HPD DRILLS

D4542 SERIES

HSSCo8, HPD TWIST DRILLS for STEELS

JOBBER

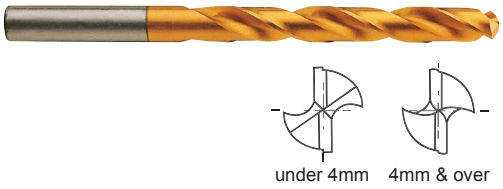
PREMIUM HSS KOBALT, HPD SPIRALBOHRER für STÄHLE — **KURZ**
Forets HPD HSSCo Premium pour Aciers, série courte — **COURTE**
PUNTE ELICOIDALI HPD IN PREMIUM HSS Co, PER ACCIAI — **CORTA**

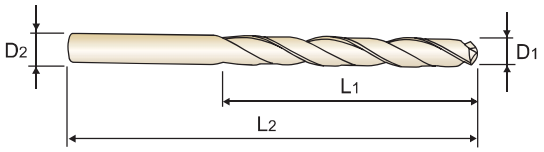
▶**Application** : Designed for high speed non-step 4D~5D drilling.
Drilling mild steels, cast iron, aluminum, alloyed tool steels, etc.

▶**Advantage** : Helical thinning - good chip removal, self-centering, reducing thrust and improving accuracy.
Reinforced web and jobbers length - increasing rigidity and suitable for 4D~5D drilling
Premium Cobalt HSS with superior TiN coating - higher speed and feed, longer tool life
High quality & good surface finish, high productivity.

▶**Anwendung** : Zum Hochgeschwindigkeitsbohren 4D~5D Bohrtiefe geeignet zum Bearbeiten von Stahl, Gusseisen, Aluminium, Legierungen, Werkzeugstahl, usw.

▶**Vorteile** : Gute Spanabfuhr, selbstzentriert, geringere Abdrängung und verbesserte Genauigkeit, kurze Ausführung, verbesserte Stabilität, zum Bearbeiten von Premium kobalt HSS mit hochwertiger TiN-Beschichtung, höhere Geschwindigkeit und Vorschub, längere Standzeit, verbesserte Oberflächengüte und Produktivität.





HSS Co8 | 30° | h7 (up to 13mm) | h6 (over 13mm) | h8 | 130° | P.198-199

$D_1=D_2$

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
TiN	D_1	L_1	L_2
D4542020	2.00	24	56
D4542920	2.05	24	56
D4542021	2.10	24	56
D4542921	2.15	27	59
D4542022	2.20	27	59
D4542922	2.25	27	59
D4542023	2.30	27	59
D4542923	2.35	27	59
D4542024	2.40	30	62
D4542924	2.45	30	62
D4542025	2.50	30	62
D4542925	2.55	30	62
D4542026	2.60	30	62
D4542926	2.65	30	62
D4542027	2.70	33	65
D4542927	2.75	33	65
D4542028	2.80	33	65
D4542928	2.85	33	65
D4542029	2.90	33	65
D4542929	2.95	33	65
D4542030	3.00	33	65
D4542930	3.05	36	68

EDP No.	Drill Diameter	Flute Length	Overall Length
TiN	D_1	L_1	L_2
D4542031	3.10	36	68
D4542931	3.15	36	68
D4542032	3.20	36	68
D4542932	3.25	36	68
D4542033	3.30	36	68
D4542933	3.35	36	68
D4542034	3.40	39	71
D4542934	3.45	39	71
D4542035	3.50	39	71
D4542935	3.55	39	71
D4542036	3.60	39	71
D4542936	3.65	39	71
D4542037	3.70	39	71
D4542937	3.75	39	71
D4542038	3.80	43	75
D4542938	3.85	43	75
D4542039	3.90	43	75
D4542939	3.95	43	75
D4542040	4.00	43	75
D4542940	4.05	43	87
D4542041	4.10	43	87
D4542941	4.15	43	87

▶ TiCN(D7542), TiAlN(DQ542) 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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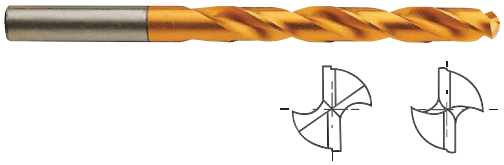
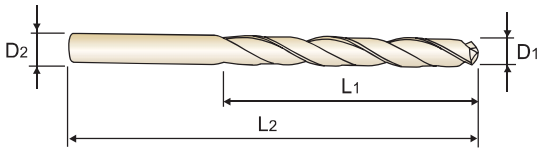


