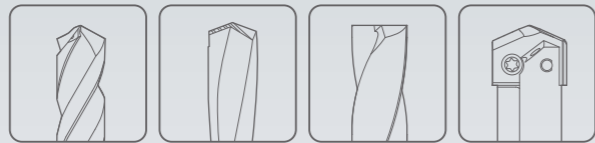




Global Cutting Tool Leader **YG-1**



# DREAM DRILLS



Leading Through Innovation



**NEW**

**SOLID CARBIDE**

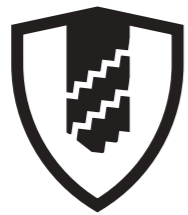
# DREAM DRILL X

- Multi-Purpose Solid Carbide Drilling up to HRc50
- Proprietary coating upgrade boosting performance in Steel and Cast-Iron applications

**NEW**  
**DREAM DRILL X**

**New Coating Technology "RCH-Coating"**

Combining the major benefits of TiAlN and AlCrN into a new 'Nano Layered Multilayer' coating generation provides unique advantages such as:



Extreme Wear Resistance

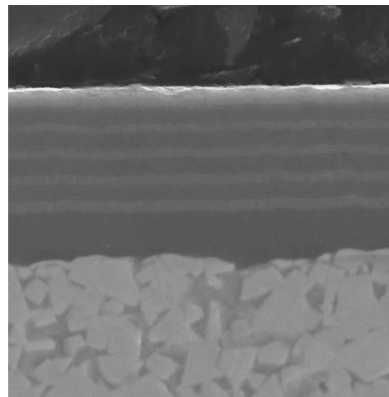


High Heat Endurance



Chipping Protection

**↑ Tool Life**  
compared to Normal TiAlN coated drills  
**20 to 50%**

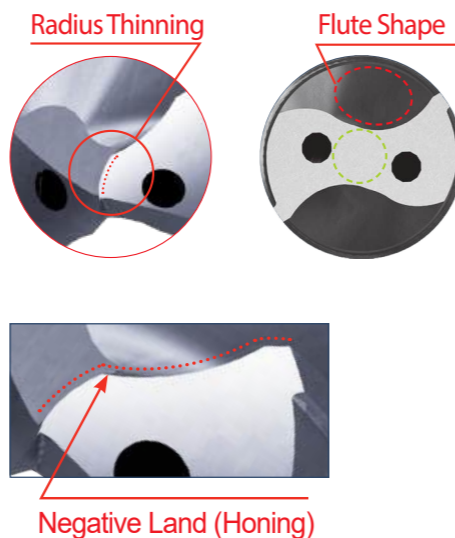


Nano Layered Multilayer  
Carbide

At insufficient coolant conditions where higher temperatures occur, **RCH-Coating** allows with its very high temperature stability for great tool life results.

**FEATURES & BENEFITS**

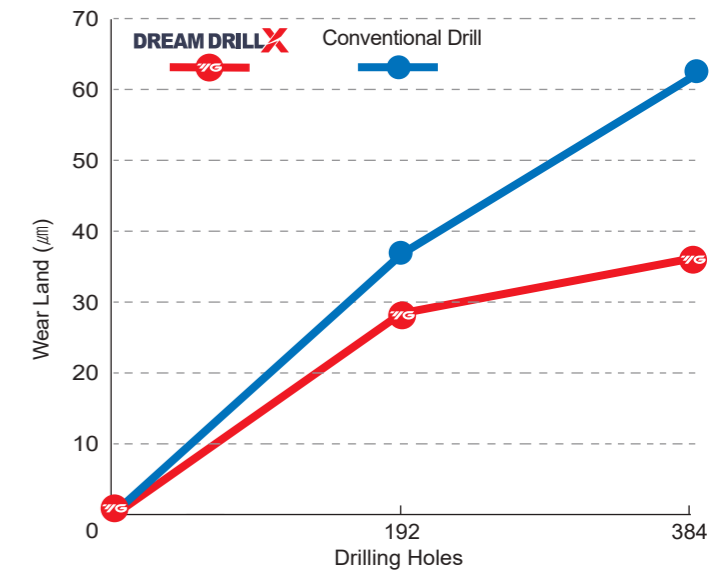
- **Universal Point Grinding**  
Soft cutting action and reduced axial forces; Easy to Recondition
- **Radius Thinning**  
Provides very good self centering even at low feed rates and unstable situations
- **Tailored Flute Design**  
Excellent chip breaking and evacuation
- **Edge Preparation**  
Maximizing tool life in various materials



**CASE STUDY**

► **SOLID CARBIDE DREAM DRILL X with Coolant Holes**

CUTTING CONDITION	
Work Material	• DIN : C45 • AISI : 1045 • JIS : S45C (HRc20)
Drill Diameter(mm)	Ø10.0
Cutting Speed	109.99 m/min.
Feed	0.23 mm/rev
Drilling Depth	40mm
Coolant	Internal Cooling Wet Cut (9% Emulsion)
Machine	Vertical Machine

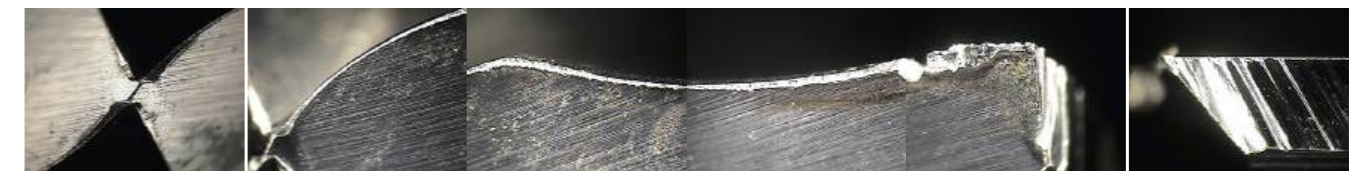


**DREAM DRILL X**



Total Drilling 384 Holes

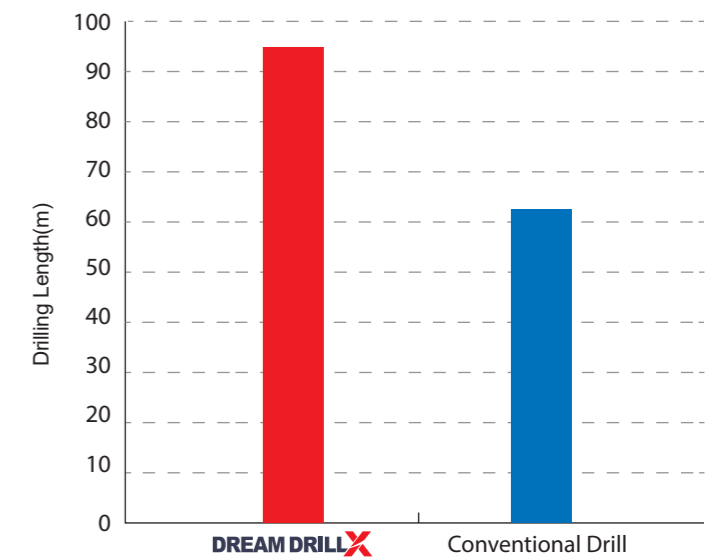
**Conventional Drill**



Total Drilling 384 Holes

► **SOLID CARBIDE DREAM DRILL X with Coolant Holes**

CUTTING CONDITION	
Work Material	• DIN : GGG40 • AISI : 60-40-18 • JIS : FCD400
Drilling Diameter(mm)	Ø8.5
Cutting Speed	112m/min
Feed	0.33mm/rev.
Drilling Depth	18mm
Coolant	Internal Cooling
Machine	Machining Center (Horizontal)



