

CARBIDE DREAM DRILLS - HIGH FEED - **Test Report**

with COOLANT HOLES

● **FEATURES OF DREAM DRILL HIGH FEED**

Dream Drill High Feed offers 1.5 to 2 times higher feeding speed compared to conventional 2-flute drill. The unique flute design and exceptional surface finish promise extraordinary chip evacuation.

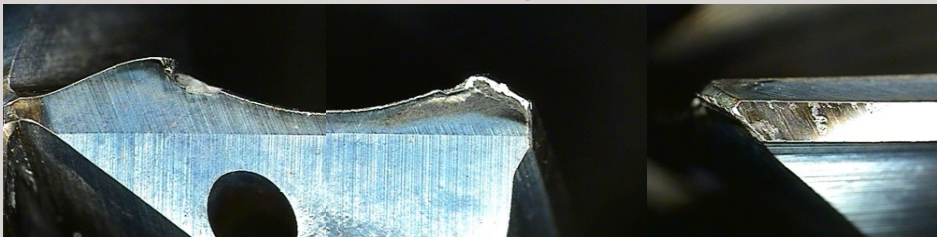
YG-1 (Total Drilling 330 Holes)



COMPETITOR A (Total Drilling 330 Holes)



COMPETITOR B (Total Drilling 330 Holes)



Cutting Condition

Tools : DGR495100

(Dream Drill High Feed)

Size : $\varnothing 10.0 \times 10 \times 61 \times 103$

Work Material : • JIS : S45C (HRc20)

• DIN: C45

• WR: 1.0503

R.P.M : 3,200 rev./min.

Feed : .0.5 mm/rev.

Drilling Depth : 50 mm (5xD)

Drilling Method : Blind Hole

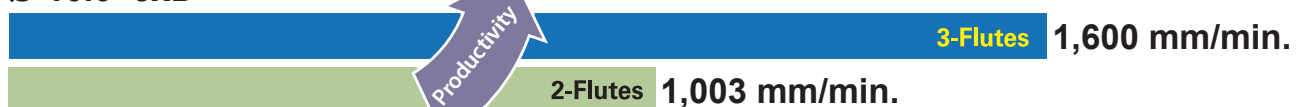
Coolant : Wet Cut

Machine : Machining Center

Productivity (Carbon Steel)

$\varnothing 10.0$ 5xD

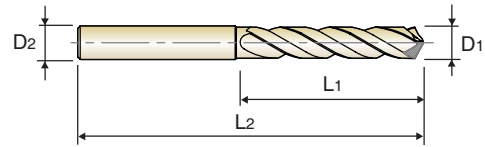
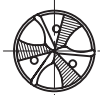
1.6 times UP





CARBIDE DREAM DRILLS - HIGH FEED with COOLANT HOLES

- ▶ Application : Carbon Steels, Alloy Steels (~ HRC35), Cast Iron
- ▶ Advantage : Increases productivity due to 1.5 to 2 times faster feeding speed than 2-flute drill
Multi-Layer coating delivers much better productivity and reliability.
Self-Centering



DIN 6537
MG
h6
m7
140°
20 bar
P.20

DREAM DRILLS HIGH FEED | 3×D

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
H-Coating	D1	D2	L1	L2	H-Coating	D1	D2	L1	L2
DGR493050	5.0	6	28	66	DGR493085	8.5	10	47	89
DGR493051	5.1	6	28	66	DGR493090	9.0	10	47	89
DGR493052	5.2	6	28	66	DGR493100	10.0	10	47	89
DGR493053	5.3	6	28	66	DGR493102	10.2	12	55	102
DGR493055	5.5	6	28	66	DGR493105	10.5	12	55	102
DGR493058	5.8	6	28	66	DGR493110	11.0	12	55	102
DGR493060	6.0	6	28	66	DGR493120	12.0	12	55	102
DGR493065	6.5	8	34	79	DGR493130	13.0	14	60	107
DGR493068	6.8	8	34	79	DGR493140	14.0	14	60	107
DGR493070	7.0	8	34	79	DGR493150	15.0	16	65	115
DGR493080	8.0	8	41	79	DGR493160	16.0	16	65	115

▶ Other shank types are available on your request.

