

YG STRAIGHT SHANK DRILLS

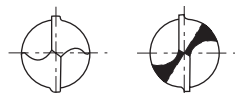
DL105 SERIES

HSS-E, STRAIGHT SHANK TWIST DRILLS HSS-E, SPIRALBOHRER mit ZYLINDERSCHAFT

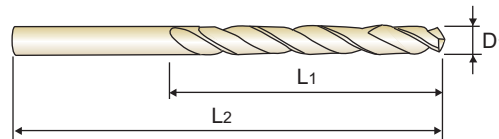
JOBBER
KURZ

► **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.



up to 1.5mm over 1.5mm



DIN 338
HSS-E
N 33°
h8
135°
P.188

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	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

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~							
◎	◎				○	○	◎	○	○		



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

Unit : mm

WORK MATERIAL	CARBON STEELS		CARBON STEELS		CARBON STEELS		ALLOY STEELS		ALLOY STEELS		STAINLESS STEELS		TITANIUM ALLOYS	
	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		830 N/mm ²		410 N/mm ²	
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	2700	0.050	2000	0.050	1500	0.025	1880	0.050	1100	0.020	2000	0.050	1100	0.025
5	1700	0.063	1280	0.063	960	0.038	1190	0.063	700	0.025	1280	0.063	700	0.038
8	1050	0.130	780	0.130	590	0.076	730	0.130	430	0.038	780	0.130	430	0.076
11	750	0.150	560	0.150	425	0.076	520	0.180	310	0.050	560	0.150	430	0.076
19	440	0.230	330	0.230	255	0.130	300	0.230	180	0.050	330	0.230	180	0.130
31	260	0.280	195	0.280	145	0.180	180	0.180	107	0.076	195	0.280	107	0.180

WORK MATERIAL	TOOL STEELS		CAST IRON		ALUMINUM ALLOYS		MAGNESIUM ALLOYS		ZINC ALLOYS		PLASTICS	
	HARDNESS		~ HRc21									
STRENGTH	~ 270 N/mm ²		~ 800 N/mm ²									
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	2500	0.050	2000	0.050	5000	0.063	6800	0.063	5000	0.063	2700	0.050
5	1590	0.063	1280	0.063	3200	0.076	4300	0.076	3200	0.076	1700	0.063
8	970	0.130	780	0.130	2000	0.180	2600	0.180	2000	0.180	1050	0.130
11	700	0.180	560	0.150	1400	0.200	1900	0.200	1400	0.200	750	0.150
19	440	0.230	330	0.230	820	0.300	1100	0.300	820	0.300	440	0.230
31	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

Unit : mm

WORK MATERIAL	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	
DIAMETER	N	S	N	S	N	S	N	S	N	S	N	S	N	S
2	5000	0.03	3750	0.03	2850	0.02	3500	0.02	2070	0.02	5000	0.03	5000	0.03
3	3750	0.04	2810	0.04	2150	0.02	2625	0.04	1560	0.02	3750	0.04	3750	0.04
4	2500	0.06	1870	0.06	1450	0.03	1750	0.06	1050	0.02	2500	0.06	2500	0.06
5	2085	0.07	1560	0.07	1205	0.04	1460	0.07	870	0.03	2085	0.07	2085	0.07
6	1670	0.08	1250	0.08	960	0.05	1170	0.09	690	0.03	1670	0.08	1670	0.08
7	1460	0.10	1095	0.10	840	0.06	1025	0.11	605	0.03	1460	0.10	1460	0.10
8	1250	0.13	940	0.13	720	0.08	880	0.13	520	0.04	1250	0.13	1250	0.13
9	1125	0.14	845	0.14	645	0.08	790	0.15	465	0.04	1125	0.14	1125	0.14
10	1000	0.14	750	0.14	570	0.08	700	0.16	410	0.05	1000	0.14	1000	0.14
11	925	0.15	685	0.15	525	0.08	640	0.18	380	0.05	925	0.15	925	0.15
12	850	0.16	620	0.16	480	0.08	580	0.19	350	0.05	850	0.16	850	0.16
13	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.)