

GK-HAZX
NO BURRS



Giken Ltd.
The Japanese products

The world's first! 4 blades

ZERO BURR X

For Aluminum and Resin Cross hole Hybrid Drill.

The world's first! Four blades 3D waveform composite R shape.

ZERO BURR X debut!

One punch without a pilot hole prevents burrs!

Perfect for drilling a cross hole in aluminum and resin!

The drilling speed has reduced significantly!

Hole accuracy H7 or less if there's no deflection!

Trademark registered, patent pending.

Drilling videos here!



New Product! For **Aluminum Resin Cross hole** **No Deburring!** Reducing deburring work enables cost reduction and high-efficiency production.
4 Blades! **Speed Up!** Four blades increases cutting speed. (Compared to our company's product)
NO BURRS **Repolishing!** Cost efficient because it can be repolished. (Repolishing is done by our company)
Hybrid Drill **Patent and designs** Expand into overseas markets(EU/USA/China) "ZERO BURR" Trademark registered.

The superior characteristics of ZEROBURR X (The results of drilling test)

Fine Curve Flute

Achieved excellent cutting and chip discharging with large waveform R shape.

XZX thinning

New development. Composite R shape that enables to bite smoothly and precise positioning with composite R.

Sub Fine Curve Flute

Complemented the fine curve flute in the main blade. Reducing and dispersing the load increased its cutting speed. Achieves excellent cutting and chip discharge without clogging.

Special Wave Drill

Cutting Resistance 1/4. Hole Accuracy H7 or less. 3D waveform composite R shape to slightly reduce burrs.

Sub Special Wave Drill

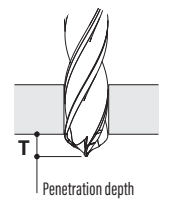
Removes burrs while increasing cutting speed. 3D waveform composite R shape.

Spiral Reamer

Reamer shape for beautifully finished inner wall of hole.

- PRECAUTIONS -

- * Please use for wet drilling.
- * Be sure to fix the work material firmly, and use the drill to completely pass through the penetration depth.
- * If the deflection is large when the drill is mounted, welding or the hole diameter may become large, or a spiral flaw may remain on a drilling surface of the work material.



- Cutting speed -

$$S = 1000 \times V \div 3.14 \div D$$

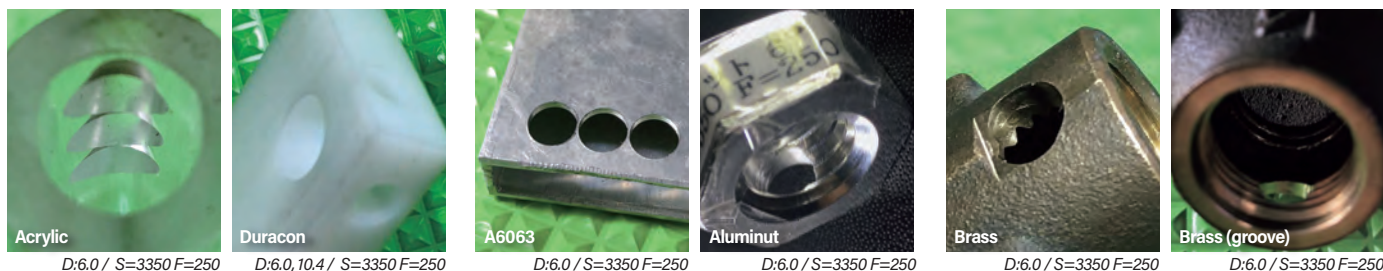
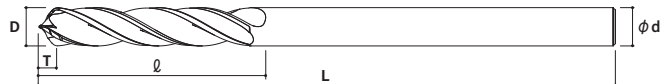
$$V = S \div (1000 \div 3.14 \div D)$$

$$F = S \times S$$

$$f = F \div S(3blade \times 1.5, 4blade \times 2)$$

S = Revolution (rpm)
 V = Cutting speed (m/min)
 F = Feed speed (mm/min)
 f = Feed rate (mm/rev)

*Recommended cutting conditions may vary depending on the cutting environment such as the type of work materials and thickness.



ZEROBURR X LINEUP (for Aluminum / Resin / Cross hole)

Model number	φD Diameter	T Penetration Depth	ℓ Groove Length	L Overall Length	φd Shank
GK-HAZX 0300DLC	3	1.8	20	60	3
GK-HAZX 0310DLC	3.1	2.1	25	60	4
GK-HAZX 0320DLC	3.2				
GK-HAZX 0330DLC	3.3				
GK-HAZX 0340DLC	3.4				
GK-HAZX 0350DLC	3.5				
GK-HAZX 0360DLC	3.6	2.4	30	75	6
GK-HAZX 0370DLC	3.7				
GK-HAZX 0380DLC	3.8				
GK-HAZX 0390DLC	3.9				
GK-HAZX 0400DLC	4				
GK-HAZX 0410DLC	4.1	2.7	35	100	8
GK-HAZX 0420DLC	4.2				
GK-HAZX 0430DLC	4.3				
GK-HAZX 0440DLC	4.4				
GK-HAZX 0450DLC	4.5				
GK-HAZX 0460DLC	4.6	3	40	120	10
GK-HAZX 0470DLC	4.7				
GK-HAZX 0480DLC	4.8				
GK-HAZX 0490DLC	4.9				
GK-HAZX 0500DLC	5				
GK-HAZX 0510DLC	5.1	3.3	45	150	12
GK-HAZX 0520DLC	5.2				
GK-HAZX 0530DLC	5.3				
GK-HAZX 0540DLC	5.4				
GK-HAZX 0550DLC	5.5				
GK-HAZX 0560DLC	5.6	3.6	50	180	14
GK-HAZX 0570DLC	5.7				
GK-HAZX 0580DLC	5.8				
GK-HAZX 0590DLC	5.9				
GK-HAZX 0600DLC	6				
GK-HAZX 0610DLC	6.1	3.9	55	210	16
GK-HAZX 0620DLC	6.2				
GK-HAZX 0630DLC	6.3				
GK-HAZX 0640DLC	6.4				
GK-HAZX 0650DLC	6.5				
GK-HAZX 0660DLC	6.6	4.2	60	240	18
GK-HAZX 0670DLC	6.7				
GK-HAZX 0680DLC	6.8				
GK-HAZX 0690DLC	6.9				
GK-HAZX 0700DLC	7				
GK-HAZX 0710DLC	7.1	4.5	65	270	20
GK-HAZX 0720DLC	7.2				
GK-HAZX 0730DLC	7.3				

