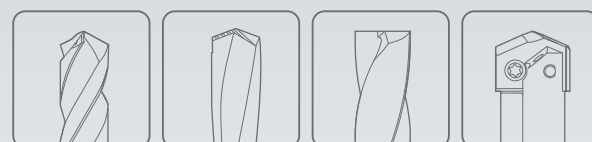




Leading Through Innovation



Global Cutting Tool Leader **YG-1**



DREAM DRILLS



SOLID CARBIDE

DREAM DRILLS -ALU

- For Aluminum and Aluminum Alloys

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.**

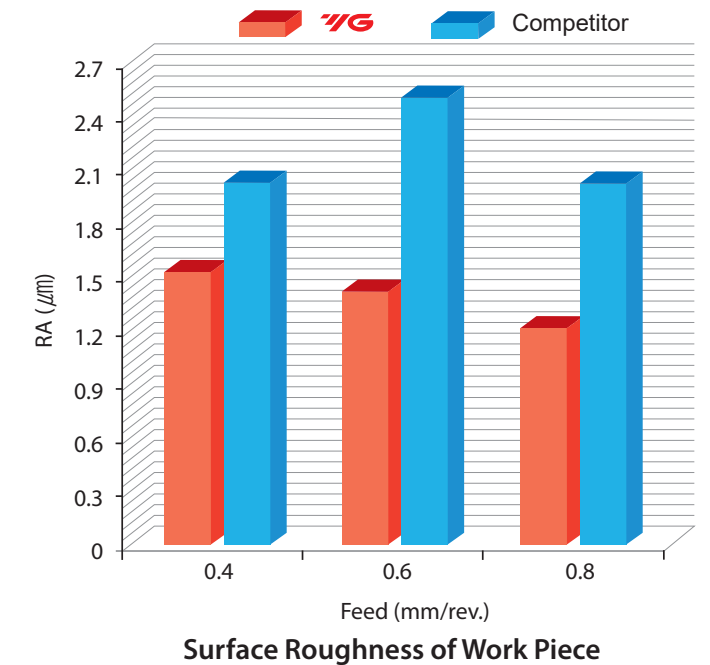
Ø6.0 & Ø10.0 TEST, Aluminum(6061)

