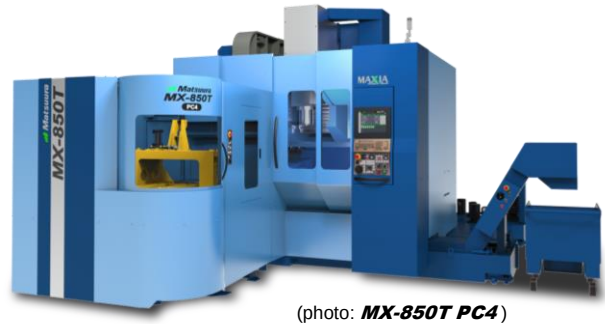




Designed for Large Workpieces
5-Axis Multi-Tasking Machining Center
[MX-850T]



(photo: **MX-850T PC4**)

Matsuura Machinery Corporation will make the world debut of the newly developed **MX-850T**, a 5-axis multi-tasking machining center designed for large workpieces, at JIMTOF2026 (The 33rd Japan International Machine Tool Fair), to be held at Tokyo Big Sight from October 26, 2026. Sales of the **MX-850T** are scheduled to begin in 2027.

The **MX-850T** is the second model in the **MX-T** Series, Matsuura's line of 5-axis multi-tasking machining centers that integrate 5-axis machining and turning into a single machine. Building on the outstanding operability, machining performance, and cost performance of the **MX-520T**, introduced in 2024, the **MX-850T** has been developed to meet increasing market demand for machining larger workpieces while significantly expanding machining capacity.

Since its launch in 2024, the **MX-520T** has been highly regarded as an entry-level multi-tasking machining center that improves productivity through process integration by combining 5-axis machining and turning in a single setup (one chucking). At the same time, Matsuura received numerous requests from customers for a machine capable of handling larger workpieces.

Developed in response to these market demands, the **MX-850T** accommodates a maximum workpiece size of $\varnothing 850 \times H450$ mm (H385 mm with pallet specification) with a maximum workpiece weight of 500 kg (400 kg with pallet specification). Compared with the **MX-520T**, the maximum machinable workpiece volume has been increased by approximately 3.3 times (approximately 3.0 times with pallet specification), while the maximum allowable workpiece weight has been increased by 2.5 times (approximately 2.3 times with pallet specification). This enables process integration through one chucking even for medium- to large-sized components.

To further enhance turning performance, the turning spindle (C-axis) is equipped with a direct drive motor delivering a maximum spindle speed of 800 min^{-1} and a maximum torque of 600 Nm, providing outstanding turning capability. The spindle features HSK-T63 for multi-tasking machines and is equipped with a highly rigid brake mechanism as standard to support high-precision turning. Despite incorporating the brake mechanism, the spindle nose diameter has been kept compact to ensure excellent accessibility to the workpiece during machining operations.

For chip removal, a hinge-type lift-up chip conveyor is equipped as standard beneath the 4th/5th-axis table, taking advantage of the **MX-850**'s machine structure. Chip removal nozzles with an optimized coolant discharge method are also equipped as standard, ensuring reliable chip evacuation during extended unmanned operation.

Various support and safety functions dedicated to multi-task machining have been added to the latest operating system, **MiOS 4**, further improving operator assistance and safety during turning operations.

To further enhance automation, Matsuura has also developed the new **PC7** Tower Pallet System for the **MX-850** and **MX-850T**. Offering the same installation footprint as the conventional **PC4** Floor Pallet System while increasing pallet capacity from four to seven pallets, the **PC7** enables significantly longer unmanned operation and higher productivity without requiring additional floor space.

MX-850T Features

1. Milling and Turning Integrated into One Machine (Process integration through one chucking)
2. Specially Designed 4th/5th-Axis Table Combining 5-Axis Machining and Turning
 - 2.1. Max. rotation speed: 800 min⁻¹ (Turning Mode) / 100 min⁻¹ (Machining Mode)
 - 2.2. Supports both vertical and horizontal turning by tilting the A-axis
 - 2.3. Scatter prevention function and imbalance check function to ensure safe turning operations
3. **MAXIA** Spindle (From Heavy-Duty Machining to High-Speed Machining)
 - 3.1. 12,000 min⁻¹ (18.5/22 kW, 191 Nm) [Standard]
15,000 min⁻¹ (15/30 kW, 350 Nm) [Option], 20,000 min⁻¹ (15/18.5 kW, 108 Nm) [Option]
 - 3.2. High- torque brake mechanism equipped as standard for turning operations
 - 3.3. HSK-T63 spindle interface for multi-tasking machines, allowing both machining and turning tools to be used
4. Automation System
 - 4.1. 90/120-tool magazine [Option]
 - 4.2. **PC4** (Floor Pallet System) [Option]
 - 4.3. **PC7** (Tower Pallet System) [New] — Same installation footprint as **PC4** [Option]
 - 4.4. Robot interface + Automatic door (table specification) [Option]
 - 4.5. Fixture Hydraulic Supply System [Option]
6 ports (Table specification) / 3 ports (Pallet specification, with rotary table speed limitation)
5. Operability / Accessibility
 - 5.1. **MiOS 4** (Matsuura integrated Operating System)
 - 5.2. Collision prevention function "Intelligent Protection System" [Standard]
 - 5.3. Distance from floor to table top surface:
1,010 mm (Table specification) / 1,075 mm (Pallet specification)
 - 5.4. Distance from machine front to table center: 500 mm
 - 5.5. Sliding roof cover designed for easy crane access during workpiece setup
 - 5.6. Hinge-type lift-up chip conveyor equipped as standard for extended unmanned operation

Main Specification

Item	Unit	<New>	<Reference>
		<i>MX-850T</i>	<i>MX-850</i>
Travel (X/Y/Z axis)	mm [in.]	900/780/650 [35.43/ 30.70/ 25.59]	900/780/650 [35.43/ 30.70/ 25.59]
Travel (A/C axis)	deg	-125 ~ +30/360	-125 ~ +30/360
Rapid traverse rate (X/Y/Z axis)	m/min [ipm]	40/40/40 [1574.8]	40/40/40 [1574.8]
Rapid traverse rate (A/C axis)	min ⁻¹	20/100(Turning mode: 800)	20/40
Spindle speed	min ⁻¹	12,000	12,000
Spindle motor power · torque	kW · Nm	18.5/22 · 191	18.5/22 · 191
Turning Spindle torque (C-axis)	Nm	600	—
Pallet type (opt)	pallets	PC4/ PC7(opt)	PC4/ PC7(opt)
Working Surface (with PC4/ PC7)	mm [in.]	D500 [D19.68] (D630) [D24.80]	D500(std) [D19.68] D700(opt) [D27.55] (D630) [D24.8]
Max. workpiece size (with PC4/ PC7)	mm [in.]	D850 x H450 [D33.46 x H17.71] (D850 x H385) [D33.46 x H15.16] *with restrictions	D850 x H450 [D33.46 x H17.71] (D850 x H385) [D33.46 x H15.16] *with restrictions
Loading capacity (with PC4/ PC7)	kg [lb.]	500 [1,100] (400) [880]	500 [1,100] (400) [880]