Leading Through Innovation

SOLID CARBIDE

DREAM DRILLS -FLAT BOTTOM

DREAM DRILLS - FLACHBOHRER

- For Holes on Various Angled Surfaces
- Für Bohrungen auf verschiedenen abgewinkelten Oberflächen

SELECTION GUIDE

HOLEMAKING TOOLS

SERIES	DPP447	DH450
DRILLING DEPTH	2XD	5XD
LENGTH	SHORT	LONG
SIZE MIN	D3.0	D3.0
SIZE MAX	D20.0	D20.0
PAGE	110	113
SURFACE TREATMENT	X-Coating	TiAlN

SOLID CARBIDE DREAM DRILLS FLAT BOTTOM

For Holes on Various Angled Surfaces

Please visit globalyg1.com/mat for material search

◎ : Excellent ○ : Good

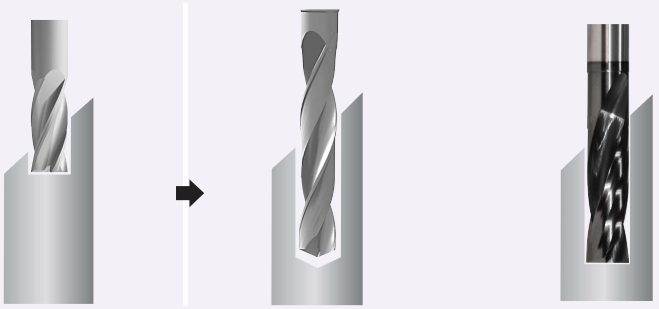
Recommended cutting conditions : P.116

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

Only One Operation for Angled Surface

For angled surfaces, two operations are required to drill in a conventional process

For angled surfaces, only one operation can complete the drilling with Dream Drill Flat Bottom



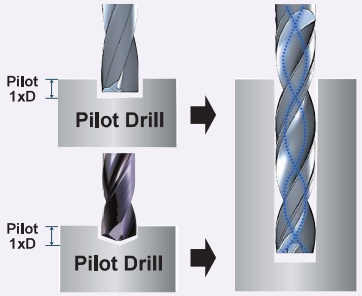
1st operation (End mill)
Counter boring to make flat surface and guide hole

2nd operation (Drill)
Drilling to required depth of hole

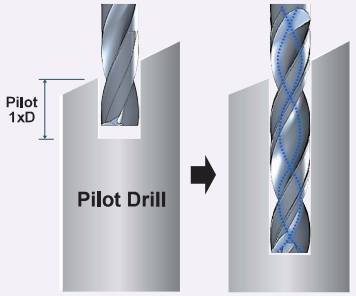
One operation (Dream Drill Flat Bottom)
One Drill does it all
without using both an end mill and a drill

Pilot Drilling for 5 X D

1. FLAT SURFACE



2. INCLINED SURFACE



▶For Flat bottom 5xD drilling depth, Slope surface needs Pilot Drilling with YG-1 Flat Bottom Drill (2XD) and Flat surface needs Pilot Drilling with YG-1 Dream Drill General.
▶Pilot Drilling Depth : around 1XD
▶Pilot Drilling Diameter : same size diameter

CARBIDE
HSS
i-ONE DRILLS
i-DREAM DRILLS
DREAM DRILLS -GENERAL
DREAM DRILLS -HIGH FEED
DREAM DRILLS -FLAT BOTTOM
DREAM DRILLS -INOX
DREAM DRILLS -ALU
DREAM DRILLS -CFRP
DREAM DRILLS -MQL
DREAM DRILLS for HIGH HARDENED STEELS
GENERAL CARBIDE DRILLS
MULTI-1 DRILLS
HPD DRILLS
GOLD-P DRILLS
SUPER-GP DRILLS
STRAIGHT SHANK DRILLS
TAPER SHANK DRILLS
NC-SPOTTING DRILLS
CENTER DRILLS
SPADE DRILLS
REAMERS
COUNTER SINKS
COUNTER BORES
TECHNICAL DATA

DREAM DRILLS - FLAT BOTTOM

DPP447 SERIES

CARBIDE, DREAM DRILLS - FLAT BOTTOM

SHORT
VHM, DREAM DRILLS - FLACHBOHRER — KURZ
DREAM DRILLS - FOND PLAT, FORET CARBURE MONOBLOC — COURTE
PUNTE IN MD DREAM DRILLS, TESTA PIANA — CORTA

- For holes on various angled surfaces.
- 180 degree point angle enables drilling of flat, inclined and curved surfaces.
- Optimized flute shape for excellent chip evacuation.
- High strength cutting edge to improve tool life and versatility drilling.
- For through holes, minimized burrs at entrance and exit when drilling thin plate.