under 4mm 4mm & over



HSS Co8 | 30° | h7 | h6 | h8 | 130° | up to 13mm | over 13mm

P.198-199

D1=D2

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
TiN	D1	L1	L2
D4542042	4.20	43	87
D4542942	4.25	43	87
D4542043	4.30	47	91
D4542943	4.35	47	91
D4542044	4.40	47	91
D4542944	4.45	47	91
D4542045	4.50	47	91
D4542945	4.55	47	91
D4542046	4.60	47	91
D4542946	4.65	47	91
D4542047	4.70	47	91
D4542947	4.75	47	91
D4542048	4.80	52	96
D4542948	4.85	52	96
D4542049	4.90	52	96
D4542949	4.95	52	96
D4542050	5.00	52	96
D4542950	5.05	52	96
D4542051	5.10	52	96
D4542951	5.15	52	96
D4542052	5.20	52	96
D4542952	5.25	52	96

EDP No.	Drill Diameter	Flute Length	Overall Length
TiN	D1	L1	L2
D4542053	5.30	52	96
D4542953	5.35	57	101
D4542054	5.40	57	101
D4542954	5.45	57	101
D4542055	5.50	57	101
D4542955	5.55	57	101
D4542056	5.60	57	101
D4542956	5.65	57	101
D4542057	5.70	57	101
D4542957	5.75	57	101
D4542058	5.80	57	101
D4542958	5.85	57	101
D4542059	5.90	57	101
D4542959	5.95	57	101
D4542060	6.00	57	101
D4542960	6.05	63	107
D4542061	6.10	63	107
D4542961	6.15	63	107
D4542062	6.20	63	107
D4542962	6.25	63	107
D4542063	6.30	63	107
D4542963	6.35	63	107

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▶ 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	400 Rm	1050 Rm	550	630	400	550
Recommended																					

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D4542 SERIES

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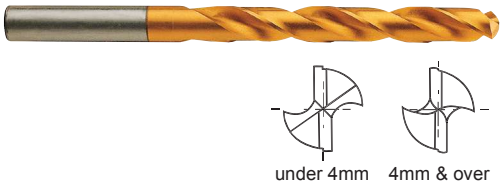

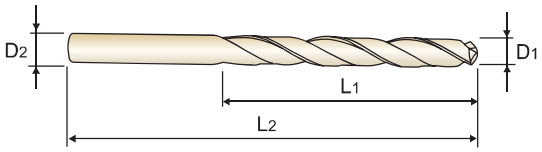

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$D_1=D_2$

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
TiN	D_1	L_1	L_2
D4542064	6.40	63	107
D4542964	6.45	63	107
D4542065	6.50	63	107
D4542965	6.55	63	107
D4542066	6.60	63	107
D4542966	6.65	63	107
D4542067	6.70	63	107
D4542967	6.75	69	113
D4542068	6.80	69	113
D4542968	6.85	69	113
D4542069	6.90	69	113
D4542969	6.95	69	113
D4542070	7.00	69	113
D4542970	7.05	69	113
D4542071	7.10	69	113
D4542971	7.15	69	113
D4542072	7.20	69	113
D4542972	7.25	69	113
D4542073	7.30	69	113
D4542973	7.35	69	113
D4542074	7.40	69	113
D4542974	7.45	69	113

EDP No.	Drill Diameter	Flute Length	Overall Length
TiN	D_1	L_1	L_2
D4542075	7.50	69	113
D4542975	7.55	75	119
D4542076	7.60	75	119
D4542976	7.65	75	119
D4542077	7.70	75	119
D4542977	7.75	75	119
D4542078	7.80	75	119
D4542978	7.85	75	119
D4542079	7.90	75	119
D4542979	7.95	75	119
D4542080	8.00	75	119
D4542980	8.05	75	125
D4542081	8.10	75	125
D4542981	8.15	75	125
D4542082	8.20	75	125
D4542982	8.25	75	125
D4542083	8.30	75	125
D4542983	8.35	75	125
D4542084	8.40	75	125
D4542984	8.45	75	125
D4542085	8.50	75	125
D4542985	8.55	81	131

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▶ NEXT PAGE

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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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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																					

