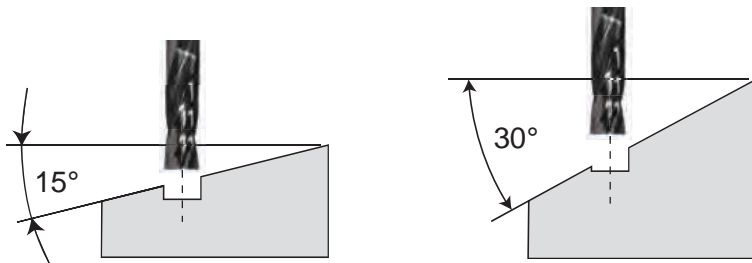


X-COATED SOLID CARBIDE DREAM DRILLS
Flat Bottom without Coolant Holes

DPP447 SERIES

WORK MATERIAL	P								M		K		N		
	STRUCTURAL STEELS		CARBON STEELS ALLOY STEELS		PREHARDENED STEELS		HARDEND STEELS		STAINLESS STEELS		CAST IRON		ALUMINUM		
	STRENGTH		<HB225		HRc30 ~ 40		HRc40 ~ 50		~ 200 HB						
DRILLING SPEED		80 m/min		70 m/min		38 m/min		25 m/min		30 m/min		68 m/min		165 m/min	
DIAMETER		RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
Metric(mm)	Decimal														
3.0	.1181	8350	0.05	7250	0.05	3890	0.05	2790	0.03	3180	0.02	7250	0.04	17850	0.06
4.0	.1575	6250	0.07	5410	0.07	2940	0.06	2100	0.04	2380	0.03	5410	0.06	13130	0.08
5.0	.1969	5040	0.08	4360	0.08	2310	0.08	1680	0.05	1910	0.04	4360	0.07	10500	0.10
6.0	.2362	4200	0.10	3630	0.10	1890	0.09	1370	0.06	1590	0.05	3630	0.09	8930	0.12
8.0	.3150	3150	0.14	2730	0.13	1470	0.12	1050	0.08	1190	0.06	2730	0.12	6670	0.16
10.0	.3937	2520	0.17	2160	0.17	1160	0.15	840	0.10	955	0.08	2160	0.15	5360	0.20
12.0	.4724	2100	0.21	1790	0.21	1000	0.18	690	0.12	796	0.10	1790	0.18	4470	0.24
16.0	.6299	1580	0.28	1370	0.28	740	0.24	530	0.16	597	0.12	1370	0.24	3360	0.32
20.0	.7874	1260	0.35	1110	0.34	580	0.31	420	0.20	477	0.15	1110	0.30	2680	0.40

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



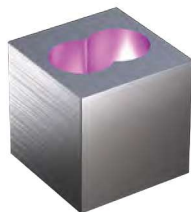
Surface Angle	Cutting Conditions	
	RPM	IPR
0° ~ 15°	100%	100%
15° ~ 30°	100%	50%
30° ~	70%	30%

- ▶ The cutting conditions are for 2xD.
- ▶ The 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 tool. Side milling, traversing, helical milling are not usable.

VARIETY OF DRILLING



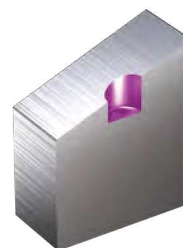
Curved Surface



Chained Hole



Blind Hole for Threading



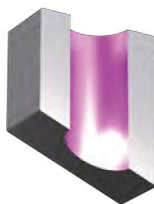
Guide Drilling



Cross Drilling



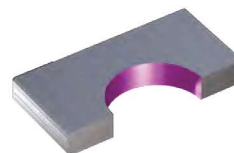
Inclined Entry



Inclined Exit



Counter Boring



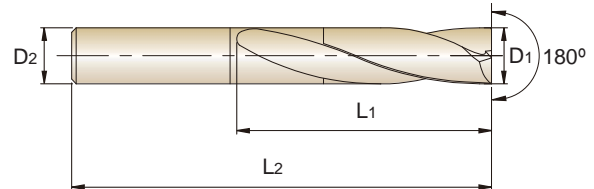
Thin Plate

X-COATED SOLID CARBIDE DREAM DRILLS Flat Bottom without Coolant Holes (2XD)

SHORT

DPP447 SERIES

- ▶ Just ONE Drill 180 degree point angle enables drilling of horizontal surface and sloped surface
- ▶ Excellent chip evacuation by optimized flute shape
- ▶ High strength cutting edge to improve tool life and versatility drilling
- ▶ Variety of drilling can be used in a variety of drilling applications



