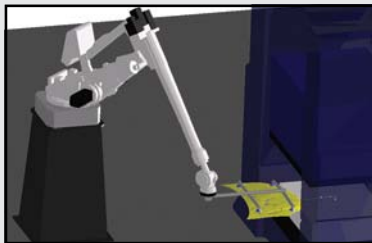
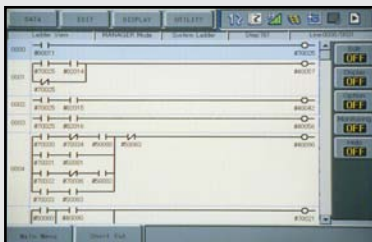


PROCESS-SPECIFIC DESIGN



MOTOSIM® EG OFF-LINE PROGRAMMING (optional)



LADDER EDITOR

## FEATURES & OPTIONS

- Multiple robot control (up to four robots) simplifies programming
- Advanced Sigma III ( $\Sigma$ ) motors provide powerful, slim design
- Widest working envelope: 2,651 (104.4") mm reach
- Highest repeatability in its class:  $\pm 0.2$  mm ( $\pm 0.008$ " )
- LIFE program (optional)
- MotoSim® EG simulation software (optional)



# EPH130

PRESS TENDING • MACHINE TENDING • MATERIAL HANDLING

Payload: 130 kg

Mounting option: Shelf (EPH130RL)

### Fast, Flexible and Powerful

The high-speed EPH130 “Expert Press Handling” robot is specifically designed for the rigors of press tending.

The robot features higher-performance drive systems on the S, L and U axes (Axes 1, 2 and 3) for high duty cycle applications in the press room, but it can also be used anywhere that high performance handling is required.

The EPH130 has a 2,651 mm (104.4") horizontal reach and a 3,372 mm (132.8") vertical reach with a minimal footprint. The large work envelope allows the robot to be used to tend presses with spacing from 4-7 m (13-22.9 ft).

The standard EPH130 robot is floor-mounted. A shelf-mounted (EPH130RL) version is available to allow improved clearance for die changes. This robot can be used in a dual-robot configuration with other NX100 controlled robots to provide maximum flexibility for a variety of processes.

### Advanced NX100 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.

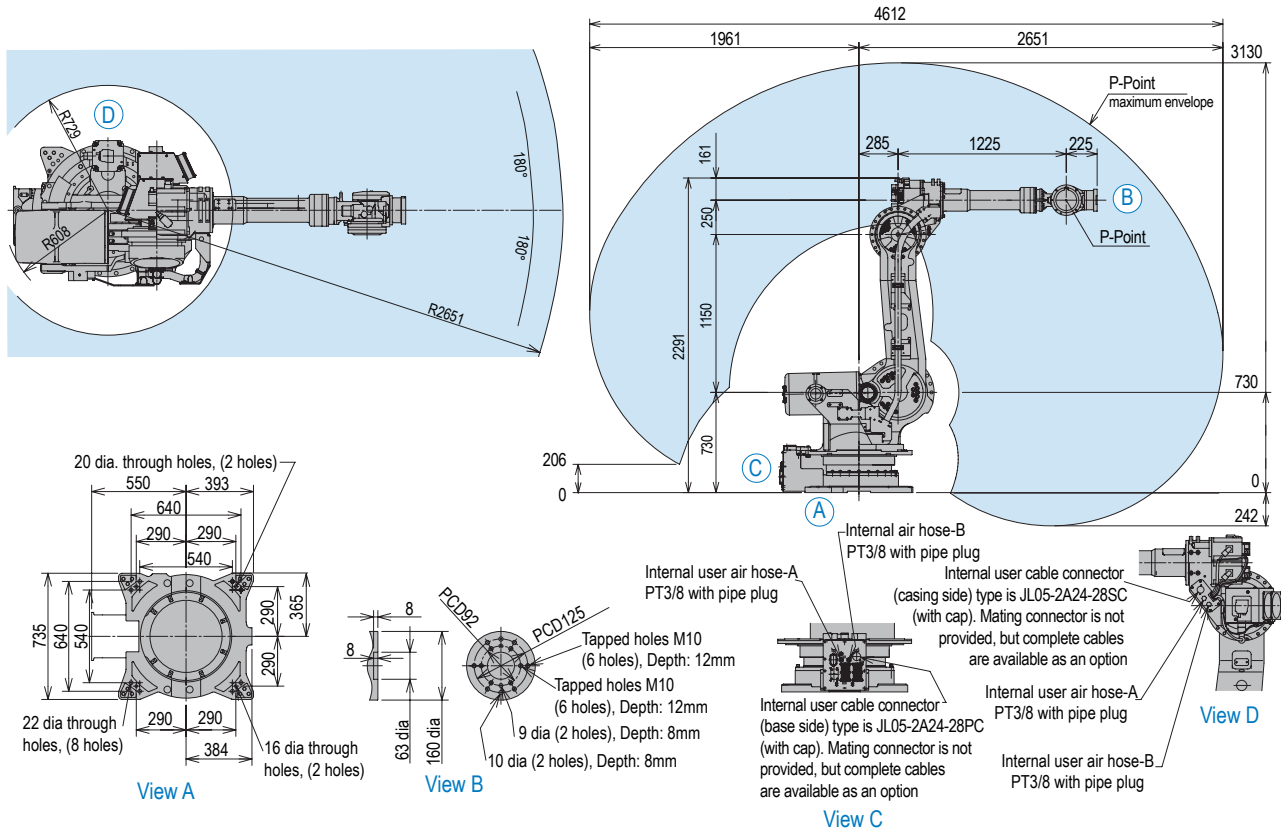
The programming pendant features a color touch-screen display that can be configured as a custom HMI with buttons and status indicators.

