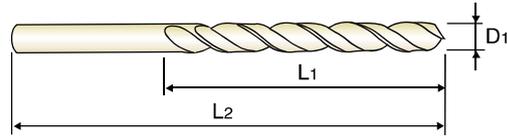
- HSS, SPIRALBOHRER für ALUMINIUM mit ZYLINDERSCHAFT
- Forets HSS, queue cylindrique pour ALU, Forme C, série courte
- PUNTE ELICOIDALI, GAMBO CILINDRICO, PER ALLUMINIO (HSS)

► **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°
P.253

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D ₁	L ₁	L ₂		D ₁	L ₁	L ₂
D1106071	7.1	69	109	D1106089	8.9	81	125
D1106072	7.2	69	109	D1106090	9.0	81	125
D1106073	7.3	69	109	D1106091	9.1	81	125
D1106074	7.4	69	109	D1106092	9.2	81	125
D1106075	7.5	69	109	D1106093	9.3	81	125
D1106076	7.6	75	117	D1106094	9.4	81	125
D1106077	7.7	75	117	D1106095	9.5	81	125
D1106078	7.8	75	117	D1106096	9.6	87	133
D1106079	7.9	75	117	D1106097	9.7	87	133
D1106080	8.0	75	117	D1106098	9.8	87	133
D1106081	8.1	75	117	D1106099	9.9	87	133
D1106082	8.2	75	117	D1106100	10.0	87	133
D1106083	8.3	75	117	D1106105	10.5	87	133
D1106084	8.4	75	117	D1106110	11.0	94	142
D1106085	8.5	75	117	D1106115	11.5	94	142
D1106086	8.6	81	125	D1106120	12.0	101	151
D1106087	8.7	81	125	D1106125	12.5	101	151
D1106088	8.8	81	125	D1106130	13.0	101	151

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
							◎		○		

I-ONE DRILLS

I-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

TECHNICAL DATA

Y/G 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

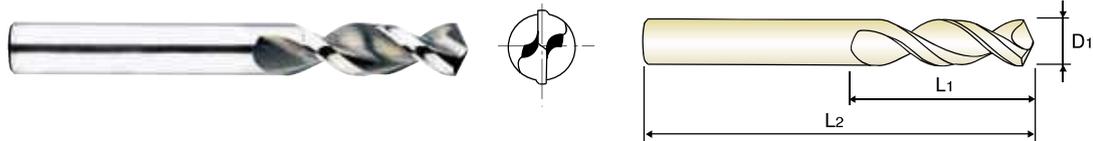
EXTRA-COURTE

🇮🇹 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

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
DL510020	2.0	12	38	DL510047	4.7	24	58
DL510021	2.1	12	38	DL510048	4.8	26	62
DL510022	2.2	13	40	DL510049	4.9	26	62
DL510023	2.3	13	40	DL510050	5.0	26	62
DL510024	2.4	14	43	DL510051	5.1	26	62
DL510025	2.5	14	43	DL510052	5.2	26	62
DL510026	2.6	14	43	DL510053	5.3	26	66
DL510027	2.7	16	46	DL510054	5.4	28	66
DL510028	2.8	16	46	DL510055	5.5	28	66
DL510029	2.9	16	46	DL510056	5.6	28	66
DL510030	3.0	16	46	DL510057	5.7	28	66
DL510031	3.1	18	49	DL510058	5.8	28	66
DL510032	3.2	18	49	DL510059	5.9	28	66
DL510033	3.3	18	49	DL510060	6.0	28	66
DL510034	3.4	20	52	DL510061	6.1	31	70
DL510035	3.5	20	52	DL510062	6.2	31	70
DL510036	3.6	20	52	DL510063	6.3	31	70
DL510037	3.7	20	52	DL510064	6.4	31	70
DL510038	3.8	22	55	DL510065	6.5	31	70
DL510039	3.9	22	55	DL510066	6.6	31	70
DL510040	4.0	22	55	DL510067	6.7	31	70
DL510041	4.1	22	55	DL510068	6.8	34	74
DL510042	4.2	22	55	DL510069	6.9	34	74
DL510043	4.3	24	58	DL510070	7.0	34	74
DL510044	4.4	24	58	DL510071	7.1	34	74
DL510045	4.5	24	58	DL510072	7.2	34	74
DL510046	4.6	24	58	DL510073	7.3	34	74

► NEXT PAGE

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
◎	◎				○	○					

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

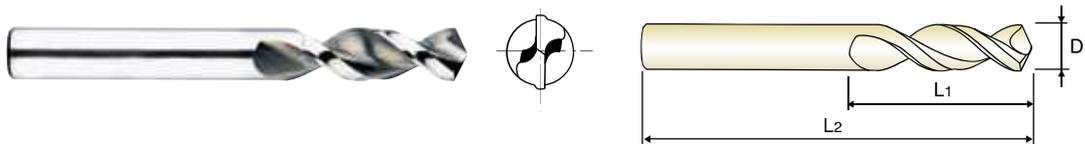
EXTRA-COURTE

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.