RCH-COATED SOLID CARBIDE  
**DREAM DRILL X without COOLANT HOLES (3XD)**

SERIES

**NEW DTX404**

- ▶ Upgraded coating for higher Tool Life in various materials
- ▶ Soft cutting action and reduced axial forces; Easy to Recondition
- ▶ Good self-centering even at low feed rates and unstable situations
- ▶ Excellent Chip breaking and chip evacuation



DIN 6539 CARBIDE 30° h6 h7 140° RCH Coating p.40

**STUB**  
3 × D

Unit : mm				Unit : mm			
EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
RCH-Coating	D1=D2	L1	L2	RCH-Coating	D1=D2	L1	L2
DTX404030	3.0	16	46	DTX404058	5.8	28	66
DTX404031	3.1	18	49	DTX404059	5.9	28	66
DTX404032	3.2	18	49	DTX404060	6.0	28	66
DTX404033	3.3	18	49	DTX404061	6.1	31	70
DTX404034	3.4	20	52	DTX404062	6.2	31	70
DTX404035	3.5	20	52	DTX404063	6.3	31	70
DTX404036	3.6	20	52	DTX404064	6.4	31	70
DTX404037	3.7	20	52	DTX404065	6.5	31	70
DTX404038	3.8	22	55	DTX404066	6.6	31	70
DTX404039	3.9	22	55	DTX404067	6.7	31	70
DTX404040	4.0	22	55	DTX404068	6.8	34	74
DTX404041	4.1	22	55	DTX404069	6.9	34	74
DTX404042	4.2	22	55	DTX404070	7.0	34	74
DTX404043	4.3	24	58	DTX404071	7.1	34	74
DTX404044	4.4	24	58	DTX404072	7.2	34	74
DTX404045	4.5	24	58	DTX404073	7.3	34	74
DTX404046	4.6	24	58	DTX404074	7.4	34	74
DTX404047	4.7	24	58	DTX404075	7.5	34	74
DTX404048	4.8	26	62	DTX404076	7.6	37	79
DTX404049	4.9	26	62	DTX404077	7.7	37	79
DTX404050	5.0	26	62	DTX404078	7.8	37	79
DTX404051	5.1	26	62	DTX404079	7.9	37	79
DTX404052	5.2	26	62	DTX404080	8.0	37	79
DTX404053	5.3	26	62	DTX404081	8.1	37	79
DTX404054	5.4	28	66	DTX404082	8.2	37	79
DTX404055	5.5	28	66	DTX404083	8.3	37	79
DTX404056	5.6	28	66	DTX404084	8.4	37	79
DTX404057	5.7	28	66	DTX404085	8.5	37	79

▶ Other shank types 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	29	32	38	35	35	15	23	10	10	26	3	25	18	21	
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

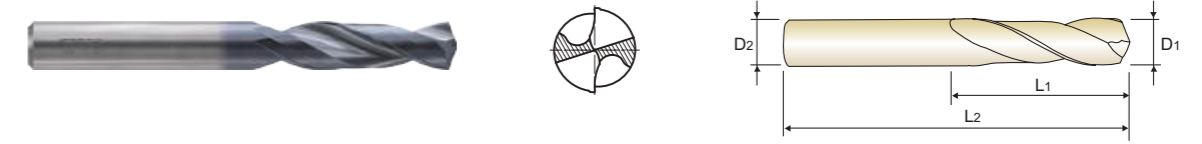
ISO	N										S					H					
	Aluminum-wrought alloy		Aluminum-cast alloyed			Copper and Copper Alloys (Bronze / Brass)					Non Metallic Materials		Heat Resistant Super Alloys			Titanium Alloys	Hardened steel	Chilled CastIron	Hardened CastIron		
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
HRc											15	30	25	38	34	55	60	60	42	55	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommended																					

RCH-COATED SOLID CARBIDE  
**DREAM DRILL X without COOLANT HOLES (3XD)**

SERIES

**NEW DTX404**

- ▶ Upgraded coating for higher Tool Life in various materials
- ▶ Soft cutting action and reduced axial forces; Easy to Recondition
- ▶ Good self-centering even at low feed rates and unstable situations
- ▶ Excellent Chip breaking and chip evacuation



DIN 6539 CARBIDE 30° h6 h7 140° RCH Coating p.40

**STUB**  
3 × D

Unit : mm				Unit : mm			
EDP No.	Drill Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Flute Length	Overall Length
RCH-Coating	D1=D2	L1	L2	RCH-Coating	D1=D2	L1	L2
DTX404086	8.6	40	84	DTX404170	17.0	60	119
DTX404087	8.7	40	84	DTX404175	17.5	62	123
DTX404088	8.8	40	84	DTX404180	18.0	62	123
DTX404089	8.9	40	84	DTX404185	18.5	64	127
DTX404090	9.0	40	84	DTX404190	19.0	64	127
DTX404091	9.1	40	84	DTX404195	19.5	66	131
DTX404092	9.2	40	84	DTX404200	20.0	66	131
DTX404093	9.3	40	84				
DTX404094	9.4	40	84				
DTX404095	9.5	40	84				
DTX404096	9.6	43	89				
DTX404097	9.7	43	89				
DTX404098	9.8	43	89				
DTX404099	9.9	43	89				
DTX404100	10.0	43	89				
DTX404102	10.2	43	89				
DTX404105	10.5	43	89				
DTX404110	11.0	47	95				
DTX404115	11.5	47	95				
DTX404120	12.0	51	102				
DTX404130	13.0	51	102				
DTX404135	13.5	54	107				
DTX404140	14.0	54	107				
DTX404145	14.5	56	111				
DTX404150	15.0	56	111				
DTX404155	15.5	58	115				
DTX404160	16.0	58	115				
DTX404165	16.5	60	119				

▶ Other shank types are available on your request.

