

## Press Release

September 3, 2018

## **Newly-released turning center ALX series - space-saving, productive and automation-ready!**

DMG MORI CO., LTD (hereinafter referred to as the company) has released 3 turning centers, ALX 1500, ALX 2000 and ALX 2500. ALX series serves as a base machine for automation solutions in any production sites, incorporating the company's long-cultivated expertise. "A" of ALX stands for "Advanced, Affordable and Automation". With the space-saving design, high productivity, and great versatility for automation, the machine is capable of handling broad range of workpieces in any industry.

ALX's prominent features include :

**1) Variations, 2) High-spec spindle/turret, 3) High rigidity/accuracy, 4) Operability/maintainability, and 5) Application to automation systems.**

### **1) Variations**

- Varieties of chuck size, distance between centers, and specification are available from 36 types
  - ➔ Chuck size: 6 inch (ALX 1500), 8 inch (ALX 2000), 10 inch (ALX 2500)
  - ➔ Distance between centers: 300 mm, 500 mm, 1000 mm, 2000 mm

### **2) High-spec spindle/turret**

- High-spec turning spindle turnMASTER with 3-year warranty
  - ➔ ALX 1500: Max. spindle speed 6,000 min<sup>-1</sup> / 7,000 mi n<sup>-1</sup> (1<sup>st</sup> spindle / 2<sup>nd</sup> spindle)
  - ➔ ALX 2000: Max. spindle speed 4,500 min<sup>-1</sup> / 7,000 mi n<sup>-1</sup> (1<sup>st</sup> spindle / 2<sup>nd</sup> spindle)
  - ➔ ALX 2500: Max. spindle speed 3,500 min<sup>-1</sup> / 7,000 mi n<sup>-1</sup> (1<sup>st</sup> spindle / 2<sup>nd</sup> spindle)
- High durability with an improved spindle labyrinth to prevent coolant entry
- Cooling oil jacket around the spindle for temperature control
- Standardized BMT (Built-in Motor Turret)\*
  - ➔ Improved milling accuracy with less turret-induced heat and vibration
  - ➔ Max. tool spindle speed: 6,000 min<sup>-1</sup>
  - ➔ (Optional) Varieties of machining covered, including gear hobbing and gear machining

\*For milling spec. and Y-axis spec. only

### **3) High rigidity/accuracy**

- Fine adjustment to every part, including the bed's thickness, the ribs' shape and positioning, to achieve superior rigidity
- Expanded slideways in X-axis to enhance vibration damping performance and dynamic rigidity
- Roller guideways in Y- and Z-axes to minimize elastic displacement, facilitating rigid and smooth movement
- (Optional) Full closed loop control (SmartSCALE designed by Magnescale) for high-accuracy machining
- Standardized coolant circulation function\*
  - ➔ Smooth coolant circulation in casting parts, maintaining a uniform temperature throughout the casting body to minimize machine deformation

\*For 300 mm, 500 mm, 1000 mm types only

#### 4) Operability/Maintainability

- 2 options for the operational panel;
  - ➔ Small-sized COMPACTline\* for high-volume production
  - ➔ SLIMline\* with various functions and a 15 inch monitor for efficient machining
- Large door-opening for easier setup operations, including tool and fixture adjustment
- No window latticework for better visibility during machining
- Drawer-type chip bucket placed in the front side, facilitating chip removal\* (Optional)
- Pneumatic equipment gathered at the backside for better maintainability

\*For 300 mm and 500 mm types only

#### 5) Application to automation systems\*

- Addressing ever-diversifying production challenges with various automation system, delivered in high quality and shorter lead time

##### **New robot system MATRIS**

Innovative robot system that requires no special knowledge in robot programming and operation.  
Modularized design for puzzle-like flexible layout and customization

##### **Gantry loader system**

High-speed automation system for mass production, covering from material supply to finished part disposal

##### **Bar feeder system**

A system for comprehensive bar-material machining, in combination with workpiece unloaders.

No need for workpiece loading, unloading, or turning equipment

- A comprehensive service “DMG MORI One Stop Service” for automation systems, which covers machines, transfer equipment, peripherals, production management system, machining technology, fixtures, tools, and measurements

DMG MORI will continuously offer high-functional and reliable products worth the investment, and meet the requirements of as many customers as possible.

Product Category	Turning centers
Released model	ALX 1500 / ALX 2000 / ALX 2500
Targeted markets	Automotive, construction machinery, industrial machinery etc.
Release date	September 1 <sup>st</sup> , 2018
Planned sales volume	40 pcs per month



ALX 1500 (distance between centers: 300)



ALX 2500 (loader module system)



ALX 2500 (distance between centers: 2000)