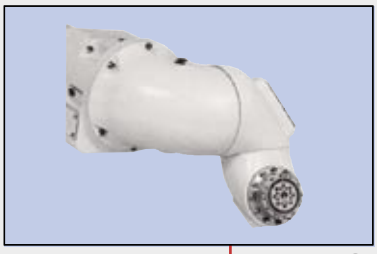
MOTOMAN
a YASKAWA company

PAINTING OF 3-D SURFACE

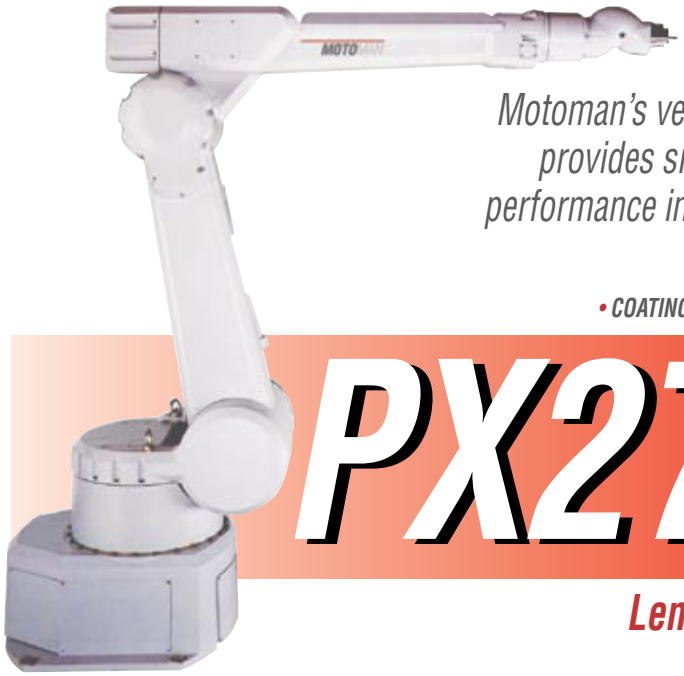


LEMMA WRIST

MOTOSIM® OFF-LINE PROGRAMMING

FEATURES & OPTIONS

- 2,729 mm reach
- ±0.5 mm (±0.02") repeatability
- Lemma wrist design
- FM rating: Class 1, Div. 1 (explosion-proof)
- Advanced application-specific paint software
- MotoSim® simulation software (optional)
- MotoMax® III warranty (standard)



Motoman's versatile PX2750 robot provides smooth, consistent performance in coating applications.

• COATING • DISPENSING •

PX2750

Lemma wrist

Versatile Paint Robot

The high-speed PX2750 robot is available with the Lemma style wrist, providing versatility and superior performance in standard industrial and automotive painting applications. The Lemma wrist is well-suited for painting horizontal and vertical planes.

The PX2750 robot is Factory Mutual (FM) approved for Class 1, Div. 1 use in hazardous environments. It features a 10 kg (22.1-lb) payload capacity, a 2,729 mm (107.4") reach, and a ±0.5 mm (±0.02") repeatability. The PX2750 is available in a floor mounted configuration.

Optional devices such as 24-color CCU, FGP, washing unit valve and master valve can be mounted on the upper arm resulting in reduced tact time and wasted paint.

Advanced XRC 2001-FM Controller

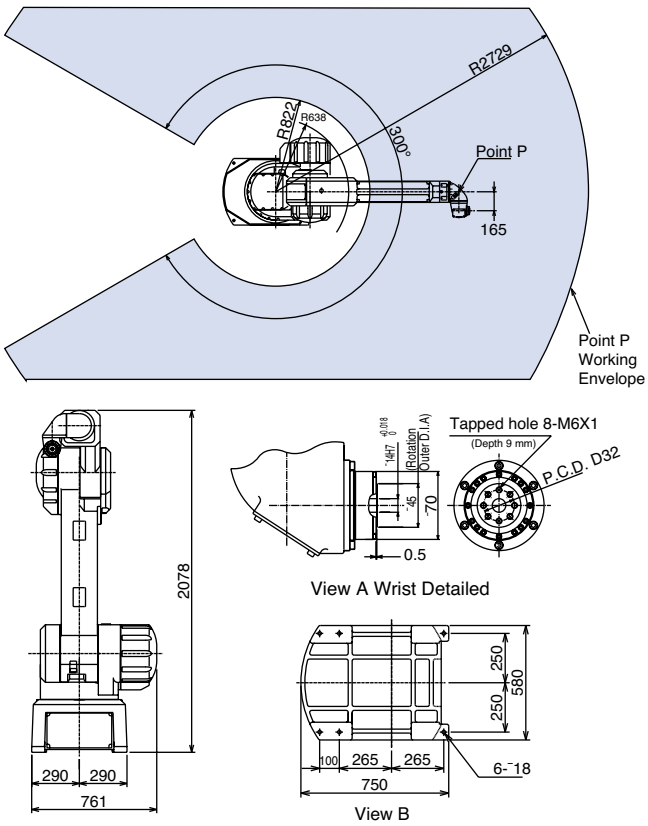
The advanced XRC 2001-FM controller features fast processing, easy-to-use INFORM II programming, and includes application-specific software for coating.