◎ : 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	29	32	38	35	35	15	23	10	10	26	3	25	18	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 CastIron	Hardened CastIron		
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	60	42	55	55
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommended																					



RCH-COATED SOLID CARBIDE  
**DREAM DRILL X without COOLANT HOLES (5XD)**

SERIES  
**NEW DTX424**

- ▶ Upgraded coating for higher Tool Life in various materials
- ▶ Soft cutting action and reduced axial forces; Easy to Recondition
- ▶ Good self-centering even at low feed rates and unstable situations
- ▶ Excellent Chip breaking and chip evacuation



DIN 6537 CARBIDE 30° h6 m7 140° RCH Coating p.40

**LONG**  
5× D

Unit : mm					Unit : mm				
EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
RCH-Coating	D1	D2	L1	L2	RCH-Coating	D1	D2	L1	L2
DTX424010	1.0	3	8	55	DTX424038	3.8	6	36	74
DTX424011	1.1	3	12	55	DTX424039	3.9	6	36	74
DTX424012	1.2	3	12	55	DTX424040	4.0	6	36	74
DTX424013	1.3	3	12	55	DTX424041	4.1	6	36	74
DTX424014	1.4	3	12	55	DTX424042	4.2	6	36	74
DTX424015	1.5	3	16	55	DTX424043	4.3	6	36	74
DTX424016	1.6	3	16	55	DTX424044	4.4	6	36	74
DTX424017	1.7	3	16	55	DTX424045	4.5	6	36	74
DTX424018	1.8	3	16	55	DTX424046	4.6	6	36	74
DTX424019	1.9	3	16	55	DTX424047	4.7	6	36	74
DTX424020	2.0	4	21	57	DTX424048	4.8	6	44	82
DTX424021	2.1	4	21	57	DTX424049	4.9	6	44	82
DTX424022	2.2	4	21	57	DTX424050	5.0	6	44	82
DTX424023	2.3	4	21	57	DTX424051	5.1	6	44	82
DTX424024	2.4	4	21	57	DTX424052	5.2	6	44	82
DTX424025	2.5	4	21	57	DTX424053	5.3	6	44	82
DTX424026	2.6	4	21	57	DTX424054	5.4	6	44	82
DTX424027	2.7	4	21	57	DTX424055	5.5	6	44	82
DTX424028	2.8	4	21	57	DTX424056	5.6	6	44	82
DTX424029	2.9	4	21	57	DTX424057	5.7	6	44	82
DTX424030	3.0	6	28	66	DTX424058	5.8	6	44	82
DTX424031	3.1	6	28	66	DTX424059	5.9	6	44	82
DTX424032	3.2	6	28	66	DTX424060	6.0	6	44	82
DTX424033	3.3	6	28	66	DTX424061	6.1	8	53	91
DTX424034	3.4	6	28	66	DTX424062	6.2	8	53	91
DTX424035	3.5	6	28	66	DTX424063	6.3	8	53	91
DTX424036	3.6	6	28	66	DTX424064	6.4	8	53	91
DTX424037	3.7	6	28	66	DTX424065	6.5	8	53	91

▶ Other shank types 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											15	30	25	38	34						
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

RCH-COATED SOLID CARBIDE  
**DREAM DRILL X without COOLANT HOLES (5XD)**

SERIES  
**NEW DTX424**

- ▶ Upgraded coating for higher Tool Life in various materials
- ▶ Soft cutting action and reduced axial forces; Easy to Recondition
- ▶ Good self-centering even at low feed rates and unstable situations
- ▶ Excellent Chip breaking and chip evacuation



DIN 6537 CARBIDE 30° h6 m7 140° RCH Coating p.40

**LONG**  
5× D

Unit : mm					Unit : mm				
EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
RCH-Coating	D1	D2	L1	L2	RCH-Coating	D1	D2	L1	L2
DTX424066	6.6	8	53	91	DTX424094	9.4	10	61	103
DTX424067	6.7	8	53	91	DTX424095	9.5	10	61	103
DTX424068	6.8	8	53	91	DTX424096	9.6	10	61	103
DTX424069	6.9	8	53	91	DTX424097	9.7	10	61	103
DTX424070	7.0	8	53	91	DTX424098	9.8	10	61	103
DTX424071	7.1	8	53	91	DTX424099	9.9	10	61	103
DTX424072	7.2	8	53	91	DTX424100	10.0	10	61	103
DTX424073	7.3	8	53	91	DTX424101	10.1	12	71	118
DTX424074	7.4	8	53	91	DTX424102	10.2	12	71	118
DTX424075	7.5	8	53	91	DTX424103	10.3	12	71	118
DTX424076	7.6	8	53	91	DTX424104	10.4	12	71	118
DTX424077	7.7	8	53	91	DTX424105	10.5	12	71	118
DTX424078	7.8	8	53	91	DTX424106	10.6	12	71	118
DTX424079	7.9	8	53	91	DTX424107	10.7	12	71	118
DTX424080	8.0	8	53	91	DTX424108	10.8	12	71	118
DTX424081	8.1	10	61	103	DTX424109	10.9	12	71	118
DTX424082	8.2	10	61	103	DTX424110	11.0	12	71	118
DTX424083	8.3	10	61	103	DTX424111	11.1	12	71	118
DTX424084	8.4	10	61	103	DTX424112	11.2	12	71	118
DTX424085	8.5	10	61	103	DTX424113	11.3	12	71	118
DTX424086	8.6	10	61	103	DTX424114	11.4	12	71	118
DTX424087	8.7	10	61	103	DTX424115	11.5	12	71	118
DTX424088	8.8	10	61	103	DTX424116	11.6	12	71	118
DTX424089	8.9	10	61	103	DTX424117	11.7	12	71	118
DTX424090	9.0	10	61	103	DTX424118	11.8	12	71	118
DTX424091	9.1	10	61	103	DTX424119	11.9	12	71	118
DTX424092	9.2	10	61	103	DTX424120	12.0	12	71	118
DTX424093	9.3	10	61	103	DTX424125	12.5	14	77	124

▶ Other shank types 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											15	30	25	38	34						
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

RCH-COATED SOLID CARBIDE  
**DREAM DRILL X without COOLANT HOLES (5XD)**

SERIES  
**NEW DTX424**

- ▶ Upgraded coating for higher Tool Life in various materials
- ▶ Soft cutting action and reduced axial forces; Easy to Recondition
- ▶ Good self-centering even at low feed rates and unstable situations
- ▶ Excellent Chip breaking and chip evacuation



DIN 6537 CARBIDE 30° h6 m7 140° RCH Coating p.40

**LONG**  
5 × D

EDP No.	Drill Diameter D1	Shank Diameter D2	Flute Length L1	Overall Length L2
DTX424130	13.0	14	77	124
DTX424135	13.5	14	77	124
DTX424140	14.0	14	77	124
DTX424145	14.5	16	83	133
DTX424150	15.0	16	83	133
DTX424155	15.5	16	83	133
DTX424160	16.0	16	83	133
DTX424165	16.5	18	93	143

Unit : mm

EDP No.	Drill Diameter D1	Shank Diameter D2	Flute Length L1	Overall Length L2
DTX424170	17.0	18	93	143
DTX424175	17.5	18	93	143
DTX424180	18.0	18	93	143
DTX424185	18.5	20	101	153
DTX424190	19.0	20	101	153
DTX424195	19.5	20	101	153
DTX424200	20.0	20	101	153

▶ Other shank types are available on your request.