DIN 1897 HSS-E 42° h8 130° P.253

► DH100 worm pattern drills

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
DL510074	7.4	34	74	DL510100	10.0	43	89
DL510075	7.5	34	74	DL510102	10.2	43	89
DL510076	7.6	37	79	DL510105	10.5	43	89
DL510077	7.7	37	79	DL510108	10.8	47	95
DL510078	7.8	37	79	DL510110	11.0	47	95
DL510079	7.9	37	79	DL510112	11.2	47	95
DL510080	8.0	37	79	DL510115	11.5	47	95
DL510081	8.1	37	79	DL510118	11.8	47	95
DL510082	8.2	37	79	DL510120	12.0	51	102
DL510083	8.3	37	79	DL510125	12.5	51	102
DL510084	8.4	37	79	DL510130	13.0	51	102
DL510085	8.5	37	79	DL510135	13.5	54	107
DL510086	8.6	40	84	DL510140	14.0	54	107
DL510087	8.7	40	84	DL510145	14.5	56	111
DL510088	8.8	40	84	DL510150	15.0	56	111
DL510089	8.9	40	84	DL510155	15.5	58	115
DL510090	9.0	40	84	DL510160	16.0	58	115
DL510091	9.1	40	84	DL510165	16.5	60	119
DL510092	9.2	40	84	DL510170	17.0	60	119
DL510093	9.3	40	84	DL510175	17.5	62	123
DL510094	9.4	40	84	DL510180	18.0	62	123
DL510095	9.5	40	84	DL510185	18.5	64	127
DL510096	9.6	43	89	DL510190	19.0	64	127
DL510097	9.7	43	89	DL510195	19.5	66	131
DL510098	9.8	43	89	DL510200	20.0	66	131
DL510099	9.9	43	89				

◎ : Excellent ○ : Good

P				H	M	K	N			S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎					○	○				

I-ONE DRILLS

I-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

TECHNICAL DATA

Y/G STRAIGHT SHANK DRILLS

DL508 SERIES

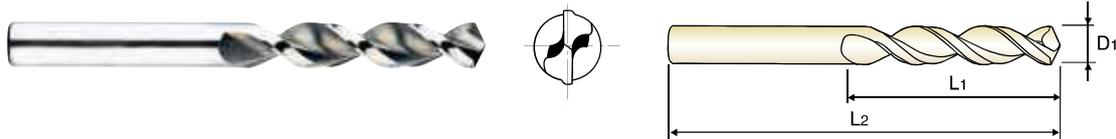
HSS-E, STRAIGHT SHANK TWIST DRILLS for DEEP HOLES

JOBBER
KURZ
COURTE
CORTA

■ 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

► **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.



DIN 338
HSS-E
42°
h8
130°
P.253

► **DH100**
worm pattern drills

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
DL508020	2.0	24	49	DL508047	4.7	47	80
DL508021	2.1	24	49	DL508048	4.8	52	86
DL508022	2.2	27	53	DL508049	4.9	52	86
DL508023	2.3	27	53	DL508050	5.0	52	86
DL508024	2.4	30	57	DL508051	5.1	52	86
DL508025	2.5	30	57	DL508052	5.2	52	86
DL508026	2.6	30	57	DL508053	5.3	52	86
DL508027	2.7	33	61	DL508054	5.4	57	93
DL508028	2.8	33	61	DL508055	5.5	57	93
DL508029	2.9	33	61	DL508056	5.6	57	93
DL508030	3.0	33	61	DL508057	5.7	57	93
DL508031	3.1	36	65	DL508058	5.8	57	93
DL508032	3.2	36	65	DL508059	5.9	57	93
DL508033	3.3	36	65	DL508060	6.0	57	93
DL508034	3.4	39	70	DL508061	6.1	63	101
DL508035	3.5	39	70	DL508062	6.2	63	101
DL508036	3.6	39	70	DL508063	6.3	63	101
DL508037	3.7	39	70	DL508064	6.4	63	101
DL508038	3.8	43	75	DL508065	6.5	63	101
DL508039	3.9	43	75	DL508066	6.6	63	101
DL508040	4.0	43	75	DL508067	6.7	63	101
DL508041	4.1	43	75	DL508068	6.8	69	109
DL508042	4.2	43	75	DL508069	6.9	69	109
DL508043	4.3	47	80	DL508070	7.0	69	109
DL508044	4.4	47	80	DL508071	7.1	69	109
DL508045	4.5	47	80	DL508072	7.2	69	109
DL508046	4.6	47	80	DL508073	7.3	69	109

► NEXT PAGE

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
◎	◎				○	○					

Y/G STRAIGHT SHANK DRILLS

DL508 SERIES

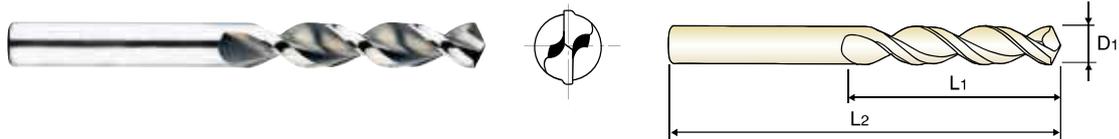
HSS-E, STRAIGHT SHANK TWIST DRILLS for DEEP HOLES