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				

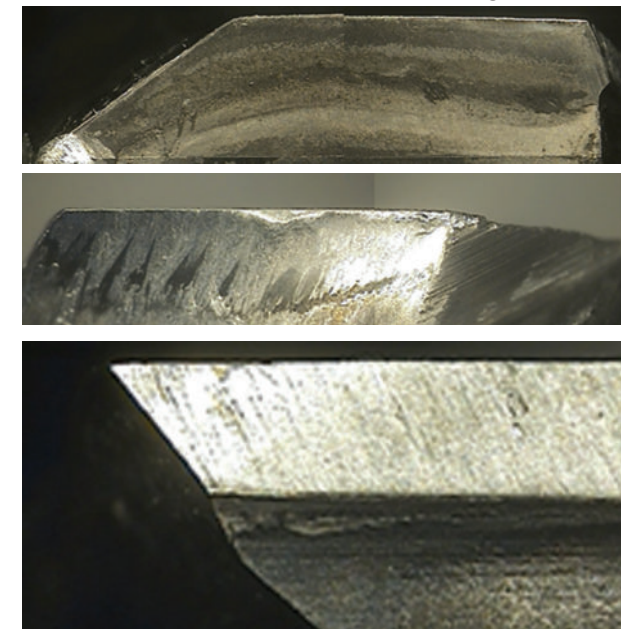
CASE STUDY

►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

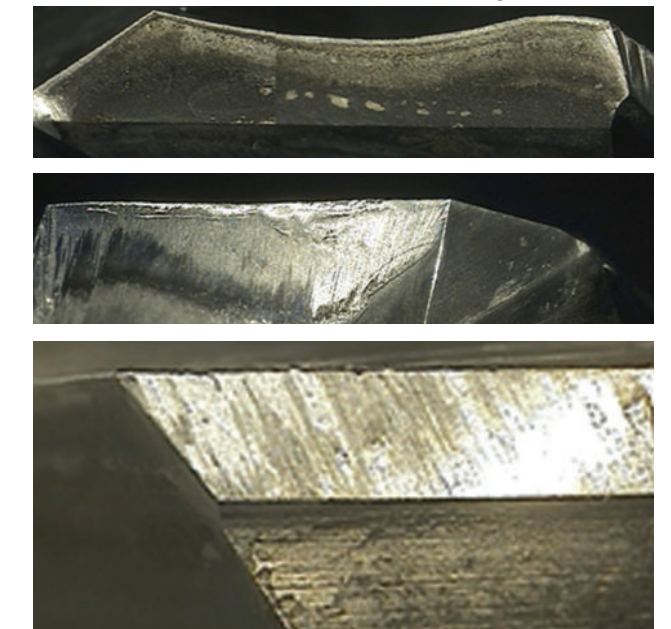


Total Drilling 820 Holes



Competitor A

Total Drilling 820 Holes





SOLID CARBIDE

DREAM DRILLS ALU with COOLANT HOLES (3XD)

SERIES

D5432

- Optimized thinning for Aluminum & Aluminum Alloys to
- prevent any clogging from chip welding
- Wider and deeper flute gullets for maximum chip removal
- Special geometry and smooth coating reduces built up edge and improves finishes



SHORT

3 × D

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
	D1	D2	L1	L2		D1	D2	L1	L2
D5432030	3.0	6	20	62	D5432058	5.8	6	28	66
D5432031	3.1	6	20	62	D5432059	5.9	6	28	66
D5432032	3.2	6	20	62	D5432060	6.0	6	28	66
D5432033	3.3	6	20	62	D5432061	6.1	8	34	79
D5432034	3.4	6	20	62	D5432062	6.2	8	34	79
D5432035	3.5	6	20	62	D5432063	6.3	8	34	79
D5432036	3.6	6	20	62	D5432064	6.4	8	34	79
D5432037	3.7	6	20	62	D5432065	6.5	8	34	79
D5432038	3.8	6	24	66	D5432066	6.6	8	34	79
D5432039	3.9	6	24	66	D5432067	6.7	8	34	79
D5432040	4.0	6	24	66	D5432068	6.8	8	34	79
D5432041	4.1	6	24	66	D5432069	6.9	8	34	79
D5432042	4.2	6	24	66	D5432070	7.0	8	34	79
D5432043	4.3	6	24	66	D5432071	7.1	8	41	79
D5432044	4.4	6	24	66	D5432072	7.2	8	41	79
D5432045	4.5	6	24	66	D5432073	7.3	8	41	79
D5432046	4.6	6	24	66	D5432074	7.4	8	41	79
D5432047	4.7	6	24	66	D5432075	7.5	8	41	79
D5432048	4.8	6	28	66	D5432076	7.6	8	41	79
D5432049	4.9	6	28	66	D5432077	7.7	8	41	79
D5432050	5.0	6	28	66	D5432078	7.8	8	41	79
D5432051	5.1	6	28	66	D5432079	7.9	8	41	79
D5432052	5.2	6	28	66	D5432080	8.0	8	41	79
D5432053	5.3	6	28	66	D5432081	8.1	10	47	89
D5432054	5.4	6	28	66	D5432082	8.2	10	47	89
D5432055	5.5	6	28	66	D5432083	8.3	10	47	89
D5432056	5.6	6	28	66	D5432084	8.4	10	47	89
D5432057	5.7	6	28	66	D5432085	8.5	10	47	89

Unit : mm

- DLC coating is available on your request.
- 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				
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	38	10	29	32	38	15	35	15	23	10	10	26	3	25	21	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				
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
HRc	13	25	28	32	38	10	29	32	38	15	35	15	23	10	10	26	3	25	21	21
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400
Recommended	◎	◎	◎	◎																

◎ : Excellent ○ : Good

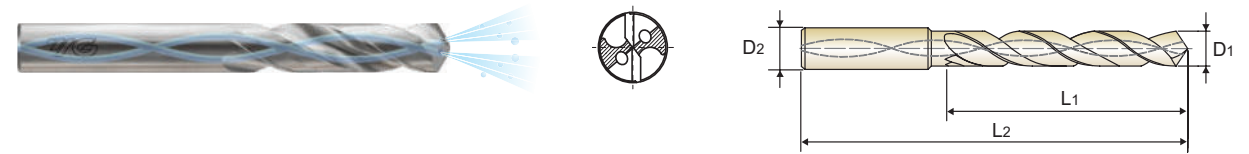
SOLID CARBIDE

DREAM DRILLS ALU with COOLANT HOLES (3XD)

