

HSS



Being the best through innovation



MULTI-1 DRILLS

MULTI-1 BOHRER



- HSS-PM MULTI-1 DRILLS
Multi Purpose Drilling. Particularly for Stainless Steels
- HSS-PM MULTI-1 BOHRER
Mehrzweckbohrer. Besonders für rostfreien Stahl

SELECTION GUIDE

PREMIUM HSS-PM MULTI-1 DRILLS

Premium HSS-PM Drills for wide range of applications

- Carbon Steels, Alloy Steels, Stainless steels, etc

ITEM	MODEL	DESCRIPTION	SIZE		PAGE
			MIN	MAX	
CDRA03		PREMIUM HSS-PM MULTI-1 DRILLS PREMIUM HSS-PM MULTI-1 SPIRALBOHRER <i>STUB EXTRA KURZ</i>	D1.0	D13.0	102
CDRA04		PREMIUM HSS-PM MULTI-1 DRILLS PREMIUM HSS-PM MULTI-1 SPIRALBOHRER <i>JOBBER KURZ</i>	D2.0	D13.0	104
RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDKONDITIONEN					106

HSS-PM MULTI-1 DRILLS

◎ : Excellent
○ : Good

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Cast Iron	Aluminum	Stainless Steels	Titanium	Mild Steels	Copper	Bronze
			HRc45~55	HRc55~							
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	○			○	○	○		◎		
◎	◎	○			○	○	○		◎		



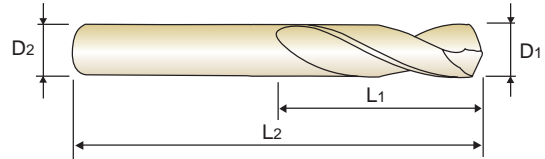
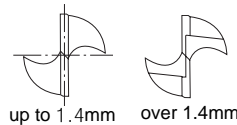
PREMIUM HSS-PM MULTI-1 DRILLS
PREMIUM HSS-PM MULTI-1 BROHER

STUB

EXTRA KURZ

- **Application** : Structural steels, Carbon steels, Alloy steels, Pre-hardened steels, Mold steels, stainless steels, Hardened steels(HRC30~45), Cast iron, Aluminum alloys, Nonferrous alloys.
- **Advantage** : Point shape to maximize self-centering. Flute design for the best chip evacuation. Premium powder materials with excellent toughness.

- **Anwendung** : Baustähle, Kohlenstoffstähle, legierte Stähle, vorgehärtete Stähle, Formstähle, rostfreie Stähle, gehärtete Stähle (HRC 30 – 45), Gusseisen, Aluminiumlegierungen, Nichteisen Legierungen.
- **Vorteile** : Maximale Selbstzentrierung durch besonderen Spitzenanschliff. Bohrergeometrie für optimale Spanabfuhr. Premium Pulverstahl mit ausgezeichneter Zähigkeit.