- 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

JOBBER
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

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
DL508074	7.4	69	109	DL508095	9.5	81	125
DL508075	7.5	69	109	DL508096	9.6	87	133
DL508076	7.6	75	117	DL508097	9.7	87	133
DL508077	7.7	75	117	DL508098	9.8	87	133
DL508078	7.8	75	117	DL508099	9.9	87	133
DL508079	7.9	75	117	DL508100	10.0	87	133
DL508080	8.0	75	117	DL508102	10.2	87	133
DL508081	8.1	75	117	DL508105	10.5	87	133
DL508082	8.2	75	117	DL508110	11.0	94	142
DL508083	8.3	75	117	DL508112	11.2	94	142
DL508084	8.4	75	117	DL508115	11.5	94	142
DL508085	8.5	75	117	DL508120	12.0	101	151
DL508086	8.6	81	125	DL508125	12.5	101	151
DL508087	8.7	81	125	DL508130	13.0	101	151
DL508088	8.8	81	125	DL508135	13.5	108	160
DL508089	8.9	81	125	DL508140	14.0	108	160
DL508090	9.0	81	125	DL508145	14.5	114	169
DL508091	9.1	81	125	DL508150	15.0	114	169
DL508092	9.2	81	125	DL508155	15.5	120	178
DL508093	9.3	81	125	DL508160	16.0	120	178
DL508094	9.4	81	125				

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎					○	○				

Y/G STRAIGHT SHANK DRILLS

DL509 SERIES

HSS-E, STRAIGHT SHANK TWIST DRILLS for DEEP HOLES

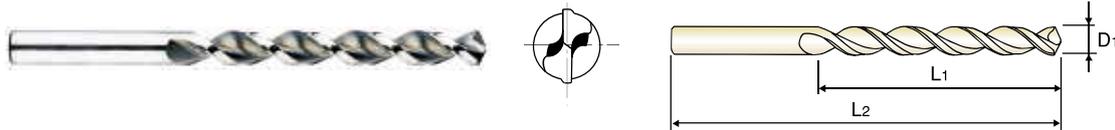
LONG

- 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, Sphäroguß, Druckguß, Alu-Legierungen kurzspanend, Bronze, Messing zäh, Neusilber.



DIN 340
HSS-E
42°
h8
130°
P.253

► **DH100**
worm pattern drills

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
DL509020	2.0	56	85	DL509047	4.7	82	126
DL509021	2.1	56	85	DL509048	4.8	87	132
DL509022	2.2	59	90	DL509049	4.9	87	132
DL509023	2.3	59	90	DL509050	5.0	87	132
DL509024	2.4	62	95	DL509051	5.1	87	132
DL509025	2.5	62	95	DL509052	5.2	87	132
DL509026	2.6	62	95	DL509053	5.3	87	132
DL509027	2.7	66	100	DL509054	5.4	91	139
DL509028	2.8	66	100	DL509055	5.5	91	139
DL509029	2.9	66	100	DL509056	5.6	91	139
DL509030	3.0	66	100	DL509057	5.7	91	139
DL509031	3.1	69	106	DL509058	5.8	91	139
DL509032	3.2	69	106	DL509059	5.9	91	139
DL509033	3.3	69	106	DL509060	6.0	91	139
DL509034	3.4	73	112	DL509061	6.1	97	148
DL509035	3.5	73	112	DL509062	6.2	97	148
DL509036	3.6	73	112	DL509063	6.3	97	148
DL509037	3.7	73	112	DL509064	6.4	97	148
DL509038	3.8	78	119	DL509065	6.5	97	148
DL509039	3.9	78	119	DL509066	6.6	97	148
DL509040	4.0	78	119	DL509067	6.7	97	148
DL509041	4.1	78	119	DL509068	6.8	102	156
DL509042	4.2	78	119	DL509069	6.9	102	156
DL509043	4.3	82	126	DL509070	7.0	102	156
DL509044	4.4	82	126	DL509071	7.1	102	156
DL509045	4.5	82	126	DL509072	7.2	102	156
DL509046	4.6	82	126	DL509073	7.3	102	156

► NEXT PAGE

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
◎	◎				○	○					

Y/G STRAIGHT SHANK DRILLS

DL509 SERIES

CARBIDE

HSS

HSS-E, STRAIGHT SHANK TWIST DRILLS for DEEP HOLES

LONG

HSS-E, SPIRALBOHRER für TIEFLOCH mit ZYLINDERSCHAFT

LANG

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

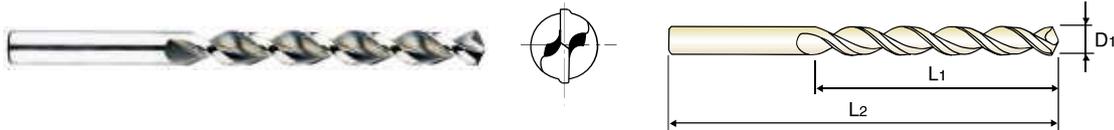
LONGUE

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

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, Sphäroguß, Druckguß, Alu-Legierungen kurzspanend, Bronze, Messing zäh, Neusilber.