RCH-COATED SOLID CARBIDE  
**DREAM DRILL X with COOLANT HOLES (3XD)**

SERIES  
**NEW DTX406**

- ▶ Upgraded coating for higher Tool Life in various materials
- ▶ Soft cutting action and reduced axial forces; Easy to Recondition
- ▶ Good self-centering even at low feed rates and unstable situations
- ▶ Excellent Chip breaking and chip evacuation



DIN 6537 CARBIDE 30° h6 m7 140° 20 bar RCH Coating p.41

**SHORT**  
3 × D

Unit : mm

EDP No.	Drill Diameter D1	Shank Diameter D2	Flute Length L1	Overall Length L2
DTX406030	3.0	6	20	62
DTX406031	3.1	6	20	62
DTX406032	3.2	6	20	62
DTX406033	3.3	6	20	62
DTX406034	3.4	6	20	62
DTX406035	3.5	6	20	62
DTX406036	3.6	6	20	62
DTX406037	3.7	6	20	62
DTX406038	3.8	6	24	66
DTX406039	3.9	6	24	66
DTX406040	4.0	6	24	66
DTX406041	4.1	6	24	66
DTX406042	4.2	6	24	66
DTX406043	4.3	6	24	66
DTX406044	4.4	6	24	66
DTX406045	4.5	6	24	66
DTX406046	4.6	6	24	66
DTX406047	4.7	6	24	66
DTX406048	4.8	6	28	66
DTX406049	4.9	6	28	66
DTX406050	5.0	6	28	66
DTX406051	5.1	6	28	66
DTX406052	5.2	6	28	66
DTX406053	5.3	6	28	66
DTX406054	5.4	6	28	66
DTX406055	5.5	6	28	66
DTX406056	5.6	6	28	66
DTX406057	5.7	6	28	66

Unit : mm

EDP No.	Drill Diameter D1	Shank Diameter D2	Flute Length L1	Overall Length L2
DTX406058	5.8	6	28	66
DTX406059	5.9	6	28	66
DTX406060	6.0	6	28	66
DTX406061	6.1	8	34	79
DTX406062	6.2	8	34	79
DTX406063	6.3	8	34	79
DTX406064	6.4	8	34	79
DTX406065	6.5	8	34	79
DTX406066	6.6	8	34	79
DTX406067	6.7	8	34	79
DTX406068	6.8	8	34	79
DTX406069	6.9	8	34	79
DTX406070	7.0	8	34	79
DTX406071	7.1	8	41	79
DTX406072	7.2	8	41	79
DTX406073	7.3	8	41	79
DTX406074	7.4	8	41	79
DTX406075	7.5	8	41	79
DTX406076	7.6	8	41	79
DTX406077	7.7	8	41	79
DTX406078	7.8	8	41	79
DTX406079	7.9	8	41	79
DTX406080	8.0	8	41	79
DTX406081	8.1	10	47	89
DTX406082	8.2	10	47	89
DTX406083	8.3	10	47	89
DTX406084	8.4	10	47	89
DTX406085	8.5	10	47	89

▶ Other shank types 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	38	10	29	32	38	45	15	35	40	48	10	26	3	25	3	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																					
HB	60	100	75	90	130	110	90	100			15	30	25	38	34	200	280	250	350	320	400 Rm
Recommended																					

◎ : 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	38	10	29	32	38	45	15	35	40	48	10	26	3	25	3	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																					
HB	60	100	75	90	130	110	90	100			15	30	25	38	34	200	280	250	350	320	400 Rm
Recommended																					

RCH-COATED SOLID CARBIDE  
**DREAM DRILL X with COOLANT HOLES (3XD)**

SERIES  
**NEW DTX406**

- ▶ Upgraded coating for higher Tool Life in various materials
- ▶ Soft cutting action and reduced axial forces; Easy to Recondition
- ▶ Good self-centering even at low feed rates and unstable situations
- ▶ Excellent Chip breaking and chip evacuation



DIN 6537 CARBIDE 30° h6 m7 140° 20 bar RCH Coating p.41 **SHORT 3x D**

EDP No.	Drill Diameter D1	Shank Diameter D2	Flute Length L1	Overall Length L2	EDP No.	Drill Diameter D1	Shank Diameter D2	Flute Length L1	Overall Length L2
DTX406086	8.6	10	47	89	DTX406114	11.4	12	55	102
DTX406087	8.7	10	47	89	DTX406115	11.5	12	55	102
DTX406088	8.8	10	47	89	DTX406116	11.6	12	55	102
DTX406089	8.9	10	47	89	DTX406117	11.7	12	55	102
DTX406090	9.0	10	47	89	DTX406118	11.8	12	55	102
DTX406091	9.1	10	47	89	DTX406119	11.9	12	55	102
DTX406092	9.2	10	47	89	DTX406120	12.0	12	55	102
DTX406093	9.3	10	47	89	DTX406125	12.5	14	60	107
DTX406094	9.4	10	47	89	DTX406130	13.0	14	60	107
DTX406095	9.5	10	47	89	DTX406135	13.5	14	60	107
DTX406096	9.6	10	47	89	DTX406140	14.0	14	60	107
DTX406097	9.7	10	47	89	DTX406145	14.5	16	65	115
DTX406098	9.8	10	47	89	DTX406150	15.0	16	65	115
DTX406099	9.9	10	47	89	DTX406155	15.5	16	65	115
DTX406100	10.0	10	47	89	DTX406160	16.0	16	65	115
DTX406101	10.1	12	55	102	DTX406165	16.5	18	73	123
DTX406102	10.2	12	55	102	DTX406170	17.0	18	73	123
DTX406103	10.3	12	55	102	DTX406175	17.5	18	73	123
DTX406104	10.4	12	55	102	DTX406180	18.0	18	73	123
DTX406105	10.5	12	55	102	DTX406185	18.5	20	79	131
DTX406106	10.6	12	55	102	DTX406190	19.0	20	79	131
DTX406107	10.7	12	55	102	DTX406195	19.5	20	79	131
DTX406108	10.8	12	55	102	DTX406200	20.0	20	79	131
DTX406109	10.9	12	55	102					
DTX406110	11.0	12	55	102					
DTX406111	11.1	12	55	102					
DTX406112	11.2	12	55	102					
DTX406113	11.3	12	55	102					

▶ Other shank types are available on your request.

