

WORM PATTERN DRILLS

DL504 SERIES

HSS-E, STRAIGHT SHANK TWIST DRILLS for DEEP HOLES HSS-E, SPIRALBOHRER für TIEFLOCH mit ZYLINDERSCHAFT

LONG LANG

► **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.157

► **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 TiAIN(DT504) are available on your request.

◎ : 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	
	HRc15 ~ 30		HRc20 ~ 40					
HARDNESS	700 ~ 1000 N/mm ²		800 ~ 1200 N/mm ²					
STRENGTH								
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	
	HRc15 ~ 30					
HARDNESS	700 ~ 1000 N/mm ²					
STRENGTH						
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.)