DIN 340
HSS-E
42°
h8
130°
P.253

► **DH100** worm pattern drills

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
DL509074	7.4	102	156	DL509090	9.0	115	175
DL509075	7.5	102	156	DL509091	9.1	115	175
DL509076	7.6	109	165	DL509092	9.2	115	175
DL509077	7.7	109	165	DL509093	9.3	115	175
DL509078	7.8	109	165	DL509094	9.4	115	175
DL509079	7.9	109	165	DL509095	9.5	115	175
DL509080	8.0	109	165	DL509096	9.6	121	184
DL509081	8.1	109	165	DL509097	9.7	121	184
DL509082	8.2	109	165	DL509098	9.8	121	184
DL509083	8.3	109	165	DL509099	9.9	121	184
DL509084	8.4	109	165	DL509100	10.0	121	184
DL509085	8.5	109	165	DL509102	10.2	121	184
DL509086	8.6	115	175	DL509105	10.5	121	184
DL509087	8.7	115	175	DL509110	11.0	128	195
DL509088	8.8	115	175	DL509115	11.5	128	195
DL509089	8.9	115	175	DL509120	12.0	134	205

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎				○	○					

◎ : Excellent ○ : Good

I-ONE DRILLS

I-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

TECHNICAL DATA

Y/G STRAIGHT SHANK DRILLS

DL505 SERIES

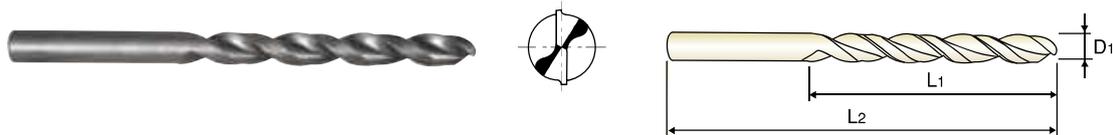
HSS-E, STRAIGHT SHANK TWIST DRILLS for DEEP HOLES

JOBBER
KURZ
COURTE
CORTA

- 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

▶ **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.



DIN 338 **HSS-E** **38°** **h8** **130°** **P.253**

▶ **DH100**
 worm pattern drills

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
DL505020	2.0	24	49	DL505047	4.7	47	80
DL505021	2.1	24	49	DL505048	4.8	52	86
DL505022	2.2	27	53	DL505049	4.9	52	86
DL505023	2.3	27	53	DL505050	5.0	52	86
DL505024	2.4	30	57	DL505051	5.1	52	86
DL505025	2.5	30	57	DL505052	5.2	52	86
DL505026	2.6	30	57	DL505053	5.3	52	86
DL505027	2.7	33	61	DL505054	5.4	57	93
DL505028	2.8	33	61	DL505055	5.5	57	93
DL505029	2.9	33	61	DL505056	5.6	57	93
DL505030	3.0	33	61	DL505057	5.7	57	93
DL505031	3.1	36	65	DL505058	5.8	57	93
DL505032	3.2	36	65	DL505059	5.9	57	93
DL505033	3.3	36	65	DL505060	6.0	57	93
DL505034	3.4	39	70	DL505061	6.1	63	101
DL505035	3.5	39	70	DL505062	6.2	63	101
DL505036	3.6	39	70	DL505063	6.3	63	101
DL505037	3.7	39	70	DL505064	6.4	63	101
DL505038	3.8	43	75	DL505065	6.5	63	101
DL505039	3.9	43	75	DL505066	6.6	63	101
DL505040	4.0	43	75	DL505067	6.7	63	101
DL505041	4.1	43	75	DL505068	6.8	69	109
DL505042	4.2	43	75	DL505069	6.9	69	109
DL505043	4.3	47	80	DL505070	7.0	69	109
DL505044	4.4	47	80	DL505071	7.1	69	109
DL505045	4.5	47	80	DL505072	7.2	69	109
DL505046	4.6	47	80	DL505073	7.3	69	109

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

▶ NEXT PAGE

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
◎	◎				○	○					

Y/G STRAIGHT SHANK DRILLS

DL505 SERIES

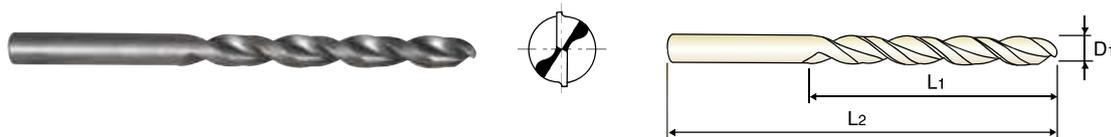
HSS-E, STRAIGHT SHANK TWIST DRILLS for DEEP HOLES

- 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

JOBBER
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	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
DL505074	7.4	69	109	DL505094	9.4	81	125
DL505075	7.5	69	109	DL505095	9.5	81	125
DL505076	7.6	75	117	DL505096	9.6	87	133
DL505077	7.7	75	117	DL505097	9.7	87	133
DL505078	7.8	75	117	DL505098	9.8	87	133
DL505079	7.9	75	117	DL505099	9.9	87	133
DL505080	8.0	75	117	DL505100	10.0	87	133
DL505081	8.1	75	117	DL505101	10.1	87	133
DL505082	8.2	75	117	DL505102	10.2	87	133
DL505083	8.3	75	117	DL505105	10.5	87	133
DL505084	8.4	75	117	DL505108	10.8	94	142
DL505085	8.5	75	117	DL505110	11.0	94	142
DL505086	8.6	81	125	DL505112	11.2	94	142
DL505087	8.7	81	125	DL505115	11.5	94	142
DL505088	8.8	81	125	DL505118	11.8	94	142
DL505089	8.9	81	125	DL505120	12.0	101	151
DL505090	9.0	81	125	DL505122	12.2	101	151
DL505091	9.1	81	125	DL505125	12.5	101	151
DL505092	9.2	81	125	DL505128	12.8	101	151
DL505093	9.3	81	125	DL505130	13.0	101	151

