HPD DRILLS

DJ543 SERIES

HSS-EX, HPD-SUS TWIST DRILLS for STAINLESS STEELS — *STUB*
HSS-EX, HPD-SUS SPIRALBOHRER für ROSTFREIER STÄHLE — *EXTRA KURZ*

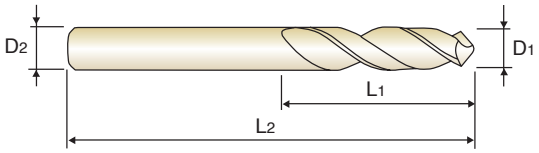
▶ **Application** : Designed for drilling stainless steels, mild steels, aluminum, aluminum alloys, aluminum die casting, copper, copper alloys, etc.

▶ **Advantage** : High helix-sharp cutting edges to avoid built-up and to be suitable for high performance drilling
Wide flute and stub length-increasing chip removal and reducing vibration and deflecton.
High vanadium HSS-EX material with superior TiN coating - higher speed and feed, longer tool life
High quality & good surface finish, high productivity.

▶ Anwendung : Geeignet zum Bearbeiten von rostfreier stähle, Aluminium, Aluminium-Legierungen, Aluminium-Guss, Kupfer, Kupfer-Legierungen usw.

▶ **Vorteile** : Durch hohen Helix wird Spanstau vermieden, geeignet zum Hochleistungsbohren, durch die breiten Schneiden und die kurze Ausführung wird die Spanabfuhr erhöht und Vibrationen und Stoß reduziert. Hoch Vanadium HSS-EX-Material mit TiN-Beschichtung, höhere Geschwindigkeit und Vorschub, längere Standzeit, verbesserte Oberflächengüte und Produktivität.

four facet



for STAINLESS STEELS
für rostfreier Stähle

HSS EX | W 38° | h7 | h8 | 130° | 120° | P.156

up to 4mm over 4mm

$D_1 = D_2$

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
TiN	D_1	L_1	L_2	TiN	D_1	L_1	L_2
DJ543020	2.0	12	44	DJ543048	4.8	26	70
DJ543021	2.1	12	44	DJ543049	4.9	26	70
DJ543022	2.2	13	45	DJ543050	5.0	26	70
DJ543023	2.3	13	45	DJ543051	5.1	26	70
DJ543024	2.4	14	46	DJ543052	5.2	26	70
DJ543025	2.5	14	46	DJ543053	5.3	26	70
DJ543026	2.6	14	46	DJ543054	5.4	28	72
DJ543027	2.7	16	48	DJ543055	5.5	28	72
DJ543028	2.8	16	48	DJ543056	5.6	28	72
DJ543029	2.9	16	48	DJ543057	5.7	28	72
DJ543030	3.0	16	48	DJ543058	5.8	28	72
DJ543031	3.1	18	50	DJ543059	5.9	28	72
DJ543032	3.2	18	50	DJ543060	6.0	28	72
DJ543033	3.3	18	50	DJ543061	6.1	31	75
DJ543034	3.4	20	52	DJ543062	6.2	31	75
DJ543035	3.5	20	52	DJ543063	6.3	31	75
DJ543036	3.6	20	52	DJ543064	6.4	31	75
DJ543037	3.7	20	52	DJ543065	6.5	31	75
DJ543038	3.8	22	54	DJ543066	6.6	31	75
DJ543039	3.9	22	54	DJ543067	6.7	31	75
DJ543040	4.0	22	54	DJ543068	6.8	34	78
DJ543041	4.1	22	66	DJ543069	6.9	34	78
DJ543042	4.2	22	66	DJ543070	7.0	34	78
DJ543043	4.3	24	68	DJ543071	7.1	34	78
DJ543044	4.4	24	68	DJ543072	7.2	34	78
DJ543045	4.5	24	68	DJ543073	7.3	34	78
DJ543046	4.6	24	68	DJ543074	7.4	34	78
DJ543047	4.7	24	68	DJ543075	7.5	34	78

▶ TiCN(DW543), TiAlN(DY543) 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	CFRP
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~								
◎						○	◎	○	○	○		

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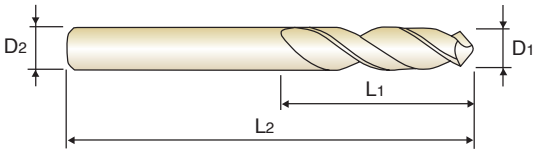

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TiN	D_1	L_1	L_2	TiN	D_1	L_1	L_2
DJ543076	7.6	37	81	DJ543104	10.4	43	100
DJ543077	7.7	37	81	DJ543105	10.5	43	100
DJ543078	7.8	37	81	DJ543106	10.6	43	100
DJ543079	7.9	37	81	DJ543107	10.7	47	104
DJ543080	8.0	37	81	DJ543108	10.8	47	104
DJ543081	8.1	37	87	DJ543109	10.9	47	104
DJ543082	8.2	37	87	DJ543110	11.0	47	104
DJ543083	8.3	37	87	DJ543111	11.1	47	104
DJ543084	8.4	37	87	DJ543112	11.2	47	104
DJ543085	8.5	37	87	DJ543113	11.3	47	104
DJ543086	8.6	40	90	DJ543114	11.4	47	104
DJ543087	8.7	40	90	DJ543115	11.5	47	104
DJ543088	8.8	40	90	DJ543116	11.6	47	104
DJ543089	8.9	40	90	DJ543117	11.7	47	104
DJ543090	9.0	40	90	DJ543118	11.8	47	104
DJ543091	9.1	40	90	DJ543119	11.9	51	108
DJ543092	9.2	40	90	DJ543120	12.0	51	108
DJ543093	9.3	40	90	DJ543121	12.1	51	108
DJ543094	9.4	40	90	DJ543122	12.2	51	108
DJ543095	9.5	40	90	DJ543123	12.3	51	108
DJ543096	9.6	43	93	DJ543124	12.4	51	108
DJ543097	9.7	43	93	DJ543125	12.5	51	108
DJ543098	9.8	43	93	DJ543126	12.6	51	108
DJ543099	9.9	43	93	DJ543127	12.7	51	108
DJ543100	10.0	43	93	DJ543128	12.8	51	108
DJ543101	10.1	43	100	DJ543129	12.9	51	108
DJ543102	10.2	43	100	DJ543130	13.0	51	108
DJ543103	10.3	43	100				

