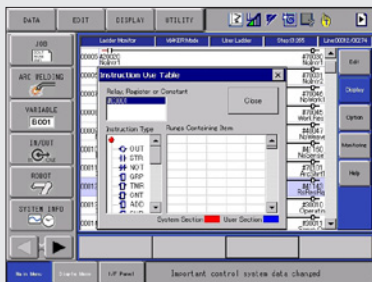


PACKING OPERATIONS



PENDANT LADDER EDITOR



MOTOSIM EG-VRC (OPTION)

## TOP REASONS TO BUY

- Highest speed in its class
- Exceptional repeatability for the most demanding applications
- Powerful DX100 controller provides fast Ethernet communication and can deliver significant cost savings by eliminating costly PLCs or HMIs for cell control
- Labor savings justifies capital investment
- Multiple robot control (up to eight robots/72 axes) simplifies programming



# MH6-SERIES

## MH6 MH6S MH6-10

ASSEMBLY • DISPENSING • MACHINE TENDING  
MATERIAL HANDLING • PACKAGING • WELDING

**Payload:**  
6 kg (MH6 and MH6S)  
10 kg (MH6-10)

**Mounting Option: Shelf (MH6R)**

### Compact, Powerful and Economical

- High-speed six-axis MH6 robots require minimal installation space.
- MH6 and MH6-10: 1,422 mm (56") horizontal reach, 2,486 mm (97.9") vertical reach. MH6S (shorter-arm version): 997 mm (39.3") horizontal reach, 1,597 mm (62.9") vertical reach. All models have  $\pm 0.08$  mm (0.003") repeatability.
- Widest work envelope in its class with small interference radius; allows robot to be placed close to workpieces/equipment.
- Powerful design with high moment of inertia ratings provides higher carrying capacity.
- The MH6 and MH6S feature a 6 kg (13.2 lb) payload capacity. Higher speeds on all axes provide maximum throughput.
- For similar applications requiring heavier payload requirements the MH6-10 offers a 10 kg capacity.
- Superior performance in assembly, dispensing, material handling, machine tending, packaging and welding.
- Yields extraordinary production results while requiring minimal capital investment.

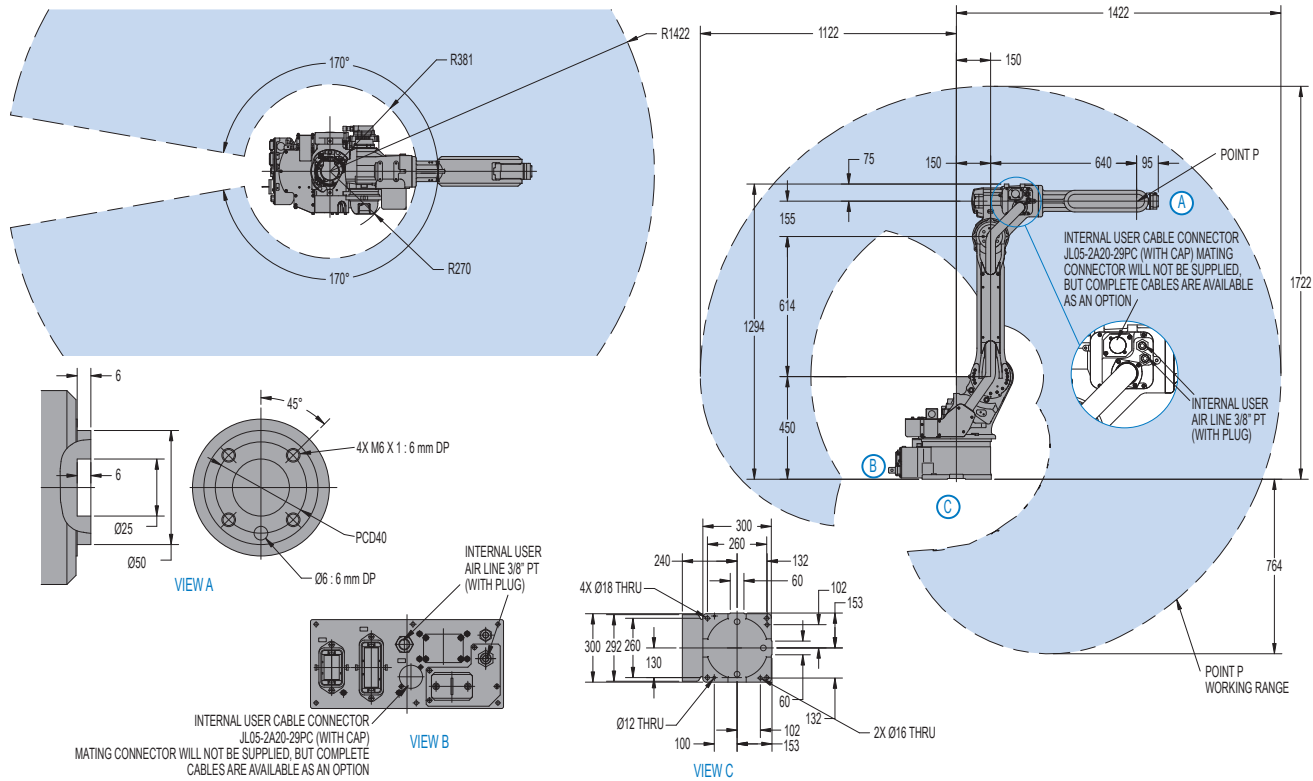
- All models can be floor-, wall-, or ceiling-mounted. Brakes on all axes.
- Compact design and built-in collision avoidance features with multiple robot control allow up to eight robots to be used together to maximize productivity while reducing overall floorspace requirements.

