

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

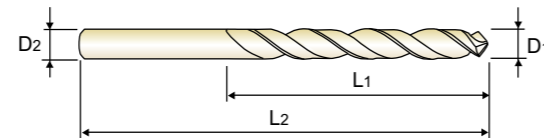
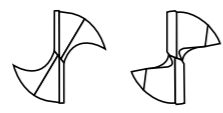
KURZ
COURTE
CORTA

► **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.



for STAINLESS STEELS
für rostfreier Stäle

up to 13mm over 13mm



p.A189



D1=D2

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
DJ544020	2.00	24	56	DJ544042	4.20	43	87
DJ544021	2.10	24	56	DJ544043	4.30	47	91
DJ544022	2.20	27	59	DJ544044	4.40	47	91
DJ544023	2.30	27	59	DJ544045	4.50	47	91
DJ544024	2.40	30	62	DJ544046	4.60	47	91
DJ544025	2.50	30	62	DJ544047	4.70	47	91
DJ544026	2.60	30	62	DJ544048	4.80	52	96
DJ544027	2.70	33	65	DJ544049	4.90	52	96
DJ544028	2.80	33	65	DJ544050	5.00	52	96
DJ544029	2.90	33	65	DJ544051	5.10	52	96
DJ544030	3.00	33	65	DJ544052	5.20	52	96
DJ544031	3.10	36	68	DJ544053	5.30	52	96
DJ544032	3.20	36	68	DJ544054	5.40	57	101
DJ544033	3.30	36	68	DJ544055	5.50	57	101
DJ544034	3.40	39	71	DJ544056	5.60	57	101
DJ544035	3.50	39	71	DJ544057	5.70	57	101
DJ544036	3.60	39	71	DJ544058	5.80	57	101
DJ544037	3.70	39	71	DJ544059	5.90	57	101
DJ544038	3.80	43	75	DJ544060	6.00	57	101
DJ544039	3.90	43	75	DJ544061	6.10	63	107
DJ544040	4.00	43	75	DJ544062	6.20	63	107
DJ544041	4.10	43	87	DJ544063	6.30	63	107

EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
DJ544064	6.40	63	107	DJ544086	8.60	81	131
DJ544065	6.50	63	107	DJ544087	8.70	81	131
DJ544066	6.60	63	107	DJ544088	8.80	81	131
DJ544067	6.70	63	107	DJ544089	8.90	81	131
DJ544068	6.80	69	113	DJ544090	9.00	81	131
DJ544069	6.90	69	113	DJ544091	9.10	81	131
DJ544070	7.00	69	113	DJ544092	9.20	81	131
DJ544071	7.10	69	113	DJ544093	9.30	81	131
DJ544072	7.20	69	113	DJ544094	9.40	81	131
DJ544073	7.30	69	113	DJ544095	9.50	81	131
DJ544074	7.40	69	113	DJ544096	9.60	87	137
DJ544075	7.50	69	113	DJ544097	9.70	87	137
DJ544076	7.60	75	119	DJ544098	9.80	87	137
DJ544077	7.70	75	119	DJ544099	9.90	87	137
DJ544078	7.80	75	119	DJ544100	10.00	87	137
DJ544079	7.90	75	119	DJ544101	10.10	87	144
DJ544080	8.00	75	119	DJ544102	10.20	87	144
DJ544081	8.10	75	125	DJ544103	10.30	87	144
DJ544082	8.20	75	125	DJ544104	10.40	87	144
DJ544083	8.30	75	125	DJ544105	10.50	87	144
DJ544084	8.40	75	125	DJ544106	10.60	87	144
DJ544085	8.50	75	125	DJ544107	10.70	94	151

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

► 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	30	10	29	32	38	15	35	15	23	10	10	26	3	25	21	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			15	30	25	38	34	400Rm	1050Rm	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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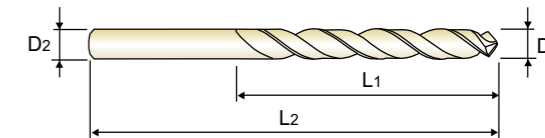
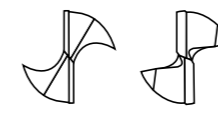
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ISO	P										M				K					
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel		Grey cast iron	Nodular cast iron	Malleable cast iron			
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HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	○									◎	○	◎								

