




DREAM DRILLS - HIGH FEED

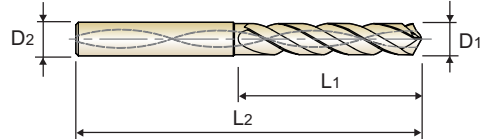
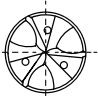
DGR493 SERIES

CARBIDE, DREAM DRILLS - HIGH FEED with COOLANT HOLES SHORT

-  DREAM DRILLS HIGH FEED mit KÜHLKANAL KURZ
-  Forets DREAM DRILLS carbure Grande Avance avec arrosage central, série courte COURTE
-  PUNTE DREAM DRILL HIGH FEED (con i fori di refrigerazione) CORTA

- ▶ Drilling for Carbon Steels, Alloy Steels(-HRc35) and Cast Iron
- ▶ Higher 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 and chip breaking by R-thinning and coolant holes

- ▶ Bohren von Kohlenstoff-Stählen, legierten Stählen(-HRc35) und Gusseisen
- ▶ Höhere Produktivität durch den 1,5 bis 2-fach höheren Vorschub gegenüber herkömmlichen zweischneidigen Bohren
- ▶ Die Multi-Layer Beschichtung ermöglicht eine bessere Produktivität und Zuverlässigkeit
- ▶ Selbst zentrierend und guter Spanbruch durch die R-Ausspitzung



DIN 6537

CARBIDE

 30°

h6

m7

140°

20 bar



P.105

3 × D

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
H-Coating	D1	D2	L1	L2
DGR493050	5.0	6	28	66
DGR493051	5.1	6	28	66
DGR493052	5.2	6	28	66
DGR493053	5.3	6	28	66
DGR493054	5.4	6	28	66
DGR493055	5.5	6	28	66
DGR493056	5.6	6	28	66
DGR493057	5.7	6	28	66
DGR493058	5.8	6	28	66
DGR493059	5.9	6	28	66
DGR493060	6.0	6	28	66
DGR493061	6.1	8	34	79
DGR493062	6.2	8	34	79
DGR493063	6.3	8	34	79
DGR493064	6.4	8	34	79
DGR493065	6.5	8	34	79
DGR493066	6.6	8	34	79
DGR493067	6.7	8	34	79
DGR493068	6.8	8	34	79
DGR493069	6.9	8	34	79
DGR493070	7.0	8	34	79
DGR493071	7.1	8	41	79
DGR493072	7.2	8	41	79
DGR493073	7.3	8	41	79

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
H-Coating	D1	D2	L1	L2
DGR493074	7.4	8	41	79
DGR493075	7.5	8	41	79
DGR493076	7.6	8	41	79
DGR493077	7.7	8	41	79
DGR493078	7.8	8	41	79
DGR493079	7.9	8	41	79
DGR493080	8.0	8	41	79
DGR493081	8.1	10	47	89
DGR493082	8.2	10	47	89
DGR493083	8.3	10	47	89
DGR493084	8.4	10	47	89
DGR493085	8.5	10	47	89
DGR493086	8.6	10	47	89
DGR493087	8.7	10	47	89
DGR493088	8.8	10	47	89
DGR493089	8.9	10	47	89
DGR493090	9.0	10	47	89
DGR493091	9.1	10	47	89
DGR493092	9.2	10	47	89
DGR493093	9.3	10	47	89
DGR493094	9.4	10	47	89
DGR493095	9.5	10	47	89
DGR493096	9.6	10	47	89
DGR493097	9.7	10	47	89

▶ Other shank types are available on your request.

▶ NEXT PAGE

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	
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
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	400Rm	1050Rm	550	630	400	550
Recommended																					



CARBIDE, DREAM DRILLS - HIGH FEED with COOLANT HOLES

SHORT

DREAM DRILLS HIGH FEED mit KÜHLKANAL

KURZ

Forets DREAM DRILLS carbure Grande Avance avec arrosage central, série courte

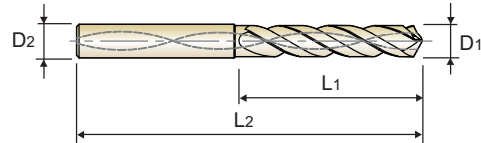
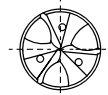
COURTE

PUNTE DREAM DRILL HIGH FEED (con i fori di refrigerazione)

CORTA

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DIN 6537 **CARBIDE** **30°** **h6** **m7** **140°** **20 bar**