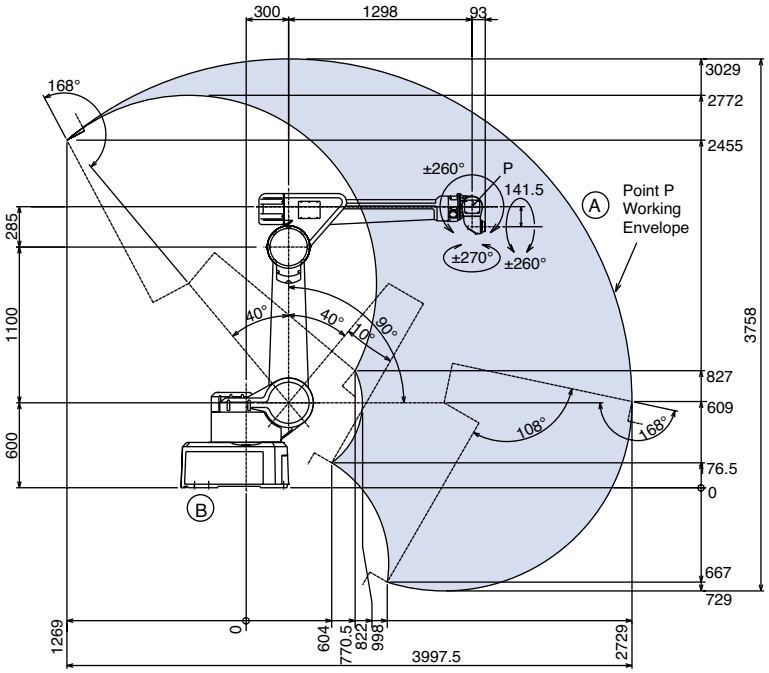
Two types of programming pendants are available — the standard model for use in non-explosive painting applications and as an option, an intrinsically-safe version for use in hazardous conditions.

The XRC 2001-FM coordinates operation of robot and painting devices, including the gun. It supports gun control instructions such as spray start/stop and painting conditions. All painting position parameters can be filed and saved.

The XRC 2001-FM supports standard networks (such as DeviceNet, ControlNet, Profibus-DP, and Interbus-S), enabling connection to paint machine controllers and line controllers.

PX2750 Robot





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

PX2750 SPECIFICATIONS

Structure		Vertical jointed-arm type
Controlled Axes		6
Payload		10 kg (22.1 lbs.)
Vertical Reach		3,758 mm (148")
Horizontal Reach		2,729 mm (107.4")
Repeatability		±0.5 mm (0.02")
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)	±150° +90°/-40° 10 - 168° ±260° ±270° ±260°
Maximum Speed		2.0m/s
Approximate Mass		560 kg (1,235 lbs)
Brakes		All axes
Power Consumption		5 kVA
Allowable Moment	R-Axis B-Axis T-Axis	30.4 N • m 19.6 N • m 9.8 N • m
Allowable Moment of Inertia	R-Axis B-Axis T-Axis	0.97 kg • m^2 0.40 kg • m^2 0.10 kg • m^2
Mounting		Floor

XRC 2001-FM CONTROLLER SPECIFICATIONS

Structure	Free-standing, enclosed type
Dimensions (mm)	800 (w) x 1,300 (h) x 600 (d) (31.5" x 51.2" x 23.6") (Scavenging unit (175 mm width) and protuding portion not included)
Approximate Mass	100 kg (220.5 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) 0° C (32° F) to 40° C (113° F) for programing pendant
Relative Humidity	90% max. non-condensing (85% or less for pendant)
Primary Power Requirements	3-phase, 200/220 VAC (+10% to -15%) at 50/60 Hz
Grounding	Grounding resistance: ≤100 ohms Separate ground required ≤10 ohms for intrinsically-safe pendant
Digital I/O	Specialized signals (hardware): 11 inputs/2 outputs General signals (standard max): 40 inputs/40 outputs Expandable to 256 inputs/256 outputs
Position Feedback	By absolute encoder
Drive Units	Servo packs for AC servomotors
Accel/Decel	Software servo control
Program Memory	5,000 steps and 3,000 instructions
Pendant Dim. (mm)	200 (w) x 325 (h) x 77 (d) (7.9" x 12.8" x 3.0")
Pendant Buttons Provided	Teach Play, Remote, Servo On, Start, Hold, Emergency Stop, Edit Lock
Safety	Emergency Stop Pushbuttons, 3-position Deadman, Brake Release Switches Meets ANSI/RIA R15.06-1999 standard Factory Mutual approved, Class 1, Div. 1
Scavenging Control	Equipped with scavenging control unit for internal pressure explosion-proof manipulators

MOTOMAN
a YASKAWA company

MOTOMAN CORPORATE HEADQUARTERS
805 LIBERTY LANE, WEST CARROLLTON, OHIO 45449
TEL: 937.847.6200 • FAX: 937.847.6277
WEB SITE: www.motoman.com