### DX100 Controller

- Patented multiple robot control supports up to 8 robots/72 axes.
- Windows® CE programming pendant with color touch screen and USB interface.
- Faster processing speeds for smoother interpolation. Quicker I/O response. Accelerated Ethernet communication.
- Extensive I/O suite includes integral PLC and touch screen HMI, 2,048 I/O and graphical ladder editor.
- Supports all major fieldbus networks, including EtherNet/IP, DeviceNet, Profibus-DP and many others.
- Compliant to ANSI/RIA R15.06-1999 and other relevant ISO and CSA safety standards. Optional Category 3 functional safety unit.

# MH6/MH6S/MH6-10 ROBOTS

MH6/MH6-10 robot shown.  
All dimensions are metric (mm) and for reference only. Please request detail drawings for all design/engineering requirements.



## ROBOT SPECIFICATIONS

	MH6	MH6S	MH6-10
<b>Mounting</b>	Floor, Wall, Ceiling	Floor, Wall, Ceiling	Floor, Wall, Ceiling
<b>Structure</b>	Articulated	Articulated	Articulated
<b>Controlled Axes</b>	6	6	6
<b>Payload</b>	6 kg (13.2 lbs)	6 kg (13.2 lbs)	10 kg (22.1 lbs)
<b>Vertical Reach</b>	2,486 mm (97.9")	1,597 mm (62.9")	2,486 mm (97.9")
<b>Horizontal Reach</b>	1,422 mm (56")	997 mm (39.3")	1,422 mm (56")
<b>Repeatability</b>	±0.08 mm (±0.003")	±0.08 mm (±0.003")	±0.08 mm (±0.003")
<b>Maximum Motion Range</b>	S-Axis (Turning/Sweep) ±170° L-Axis (Lower Arm) +155 / -90° U-Axis (Upper Arm) +250 / -175° R-Axis (Wrist Roll) ±180° B-Axis (Bend/Pitch/Yaw) +225 / -45° T-Axis (Wrist Twist) ±360°	S-Axis ±170° L-Axis +133 / -80° U-Axis +165 / -130° R-Axis ±180° B-Axis +225 / -45° T-Axis ±360°	S-Axis ±170° L-Axis +155 / -90° U-Axis +250 / -175° R-Axis ±180° B-Axis +225 / -45° T-Axis ±360°
<b>Maximum Speed</b>	S-Axis 200°/s L-Axis 200°/s U-Axis 220°/s R-Axis 410°/s B-Axis 410°/s T-Axis 610°/s	S-Axis 200°/s L-Axis 200°/s U-Axis 220°/s R-Axis 410°/s B-Axis 410°/s T-Axis 610°/s	S-Axis 140°/s L-Axis 130°/s U-Axis 135°/s R-Axis 270°/s B-Axis 270°/s T-Axis 400°/s
<b>Approximate Mass</b>	130 kg (286.7 lb)	120 kg (264.6 lb)	130 kg (286.7 lb)
<b>Power Rating</b>	1.5 kVA	1.5 kVA	1.5 kVA
<b>Allowable Moment</b>	R-Axis 11.8 N·m B-Axis 9.8 N·m T-Axis 5.9 N·m	R-Axis 11.8 N·m B-Axis 9.8 N·m T-Axis 5.9 N·m	R-Axis 12.2 N·m B-Axis 14.2 N·m T-Axis 7.3 N·m
<b>Allowable Moment of Inertia</b>	R-Axis 0.27 kg·m <sup>2</sup> B-Axis 0.27 kg·m <sup>2</sup> T-Axis 0.06 kg·m <sup>2</sup>	R-Axis 0.27 kg·m <sup>2</sup> B-Axis 0.27 kg·m <sup>2</sup> T-Axis 0.06 kg·m <sup>2</sup>	R-Axis 0.24 kg·m <sup>2</sup> B-Axis 0.21 kg·m <sup>2</sup> T-Axis 0.06 kg·m <sup>2</sup>
<b>Internal User Electrical Cable</b>	16 conductors + ground	16 conductors + ground	16 conductors + ground
<b>Internal User Air Hose</b>	(2) 3/8" PT connection	(1) 3/8" PT connection	(2) 3/8" PT connection
<b>Protection Class</b>	Standard Not rated XP Version* (option) IP65 manipulator; IP67 wrist	Standard Not rated XP Version* (option) IP65 manipulator; IP67 wrist	Standard Not rated XP Version* (option) IP65 manipulator; IP67 wrist

