



**DREAM DRILLS - FLAT BOTTOM**

**DPP447** SERIES

**CARBIDE, DREAM DRILLS - FLAT BOTTOM**

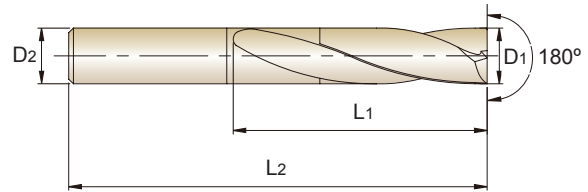
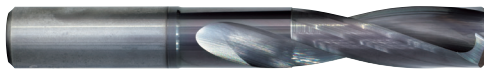
**SHORT**

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

**KURZ  
COURTE  
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 x 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					
	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				
	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	○	○																			

# YG DREAM DRILLS - FLAT BOTTOM

## DPP447 SERIES

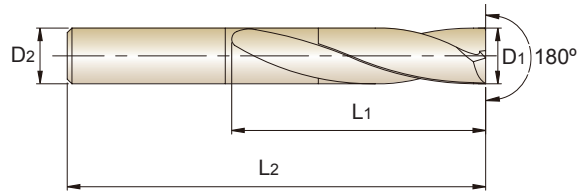
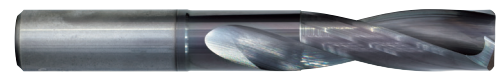
### CARBIDE, DREAM DRILLS - FLAT BOTTOM

**SHORT**  
**KURZ**  
**COURTE**  
**CORTA**

- 🇩🇪 VHM, DREAM DRILLS - FLACHBOHRER
- 🇫🇷 DREAM DRILLS - FOND PLAT, FORET CARBURE MONOBLOC
- 🇮🇹 PUNTE IN MD DREAM DRILLS, TESTA PIANA

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CARBIDE
20°
h6
h7
180°
P.116

2 x 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						
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel		Stainless steel		Grey cast iron		Nodular cast iron		Malleable cast iron		
Material Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
VDI 3323																					
HRc	13	25	28	32	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				
	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		
Material Description	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41
VDI 3323																					
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**

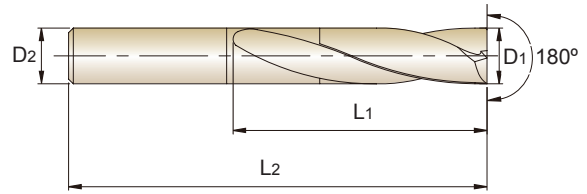
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CARBIDE 20° h6 h7 180° P.116

2 x 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.

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	10	29	32	38	15	35	15	23	10	10	26	3	25				
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	○	○																			

