

## High-precision 5-axis machining of titanium and other difficult-to-machine materials

#### ■ High-precision 5-axis machining with one-chuck finish

A high-precision fine machining 5-axis machining center for titanium, which is a difficult-to-machine material section introduces sample processing. FUTA-Q skill (SKILL) familiar with the facility Using six-sided products, one-chuck machining to back deformed holes.



In addition to high-precision processing, the entire exterior surface is beautifully finished to a surface roughness of 0.8µm.

High-precision 5-axis machining is also possible from 3D CAD and CAM data to the machining machine. R Shape processing

**■** Characteristics of sample processed products

Material: Pure titanium (Class 2) High corrosion resistance, low thermal conductivity, Difficult-to-cut materials

Size: 32×28×25mm

Hole diameter :  $\Phi$ 5×5,  $\Phi$ 0.8×2,

 $\Phi$ 2×2 (5° tilt)

Surface roughness: Ra0.8 (0.8µm)



Deformed hole drilling

# Diagonal 5° hole drilling



### ■ Specifications of high-precision micromachining 5-axis machining center

- Equipped with thermal separation system (drastically reduces heat impact on processed products)
- XYZ high-precision 3-axis positioning + 2-axis indexing table
- High-speed spindle speed: 30,000rpm
- Machining jig replacement accuracy: 1 μm (actual value)
- Number of tool sets: 40

### ■ Decision to construct the new Yagi plant!

- Scheduled to be completed in August 2020
- Structure: Reinforced concrete 2-story
- Total floor area: 2632 m2 (796 tsubo)
- We will respond to increased production of existing products and new products.
- We will respond to customer demands such as unit assembly.





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