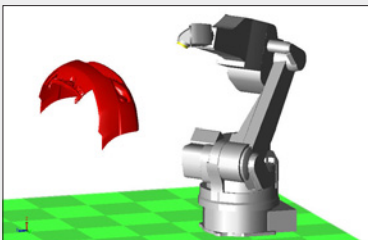


PAINTING OF AUTOMOTIVE BUMPERS



EXPLOSION PROOF  
TEACH PENDANT (OPTIONAL)



MOTOSIM EG OFF-LINE  
PROGRAMMING

## TOP REASONS TO BUY

- Motoman Robotics is a global leader with a large install base
- High wrist/upper arm payload capacity for mounting paint application equipment
- Easy-to-use touch screen teach pendant
- MotoSim® EG simulation software (optional)

# EPX2900

COATING • DISPENSING

**Payload: 20 kg**

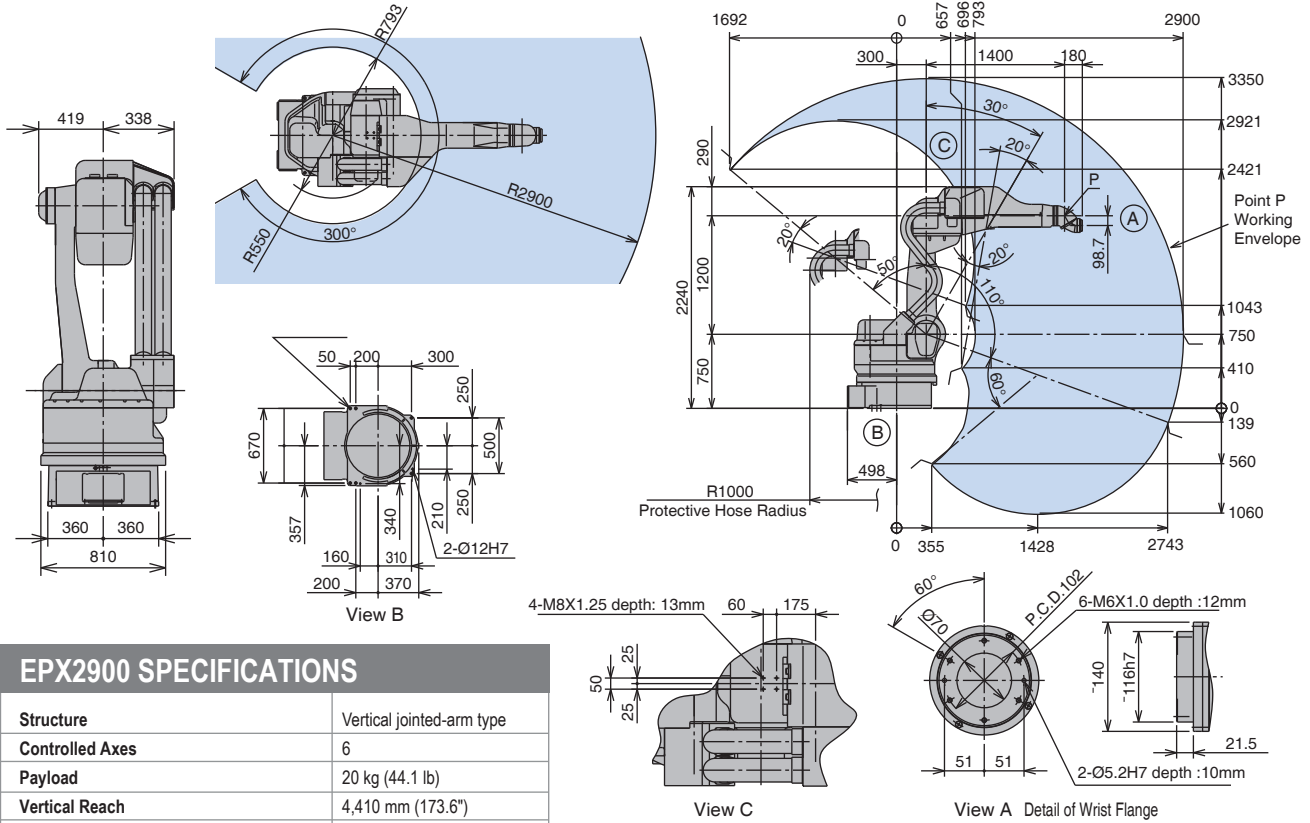


## Versatile Coating Robot

- High-speed, versatile six-axis EPX2900 is ideal for painting automotive bodies and plastic component parts; agricultural equipment; and other machinery and large parts.
- Offers superior performance and creates smooth, consistent finish with outstanding efficiency for painting and dispensing applications.
- 70 mm (2.76") diameter hollow wrist facilitates mounting of spray equipment. Interference between the hose and parts/fixtures is avoided; ensures optimum cycle time and robot reach/access.
- Factory Mutual (FM) approved for Class 1, Div. 1 use in hazardous environments.
- 20 kg (44.1 lb) payload; 2,900 mm (114.2") horizontal reach; 4,410 mm (173.6") vertical reach;  $\pm 0.5$  mm ( $\pm 0.02$ ") repeatability.
- Optional devices such as 24-color change valve (CCV), flushable gear pump (FGP), flushing unit valve and master valve can be mounted on the upper arm; reduces cycle time and paint waste.

## Advanced NX100-FM Controller

- Includes application-specific software for paint applications.
- Coordinates operation of robot and painting devices, including spray gun.
- Supports gun control instructions such as spray start/stop and painting conditions.
- All painting position parameters can be filed and saved.
- Supports standard networks (such as DeviceNet, ControlNet, Profibus-DP and Interbus-S), enabling connection to paint equipment controllers and production line controllers.



## EPX2900 SPECIFICATIONS

<b>Structure</b>	Vertical jointed-arm type	
<b>Controlled Axes</b>	6	
<b>Payload</b>	20 kg (44.1 lb)	