Unit : mm

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

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎					○	○				

◎ : Excellent ○ : Good

STRAIGHT SHANK DRILLS

DL504 SERIES

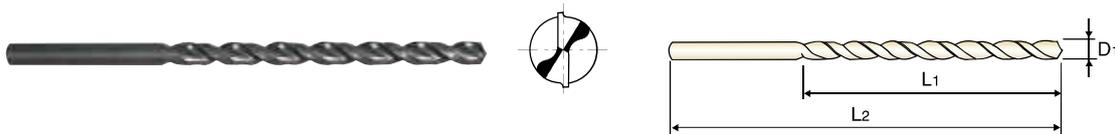
HSS-E, STRAIGHT SHANK TWIST DRILLS for DEEP HOLES

LONG LANG LONGUE LUNGA

- 🇩🇪 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

- ▶ **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.



DIN 340
HSS-E
38°
h8
130°
P.253

▶ **DH100** worm pattern drills

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
DL504020	2.0	56	85	DL504052	5.2	87	132
DL504021	2.1	56	85	DL504055	5.5	91	139
DL504022	2.2	59	90	DL504058	5.8	91	139
DL504023	2.3	59	90	DL504060	6.0	91	139
DL504024	2.4	62	95	DL504062	6.2	97	148
DL504025	2.5	62	95	DL504065	6.5	97	148
DL504026	2.6	62	95	DL504068	6.8	102	156
DL504027	2.7	66	100	DL504070	7.0	102	156
DL504028	2.8	66	100	DL504072	7.2	102	156
DL504029	2.9	66	100	DL504075	7.5	102	156
DL504030	3.0	66	100	DL504078	7.8	109	165
DL504031	3.1	69	106	DL504080	8.0	109	165
DL504032	3.2	69	106	DL504082	8.2	109	165
DL504033	3.3	69	106	DL504085	8.5	109	165
DL504034	3.4	73	112	DL504090	9.0	115	175
DL504035	3.5	73	112	DL504095	9.5	115	175
DL504036	3.6	73	112	DL504098	9.8	121	184
DL504037	3.7	73	112	DL504100	10.0	121	184
DL504038	3.8	78	119	DL504105	10.5	121	184
DL504039	3.9	78	119	DL504110	11.0	128	195
DL504040	4.0	78	119	DL504115	11.5	128	195
DL504042	4.2	78	119	DL504120	12.0	134	205
DL504045	4.5	82	126	DL504125	12.5	134	205
DL504048	4.8	87	132	DL504130	13.0	134	205
DL504050	5.0	87	132				

▶ TiN(DN504), TiCN(DX504) and TiAlN(DT504) are available on your request.

◎ : Excellent ○ : Good

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
◎	◎				○	○					

Y/G STRAIGHT SHANK DRILLS

DT600 SERIES

DT692 SERIES

DT693 SERIES

CARBIDE

HSS

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

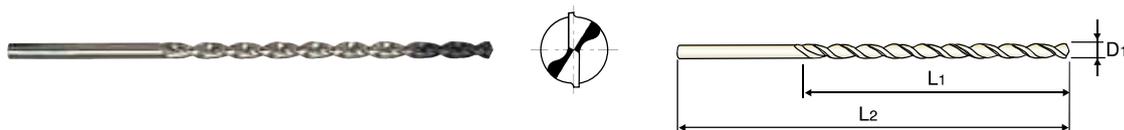
EXTRA-LONGUE

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

EXTRA LUNGA

► **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.



DIN 1869/1

DIN 1869/2

DIN 1869/3

HSS-E

38°

h8

130°

P.253

► **DH100**
worm pattern drills

DT600 SERIES (DIN1869/1)

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

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

DT692 SERIES (DIN1869/2)

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

DT693 SERIES (DIN1869/3)

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

P			H		M	K	N			S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎					○	○				

I-ONE DRILLS

I-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

TECHNICAL DATA

YG STRAIGHT SHANK DRILLS

DL507 SERIES

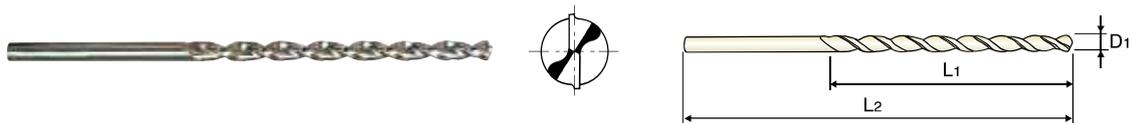
HSS-E, STRAIGHT SHANK TWIST DRILLS for ALUMINUM DEEP HOLES

**EXTRA LONG
ÜBERLANG
EXTRA-LONGUE
EXTRA LUNGA**

- Germany HSS-E, SPIRALBOHRER für ALUMINIUM TIEFLOCH mit ZYLINDERSCHAFT
- France Forets HSS-E, queue cylindrique pour ALU, perçage profond, série extra-longue
- Italy PUNTE HSS-E, GAMBO CILINDRICO PER FORATURE NON - STOP SU ALLUMINIO

► **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.



