

HIGH-SPEED, THRU-ARM DESIGN



### **KEY BENEFITS**

- NEW! Extended 2,010 mm reach
- NEW! 10 kg payload for welding applications
- NEW! Large 50 mm thru-hole for process utilities
- NEW! Contoured arm design improves torch access
- Proven torch cable reliability; backed by industry's first two-year torch cable warranty

## SPECIFICATIONS

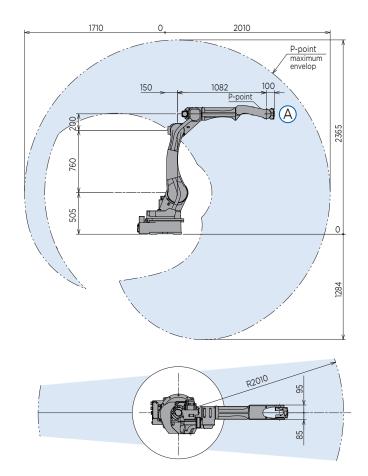
10 kg payload 2,010 mm horizontal reach 3,649 mm vertical reach ±0.08 mm repeatability Floor mounted

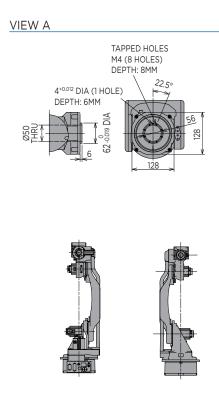
# CONTROLLERS

- Slim, extended reach six-axis MA2010 welding robot increases productivity and achieves highest welding performance.
- Large, 50 mm thru-hole for torch cabling, sensor wires and water cooling. Eliminates cable interference, simplifies programming and reduces cable wear.
- 10 kg payload supports motorized torches and sensors.
- Hollow upper arm maintains optimum bend radius of welding torch cable, maximizing weld performance. T-axis can rotate torch ±210 degrees without cable interference.
- New, contoured arm design reduces interference with jigs and large parts.

- Optimized mounting area for feeder reduces interference.
- Symmetric wrist profile provides equal torch access to both sides of part.
- Ideally suited for use in high-density workcells with multiple robots working in close proximity.
- Extended reach is ideal for agriculture/construction machinery or automotive frames.
- Slim arm allows easy access to parts in tight spots and avoids potential interference with fixtures.
- Also available with increased 24 kg payload capacity in slightly shorter (1,730 mm) MH24 configuration for material handling.

## MA2010 ROBOT





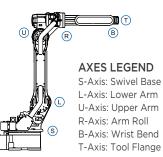
All dimensions are metric (mm) and for reference only. Request detailed drawings for all design/engineering requirements.

### SPECIFICATIONS

Axes	Maximum motion range [°]	Maximum speed [°/sec.]	Allowable moment [N•m]	Allowable moment of inertia [kg•m²]	Controlled axes Maximum payload [kg] Repeatability [mm]	6 10 ±0.08
S	±180	197	-	-	Horizontal reach [mm]	±0.08 2,010
L	+155/-105	190	-	-	Vertical reach [mm]	3,649
U	+220/-170	210	-	-	Temperature [°C] Humidity [%]	0 to +45 20 - 80
R	±150	410	22	0.65	Weight [kg]	280
В	+90/-135	410	22	0.65	Power rating [kVA] Internal I/O cable (feeder control)	2.0 14 conductors
Т	±210	610	9.8	0.17	Internal gas line	(2) 3/8" connection

## OPTIONS

Extended length manipulator cables Robot risers and base plates Wide variety of fieldbus cards Vision systems Seam tracking and seam finding packages Variety of weld packages



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