HSSCo8, HPD TWIST DRILLS for STEELS

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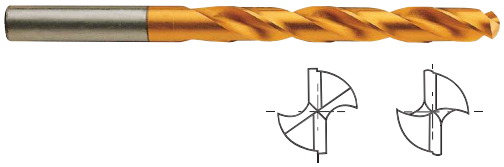
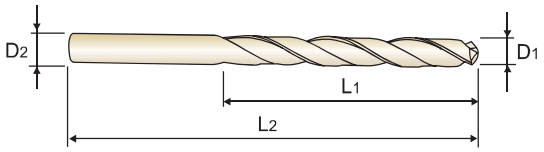


under 4mm 4mm & over



HSS Co8 | 30° | h7 | h6 | h8 | 130°

up to 13mm over 13mm

P.198-199

$D_1=D_2$

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
TiN	D_1	L_1	L_2
D4542086	8.60	81	131
D4542986	8.65	81	131
D4542087	8.70	81	131
D4542987	8.75	81	131
D4542088	8.80	81	131
D4542988	8.85	81	131
D4542089	8.90	81	131
D4542989	8.95	81	131
D4542090	9.00	81	131
D4542990	9.05	81	131
D4542091	9.10	81	131
D4542991	9.15	81	131
D4542092	9.20	81	131
D4542992	9.25	81	131
D4542093	9.30	81	131
D4542993	9.35	81	131
D4542094	9.40	81	131
D4542994	9.45	81	131
D4542095	9.50	81	131
D4542995	9.55	87	137
D4542096	9.60	87	137
D4542996	9.65	87	137

EDP No.	Drill Diameter	Flute Length	Overall Length
TiN	D_1	L_1	L_2
D4542097	9.70	87	137
D4542997	9.75	87	137
D4542098	9.80	87	137
D4542998	9.85	87	137
D4542099	9.90	87	137
D4542999	9.95	87	137
D4542100	10.00	87	137
D4542800	10.05	87	144
D4542101	10.10	87	144
D4542801	10.15	87	144
D4542102	10.20	87	144
D4542802	10.25	87	144
D4542103	10.30	87	144
D4542803	10.35	87	144
D4542104	10.40	87	144
D4542804	10.45	87	144
D4542105	10.50	87	144
D4542805	10.55	87	144
D4542106	10.60	87	144
D4542806	10.65	94	151
D4542107	10.70	94	151
D4542807	10.75	94	151

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ISO	P											M			K					
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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	◎	◎	○			◎	○			○					◎					

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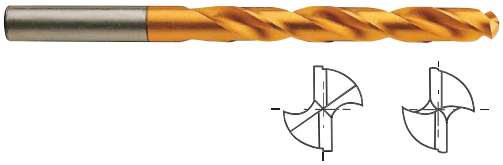
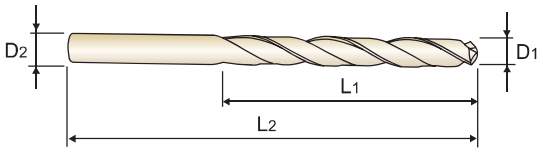


under 4mm 4mm & over



HSS Co8 | 30° | h7 | h6 | h8 | 130°

up to 13mm over 13mm

P.198-199

$D_1=D_2$

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
TiN	D_1	L_1	L_2
D4542108	10.80	94	151
D4542808	10.85	94	151
D4542109	10.90	94	151
D4542809	10.95	94	151
D4542110	11.00	94	151
D4542810	11.05	94	151
D4542111	11.10	94	151
D4542811	11.15	94	151
D4542112	11.20	94	151
D4542812	11.25	94	151
D4542113	11.30	94	151
D4542813	11.35	94	151
D4542114	11.40	94	151
D4542814	11.45	94	151
D4542115	11.50	94	151
D4542815	11.55	94	151
D4542116	11.60	94	151
D4542816	11.65	94	151
D4542117	11.70	94	151
D4542817	11.75	94	151
D4542118	11.80	94	151
D4542818	11.85	101	158

EDP No.	Drill Diameter	Flute Length	Overall Length
TiN	D_1	L_1	L_2
D4542119	11.90	101	158
D4542819	11.95	101	158
D4542120	12.00	101	158
D4542121	12.10	101	158
D4542122	12.20	101	158
D4542123	12.30	101	158
D4542124	12.40	101	158
D4542125	12.50	101	158
D4542126	12.60	101	158
D4542127	12.70	101	158
D4542128	12.80	101	158
D4542129	12.90	101	158
D4542130	13.00	101	158
D4542135	13.50	90	150
D4542140	14.00	90	150
D4542141	14.10	95	155
D4542145	14.50	95	155
D4542150	15.00	95	161
D4542155	15.50	100	166
D4542156	15.60	100	166
D4542160	16.00	100	166
D4542165	16.50	106	172

▶ TiCN(D7542), TiAlN(DQ542) 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																					

phone:+82-32-526-0909, www.yg1.kr, E-mail:yg1@yg1.kr
YG-1 CO., LTD.

