



# STRAIGHT SHANK DRILLS

## D1107 SERIES

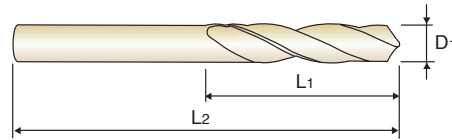
### HSS, STRAIGHT SHANK TWIST DRILLS HSS, SPIRALBOHRER mit ZYLINDERSCHAFT

STUB

EXTRA KURZ

- **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 2 mm
- **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.215

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
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

◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze	CFRP
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~								
◎	◎				○	○	○	○	○			

CARBIDE

HSS

I-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -INOX

DREAM DRILLS -ALU

DREAM DRILLS -CFRP

DREAM DRILLS -MQL TYPE

DREAM DRILLS for HARDENED STEELS

GENERAL CARBIDE DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

TECHNICAL DATA



# STRAIGHT SHANK DRILLS

**D1107** SERIES

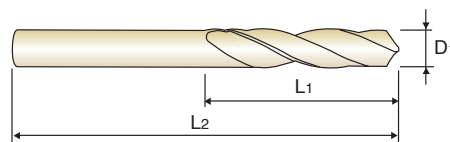
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DIN 1897
HSS
N 20~30°
h8
118°
P.215

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2		D1	L1	L2
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				

◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze	CFRP
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~								
◎	◎				○	○	○	○	○			



# STRAIGHT SHANK DRILLS

## RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDKONDITIONEN

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

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

WORK MATERIAL	CARBON STEELS		CARBON STEELS		CARBON STEELS		ALLOY STEELS		ALLOY STEELS		STAINLESS STEELS		TITANIUM ALLOYS	
	N	S	N	S	N	S	N	S	N	S	N	S	N	S
HARDNESS			~ HRC23		~ HRC23 ~ 28		HRC23 ~ 34		HRC34 ~ 38		HRC23			
STRENGTH	~ 570 N/mm <sup>2</sup>		~ 830 N/mm <sup>2</sup>		830 ~ 950 N/mm <sup>2</sup>		830 ~ 1110 N/mm <sup>2</sup>		1110 ~ 1260 N/mm <sup>2</sup>		830 N/mm <sup>2</sup>		410 N/mm <sup>2</sup>	
DRILLING SPEED	22 ~ 27 m/min		15 ~ 20 m/min		10 ~ 15 m/min		15 ~ 20 m/min		8 ~ 12 m/min		15 ~ 20 m/min		8 ~ 12 m/min	
DIAMETER	N	S	N	S	N	S	N	S	N	S	N	S	N	S
2.5	3380	0.025	2550	0.025	1900	0.015	2380	0.020	1400	0.015	2550	0.025	1400	0.020
3.0	2700	0.050	2000	0.050	1500	0.025	1880	0.050	1100	0.020	2000	0.050	1100	0.025
5.0	1700	0.063	1280	0.063	960	0.038	1190	0.063	700	0.025	1280	0.063	700	0.038
8.0	1050	0.130	780	0.130	590	0.076	730	0.130	430	0.038	780	0.130	430	0.076
11.0	750	0.150	560	0.150	425	0.076	520	0.180	310	0.050	560	0.150	430	0.076
19.0	440	0.230	330	0.230	255	0.130	300	0.230	180	0.050	330	0.230	180	0.130
31.0	260	0.280	195	0.280	145	0.180	180	0.280	107	0.076	195	0.280	107	0.180

WORK MATERIAL	TOOL STEELS		CAST IRON		ALUMINUM ALLOYS		MAGNESIUM ALLOYS		ZINC ALLOYS		PLASTICS	
	N	S	N	S	N	S	N	S	N	S	N	S
HARDNESS			~ HRC21									
STRENGTH	~ 270 N/mm <sup>2</sup>		~ 800 N/mm <sup>2</sup>									
DRILLING SPEED	20 ~ 25 m/min		15 ~ 20 m/min		45 ~ 50 m/min		55 ~ 65 m/min		40 ~ 50 m/min		20 ~ 25 m/min	
DIAMETER	N	S	N	S	N	S	N	S	N	S	N	S
2.5	3180	0.042	2250	0.025	6400	0.038	8600	0.038	6400	0.038	3380	0.025
3.0	2500	0.050	2000	0.050	5000	0.063	6800	0.063	5000	0.063	2700	0.050
5.0	1590	0.063	1280	0.063	3200	0.076	4300	0.076	3200	0.076	1700	0.063
8.0	970	0.130	780	0.130	2000	0.180	2600	0.180	2000	0.180	1050	0.130
11.0	700	0.180	560	0.150	1400	0.200	1900	0.200	1400	0.200	750	0.150
19.0	440	0.230	330	0.230	820	0.300	1100	0.300	820	0.300	440	0.230
31.0	240	0.300	195	0.280	490	0.380	660	0.380	490	0.380	260	0.280

N = R.P.M  
S = Feed per Revolution (mm/rev.)

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

#### DL109 SERIES

WORK MATERIAL	CARBON STEELS		CARBON STEELS		CARBON STEELS		ALLOY STEELS		ALLOY STEELS		STAINLESS STEELS		CAST IRON	
	N	S	N	S	N	S	N	S	N	S	N	S	N	S
HARDNESS			~ HRC23		~ HRC23 ~ 28		HRC23 ~ 34		HRC34 ~ 38		HRC23		HRC21	
STRENGTH	~ 570 N/mm <sup>2</sup>		~ 830 N/mm <sup>2</sup>		830 ~ 950 N/mm <sup>2</sup>		830 ~ 1110 N/mm <sup>2</sup>		1110 ~ 1260 N/mm <sup>2</sup>		830 N/mm <sup>2</sup>		800 N/mm <sup>2</sup>	
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	N	S	N	S	N	S	N	S	N	S	N	S	N	S
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

N = R.P.M  
S = Feed per Revolution (mm/rev.)