◎ : 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	38	10	29	32	38	45	15	35	23	10	10	26	3	25	19	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	13	25	28	32	38	10	29	32	38	45	15	30	25	38	34	15	30	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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

RCH-COATED SOLID CARBIDE  
**DREAM DRILL X with COOLANT HOLES (5XD)**

SERIES  
**NEW DTX408**

- ▶ Upgraded coating for higher Tool Life in various materials
- ▶ Soft cutting action and reduced axial forces; Easy to Recondition
- ▶ Good self-centering even at low feed rates and unstable situations
- ▶ Excellent Chip breaking and chip evacuation



DIN 6537 CARBIDE 30° h6 m7 140° 20 bar RCH Coating p.41 **LONG 5x D**

EDP No.	Drill Diameter D1	Shank Diameter D2	Flute Length L1	Overall Length L2	EDP No.	Drill Diameter D1	Shank Diameter D2	Flute Length L1	Overall Length L2
DTX408010	1.0	3	8	55	DTX408038	3.8	6	36	74
DTX408011	1.1	3	12	55	DTX408039	3.9	6	36	74
DTX408012	1.2	3	12	55	DTX408040	4.0	6	36	74
DTX408013	1.3	3	12	55	DTX408041	4.1	6	36	74
DTX408014	1.4	3	12	55	DTX408042	4.2	6	36	74
DTX408015	1.5	3	16	55	DTX408043	4.3	6	36	74
DTX408016	1.6	3	16	55	DTX408044	4.4	6	36	74
DTX408017	1.7	3	16	55	DTX408045	4.5	6	36	74
DTX408018	1.8	3	16	55	DTX408046	4.6	6	36	74
DTX408019	1.9	3	16	55	DTX408047	4.7	6	36	74
DTX408020	2.0	4	21	57	DTX408048	4.8	6	44	82
DTX408021	2.1	4	21	57	DTX408049	4.9	6	44	82
DTX408022	2.2	4	21	57	DTX408050	5.0	6	44	82
DTX408023	2.3	4	21	57	DTX408051	5.1	6	44	82
DTX408024	2.4	4	21	57	DTX408052	5.2	6	44	82
DTX408025	2.5	4	21	57	DTX408053	5.3	6	44	82
DTX408026	2.6	4	21	57	DTX408054	5.4	6	44	82
DTX408027	2.7	4	21	57	DTX408055	5.5	6	44	82
DTX408028	2.8	4	21	57	DTX408056	5.6	6	44	82
DTX408029	2.9	4	21	57	DTX408057	5.7	6	44	82
DTX408030	3.0	6	28	66	DTX408058	5.8	6	44	82
DTX408031	3.1	6	28	66	DTX408059	5.9	6	44	82
DTX408032	3.2	6	28	66	DTX408060	6.0	6	44	82
DTX408033	3.3	6	28	66	DTX408061	6.1	8	53	91
DTX408034	3.4	6	28	66	DTX408062	6.2	8	53	91
DTX408035	3.5	6	28	66	DTX408063	6.3	8	53	91
DTX408036	3.6	6	28	66	DTX408064	6.4	8	53	91
DTX408037	3.7	6	28	66	DTX408065	6.5	8	53	91

▶ Other shank types 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	38	10	29	32	38	45	15	35	23	10	10	26	3	25	19	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	13	25	28	32	38	10	29	32	38	45	15	30	25	38	34	15	30	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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

RCH-COATED SOLID CARBIDE  
**DREAM DRILL X with COOLANT HOLES (5XD)**

SERIES  
**NEW DTX408**

- ▶ Upgraded coating for higher Tool Life in various materials
- ▶ Soft cutting action and reduced axial forces; Easy to Recondition
- ▶ Good self-centering even at low feed rates and unstable situations
- ▶ Excellent Chip breaking and chip evacuation



DIN 6537 CARBIDE 30° h6 m7 140° 20 bar RCH Coating p.41 **LONG 5x D**

Unit : mm				
EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
RCH-Coating	D1	D2	L1	L2
DTX408066	6.6	8	53	91
DTX408067	6.7	8	53	91
DTX408068	6.8	8	53	91
DTX408069	6.9	8	53	91
DTX408070	7.0	8	53	91
DTX408071	7.1	8	53	91
DTX408072	7.2	8	53	91
DTX408073	7.3	8	53	91
DTX408074	7.4	8	53	91
DTX408075	7.5	8	53	91
DTX408076	7.6	8	53	91
DTX408077	7.7	8	53	91
DTX408078	7.8	8	53	91
DTX408079	7.9	8	53	91
DTX408080	8.0	8	53	91
DTX408081	8.1	10	61	103
DTX408082	8.2	10	61	103
DTX408083	8.3	10	61	103
DTX408084	8.4	10	61	103
DTX408085	8.5	10	61	103
DTX408086	8.6	10	61	103
DTX408087	8.7	10	61	103
DTX408088	8.8	10	61	103
DTX408089	8.9	10	61	103
DTX408090	9.0	10	61	103
DTX408091	9.1	10	61	103
DTX408092	9.2	10	61	103
DTX408093	9.3	10	61	103
DTX408094	9.4	10	61	103
DTX408095	9.5	10	61	103
DTX408096	9.6	10	61	103
DTX408097	9.7	10	61	103
DTX408098	9.8	10	61	103
DTX408099	9.9	10	61	103
DTX408100	10.0	10	61	103
DTX408101	10.1	12	71	118
DTX408102	10.2	12	71	118
DTX408103	10.3	12	71	118
DTX408104	10.4	12	71	118
DTX408105	10.5	12	71	118
DTX408106	10.6	12	71	118
DTX408107	10.7	12	71	118
DTX408108	10.8	12	71	118
DTX408109	10.9	12	71	118
DTX408110	11.0	12	71	118
DTX408111	11.1	12	71	118
DTX408112	11.2	12	71	118
DTX408113	11.3	12	71	118
DTX408114	11.4	12	71	118
DTX408115	11.5	12	71	118
DTX408116	11.6	12	71	118
DTX408117	11.7	12	71	118
DTX408118	11.8	12	71	118
DTX408119	11.9	12	71	118
DTX408120	12.0	12	71	118
DTX408125	12.5	14	77	124

▶ Other shank types 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	21	22	23	24	25
HRc	13	25	28	32	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	28	30	32	35	38
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	180	260	160	250	130
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	42	43	44	45	46
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550	550	630	400	550	550
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

RCH-COATED SOLID CARBIDE  
**DREAM DRILL X with COOLANT HOLES (5XD)**

SERIES  
**NEW DTX408**

- ▶ Upgraded coating for higher Tool Life in various materials
- ▶ Soft cutting action and reduced axial forces; Easy to Recondition
- ▶ Good self-centering even at low feed rates and unstable situations
- ▶ Excellent Chip breaking and chip evacuation