- Für Bohrungen auf verschiedenen abgewinkelten Flächen.
- Der 180-Grad-Spitzenwinkel ermöglicht das Bohren von flachen, geneigten und gekrümmten Oberflächen.
- Optimierte Nutenform für hervorragende Spanabfuhr.
- Hochfeste Schneide zur Verbesserung der Standzeit und Vielseitigkeit beim Bohren.
- Für Durchgangsbohrungen, minimierter Grat am Ein- und Austritt beim Bohren von dünnen Blechen.

CARBIDE | 20° | h6 | h7 | 180° | P.116

2 × D

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
X-Coating	D1	D2	L1	L2
DPP447030	3.0	6	16	50
DPP447031	3.1	6	16	50
DPP447032	3.2	6	16	50
DPP447033	3.3	6	16	50
DPP447034	3.4	6	18	50
DPP447035	3.5	6	18	50
DPP447036	3.6	6	18	50
DPP447037	3.7	6	18	50
DPP447038	3.8	6	18	50
DPP447039	3.9	6	18	50
DPP447040	4.0	6	18	50
DPP447041	4.1	6	20	60
DPP447042	4.2	6	20	60
DPP447043	4.3	6	20	60
DPP447044	4.4	6	20	60
DPP447045	4.5	6	22	60
DPP447046	4.6	6	22	60
DPP447047	4.7	6	22	60
DPP447048	4.8	6	22	60
DPP447049	4.9	6	22	60
DPP447050	5.0	6	22	60
DPP447051	5.1	6	24	60
DPP447052	5.2	6	24	60
DPP447053	5.3	6	24	60

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
X-Coating	D1	D2	L1	L2
DPP447054	5.4	6	24	60
DPP447055	5.5	6	24	60
DPP447056	5.6	6	24	60
DPP447057	5.7	6	26	60
DPP447058	5.8	6	26	60
DPP447059	5.9	6	26	60
DPP447060	6.0	6	26	60
DPP447061	6.1	8	28	70
DPP447062	6.2	8	28	70
DPP447063	6.3	8	28	70
DPP447064	6.4	8	30	70
DPP447065	6.5	8	30	70
DPP447066	6.6	8	30	70
DPP447067	6.7	8	30	70
DPP447068	6.8	8	30	70
DPP447069	6.9	8	30	70
DPP447070	7.0	8	30	70
DPP447071	7.1	8	34	70
DPP447072	7.2	8	34	70
DPP447073	7.3	8	34	70
DPP447074	7.4	8	34	70
DPP447075	7.5	8	34	70
DPP447076	7.6	8	34	70
DPP447077	7.7	8	34	70

▶ Other diameters and shank types are available upon request.

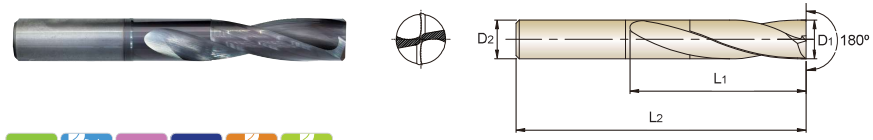
▶ NEXT PAGE

◎ : 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	400 Rm	1050 Rm	550	630	400	550
Recommended	○	○																			

DREAM DRILLS - FLAT BOTTOM
DPP447 SERIES
CARBIDE, DREAM DRILLS - FLAT BOTTOM
SHORT
VHM, DREAM DRILLS - FLACHBOHRER — KURZ
DREAM DRILLS - FOND PLAT, FORET CARBURE MONOBLOC — COURTE
PUNTE IN MD DREAM DRILLS, TESTA PIANA — CORTA
- For holes on various angled surfaces.
- 180 degree point angle enables drilling of flat, inclined and curved surfaces.
- Optimized flute shape for excellent chip evacuation.
- High strength cutting edge to improve tool life and versatility drilling.
- For through holes, minimized burrs at entrance and exit when drilling thin plate.
- Für Bohrungen auf verschiedenen abgewinkelten Flächen.
- Der 180-Grad-Spitzenwinkel ermöglicht das Bohren von flachen, geneigten und gekrümmten Oberflächen.
- Optimierte Nutenform für hervorragende Spanabfuhr.
- Hochfeste Schneide zur Verbesserung der Standzeit und Vielseitigkeit beim Bohren.
- Für Durchgangsbohrungen, minimierter Grat am Ein- und Austritt beim Bohren von dünnen Blechen.



