



October 3, 2018

## 5-Axis Vertical Machining Center

# **MAM72-70V** Product Release

Matsuura Machinery Corporation has developed a new high speed, large capacity 5-axis vertical machining center, designated the **MAM72-70V**, and is accepting orders from today's date.

The **MAM72** series (with thousands of machines in successful worldwide operation since their debut in 1991) originated the concept of the tower pallet system and remains unrivalled in the market place.

Achieving process integration, complex 5-axis machining and versatile functionality in all machining environments, variable-part variable-volume production and reliable extended unmanned operation are a standard feature of the **MAM72** Series.

Unmatched in performance, and the globally trusted "go to" platform for a myriad of precision led industries, the reputation of the **MAM72** Series will be further enhanced by our latest offering in the **MAM72-70V**. Our many decades of technology leading know-how and experience in unmanned machining performance has culminated in the creation of the **MAM72-70V**, designed to handle a greater workpiece size than our existing models, offer faster response times to market and deliver even higher productivity to meet customers' relentless business requirements for ever faster cycle times and cost down performance.

With the **MAM72-70V**, the maximum workpiece size is D700mm x H500mm with a load capacity of 500kgs per pallet: an 11% increase in diameter/height, 43% increase in weight, and 38% increase in envelope volume compared to the **MAM72-63V**.

A newly developed 4<sup>th</sup> /5<sup>th</sup> axis table equipped with a proven roller gear drive for the 4<sup>th</sup> axis and direct drive motor for the 5<sup>th</sup> axis, achieve a rapid traverse rate of 50 min<sup>-1</sup> and 100 min<sup>-1</sup> respectively, enabling high speed, high accuracy and durability in extended performance over the lifetime of the machine. By honing the machine structure, improved ergonomic operator access and ease of operation for setup and maintenance are assured. The distance from the machine front (oil pan edge) to the pallet center is a mere 620mm.

Offering ultra-fast & reliable Tool and Pallet changer options are a given with the **MAM72** Series and the **MAM72-70V** is no different in this regard; the standard machine will be available as a twin pallet. Tool storage capacity can be extended to 530 tools (matrix type magazine), and optional pallet storage capacity can store 18 pallets in our legendary tower pallet system.

The **MAM72-70V** is IoT ready, delivering measurable remote and real time monitoring of the machines status, condition and performance.

Matsuura will exhibit the **MAM72-70V** at **JIMTOF2018** (The 29th Japan International Machine Tool Fair) that is to be held from November 1 at Tokyo Big Sight.

## **MAM72-70V** Features

1. Max. workpiece size: D700 mm × H500 mm [D27.56 × H19.68 in.]  
(Conventional machine: D630 mm × H450 mm)
2. Loading capacity: 500 kg [1100 lb.]  
(Conventional machine: 350 kg)
3. **MAXIA** spindle (from heavy duty machining to high speed machining)
  - 3.1. 15,000 min<sup>-1</sup>/ 150 Nm (Standard)
  - 3.2. 15,000 min<sup>-1</sup>/ 350 Nm (Option) High-torque type
  - 3.3. 20,000 min<sup>-1</sup>/ 108.4 Nm (Option) High-speed type
4. Ease of operation and maintenance
  - 4.1. Distance from machine front to spindle center: 90 mm  
Distance from machine front (oil pan edge) to pallet center: 620 mm  
Distance from the floor to the pallet top surface: 1080 mm
  - 4.2. Easier maintenance of pneumatic devices
5. Increased tool storage capacity: 90 tools (Conventional machine: 51 tools)
6. High-speed high-precision high-rigidity built-in 4th/5th axes of dedicated design
  - 6.1. Rapid traverse rate: 50 min<sup>-1</sup> (4th-axis), 100 min<sup>-1</sup> (5th-axis)
  - 6.2. Drive system: Roller gear drive (new) / direct drive motor drive
  - 6.3. Rotary scale provided as standard (Rotary Inductosyn)
7. Chip disposal system
  - 7.1. Stainless steel cover inside the machine for smooth flow of chips
  - 7.2. Transfer capacity of spiral conveyor increased (by 30% compared to existing models)
  - 7.3. Large-capacity coolant tank (800 L)
8. Expandability (abundant options available)
  - 8.1. Newly developed matrix magazine: 130 - 330 tools (330-tool base)  
370 - 530 tools (530-tool base)
  - 8.2. Multi-pallet system: Floor pallet system (PC6)  
Tower pallet system (PC18)

Main Specifications \* **MAM72** series (with pallet changer)

Item		<b>MAM72-35V</b>	<b>MAM72-70V</b>	<b>MAM72-100H</b>
Travel (X / Y / Z axis)	mm [in.]	550/440/580 [21.65/17.32/22.83]	1200/720/710 [47.24/28.34/27.95]	1,050/920/960 [41.33/36.22/37.79]
Travel (4th / 5th axis)	deg	-125 ~ +65/360	-125 ~ +30/360	-120 ~ +30/360
Rapid traverse rate (X / Y / Z axis)	m/min [ipm]	60/60/60 [2362.2]	60/60/60 [2362.2]	60/60/50 [2362.2/2362.2/1968.5]
Rapid traverse rate (4th / 5th axis)	min <sup>-1</sup>	50/100	50/100	50/75
Spindle speed	min <sup>-1</sup>	12,000(BT40)	15,000(BT40)	12,000(BT50)
Spindle motor power	kW	7.5/11	15/22	26/30
Max. workpiece size	mm [in.]	D350 × H315 [D13.77 × H12.40]	D700 × H500 [D27.56 × H19.68]	D1020 × H770 [D40.15 × H30.31]
Loading capacity	kg [lb.]	60 [132]	500 [1100]	780 [1719]



Figure: Appearance of **MAM72-70V**