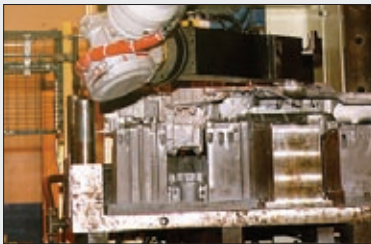


MOTOMAN
a YASKAWA company



MATERIAL HANDLING



DIECAST HANDLING



"JIGLESS" FIXTURING

FEATURES & OPTIONS

- Full 6-axis capability provides high flexibility
- Ideal for heavy part handling and "jigless" processing
- IP67 wrist rating
- Outstanding reliability – 62,000 hours MTBF
- ± 0.5 mm (± 0.02 ") repeatability
- MotoMax® III warranty (standard)
- Simulation software (optional)



Motoman's HP500 robot provides a powerful, heavy-payload solution for your automation needs

MATERIAL HANDLING • DIECAST HANDLING • MACHINE TENDING

HP500

Payload: 500 kg

Powerful, Flexible, and Reliable

The heavy payload, high-performance HP500 robot is a powerful addition to Motoman's extensive product line. Its hefty 500-kg (1,102.3-lb.) payload and 2,542-mm (8.34-ft.) reach provide versatility with extremely heavy loads.

The HP500 features parallel-link construction for strength, rigidity, and stabilization of high moment/inertia loads. Heavy-duty bearings provide smooth arm rotation.

Motoman's patented multiple robot control allows the HP500 robot to position large parts for processing by other robots. This "jigless" processing is the ultimate form of flexible automation.

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 offers up to 100 user passwords available in four security levels: user, editor, maintenance, and supervisor. The password restricts and logs the changes made to production programs.

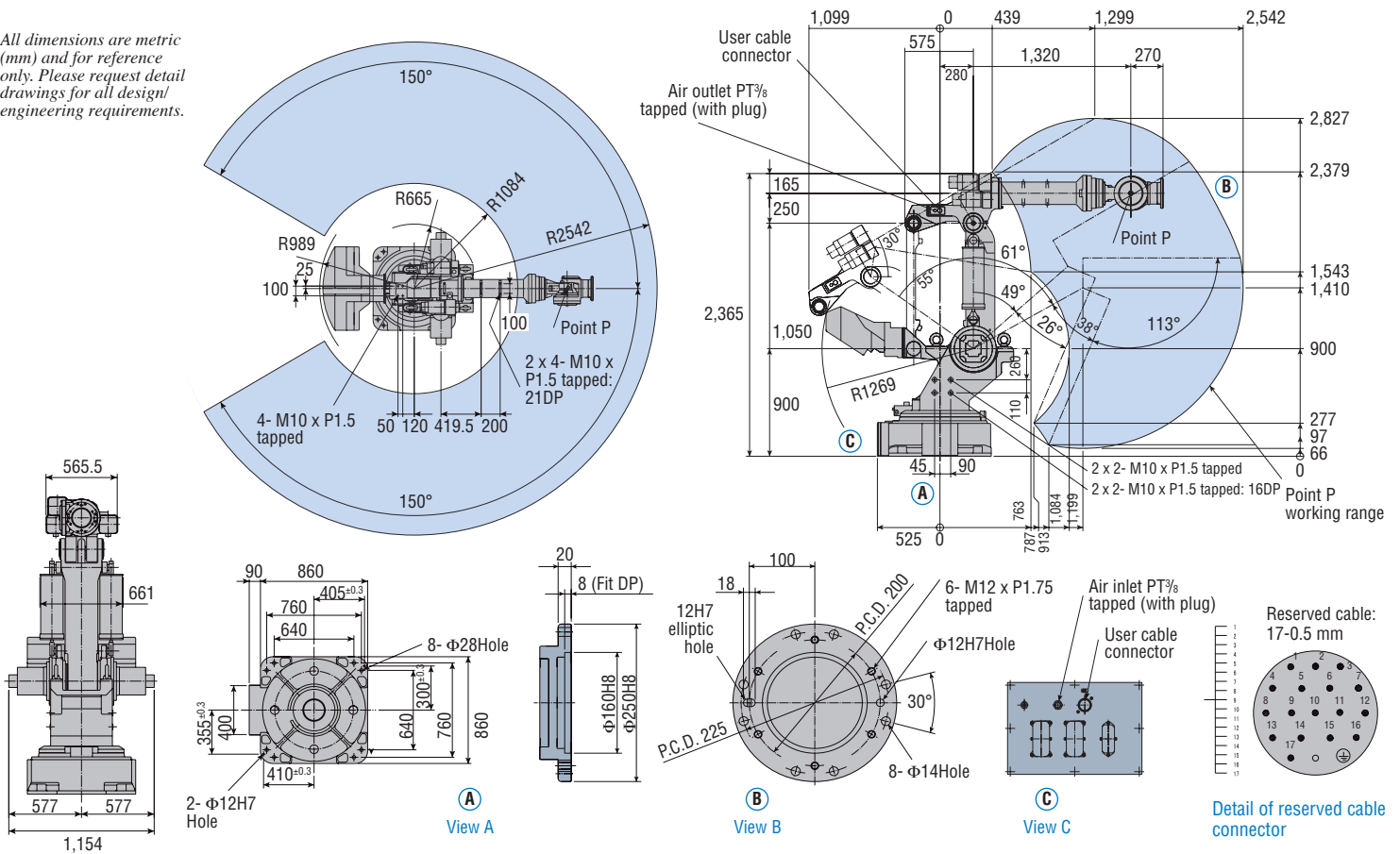
The programming pendant features a color touch-screen display that can be configured as a custom HMI with buttons and status indicators.

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.

HP500 Robot

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



HP500 SPECIFICATIONS		
Structure	Vertical jointed-arm type	
Controlled Axes	6	
Payload	500 kg (1,102.3 lbs.)	
Vertical Reach	2,761 mm (108.7")	
Horizontal Reach	2,542 mm (100.1")	
Repeatability	±0.5 mm (0.02")	
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)	±150° -55°/+61° -113°/+30° ±360° ±125° ±360°
Maximum Speed	S-Axis L-Axis U-Axis R-Axis B-Axis T-Axis	80°/s 80°/s 80°/s 100°/s 100°/s 160°/s
Approximate Mass	2,350 kg (5,181.8 lbs.)	
Brakes	All axes	
Power Consumption	10 KVA	
Allowable Moment	R-Axis B-Axis T-Axis	1,960 N • m 1,960 N • m 823 N • m
Allowable Moment of Inertia	R-Axis B-Axis T-Axis	150 kg • m ² 150 kg • m ² 90 kg • m ²
Ambient Condition	Temperature Humidity Vibration	0° to 45°C 20 to 80% non condensing Less than 4.9 m/s ² (0.5G)

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	250 kg (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 signals: 40 inputs/40 outputs consisting of 16 system inputs/16 system outputs, 24 user inputs/24 user outputs Maximum signals: 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 and 10,000 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	10,000 lines
Multi Tasking	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	Emergency Stop Pushbuttons, 3-position Enable Switch, Brake Release Switches Meets ANSI/RIA R15.06-1999 and Canadian safety standards

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