CARBIDE | 20° | h6 | h7 | 180° | P.116
2 × D
Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
X-Coating	D1	D2	L1	L2
DPP447078	7.8	8	34	70
DPP447079	7.9	8	34	70
DPP447080	8.0	8	34	70
DPP447081	8.1	10	38	80
DPP447082	8.2	10	38	80
DPP447083	8.3	10	38	80
DPP447084	8.4	10	38	80
DPP447085	8.5	10	38	80
DPP447086	8.6	10	38	80
DPP447087	8.7	10	40	80
DPP447088	8.8	10	40	80
DPP447089	8.9	10	40	80
DPP447090	9.0	10	40	80
DPP447091	9.1	10	42	80
DPP447092	9.2	10	42	80
DPP447093	9.3	10	42	80
DPP447094	9.4	10	42	80
DPP447095	9.5	10	42	80
DPP447096	9.6	10	42	80
DPP447097	9.7	10	45	80
DPP447098	9.8	10	45	80
DPP447099	9.9	10	45	80
DPP447100	10.0	10	45	80
DPP447101	10.1	12	46	90

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
X-Coating	D1	D2	L1	L2
DPP447102	10.2	12	46	90
DPP447103	10.3	12	46	90
DPP447104	10.4	12	48	90
DPP447105	10.5	12	48	90
DPP447106	10.6	12	48	90
DPP447107	10.7	12	48	90
DPP447108	10.8	12	48	90
DPP447109	10.9	12	48	90
DPP447110	11.0	12	48	90
DPP447111	11.1	12	50	90
DPP447112	11.2	12	50	90
DPP447113	11.3	12	50	90
DPP447114	11.4	12	50	90
DPP447115	11.5	12	50	90
DPP447116	11.6	12	50	90
DPP447117	11.7	12	52	90
DPP447118	11.8	12	52	90
DPP447119	11.9	12	52	90
DPP447120	12.0	12	52	90
DPP447125	12.5	14	54	100
DPP447130	13.0	14	56	100
DPP447135	13.5	14	58	100
DPP447140	14.0	14	58	100
DPP447145	14.5	16	62	105

▶ Other diameters and shank types are available upon 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	400 Rm	1050 Rm	550	630	400	550
Recommended	○	○																			

DREAM DRILLS - FLAT BOTTOM

DPP447 SERIES

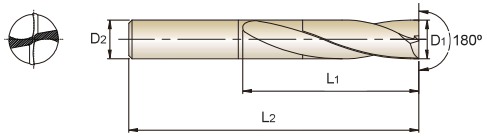
CARBIDE, DREAM DRILLS - FLAT BOTTOM

SHORT

VHM, DREAM DRILLS - FLACHBOHRER — KURZ
DREAM DRILLS - FOND PLAT, FORET CARBURE MONOBLOC — COURTE
PUNTE IN MD DREAM DRILLS, TESTA PIANA — CORTA

- For holes on various angled surfaces.
- 180 degree point angle enables drilling of flat, inclined and curved surfaces.
- Optimized flute shape for excellent chip evacuation.
- High strength cutting edge to improve tool life and versatility drilling.
- For through holes, minimized burrs at entrance and exit when drilling thin plate.

- Für Bohrungen auf verschiedenen abgewinkelten Flächen.
- Der 180-Grad-Spitzenwinkel ermöglicht das Bohren von flachen, geneigten und gekrümmten Oberflächen.
- Optimierte Nutenform für hervorragende Spanabfuhr.
- Hochfeste Schneide zur Verbesserung der Standzeit und Vielseitigkeit beim Bohren.
- Für Durchgangsbohrungen, minimierter Grat am Ein- und Austritt beim Bohren von dünnen Blechen.