SERIES

D5432

- Optimized thinning for Aluminum & Aluminum Alloys to
- prevent any clogging from chip welding
- Wider and deeper flute gullets for maximum chip removal
- Special geometry and smooth coating reduces built up edge and improves finishes



SHORT

3 × D

EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length	EDP No.	Drill Diameter	Shank Diameter	Flute Length	Overall Length
	D1	D2	L1	L2		D1	D2	L1	L2
D5432086	8.6	10	47	89	D5432114	11.4	12	55	102
D5432087	8.7	10	47	89	D5432115	11.5	12	55	102
D5432088	8.8	10	47	89	D5432116	11.6	12	55	102
D5432089	8.9	10	47	89	D5432117	11.7	12	55	102
D5432090	9.0	10	47	89	D5432118	11.8	12	55	102
D5432091	9.1	10	47	89	D5432119	11.9	12	55	102
D5432092	9.2	10	47	89	D5432120	12.0	12	55	102
D5432093	9.3	10	47	89	D5432125	12.5	14	60	107
D5432094	9.4	10	47	89	D5432130	13.0	14	60	107
D5432095	9.5	10	47	89	D5432135	13.5	14	60	107
D5432096	9.6	10	47	89	D5432140	14.0	14	60	107
D5432097	9.7	10	47	89	D5432145	14.5	16	65	115
D5432098	9.8	10	47	89	D5432150	15.0	16	65	115
D5432099	9.9	10	47	89	D5432155	15.5	16	65	115
D5432100	10.0	10	47	89	D5432160	16.0	16	65	115
D5432101	10.1	12	55	102	D5432165	16.5	18	73	123
D5432102	10.2	12	55	102	D5432170	17.0	18	73	123
D5432103	10.3	12	55	102	D5432175	17.5	18	73	123
D5432104	10.4	12	55	102	D5432180	18.0	18	73	123
D5432105	10.5	12	55	102	D5432185	18.5	20	79	131
D5432106	10.6	12	55	102	D5432190	19.0	20	79	131
D5432107	10.7	12	55	102	D5432195	19.5	20	79	131
D5432108	10.8	12	55	102	D5432200	20.0	20	79	131
D5432109	10.9	12	55	102					
D5432110	11.0	12	55	102					
D5432111	11.1	12	55	102					
D5432112	11.2	12	55	102					
D5432113	11.3	12	55	102					

Unit : mm

- DLC coating is available on your request.
- Other shank types are available on your request.

ISO	P										M					K				
	Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel					Stainless steel				
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	38	10	29	32	38	15	35	15	23	10	10	26	3	25	21	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				
VDI 3323	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
HRc	13	25	28	32	38	10	29	32	38	15	35	15	23	10	10	26	3	25	21	21
HB	60	100	75	90	130	110	90	100			200	280	250	350	320	400Rm	1050Rm	550	630	400
Recommended	◎	◎	◎	◎																

◎ : Excellent ○ : Good



SOLID CARBIDE

DREAM DRILLS ALU with COOLANT HOLES (5XD)

SERIES

D5433

- ▶ Optimized thinning for Aluminum & Aluminum Alloys to
- ▶ prevent any clogging from chip welding
- ▶ Wider and deeper flute gullets for maximum chip removal
- ▶ Special geometry and smooth coating reduces built up edge and improves finishes



