

YE-DD24

EUROPE



SOLID CARBIDE **DREAM DRILLS**

PRO with/without Coolant Holes

NEW **X** with/without Coolant Holes

GENERAL with/without Coolant Holes

HIGH FEED with Coolant Holes

FLAT BOTTOM with/without Coolant Holes

INOX with Coolant Holes

ALU with Coolant Holes

MTL TYPE with Coolant Holes(10xD - 40xD)

for HIGH HARDENED STEELS HRc50-70

◎ : Excellent ○ : Good

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GUIDE LINE
TO ICONS

Standard of
Tools

DIN
6539

Number of
DIN Standard

Coolant Supply
Pressure

45 bar

20 bar

Tool Material

CARBIDE

Point Angle

140°

Surface
Treatment

TiAIN

Titanium Aluminum
Nitride Coating

RCH-Coating

YG-1 RCH-Coating

X-Coating

YG-1 X-Coating

H-Coating

YG-1 H-Coating

Diamond

Diamond Coating

Bright

Bright Finish

Tolerance of
Dimension

m7

Tolerance of
Outside Diameter

h6

Tolerance of
Shank Diameter

Cutting
Condition

YG
SELECTION GUIDE
METRIC

SERIES
DRILLING DEPTH
TOOL MATERIAL
LENGTH
SIZE MIN
SIZE MAX
PAGE

SURFACE TREATMENT

**SOLID CARBIDE
DREAM
DRILLS**



Please visit
globalyg1.com/mat
for material search

◎ : Excellent ○ : Good

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		CuZn, CuSnZn (Brass)		90						
	28	(Bronze / Brass)	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	Titanium Alloys		Cast	320	34					
	36		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					



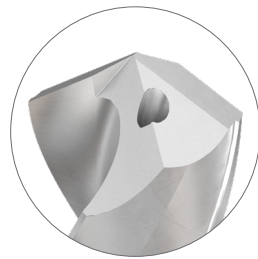
Leading Through Innovation

SOLID CARBIDE

**DREAM DRILLS
-PRO**

- For General Purpose (up to HRC50)
- Extremely High hardness and Heat resistance due to YG-1 special Z-Coating technology

DREAM DRILLS ALU



Design that optimized flute shape and geometry suitable for **Aluminum, Aluminum alloy.**



Optimized point thinning to prevent any **chip-clogging from chip welding.**

Polished flutes improve **chip control and evacuation.**

The Drilling of High Speed is possible while maintaining **the excellent surface roughness of workpiece.**

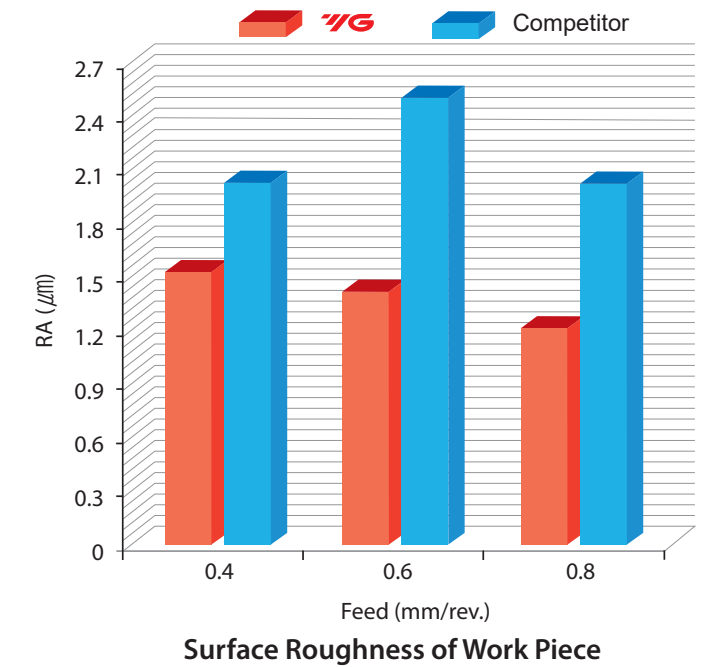
Ø6.0 & Ø10.0 TEST, Aluminum(6061)

CUTTING CONDITION	YG DREAM DRILL-ALU		COMPETITOR A	
	Roundness	Straightness	Roundness	Straightness
SIZE Ø 6.0				
Drilling Holes 1200 Holes				
SIZE Ø10.0				
Drilling Holes 820 Holes				

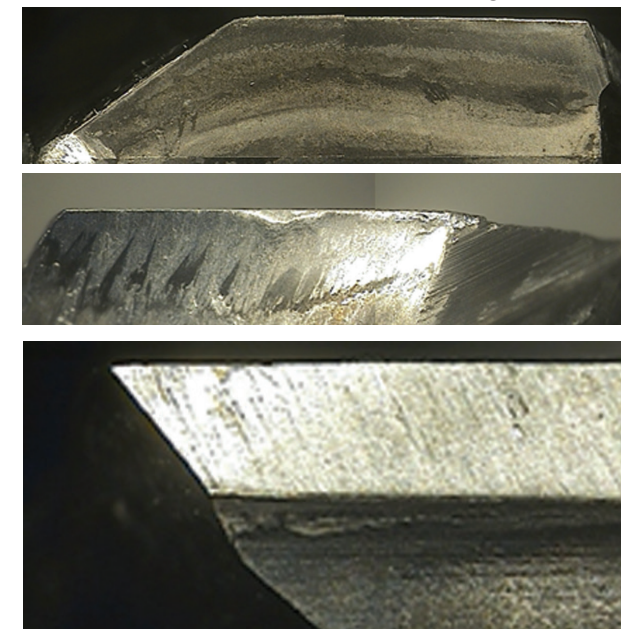
CASE STUDY

►SOLID CARBIDE DREAM DRILLS - ALU with Coolant Holes

CUTTING CONDITION	
Tool	D5433100
Size(mm)	Ø10 × Ø10 × 61 × 103
Work Material	• DIN: AlMgSiCu • AISI: 6061 • JIS: A6061
RPM	6,367 rev./min.
Feed	0.4-0.8 mm/rev.
Drilling Depth	45 mm
Coolant	Wet cut



Total Drilling 820 Holes



Competitor A

Total Drilling 820 Holes