P.254

► DH50 worm pattern drills

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
DL507120	2.0	40	75	DL507430	3.0	100	200
DL507121	2.1	40	75	DL507433	3.3	100	200
DL507220	2.0	50	100	DL507435	3.5	100	200
DL507221	2.1	50	100	DL507440	4.0	100	200
DL507225	2.5	50	100	DL507442	4.2	100	200
DL507227	2.7	50	100	DL507445	4.5	100	200
DL507230	3.0	50	100	DL507450	5.0	100	200
DL507233	3.3	50	100	DL507453	5.3	100	200
DL507235	3.5	50	100	DL507455	5.5	100	200
DL507320	2.0	75	150	DL507460	6.0	100	200
DL507321	2.1	75	150	DL507465	6.5	100	200
DL507325	2.5	75	150	DL507468	6.8	100	200
DL507327	2.7	75	150	DL507470	7.0	100	200
DL507330	3.0	75	150	DL507475	7.5	100	200
DL507333	3.3	75	150	DL507480	8.0	100	200
DL507335	3.5	75	150	DL507485	8.5	100	200
DL507340	4.0	75	150	DL507488	8.8	100	200
DL507342	4.2	75	150	DL507490	9.0	100	200
DL507345	4.5	75	150	DL507495	9.5	100	200
DL507350	5.0	75	150	DL507700	10.0	100	200
DL507353	5.3	75	150	DL507540	4.0	150	250
DL507355	5.5	75	150	DL507542	4.2	150	250
DL507360	6.0	75	150	DL507545	4.5	150	250
				DL507550	5.0	150	250
				DL507553	5.3	150	250

Unit : mm

► NEXT PAGE

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	○					○	◎				

◎ : Excellent ○ : Good

Y/G STRAIGHT SHANK DRILLS

DL507 SERIES

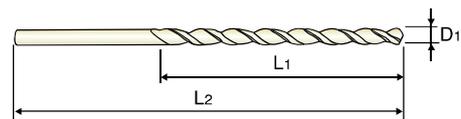
HSS-E, STRAIGHT SHANK TWIST DRILLS for ALUMINUM DEEP HOLES

■ HSS-E, SPIRALBOHRER für ALUMINIUM TIEFLOCH mit ZYLINDERSCHAFT
■ Forets HSS-E, queue cylindrique pour ALU, perçage profond, série extra-longue
■ PUNTE HSS-E, GAMBO CILINDRICO PER FORATURE NON - STOP SU ALLUMINIO

EXTRA LONG
ÜBERLANG
EXTRA-LONGUE
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.



HSS-E
38°
h8
118°
P,254

► **DH50**
worm pattern drills

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
DL507555	5.5	150	250	DL507650	5.0	180	300
DL507560	6.0	150	250	DL507653	5.3	180	300
DL507565	6.5	150	250	DL507655	5.5	180	300
DL507568	6.8	150	250	DL507660	6.0	180	300
DL507570	7.0	150	250	DL507665	6.5	180	300
DL507575	7.5	150	250	DL507668	6.8	180	300
DL507580	8.0	150	250	DL507670	7.0	180	300
DL507585	8.5	150	250	DL507675	7.5	180	300
DL507588	8.8	150	250	DL507680	8.0	180	300
DL507590	9.0	150	250	DL507685	8.5	180	300
DL507595	9.5	150	250	DL507688	8.8	180	300
DL507800	10.0	150	250	DL507690	9.0	180	300
DL507803	10.3	150	250	DL507695	9.5	180	300
DL507805	10.5	150	250	DL507900	10.0	180	300
DL507810	11.0	150	250	DL507903	10.3	180	300
DL507815	11.5	150	250	DL507905	10.5	180	300
DL507820	12.0	150	250	DL507910	11.0	180	300
DL507825	12.5	150	250	DL507915	11.5	180	300
DL507830	13.0	150	250	DL507920	12.0	180	300
				DL507925	12.5	180	300
				DL507930	13.0	180	300

P				H	M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
◎	○				○	◎					

◎ : Excellent ○ : Good

- 1-ONE DRILLS
- i-DREAM DRILLS
- DREAM DRILLS -GENERAL
- DREAM DRILLS -HIGH FEED
- DREAM DRILLS -FLAT BOTTOM
- DREAM DRILLS -INOX
- DREAM DRILLS -ALU
- DREAM DRILLS -CFRP
- DREAM DRILLS -MQL
- DREAM DRILLS for HIGH HARDENED STEELS
- GENERAL CARBIDE DRILLS
- MULTI-1 DRILLS
- HPD DRILLS
- GOLD-P DRILLS
- SUPER-GP DRILLS
- STRAIGHT SHANK DRILLS
- TAPER SHANK DRILLS
- NC-SPOTTING DRILLS
- CENTER DRILLS
- SPADE DRILLS
- TECHNICAL DATA

HSS & HSS 8% COBALT DRILLS, DIN1897, DIN338, DIN340, DIN1869
HSS & HSSCo8 SPIRALBOHRER, DIN 1897, DIN 338, DIN 340, DIN 1869

