

**GK-HFZX-S**  
**NO BURRS**



**Giken Ltd,**  
The Japanese products



Drilling videos here!

**World-first!** Burr-free ultra-precision drilling drill

# ZERO BURR XS

**Carbon Steel High Tensile Strength Steel SCM FCD**

**Thin Plate & Cross Hole Hybrid Drill**

Lineup from dia.1 to 16 in 0.1mm steps.

## ZERO BURR XS debut!

Drill outer diameter H7 plus tolerance.

3 blades increase rigidity as force is concentrated in the center.

No oil hole, shortened blade length and overall length for lower price.

Reaming is possible with one-shot drilling without pre-drilling.

Patent and design registration pending in EU, USA and China.

ZERO BURR Trademark registered.

\*Not for use with hardened steel or hard materials.



**New Product!** For Carbon steel | HTSS | SCM | FCD | Thin plate & Cross hole  
**3 Blades!**  
**NO BURRS**  
**Hybrid Drill**  
**ZERO BURR XS**

**No Deburring!** Reducing deburring work enables cost reduction and high-efficiency production.  
**Increased rigidity!** The three blades improve rigidity because the force is concentrated in the center.  
**Re-polishable!** Cost efficient because it is regrinding. (Φ1 to Φ1.9 cannot be reground)  
**Patent and designs** Expand into overseas markets(EU/USA/China) "ZERO BURR" Trademark registered.

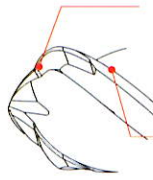
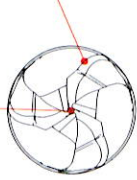
**The superior characteristics of ZERO BURR XS ( The results of drilling test )**

**Fine Curve Flute**

Waveform 3D composite radius shape reduces the risk of chip loss, and excellent cutting and chip evacuation.

**XZR thinning**

The compound R-thinning allows for Low-load biting and positioning is possible.



**Special Wave**

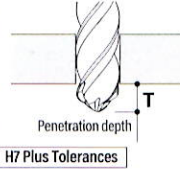
Waveform 3D compound R shape reduces cutting resistance to 1/4. Burrs are suppressed by moving the load in the direction of rotation.

**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 -**

Size	Feed per revolution f =	S = Revolution(rpm)
V = 30~70m/min	dia 1.0 - 3.0 0.005 - 0.02	V = Cutting speed(m/min)
S = V × 1000 ÷ 3.14 ÷ D	dia 3.0 - 6.0 0.01 - 0.04	F = Feed speed(mm/min)
F = S × f	dia 6.0 or more 0.02 - 0.06	f = Feed rate(mm/rev)

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



**ZERO BURR XS LINE UP ( for Carbon steel / High Tensile Strength Steel / SCM / FCD / Thin plate & Cross hole ) GQA Coating**

