

# Y/G STRAIGHT SHANK DRILLS

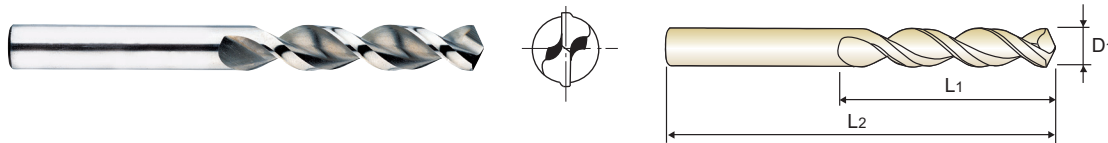
## DL508 SERIES

### HSS-E, STRAIGHT SHANK TWIST DRILLS for DEEP HOLES JOBBER

- HSS-E, SPIRALBOHRER für TIEFLOCH mit ZYLINDERSCHAFT KURZ
- Forets HSS-E, queue cylindrique pour perçage profond, série courte COURTE
- PUNTA IN HSS-E, GAMBO CILINDRICO PER FORI NON - STOP 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 338
HSS-E
42°
h8
130°
P.280-281

### ► DH100 worm pattern drills

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
DL508020	2.0	24	49
DL508021	2.1	24	49
DL508022	2.2	27	53
DL508023	2.3	27	53
DL508024	2.4	30	57
DL508025	2.5	30	57
DL508026	2.6	30	57
DL508027	2.7	33	61
DL508028	2.8	33	61
DL508029	2.9	33	61
DL508030	3.0	33	61
DL508031	3.1	36	65
DL508032	3.2	36	65
DL508033	3.3	36	65
DL508034	3.4	39	70
DL508035	3.5	39	70
DL508036	3.6	39	70
DL508037	3.7	39	70
DL508038	3.8	43	75
DL508039	3.9	43	75
DL508040	4.0	43	75
DL508041	4.1	43	75
DL508042	4.2	43	75
DL508043	4.3	47	80
DL508044	4.4	47	80
DL508045	4.5	47	80

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
DL508046	4.6	47	80
DL508047	4.7	47	80
DL508048	4.8	52	86
DL508049	4.9	52	86
DL508050	5.0	52	86
DL508051	5.1	52	86
DL508052	5.2	52	86
DL508053	5.3	52	86
DL508054	5.4	57	93
DL508055	5.5	57	93
DL508056	5.6	57	93
DL508057	5.7	57	93
DL508058	5.8	57	93
DL508059	5.9	57	93
DL508060	6.0	57	93
DL508061	6.1	63	101
DL508062	6.2	63	101
DL508063	6.3	63	101
DL508064	6.4	63	101
DL508065	6.5	63	101
DL508066	6.6	63	101
DL508067	6.7	63	101
DL508068	6.8	69	109
DL508069	6.9	69	109
DL508070	7.0	69	109
DL508071	7.1	69	109

► NEXT PAGE

◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron		
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	32	10	29	32	38	15	35	15	23	10	10	26	3	25		21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommended	◎	◎	◎	○	○	◎	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
ISO	N										S					H					
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)					Non Metallic Materials		Heat Resistant Super Alloys					Titanium Alloys		Hardened steel	Chilled Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
HB											15	30	25	38	34			55	60	42	55
Recommended																					



# STRAIGHT SHANK DRILLS

**DL508** SERIES

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

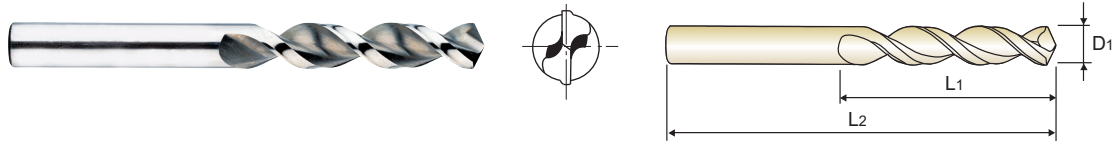
**JOBBER**

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

**KURZ**  
**COURTE**  
**CORTA**

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

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**DIN 338** **HSS-E** **42°** **h8** **130°** P.280-281