up to 1.9mm over 1.9mm

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAlN	D1	D2	L1	L2	TiAlN	D1	D2	L1	L2
CDRA03010	1.0	3	6	38	CDRA03041	4.1	6	22	66
CDRA03011	1.1	3	7	39	CDRA03042	4.2	6	22	66
CDRA03012	1.2	3	8	40	CDRA03043	4.3	6	24	68
CDRA03013	1.3	3	8	40	CDRA03044	4.4	6	24	68
CDRA03014	1.4	3	9	41	CDRA03045	4.5	6	24	68
CDRA03015	1.5	3	9	41	CDRA03046	4.6	6	24	68
CDRA03016	1.6	3	10	42	CDRA03047	4.7	6	24	68
CDRA03017	1.7	3	10	42	CDRA03048	4.8	6	26	70
CDRA03018	1.8	3	11	43	CDRA03049	4.9	6	26	70
CDRA03019	1.9	3	11	43	CDRA03050	5.0	6	26	70
CDRA03020	2.0	3	12	44	CDRA03051	5.1	6	26	70
CDRA03021	2.1	3	12	44	CDRA03052	5.2	6	26	70
CDRA03022	2.2	3	13	45	CDRA03053	5.3	6	26	70
CDRA03023	2.3	3	13	45	CDRA03054	5.4	6	28	72
CDRA03024	2.4	3	14	46	CDRA03055	5.5	6	28	72
CDRA03025	2.5	3	14	46	CDRA03056	5.6	6	28	72
CDRA03026	2.6	3	14	46	CDRA03057	5.7	6	28	72
CDRA03027	2.7	3	16	48	CDRA03058	5.8	6	28	72
CDRA03028	2.8	3	16	48	CDRA03059	5.9	6	28	72
CDRA03029	2.9	3	16	48	CDRA03060	6.0	6	28	72
CDRA03030	3.0	3	16	48	CDRA03061	6.1	8	31	75
CDRA03031	3.1	4	18	50	CDRA03062	6.2	8	31	75
CDRA03032	3.2	4	18	50	CDRA03063	6.3	8	31	75
CDRA03033	3.3	4	18	50	CDRA03064	6.4	8	31	75
CDRA03034	3.4	4	20	52	CDRA03065	6.5	8	31	75
CDRA03035	3.5	4	20	52	CDRA03066	6.6	8	31	75
CDRA03036	3.6	4	20	52	CDRA03067	6.7	8	31	75
CDRA03037	3.7	4	20	52	CDRA03068	6.8	8	34	78
CDRA03038	3.8	4	22	54	CDRA03069	6.9	8	34	78
CDRA03039	3.9	4	22	54	CDRA03070	7.0	8	34	78
CDRA03040	4.0	4	22	54	CDRA03071	7.1	8	34	78

◎ : 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~							
◎	◎	○			○	○	○		◎		



MULTI-1 DRILLS

CDRA03 SERIES

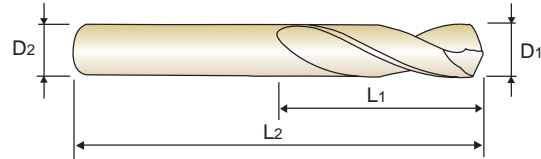
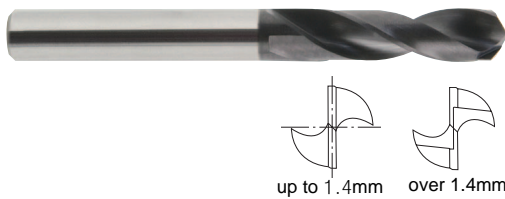
PREMIUM HSS-PM MULTI-1 DRILLS PREMIUM HSS-PM MULTI-1 BROHER

STUB

EXTRA KURZ

- **Application** : Structural steels, Carbon steels, Alloy steels, Pre-hardened steels, Mold steels, stainless steels, Hardened steels(HRC30~45), Cast iron, Aluminum alloys, Nonferrous alloys.
- **Advantage** : Point shape to maximize self-centering. Flute design for the best chip evacuation. Premium powder materials with excellent toughness.

- **Anwendung** : Baustähle, Kohlenstoffstähle, legierte Stähle, vorgehärtete Stähle, Formstähle, rostfreie Stähle, gehärtete Stähle (HRC 30 – 45), Gusseisen, Aluminiumlegierungen, Nichteisen Legierungen.
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up to 1.9mm over 1.9mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAlN	D1	D2	L1	L2
CDRA03072	7.2	8	34	78
CDRA03073	7.3	8	34	78
CDRA03074	7.4	8	34	78
CDRA03075	7.5	8	34	78
CDRA03076	7.6	8	37	81
CDRA03077	7.7	8	37	81
CDRA03078	7.8	8	37	81
CDRA03079	7.9	8	37	81
CDRA03080	8.0	8	37	81
CDRA03081	8.1	10	37	87
CDRA03082	8.2	10	37	87
CDRA03083	8.3	10	37	87
CDRA03084	8.4	10	37	87
CDRA03085	8.5	10	37	87
CDRA03086	8.6	10	40	90
CDRA03087	8.7	10	40	90
CDRA03088	8.8	10	40	90
CDRA03089	8.9	10	40	90
CDRA03090	9.0	10	40	90
CDRA03091	9.1	10	40	90
CDRA03092	9.2	10	40	90
CDRA03093	9.3	10	40	90
CDRA03094	9.4	10	40	90
CDRA03095	9.5	10	40	90
CDRA03096	9.6	10	43	93
CDRA03097	9.7	10	43	93
CDRA03098	9.8	10	43	93
CDRA03099	9.9	10	43	93
CDRA03100	10.0	10	43	93
CDRA03101	10.1	12	43	100