Model number	φD Diameter	T Penetration Depth	ℓ Groove Length	L Overall Length	φd Shank
GK-HAZX 0740DLC	7.4	4.5	45	300	22
GK-HAZX 0750DLC	7.5				
GK-HAZX 0760DLC	7.6				
GK-HAZX 0770DLC	7.7				
GK-HAZX 0780DLC	7.8				
GK-HAZX 0790DLC	7.9	4.8	50	330	24
GK-HAZX 0800DLC	8				
GK-HAZX 0810DLC	8.1				
GK-HAZX 0820DLC	8.2				
GK-HAZX 0830DLC	8.3				
GK-HAZX 0840DLC	8.4	5.1	55	360	26
GK-HAZX 0850DLC	8.5				
GK-HAZX 0860DLC	8.6				
GK-HAZX 0870DLC	8.7				
GK-HAZX 0880DLC	8.8				
GK-HAZX 0890DLC	8.9	5.4	60	390	28
GK-HAZX 0900DLC	9				
GK-HAZX 0910DLC	9.1				
GK-HAZX 0920DLC	9.2				
GK-HAZX 0930DLC	9.3				
GK-HAZX 0940DLC	9.4	5.7	65	420	30
GK-HAZX 0950DLC	9.5				
GK-HAZX 0960DLC	9.6				
GK-HAZX 0970DLC	9.7				
GK-HAZX 0980DLC	9.8				
GK-HAZX 0990DLC	9.9	6	70	450	32
GK-HAZX 1000DLC	10				
GK-HAZX 1010DLC	10.1				
GK-HAZX 1020DLC	10.2				
GK-HAZX 1030DLC	10.3				
GK-HAZX 1040DLC	10.4	6.3	75	480	34
GK-HAZX 1050DLC	10.5				
GK-HAZX 1060DLC	10.6				
GK-HAZX 1070DLC	10.7				
GK-HAZX 1080DLC	10.8				
GK-HAZX 1090DLC	10.9	6.6	80	510	36
GK-HAZX 1100DLC	11				
GK-HAZX 1110DLC	11.1				
GK-HAZX 1120DLC	11.2				
GK-HAZX 1130DLC	11.3				
GK-HAZX 1140DLC	11.4	6.9	85	540	38
GK-HAZX 1150DLC	11.5				
GK-HAZX 1160DLC	11.6				
GK-HAZX 1170DLC	11.7				

Model number	φD Diameter	T Penetration Depth	ℓ Groove Length	L Overall Length	φd Shank
GK-HAZX 1180DLC	11.8	7.2	70	120	12
GK-HAZX 1190DLC	11.9				
GK-HAZX 1200DLC	12				
GK-HAZX 1210DLC	12.1				
GK-HAZX 1220DLC	12.2				
GK-HAZX 1230DLC	12.3	7.5	75	140	14
GK-HAZX 1240DLC	12.4				
GK-HAZX 1250DLC	12.5				
GK-HAZX 1260DLC	12.6				
GK-HAZX 1270DLC	12.7				
GK-HAZX 1280DLC	12.8	7.8	80	160	16
GK-HAZX 1290DLC	12.9				
GK-HAZX 1300DLC	13				
GK-HAZX 1310DLC	13.1				
GK-HAZX 1320DLC	13.2				
GK-HAZX 1330DLC	13.3	8.1	85	180	18
GK-HAZX 1340DLC	13.4				
GK-HAZX 1350DLC	13.5				
GK-HAZX 1360DLC	13.6				
GK-HAZX 1370DLC	13.7				
GK-HAZX 1380DLC	13.8	8.4	90	200	20
GK-HAZX 1390DLC	13.9				
GK-HAZX 1400DLC	14				
GK-HAZX 1410DLC	14.1				
GK-HAZX 1420DLC	14.2				
GK-HAZX 1430DLC	14.3	8.7	95	220	22
GK-HAZX 1440DLC	14.4				
GK-HAZX 1450DLC	14.5				
GK-HAZX 1460DLC	14.6				
GK-HAZX 1470DLC	14.7				
GK-HAZX 1480DLC	14.8	9	100	240	24
GK-HAZX 1490DLC	14.9				
GK-HAZX 1500DLC	15				
GK-HAZX 1510DLC	15.1				
GK-HAZX 1520DLC	15.2				
GK-HAZX 1530DLC	15.3	9.3	105	260	26
GK-HAZX 1540DLC	15.4				
GK-HAZX 1550DLC	15.5				
GK-HAZX 1560DLC	15.6				
GK-HAZX 1570DLC	15.7				
GK-HAZX 1580DLC	15.8	9.6	110	280	28
GK-HAZX 1590DLC	15.9				
GK-HAZX 1600DLC	16				

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