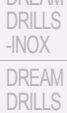
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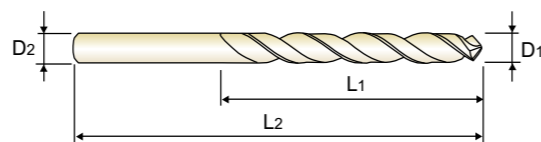
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up to 13mm over 13mm

D1=D2



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Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
TiN	D1	L1	L2
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
DJ544129	12.90	101	158

EDP No.	Drill Diameter	Flute Length	Overall Length
TiN	D1	L1	L2
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

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	30	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			15	30	25	38	34	400Rm	1050Rm	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	◎	◎				○															

D4541, D4542 SERIES

HPD DRILLS for STEELS

VC = M/MIN
RPM = rev./min.
FEED = mm/rev.

ISO	VDI 3323	Material Description	Vc	Parameter	Drill Diameter (mm)									
					2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0		
P	1	Non-alloy steel	35	RPM	5570	3710	2790	2230	1860	1390	1110	930		
			FEED	0.04-0.10	0.07-0.13	0.09-0.15	0.12-0.18	0.13-0.19	0.18-0.24	0.20-0.30	0.22-0.32			
			RPM	3980	2650	1990	1590	1330	990	800	660			
	2	Non-alloy steel	25	RPM	3980	2650	1990	1590	1330	990	800	660		
			FEED	0.04-0.10	0.07-0.13	0.09-0.15	0.12-0.18	0.13-0.19	0.18-0.24	0.20-0.30	0.22-0.32			
			RPM	4770	3180	2390	1910	1590	1190	950	800			
3	Low alloy steel	25	RPM	3980	2650	1990	1590	1330	990	800	660			
		FEED	0.04-0.10	0.07-0.13	0.09-0.15	0.12-0.18	0.13-0.19	0.18-0.24	0.20-0.30	0.22-0.32				
		RPM	3980	2650	1990	1590	1330	990	800	660				
6	Low alloy steel	30	RPM	4770	3180	2390	1910	1590	1190	950	800			
		FEED	0.04-0.10	0.07-0.13	0.09-0.15	0.12-0.18	0.13-0.19	0.18-0.24	0.20-0.30	0.22-0.32				
		RPM	4770	3180	2390	1910	1590	1190	950	800				
7	Low alloy steel	25	RPM	3980	2650	1990	1590	1330	990	800	660			
		FEED	0.04-0.10	0.07-0.13	0.09-0.15	0.12-0.18	0.13-0.19	0.18-0.24	0.20-0.30	0.22-0.32				
		RPM	4770	3180	2390	1910	1590	1190	950	800				
10	High alloyed steel, and tool steel	15	RPM	2390	1590	1190	950	800	600	480	400			
		FEED	0.04-0.10	0.07-0.13	0.09-0.15	0.12-0.18	0.13-0.19	0.18-0.24	0.20-0.30	0.22-0.32				
		RPM	6370	4240	3180	2550	2120	1590	1270	1060				
K	15	Grey cast iron	40	RPM	6370	4240	3180	2550	2120	1590	1270	1060		
			FEED	0.06-0.12	0.09-0.15	0.12-0.18	0.15-0.21	0.16-0.22	0.22-0.28	0.26-0.36	0.28-0.38			
			RPM	6370	4240	3180	2550	2120	1590	1270	1060			