<b>Vertical Reach</b>	4,410 mm (173.6")	
<b>Horizontal Reach</b>	2,900 mm (114.2")	
<b>Repeatability</b>	±0.5 mm (0.02")	
<b>Maximum Motion Range</b>	S-Axis (Turning/Sweep)	±150°
	L-Axis (Lower Arm)	+110°/-50°
	U-Axis (Upper Arm)	+90°/-70°
	R-Axis (Wrist Roll)	±360° (R & T: ±360° or less)
	B-Axis (Bend/Pitch/Yaw)	±360°
<b>Maximum Speed</b>	S-Axis	2.7 rad/s, 155°/s
	L-Axis	2.2 rad/s, 125°/s
	U-Axis	2.7 rad/s, 155°/s
	R-Axis	7.9 rad/s, 450°/s
	B-Axis	9.6 rad/s, 550°/s
	T-Axis	11.3 rad/s, 650°/s
<b>Approximate Mass</b>	1,030 kg (2,271.2 lb)	
<b>Brakes</b>	All axes	
<b>Power Consumption</b>	5 kVA	
<b>Allowable Moment</b>	R-Axis	72 N · m
	B-Axis	51.5 N · m
	T-Axis	19.6 N · m
<b>Allowable Moment of Inertia</b>	R-Axis	10.5 kg · m <sup>2</sup>
	B-Axis	6.5 kg · m <sup>2</sup>
	T-Axis	0.8 kg · m <sup>2</sup>
<b>Mounting</b>	Floor	

## OPTIONAL PENDANT SPECIFICATIONS

<b>Dimensions</b>	235 (w) x 203 (h) x 78 (d) (9.25" x 8" x 3.1")
<b>Mass</b>	1.25 kg (2.8 lb)
<b>Material</b>	Reinforced plastics
<b>Operation Device</b>	Select keys, axes keys, numerical/application keys, emergency stop button, enable switch
<b>Display</b>	5.7-inch monochrome LCD, backlit white LED, touch panel 320 x 240 pixels (Alphanumeric characters, Chinese characters, Japanese letters, Others)
<b>IEC Protection Class</b>	IP54
<b>Cable Length</b>	Standard: 8 m, Optional 20 m Max: 50 m (with optional extension cable)

## NX100-FM CONTROLLER SPECIFICATIONS (WITH STANDARD PENDANT)

<b>Structure</b>	Free-standing, enclosed type
<b>Dimensions (mm)</b>	500 (w) x 1400 (h) x 550 (d) (19.7" x 55.1" x 21.7")
<b>Approximate Mass</b>	120 kg (264.6 lb)
<b>Cooling System</b>	Indirect cooling
<b>Ambient Temperature</b>	During operation: 0° C (32° F) to 40° C (104° F) During transit and storage: -10° C (14° F) to +45° C (113° 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>	169 (w) x 314.5 (h) x 50 (d) (6.6" x 12.4" x 2")
<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
<b>Scavenging Control</b>	Equipped with scavenging control unit for internal pressure explosion-proof manipulator