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
DPP447008F	1/8	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
DPP447010F	5/32	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
DPP447012F	3/16	6	22	60
DPP447048	4.8	6	22	60
DPP447049	4.9	6	22	60
DPP447050	5.0	6	22	60

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
X-Coating	D1	D2	L1	L2
DPP447051	5.1	6	24	60
DPP447052	5.2	6	24	60
DPP447053	5.3	6	24	60
DPP447054	5.4	6	24	60
DPP447055	5.5	6	24	60
DPP447014F	7/32	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
DPP447016F	1/4	8	30	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
DPP447018F	9/32	8	34	70

▶ Other shank types are available on your request.

▶ NEXT PAGE

◎ : Excellent ○ : Good

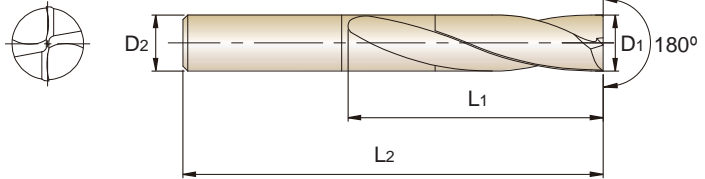
P			H		M	K	N			S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	◎	○		○	◎	○	○			

X-COATED SOLID CARBIDE DREAM DRILLS

Flat Bottom without Coolant Holes (2XD)

SHORT
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2 × D

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
X-Coating	D1	D2	L1	L2
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
DPP447078	7.8	8	34	70
DPP447079	7.9	8	34	70
DPP447020F	5/16	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
DPP447021F	21/64	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
DPP447023F	23/64	10	42	80
DPP447092	9.2	10	42	80

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
X-Coating	D1	D2	L1	L2
DPP447093	9.3	10	42	80
DPP447094	9.4	10	42	80
DPP447095	9.5	10	42	80
DPP447024F	3/8	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
DPP447102	10.2	12	46	90
DPP447103	10.3	12	46	90
DPP447026F	13/32	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
DPP447028F	7/16	12	50	90
DPP447112	11.2	12	50	90
DPP447113	11.3	12	50	90

▶ Other shank types are available on your request.

▶ NEXT PAGE

◎ : Excellent ○ : Good

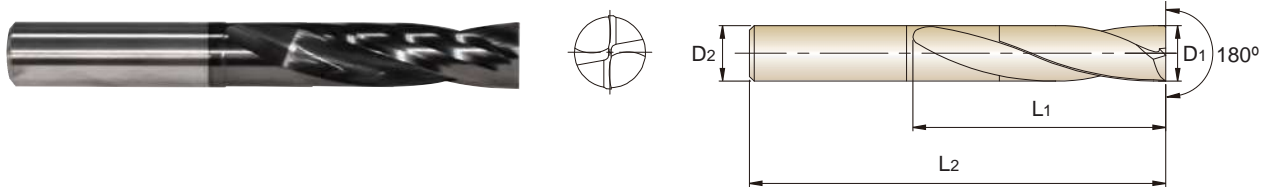
P		H		M	K	N			S		
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	◎	○		○	◎	○	○			

X-COATED SOLID CARBIDE DREAM DRILLS Flat Bottom without Coolant Holes (2XD)

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2 × D

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
X-Coating	D1	D2	L1	L2
DPP447114	11.4	12	50	90
DPP447115	11.5	12	50	90
DPP447029F	29/64	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
DPP447030F	15/32	12	52	90
DPP447120	12.0	12	52	90
DPP447121	12.1	14	54	100
DPP447122	12.2	14	54	100
DPP447123	12.3	14	54	100
DPP447124	12.4	14	54	100
DPP447125	12.5	14	54	100
DPP447126	12.6	14	54	100
DPP447127	12.7	14	56	100
DPP447128	12.8	14	56	100
DPP447129	12.9	14	56	100
DPP447130	13.0	14	56	100
DPP447131	13.1	14	58	100
DPP447132	13.2	14	58	100
DPP447133	13.3	14	58	100
DPP447134	13.4	14	58	100
DPP447135	13.5	14	58	100