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAlN	D1	D2	L1	L2
CDRA03102	10.2	12	43	100
CDRA03103	10.3	12	43	100
CDRA03104	10.4	12	43	100
CDRA03105	10.5	12	43	100
CDRA03106	10.6	12	43	100
CDRA03107	10.7	12	47	104
CDRA03108	10.8	12	47	104
CDRA03109	10.9	12	47	104
CDRA03110	11.0	12	47	104
CDRA03111	11.1	12	47	104
CDRA03112	11.2	12	47	104
CDRA03113	11.3	12	47	104
CDRA03114	11.4	12	47	104
CDRA03115	11.5	12	47	104
CDRA03116	11.6	12	47	104
CDRA03117	11.7	12	47	104
CDRA03118	11.8	12	47	104
CDRA03119	11.9	12	51	108
CDRA03120	12.0	12	51	108
CDRA03121	12.1	12	51	108
CDRA03122	12.2	12	51	108
CDRA03123	12.3	12	51	108
CDRA03124	12.4	12	51	108
CDRA03125	12.5	12	51	108
CDRA03126	12.6	12	51	108
CDRA03127	12.7	12	51	108
CDRA03128	12.8	12	51	108
CDRA03129	12.9	12	51	108
CDRA03130	13.0	12	51	108

Unit : mm

◎ : 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~							
◎	◎	○			○	○	○		◎		

CARBIDE

HSS

i-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -INOX

DREAM DRILLS -MQL TYPE

DREAM DRILLS for HARDENED STEELS

GENERAL CARBIDE DRILLS

NC-SPOTTING DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

WORM PATTERN DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

TECHNICAL DATA



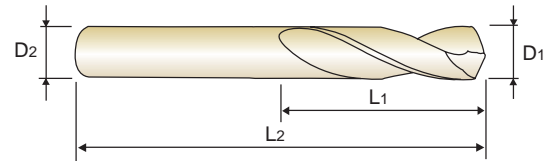
PREMIUM HSS-PM MULTI-1 DRILLS
PREMIUM HSS-PM MULTI-1 BROHER

JOBBER

KURZ

- **Application** : Structural steels, Carbon steels, Alloy steels, Pre-hardened steels, Mold steels, stainless steels, Hardened steels(HRc30~45), Cast iron, Aluminum alloys, Nonferrous alloys.
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Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAlN	D1	D2	L1	L2	TiAlN	D1	D2	L1	L2
CDRA04020	2.0	3	24	56	CDRA04048	4.8	6	52	94
CDRA04021	2.1	3	24	56	CDRA04049	4.9	6	52	94
CDRA04022	2.2	3	25	56	CDRA04050	5.0	6	52	94
CDRA04023	2.3	3	25	56	CDRA04051	5.1	6	52	94
CDRA04024	2.4	3	30	61	CDRA04052	5.2	6	52	94
CDRA04025	2.5	3	30	61	CDRA04053	5.3	6	52	94
CDRA04026	2.6	3	30	61	CDRA04054	5.4	6	57	99
CDRA04027	2.7	3	33	64	CDRA04055	5.5	6	57	99
CDRA04028	2.8	3	33	64	CDRA04056	5.6	6	57	99
CDRA04029	2.9	3	33	64	CDRA04057	5.7	6	57	99
CDRA04030	3.0	3	33	64	CDRA04058	5.8	6	57	99
CDRA04031	3.1	4	36	68	CDRA04059	5.9	6	57	99
CDRA04032	3.2	4	36	68	CDRA04060	6.0	6	57	99
CDRA04033	3.3	4	36	68	CDRA04061	6.1	8	63	107
CDRA04034	3.4	4	39	71	CDRA04062	6.2	8	63	107
CDRA04035	3.5	4	39	71	CDRA04063	6.3	8	63	107
CDRA04036	3.6	4	39	71	CDRA04064	6.4	8	63	107
CDRA04037	3.7	4	39	71	CDRA04065	6.5	8	63	107
CDRA04038	3.8	4	43	75	CDRA04066	6.6	8	63	107
CDRA04039	3.9	4	43	75	CDRA04067	6.7	8	63	107
CDRA04040	4.0	4	43	75	CDRA04068	6.8	8	69	113
CDRA04041	4.1	6	43	85	CDRA04069	6.9	8	69	113
CDRA04042	4.2	6	43	85	CDRA04070	7.0	8	69	113
CDRA04043	4.3	6	47	89	CDRA04071	7.1	8	69	113
CDRA04044	4.4	6	47	89	CDRA04072	7.2	8	69	113
CDRA04045	4.5	6	47	89	CDRA04073	7.3	8	69	113
CDRA04046	4.6	6	47	89	CDRA04074	7.4	8	69	113
CDRA04047	4.7	6	47	89	CDRA04075	7.5	8	69	113