CARBIDE | 20° | h6 | h7 | 180°

P.116

2 × D

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
X-Coating	D1	D2	L1	L2
DPP447150	15.0	16	62	105
DPP447155	15.5	16	64	115
DPP447160	16.0	16	64	115
DPP447165	16.5	18	70	125
DPP447170	17.0	18	70	125
DPP447175	17.5	18	70	125

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
X-Coating	D1	D2	L1	L2
DPP447180	18.0	18	70	125
DPP447185	18.5	20	75	135
DPP447190	19.0	20	75	135
DPP447195	19.5	20	75	145
DPP447200	20.0	20	75	145

▶ Other diameters and shank types are available upon 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	○	○																			

DREAM DRILLS - FLAT BOTTOM

DH450 SERIES

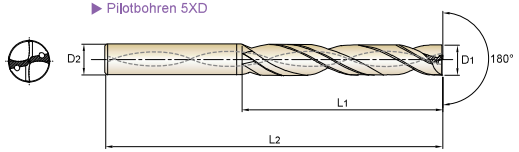
CARBIDE, DREAM DRILLS - FLAT BOTTOM with COOLANT HOLES

LONG

VHM, DREAM DRILLS - FLACHBOHRER — KURZ
DREAM DRILLS - FOND PLAT, FORET CARBURE MONOBLOC — LONGUE
PUNTE IN MD DREAM DRILLS, TESTA PIANA — LUNGA

- For holes on various angled surfaces.
- 180 degree point angle enables drilling of flat, inclined and curved surfaces.
- Optimized flute shape for excellent chip evacuation.
- High strength cutting edge to improve tool life and versatility drilling.
- For through holes, minimized burrs at entrance and exit when drilling thin plate.
- CARBIDE, DREAM DRILLS - FLAT BOTTOM with Coolant Holes
- Pilot Drilling for 5XD

- Für Bohrungen auf verschiedenen abgewinkelten Flächen.
- Der 180-Grad-Spitzenwinkel ermöglicht das Bohren von flachen, geneigten und gekrümmten Oberflächen.
- Optimierte Nutenform für hervorragende Spanabfuhr.
- Hochfeste Schneide zur Verbesserung der Standzeit und Vielseitigkeit beim Bohren.
- Für Durchgangsbohrungen, minimierter Grat am Ein- und Austritt beim Bohren von dünnen Blechen.
- VOLLHARTMETALL, DREAM DRILLS - 180°-Spitzenwinkel nit Kühlkanalbohrungen
- Pilotbohren 5XD



CARBIDE | 30° | h6 | h7 | 180° | 20 bar

P.117

5 × D

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAlN	D1	D2	L1	L2
DH450030	3.0	6	28	66
DH450031	3.1	6	28	66
DH450032	3.2	6	28	66
DH450033	3.3	6	28	66
DH450034	3.4	6	28	66
DH450035	3.5	6	28	66
DH450036	3.6	6	28	66
DH450037	3.7	6	28	66
DH450038	3.8	6	36	74
DH450039	3.9	6	36	74
DH450040	4.0	6	36	74
DH450041	4.1	6	36	74
DH450042	4.2	6	36	74
DH450043	4.3	6	36	74
DH450044	4.4	6	36	74
DH450045	4.5	6	36	74
DH450046	4.6	6	36	74
DH450047	4.7	6	36	74
DH450048	4.8	6	44	82
DH450049	4.9	6	44	82
DH450050	5.0	6	44	82
DH450051	5.1	6	44	82

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAlN	D1	D2	L1	L2
DH450052	5.2	6	44	82
DH450053	5.3	6	44	82
DH450054	5.4	6	44	82
DH450055	5.5	6	44	82
DH450056	5.6	6	44	82
DH450057	5.7	6	44	82
DH450058	5.8	6	44	82
DH450059	5.9	6	44	82
DH450060	6.0	6	44	82
DH450061	6.1	8	53	91
DH450062	6.2	8	53	91
DH450063	6.3	8	53	91
DH450064	6.4	8	53	91
DH450065	6.5	8	53	91
DH450066	6.6	8	53	91
DH450067	6.7	8	53	91
DH450068	6.8	8	53	91
DH450069	6.9	8	53	91
DH450070	7.0	8	53	91
DH450071	7.1	8	53	91
DH450072	7.2	8	53	91
DH450073	7.3	8	53	91

▶ Other diameters and shank types are available upon 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	400 Rm	1050 Rm	550	630	400	550
Recommended	○	○																			

DREAM DRILLS - FLAT BOTTOM

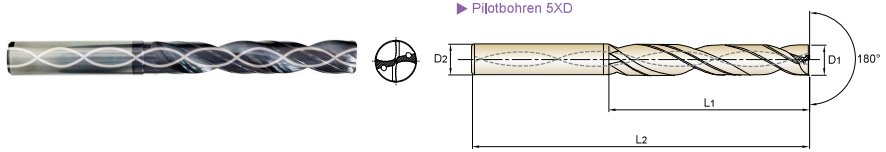
DH450 SERIES

CARBIDE, DREAM DRILLS - FLAT BOTTOM with COOLANT HOLES

LONG
VHM, DREAM DRILLS - FLACHBOHRER — KURZ
DREAM DRILLS - FOND PLAT, FORET CARBURE MONOBLOC — LONGUE
PUNTE IN MD DREAM DRILLS, TESTA PIANA — LUNGA