Model number	ΦD Diameter	T Penetration Depth	Φ Groove Length	L Overall Length	Φd Shank
GK-HFZX-S 0100 GQA	1	0.6	5	50	3
GK-HFZX-S 0110 GQA	1.1				
GK-HFZX-S 0120 GQA	1.2				
GK-HFZX-S 0130 GQA	1.3	0.9	6		
GK-HFZX-S 0140 GQA	1.4				
GK-HFZX-S 0150 GQA	1.5				
GK-HFZX-S 0160 GQA	1.6				
GK-HFZX-S 0170 GQA	1.7				
GK-HFZX-S 0180 GQA	1.8	1.2	9		
GK-HFZX-S 0190 GQA	1.9				
GK-HFZX-S 0200 GQA	2				
GK-HFZX-S 0210 GQA	2.1			50	3
GK-HFZX-S 0220 GQA	2.2				
GK-HFZX-S 0230 GQA	2.3	1.5	12		
GK-HFZX-S 0240 GQA	2.4				
GK-HFZX-S 0250 GQA	2.5				
GK-HFZX-S 0260 GQA	2.6				
GK-HFZX-S 0270 GQA	2.7				
GK-HFZX-S 0280 GQA	2.8	1.8	14		
GK-HFZX-S 0290 GQA	2.9				
GK-HFZX-S 0300 GQA	3				
GK-HFZX-S 0310 GQA	3.1				
GK-HFZX-S 0320 GQA	3.2				
GK-HFZX-S 0330 GQA	3.3				
GK-HFZX-S 0340 GQA	3.4				
GK-HFZX-S 0350 GQA	3.5	2.4	18	55	4
GK-HFZX-S 0360 GQA	3.6				
GK-HFZX-S 0370 GQA	3.7				
GK-HFZX-S 0380 GQA	3.8				
GK-HFZX-S 0390 GQA	3.9				
GK-HFZX-S 0400 GQA	4				
GK-HFZX-S 0410 GQA	4.1				
GK-HFZX-S 0420 GQA	4.2				
GK-HFZX-S 0430GQA	4.3				
GK-HFZX-S 0440 GQA	4.4				
GK-HFZX-S 0450 GQA	4.5	3	23		
GK-HFZX-S 0460 GQA	4.6				
GK-HFZX-S 0470 GQA	4.7				
GK-HFZX-S 0480 GQA	4.8				
GK-HFZX-S 0490 GQA	4.9				
GK-HFZX-S 0500 GQA	5				
GK-HFZX-S 0510 GQA	5.1			65	6
GK-HFZX-S 0520 GQA	5.2				
GK-HFZX-S 0530 GQA	5.3				
GK-HFZX-S 0540 GQA	5.4				
GK-HFZX-S 0550 GQA	5.5	3.6	25		
GK-HFZX-S 0560 GQA	5.6				
GK-HFZX-S 0570 GQA	5.7				
GK-HFZX-S 0580 GQA	5.8				
GK-HFZX-S 0590 GQA	5.9				
GK-HFZX-S 0600 GQA	6	3.6	25	65	6
GK-HFZX-S 0610 GQA	6.1				
GK-HFZX-S 0620 GQA	6.2				
GK-HFZX-S 0630 GQA	6.3				
GK-HFZX-S 0640 GQA	6.4				
GK-HFZX-S 0650 GQA	6.5	4.2	33		
GK-HFZX-S 0660 GQA	6.6				
GK-HFZX-S 0670 GQA	6.7				
GK-HFZX-S 0680 GQA	6.8				
GK-HFZX-S 0690 GQA	6.9				
GK-HFZX-S 0700 GQA	7				
GK-HFZX-S 0710 GQA	7.1			75	8
GK-HFZX-S 0720 GQA	7.2				
GK-HFZX-S 0730 GQA	7.3				
GK-HFZX-S 0740 GQA	7.4				
GK-HFZX-S 0750 GQA	7.5				
GK-HFZX-S 0760 GQA	7.6	4.8	35		
GK-HFZX-S 0770 GQA	7.7				
GK-HFZX-S 0780 GQA	7.8				
GK-HFZX-S 0790 GQA	7.9				
GK-HFZX-S 0800 GQA	8				
GK-HFZX-S 0810 GQA	8.1				
GK-HFZX-S 0820 GQA	8.2				
GK-HFZX-S 0830 GQA	8.3				
GK-HFZX-S 0840 GQA	8.4				
GK-HFZX-S 0850 GQA	8.5	5.4	42		
