

## Press Release

---

June 9, 2011

### **Announcing a New Model in DMU eVo Series! DMU 60 eVo 5-axis Control Machining Center Launched**

Mori Seiki Co., Ltd. (hereafter, "Mori Seiki") starts taking orders for the **DMU 60 eVo**, a 5-axis control machining center manufactured by its German business partner, GILDEMEISTER AG (hereafter, "DMG"), from June 9, 2011.

The **DMU 60 eVo** is the newest model in DMG's successful eVo Series that has sold more than 3,000 units throughout the world. In recent years there has been growing demand for manufacturing complex workpieces, particularly in the aircraft and medical equipment industries. Mori Seiki and DMG, the world's biggest manufacturing group for 5-axis machines, launch the DMU 60 eVo in order to meet this demand.

The distinctive features of the DMU 60 eVo include:

- (1) Revolutionary gantry design for highest rigidity and precision
- (2) Improved swivel rotary table
- (3) Linear motor drive (option)
- (4) Space saving

#### **(1) Revolutionary gantry design**

The DMU 60 eVo has a gantry construction in which the X and Y axes are placed in the upper part of the machine. This construction enables the machine to minimize spindle overhang and increase stability and rigidity, thereby maintaining high precision for a long time. Additionally, the optimally positioned Y-axis saddle and the rounded design for the front of the machine provide efficient setups and outstanding accessibility to the working area from two sides.

#### **(2) Improved swivel rotary table**

The eVo Series' proven swivel rotary table has been strengthened further. The 600 x 500 mm swivel rotary table (corner:  $\phi 630$  mm) maintains the successful design concept, while doubling the loading capacity to 400 kg. With a swivel range from  $-5^{\circ}$  to  $+110^{\circ}$ , the machine is capable of handling a wide range of machining. Turning specifications with a C-axis rotational speed of  $1,000 \text{ min}^{-1}$  (FD specifications) are also available as an option.

### (3) Linear motor drive (option)

A standard DMU 60 eVo uses ball screw drive for the X and Y axes (rapid traverse rate: 50 m/min). Optional linear motor drive (rapid traverse rate: 80 m/min) is ideal for customers who need even greater efficiency. The linear motor drive offers high speed and high acceleration feed, and achieves superb positioning accuracy, with a positioning error only one-tenth of that of the ball screw drive. Additionally, the machine uses fewer consumable parts, which requires less maintenance and maximizes production efficiency.

### (4) Space saving

With a footprint of 6.1 m<sup>2</sup>, the DMU 60 eVo boasts the highest level of compactness in its class. Due to machine's unique construction, the footprint stays almost the same, regardless of the size of the tool magazine.

With a strong partnership with DMG, Mori Seiki will continue to provide an extensive product lineup to support many more customers' production sites.

Type	5-axis Control Vertical Machining Center
Model	DMU60 eVo DMU60 eVo <i>linear</i> (Linear drive)
Market	Automobiles, aircraft, medical equipment, dies and molds, etc.
Orders start	June 9, 2011

### ■ Major Specifications

Axis travel (X/Y/Z)	600/500/500 mm
(B/C)	-5° to +110°/360°
Max. workpiece size	600 mm x 500 mm (corner: φ630 mm)
Table loading capacity	400 kg
Max. spindle speed	14,000 [18,000] [24,000] min <sup>-1</sup>
Spindle drive motor	14,000 min <sup>-1</sup> :18.9/14 kW (40% ED/100% ED) [18,000 min <sup>-1</sup> :35/25 kW (40% ED/100% ED)] [24,000 min <sup>-1</sup> :24/16 kW (40% ED/100% ED)]
Rapid traverse rate (X/Y/Z)	50/50/50 m/min
Rapid traverse rate (X/Y/Z) [Linear drive]	[80/80/80 m/min] * <sup>1</sup>
Table max. rotational speed (B/C)	60/60 [1,000] min <sup>-1</sup>
Tool storage capacity	Chain type: 30 [60] [120] tools
Footprint	2,150 x 2,830 mm ( 6.1 m <sup>2</sup> )

[ ] Option

\*<sup>1</sup>: Z-axis is ball screw drive



Fig. 1 Exterior

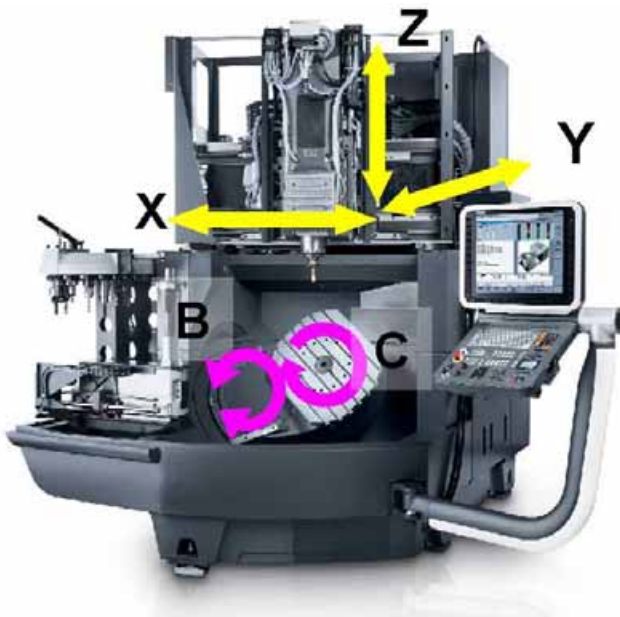


Fig. 2 Axis configuration

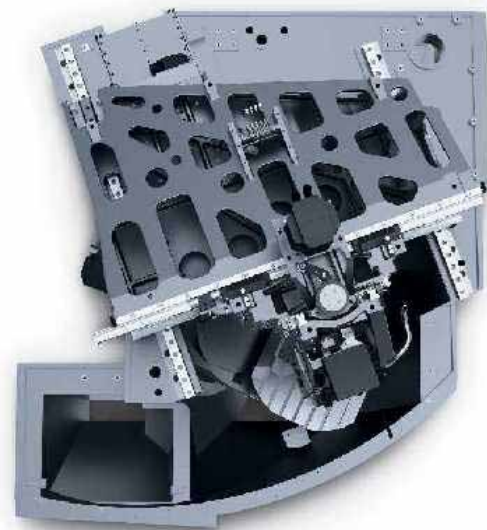


Fig. 3 Bed shape (top surface)