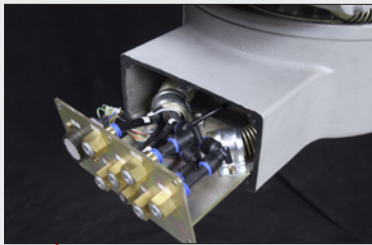


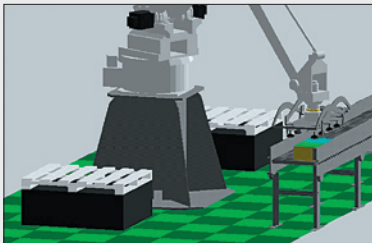
**MOTOMAN**  
a YASKAWA company



PALLETIZING



UTILITIES MANAGEMENT PACKAGE



MOTOPALLET EG SOFTWARE (option)



*Motoman's EPL500 robot includes through-arm cable and hose routing to optimize performance and maximize cable life*

• PALLETIZING •

# EPL500

**Payload: 500 kg**

## FEATURES & OPTIONS

- Internally routed air lines and wiring through all robot axes
- Large vertical reach 3,024 mm
- Large horizontal reach 3,159 mm
- High wrist moment of inertia (200 kg m<sup>2</sup>)
- High reliability – 62,000 hours MTBF
- MotoSim® EG off-line programming software (optional)
- MotoMax® III warranty (standard)

### Flexible Palletizing Solution

Designed specifically for palletizing applications, the four-axis EPL500 “Expert Palletizing” robot is a high-performance manipulator that features internally routed air lines and wiring between the base of the robot and the end-of-arm tool. This virtually eliminates cable and hose wear.

The EPL500 features a 500-kg (1,102.5 lb) payload capacity with a 3,159-mm (124.4”) horizontal reach. EPL-series robots are available with 80-, 160-, 300-, and 500-kg payloads to meet a wide range of palletizing requirements.

The EPL500 can service multiple infeed conveyors and/or pallet build locations. Its fast axial speeds (up to 445° per second) reduce cycle times and increase production output.

MotoSim EG off-line programming software is available as an option to simplify programming of palletizing applications.

### Utilities Management Package

With a total of 23 wires for communication and six internally routed air lines for end-of-arm tooling, the Utilities Management Package provides a unique, optimized method for connecting to the end-of-arm tooling that eliminates pinch points and potential interference. This improves flexibility and minimizes downtime.

### Advanced Controller

The NX100 high-performance controller features a Windows® CE programming pendant, fast processing, easy-to-use INFORM III programming language, and robust PC architecture.

The NX100 offers unmatched multiple robot control capability (up to four robots) to minimize cost of integration and eliminate risk of robot collisions.

The NX100 includes four security levels of password protection (user, editor, maintenance and supervisor) for up to 100 individual users. Password use restricts access to the production programs and the controller logs any changes.

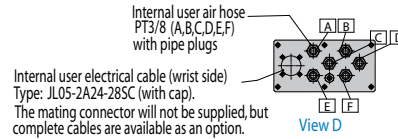
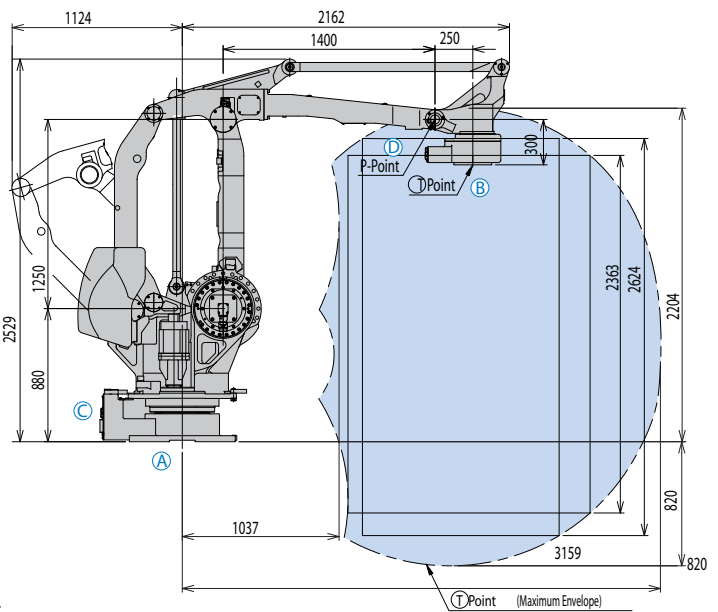
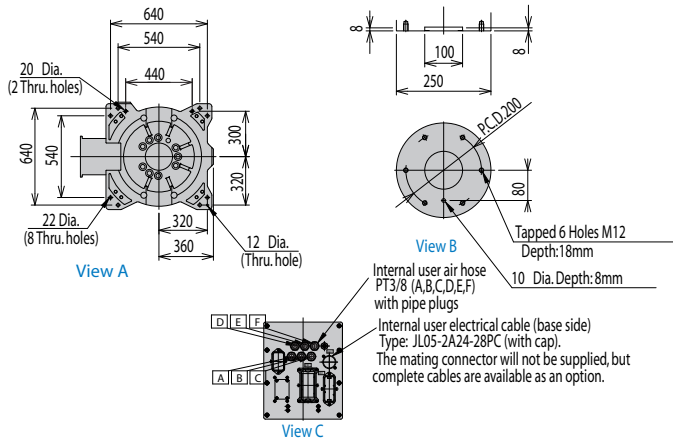
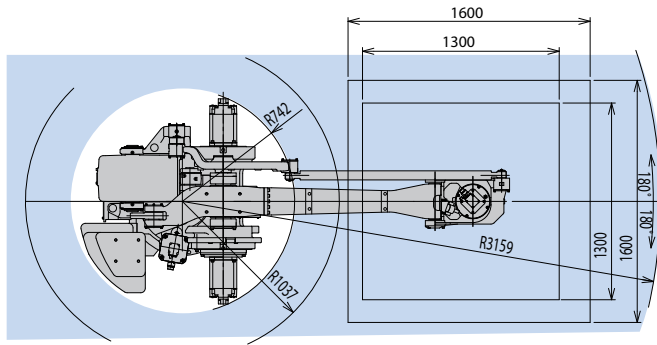
The programming pendant features a color touch-screen display that can be configured as a custom HMI with buttons and status indicators.

