


HPD DRILLS
DJ544 SERIES

HSS-E, HPD-SUS TWIST DRILLS for STAINLESS STEELS

JOBBER
● HSS-E, HPD-SUS SPIRALBOHRER für ROSTFREIER STÄHLE
● Forets HPD-SUS HSS-E pour INOX, série courte
● PUNTE ELICOIDALI HPD-SUS IN HSS-E, PER ACCIAI INOX
KURZ
COURTE
CORTA

► **Application** : Designed for 4D~5D drilling stainless steels, mild steels, aluminum, aluminum alloys, aluminum die casting, copper, copper alloys, etc.

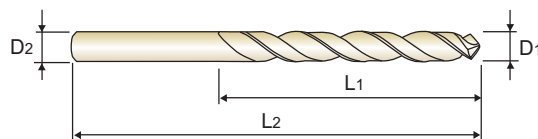
► **Advantage** : High helix-sharp cutting edges to avoid built-up and to be suitable for high performance drilling
Reinforced web and jobbers length-increasing rigidity and suitable for 4D~5D drilling.
High vanadium HSS-E material with superior TiN coating - higher speed and feed, longer tool life
High quality & good surface finish, high productivity.

► **Anwendung** : Für 4D~5D Bohrtiefe, geeignet für rostfreier stähle, Stahl, Aluminium, Aluminium-Legierungen, Aluminium-Guss, Kupfer, Kupfer-Legierung usw.

► **Vorteile** : Helixwinkel, durch scharfe Hauptschneide wird Spanstau vermieden, geeignet zum Hochleistungsbohren, verstärkte Kerndicke, kurze Ausführung, Hoch Vanadium HSS-E-Material mit TiN-Beschichtung, höhere Geschwindigkeit und Vorschub, längere Standzeit, verbesserte Stabilität, Oberflächengüte und Produktivität.



up to 13mm over 13mm


**for STAINLESS STEELS
für rostfreier Stäle**

D₁=D₂

up to 4mm over 4mm

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
TiN	D ₁	L ₁	L ₂
DJ544020	2.00	24	56
DJ544021	2.10	24	56
DJ544022	2.20	27	59
DJ544023	2.30	27	59
DJ544024	2.40	30	62
DJ544025	2.50	30	62
DJ544026	2.60	30	62
DJ544027	2.70	33	65
DJ544028	2.80	33	65
DJ544029	2.90	33	65
DJ544030	3.00	33	65
DJ544031	3.10	36	68
DJ544032	3.20	36	68
DJ544033	3.30	36	68
DJ544034	3.40	39	71
DJ544035	3.50	39	71
DJ544036	3.60	39	71
DJ544037	3.70	39	71
DJ544038	3.80	43	75
DJ544039	3.90	43	75
DJ544040	4.00	43	75
DJ544041	4.10	43	87

EDP No.	Drill Diameter	Flute Length	Overall Length
TiN	D ₁	L ₁	L ₂
DJ544042	4.20	43	87
DJ544043	4.30	47	91
DJ544044	4.40	47	91
DJ544045	4.50	47	91
DJ544046	4.60	47	91
DJ544047	4.70	47	91
DJ544048	4.80	52	96
DJ544049	4.90	52	96
DJ544050	5.00	52	96
DJ544051	5.10	52	96
DJ544052	5.20	52	96
DJ544053	5.30	52	96
DJ544054	5.40	57	101
DJ544055	5.50	57	101
DJ544056	5.60	57	101
DJ544057	5.70	57	101
DJ544058	5.80	57	101
DJ544059	5.90	57	101
DJ544060	6.00	57	101
DJ544061	6.10	63	107
DJ544062	6.20	63	107
DJ544063	6.30	63	107

► TiCN(DW544), TiAlN(DY544) are available on your request.

► NEXT PAGE

◎ : Excellent ○ : Good

ISO	P											M			K						
Material Description	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			
Material Description	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											15	30	25	38	34			55	60	42	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550
Recommended	◎	◎				○															



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for STAINLESS STEELS
für rostfreier Stäle

HSS-E

38°

h7

h8

130°

120°

up to 4mmover 4mm

D1=D2

EDP No.	Drill Diameter	Flute Length	Overall Length
	TiN D1	L1	L2
DJ544064	6.40	63	107
DJ544065	6.50	63	107
DJ544066	6.60	63	107
DJ544067	6.70	63	107
DJ544068	6.80	69	113
DJ544069	6.90	69	113
DJ544070	7.00	69	113
DJ544071	7.10	69	113
DJ544072	7.20	69	113
DJ544073	7.30	69	113
DJ544074	7.40	69	113
DJ544075	7.50	69	113
DJ544076	7.60	75	119
DJ544077	7.70	75	119
DJ544078	7.80	75	119
DJ544079	7.90	75	119
DJ544080	8.00	75	119
DJ544081	8.10	75	125
DJ544082	8.20	75	125
DJ544083	8.30	75	125
DJ544084	8.40	75	125
DJ544085	8.50	75	125