- For holes on various angled surfaces.
- 180 degree point angle enables drilling of flat, inclined and curved surfaces.
- Optimized flute shape for excellent chip evacuation.
- High strength cutting edge to improve tool life and versatility drilling.
- For through holes, minimized burrs at entrance and exit when drilling thin plate.
- CARBIDE, DREAM DRILLS - FLAT BOTTOM with Coolant Holes
- Pilot Drilling for 5XD

- Für Bohrungen auf verschiedenen abgewinkelten Flächen.
- Der 180-Grad-Spitzenwinkel ermöglicht das Bohren von flachen, geneigten und gekrümmten Oberflächen.
- Optimierte Nutenform für hervorragende Spanabfuhr.
- Hochfeste Schneide zur Verbesserung der Standzeit und Vielseitigkeit beim Bohren.
- Für Durchgangsbohrungen, minimierter Grat am Ein- und Austritt beim Bohren von dünnen Blechen.
- VOLLHARTMETALL, DREAM DRILLS - 180°-Spitzenwinkel nit Kühlkanalbohrungen
- Pilotbohren 5XD



CARBIDE | 30° | h6 | h7 | 180° | 20 bar | P.117

5 × D

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAlN	D1	D2	L1	L2
DH450074	7.4	8	53	91
DH450075	7.5	8	53	91
DH450076	7.6	8	53	91
DH450077	7.7	8	53	91
DH450078	7.8	8	53	91
DH450079	7.9	8	53	91
DH450080	8.0	8	53	91
DH450081	8.1	10	61	103
DH450082	8.2	10	61	103
DH450083	8.3	10	61	103
DH450084	8.4	10	61	103
DH450085	8.5	10	61	103
DH450086	8.6	10	61	103
DH450087	8.7	10	61	103
DH450088	8.8	10	61	103
DH450089	8.9	10	61	103
DH450090	9.0	10	61	103
DH450091	9.1	10	61	103
DH450092	9.2	10	61	103
DH450093	9.3	10	61	103
DH450094	9.4	10	61	103
DH450095	9.5	10	61	103

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
TiAlN	D1	D2	L1	L2
DH450096	9.6	10	61	103
DH450097	9.7	10	61	103
DH450098	9.8	10	61	103
DH450099	9.9	10	61	103
DH450100	10.0	10	61	103
DH450102	10.2	12	71	118
DH450105	10.5	12	71	118
DH450108	10.8	12	71	118
DH450110	11.0	12	71	118
DH450115	11.5	12	71	118
DH450118	11.8	12	71	118
DH450119	11.9	12	71	118
DH450120	12.0	12	71	118
DH450125	12.5	14	77	124
DH450130	13.0	14	77	124
DH450135	13.5	14	77	124
DH450140	14.0	14	77	124
DH450145	14.5	16	83	133
DH450150	15.0	16	83	133
DH450155	15.5	16	83	133
DH450160	16.0	16	83	133
DH450165	16.5	18	93	143

- Other diameters and shank types are available upon request.

NEXT PAGE

◎ : Excellent ○ : Good

| ISO | P | | |

DREAM DRILLS - FLAT BOTTOM

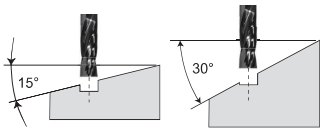
RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDPARAMETER

DPP447 SERIES without COOLANT HOLES (2XD)