P.105

3 x D

Unit : mm

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
H-Coating	D1	D2	L1	L2
DGR493098	9.8	10	47	89
DGR493099	9.9	10	47	89
DGR493100	10.0	10	47	89
DGR493101	10.1	12	55	102
DGR493102	10.2	12	55	102
DGR493103	10.3	12	55	102
DGR493104	10.4	12	55	102
DGR493105	10.5	12	55	102
DGR493106	10.6	12	55	102
DGR493107	10.7	12	55	102
DGR493108	10.8	12	55	102
DGR493109	10.9	12	55	102
DGR493110	11.0	12	55	102
DGR493111	11.1	12	55	102
DGR493112	11.2	12	55	102
DGR493113	11.3	12	55	102
DGR493114	11.4	12	55	102
DGR493115	11.5	12	55	102
DGR493116	11.6	12	55	102
DGR493117	11.7	12	55	102

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
H-Coating	D1	D2	L1	L2
DGR493118	11.8	12	55	102
DGR493119	11.9	12	55	102
DGR493120	12.0	12	55	102
DGR493125	12.5	14	60	107
DGR493130	13.0	14	60	107
DGR493135	13.5	14	60	107
DGR493140	14.0	14	60	107
DGR493145	14.5	16	65	115
DGR493150	15.0	16	65	115
DGR493155	15.5	16	65	115
DGR493160	16.0	16	65	115
DGR493165	16.5	18	73	123
DGR493170	17.0	18	73	123
DGR493175	17.5	18	73	123
DGR493180	18.0	18	73	123
DGR493185	18.5	20	79	131
DGR493190	19.0	20	79	131
DGR493195	19.5	20	79	131
DGR493200	20.0	20	79	131

▶ Other shank types are available on your request.

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	400Rm	1050Rm	550	630	400	550
Recommended																					



