



HSS-E, STRAIGHT SHANK TWIST DRILLS for DEEP HOLES

HSS-E, SPIRALBOHRER für TIEFLOCH mit ZYLINDERSCHAFT

LONG

LANG

► **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
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

◎ : Excellent ○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~							
◎	◎				○	○			○		



WORM PATTERN DRILLS

RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDKONDITIONEN

HSS-E, DH100 TYPE WORM PATTERN DRILLS, DIN1897, DIN338, DIN340, DIN1869, DIN341, DIN1870
HSS-E, DH100 TYPE WORM PATTERN SPIRALBOHRER, DIN1897, DIN 338, DIN 340, DIN 1869, DIN 341, DIN 1870

DL510, DL508, DL509, DL505, DL504, DL600, DL608, DL609, DL610 SERIES

Unit : mm

WORK MATERIAL	CARBON STEELS ALLOY STEELS		TOOL STEELS HARDENED STEELS		SOFT GREY CAST IRON		HARD GREY CAST IRON	
HARDNESS	HRC15 ~ 30		HRC20 ~ 40					
STRENGTH	700 ~ 1000 N/mm ²		800 ~ 1200 N/mm ²					
DIAMETER	N	S	N	S	N	S	N	S
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

N = R.P.M

S = Feed per Revolution (mm/rev.)

HSS-E, DH50 TYPE WORM PATTERN DRILLS HSS-E, DH50 TYPE WORM PATTERN SPIRALBOHRER

DL507 SERIES

Unit : mm

WORK MATERIAL	CARBON STEELS ALLOY STEELS		SOFT GREY CAST IRON		ALUMINUM ALLOY	
HARDNESS	HRC15 ~ 30					
STRENGTH	700 ~ 1000 N/mm ²					
DIAMETER	N	S	N	S	N	S
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

N = R.P.M

S = Feed per Revolution (mm/rev.)