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

ISO	VDI 3323	Material Description	Vc (m/min)	Parameter	Drill Diameter (mm) 3.0	4.0	5.0	6.0	8.0	10.0	12.0	16.0	20.0
P	1	Non-alloy steel	80	RPM	8490	6370	5090	4240	3180	2550	2120	1590	1270
				FEED	0.02-0.05	0.03-0.07	0.03-0.08	0.04-0.10	0.08-0.14	0.11-0.17	0.11-0.21	0.18-0.28	0.28-0.38
	2		80	RPM	8490	6370	5090	4240	3180	2550	2120	1590	1270
				FEED	0.02-0.05	0.03-0.07	0.03-0.08	0.04-0.10	0.08-0.14	0.11-0.17	0.11-0.21	0.18-0.28	0.28-0.38
	3		70	RPM	7430	5570	4460	3710	2790	2230	1860	1390	1110
				FEED	0.02-0.05	0.03-0.07	0.03-0.08	0.04-0.10	0.07-0.13	0.11-0.17	0.11-0.21	0.18-0.28	0.24-0.34
	4		40	RPM	4240	3180	2550	2120	1590	1270	1060	800	640
				FEED	0.02-0.05	0.03-0.07	0.03-0.08	0.04-0.10	0.07-0.13	0.11-0.17	0.11-0.21	0.18-0.28	0.24-0.34
	5		38	RPM	4030	3020	2420	2020	1510	1210	1010	760	600
				FEED	0.02-0.05	0.02-0.06	0.03-0.08	0.03-0.09	0.06-0.12	0.09-0.15	0.08-0.18	0.14-0.24	0.21-0.31
	6	Low alloy steel	45	RPM	4770	3580	2860	2390	1790	1430	1190	900	720
				FEED	0.02-0.05	0.03-0.07	0.03-0.08	0.04-0.10	0.07-0.13	0.11-0.17	0.11-0.21	0.18-0.28	0.24-0.34
	7		40	RPM	4240	3180	2550	2120	1590	1270	1060	800	640
				FEED	0.02-0.05	0.03-0.07	0.03-0.08	0.04-0.10	0.07-0.13	0.11-0.17	0.11-0.21	0.18-0.28	0.24-0.34
	8		38	RPM	4030	3020	2420	2020	1510	1210	1010	760	600
				FEED	0.02-0.05	0.02-0.06	0.03-0.08	0.03-0.09	0.06-0.12	0.09-0.15	0.08-0.18	0.14-0.24	0.21-0.31
	9		25	RPM	2650	1990	1590	1330	990	800	660	500	400
				FEED	0.01-0.03	0.02-0.04	0.02-0.05	0.03-0.06	0.03-0.08	0.05-0.10	0.06-0.12	0.06-0.16	0.10-0.20
	10	High alloyed steel, and tool steel											
	11												
M	12	Stainless steel	30	RPM	3180	2390	1910	1590	1190	950	800	600	480
				FEED	0.01-0.03	0.01-0.03	0.02-0.04	0.02-0.05	0.03-0.06	0.03-0.08	0.05-0.10	0.06-0.12	0.09-0.15
	13												
	14												
K	15	Grey cast iron	70	RPM	7430	5570	4460	3710	2790	2230	1860	1390	1110
				FEED	0.02-0.05	0.02-0.06	0.03-0.08	0.03-0.09	0.06-0.12	0.09-0.15	0.08-0.18	0.14-0.24	0.20-0.30
	16		60	RPM	6370	4770	3820	3180	2390	1910	1590	1190	950
				FEED	0.02-0.05	0.02-0.05	0.03-0.06	0.03-0.07	0.04-0.10	0.07-0.13	0.06-0.16	0.11-0.21	0.15-0.25
	17	Nodular cast iron											
	18												
	19	Malleable cast iron											
	20												
N	21	Aluminum-wrought alloy	165	RPM	17510	13130	10500	8750	6570	5250	4380	3280	2630
				FEED	0.02-0.05	0.04-0.08	0.04-0.10	0.06-0.12	0.10-0.16	0.14-0.20	0.14-0.24	0.22-0.32	0.30-0.40
	22		165	RPM	17510	13130	10500	8750	6570	5250	4380	3280	2630
				FEED	0.02-0.05	0.04-0.08	0.04-0.10	0.06-0.12	0.10-0.16	0.14-0.20	0.14-0.24	0.22-0.32	0.30-0.40
	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											

Surface Angle	Cutting Conditions RPM	FEED
0° ~ 15°	100%	100%
15° ~ 30°	100%	50%
30° ~	70%	30%



- ▶ The cutting conditions are for 2xD.
- ▶ A rigid and precise machine and holder are required.
- ▶ The recommended depth of hole is measured from the highest point of the hole on drilling in inclined and angled surfaces.
- ▶ The recommended cutting conditions are those for drilling on flat and horizontal surfaces.
- ▶ Please adjust feed rate according to the above surface angle when drilling on an inclined surface.
  - The recommended feed rate 50% or lower, in case of 15°~30° of the incline angle.
  - The recommended feed rate 30% or lower and RPM 70%, in case of 30° ~ of the incline angle.
- ▶ Please decrease cutting speed as material hardness increases.
- ▶ Only use drilling tools. Side milling, traversing, helical milling are not usable.