LONG

5 × D

Unit : mm									
EDP No.	Drill Diameter D1	Shank Diameter D2	Flute Length L1	Overall Length L2	EDP No.	Drill Diameter D1	Shank Diameter D2	Flute Length L1	Overall Length L2
D5433030	3.0	6	28	66	D5433058	5.8	6	44	82
D5433031	3.1	6	28	66	D5433059	5.9	6	44	82
D5433032	3.2	6	28	66	D5433060	6.0	6	44	82
D5433033	3.3	6	28	66	D5433061	6.1	8	53	91
D5433034	3.4	6	28	66	D5433062	6.2	8	53	91
D5433035	3.5	6	28	66	D5433063	6.3	8	53	91
D5433036	3.6	6	28	66	D5433064	6.4	8	53	91
D5433037	3.7	6	28	66	D5433065	6.5	8	53	91
D5433038	3.8	6	36	74	D5433066	6.6	8	53	91
D5433039	3.9	6	36	74	D5433067	6.7	8	53	91
D5433040	4.0	6	36	74	D5433068	6.8	8	53	91
D5433041	4.1	6	36	74	D5433069	6.9	8	53	91
D5433042	4.2	6	36	74	D5433070	7.0	8	53	91
D5433043	4.3	6	36	74	D5433071	7.1	8	53	91
D5433044	4.4	6	36	74	D5433072	7.2	8	53	91
D5433045	4.5	6	36	74	D5433073	7.3	8	53	91
D5433046	4.6	6	36	74	D5433074	7.4	8	53	91
D5433047	4.7	6	36	74	D5433075	7.5	8	53	91
D5433048	4.8	6	44	82	D5433076	7.6	8	53	91
D5433049	4.9	6	44	82	D5433077	7.7	8	53	91
D5433050	5.0	6	44	82	D5433078	7.8	8	53	91
D5433051	5.1	6	44	82	D5433079	7.9	8	53	91
D5433052	5.2	6	44	82	D5433080	8.0	8	53	91
D5433053	5.3	6	44	82	D5433081	8.1	10	61	103
D5433054	5.4	6	44	82	D5433082	8.2	10	61	103
D5433055	5.5	6	44	82	D5433083	8.3	10	61	103
D5433056	5.6	6	44	82	D5433084	8.4	10	61	103
D5433057	5.7	6	44	82	D5433085	8.5	10	61	103

- ▶ DLC coating is available on your request.
- ▶ Other shank types are available on your request.

▶ NEXT PAGE

ISO		P										M					K				
Material Description		Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel					Stainless steel				
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	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				
VDI 3323		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
HRc																					
HB		60	100	75	90	130	110	90	100												
Recommended		◎	◎	◎	◎																

SOLID CARBIDE

DREAM DRILLS ALU with COOLANT HOLES (5XD)

SERIES

D5433

- ▶ Optimized thinning for Aluminum & Aluminum Alloys to
- ▶ prevent any clogging from chip welding
- ▶ Wider and deeper flute gullets for maximum chip removal
- ▶ Special geometry and smooth coating reduces built up edge and improves finishes



LONG

5 × D

Unit : mm									
EDP No.	Drill Diameter D1	Shank Diameter D2	Flute Length L1	Overall Length L2	EDP No.	Drill Diameter D1	Shank Diameter D2	Flute Length L1	Overall Length L2
D5433086	8.6	10	61	103	D5433114	11.4	12	71	118
D5433087	8.7	10	61	103	D5433115	11.5	12	71	118
D5433088	8.8	10	61	103	D5433116	11.6	12	71	118
D5433089	8.9	10	61	103	D5433117	11.7	12	71	118
D5433090	9.0	10	61	103	D5433118	11.8	12	71	118
D5433091	9.1	10	61	103	D5433119	11.9	12	71	118
D5433092	9.2	10	61	103	D5433120	12.0	12	71	118
D5433093	9.3	10	61	103	D5433125	12.5	14	77	124
D5433094	9.4	10	61	103	D5433130	13.0	14	77	124
D5433095	9.5	10	61	103	D5433135	13.5	14	77	124
D5433096	9.6	10	61	103	D5433140	14.0	14	77	124
D5433097	9.7	10	61	103	D5433145	14.5	16	83	133
D5433098	9.8	10	61	103	D5433150	15.0	16	83	133
D5433099	9.9	10	61	103	D5433155	15.5	16	83	133
D5433100	10.0	10	61	103	D5433160	16.0	16	83	133
D5433101	10.1	12	71	118	D5433165	16.5	18	93	143
D5433102	10.2	12	71	118	D5433170	17.0	18	93	143
D5433103	10.3	12	71	118	D5433175	17.5	18	93	143
D5433104	10.4	12	71	118	D5433180	18.0	18	93	143
D5433105	10.5	12	71	118	D5433185	18.5	20	101	153
D5433106	10.6	12	71	118	D5433190	19.0	20	101	153
D5433107	10.7	12	71	118	D5433195	19.5	20	101	153
D5433108	10.8	12	71	118	D5433200	20.0	20	101	153
D5433109	10.9	12	71	118					
D5433110	11.0	12	71	118					
D5433111	11.1	12	71	118					
D5433112	11.2	12	71	118					
D5433113	11.3	12	71	118					