DIN 6537 CARBIDE 30° h6 m7 140° 20 bar RCH Coating p.41 **LONG 5x D**

Unit : mm				
EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
RCH-Coating	D1	D2	L1	L2
DTX408130	13.0	14	77	124
DTX408135	13.5	14	77	124
DTX408140	14.0	14	77	124
DTX408145	14.5	16	83	133
DTX408150	15.0	16	83	133
DTX408155	15.5	16	83	133
DTX408160	16.0	16	83	133
DTX408165	16.5	18	93	143
DTX408170	17.0	18	93	143
DTX408175	17.5	18	93	143
DTX408180	18.0	18	93	143
DTX408185	18.5	20	101	153
DTX408190	19.0	20	101	153
DTX408195	19.5	20	101	153
DTX408200	20.0	20	101	153

▶ Other shank types 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	21	22	23	24	25
HRc	13	25	28	32	35	38	40	42	45	48	50	52	55	58	60	62	65	68	70	72	28	30	32	35	38
HB	125	190	250	270	300	180	275	300	350	200	325	200	240	180	180	260	160	250	130	230	180	260	160	250	130
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎

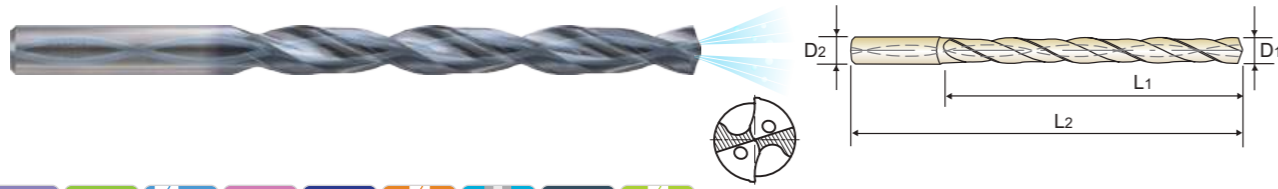
ISO	N										S						H									
Material Description	Aluminum-wrought alloy		Aluminum-cast alloyed			Copper and Copper Alloys (Bronze / Brass)					Non Metallic Materials			Heat Resistant Super Alloys			Titanium Alloys			Hardened steel	Chilled Cast Iron	Hardened Cast Iron				
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
HRc	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400 Rm	1050 Rm	550	630	400	550	550	630	400	550	550
Recommended	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎



RCH-COATED SOLID CARBIDE  
**DREAM DRILL X with COOLANT HOLES (8XD)**

SERIES  
**NEW DTX421**

- ▶ Upgraded coating for higher Tool Life in various materials
- ▶ Soft cutting action and reduced axial forces; Easy to Recondition
- ▶ Good self-centering even at low feed rates and unstable situations
- ▶ Excellent Chip breaking and chip evacuation



DIN 6537 CARBIDE 30° h6 m7 140° 20 bar RCH Coating p.41 **EXTRA LONG** 8× D

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
RCH-Coating	D1	D2	L1	L2	RCH-Coating	D1	D2	L1	L2
DTX421030	3.0	6	34	72	DTX421058	5.8	6	57	95
DTX421031	3.1	6	34	72	DTX421059	5.9	6	57	95
DTX421032	3.2	6	34	72	DTX421060	6.0	6	57	95
DTX421033	3.3	6	34	72	DTX421061	6.1	8	76	114
DTX421034	3.4	6	34	72	DTX421062	6.2	8	76	114
DTX421035	3.5	6	34	72	DTX421063	6.3	8	76	114
DTX421036	3.6	6	34	72	DTX421064	6.4	8	76	114
DTX421037	3.7	6	34	72	DTX421065	6.5	8	76	114
DTX421038	3.8	6	43	81	DTX421066	6.6	8	76	114
DTX421039	3.9	6	43	81	DTX421067	6.7	8	76	114
DTX421040	4.0	6	43	81	DTX421068	6.8	8	76	114
DTX421041	4.1	6	43	81	DTX421069	6.9	8	76	114
DTX421042	4.2	6	43	81	DTX421070	7.0	8	76	114
DTX421043	4.3	6	43	81	DTX421071	7.1	8	76	114
DTX421044	4.4	6	43	81	DTX421072	7.2	8	76	114
DTX421045	4.5	6	43	81	DTX421073	7.3	8	76	114
DTX421046	4.6	6	43	81	DTX421074	7.4	8	76	114
DTX421047	4.7	6	43	81	DTX421075	7.5	8	76	114
DTX421048	4.8	6	57	95	DTX421076	7.6	8	76	114
DTX421049	4.9	6	57	95	DTX421077	7.7	8	76	114
DTX421050	5.0	6	57	95	DTX421078	7.8	8	76	114
DTX421051	5.1	6	57	95	DTX421079	7.9	8	76	114
DTX421052	5.2	6	57	95	DTX421080	8.0	8	76	114
DTX421053	5.3	6	57	95	DTX421081	8.1	10	95	142
DTX421054	5.4	6	57	95	DTX421082	8.2	10	95	142
DTX421055	5.5	6	57	95	DTX421083	8.3	10	95	142
DTX421056	5.6	6	57	95	DTX421084	8.4	10	95	142
DTX421057	5.7	6	57	95	DTX421085	8.5	10	95	142

▶ Other shank types 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	32	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	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	

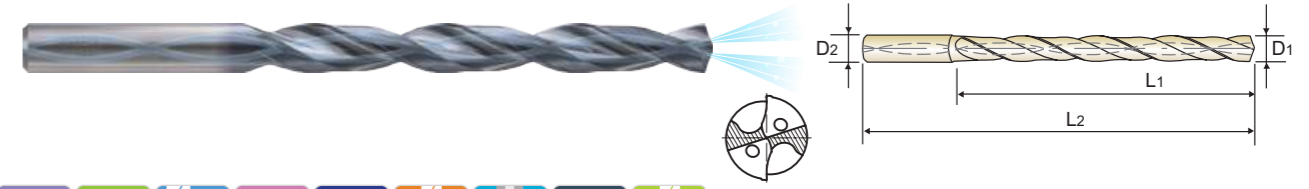
  

ISO	N										S				H								
	Aluminum-wrought alloy		Aluminum-cast alloyed			Copper and Copper Alloys (Bronze / Brass)					Non Metallic Materials		Heat Resistant Super Alloys				Titanium Alloys		Hardened steel		Chilled Cast Iron		Hardened Cast Iron
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41		
HRc											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											◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎		

RCH-COATED SOLID CARBIDE  
**DREAM DRILL X with COOLANT HOLES (8XD)**

SERIES  
**NEW DTX421**

- ▶ Upgraded coating for higher Tool Life in various materials
- ▶ Soft cutting action and reduced axial forces; Easy to Recondition
- ▶ Good self-centering even at low feed rates and unstable situations
- ▶ Excellent Chip breaking and chip evacuation