CARBIDE
HSS
i-ONE DRILLS
i-DREAM DRILLS
DREAM DRILLS -GENERAL
DREAM DRILLS -HIGH FEED
DREAM DRILLS -FLAT BOTTOM
DREAM DRILLS -INOX
DREAM DRILLS -ALU
DREAM DRILLS -CFRP
DREAM DRILLS -MQL
DREAM DRILLS for HIGH HARDENED STEELS
GENERAL CARBIDE DRILLS
MULTI-1 DRILLS
HPD DRILLS
GOLD-P DRILLS
SUPER-GP DRILLS
STRAIGHT SHANK DRILLS
TAPER SHANK DRILLS
NC-SPOTTING DRILLS
CENTER DRILLS
SPADE DRILLS
REAMERS
COUNTER SINKS
COUNTER BORES
TECHNICAL DATA

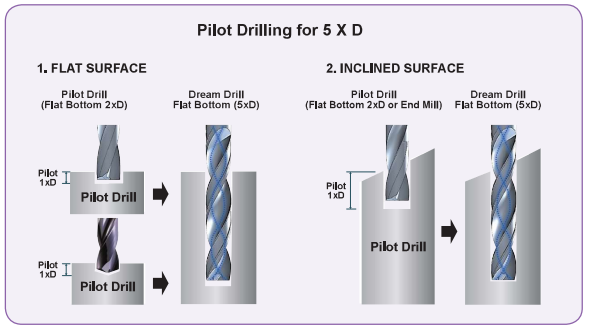
DREAM DRILLS - FLAT BOTTOM

RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDPARAMETER

DH450 SERIES with COOLANT HOLES (5XD)

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

ISO	VDI 3323	Material Description	Vc (m/min)	Parameter	Drill Diameter (mm) 3.0	4.0	5.0	6.0	8.0	10.0	12.0	16.0	20.0
P	1	Non-alloy steel	100	RPM	10610	7960	6370	5310	3980	3180	2650	1990	1590
				FEED	0.05-0.09	0.08-0.12	0.09-0.15	0.12-0.18	0.18-0.24	0.24-0.30	0.26-0.36	0.38-0.48	0.50-0.60
	2		90	RPM	9550	7160	5730	4770	3580	2860	2390	1790	1430
				FEED	0.02-0.05	0.04-0.08	0.04-0.10	0.06-0.12	0.10-0.16	0.14-0.20	0.14-0.24	0.22-0.32	0.30-0.40
	3		90	RPM	9550	7160	5730	4770	3580	2860	2390	1790	1430
				FEED	0.02-0.05	0.04-0.08	0.04-0.10	0.06-0.12	0.10-0.16	0.14-0.20	0.14-0.24	0.22-0.32	0.30-0.40
	4		75	RPM	7960	5970	4770	3980	2980	2390	1990	1490	1190
				FEED	0.02-0.04	0.03-0.06	0.05-0.08	0.05-0.09	0.06-0.12	0.09-0.15	0.08-0.18	0.14-0.24	0.20-0.30
	5		75	RPM	7960	5970	4770	3980	2980	2390	1990	1490	1190
				FEED	0.02-0.04	0.03-0.06	0.05-0.08	0.05-0.09	0.06-0.12	0.09-0.15	0.08-0.18	0.14-0.24	0.20-0.30
	6	Low alloy steel	85	RPM	9020	6760	5410	4510	3380	2710	2250	1690	1350
				FEED	0.02-0.05	0.04-0.08	0.04-0.10	0.06-0.12	0.10-0.16	0.14-0.20	0.14-0.24	0.22-0.32	0.30-0.40
	7		75	RPM	7960	5970	4770	3980	2980	2390	1990	1490	1190
				FEED	0.02-0.05	0.04-0.08	0.04-0.10	0.06-0.12	0.10-0.16	0.14-0.20	0.14-0.24	0.22-0.32	0.30-0.40
	8		75	RPM	7960	5970	4770	3980	2980	2390	1990	1490	1190
				FEED	0.02-0.04	0.03-0.06	0.05-0.08	0.05-0.09	0.06-0.12	0.09-0.15	0.08-0.18	0.14-0.24	0.20-0.30
	9		50	RPM	5310	3980	3180	2650	1990	1590	1330	990	800
				FEED	0.02-0.04	0.03-0.06	0.05-0.08	0.05-0.09	0.06-0.12	0.09-0.15	0.08-0.18	0.14-0.24	0.20-0.30
	10	High alloyed steel, and tool steel											
	11												
M	12	Stainless steel	60	RPM	6370	4770	3820	3180	2390	1910	1590	1190	950
				FEED	0.02-0.05	0.04-0.08	0.04-0.10	0.06-0.12	0.10-0.16	0.14-0.20	0.14-0.24	0.22-0.32	0.30-0.40
	13												
	14												
K	15	Grey cast iron	90	RPM	9550	7160	5730	4770	3580	2860	2390	1790	1430
				FEED	0.02-0.05	0.03-0.06	0.05-0.08	0.05-0.09	0.06-0.12	0.09-0.15	0.08-0.18	0.14-0.24	0.20-0.30
	16		75	RPM	7960	5970	4770	3980	2980	2390	1990	1490	1190
				FEED	0.02-0.05	0.02-0.05	0.03-0.06	0.03-0.07	0.04-0.10	0.07-0.13	0.06-0.16	0.11-0.21	0.15-0.25
	17	Nodular cast iron											
	18												
	19	Malleable cast iron											
	20												
N	21	Aluminum-wrought alloy	160	RPM	16980	12730	10190	8490	6370	5090	4240	3180	2550
				FEED	0.05-0.09	0.08-0.12	0.09-0.15	0.12-0.18	0.18-0.24	0.24-0.30	0.26-0.36	0.38-0.48	0.50-0.60
	22		160	RPM	16980	12730	10190	8490	6370	5090	4240	3180	2550
				FEED	0.05-0.09	0.08-0.12	0.09-0.15	0.12-0.18	0.18-0.24	0.24-0.30	0.26-0.36	0.38-0.48	0.50-0.60
	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											