Dual-channel safety features include enhanced E-Stop functionality, integrated speed monitoring, manual brake release, and compliance with both ANSI/RIA R15.06-1999 and Canadian safety standards.

The NX100 offers unmatched connectivity through standard Ethernet and other network options: DeviceNet, ControlNet, Profibus-DP and EtherNet/IP.

# EPL500 Robot

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



## EPL500 SPECIFICATIONS

<b>Structure</b>	Vertical jointed-arm type	
<b>Controlled Axes</b>	4	
<b>Payload</b>	500 kg (1,102.5 lbs.)	
<b>Vertical Reach</b>	3,024 mm (119.1")	
<b>Horizontal Reach</b>	3,159 mm (124.4")	
<b>Repeatability</b>	±0.5 mm (0.02")	
<b>Maximum Motion Range</b>	S-Axis (Turning/Sweep) L-Axis (Lower Arm) U-Axis (Upper Arm) T-Axis (Wrist Twist)	±180° +90°/-45° +15.5°/-120° ±180°
<b>Maximum Speed</b>	S-Axis L-Axis U-Axis T-Axis	80°/s 85°/s 85°/s 195°/s
<b>Approximate Mass</b>	2,300 kg (5,071.5 lbs.)	
<b>Brakes</b>	All axes	
<b>Power Consumption</b>	11 kVA	
<b>T-Axis Allowable Inertia (GD<sup>2</sup>/4)</b>	200 kg · m <sup>2</sup>	
<b>Internal User Electrical Cable</b>	23 conductors + ground	
<b>Internal User Air Hose</b>	6-PT 3/8" connector	

## NX100 CONTROLLER SPECIFICATIONS\*

<b>Structure</b>	Free-standing, enclosed type
<b>Dimensions (mm)</b>	650 (w) x 1,200 (h) x 650 (d) (25.6" x 47.2" x 25.6")
<b>Approximate Mass</b>	150-250 kg (330.8-551.3 lbs.)
<b>Cooling System</b>	Indirect cooling
<b>Ambient Temperature</b>	During operation: 0° C (32° F) to 45° C (113° F) During transmit and storage: -10° C (14° F) to +60° C (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>Grounding</b>	Grounding resistance: ≤100 ohms Separate ground required
<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 Enabled to 1,024 inputs/1,024 outputs
<b>Position Feedback</b>	By absolute encoder
<b>Drive Units</b>	Servo packs for AC servo motors
<b>Accel/Decel</b>	Software servo control
<b>Program Memory</b>	60,000 steps 10,000 ladder instructions
<b>Pendant Dim. (mm)</b>	199 (w) x 338 (h) x 60 (d) (7.8" x 13.3" x 2.4")
<b>Pendant Playback Buttons</b>	Teach, Play, Remote, Servo On, Start, Hold, Emergency Stop, Edit Lock (Play Mode Enabled on Controller)
<b>Concurrent I/O Ladder</b>	10,000 Instructions
<b>Multi Tasking</b>	Up to 8 concurrent 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>E-Stop</b>	Controlled stop
<b>Safety</b>	Dual-channel Emergency Stop Pushbuttons, 3-position Enable Switch, Manual Brake Release Meets ANSI/RIA R15.06-1999 and Canadian safety standards

\*See NX100 Controller data sheet (DS-232) for complete specifications