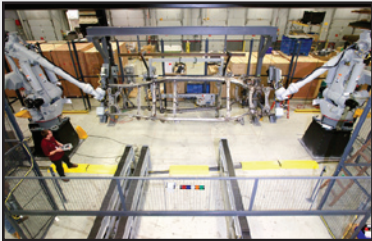
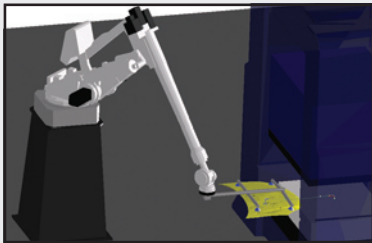


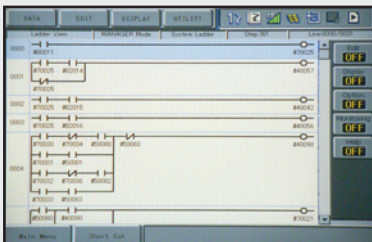
MOTOMAN
a YASKAWA company



MULTIPLE ROBOT CONTROL



MOTOSIM® EG OFF-LINE PROGRAMMING (optional)



NX100 LADDER EDITOR

FEATURES

- 400 kg (882 lb) payload
- 3,518-mm (138.5") horizontal reach
- 4,908-mm (193.2") vertical reach
- Slim, space-saving shelf-mounted design
- Extended reach to service equipment in a large work envelope
- Internally routed air and I/O signal lines to simplify integration
- MotoMax® III warranty (standard)
- LIFE program (optional)

Motoman's UP400RN robot is specifically designed to maximize material handling performance



UP400RN

MATERIAL HANDLING • PART TRANSFER

Fast, Streamlined and Powerful

The six-axis, Motoman UP400RN robot is a high-speed, shelf-mounted manipulator designed specifically for high-payload material handling applications. The high-performance, vertically articulated UP400RN robot features a massive 400 kg (882 lb) payload, a 3,518 mm (138.5") horizontal reach and 4,908 mm (193.2") vertical reach. Its fast axis speeds reduce cycle times and increase production throughput.

The slender design of the UP400RN allows it to work in tight spaces and service multiple processes.

MotoSim EG

Available as an option, MotoSim EG is PC-based, simulation and off-line programming software that can be used during system design to optimize the layout. For new parts, MotoSim EG can be used to optimize tool design and program the robots, minimizing production downtime.

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.

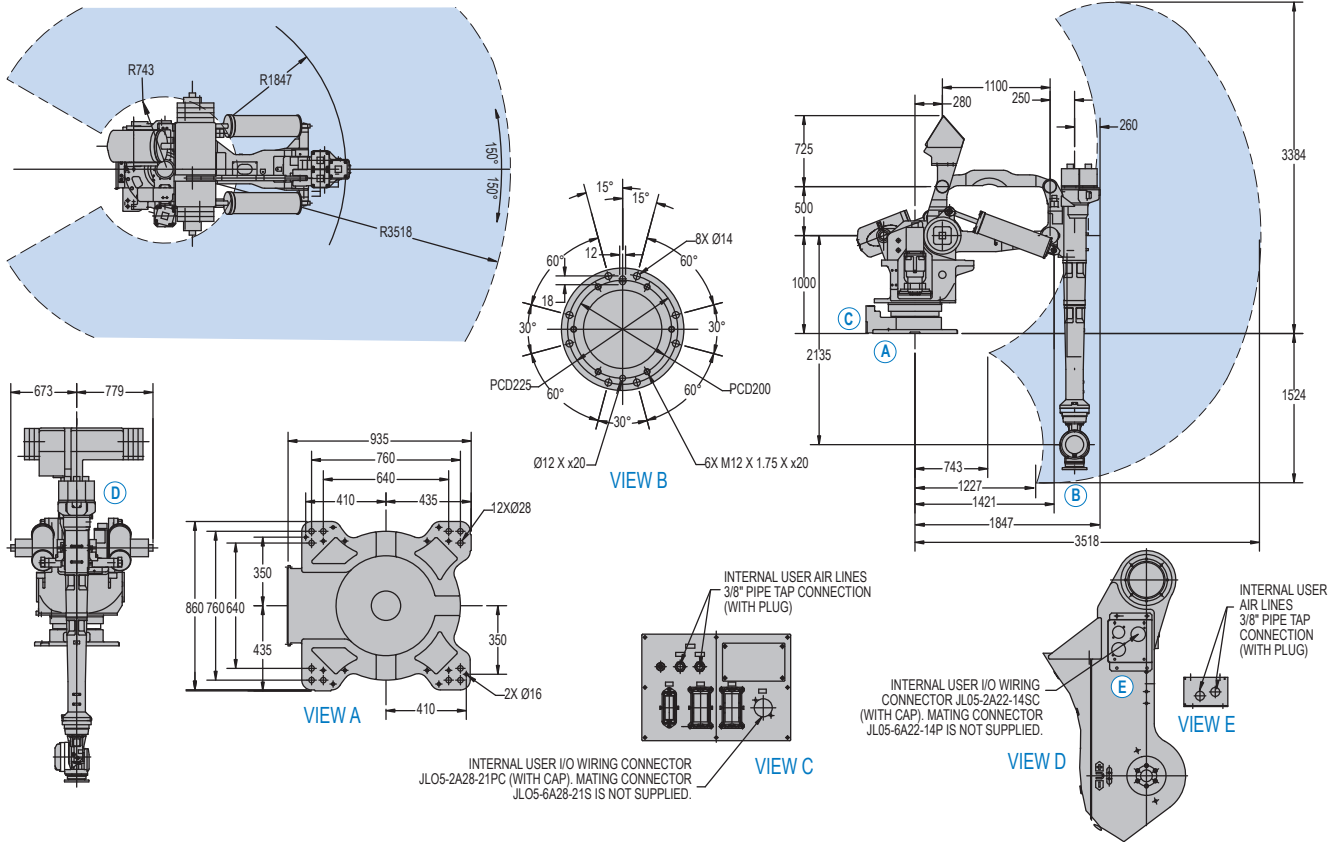
The programming pendant features a color touch-screen display that can be configured as a custom HMI with buttons and status indicators.