**RECOMMENDED CUTTING CONDITIONS
EMPFOHLENE SCHNEIDPARAMETER**

DRG493, DRG495 SERIES with COOLANT HOLES

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

ISO	VDI 3323	Material Description	Vc (m/min)	Parameter	Drill Diameter (mm)								
					5.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0	20.0
P	1	Non-alloy steel	100	RPM	6370	5310	3980	3180	2650	2270	1990	1770	1590
	2			FEED	0.2-0.25	0.24-0.3	0.32-0.4	0.4-0.5	0.48-0.6	0.56-0.7	0.56-0.72	0.63-0.81	0.7-0.88
	3		RPM	6370	5310	3980	3180	2650	2270	1990	1770	1590	
	4		FEED	0.2-0.25	0.24-0.3	0.32-0.4	0.4-0.5	0.48-0.6	0.56-0.7	0.56-0.72	0.63-0.81	0.7-0.88	
	5	Low alloy steel	100	RPM	6370	5310	3980	3180	2650	2270	1990	1770	1590
	6			FEED	0.16-0.21	0.2-0.26	0.26-0.34	0.34-0.42	0.41-0.47	0.47-0.54	0.47-0.55	0.5-0.59	0.54-0.67
	7		RPM	5090	4240	3180	2550	2120	1820	1590	1410	1270	
	8		FEED	0.16-0.21	0.2-0.26	0.26-0.34	0.34-0.42	0.41-0.47	0.47-0.54	0.47-0.55	0.5-0.59	0.54-0.67	
	9		RPM	6370	5310	3980	3180	2650	2270	1990	1770	1590	
	10		FEED	0.2-0.25	0.24-0.3	0.32-0.4	0.4-0.5	0.48-0.54	0.56-0.63	0.56-0.64	0.63-0.72	0.68-0.81	
	11		RPM	5090	4240	3180	2550	2120	1820	1590	1410	1270	
High alloyed steel, and tool steel	40	RPM	2550	2120	1590	1270	1060	910	800	710	640		
		FEED	0.13-0.18	0.16-0.22	0.21-0.29	0.26-0.36	0.32-0.38	0.36-0.43	0.36-0.45	0.38-0.47	0.41-0.54		
M	12	Stainless steel	40	RPM	2550	2120	1590	1270	1060	910	800	710	640
	13			FEED	0.13-0.18	0.16-0.22	0.21-0.29	0.26-0.36	0.32-0.38	0.36-0.43	0.36-0.45	0.38-0.47	0.41-0.54
	14												
K	15	Grey cast iron	100	RPM	6370	5310	3980	3180	2650	2270	1990	1770	1590
	16		FEED	0.23-0.30	0.27-0.36	0.36-0.48	0.45-0.60	0.54-0.72	0.63-0.84	0.64-0.80	0.72-0.90	0.80-0.98	
	Nodular cast iron	100	RPM	6370	5310	3980	3180	2650	2270	1990	1770	1590	
			FEED	0.20-0.25	0.24-0.30	0.32-0.40	0.40-0.50	0.48-0.60	0.56-0.70	0.56-0.72	0.63-0.81	0.70-0.90	
	Malleable cast iron	80	RPM	6370	5310	3980	3180	2650	2270	1990	1770	1590	
			FEED	0.23-0.30	0.27-0.36	0.36-0.48	0.45-0.60	0.54-0.72	0.63-0.84	0.64-0.80	0.72-0.90	0.80-0.98	
70	RPM	4460	3710	2790	2230	1860	1590	1390	1240	1110			
FEED	0.20-0.25	0.24-0.30	0.32-0.40	0.40-0.50	0.48-0.60	0.56-0.70	0.56-0.72	0.63-0.81	0.70-0.90				
N	21	Aluminum-wrought alloy	70	RPM	5090	4240	3180	2550	2120	1820	1590	1410	1270
	22			FEED	0.23-0.30	0.27-0.36	0.36-0.48	0.45-0.60	0.54-0.72	0.63-0.84	0.64-0.80	0.72-0.90	0.80-0.98
	23	Aluminum-cast, alloyed	70	RPM	4460	3710	2790	2230	1860	1590	1390	1240	1110
	24			FEED	0.20-0.25	0.24-0.30	0.32-0.40	0.40-0.50	0.48-0.60	0.56-0.70	0.56-0.72	0.63-0.81	0.70-0.90
	25			RPM	5090	4240	3180	2550	2120	1820	1590	1410	1270
	26			FEED	0.23-0.30	0.27-0.36	0.36-0.48	0.45-0.60	0.54-0.72	0.63-0.84	0.64-0.80	0.72-0.90	0.80-0.98
	27	Copper and Copper Alloys (Bronze / Brass)	70	RPM	4460	3710	2790	2230	1860	1590	1390	1240	1110
	28			FEED	0.20-0.25	0.24-0.30	0.32-0.40	0.40-0.50	0.48-0.60	0.56-0.70	0.56-0.72	0.63-0.81	0.70-0.90
	29	Non Metallic Materials	70	RPM	4460	3710	2790	2230	1860	1590	1390	1240	1110
	30			FEED	0.20-0.25	0.24-0.30	0.32-0.40	0.40-0.50	0.48-0.60	0.56-0.70	0.56-0.72	0.63-0.81	0.70-0.90
S	31	Heat Resistant Super Alloys	70	RPM	4460	3710	2790	2230	1860	1590	1390	1240	1110
	32			FEED	0.20-0.25	0.24-0.30	0.32-0.40	0.40-0.50	0.48-0.60	0.56-0.70	0.56-0.72	0.63-0.81	0.70-0.90
	33			RPM	4460	3710	2790	2230	1860	1590	1390	1240	1110
	34			FEED	0.20-0.25	0.24-0.30	0.32-0.40	0.40-0.50	0.48-0.60	0.56-0.70	0.56-0.72	0.63-0.81	0.70-0.90
	35			RPM	4460	3710	2790	2230	1860	1590	1390	1240	1110
	36			FEED	0.20-0.25	0.24-0.30	0.32-0.40	0.40-0.50	0.48-0.60	0.56-0.70	0.56-0.72	0.63-0.81	0.70-0.90
	37			Titanium Alloys	70	RPM	4460	3710	2790	2230	1860	1590	1390
H	38	Hardened steel	70	RPM	4460	3710	2790	2230	1860	1590	1390	1240	1110
	39			FEED	0.20-0.25	0.24-0.30	0.32-0.40	0.40-0.50	0.48-0.60	0.56-0.70	0.56-0.72	0.63-0.81	0.70-0.90
	40	Chilled Cast Iron	70	RPM	4460	3710	2790	2230	1860	1590	1390	1240	1110
	41	Hardened Cast Iron	70	FEED	0.20-0.25	0.24-0.30	0.32-0.40	0.40-0.50	0.48-0.60	0.56-0.70	0.56-0.72	0.63-0.81	0.70-0.90

SELECTION GUIDE



SERIES

DGR493

DGR495

DRILLING DEPTH

3XD

5XD

LENGTH

SHORT

LONG

SIZE MIN

D5.0

D5.0

SIZE MAX

D20.0

D20.0

PAGE

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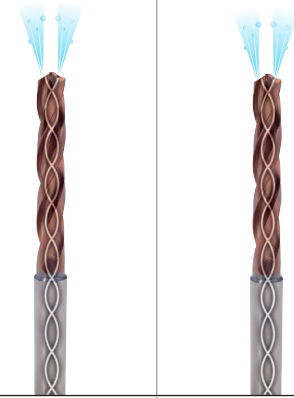
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SURFACE TREATMENT

H-Coating

**SOLID CARBIDE
DREAM DRILLS
HIGH FEED**

1.5 to 2 Times Faster Feeding Speed than 2-Flute Drill
for Carbon Steels, Alloy Steels(up to HRc35) and Cast Iron



Please visit
globalyg1.com/mat
for material search

◎ : Excellent ○ : Good

Recommended cutting conditions : P.105

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	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			