◎ : 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~							
◎	◎	○			○	○	○		◎		



MULTI-1 DRILLS

CDRA04 SERIES

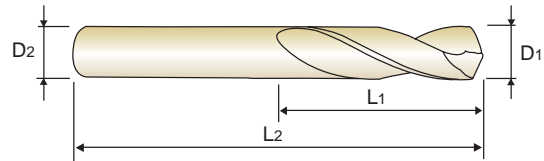
PREMIUM HSS-PM MULTI-1 DRILLS PREMIUM HSS-PM MULTI-1 BROHER

JOBBER

KURZ

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					Unit : mm				
EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAlN	D1	D2	L1	L2	TiAlN	D1	D2	L1	L2
CDRA04076	7.6	8	75	119	CDRA04104	10.4	12	87	144
CDRA04077	7.7	8	75	119	CDRA04105	10.5	12	87	144
CDRA04078	7.8	8	75	119	CDRA04106	10.6	12	87	144
CDRA04079	7.9	8	75	119	CDRA04107	10.7	12	94	151
CDRA04080	8.0	8	75	119	CDRA04108	10.8	12	94	151
CDRA04081	8.1	10	75	125	CDRA04109	10.9	12	94	151
CDRA04082	8.2	10	75	125	CDRA04110	11.0	12	94	151
CDRA04083	8.3	10	75	125	CDRA04111	11.1	12	94	151
CDRA04084	8.4	10	75	125	CDRA04112	11.2	12	94	151
CDRA04085	8.5	10	75	125	CDRA04113	11.3	12	94	151
CDRA04086	8.6	10	81	131	CDRA04114	11.4	12	94	151
CDRA04087	8.7	10	81	131	CDRA04115	11.5	12	94	151
CDRA04088	8.8	10	81	131	CDRA04116	11.6	12	94	151
CDRA04089	8.9	10	81	131	CDRA04117	11.7	12	94	151
CDRA04090	9.0	10	81	131	CDRA04118	11.8	12	94	151
CDRA04091	9.1	10	81	131	CDRA04119	11.9	12	101	158
CDRA04092	9.2	10	81	131	CDRA04120	12.0	12	101	158
CDRA04093	9.3	10	81	131	CDRA04121	12.1	12	101	158
CDRA04094	9.4	10	81	131	CDRA04122	12.2	12	101	158
CDRA04095	9.5	10	81	131	CDRA04123	12.3	12	101	158
CDRA04096	9.6	10	87	137	CDRA04124	12.4	12	101	158
CDRA04097	9.7	10	87	137	CDRA04125	12.5	12	101	158
CDRA04098	9.8	10	87	137	CDRA04126	12.6	12	101	158
CDRA04099	9.9	10	87	137	CDRA04127	12.7	12	101	158
CDRA04100	10.0	10	87	137	CDRA04128	12.8	12	101	158
CDRA04101	10.1	12	87	144	CDRA04129	12.9	12	101	158
CDRA04102	10.2	12	87	144	CDRA04130	13.0	12	101	158
CDRA04103	10.3	12	87	144					