ISO	VDI 3323	Material Description	Vc	Parameter	Drill Diameter (mm)									
					14.0	16.0	18.0	20.0	22.0	24.0	26.0	28.0	30.0	32.0
P	1	Non-alloy steel	35	RPM	800	700	620	560	510	460	430	400	370	350
			FEED	0.25-0.35	0.28-0.38	0.34-0.44	0.35-0.45	0.40-0.50	0.44-0.54	0.48-0.58	0.52-0.62	0.56-0.66	0.60-0.70	
			RPM	570	500	440	400	360	330	310	280	270	250	
	2	Non-alloy steel	25	RPM	570	500	440	400	360	330	310	280	270	250
			FEED	0.25-0.35	0.28-0.38	0.34-0.44	0.35-0.45	0.40-0.50	0.44-0.54	0.48-0.58	0.52-0.62	0.56-0.66	0.60-0.70	
			RPM	680	600	530	480	430	400	370	340	320	300	
6	Low alloy steel	30	RPM	680	600	530	480	430	400	370	340	320	300	
		FEED	0.25-0.35	0.28-0.38	0.34-0.44	0.35-0.45	0.40-0.50	0.44-0.54	0.48-0.58	0.52-0.62	0.56-0.66	0.60-0.70		
		RPM	570	500	440	400	360	330	310	280	270	250		
7	Low alloy steel	25	RPM	570	500	440	400	360	330	310	280	270	250	
		FEED	0.25-0.35	0.28-0.38	0.34-0.44	0.35-0.45	0.40-0.50	0.44-0.54	0.48-0.58	0.52-0.62	0.56-0.66	0.60-0.70		
		RPM	340	300	270	240	220	200	180	170	160	150		
10	High alloyed steel, and tool steel	15	RPM	910	800	710	640	580	530	490	450	420	400	
		FEED	0.25-0.35	0.28-0.38	0.34-0.44	0.35-0.45	0.40-0.50	0.44-0.54	0.48-0.58	0.52-0.62	0.56-0.66	0.60-0.70		
		RPM	910	800	710	640	580	530	490	450	420	400		
K	15	Grey cast iron	40	RPM	910	800	710	640	580	530	490	450	420	400
			FEED	0.32-0.42	0.35-0.45	0.42-0.52	0.44-0.54	0.50-0.60	0.54-0.64	0.59-0.69	0.64-0.74	0.69-0.79	0.74-0.84	
			RPM	910	800	710	640	580	530	490	450	420	400	

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

DJ543, DJ544 SERIES

HPD-SUS DRILLS for STAINLESS STEELS

ISO	VDI 3323	Material Description	Vc	Parameter	Drill Diameter (mm)				
					2.0	3.0	4.0	5.0	6.0
P	1	Non-alloy steel	35	RPM	5570	3710	2790	2230	1860
			FEED	0.04-0.1	0.07-0.13	0.09-0.15	0.12-0.18	0.13-0.19	
M	12	Stainless steel	20	RPM	3180	2120	1590	1270	1060
			FEED	0.03-0.07	0.05-0.09	0.06-0.12	0.09-0.15	0.12-0.18	
			RPM	2860	1910	1430	1150	950	
	13	Stainless steel	18	RPM	2860	1910	1430	1150	950
			FEED	0.03-0.07	0.05-0.09	0.06-0.12	0.09-0.15	0.12-0.18	
			RPM	2390	1590	1190	950	800	
14	Stainless steel	15	RPM	2390	1590	1190	950	800	
		FEED	0.02-0.05	0.03-0.07	0.04-0.10	0.06-0.12	0.07-0.13		
		RPM	14320	9550	7160	5730	4770		
N	21	Aluminum-wrought alloy	90	RPM	14320	9550	7160	5730	4770
			FEED	0.05-0.12	0.10-0.18	0.12-0.22	0.15-0.25	0.17-0.27	
			RPM	14320	9550	7160	5730	4770	
	22	Aluminum-wrought alloy	90	RPM	14320	9550	7160	5730	4770
			FEED	0.05-0.12	0.10-0.18	0.12-0.22	0.15-0.25	0.17-0.27	
			RPM	5570	3710	2790	2230	1860	
26	Copper and Copper Alloys (Bronze / Brass)	35	RPM	5570	3710	2790	2230	1860	