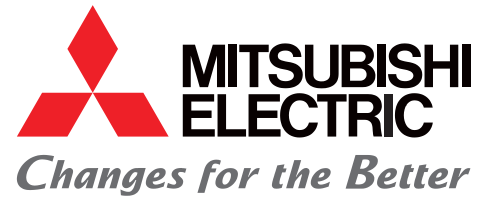




for a greener tomorrow



# M8 SERIES CNC CONTROL PLATFORM

## Product Overview



With the outstanding performance of the world's fastest CNC series and next generation of Super Smooth Surface (SSS) control, the M8 Series CNC control platform ensures faster, smoother operation, along with a better finish and less scrap resulting in higher productivity and profitability for your business.

### KEY BENEFITS:

- **CNC-dedicated CPU** – Improved cycles times due to faster program processing and more accurate machining due to a faster CNC to drive communication network
- **Intuitive Touch Screen Operation (Excludes 8.4")** – Icon-based navigation improves usability for experienced and novice operators. Screen sizes of 10.4", 15", and 19" allow improved visibility and include pinch, flick and scroll abilities like a smart phone or tablet.
- **Improved SSS Control** – Reduces machine vibration during high speed cutting and optimizes acceleration/deceleration times for each axis. This allows for shorter cutting times with a high degree of accuracy.
- **Large Capacity SD Card Expansion** – With 2 expansion slots for 32GB SD cards, the control can expand to 64GB of added memory. The additional memory allows for large capacity machining programs and graphic data, increasing the possibility to add custom screens.
- **High-speed, High-accuracy Mode** – G05 P20000 (High-speed High Accuracy III) comes standard, allowing for complex, highly precise 3D mold work without experiencing a reduction in performance.


Control	Blocks Per Minute
M80A	135,000
M830 & M850	270,000

- **Safety Feature Built-in** – MDS-E series drives with safety built-in the amplifiers require less hardware to provide safety features.
- **User Level Based Data Protection** – M8 series allows for multiple levels of permissions for operators depending on their role.
- **Field Network Compatibility** – Connect to peripheral equipment and devices conforming to a range of field networks including CC-Link®, PROFIBUS® DP, and EtherNet/IP™.

# M8 Series CNC Control Platform – Product Overview

## M8 SERIES LINEUP

HIGH PERFORMANCE




**M800W**

**Premium CNC with Windows®-based display provides expandability and flexibility**

- Separate control unit and display
- Windows-based display with the latest PC and OS offers excellent expandability
- Four expansion slots allowing expansion using option cards

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**M800S**

**Well suited to high-speed high-accuracy machining and multi-axis multi-part system control**

- Panel type control unit with integrated display
- Multi-CPU architecture for high performance and high functional graphics
- Standard display for easy operability

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**M80**

**Provides high productivity and easy operability**

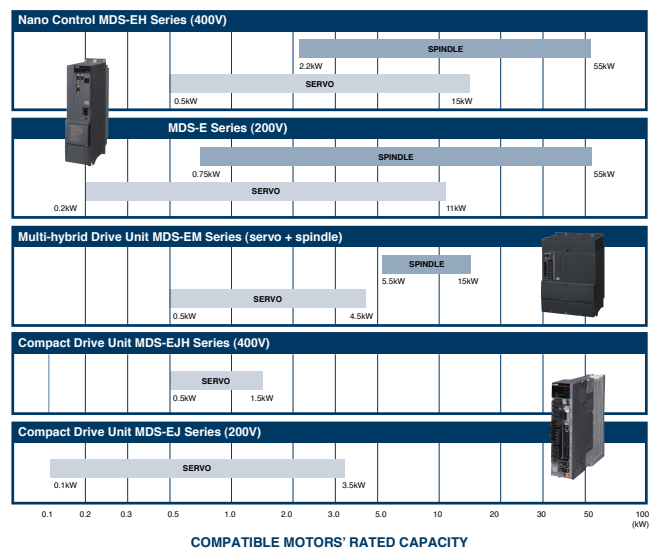
- Panel type control unit with integrated display
- Provided in package (TypeA/TypeB) for easier selection
- Standard display for easy operability

STANDARD

Windows is a registered trademark of Microsoft Corporation in the United States and/or other countries.

Model Name		M850W	M830W	M850S	M830S	M80-A	M80-B
Max. Number of Axes (NC + Spindles + PLC)	Lathe	32	32	32	32	12	9
	Machining	32	32	32	32	11	9
Max. Number of NC Axes for Complete System	Lathe	32	32	32	32	10	7
	Machining	16	16	16	16	8	5
Max. Number of Spindles for Complete System	Lathe	8	8	8	8	4	3
	Machining	4	4	4	4	2	2
Max. Number of PLC Axes	Lathe	8	8	8	8	6	6
	Machining	8	8	8	8	6	6
Max. Number of Simultaneous Contour Control Axes	Lathe	8	4	8	4	4	4
	Machining	8	4	8	4	4	4
Max. Number of Part Systems	Lathe	8	8	8	8	3	2
	Machining	2	2	2	2	2	1
Least Command Increment	Lathe	1 (nm)					
	Machining						
Least Control Increment	Lathe	1 (nm)					
	Machining						
Fine Segment Processing Capacity Maximum [kBPM]	Lathe	168	168	168	168	67.5	16.8
	Machining	270	270	270	270	135	16.8
Display Unit Size	Lathe	19"/15" touchscreen		15"/10.4" touchscreen			
	Machining						
Display Unit Front Side I/F	Lathe	SD memory card, USB memory					
	Machining						

## DRIVE SYSTEM LINEUP



### MDS-E/EH High-performance Servo/Spindle Drive Units

- Dedicated Core Processor
- Improved diagnostic and preventive-maintenance features

### MDS-EM Multi-hybrid Drive System

- Capable of driving a maximum of three servo axes and one spindle
- Downsized machines and enhancing technical advantages

### MDS-EJ/EJH All-in-one Compact Drive Unit

- Ultra-compact drive units with built-in power supply
- Reduces control panel size
- 400V system servo drive units are available

### HG SERIES MEDIUM-INERTIA, HIGH-ACCURACY, HIGH-SPEED SERVO MOTORS

- Smooth rotation and excellent acceleration capability, optimal to feed shaft of machine tools
- Encoders are equipped to meet safety standards
- Encoder resolution has been improved

Motor Encoder	Detection Method	Encoder Resolution
D48	Absolute position	1,048,576 p/rev
D51		4,194,304 p/rev
D74		67,108,864 p/rev



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