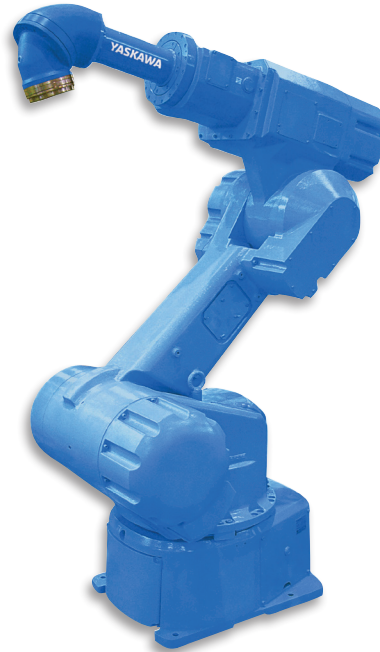


EPX2050

Versatile Coating Robot



Key Benefits

Large global install base backed by Yaskawa's experience and reliability

High wrist/upper arm payload capacity for mounting paint application equipment

Easy-to-use touch screen teach pendant

MotoSim® EG simulation software (optional)

Specifications

15 kg wrist payload

2,054 mm horizontal reach

2,806 mm vertical reach

±0.5 mm repeatability

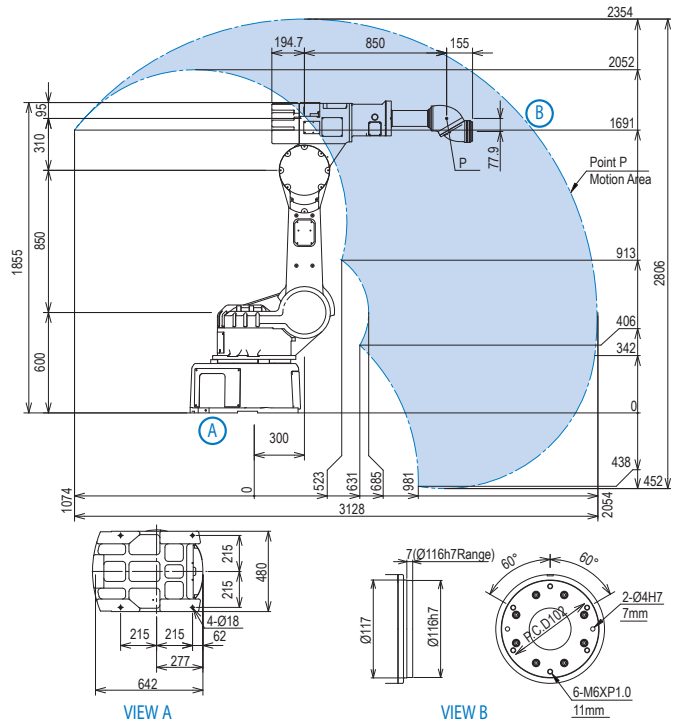
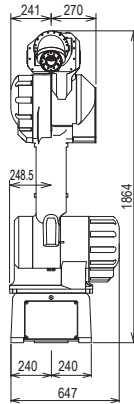
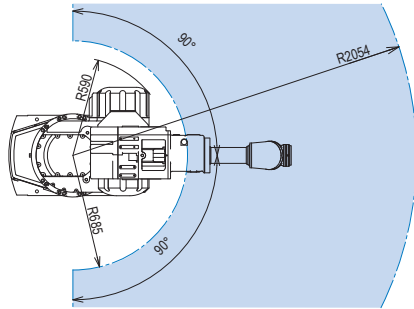
Applications

Coating

Dispensing

- High-speed, versatile six-axis EPX2050 robot is ideal for automotive parts and other industrial coating applications.
 - Offers superior performance and creates smooth, consistent finish with outstanding efficiency for painting and dispensing applications.
 - Hollow wrist design with inside wrist diameter of 50 mm; well-suited for mounting spray equipment applicators.
 - Ideal for painting contoured parts; interference between the hose and parts/fixtures is avoided which ensures optimum cycle time and robot reach/access.
 - Factory Mutual (FM) approved for Class 1, Div. 1 use in hazardous environments.
 - Highly flexible, compact design.
- ### NX100-FM Controller
- Compact controller design reduces installation space.
 - Coordinates operation of robot and painting devices, including spray gun.
 - Supports standard networks (such as EtherNet/IP, DeviceNet, ControlNet, Profibus-DP and Interbus-S), enabling connection to paint equipment controllers and production line controllers.
 - Supports gun control instructions such as spray start/stop and painting conditions.
 - All painting position parameters can be filed and saved.
 - Intrinsically safe pendant (optional).

EPX2050 Robot



All dimensions are metric (mm) and for reference only.
Request detailed drawings for all design/engineering requirements.

EPX2050 SPECIFICATIONS

Structure	Vertical jointed-arm type	
Controlled Axes	6	
Payload	15 kg	
Vertical Reach	2,806 mm	
Horizontal Reach	2,054 mm	
Repeatability	±0.5 mm	
Maximum Motion Range	S-Axis (Turning/Sweep) L-Axis (Lower Arm) U-Axis (Upper Arm) (relative angle of lower arm) R-Axis (Wrist Roll) B-Axis (Bend/Pitch/Yaw) T-Axis (Wrist Twist)	±90° (wall mounted: ±27.5°) +100°/-50° +5°/163° ±360° ±360° ±360°
Maximum Speed	2.0 m/s	
Approximate Mass	540 kg	
Brakes	All axes	
Power Consumption	5 kVA	
Allowable Moment	R-Axis B-Axis T-Axis	45.8 N · m 33.8 N · m 10.8 N · m
Allowable Moment of Inertia	R-Axis B-Axis T-Axis	1.45 kg · m ² 0.79 kg · m ² 0.10 kg · m ²
Mounting	Floor, Wall	

INTRINSICALLY SAFE PENDANT SPECIFICATIONS (OPTIONAL)

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

NX100-FM CONTROLLER SPECIFICATIONS (WITH STANDARD PENDANT)

Structure	Free-standing, enclosed type
Dimensions (mm)	800 (w) x 1200 (h) x 600 (d)
Approximate Mass	120 kg
Cooling System	Indirect cooling
Ambient Temperature	During operation: 0° C to 40° C During transit and storage: -10° C to +45° C
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 NPN-Standard PNP-Optional 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
Concurrent I/O Ladder	10,000 instructions
Fieldbus Options	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
Pendant Dim. (mm)	169 (w) x 314.5 (h) x 50 (d)
Pendant Playback Buttons	Teach, Play, Remote, Servo On, Start, Hold, Emergency Stop, Edit Lock (Play Mode enabled on controller)

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