- ▶ DLC coating is available on your request.
- ▶ 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				
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	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				
VDI 3323		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
HRc																					
HB		60	100	75	90	130	110	90	100												
Recommended		◎	◎	◎	◎																



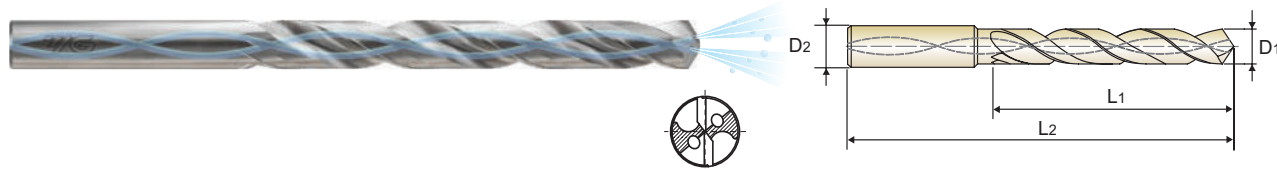
SOLID CARBIDE

DREAM DRILLS ALU with COOLANT HOLES (8XD)

SERIES

D5434

- Optimized thinning for Aluminum & Aluminum Alloys to
- prevent any clogging from chip welding
- Wider and deeper flute gullets for maximum chip removal
- Special geometry and smooth coating reduces built up edge and improves finishes



EXTRA LONG

8 × D

					Unit : mm				
EDP No.	Drill Diameter D1	Shank Diameter D2	Flute Length L1	Overall Length L2	EDP No.	Drill Diameter D1	Shank Diameter D2	Flute Length L1	Overall Length L2
D5434030	3.0	6	34	72	D5434058	5.8	6	57	95
D5434031	3.1	6	34	72	D5434059	5.9	6	57	95
D5434032	3.2	6	34	72	D5434060	6.0	6	57	95
D5434033	3.3	6	34	72	D5434061	6.1	8	76	114
D5434034	3.4	6	34	72	D5434062	6.2	8	76	114
D5434035	3.5	6	34	72	D5434063	6.3	8	76	114
D5434036	3.6	6	34	72	D5434064	6.4	8	76	114
D5434037	3.7	6	34	72	D5434065	6.5	8	76	114
D5434038	3.8	6	43	81	D5434066	6.6	8	76	114
D5434039	3.9	6	43	81	D5434067	6.7	8	76	114
D5434040	4.0	6	43	81	D5434068	6.8	8	76	114
D5434041	4.1	6	43	81	D5434069	6.9	8	76	114
D5434042	4.2	6	43	81	D5434070	7.0	8	76	114
D5434043	4.3	6	43	81	D5434071	7.1	8	76	114
D5434044	4.4	6	43	81	D5434072	7.2	8	76	114
D5434045	4.5	6	43	81	D5434073	7.3	8	76	114
D5434046	4.6	6	43	81	D5434074	7.4	8	76	114
D5434047	4.7	6	43	81	D5434075	7.5	8	76	114
D5434048	4.8	6	57	95	D5434076	7.6	8	76	114
D5434049	4.9	6	57	95	D5434077	7.7	8	76	114
D5434050	5.0	6	57	95	D5434078	7.8	8	76	114
D5434051	5.1	6	57	95	D5434079	7.9	8	76	114
D5434052	5.2	6	57	95	D5434080	8.0	8	76	114
D5434053	5.3	6	57	95	D5434081	8.1	10	95	142
D5434054	5.4	6	57	95	D5434082	8.2	10	95	142
D5434055	5.5	6	57	95	D5434083	8.3	10	95	142
D5434056	5.6	6	57	95	D5434084	8.4	10	95	142
D5434057	5.7	6	57	95	D5434085	8.5	10	95	142

- DLC coating is available on your request.
- Other shank types are available on your request.