◎ : 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~							
◎	◎	○			○	○	○		◎		

CARBIDE

HSS

i-DREAM DRILLS

DREAM DRILLS -GENERAL

DREAM DRILLS -INOX

DREAM DRILLS -MQL TYPE

DREAM DRILLS for HARDENED STEELS

GENERAL CARBIDE DRILLS

NC-SPOTTING DRILLS

MULTI-1 DRILLS

HPD DRILLS

GOLD-P DRILLS

WORM PATTERN DRILLS

STRAIGHT SHANK DRILLS

TAPER SHANK DRILLS

NC-SPOTTING DRILLS

CENTER DRILLS

SPADE DRILLS

TECHNICAL DATA



PREMIUM HSS-PM MULTI-1 DRILLS, TiAIN COATED

PREMIUM HSS-PM MULTI-1 BROHER, TiAIN-BESCHICHTET

CDRA03 SERIES

Unit : mm

WORK MATERIAL	CARBON STEELS		ALLOY STEELS PRE-HARDENED STEELS		CAST IRON		ALUMINUM ALLOYS NONFERROUS ALLOYS		MOLD STEELS, HARDENED STEELS (HRc30~45) STAINLESS STEELS (SUS304, 200)		STAINLESS STEELS (SUS420, 440)		
	DIAMETER	N	S	N	S	N	S	N	S	N	S	N	S
2.0	5800	0.06	4700	0.05	6500	0.08	10500	0.17	2600	0.04	3100	0.08	
3.0	4300	0.12	3500	0.09	4900	0.14	10500	0.27	1800	0.05	2100	0.09	
4.0	3200	0.15	2600	0.13	3600	0.18	8000	0.33	1300	0.07	1600	0.11	
5.0	2600	0.18	2100	0.16	2900	0.21	6500	0.39	1050	0.09	1250	0.17	
6.0	2100	0.20	1700	0.18	2400	0.25	5200	0.46	900	0.10	1050	0.19	
8.0	1600	0.24	1300	0.20	1800	0.29	4200	0.51	650	0.14	800	0.26	
10.0	1300	0.27	1000	0.24	1500	0.32	3400	0.61	550	0.17	630	0.33	
12.0	1100	0.29	850	0.26	1200	0.36	2700	0.73	450	0.20	530	0.39	

N = R.P.M

S = Feed per Revolution (mm/rev.)

PREMIUM HSS-PM MULTI-1 DRILLS, TiAIN COATED

PREMIUM HSS-PM MULTI-1 BROHER, TiAIN-BESCHICHTET

CDRA04 SERIES

Unit : mm

WORK MATERIAL	CARBON STEELS		ALLOY STEELS PRE-HARDENED STEELS		CAST IRON		ALUMINUM ALLOYS NONFERROUS ALLOYS		MOLD STEELS, HARDENED STEELS (HRc30~45) STAINLESS STEELS (SUS304, 200)		STAINLESS STEELS (SUS420, 440)		
	DIAMETER	N	S	N	S	N	S	N	S	N	S	N	S
2.0	5800	0.05	4700	0.04	6500	0.07	10500	0.14	2600	0.03	3100	0.07	
3.0	4300	0.10	3500	0.08	4900	0.12	10500	0.23	1800	0.04	2100	0.08	
4.0	3200	0.13	2600	0.11	3600	0.15	8000	0.28	1300	0.06	1600	0.09	
5.0	2600	0.15	2100	0.14	2900	0.18	6500	0.33	1050	0.08	1250	0.14	
6.0	2100	0.17	1700	0.15	2400	0.21	5200	0.39	900	0.09	1050	0.16	
8.0	1600	0.20	1300	0.17	1800	0.25	4200	0.43	650	0.12	800	0.22	
10.0	1300	0.23	1000	0.20	1500	0.27	3400	0.52	550	0.14	630	0.28	
12.0	1100	0.25	850	0.22	1200	0.31	2700	0.62	450	0.17	530	0.33	

N = R.P.M

S = Feed per Revolution (mm/rev.)