DIN 6537 CARBIDE 30° h6 m7 140° 20 bar RCH Coating p.41 **EXTRA LONG** 8× D

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
RCH-Coating	D1	D2	L1	L2	RCH-Coating	D1	D2	L1	L2
DTX421086	8.6	10	95	142	DTX421114	11.4	12	114	162
DTX421087	8.7	10	95	142	DTX421115	11.5	12	114	162
DTX421088	8.8	10	95	142	DTX421116	11.6	12	114	162
DTX421089	8.9	10	95	142	DTX421117	11.7	12	114	162
DTX421090	9.0	10	95	142	DTX421118	11.8	12	114	162
DTX421091	9.1	10	95	142	DTX421119	11.9	12	114	162
DTX421092	9.2	10	95	142	DTX421120	12.0	12	114	162
DTX421093	9.3	10	95	142	DTX421125	12.5	14	133	178
DTX421094	9.4	10	95	142	DTX421130	13.0	14	133	178
DTX421095	9.5	10	95	142	DTX421135	13.5	14	133	178
DTX421096	9.6	10	95	142	DTX421140	14.0	14	133	178
DTX421097	9.7	10	95	142					
DTX421098	9.8	10	95	142					
DTX421099	9.9	10	95	142					
DTX421100	10.0	10	95	142					
DTX421101	10.1	12	114	162					
DTX421102	10.2	12	114	162					
DTX421103	10.3	12	114	162					
DTX421104	10.4	12	114	162					
DTX421105	10.5	12	114	162					
DTX421106	10.6	12	114	162					
DTX421107	10.7	12	114	162					
DTX421108	10.8	12	114	162					
DTX421109	10.9	12	114	162					
DTX421110	11.0	12	114	162					
DTX421111	11.1	12	114	162					
DTX421112	11.2	12	114	162					
DTX421113	11.3	12	114	162					

▶ Other shank types are available on your request.

◎ : 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	32	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											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											◎	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎		

**DTX404, DTX423, DTX424** SERIES

without COOLANT HOLES

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

ISO	VDI 3323	Material Description	Vc	Parameter	Drill Diameter (mm)					
					1.0	2.0	3.0	4.0	5.0	6.0
P	2	Non-alloy steel	70	RPM	22280	11140	10610	7960	6370	5310
				FEED	0.03-0.05	0.05-0.07	0.06-0.12	0.08-0.14	0.14-0.20	0.16-0.22
				RPM	22280	11140	10610	7960	6370	5310
	3	Non-alloy steel	70	RPM	22280	11140	10610	7960	6370	5310
				FEED	0.03-0.05	0.05-0.07	0.06-0.12	0.08-0.14	0.14-0.20	0.16-0.22
				RPM	22280	11140	10610	7960	6370	5310
	4	Non-alloy steel	70	RPM	22280	11140	10610	7960	6370	5310
				FEED	0.03-0.05	0.05-0.07	0.06-0.12	0.08-0.14	0.14-0.20	0.16-0.22
				RPM	22280	11140	10610	7960	6370	5310
	5	Non-alloy steel	70	RPM	22280	11140	10610	7960	6370	5310
				FEED	0.03-0.05	0.05-0.07	0.06-0.12	0.08-0.14	0.14-0.20	0.16-0.22
RPM				22280	11140	10610	7960	6370	5310	
6	Low alloy steel	70	RPM	22280	11140	10610	7960	6370	5310	
			FEED	0.03-0.05	0.05-0.07	0.06-0.12	0.08-0.14	0.14-0.20	0.16-0.22	
			RPM	22280	11140	10610	7960	6370	5310	
7	Low alloy steel	60	RPM	19100	9550	8490	6370	5090	4240	
			FEED	0.03-0.05	0.05-0.07	0.06-0.12	0.08-0.14	0.14-0.20	0.16-0.22	
			RPM	19100	9550	8490	6370	5090	4240	
8	Low alloy steel	60	RPM	19100	9550	8490	6370	5090	4240	
			FEED	0.02-0.04	0.03-0.05	0.04-0.10	0.07-0.13	0.10-0.16	0.12-0.18	
			RPM	19100	9550	8490	6370	5090	4240	
9	Low alloy steel	30	RPM	9550	4770	4240	3180	2550	2120	
			FEED	0.02-0.04	0.03-0.05	0.03-0.08	0.05-0.11	0.08-0.14	0.10-0.16	
			RPM	9550	4770	4240	3180	2550	2120	
10	High alloyed steel, and tool steel	50	RPM	15920	7960	7430	5570	4460	3710	
			FEED	0.03-0.05	0.05-0.07	0.04-0.10	0.07-0.13	0.10-0.16	0.12-0.18	
			RPM	15920	7960	7430	5570	4460	3710	
11	High alloyed steel, and tool steel	30	RPM	9550	4770	4240	3180	2550	2120	
			FEED	0.02-0.04	0.03-0.05	0.03-0.08	0.05-0.11	0.08-0.14	0.10-0.16	
			RPM	9550	4770	4240	3180	2550	2120	
M	12	Stainless steel	50	RPM	15920	7960	7430	5570	4460	3710
				FEED	0.03-0.05	0.05-0.07	0.06-0.12	0.08-0.14	0.14-0.20	0.16-0.22
M	13	Stainless steel	35	RPM	11140	5570	4770	3580	2860	2390
				FEED	0.02-0.04	0.03-0.05	0.04-0.10	0.07-0.13	0.10-0.16	0.12-0.18
K	15	Grey cast iron	70	RPM	22280	11140	10610	7960	6370	5310
				FEED	0.04-0.06	0.04-0.06	0.08-0.14	0.12-0.18	0.15-0.22	0.20-0.26
	16	Grey cast iron	65	RPM	20690	10350	8490	6370	5090	4240
				FEED	0.04-0.06	0.04-0.06	0.06-0.12	0.08-0.14	0.14-0.20	0.16-0.22
	17	Nodular cast iron	70	RPM	22280	11140	10610	7960	6370	5310
				FEED	0.04-0.06	0.04-0.06	0.08-0.14	0.12-0.18	0.15-0.22	0.20-0.26
	18	Nodular cast iron	50	RPM	15920	7960	7430	5570	4460	3710
				FEED	0.04-0.06	0.04-0.06	0.06-0.12	0.08-0.14	0.14-0.20	0.16-0.22
19	Malleable cast iron	60	RPM	19100	9550	8490	6370	5090	4240	
			FEED	0.04-0.06	0.04-0.06	0.08-0.14	0.12-0.18	0.15-0.22	0.20-0.26	
20	Malleable cast iron	50	RPM	15920	7960	7430	5570	4460	3710	
			FEED	0.03-0.05	0.05-0.07	0.06-0.12	0.08-0.14	0.14-0.20	0.16-0.22	
H	38	Hardened steel	20	RPM	6370	3180	2650	1990	1590	1330
				FEED	0.01-0.02	0.01-0.03	0.01-0.03	0.01-0.04	0.02-0.05	0.03-0.06