Dual-channel safety features include enhanced E-Stop functionality, integrated speed monitoring, manual brake release switch, 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.

# EPH130 ROBOT

EPH130 robot shown.  
All dimensions are metric (mm) and for reference only. Please request detail drawings for all design/engineering requirements.



## ROBOT SPECIFICATIONS

		EPH130 Floor-Mounted	EPH130RL Shelf-Mounted
<b>Structure</b>		Vertical jointed-arm type	Vertical jointed-arm type
<b>Controlled Axes</b>		6	6
<b>Payload</b>		130 kg (286.7 lbs.)	130 kg (286.7 lbs.)
<b>Vertical Reach</b>		3,372 mm (132.8")	4,151 mm (163.4")
<b>Horizontal Reach</b>		2,651 mm (104.4")	3,472 mm (136.7")
<b>Repeatability</b>		±0.2 mm (0.008")	±0.3 mm (0.01")
<b>Maximum Motion Range</b>	S-Axis (Turning/Sweep)	±180°	±180°
	L-Axis (Lower Arm)	+76°/-60°	+70°/-130°
	U-Axis (Upper Arm)	+230°/-137.5°	+95°/-70°
	R-Axis (Wrist Roll)	±360°	±360°
	B-Axis (Bend/Pitch/Yaw)	±130°	±130°
T-Axis (Wrist Twist)	±360°	±360°	
<b>Maximum Speed</b>	S-Axis	130°/s	110°/s
	L-Axis	130°/s	110°/s
	U-Axis	130°/s	110°/s
	R-Axis	215°/s	215°/s
	B-Axis	180°/s	180°/s
T-Axis	300°/s	300°/s	
<b>Approximate Mass</b>		1,495 kg (3,296.5 lbs.)	1,445 kg (3,186.2 lbs.)
<b>Brakes</b>		All axes	All axes
<b>Power Consumption</b>		10 kVA	10 kVA
<b>Allowable Moment</b>	R-Axis	735 N·m	735 N·m
	B-Axis	735 N·m	735 N·m
	T-Axis	421 N·m	421 N·m
<b>Allowable Moment of Inertia</b>	R-Axis	45 kg·m <sup>2</sup>	45 kg·m <sup>2</sup>
	B-Axis	45 kg·m <sup>2</sup>	45 kg·m <sup>2</sup>
	T-Axis*	15 kg·m <sup>2</sup>	15 kg·m <sup>2</sup>
<b>Internal User Electrical Cable</b>		23 conductors + ground	23 conductors + ground
<b>Internal User Air Hose</b>		2-PT 3/8 connector	2-PT 3/8 connector

\*Inertia increases to 52 kg·m<sup>2</sup> with no T-Axis moment.

## 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 transit 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 NPN-Standard PNP-Optional
<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

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