I-ONE DRILLS

I-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -HIGH FEED

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL

DREAM DRILLS for HIGH HARDENED STEELS

GENERAL CARBIDE DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

SUPER-GP DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

TECHNICAL DATA

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

WORK MATERIAL	P											M		
	CARBON STEELS		CARBON STEELS		CARBON STEELS		ALLOY STEELS		ALLOY STEELS		TOOL STEELS		STAINLESS STEELS	
HARDNESS			~ HRC23		~ HRC23 ~ 28		HRC23 ~ 34		HRC34 ~ 38				HRC23	
STRENGTH	~ 570 N/mm ²		~ 830 N/mm ²		830 ~ 950 N/mm ²		830 ~ 1110 N/mm ²		1110 ~ 1260 N/mm ²		~ 270 N/mm ²		830 N/mm ²	
DRILLING SPEED	22 ~ 27 m/min		15 ~ 20 m/min		10 ~ 15 m/min		15 ~ 20 m/min		8 ~ 12 m/min		20 ~ 25 m/min		15 ~ 20 m/min	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.5	3380	0.025	2550	0.025	1900	0.015	2380	0.020	1400	0.015	3180	0.042	2550	0.025
3.0	2700	0.050	2000	0.050	1500	0.025	1880	0.050	1100	0.020	2500	0.050	2000	0.050
5.0	1700	0.063	1280	0.063	960	0.038	1190	0.063	700	0.025	1590	0.063	1280	0.063
8.0	1050	0.130	780	0.130	590	0.076	730	0.130	430	0.038	970	0.130	780	0.130
11.0	750	0.150	560	0.150	425	0.076	520	0.180	310	0.050	700	0.180	560	0.150
19.0	440	0.230	330	0.230	255	0.130	300	0.230	180	0.050	440	0.230	330	0.230
31.0	260	0.280	195	0.280	145	0.180	180	0.280	107	0.076	240	0.300	195	0.280

WORK MATERIAL	K		N						S			
	CAST IRON		ALUMINUM ALLOYS		MAGNESIUM ALLOYS		ZINC ALLOYS		PLASTICS		TITANIUM ALLOYS	
HARDNESS	~ HRC21											
STRENGTH	~ 800 N/mm ²										410 N/mm ²	
DRILLING SPEED	15 ~ 20 m/min		45 ~ 50 m/min		55 ~ 65 m/min		40 ~ 50 m/min		20 ~ 25 m/min		8 ~ 12 m/min	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.5	2250	0.025	6400	0.038	8600	0.038	6400	0.038	3380	0.025	1400	0.020
3.0	2000	0.050	5000	0.063	6800	0.063	5000	0.063	2700	0.050	1100	0.025
5.0	1280	0.063	3200	0.076	4300	0.076	3200	0.076	1700	0.063	700	0.038
8.0	780	0.130	2000	0.180	2600	0.180	2000	0.180	1050	0.130	430	0.076
11.0	560	0.150	1400	0.200	1900	0.200	1400	0.200	750	0.150	430	0.076
19.0	330	0.230	820	0.300	1100	0.300	820	0.300	440	0.230	180	0.130
31.0	195	0.280	490	0.380	660	0.380	490	0.380	260	0.280	107	0.180

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



STRAIGHT SHANK DRILLS

RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDKONDITIONEN

HSS-E, TWIST DRILLS for HEAVY DUTY, DIN338 HSS-E, SPIRALBOHRER für HOHELEISTUNGEN, DIN 338

DL109 SERIES

WORK MATERIAL	P										M		K	
	CARBON STEELS		CARBON STEELS		CARBON STEELS		ALLOY STEELS		ALLOY STEELS		STAINLESS STEELS		CAST IRON	
HARDNESS			~ HRC23		~ HRC23 ~ 28		HRC23 ~ 34		HRC34 ~ 38		HRC23		HRC21	
STRENGTH	~ 570 N/mm ²		~ 830 N/mm ²		830 ~ 950 N/mm ²		830 ~ 1110 N/mm ²		1110 ~ 1260 N/mm ²		830 N/mm ²		800 N/mm ²	
DRILLING SPEED	25 ~ 30 m/min		20 ~ 25 m/min		15 ~ 20 m/min		18 ~ 23 m/min		10 ~ 15 m/min		27 ~ 33 m/min		27 ~ 33 m/min	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	5000	0.03	3750	0.03	2850	0.02	3500	0.02	2070	0.02	5000	0.03	5000	0.03
3.0	3750	0.04	2810	0.04	2150	0.02	2625	0.04	1560	0.02	3750	0.04	3750	0.04
4.0	2500	0.06	1870	0.06	1450	0.03	1750	0.06	1050	0.02	2500	0.06	2500	0.06
5.0	2085	0.07	1560	0.07	1205	0.04	1460	0.07	870	0.03	2085	0.07	2085	0.07
6.0	1670	0.08	1250	0.08	960	0.05	1170	0.09	690	0.03	1670	0.08	1670	0.08
7.0	1460	0.10	1095	0.10	840	0.06	1025	0.11	605	0.03	1460	0.10	1460	0.10
8.0	1250	0.13	940	0.13	720	0.08	880	0.13	520	0.04	1250	0.13	1250	0.13
9.0	1125	0.14	845	0.14	645	0.08	790	0.15	465	0.04	1125	0.14	1125	0.14
10.0	1000	0.14	750	0.14	570	0.08	700	0.16	410	0.05	1000	0.14	1000	0.14
11.0	925	0.15	685	0.15	525	0.08	640	0.18	380	0.05	925	0.15	925	0.15
12.0	850	0.16	620	0.16	480	0.08	580	0.19	350	0.05	850	0.16	850	0.16
13.0	785	0.17	575	0.17	445	0.09	540	0.20	325	0.05	785	0.17	785	0.17

