

# Technical Information

Vol. 36

## **Introduction of High-speed Horizontal Machining Center**

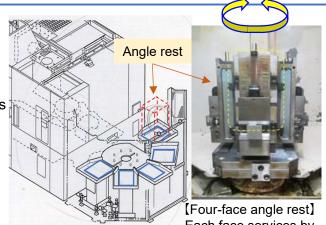
#### 1. Introduction of a latest model of horizontal machining centers

FUTA-Q has been utilizing machining centers as the leading actors among our processes. They need to process in high-precision for meeting the requirements from medical, analysis, and semiconductor industries. The newly installed machining center, the latest model of horizontal machining centers, can perform high-variety continuous production in high precision by suppressing the effects of heat and vibration from the processing.

#### 2. Features of the new machine

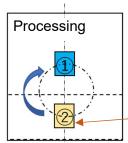
(Carrying unmanned 24-hour operation)

- 1. Equipped with 6-table auto pallet changer (APC)
- Large volume tool changer for 218 tools
- 3. High-variety continuous production by changing the angle rests
- 4. High precision index table (in 0.001 degree)
- Four-axes (X, Y, Z, and B axis) with a high rigidity structure with the positioning accuracy of 1 μm.



Each face services by turned by 90 degrees each time.

Comparison with the existing machining centers



Existing model: 2-table APC

①Under processed②Under a changeover

16-hour operation

One set-up table

New model: 6-table APC

①Under processed ①-⑥Allow a changeover

24-hour operation

Five set-up tables

#### 3. The specification

(The machine in the left photo)

- Tool number: 218 tools
- Tool magazine: matrix type
- APC: six tables with automatic changer
- Axis: Four axes (X, Y, X, and B)
- Spindle speed: 15,000 rpm
- Positioning accuracy: 1.2 μm in X and Z, 1.9 μm in Y



#### [Sample work]

Multi-spindle machining of titanium



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