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.

<table>
<thead>
<tr>
<th>Control</th>
<th>Blocks Per Minute</th>
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<tbody>
<tr>
<td>M80A</td>
<td>135,000</td>
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<tr>
<td>M830 &amp; M850</td>
<td>270,000</td>
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■ 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™.

CC-Link is a registered trademark of CLPA.
EtherNet/IP is a trademark of ODVA.
PROFIBUS is a registered trademark of PROFIBUS and PROFINET International (PI).
M8 Series CNC Control Platform – Product Overview

M8 Series Lineup

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

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

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

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

Model Name | M800W | M830W | M850W | M800S | M830S | M850S | M80-A | M80-B
--- | --- | --- | --- | --- | --- | --- | --- | ---
Max. Number of Axes (NC + Spindles + PLC) | 32 | 32 | 32 | 32 | 12 | 9 | 10 | 7
Max. Number of NC Axes for Complete System | 32 | 32 | 32 | 32 | 11 | 9 | 11 | 9
Max. Number of Spindles for Complete System | 16 | 16 | 16 | 16 | 16 | 15 | 16 | 15
Max. Number of PLCS | 8 | 8 | 8 | 8 | 6 | 6 | 6 | 6
Max. Number of Simultaneous Contour Control Axes | 8 | 8 | 8 | 8 | 6 | 6 | 6 | 6
Max. Number of Part Systems | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8
Least Command Increment (Nm) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1
Finest Processing Capacity Maximum (kBPm) | 168 | 168 | 168 | 168 | 135 | 135 | 135 | 135
Display Unit Size | 19/15" touchscreen | 19/15" touchscreen | 19/15" touchscreen | 19/15" touchscreen | 15/10.4" touchscreen | 15/10.4" touchscreen | 15/10.4" touchscreen | 15/10.4" touchscreen
Display Unit Front Side I/F | SD memory card, USB memory | SD memory card, USB memory | SD memory card, USB memory | SD memory card, USB memory

Microsoft Corporation in the United States and/or other countries.

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