

MS80W II MS100 II

SPOT WELDING

KEY BENEFITS

Reduced life cycle cost and increased cable life with proven integrated power and utility cable harness

Designed to take advantage of lighter weight Mid-Frequency Direct Current (MFDC) spot guns

Slim profile for high density spacing and reduced SpotWorld workcell footprint

SPECIFICATIONS

MS80W II payload:
80 kg with spot harness
88 kg without spot harness

MS100 II payload:
100 kg with spot harness
110 kg without spot harness

2,236 mm horizontal reach
3,751 mm vertical reach
±0.07 mm repeatability
Floor mounted

CONTROLLERS



DX200



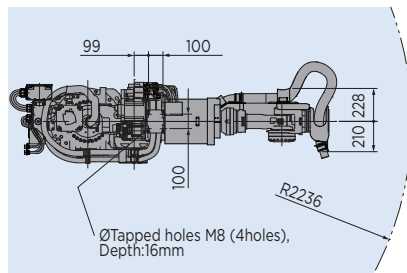
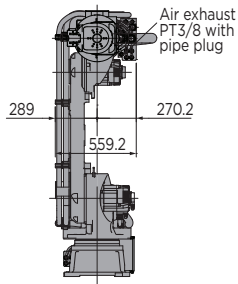
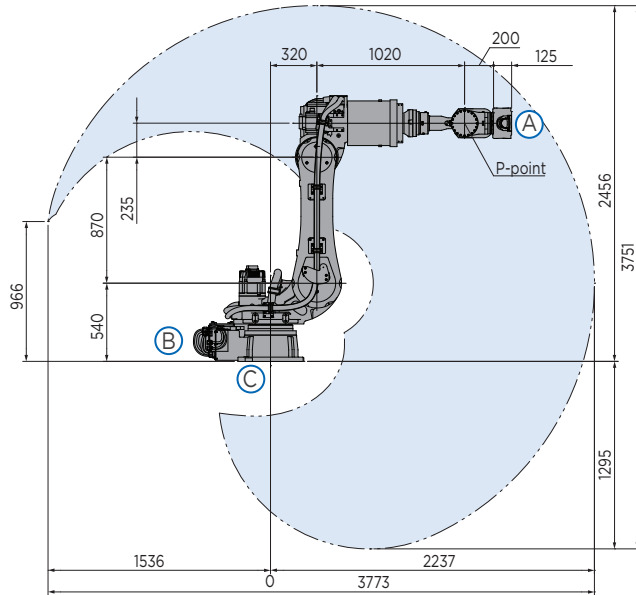
FS100



MLX200

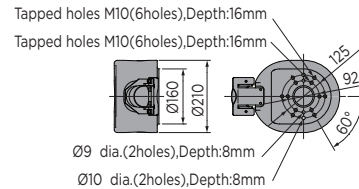
- High-speed, light weight robots have reduced profile versus traditional high payload spot robots. They provide higher robot density and easily integrate into SpotWorlds®.
- Expanded wrist motion range eliminates interference and improves application flexibility.
- Up to 70% less power consumption during motion and 25% savings during idle periods compared to previous models.
- Up to 30% faster than traditional size spot welding robots.
- Servo gun cables and air and water lines are routed through robot base and upper arm to increase cable life, enhance safety and reduce teaching time.
- Digital interface provides simple wiring to spot timers and allows weld programming from the robot pendant for Medar® and Nadex® brand timers.
- Numerous spot welding functions to take advantage of servo gun control including:
 - Work thickness detection
 - Multi-step pressure file
 - Tip wear compensation
 - Work search function
 - Gun arm bending compensation
 - High-speed gun optimization software
 - Servo tip dresser
- Spot harness connections
 - Connections from base to upper arm
 - DeviceNet signal and power
 - Connections from base to wrist (gun)
 - Servo motor and encoder
 - Air hose (2) 6.5 mm ID, (1) 8 mm ID
 - Water hose (4) 8 mm ID
 - Weld power (2) 22 mm², (1) 14 mm²
 - Transformer thermostat (3) 0.75 mm²
 - User I/O (9) twisted pair + (1) 0.3 mm²

MS80W II | MS100 II ROBOTS

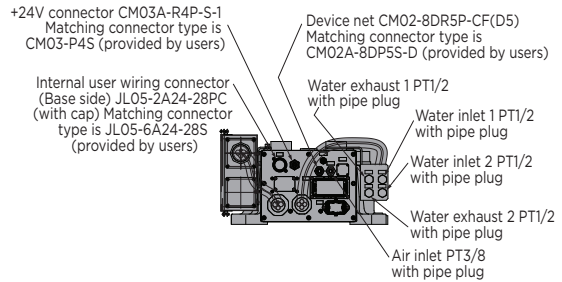


MS100 II robot shown
 All dimensions are metric (mm) and for reference only.
 Request detailed drawings for all design/engineering requirements.

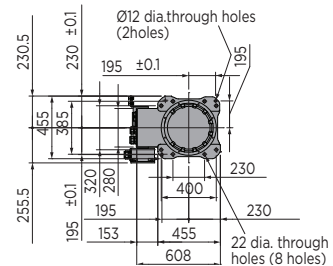
VIEW A



VIEW B



VIEW C



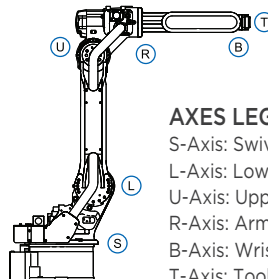
SPECIFICATIONS: MS80W II | MS100 II (WITH EXTERNAL CABLE)

| Axes | Maximum motion range [°] | | Maximum speed [°/sec.] | | Allowable moment [N•m] | | Allowable moment of inertia [kg•m ²] | | | MS80W II | MS100 II |
|------|--------------------------|-----------|------------------------|----------|------------------------|----------|--|----------|-----------------------------|----------|----------|
| | MS80W II | MS100 II | MS80W II | MS100 II | MS80W II | MS100 II | MS80W II | MS100 II | | | |
| S | ±180 | ±180 | 170 | 140 | - | - | - | - | Controlled axes | 6 | 6 |
| L | +155/-90 | +155/-90 | 140 | 110 | - | - | - | - | Maximum payload [kg] | 80 | 100 |
| U | +160/-185 | +160/-185 | 160 | 130 | - | - | - | - | Repeatability [mm] | ±0.07 | ±0.07 |
| R | ±205* | ±205* | 230 | 175 | 389 | 696 | 28 | 58 | Horizontal reach [mm] | 2,236 | 2,236 |
| B | ±120* | ±120* | 230 | 175 | 389 | 696 | 28 | 58 | Vertical reach [mm] | 3,751 | 3,751 |
| T | ±180* | ±180* | 350 | 255 | 201 | 294 | 10.3 | 33 | Temperature [°C] | 0 to +45 | 0 to +45 |
| | | | | | | | | | Humidity [%] | 20 - 80 | 20 - 80 |
| | | | | | | | | | Weight [kg] | 558 | 655 |
| | | | | | | | | | Power supply, average [kVA] | 4 | 5 |

* Motion range limited by spot harness

OPTIONS

- Extended length manipulator cables
- Robot risers and base plates
- External axis kits for servo guns
- Wide variety of fieldbus cards
- Vision systems
- Digital interface (Dnet or EIP) for Medar
- MedWeld 6000 spot timer



AXES LEGEND

- S-Axis: Swivel Base
- L-Axis: Lower Arm
- U-Axis: Upper Arm
- R-Axis: Arm Roll
- B-Axis: Wrist Bend
- T-Axis: Tool Flange

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