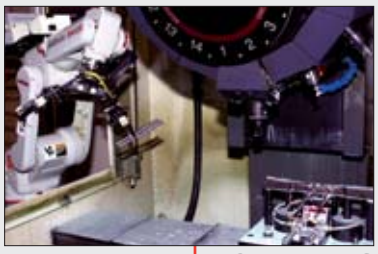
MOTOMAN
a YASKAWA company


ARC WELDING


MACHINE LOADING


MACHINE TENDING

Motoman's compact, general-purpose SV3X robot provides a high-value solution for your automation needs

ARC WELDING • ASSEMBLY • HANDLING
MACHINE TENDING • PACKAGING

SV3X

Payload: 3 kg

FEATURES & OPTIONS

- Full 6-axis capability provides high flexibility
- Floor-, wall-, and ceiling-mounting options
- Advanced Sigma (Σ) motors provide powerful, slim design
- ±0.03 mm (±0.001") repeatability
- Application-specific software
- Advanced Robot Motion control
- Minimal capital investment
- MotoMax® III warranty (standard)

Compact, Powerful, and Economical

The Motoman SV3X is a compact, high-speed robot that requires minimal installation space. Due to its small footprint, it can easily be mounted on a table, track, or other mounting platform.

The SV3X offers superior performance in small part applications such as assembly, packaging, material handling, machine tending, and arc welding.

The SV3X features a 677 mm (26.7") reach and offers the widest work envelope in its class. The SV3X yields extraordinary production results while requiring minimal capital investment.

Advanced XRC 2001 Controller

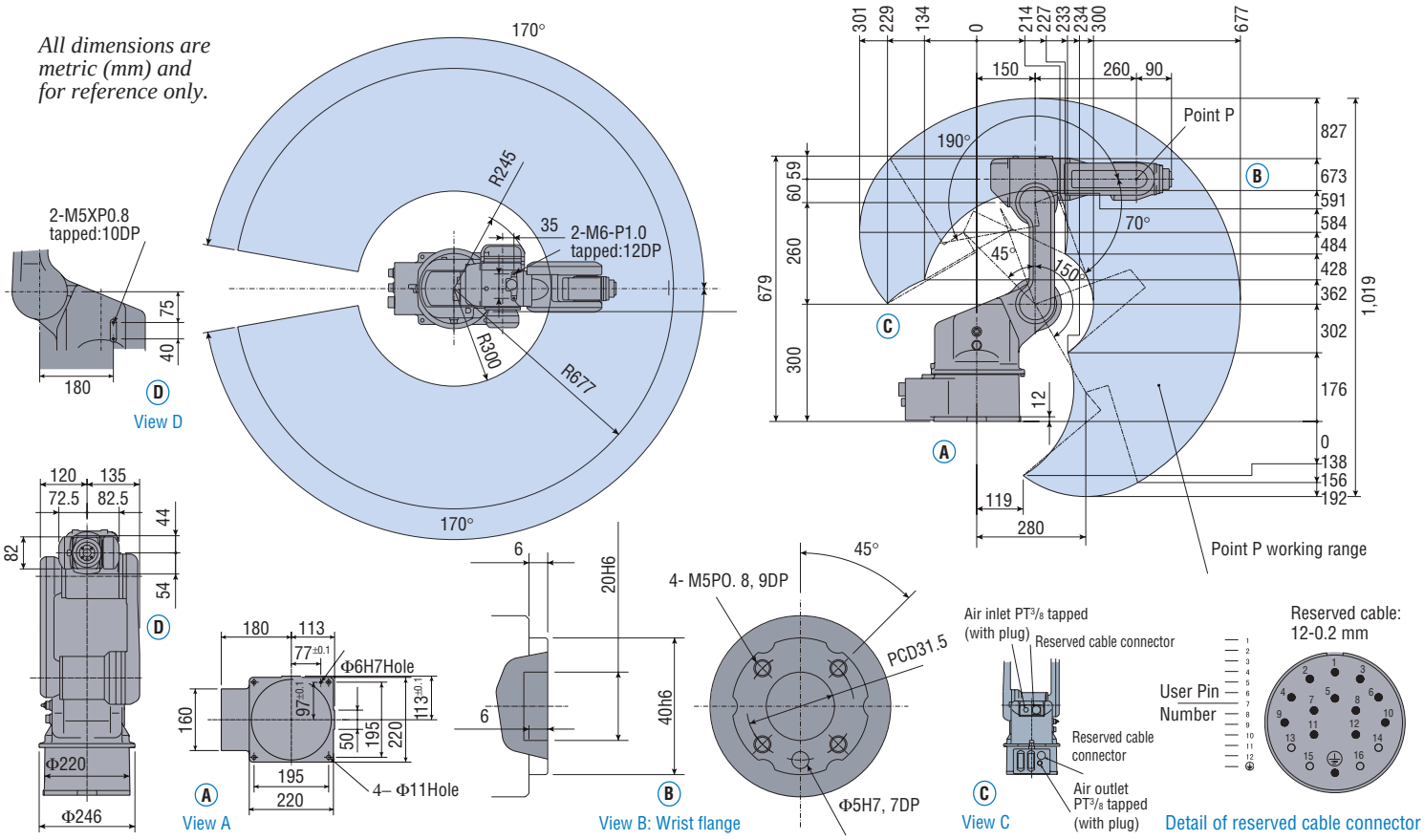
The XRC 2001 controller features an award-winning programming pendant design, fast processing, and easy-to-use INFORM II programming language. Up to four robots (or 36 axes) can be controlled at one time. Advanced Robot Motion (ARM) control provides high-performance path accuracy and vibration control.

Dynamic acceleration is based on payload, so cycle time is reduced. Programmable acceleration and deceleration eliminates approach points and results in reduced teaching time.

XRC 2001 offers optional DeviceNet, ControlNet, Profibus-DP, and Interbus-S for easy connection with a network infrastructure.

SV3X Robot

All dimensions are metric (mm) and for reference only.



SV3X SPECIFICATIONS

Structure		Vertical jointed-arm type
Controlled Axes		6
Payload		3 kg (6.6 lbs.)
Vertical Reach		1,019 mm (40.1")
Horizontal Reach		677 mm (26.7")
Repeatability		±0.03 mm (±0.001")
Maximum Motion Range	S-Axis (Turning/sweep) L-Axis (Lower Arm) U-Axis (Upper Arm) R-Axis (Wrist Roll) B-Axis (Bend/Pitch/Yaw) T-Axis (Wrist Twist)	±170° +150°/-45° +190°/-70 ±180° ±135° ±350°
Maximum Speed	S-Axis L-Axis U-Axis R-Axis B-Axis T-Axis	210°/s 170°/s 225°/s 300°/s 300°/s 420°/s
Approximate Mass		30 kg (66.2 lbs.)
Brakes		All axes
Power Consumption		1 kVA
Allowable Moment	R-Axis B-Axis T-Axis	5.39 N • m 5.39 N • m 2.94 N • m
Allowable Moment of Inertia	R-Axis B-Axis T-Axis	0.1 kg • m² 0.1 kg • m² 0.03 kg • m²

XRC 2001 CONTROLLER SPECIFICATIONS

Structure	Free-standing, enclosed type
Dimensions (mm)	750 (w) x 860 (h) x 550 (d) (29.5" x 33.9" x 21.7")
Approximate Mass	70 kg (154.4 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, 200/220 VAC (+10% to -15%) at 50/60 Hz
Grounding	Grounding resistance: ≤100 ohms Separate ground required
Digital I/O	Specialized signals (hardware): 12 inputs/3 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

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