◎ : Excellent ○ : Good



# DREAM DRILLS - FLAT BOTTOM

## RECOMMENDED CUTTING CONDITIONS EMPFOHLENE SCHNEIDPARAMETER

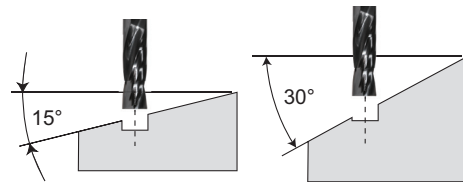
### DPP447 SERIES

### 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 FEED	8490 0.02-0.05	6370 0.03-0.07	5090 0.03-0.08	4240 0.04-0.10	3180 0.08-0.14	2550 0.11-0.17	2120 0.11-0.21	1590 0.18-0.28	1270 0.28-0.38
	2		80	RPM FEED	8490 0.02-0.05	6370 0.03-0.07	5090 0.03-0.08	4240 0.04-0.10	3180 0.08-0.14	2550 0.11-0.17	2120 0.11-0.21	1590 0.18-0.28	1270 0.28-0.38
	3		70	RPM FEED	7430 0.02-0.05	5570 0.03-0.07	4460 0.03-0.08	3710 0.04-0.10	2790 0.07-0.13	2230 0.11-0.17	1860 0.11-0.21	1390 0.18-0.28	1110 0.24-0.34
	4		40	RPM FEED	4240 0.02-0.05	3180 0.03-0.07	2550 0.03-0.08	2120 0.04-0.10	1590 0.07-0.13	1270 0.11-0.17	1060 0.11-0.21	800 0.18-0.28	640 0.24-0.34
	5		38	RPM FEED	4030 0.02-0.05	3020 0.02-0.06	2420 0.03-0.08	2020 0.03-0.09	1510 0.06-0.12	1210 0.09-0.15	1010 0.08-0.18	760 0.14-0.24	600 0.21-0.31
	6	Low alloy steel	45	RPM FEED	4770 0.02-0.05	3580 0.03-0.07	2860 0.03-0.08	2390 0.04-0.10	1790 0.07-0.13	1430 0.11-0.17	1190 0.11-0.21	900 0.18-0.28	720 0.24-0.34
	7		40	RPM FEED	4240 0.02-0.05	3180 0.03-0.07	2550 0.03-0.08	2120 0.04-0.10	1590 0.07-0.13	1270 0.11-0.17	1060 0.11-0.21	800 0.18-0.28	640 0.24-0.34
	8		38	RPM FEED	4030 0.02-0.05	3020 0.02-0.06	2420 0.03-0.08	2020 0.03-0.09	1510 0.06-0.12	1210 0.09-0.15	1010 0.08-0.18	760 0.14-0.24	600 0.21-0.31
	9		25	RPM FEED	2650 0.01-0.03	1990 0.02-0.04	1590 0.02-0.05	1330 0.03-0.06	990 0.03-0.08	800 0.05-0.10	660 0.06-0.12	500 0.06-0.16	400 0.10-0.20
	10		High alloyed steel, and tool steel										
	11												
M	12	Stainless steel	30	RPM FEED	3180 0.01-0.03	2390 0.01-0.03	1910 0.02-0.04	1590 0.02-0.05	1190 0.03-0.06	950 0.03-0.08	800 0.05-0.10	600 0.06-0.12	480 0.09-0.15
	13												
	14												
K	15	Grey cast iron	70	RPM FEED	7430 0.02-0.05	5570 0.02-0.06	4460 0.03-0.08	3710 0.03-0.09	2790 0.06-0.12	2230 0.09-0.15	1860 0.08-0.18	1390 0.14-0.24	1110 0.20-0.30
	16		60	RPM FEED	6370 0.02-0.05	4770 0.02-0.05	3820 0.03-0.06	3180 0.03-0.07	2390 0.04-0.10	1910 0.07-0.13	1590 0.06-0.16	1190 0.11-0.21	950 0.15-0.25
	17	Nodular cast iron											
	18												
	19												
20	Malleable cast iron												
N	21	Aluminum-wrought alloy	165	RPM FEED	17510 0.02-0.05	13130 0.04-0.08	10500 0.04-0.10	8750 0.06-0.12	6570 0.10-0.16	5250 0.14-0.20	4380 0.14-0.24	3280 0.22-0.32	2630 0.30-0.40
	22		165	RPM FEED	17510 0.02-0.05	13130 0.04-0.08	10500 0.04-0.10	8750 0.06-0.12	6570 0.10-0.16	5250 0.14-0.20	4380 0.14-0.24	3280 0.22-0.32	2630 0.30-0.40
	23	Aluminum-cast, alloyed											
	24												
	25												
	26												
	27	Copper and Copper Alloys (Bronze / Brass)											
	28												
	29												
	30	Non Metallic Materials											
S	31	Heat Resistant Super Alloys											
	32												
	33												
	34												
	35	Titanium Alloys											
	36												
	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.

SELECTION GUIDE



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](http://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	Low alloy steel	About 0.75% C Quenched & Tempered	300	32	○	○	
	6		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	Cutting Alloys, PB>1%	110			
	27	(Bronze / Brass)	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		Annealed	250	25			
	34		Ni or Co Based 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			