\* XP Version: Yaskawa Motoman's eXtra Protection package

## DX100 CONTROLLER SPECIFICATIONS\*\*

<b>Dimensions (mm)</b>	800 (w) x 1,000 (h) x 650 (d) (31.5" x 39.4" x 25.6")
<b>Approximate Mass</b>	250 kg max. (551.3 lbs)
<b>Cooling System</b>	Indirect cooling
<b>Ambient Temperature</b>	During operation: 0° to 45° C (32° to 113° F) During transit and storage: -10° to 60° C (14° to 140° F)
<b>Relative Humidity</b>	90% max. non-condensing
<b>Primary Power Requirements</b>	3-phase, 240/480/575 VAC at 50/60 Hz
<b>Digital I/O</b>	Standard I/O: 40 inputs/40 outputs consisting of 16 system inputs/16 system outputs, 24 user inputs/24 user outputs 32 Transistor Outputs: 8 Relay Outputs Max. I/O (optional): 2,048 inputs and 2,048 outputs
<b>Position Feedback</b>	By absolute encoder
<b>Program Memory</b>	JOB: 200,000 steps, 10,000 instructions CIO Ladder Standard: 15,000 steps Expanded: 20,000 steps
<b>Pendant Dim. (mm)</b>	169 (w) x 314.5 (h) x 50 (d) (6.7" x 12.4" x 2")
<b>Pendant Weight</b>	.998 kg (2.2 lbs)
<b>Interface</b>	One Compact Flash slot; One USB port (1.1)
<b>Pendant Playback Buttons</b>	Teach/Play/Remote Keypress selector Servo On, Start, Hold, and Emergency Stop Buttons
<b>Programming Language</b>	INFORM III, menu-driven programming
<b>Maintenance Functions</b>	Displays troubleshooting for alarms, predicts reducer wear
<b>Number of Robots/Axes</b>	Up to 8 robots, 72 axes
<b>Multi Tasking</b>	Up to 16 concurrent jobs, 4 system jobs
<b>Fieldbus</b>	DeviceNet Master/Slave, AB RIO, Profibus, Interbus-S, M-Net, CC Link, EtherNet IP/Slave
<b>Ethernet</b>	10 Base T/100 Base TX
<b>Safety</b>	Dual-channel Emergency Stop Pushbuttons, 3-position Enable Switch, Manual Brake Release Meets ANSI/RIA R15.06-1999, ANSI/RIA/ISO 10218-1-2007 and CSA Z434-03

\*\* See DX100 Controller data sheet (DS-399) for complete specifications

www.motoman.com

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MOTOMAN ROBOTICS

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