GK-HFZX-S 0860 GQA	8.6				
GK-HFZX-S 0870 GQA	8.7				
GK-HFZX-S 0880 GQA	8.8				
GK-HFZX-S 0890 GQA	8.9				
GK-HFZX-S 0900 GQA	9				
GK-HFZX-S 0910 GQA	9.1			90	10
GK-HFZX-S 0920 GQA	9.2				
GK-HFZX-S 0930 GQA	9.3				
GK-HFZX-S 0940 GQA	9.4				
GK-HFZX-S 0950 GQA	9.5				
GK-HFZX-S 0960 GQA	9.6	6	44		
GK-HFZX-S 0970 GQA	9.7				
GK-HFZX-S 0980 GQA	9.8				
GK-HFZX-S 0990 GQA	9.9				
GK-HFZX-S 1000 GQA	10				
GK-HFZX-S 1010 GQA	10.1				
GK-HFZX-S 1020 GQA	10.2				
GK-HFZX-S 1030 GQA	10.3				
GK-HFZX-S 1040 GQA	10.4				
GK-HFZX-S 1050 GQA	10.5	6.6	52	100	12
GK-HFZX-S 1060 GQA	10.6				
GK-HFZX-S 1070 GQA	10.7				
GK-HFZX-S 1080 GQA	10.8				
GK-HFZX-S 1090 GQA	10.9				
GK-HFZX-S 1100 GQA	11	6.6	52		
GK-HFZX-S 1110 GQA	11.1				
GK-HFZX-S 1120 GQA	11.2				
GK-HFZX-S 1130 GQA	11.3				
GK-HFZX-S 1140 GQA	11.4				
GK-HFZX-S 1150 GQA	11.5	7.2	54	100	12
GK-HFZX-S 1160 GQA	11.6				
GK-HFZX-S 1170 GQA	11.7				
GK-HFZX-S 1180 GQA	11.8				
GK-HFZX-S 1190 GQA	11.9				
GK-HFZX-S 1200 GQA	12				
GK-HFZX-S 1210 GQA	12.1				
GK-HFZX-S 1220 GQA	12.2				
GK-HFZX-S 1230 GQA	12.3				
GK-HFZX-S 1240 GQA	12.4				
GK-HFZX-S 1250 GQA	12.5	7.8	56		
GK-HFZX-S 1260 GQA	12.6				
GK-HFZX-S 1270 GQA	12.7				
GK-HFZX-S 1280 GQA	12.8				
GK-HFZX-S 1290 GQA	12.9				
GK-HFZX-S 1300 GQA	13				
GK-HFZX-S 1310 GQA	13.1			105	14
GK-HFZX-S 1320 GQA	13.2				
GK-HFZX-S 1330 GQA	13.3				
GK-HFZX-S 1340 GQA	13.4				
GK-HFZX-S 1350 GQA	13.5	8.2	58		
GK-HFZX-S 1360 GQA	13.6				
GK-HFZX-S 1370 GQA	13.7				
GK-HFZX-S 1380 GQA	13.8				
GK-HFZX-S 1390 GQA	13.9				
GK-HFZX-S 1400 GQA	14				
GK-HFZX-S 1410 GQA	14.1				
GK-HFZX-S 1420 GQA	14.2				
GK-HFZX-S 1430 GQA	14.3				
GK-HFZX-S 1440 GQA	14.4				
GK-HFZX-S 1450 GQA	14.5	9	60		
GK-HFZX-S 1460 GQA	14.6				
GK-HFZX-S 1470 GQA	14.7				
GK-HFZX-S 1480 GQA	14.8				
GK-HFZX-S 1490 GQA	14.9				
GK-HFZX-S 1500 GQA	15				
GK-HFZX-S 1510 GQA	15.1			120	16
GK-HFZX-S 1520 GQA	15.2				
GK-HFZX-S 1530 GQA	15.3				
GK-HFZX-S 1540 GQA	15.4				
GK-HFZX-S 1550 GQA	15.5	9.6	64		
GK-HFZX-S 1560 GQA	15.6				
GK-HFZX-S 1570 GQA	15.7				
GK-HFZX-S 1580 GQA	15.8				
GK-HFZX-S 1590 GQA	15.9				
GK-HFZX-S 1600 GQA	16				

\*We can regrind from Φ2 or larger. (Φ1 to Φ1.9 cannot be reground.)