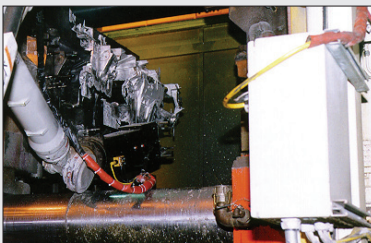
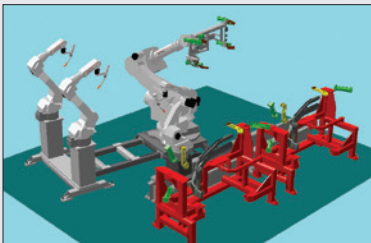


MATERIAL HANDLING



DIE CAST MACHINE TENDING



JIGLESS PART PROCESSING



# HP350D

INVESTMENT CASTING • MACHINE TENDING  
MATERIAL HANDLING • PRESS TENDING

**Payload: 350 kg**

## TOP REASONS TO BUY

- Full six-axis capability provides high flexibility
- Ideal for heavy part handling and “jigless” processing
- IP67 wrist rating
- Outstanding reliability

## Powerful, Flexible and Reliable

- Powerful heavy-payload robot provides flexibility and superior performance in material handling, machine tending, spot welding and investment casting.
- Ideal for “jigless” applications where robot positions part for processing by other robots or two robots handle a single part.
- Hefty 350 kg (771.8 lb) payload provides versatility with heavy loads.
- Full six-axis capability with parallel-link construction for strength, rigidity and stabilization of high moment/inertia loads. Heavy-duty bearings provide smooth arm rotation.
- 2,542 mm (100.1”) horizontal reach; 2,761 mm (108.7”) vertical reach; ±0.5 mm (±0.02”) repeatability.
- Fast axial speeds and acceleration reduce cycle times and increase production output.
- Large work envelope accommodates a wide range of big, heavy parts.

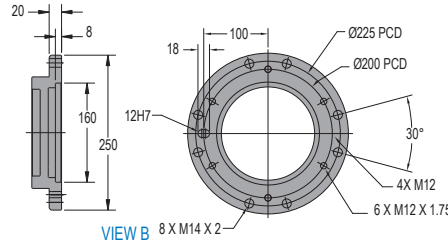
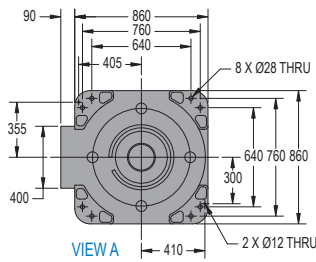
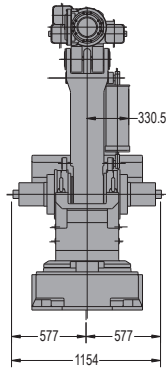
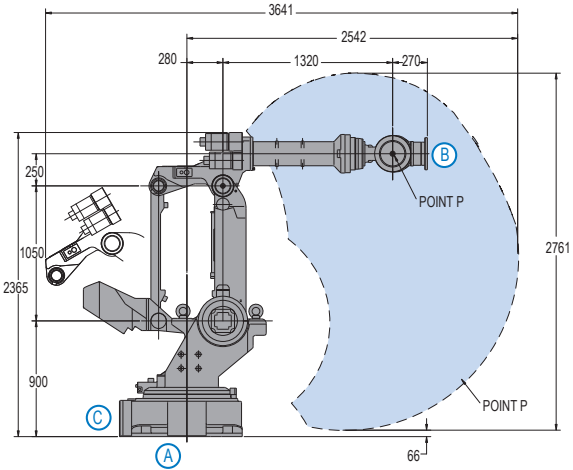
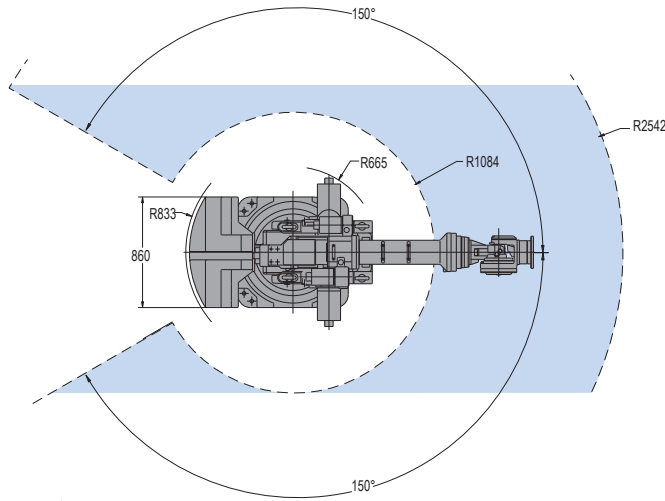
- Streamlined design allows robot to reach into confined spaces, improving system productivity.

## 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.

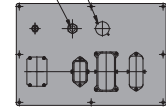
# HP350D ROBOT

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



INTERNAL USER I/O CABLE CONNECTOR JL05-2A22-14PC (WITH CAP). MATING CONNECTOR WILL NOT BE SUPPLIED, BUT COMPLETE CABLES ARE AVAILABLE AS AN OPTION.

INTERNAL USER AIR LINE 3/8" PT (WITH PLUG)



## HP350D SPECIFICATIONS

<b>Structure</b>		Articulated
<b>Controlled Axis</b>		6
<b>Payload</b>		350 kg (771.8 lbs)
<b>Horizontal Reach</b>		2,542 mm (100.1")
<b>Vertical Reach</b>		2,761 mm (108.7")
<b>Repeatability</b>		±0.5 mm (±0.02")
<b>Maximum Motion Range</b>	S-Axis (Turning)	±150°
	L-Axis (Lower Arm)	+61°/-55°
	U-Axis (Upper Arm)	+30°/-113°
	R-Axis (Upper Arm Twist)	±360°
	B-Axis (Pitch/Yaw)	±125°
	T-Axis (Twist)	±360°
<b>Maximum Speed</b>	S-Axis	95°/s
	L-Axis	95°/s
	U-Axis	95°/s
	R-Axis	100°/s
	B-Axis	100°/s
	T-Axis	160°/s
<b>Approximate Mass</b>		2,200 kg (4,851 lbs)
<b>Power Consumption</b>		10 kVA
<b>Allowable Moment</b>	R-Axis	1,960 N · m
	B-Axis	1,960 N · m
	T-Axis	823 N · m
<b>Allowable Moment of Inertia</b>	R-Axis	150 kg · m <sup>2</sup>
	B-Axis	150 kg · m <sup>2</sup>
	T-Axis	90 kg · m <sup>2</sup>
<b>Internal User I/O Cable</b>		17 conductors + ground
<b>Internal User Air Line</b>		1 - 3/8" pipe tap connection

## 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 NPN-Standard PNP-Optional 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 Keyswitch 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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