► NEXT PAGE

ISO		P										M				K			
Material Description		Non-alloy steel					Low alloy steel					High alloyed steel, and tool steel				Stainless steel			
VDI 3323		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
HRc		13	25	28	32	38	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
Recommended																			
ISO		N										S				H			
Material Description		Aluminum-wrought alloy					Aluminum-cast, alloyed					Copper and Copper Alloys (Bronze / Brass)				Non Metallic Materials			
VDI 3323		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
HRc		13	25	28	32	38	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
Recommended																			
ISO		N										S				H			
Material Description		Aluminum-wrought alloy					Aluminum-cast, alloyed					Copper and Copper Alloys (Bronze / Brass)				Non Metallic Materials			
VDI 3323		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
HRc		13	25	28	32	38	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
Recommended																			

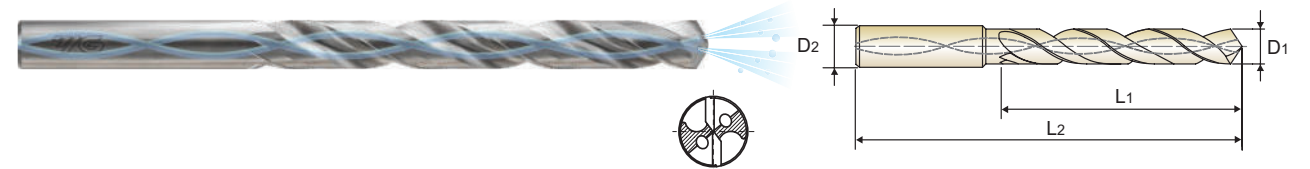
SOLID CARBIDE

DREAM DRILLS ALU with COOLANT HOLES (8XD)

SERIES

D5434

- Optimized thinning for Aluminum & Aluminum Alloys to
- prevent any clogging from chip welding
- Wider and deeper flute gullets for maximum chip removal
- Special geometry and smooth coating reduces built up edge and improves finishes



EXTRA LONG

8 × D

					Unit : mm				
EDP No.	Drill Diameter D1	Shank Diameter D2	Flute Length L1	Overall Length L2	EDP No.	Drill Diameter D1	Shank Diameter D2	Flute Length L1	Overall Length L2
D5434086	8.6	10	95	142	D5434114	11.4	12	114	162
D5434087	8.7	10	95	142	D5434115	11.5	12	114	162
D5434088	8.8	10	95	142	D5434116	11.6	12	114	162
D5434089	8.9	10	95	142	D5434117	11.7	12	114	162
D5434090	9.0	10	95	142	D5434118	11.8	12	114	162
D5434091	9.1	10	95	142	D5434119	11.9	12	114	162
D5434092	9.2	10	95	142	D5434120	12.0	12	114	162
D5434093	9.3	10	95	142	D5434125	12.5	14	133	178
D5434094	9.4	10	95	142	D5434130	13.0	14	133	178
D5434095	9.5	10	95	142	D5434135	13.5	14	133	178
D5434096	9.6	10	95	142	D5434140	14.0	14	133	178
D5434097	9.7	10	95	142					
D5434098	9.8	10	95	142					
D5434099	9.9	10	95	142					
D5434100	10.0	10	95	142					
D5434101	10.1	12	114	162					
D5434102	10.2	12	114	162					
D5434103	10.3	12	114	162					
D5434104	10.4	12	114	162					
D5434105	10.5	12	114	162					
D5434106	10.6	12	114	162					
D5434107	10.7	12	114	162					
D5434108	10.8	12	114	162					
D5434109	10.9	12	114	162					
D5434110	11.0	12	114	162					
D5434111	11.1	12	114	162					
D5434112	11.2	12	114	162					
D5434113	11.3	12	114	162					

- DLC coating is available on your request.
- 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			
VDI 3323		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
HRc		13	25	28	32	38	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
Recommended																			
ISO		N										S				H			
Material Description		Aluminum-wrought alloy					Aluminum-cast, alloyed					Copper and Copper Alloys (Bronze / Brass)				Non Metallic Materials			
VDI 3323		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
HRc		13	25	28	32	38	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
Recommended																			
ISO		N										S				H			
Material Description		Aluminum-wrought alloy					Aluminum-cast, alloyed					Copper and Copper Alloys (Bronze / Brass)				Non Metallic Materials			
VDI 3323		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
HRc		13	25	28	32	38	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
Recommended																			