ISO	VDI 3323	Material Description	Vc	Parameter	Drill Diameter (mm)							
					8.0	10.0	12.0	14.0	16.0	18.0	20.0	
P	2	Non-alloy steel	100	RPM	3980	3180	2650	2270	1990	1770	1590	
				FEED	0.18-0.24	0.19-0.27	0.21-0.29	0.23-0.31	0.25-0.33	0.28-0.38	0.30-0.40	
				RPM	3980	3180	2650	2270	1990	1770	1590	
	3	Non-alloy steel	100	RPM	3980	3180	2650	2270	1990	1770	1590	
				FEED	0.18-0.24	0.19-0.27	0.21-0.29	0.23-0.31	0.25-0.33	0.28-0.38	0.30-0.40	
				RPM	3980	3180	2650	2270	1990	1770	1590	
	4	Non-alloy steel	100	RPM	3980	3180	2650	2270	1990	1770	1590	
				FEED	0.14-0.20	0.15-0.23	0.17-0.25	0.18-0.26	0.19-0.27	0.20-0.30	0.22-0.32	
				RPM	3180	2550	2120	1820	1590	1410	1270	
	5	Non-alloy steel	80	RPM	3180	2550	2120	1820	1590	1410	1270	
				FEED	0.14-0.20	0.15-0.23	0.17-0.25	0.18-0.26	0.19-0.27	0.20-0.30	0.22-0.32	
RPM				3980	3180	2650	2270	1990	1770	1590		
6	Low alloy steel	100	RPM	3980	3180	2650	2270	1990	1770	1590		
			FEED	0.18-0.24	0.19-0.27	0.21-0.29	0.23-0.31	0.25-0.33	0.28-0.38	0.30-0.40		
			RPM	3180	2550	2120	1820	1590	1410	1270		
7	Low alloy steel	80	RPM	3180	2550	2120	1820	1590	1410	1270		
			FEED	0.18-0.24	0.19-0.27	0.21-0.29	0.23-0.31	0.25-0.33	0.28-0.38	0.30-0.40		
			RPM	3180	2550	2120	1820	1590	1410	1270		
8	Low alloy steel	80	RPM	3180	2550	2120	1820	1590	1410	1270		
			FEED	0.14-0.20	0.15-0.23	0.17-0.25	0.18-0.26	0.19-0.27	0.20-0.30	0.22-0.32		
			RPM	1590	1270	1060	910	800	710	640		
9	Low alloy steel	40	RPM	1590	1270	1060	910	800	710	640		
			FEED	0.12-0.18	0.13-0.19	0.14-0.20	0.15-0.21	0.16-0.22	0.17-0.25	0.18-0.28		
			RPM	2790	2230	1860	1590	1390	1240	1110		
10	High alloyed steel, and tool steel	70	RPM	2790	2230	1860	1590	1390	1240	1110		
			FEED	0.14-0.20	0.15-0.23	0.17-0.25	0.18-0.26	0.19-0.27	0.20-0.30	0.22-0.32		
			RPM	1590	1270	1060	910	800	710	640		
11	High alloyed steel, and tool steel	40	RPM	1590	1270	1060	910	800	710	640		
			FEED	0.12-0.18	0.13-0.19	0.14-0.20	0.15-0.21	0.16-0.22	0.17-0.25	0.18-0.28		
			RPM	2790	2230	1860	1590	1390	1240	1110		
M	12	Stainless steel	70	RPM	2790	2230	1860	1590	1390	1240	1110	
				FEED	0.18-0.24	0.19-0.27	0.21-0.29	0.23-0.31	0.25-0.33	0.28-0.38	0.30-0.40	
M	13	Stainless steel	45	RPM	1790	1430	1190	1020	900	800	720	
				FEED	0.14-0.20	0.15-0.23	0.17-0.25	0.18-0.26	0.19-0.27	0.20-0.30	0.22-0.32	
K	15	Grey cast iron	100	RPM	3980	3180	2650	2270	1990	1770	1590	
				FEED	0.22-0.28	0.25-0.33	0.27-0.35	0.29-0.37	0.31-0.39	0.32-0.42	0.34-0.44	
	16	Grey cast iron	80	RPM	3180	2550	2120	1820	1590	1410	1270	
				FEED	0.18-0.24	0.19-0.27	0.21-0.29	0.23-0.31	0.25-0.33	0.28-0.38	0.30-0.40	
	17	Nodular cast iron	100	RPM	3980	3180	2650	2270	1990	1770	1590	
				FEED	0.22-0.28	0.25-0.33	0.27-0.35	0.29-0.37	0.31-0.39	0.32-0.42	0.34-0.44	
	18	Nodular cast iron	70	RPM	2790	2230	1860	1590	1390	1240	1110	
				FEED	0.18-0.24	0.19-0.27	0.21-0.29	0.23-0.31	0.25-0.33	0.28-0.38	0.30-0.40	
19	Malleable cast iron	80	RPM	3180	2550	2120	1820	1590	1410	1270		
			FEED	0.22-0.28	0.25-0.33	0.27-0.35	0.29-0.37	0.31-0.39	0.32-0.42	0.34-0.44		
20	Malleable cast iron	70	RPM	2790	2230	1860	1590	1390	1240	1110		
			FEED	0.18-0.24	0.19-0.27	0.21-0.29	0.23-0.31	0.25-0.33	0.28-0.38	0.30-0.40		
H	38	Hardened steel	25	RPM	990	800	660	570	500	440	400	
				FEED	0.03-0.06	0.04-0.07	0.04-0.08	0.05-0.09	0.05-0.09	0.05-0.10	0.05-0.10	

► Recommend to reduce the feed rate as following **Feed 100%** : DTX404(3×D), DTX423(3×D), DTX424(5×D)

**DTX406, DTX408, DTX421** SERIES

with COOLANT HOLES

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

ISO	VDI 3323	Material Description	Vc	Parameter	Drill Diameter (mm)					
					1.0	2.0	3.0	4.0	5.0	6.0
P	2	Non-alloy steel	80	RPM	25460	12730	11670	8750	7000	5840
				FEED	0.03-0.05	0.05-0.07	0.06-0.12	0.08-0.14	0.14-0.20	0.16-0.22
				RPM	25460	12730	11670	8750	7000	5840
	3	Non-alloy steel	80	RPM	25460	12730	11670	8750	7000	5840
				FEED	0.03-0.05	0.05-0.07	0.06-0.12	0.08-0.14	0.14-0.20	0.16-0.22
				RPM	25460	12730	11670	8750	7000	5840
	4	Non-alloy steel	80	RPM	25460	12730	11670	8750	7000	5840
				FEED	0.03-0.05	0.05-0.07	0.06-0.12	0.08-0.14	0.14-0.20	0.16-0.22
				RPM	25460	12730	11670	8750	7000	5840