



EDGE FINISHING WITH  
ABRASIVE DRUM



SANDING OF AUTO PARTS



SURFACE PREPARATION



# DX1350D

MATERIAL REMOVAL • SURFACE PREPARATION • FINISHING

**Payload: 35 kg**

## TOP REASONS TO BUY

- Full 6-axis capability provides high flexibility
- 35-kg payload and highest wrist torque in its class
- High torsion and rigid structure deliver industry-leading part finishing capability
- G-Code Converter software (option) provides programming by common CAM (computer aided manufacturing) packages
- IP67-rated wrist eliminates the need for a protective jacket
- IP65-rated body (optional)
- High moment and inertia ratings make this robot also suitable for material handling applications
- MotoSim® EG simulation software (optional)

## Fast, Rugged, and Powerful

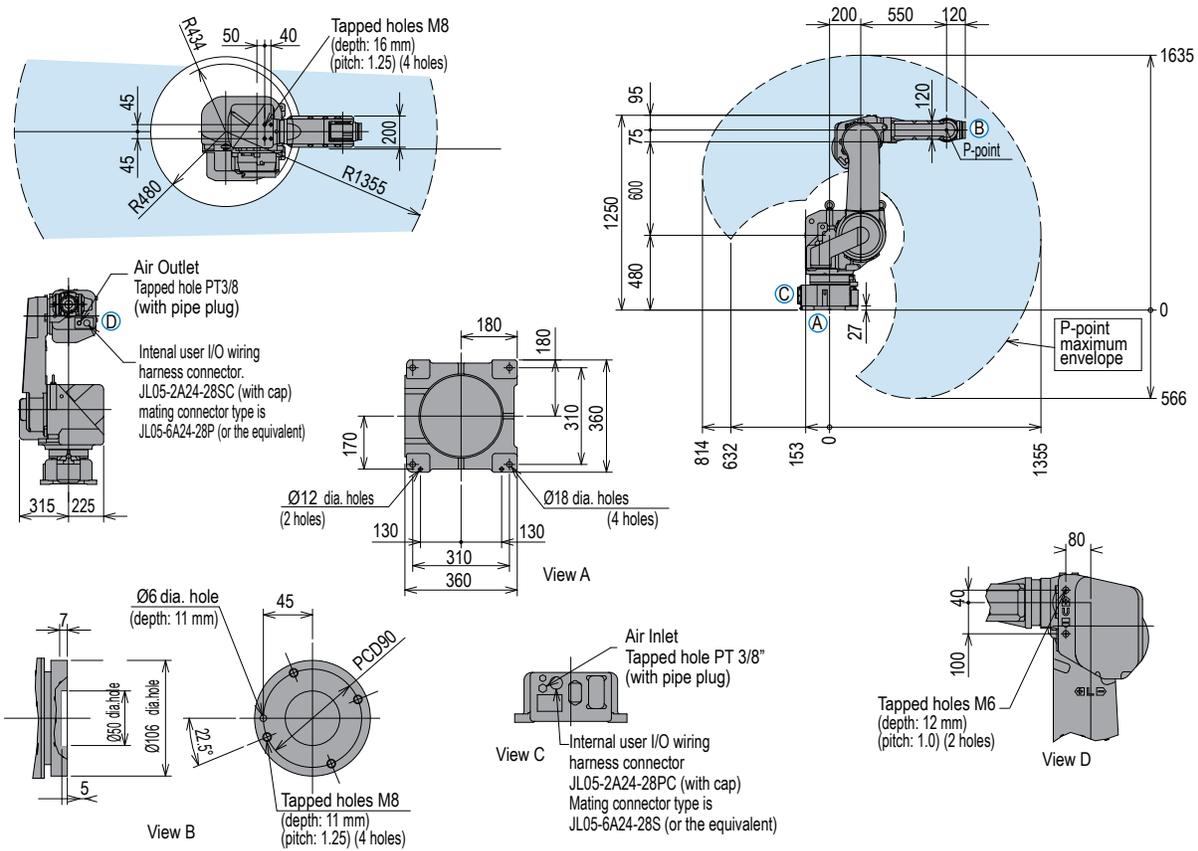
- Six-axis DX1350D robot is specifically designed to optimize performance in part finishing applications like grinding and sanding.
- Inherent stiffness and high payload capacity enable the DX1350D to carry the process tool to the part or to manipulate the part for processing by a stationary tool.
- High quality processing under difficult conditions. IP67-rated wrist can tolerate temporary immersion; robot body is resistant to airborne particles and water.
- 1,355-mm (53.3-inch) horizontal reach; can reach behind itself for easy tooling changeover.
- Fastest motion speed and highest wrist torque rating in its class.
- The power and rigidity of the DX1350D, along with Motoman's patented method of multiple robot control, provides improved cycle time and increased productivity for material removal applications
- Can be wall- or ceiling-mounted; brakes on all axes.

## 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 15.06-1999 and other relevant ISO and CSA safety standards. Optional Category 3 functional safety unit.

# DX1350D ROBOT

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



## DX1350D SPECIFICATIONS

<b>Structure</b>	Vertical articulated type
<b>Controlled Axes</b>	6
<b>Payload</b>	35 kg (77.2 lbs)
<b>Vertical Reach</b>	2,201 mm (86.7")
<b>Horizontal Reach</b>	1,355 mm (53.3")
<b>Repeatability</b>	±0.06 mm (0.002")
<b>Maximum Motion Range</b>	S-Axis (Turning/Sweep) ±180° L-Axis (Lower Arm) +145°/-50° U-Axis (Upper Arm) +220°/-140° R-Axis (Wrist Twist) ±200° B-Axis (Wrist Twist) ±125° T-Axis (Wrist Twist) ±360°
<b>Maximum Speed</b>	S-Axis 170°/s L-Axis 170°/s U-Axis 170°/s R-Axis 270°/s B-Axis 270°/s T-Axis 460°/s
<b>Approximate Mass</b>	275 kg (606.4 lbs)
<b>Brakes</b>	All axes
<b>Power Consumption</b>	5 kVA
<b>Allowable Moment</b>	R-Axis 82 N·m B-Axis 82 N·m T-Axis 41 N·m
<b>Allowable Inertia</b>	R-Axis 2 kg·m <sup>2</sup> B-Axis 2 kg·m <sup>2</sup> T-Axis 0.5 kg·m <sup>2</sup>
<b>Internal User Electrical Cable</b>	23 conductors + ground
<b>Internal User Air Hose</b>	1 - 3/8" PT connector

## 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>	NPN-Standard PNP-Optional
	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 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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