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

UP400RN Robot

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



UP400RN SPECIFICATIONS

Structure	Vertical articulated type	
Controlled Axes	6	
Payload	400 kg (882 lbs.)	
Vertical Reach	4,908 mm (193.2")	
Horizontal Reach	3,518 mm (138.5")	
Repeatability	±0.5 mm (0.02")	
Maximum Motion Range	S-Axis (Turning/Sweep)	±150°
	L-Axis (Lower Arm)	+20°/-122°
	U-Axis (Upper Arm)	+120°/-9°
	R-Axis (Wrist Roll)	±360°
	B-Axis (Pitch/Yaw)	±120°
	T-Axis (Wrist Twist)	±360°
Maximum Speed	S-Axis	80°/s
	L-Axis	80°/s
	U-Axis	80°/s
	R-Axis	80°/s
	B-Axis	80°/s
	T-Axis	160°/s
Approximate Mass	3,600 kg (7,938 lbs.)	
Brakes	All axes	
Power Consumption	12 kVA	
Allowable Moment	R-Axis	1,960 N • m
	B-Axis	1,960 N • m
	T-Axis*	833 N • m
Allowable Moment of Inertia	R-Axis	150 kg • m ²
	B-Axis	150 kg • m ²
	T-Axis*	50 kg • m ²
I/O Lines	35 conductors + shield + ground	
Air Lines	2 – 3/8" pipe connections	

NX100 CONTROLLER SPECIFICATIONS*

Structure	Free-standing, enclosed type
Dimensions (mm)	650 (w) x 1,200 (h) x 650 (d) (25.6" x 47.2" x 25.6")
Approximate Mass	150-250 kg (330.8-551.3 lbs.)
Cooling System	Indirect cooling
Ambient Temperature	During operation: 0° C (32° F) to 45° C (113° F) During transmit and storage: -10° C (14° F) to +60° C (140° F)
Relative Humidity	90% max. non-condensing
Primary Power Requirements	3-phase, 240/480/575 VAC at 50/60 Hz
Grounding	Grounding resistance: ≤100 ohms Separate ground required
Digital I/O	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
Position Feedback	By absolute encoder
Drive Units	Servo packs for AC servo motors
Accel/Decel	Software servo control
Program Memory	60,000 steps 10,000 ladder instructions
Pendant Dim. (mm)	199 (w) x 338 (h) x 60 (d) (7.8" x 13.3" x 2.4")
Pendant Playback Buttons	Teach, Play, Remote, Servo On, Start, Hold, Emergency Stop, Edit Lock (Play Mode Enabled on Controller)
Concurrent I/O Ladder	10,000 Instructions
Multi Tasking	Up to 8 concurrent jobs
Fieldbus	DeviceNet Master/Slave, AB RIO, Profibus, Interbus-S, M-Net, CC Link, EtherNet IP/Slave
Ethernet	10 Base T/100 Base TX
E-Stop	Controlled stop
Safety	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