HSSCo8, HPD TWIST DRILLS for STEELS

JOBBER

PREMIUM HSS KOBALT, HPD SPIRALBOHRER für STÄHLE — KURZ

Forets HPD HSSCo Premium pour Aciers, série courte — COURTE

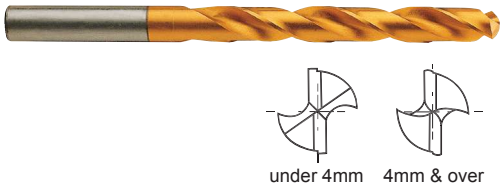
PUNTE ELICOIDALI HPD IN PREMIUM HSS Co, PER ACCIAI — CORTA

▶**Application** : Designed for high speed non-step 4D~5D drilling.
Drilling mild steels, cast iron, aluminum, alloyed tool steels, etc.

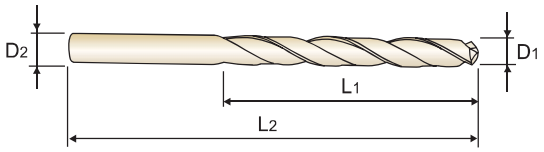
▶**Advantage** : Helical thinning - good chip removal, self-centering, reducing thrust and improving accuracy.
Reinforced web and jobbers length - increasing rigidity and suitable for 4D~5D drilling
Premium Cobalt HSS with superior TiN coating - higher speed and feed, longer tool life
High quality & good surface finish, high productivity.

▶**Anwendung** : Zum Hochgeschwindigkeitsbohren 4D~5D Bohrtiefe geeignet zum Bearbeiten von Stahl, Gusseisen, Aluminium, Legierungen, Werkzeugstahl, usw.

▶**Vorteile** : Gute Spanabfuhr, selbstzentriert, geringere Abdrängung und verbesserte Genauigkeit, kurze Ausführung, verbesserte Stabilität, zum Bearbeiten von Premium kobalt HSS mit hochwertiger TiN-Beschichtung, höhere Geschwindigkeit und Vorschub, längere Standzeit, verbesserte Oberflächengüte und Produktivität.



under 4mm 4mm & over



HSS Co8 | 30° | h7 | h6 | h8 | 130° | P.198-199

up to 13mm over 13mm

$D_1=D_2$

Unit : mm

EDP No.	Drill Diameter	Flute Length	Overall Length
TiN	D_1	L_1	L_2
D4542170	17.00	106	172
D4542175	17.50	112	178
D4542176	17.60	112	178
D4542180	18.00	112	178
D4542185	18.50	118	184
D4542190	19.00	118	194
D4542195	19.50	125	201
D4542196	19.60	125	201
D4542200	20.00	125	201
D4542205	20.50	128	204
D4542210	21.00	128	204
D4542211	21.10	128	204
D4542215	21.50	132	208
D4542220	22.00	132	208
D4542225	22.50	136	212

EDP No.	Drill Diameter	Flute Length	Overall Length
TiN	D_1	L_1	L_2
D4542230	23.00	136	212
D4542235	23.50	136	212
D4542240	24.00	140	220
D4542245	24.50	140	220
D4542250	25.00	140	220
D4542255	25.50	145	225
D4542260	26.00	145	225
D4542265	26.50	145	225
D4542270	27.00	150	230
D4542280	28.00	150	230
D4542290	29.00	155	235
D4542300	30.00	155	235
D4542310	31.00	160	240
D4542320	32.00	165	245

▶ TiCN(D7542), TiAlN(DQ542) are available on your request.

◎ : 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	400 Rm	1050 Rm	550	630	400	550
Recommended																					

HPD DRILLS

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDPARAMETER

D4541, D4542 SERIES — HPD DRILLS for 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	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
	2		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
	3		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
	4											
	5											
	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
	7		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
	8											
	9											
	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
	11											
M	12	Stainless steel										
	13											
	14											
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
	16											
	17	Nodular cast iron										
	18											
	19	Malleable cast iron										
	20											
N	21	Aluminum-wrought alloy										
	22											
	23	Aluminum-cast, alloyed										
	24											
	25											
	26	Copper and Copper Alloys (Bronze / Brass)										
	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 D4542 SERIES HPD drills.
Den Vorschub in der D4542 Gruppe HPD Bohrer bitte verringern.

HPD DRILLS

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDPARAMETER

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

VDI 3323	Parameter	Drill Diameter (mm)									
		14.0	16.0	18.0	20.0	22.0	24.0	26.0	28.0	30.0	32.0
1	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
2	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
3	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
4											
5											
6	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
7	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
8											
9											
10	RPM	340	300	270	240	220	200	180	170	160	150
	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
11											
12											
13											
14											
15	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
16											
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Please decrease the feed rate (15~20%) in D4542 SERIES HPD drills.
Den Vorschub in der D4542 Gruppe HPD Bohrer bitte verringern.