YASKAWA

MOTOMAN ROBOTICS

SOLUTIONS IN MOTION®

STAINLESS STEEL COVERS AND TOOL FLANGE

DXM100 TEACH PENDANT

DXM100 CONTROLLER

TOP REASONS TO BUY

- High-speed robot with best-in-class axis speeds
- Energy saving design does not require expensive compressed air for cooling like many competitive robots
- Washdown-ready robot (when optional covers are installed) for food and other applications where cleanliness is important
- Ready for food applications with NSF-H1 certified food-grade grease
- Hollow wrist with through-arm cabling reduces interference, maintenance and facilitates programming

MPK2

PACKING • PICKING

Payload: 2 kg
(4 kg for wrist-down applications)

Fast, Flexible and Compact

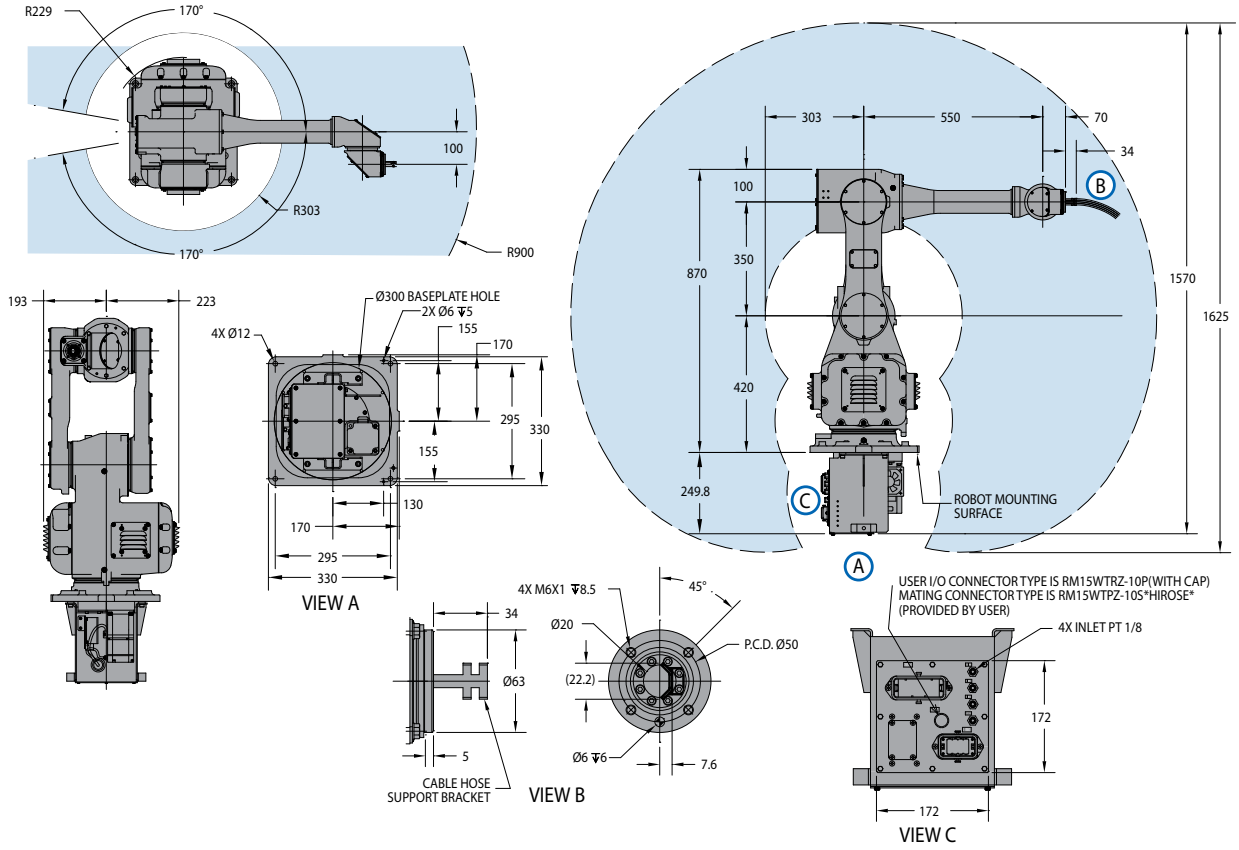
- High-speed, five-axis picking robot provides superior performance and reliability.
- Ideal for food handling, picking, packing and other high-speed material handling applications.
- 1,625 mm (64") vertical reach and 900 mm (35.4") horizontal reach provide largest work envelope in its class.
- 2 kg (4.4 lbs) payload; payload increases to 4 kg (8.8 lbs) when T-axis is used parallel to the floor (wrist down); ±0.5 mm (±0.02") repeatability.
- Compact, slim arm design allows reach into confined spaces, improving system productivity. Deep work envelope provides flexibility for a range of applications.
- Hollow arm design allows cables and hoses to be run internally throughout entire robot from base to wrist.
- Fast axial speeds and acceleration reduce cycle times and increase production output. Top wrist speed of 2,000 degrees per second provides maximum productivity, even when parts need to be rotated more than 90 degrees.
- IP67 robot. Rated for washdown cleaning (when optional covers are installed), even with certain caustic cleaners.
- Ready for food applications with National Sanitation Foundation (NSF-H1) certified grease.
- Floor-, ceiling- or wall-mounted.
- Optional vision and conveyor tracking.

DXM100 Controller

- Smaller-size DXM100 controller provides layout flexibility.
- 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.

MPK2 ROBOT

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



MPK2 SPECIFICATIONS

Structure		Vertical articulated type
Controlled Axes		5
Payload *		2 kg (4.4 lbs)
Vertical Reach		1,625 mm (64")
Horizontal Reach		900 mm (35.4")
Repeatability		±0.5 mm (0.02")
Maximum Motion Range	S-Axis (Turning/Sweep) L-Axis (Lower Arm) U-Axis (Upper Arm) B-Axis (Bend/Pitch/Yaw) T-Axis (Wrist Twist)	±170° ±120° +282°/-102° ±150° ±270°
Maximum Speed	S-Axis L-Axis U-Axis B-Axis T-Axis	320°/s 330°/s 330°/s 380°/s 2000°/s
Approximate Mass		72 kg (158.8 lbs)
Brakes		All axes
Power Consumption		2.0 kVA
Allowable Moment	B-Axis T-Axis	3.5 N • m 1.5 N • m
Allowable Inertia	B-Axis T-Axis	.065 kg • m^2 .012 kg • m^2
Internal User I/O Cable		6 conductors
Internal User Air Line		2.5 mm ID (4)

* 4 kg (8.8 lbs) payload for wrist-down applications (T-axis parallel to floor)

DXM100 CONTROLLER SPECIFICATIONS**

Dimensions (mm)* **	800 (w) x 600 (h) x 650 (d) (31.5" x 23.6" 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
***Also available with full-size DX100 controller

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