EDP No.	Drill Diameter	Flute Length	Overall Length
	TiN D1	L1	L2
DJ544086	8.60	81	131
DJ544087	8.70	81	131
DJ544088	8.80	81	131
DJ544089	8.90	81	131
DJ544090	9.00	81	131
DJ544091	9.10	81	131
DJ544092	9.20	81	131
DJ544093	9.30	81	131
DJ544094	9.40	81	131
DJ544095	9.50	81	131
DJ544096	9.60	87	137
DJ544097	9.70	87	137
DJ544098	9.80	87	137
DJ544099	9.90	87	137
DJ544100	10.00	87	137
DJ544101	10.10	87	144
DJ544102	10.20	87	144
DJ544103	10.30	87	144
DJ544104	10.40	87	144
DJ544105	10.50	87	144
DJ544106	10.60	87	144
DJ544107	10.70	94	151

► TiCN(DW544), TiAlN(DY544) are available on your request.

► NEXT PAGE

ISO	P											M			K								
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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			
Material Description	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	
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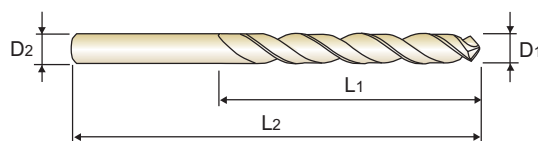
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up to 13mm over 13mm


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D₁=D₂

up to 4mm over 4mm

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
TiN	D ₁	L ₁	L ₂
DJ544108	10.80	94	151
DJ544109	10.90	94	151
DJ544110	11.00	94	151
DJ544111	11.10	94	151
DJ544112	11.20	94	151
DJ544113	11.30	94	151
DJ544114	11.40	94	151
DJ544115	11.50	94	151
DJ544116	11.60	94	151
DJ544117	11.70	94	151
DJ544118	11.80	94	151
DJ544119	11.90	101	158
DJ544120	12.00	101	158
DJ544121	12.10	101	158
DJ544122	12.20	101	158
DJ544123	12.30	101	158
DJ544124	12.40	101	158
DJ544125	12.50	101	158
DJ544126	12.60	101	158
DJ544127	12.70	101	158
DJ544128	12.80	101	158

EDP No.	Drill Diameter	Flute Length	Overall Length
TiN	D ₁	L ₁	L ₂
DJ544129	12.90	101	158
DJ544130	13.00	101	158
DJ544135	13.50	106	166
DJ544140	14.00	106	166
DJ544141	14.10	109	169
DJ544145	14.50	109	169
DJ544150	15.00	109	169
DJ544155	15.50	112	172
DJ544156	15.60	112	172
DJ544160	16.00	112	172
DJ544165	16.50	115	181
DJ544170	17.00	115	181
DJ544175	17.50	118	184
DJ544176	17.60	118	184
DJ544180	18.00	118	184
DJ544185	18.50	122	188
DJ544190	19.00	122	188
DJ544195	19.50	125	191
DJ544196	19.60	125	191
DJ544200	20.00	125	191

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© : Excellent ○ : Good

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Recommended	○											◎	○	◎								
ISO	N										S							H				
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HRc											15	30	25	38	34	36	37	55	60	42	55	
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400	550	
Recommended	◎	◎				○																



RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDPARAMETER

DJ543, DJ544 SERIES

HPD-SUS DRILLS for STAINLESS STEELS

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

ISO	VDI 3323	Material Description	Vc (m/min)	Parameter	Drill Diameter (mm)				
					2.0	3.0	4.0	5.0	6.0
P	1	Non-alloy steel	35	RPM FEED	5570 0.04-0.1	3710 0.07-0.13	2790 0.09-0.15	2230 0.12-0.18	1860 0.13-0.19
	2								
	3								
	4								
	5								
	6	Low alloy steel							
	7								
	8								
	9								
	10	High alloyed steel, and tool steel							
	11								
M	12	Stainless steel	20	RPM FEED	3180 0.03-0.07	2120 0.05-0.09	1590 0.06-0.12	1270 0.09-0.15	1060 0.12-0.18
	13		18	RPM FEED	2860 0.03-0.07	1910 0.05-0.09	1430 0.06-0.12	1150 0.09-0.15	950 0.12-0.18
	14		15	RPM FEED	2390 0.02-0.05	1590 0.03-0.07	1190 0.04-0.10	950 0.06-0.12	800 0.07-0.13
K	15	Grey cast iron							
	16								
	17	Nodular cast iron							
	18								
	19	Malleable cast iron							
	20								
N	21	Aluminum-wrought alloy	90	RPM FEED	14320 0.05-0.12	9550 0.10-0.18	7160 0.12-0.22	5730 0.15-0.25	4770 0.17-0.27
	22		90	RPM FEED	14320 0.05-0.12	9550 0.10-0.18	7160 0.12-0.22	5730 0.15-0.25	4770 0.17-0.27
	23	Aluminum-cast, alloyed							
	24								
	25								
	26	Copper and Copper Alloys (Bronze / Brass)	35	RPM FEED	5570 0.03-0.06	3710 0.05-0.09	2790 0.05-0.11	2230 0.08-0.14	1860 0.11-0.17
	27								
	28								
	29	Non Metallic Materials							
	30								
S	31	Heat Resistant Super Alloys							
	32								
	33								
	34								
	35								
	36	Titanium Alloys							
	37								
H	38	Hardened steel							
	39								
	40	Chilled Cast Iron							
	41	Hardened Cast Iron							

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

SELECTION GUIDE



SERIES

D4541

D4542

TOOL MATERIAL

HSSCo8

LENGTH

STUB

JOBBER

SIZE MIN

D2.0

D2.0

SIZE MAX

D13.0

D32.0

PAGE

182

186

SURFACE TREATMENT

TiN

HSSCo8 & HSS-E
HPD STRAIGHT
SHANK DRILLS

High Precision Drilling for General Steels & Stainless Steels



Please visit
globalyg1.com/mat
for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : P.198



ISO	VDI 3323	Material Description	Composition / Structure / Heat Treatment		HB	HRC		
P	1	Non-alloy steel	About 0.15% C	Annealed	125		◎	◎
	2		About 0.45% C	Annealed	190	13	◎	◎
	3		About 0.45% C	Quenched & Tempered	250	25	○	○
	4		About 0.75% C	Annealed	270	28		
	5		About 0.75% C	Quenched & Tempered	300	32		
	6	Low alloy steel		Annealed	180	10	◎	◎
	7			Quenched & Tempered	275	29	○	○
	8			Quenched & Tempered	300	32		
	9			Quenched & Tempered	350	38		
	10	High alloyed steel, and tool steel		Annealed	200	15	○	○
	11			Quenched & Tempered	325	35		
M	12	Stainless steel	Ferritic / Martensitic	Annealed	200	15		
	13		Martensitic	Quenched & Tempered	240	23		
	14		Austenitic		180	10		
K	15	Grey cast iron	Pearlitic / ferritic		180	10	◎	◎
	16		Pearlitic (Martensitic)		260	26		
	17	Nodular cast iron	Ferritic		160	3		
	18		Pearlitic		250	25		
	19	Malleable cast iron	Ferritic		130			
	20		Pearlitic		230	21		
N	21	Aluminum-wrought alloy	Not Curable		60			
	22		Curable	Hardened	100			
	23	Aluminum-cast, alloyed	≤ 12% Si, Not Curable		75			
	24		≤ 12% Si, Curable	Hardened	90			
	25		> 12% Si, Not Curable		130			
	26	Copper and Copper Alloys	Cutting Alloys, PB>1%		110			
	27		CuZn, CuSnZn (Brass)		90			
	28	Copper and Copper Alloys (Bronze / Brass)	CuSn, lead-free copper and electrolytic copper		100			
	29		Duroplastic, Fiber Reinforced Plastic					
	30	Non Metallic Materials	Rubber, Wood, etc.					
S	31	Heat Resistant Super Alloys	Fe Based	Annealed	200	15		
	32			Cured	280	30		
	33			Annealed	250	25		
	34		Ni or Co Based	Cured	350	38		
	35	Titanium Alloys		Cast	320	34		
	36		Pure Titanium		400 Rm			
	37		Alpha + Beta Alloys	Hardened	1050 Rm			
H	38	Hardened steel		Hardened	550	55		
	39			Hardened	630	60		
	40	Chilled Cast Iron		Cast	400	42		
	41	Hardened Cast Iron		Hardened	550	55		

DJ543	DJ544
HSS-E	
STUB	JOBBER
D2.0	D2.0
D13.0	D20.0
192	195
TiN	

			
○	○	1	
		2	
		3	
		4	
		5	
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		7	
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○	○	13	M
◎	◎	14	
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		20	
◎	◎	21	
◎	◎	22	
		23	
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○	○	26	
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