



BAG PALLETIZING



CASE PALLETIZING



BOX PALLETIZING

## TOP REASONS TO BUY

- Compact design for end-of-line palletizing applications
- High-performance robot maximizes productivity
- Economical design provides advantages of high-speed, high-performance palletizing, combined with a slim wrist and compact design



# MPL80

MATERIAL HANDLING • PALLETIZING

**Payload: 80 kg**

## Flexible Palletizing Solution

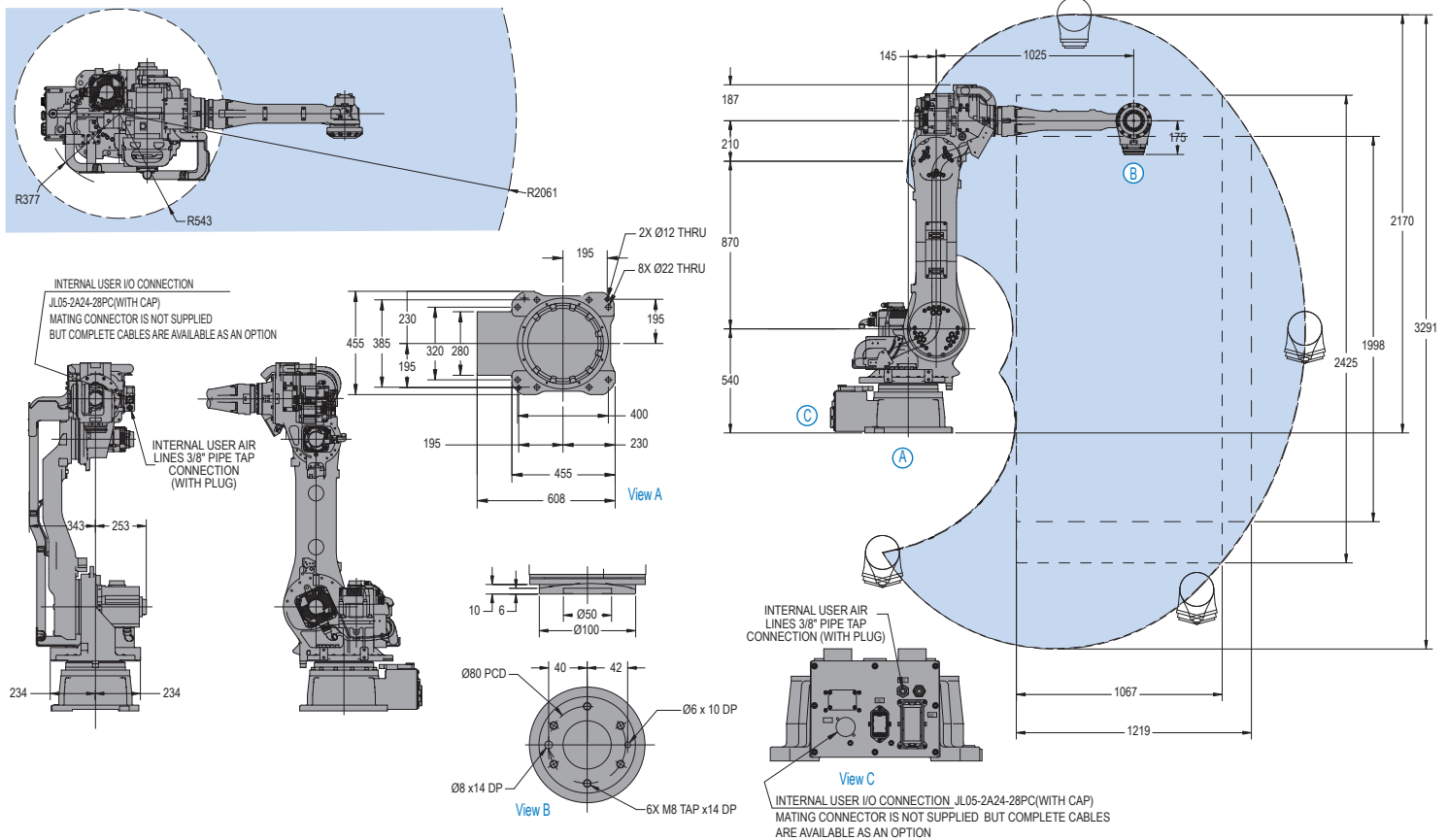
- Five-axis MPL80 “Master Palletizing” robot provides fast axial speeds, acceleration and deceleration to reduce cycle times; increases production output.
- 80 kg payload; 3,291 mm vertical reach; 2,061 mm horizontal reach;  $\pm 0.07$  mm repeatability.
- Wide 360° work envelope allows service to multiple infeed conveyors optimizing footprint.
- Compact design is ideally suited for end-of-line palletizing solutions requiring minimal space.
- Accommodates palletizing loads up to 95.5" high on a 42" pallet, or up to 76.6" high on a 48" pallet.

## 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.
- Supports all major fieldbus networks, including EtherNet/IP, DeviceNet, Profibus-DP.
- Compliant to ANSI/RIA R15.06 and other relevant ISO and CSA safety standards. Optional Category 3 Functional Safety Unit.

# MPL80 ROBOT

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



## MPL80 SPECIFICATIONS

<b>Structure</b>		Vertical articulated type
<b>Controlled Axes</b>		5
<b>Payload</b>		80 kg (176.4 lbs)
<b>Vertical Reach</b>		3,291 mm (129.6")
<b>Horizontal Reach</b>		2,061 mm (81.1")
<b>Repeatability</b>		±0.07 mm (0.003")
<b>Maximum Motion Range</b>	S-Axis (Turning/Sweep)	±180°
	L-Axis (Lower Arm)	+135°/-90°
	U-Axis (Upper Arm)	+251°/-170°
	B-Axis (Wrist Twist)*	±15°
	T-Axis (Wrist Twist)	±360°
<b>Maximum Speed</b>	S-Axis	170°/s
	L-Axis	170°/s
	U-Axis	170°/s
	B-Axis†	170°/s
	T-Axis	350°/s
<b>Approximate Mass</b>		550 kg (1,212.8 lbs)
<b>Brakes</b>		All axes
<b>Power Rating</b>		4.0 kVA
<b>Allowable Moment</b>	B-Axis	78.4 N • m
	T-Axis	20.5 N • m
<b>Allowable Inertia</b>	B-Axis	16 kg • m <sup>2</sup>
	T-Axis	6.1 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

\* B-axis angle range of motion relative to the robot mounting surface, but may be restricted by angle of other axes.

† B-axis speed limited because of its short range of motion.

## 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/ NPN-Standard 16 system outputs, 24 user inputs/24 user outputs 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

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