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
X-Coating	D1	D2	L1	L2
DPP447136	13.6	14	58	100
DPP447137	13.7	14	58	100
DPP447138	13.8	14	58	100
DPP447139	13.9	14	58	100
DPP447140	14.0	14	58	100
DPP447141	14.1	16	62	105
DPP447142	14.2	16	62	105
DPP447036F	9/16	16	62	105
DPP447143	14.3	16	62	105
DPP447144	14.4	16	62	105
DPP447145	14.5	16	62	105
DPP447146	14.6	16	62	105
DPP447147	14.7	16	62	105
DPP447148	14.8	16	62	105
DPP447149	14.9	16	62	105
DPP447150	15.0	16	62	105
DPP447151	15.1	16	64	115
DPP447152	15.2	16	64	115
DPP447153	15.3	16	64	115
DPP447154	15.4	16	64	115
DPP447155	15.5	16	64	115
DPP447156	15.6	16	64	115
DPP447157	15.7	16	64	115
DPP447158	15.8	16	64	115

▶ Other shank types are available on your request.

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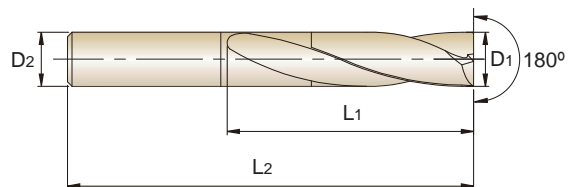
◎ : Excellent ○ : Good

P		H		M	K	N				S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
~HB225	HB225~325	HRc30~45	HRc45~55	HRc55~							
◎	◎	◎	○	○	◎	○	○	○			

X-COATED SOLID CARBIDE DREAM DRILLS Flat Bottom without Coolant Holes (2XD)

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2 × D

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
X-Coating	D1	D2	L1	L2
DPP447040F	5/8	16	64	115
DPP447159	15.9	16	64	115
DPP447160	16.0	16	64	115
DPP447165	16.5	18	70	125
DPP447170	17.0	18	70	125
DPP447044F	11/16	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
DPP447048F	3/4	20	75	135
DPP447195	19.5	20	75	145
DPP447200	20.0	20	75	145

▶ Other shank types are available on your request.

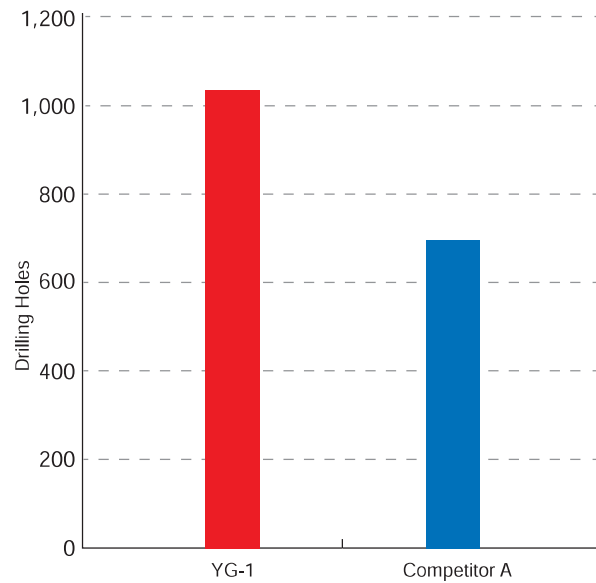
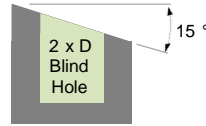
P		H			M	K	N				S
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Stainless Steels	Cast Iron	Aluminum	Copper	Bronze	CFRP	Titanium
-HB225	HB225-325	HRc30-45	HRc45-55	HRc55-							
◎	◎	◎	○		○	◎	○	○			

◎ : Excellent ○ : Good

CASE STUDY

► SOLID CARBIDE DREAM DRILLS - Flat Bottom without Coolant Holes

CUTTING CONDITION	
Tool	Dream Drills Flat Bottom
Size	Ø6.0 (.2362 inch)
Work Material	<ul style="list-style-type: none"> • AISI : 1045 • JIS : S45C • DIN : C45 • Hardness : HRc 20 (HB 228)
Cutting Speed	75.4 m/min (244.4 ft/min.)
RPM	4,000 rev/min
Feed	0.1 mm/rev (.0039 in/rev.)
Drilling Depth	12.0 mm (2XD) - Blind Hole / without Pecking
Coolant	External Cooling Water Soluble (9% Emulsion)
Machine	Vertical Machining Center



► YG-1



Small Chipping

► COMPETITOR A



Big Chipping