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~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~								
◎						○	◎	○	○	○		

HPD DRILLS

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDKONDITIONEN

PREMIUM HSS COBALT, HPD TWIST DRILLS, TiN COATED
PREMIUM HSS KOBALT, HPD SPIRALBOHRER, TiN-BESCHICHTET

D4541, D4542 SERIES

Please decrease the feed rate (15~20%) in D4542 SERIES HPD drills.
Den Vorschub in der D4542 Gruppe HPD Bohrer bitte verringern.

WORK MATERIAL	CARBON STEELS		ALLOY STEELS (SCM-SNC-SNCM)		TOOL STEELS ALLOY STEELS (SKD11)		CAST IRON TOOL STEELS		ALUMINUM ALLOYS MAGNESIUM ALLOYS	
DRILLING SPEED	20 ~ 25 m/min		20 ~ 25 m/min		8 ~ 13 m/min		35 ~ 40 m/min		80 ~ 100 m/min	
DIAMETER	N	S	N	S	N	S	N	S	N	S
2.0	4200	0.08	3600	0.08	1750	0.08	5800	0.11	10500	0.16
3.0	2900	0.13	2500	0.13	1170	0.13	4000	0.14	10500	0.25
4.0	2100	0.14	1900	0.14	880	0.14	3000	0.17	8000	0.30
5.0	1700	0.16	1500	0.16	700	0.16	2400	0.20	6500	0.36
6.0	1300	0.17	1300	0.17	580	0.17	2100	0.23	5200	0.42
8.0	1000	0.21	950	0.21	440	0.21	1500	0.26	4200	0.47
10.0	850	0.25	750	0.25	350	0.25	1100	0.32	3400	0.56
12.0	700	0.30	650	0.30	290	0.30	1000	0.38	2700	0.67
14.0	550	0.35	500	0.35	250	0.35	850	0.40	2400	0.72
16.0	520	0.38	470	0.38	220	0.38	750	0.42	2100	0.77
18.0	450	0.44	420	0.44	195	0.44	700	0.45	1900	0.80
20.0	400	0.45	350	0.45	175	0.45	600	0.51	1600	0.87
22.0	370	0.50	340	0.50	160	0.50	550	0.52	1500	0.95
24.0	350	0.54	300	0.54	145	0.54	500	0.58	1400	1.00
26.0	320	0.58	280	0.58	135	0.58	450	0.60	1300	1.05
28.0	300	0.62	260	0.62	125	0.62	420	0.63	1200	1.10
30.0	280	0.66	240	0.66	115	0.66	400	0.74	1100	1.15
32.0	260	0.70	230	0.70	110	0.70	380	0.74	950	1.20

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

HSS-EX, HPD-SUS TWIST DRILLS, TiN COATED
HSS-EX, HPD-SUS SPIRALBOHRER, TiN-BESCHICHTET

DJ543, DJ544 SERIES

Please decrease the feed rate (15~20%) in DJ544 SERIES HPD-SUS drills.
Den Vorschub in der DJ544 Gruppe HPD-SUS Bohrer bitte verringern

WORK MATERIAL	STAINLESS STEELS (SUS304, 200)		STAINLESS STEELS (SUS420, 440)		ALUMINUM & ALUMINIUM ALLOYS		PLASTICS COPPER COPPER ALLOYS		MILD STEELS LOW CARBON STEELS	
DRILLING SPEED	13 ~ 18 m/min		15 ~ 20 m/min		70 ~ 90 m/min		30 ~ 35 m/min		30 ~ 40 m/min	
DIAMETER	N	S	N	S	N	S	N	S	N	S
2.0	2600	0.03	3100	0.07	11000	0.09	5600	0.06	6300	0.08
3.0	1800	0.04	2100	0.08	7350	0.13	3750	0.08	4200	0.13
4.0	1300	0.06	1600	0.10	7050	0.18	2800	0.10	3200	0.14
5.0	1050	0.08	1250	0.15	5500	0.22	2250	0.13	2500	0.16
6.0	900	0.09	1050	0.18	4600	0.26	1850	0.15	2100	0.18
8.0	650	0.12	800	0.24	3500	0.34	1350	0.20	1550	0.22
10.0	550	0.15	630	0.30	2800	0.40	1100	0.25	1250	0.26
12.0	450	0.18	530	0.36	2300	0.50	950	0.30	1050	0.32
14.0	400	0.33	450	0.44	2050	0.55	800	0.33	900	0.36
16.0	350	0.36	390	0.48	1750	0.62	700	0.35	790	0.40
18.0	300	0.39	350	0.50	1600	0.70	620	0.40	700	0.45
20.0	260	0.43	320	0.53	1450	0.75	560	0.40	620	0.47

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