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

HSS, TWIST DRILLS for BRASS/BRONZE, DIN 338 HSS, SPIRALBOHRER für MESSING/BRONZE, DIN338

D1100 SERIES

WORK MATERIAL	N				
	BRASS			BRONZE	
DRILLING SPEED	45 ~ 55 m/min			30 ~ 35 m/min	
DIAMETER	RPM	FEED	RPM	FEED	
2.0	8750	0.080	5688	0.052	
3.0	5850	0.100	3803	0.065	
4.0	4400	0.120	2860	0.078	
5.0	3500	0.140	2275	0.091	
6.0	2900	0.160	1885	0.104	
7.0	2500	0.180	1625	0.117	
8.0	2200	0.200	1430	0.130	
9.0	1950	0.220	1268	0.143	
10.0	1750	0.250	1138	0.163	
11.0	1600	0.270	1040	0.176	
12.0	1450	0.290	943	0.189	
13.0	1350	0.320	878	0.208	

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

HSS, TWIST DRILLS for ALUMINUM, DIN338
HSS, SPIRALBOHRER für ALUMINIUM, DIN338
D1106 SERIES

WORK MATERIAL	N			
	LONG CHIP ALUMINUM ALLOYS		SHORT CHIP ALUMINUM ALLOYS	
	40 ~ 50 m/min		30 ~ 35 m/min	
DRILLING SPEED				
DIAMETER	RPM	FEED	RPM	FEED
2.0	7950	0.08	5550	0.06
3.0	5300	0.10	3700	0.07
4.0	4000	0.12	2800	0.08
5.0	3200	0.14	2230	0.09
6.0	2650	0.16	1850	0.10
7.0	2250	0.18	1600	0.11
8.0	2000	0.20	1400	0.12
9.0	1750	0.22	1250	0.14
10.0	1600	0.25	1100	0.16
11.0	1450	0.28	1000	0.18
12.0	1330	0.32	930	0.20
13.0	1220	0.35	860	0.22

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

HSS-E, DH100 TYPE WORM PATTERN DRILLS, DIN1897, DIN338, DIN340, DIN1869, DIN341
HSS-E, DH100 TYPE WORM PATTERN SPIRALBOHRER, DIN1897, DIN 338, DIN 340, DIN 1869, DIN 341
DL510, DL508, DL509, DL505, DL504, DT600, DT692, DT693, DL608 SERIES

WORK MATERIAL	P				K			
	CARBON STEELS ALLOY STEELS		TOOL STEELS HARDENED STEELS		SOFT GREY CAST IRON		HARD GREY CAST IRON	
	HRc15 ~ 30		HRc20 ~ 40		20 ~ 25 m/min		7 ~ 12 m/min	
STRENGTH	700 ~ 1000 N/mm ²		800 ~ 1200 N/mm ²					
DRILLING SPEED	13 ~ 18 m/min		8 ~ 13 m/min					
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
2.0	2630	0.03	2100	0.025	4200	0.06	1680	0.05
2.5	2100	0.04	1680	0.03	3300	0.08	1310	0.06
3.0	1680	0.05	1310	0.04	2630	0.10	1050	0.08
4.0	1310	0.06	1050	0.05	2100	0.13	840	0.10
5.0	1050	0.06	840	0.05	1680	0.13	660	0.10
6.0	840	0.08	660	0.06	1310	0.16	530	0.13
8.0	660	0.10	530	0.08	1050	0.20	420	0.17
10.0	530	0.13	420	0.10	840	0.25	330	0.21
13.0	420	0.13	330	0.10	660	0.25	260	0.21
16.0	330	0.15	260	0.13	530	0.30	210	0.25
20.0	260	0.20	210	0.15	420	0.40	170	0.30
25.0	210	0.25	170	0.20	330	0.50	130	0.50
30.0	170	0.25	130	0.20	260	0.50	110	0.50

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


**HSS-E, DH50 TYPE WORM PATTERN DRILLS
HSS-E, DH50 TYPE WORM PATTERN SPIRALBOHRER**
DL507 SERIES

WORK MATERIAL	P		K		N	
	CARBON STEELS ALLOY STEELS		SOFT GREY CAST IRON		ALUMINUM ALLOYS	
HARDNESS	HRc15 ~ 30					
STRENGTH	700 ~ 1000 N/mm ²					
DRILLING SPEED	13 ~ 18 m/min		25 ~ 30 m/min		45 ~ 55 m/min	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
2.0	2630	0.03	4200	0.06	8700	0.04
2.5	2100	0.04	3300	0.08	6950	0.05
3.0	1680	0.05	2630	0.10	5800	0.06
4.0	1310	0.06	2100	0.13	4300	0.08
5.0	1050	0.06	1680	0.13	3500	0.10
6.0	840	0.08	1310	0.16	2900	0.12
8.0	660	0.10	1050	0.20	2200	0.16
10.0	530	0.13	840	0.25	1750	0.20
13.0	420	0.13	660	0.25	1350	0.26

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