YASKAWA

MOTOMAN ROBOTICS

MATERIAL HANDLING

DIE CAST MACHINE TENDING

JIGLESS PART PROCESSING

HP350D

INVESTMENT CASTING • MACHINE TENDING
MATERIAL HANDLING • PRESS TENDING

Payload: 350 kg

The flexible, six-axis HP350D is designed for heavy-duty performance for a variety of handling applications. Fast axial speeds and acceleration reduce cycle times and increase production output.

TOP REASONS TO BUY

- Full six-axis capability provides high flexibility
- Ideal for heavy part handling and "jigless" processing
- IP67 wrist rating
- Outstanding reliability
- Yields extraordinary production results in material handling, machine tending and investment casting applications
- DX100 controller provides integrated cell (system-level) control capabilities
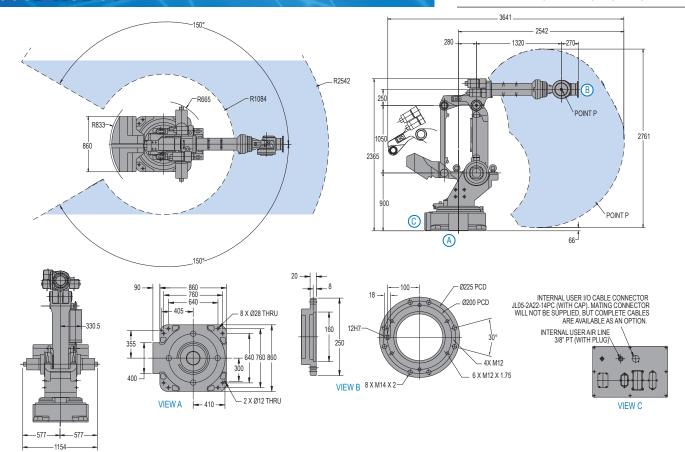- Easy-to-use, menu-driven INFORM III programming language

Powerful, Flexible and Reliable

- Powerful heavy-payload robot provides flexibility and superior performance.
- Ideal for "jigless" applications where robot positions part for processing by other robots or two robots handle a single part.
- Hefty 350 kg 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 horizontal reach; 2,761 mm vertical reach; ±0.5 mm repeatability.
- 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.

HP350D SPECIFICATIONS

Structure		Vertical jointed-arm type
Controlled Axes		6
Payload		350 kg (771.8 lbs)
Vertical Reach		2,761 mm (108.7")
Horizontal Reach		2,542 mm (100.1")
Repeatability		±0.5 mm (±0.02")
Maximum Motion Range	S-Axis (Turning/Sweep)	±150°
	L-Axis (Lower Arm)	+61°/-55°
	U-Axis (Upper Arm)	+30°/-113°
	R-Axis (Wrist Roll)	±360°
	B-Axis (Bend/Pitch/Yaw)	±125°
	T-Axis (Wrist Twist)	±360°
Maximum Speed	S-Axis	95°/s
	L-Axis	95°/s
	U-Axis	95°/s
	R-Axis	100°/s
	B-Axis	100°/s
	T-Axis	160°/s
Approximate Mass		2,200 kg (4,851 lbs)
Power Consumption		5.5 kVA
Allowable Moment	R-Axis	1,960 N • m
	B-Axis	1,960 N • m
	T-Axis	823 N • m
Allowable Moment of Inertia	R-Axis	150 kg • m²
	B-Axis	150 kg • m²
	T-Axis	90 kg • m²
Internal User I/O Cable		17 conductors + ground
Internal User Air Line		1 – 3/8" pipe tap connection

DX100 CONTROLLER SPECIFICATIONS**

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

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