

# Technical Information

Vol. 75

# **Machining Center Shaping Diverse Forms**

### 1. Machining center as key processing machines

We utilize various processing equipment and combine a wide range of processes to provide the precision parts required by our customers. Among these processing machines, the machining centers are one of the key players for cutting process. This issue features the machining centers from among our main processing equipment, introducing their basic structures and processed examples.



#### 2. The mechanism of machining centers

The machining center features the ability to process complex precision components with accuracy in the one micrometer range by utilizing multiple cutting tools installed in its automatic tool changer (ATC).

#### **Vertical type machining center** (19 units owned)

- Machining spindle axis perpendicular to the ground
- Easy-to-use fixture with straightforward top-side setup
- Low vise position ensuring excellent surface machining accuracy
- Maximum workpiece weight of 500 kg (Specifications)

Spindle speed: 15000 rpm

Spindle travel range: 1050 x 460 x 560 mm

## Horizontal type machining center (9 units owned)

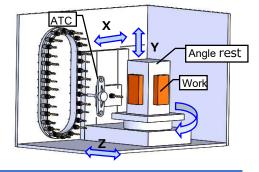
- The machining spindle axis horizontal to the ground
- Three-sided machining without re-clamping of the work
- Minimal damages to the product by machining chips
- Continuous high-precision machining with the rotating fixture holding multiple works

[Specifications]

Spindle speed: 15000 rpm

Spindle travel range: 560 x 625 x 560 mm

# ATC X axis work Y axis



#### 3. Processed samples

- Impeller (five-axis machining)



Material: A5052 Surface treatment: blue anodizing Size: Φ230 × H77 mm - Cam-link mechanism (overlay parts)



Material: SUS304 Size: 10 × 34



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