◎ : Excellent ○ : Good

P					M	K	N	S		
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Mild Steels	Stainless Steels	Cast Iron	Aluminum	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~						
◎	◎	○			○		◎			



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DIN 6537
MG
h6
m7
140°
20 bar
P.20

DREAM DRILLS HIGH FEED | 5 × D

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
H-Coating	D1	D2	L1	L2	H-Coating	D1	D2	L1	L2
DGR495050	5.0	6	44	82	DGR495085	8.5	10	61	103
DGR495051	5.1	6	44	82	DGR495090	9.0	10	61	103
DGR495052	5.2	6	44	82	DGR495100	10.0	10	61	103
DGR495053	5.3	6	44	82	DGR495102	10.2	12	71	118
DGR495055	5.5	6	44	82	DGR495105	10.5	12	71	118
DGR495058	5.8	6	44	82	DGR495110	11.0	12	71	118
DGR495060	6.0	6	44	82	DGR495120	12.0	12	71	118
DGR495065	6.5	8	53	91	DGR495130	13.0	14	77	124
DGR495068	6.8	8	53	91	DGR495140	14.0	14	77	124
DGR495070	7.0	8	53	91	DGR495150	15.0	16	83	133
DGR495080	8.0	8	53	91	DGR495160	16.0	16	83	133

▶ Other shank types are available on your request.

◎ : Excellent ○ : Good

P					M	K	N		S	
Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		Mild Steels	Stainless Steels	Cast Iron	Aluminum	CFRP	Titanium
~HB225	HB225~325	HRC30~45	HRC45~55	HRC55~						
◎	◎	○			○		◎			



SOLID CARBIDE DREAM DRILLS - HIGH FEED with COOLANT HOLES

DGR493, DGR495 Series

Unit : mm

WORK MATERIAL	P						K					
	CARBON STEELS, ALLOY STEELS			ALLOY STEELS			CAST IRON			DUCTILE CAST IRON		
HARDNESS	~ HRc 20			HRc 20 ~ 35			-			-		
DRILLING SPEED	100 m/min			75 m/min			100 m/min			80 m/min		
DIAMETER	RPM	FEED		RPM	FEED		RPM	FEED		RPM	FEED	
		Min	Max		Min	Max		Min	Max		Min	Max
5.0	6370	0.20	0.25	4780	0.20	0.25	6370	0.23	0.30	5100	0.20	0.25
6.0	5310	0.24	0.30	3980	0.24	0.30	5310	0.27	0.36	4250	0.24	0.30
7.0	4550	0.28	0.35	3420	0.28	0.35	4550	0.32	0.42	3640	0.28	0.35
8.0	3980	0.32	0.40	2990	0.32	0.40	3980	0.36	0.48	3190	0.32	0.40
9.0	3540	0.36	0.45	2660	0.36	0.45	3540	0.41	0.54	2840	0.36	0.45
10.0	3190	0.40	0.50	2390	0.40	0.50	3190	0.45	0.60	2550	0.40	0.50
11.0	2900	0.44	0.55	2180	0.44	0.50	2900	0.50	0.66	2320	0.44	0.55
12.0	2660	0.48	0.60	2000	0.48	0.54	2660	0.54	0.72	2130	0.48	0.60
13.0	2450	0.52	0.65	1840	0.52	0.59	2450	0.59	0.78	1960	0.52	0.65
14.0	2280	0.56	0.70	1710	0.56	0.63	2280	0.63	0.84	1820	0.56	0.70
16.0	1990	0.56	0.72	1500	0.56	0.64	1990	0.64	0.80	1600	0.56	0.72

N = R.P.M
S = Feed per Revolution (mm/rev.)