► **DH100** worm pattern drills

Unit : mm

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

EDP No.	Drill Diameter	Flute Length	Overall Length
	D1	L1	L2
DL508094	9.4	81	125
DL508095	9.5	81	125
DL508096	9.6	87	133
DL508097	9.7	87	133
DL508098	9.8	87	133
DL508099	9.9	87	133
DL508100	10.0	87	133
DL508102	10.2	87	133
DL508105	10.5	87	133
DL508110	11.0	94	142
DL508112	11.2	94	142
DL508115	11.5	94	142
DL508120	12.0	101	151
DL508125	12.5	101	151
DL508130	13.0	101	151
DL508135	13.5	108	160
DL508140	14.0	108	160
DL508145	14.5	114	169
DL508150	15.0	114	169
DL508155	15.5	120	178
DL508160	16.0	120	178

◎ : Excellent ○ : Good

ISO	P										M				K						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron		
VDI 3323	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
HRc	13	25	28	32	10	29	32	38	15	35	15	23	10	10	26	3	25			21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	
Recommended	◎	◎	◎	○	◎	○	○			○					○	○	○	○	○	○	
ISO	N								S							H					
	Aluminum-wrought alloy		Aluminum-cast, alloyed			Copper and Copper Alloys (Bronze / Brass)			Non Metallic Materials	Heat Resistant Super Alloys				Titanium Alloys			Hardened steel	Chilled Cast Iron	Hardened Cast Iron		
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
HB											15	30	25	38	34			55	60	42	55
Recommended																					



# STRAIGHT SHANK DRILLS

## RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDPARAMETER

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

**HSS-E, DH100 WORM  
PATTERN DRILLS**

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

ISO	VDI 3323	Material Description	Vc (m/min)	Parameter	Drill Diameter (mm)				
					2.0	3.0	4.0	6.0	8.0
<b>P</b>	1	Non-alloy steel	30	RPM FEED	4770 0.02~0.04	3180 0.03~0.05	2390 0.04~0.06	1590 0.05~0.08	1190 0.10~0.13
	2		25	RPM FEED	3980 0.02~0.04	2650 0.03~0.05	1990 0.04~0.06	1330 0.05~0.08	990 0.10~0.13
	3		20	RPM FEED	3180 0.02~0.04	2120 0.03~0.05	1590 0.04~0.06	1060 0.05~0.08	800 0.10~0.13
	4		20	RPM FEED	3180 0.01~0.02	2120 0.01~0.03	1590 0.02~0.04	1060 0.02~0.05	800 0.03~0.06
	5								
	6	Low alloy steel	25	RPM FEED	3980 0.02~0.04	2650 0.03~0.05	1990 0.04~0.06	1330 0.05~0.08	990 0.10~0.13
	7		20	RPM FEED	3180 0.02~0.04	2120 0.03~0.05	1590 0.04~0.06	1060 0.05~0.08	800 0.10~0.13
	8		20	RPM FEED	3180 0.01~0.02	2120 0.01~0.03	1590 0.02~0.04	1060 0.02~0.05	800 0.03~0.06
	9								
	10		High alloyed steel, and tool steel	15	RPM FEED	2390 0.02~0.04	1590 0.03~0.05	1190 0.04~0.06	800 0.05~0.08
	11								
<b>M</b>	12	Stainless steel							
	13								
	14								
<b>K</b>	15	Grey cast iron	30	RPM FEED	4770 0.02~0.04	3180 0.03~0.05	2390 0.04~0.06	1590 0.05~0.08	1190 0.10~0.13
	16		25	RPM FEED	3980 0.01~0.02	2650 0.01~0.03	1990 0.02~0.04	1330 0.02~0.05	990 0.03~0.06
	17	Nodular cast iron	30	RPM FEED	4770 0.02~0.04	3180 0.03~0.05	2390 0.04~0.06	1590 0.05~0.08	1190 0.10~0.13
	18		20	RPM FEED	3180 0.01~0.02	2120 0.01~0.03	1590 0.02~0.04	1060 0.02~0.05	800 0.03~0.06
	19	Malleable cast iron	25	RPM FEED	3980 0.02~0.04	2650 0.03~0.05	1990 0.04~0.06	1330 0.05~0.08	990 0.10~0.13
	20		20	RPM FEED	3180 0.01~0.02	2120 0.01~0.03	1590 0.02~0.04	1060 0.02~0.05	800 0.03~0.06
<b>N</b>	21	Aluminum- wrought alloy							
	22								
	23	Aluminum-cast, alloyed							
	24								
	25								
	26								
	27	Copper and Copper Alloys (Bronze / Brass)							
	28								
	29	Non Metallic Materials							
	30								
<b>S</b>	31	Heat Resistant Super Alloys							
	32								
	33								
	34								
	35								
	36	Titanium Alloys							
	37								
<b>H</b>	38	Hardened steel							
	39								
	40	Chilled Cast Iron							
41	Hardened Cast Iron								