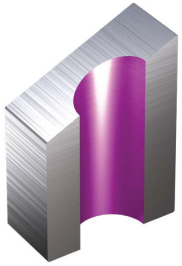
- ▶For Flat bottom 5xD drilling depth, Slope surface needs Pilot Drilling with YG-1 Flat Bottom Drill (2XD) and Flat surface needs Pilot Drilling with YG-1 Dream Drill General.
- ▶Pilot Drilling Depth : around 1XD
- ▶Pilot Drilling Diameter : same size diameter

DREAM DRILLS - FLAT BOTTOM

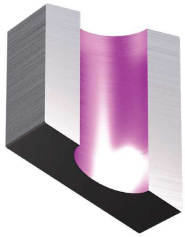
RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDPARAMETER

i-ONE DRILLS
i-DREAM DRILLS
DREAM DRILLS -GENERAL
DREAM DRILLS -HIGH FEED
DREAM DRILLS -FLAT BOTTOM
DREAM DRILLS -INOX
DREAM DRILLS -ALU
DREAM DRILLS -CFRP
DREAM DRILLS -MQL
DREAM DRILLS for HIGH HARDENED STEELS
GENERAL CARBIDE DRILLS
MULTI-1 DRILLS
HPD DRILLS
GOLD-P DRILLS
SUPER-GP DRILLS
STRAIGHT SHANK DRILLS
TAPER SHANK DRILLS
NC-SPOTTING DRILLS
CENTER DRILLS
SPADE DRILLS
REAMERS
COUNTER SINKS
COUNTER BORES
TECHNICAL DATA

VARIETY OF DRILLING
Arten von Bohrungen

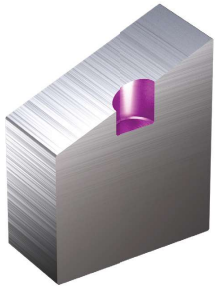


Inclined Entry



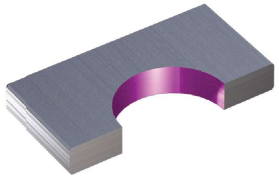
Inclined Exit

Counter Boring

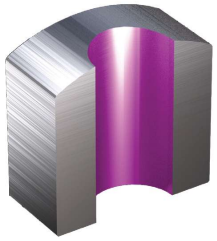


Guide Drilling

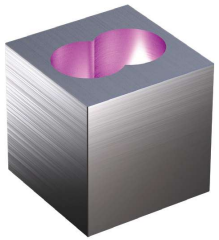
Cross Drilling



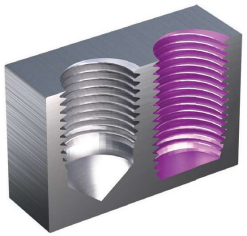
Thin Plate



Curved Surface



Chained Hole



Blind Hole for Threading

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