

AR2010

HIGH-SPEED, THRU-ARM DESIGN

KEY BENEFITS

Increased payload, axis speeds and wrist inertia improve throughput and quality

Streamlined arm design reduces interference

Expanded wrist range improves application flexibility

Single robot-to-controller cable connection enables fast setup

SPECIFICATIONS

12 kg payload

2,010 mm horizontal reach

3,649 mm vertical reach

0.03 mm repeatability

APPLICATION

Arc Welding

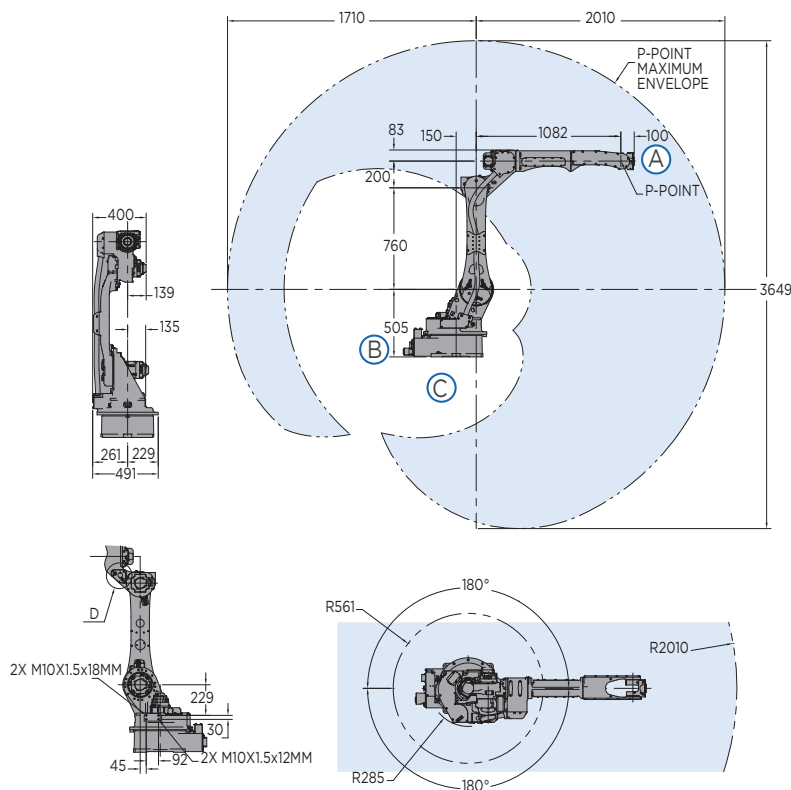
CONTROLLER

YRC1000

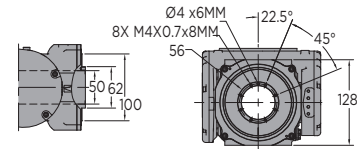


- Extended reach six-axis AR2010 welding robot achieves unrivaled welding performance.
- Ideal for agriculture/construction machinery or automotive frames.
- 12 kg payload supports a wide variety of motorized torches and sensors.
- Slim profile design allows close proximity placement of robots for high-density workcells.
- Contoured arm allows easy access to parts in tight spots and avoids potential interference with fixtures.
- Symmetric wrist profile, with ample range, provides equal torch access to both sides of part.
- High allowable moment and inertia ratings provide wrist rigidity and consistent weld quality.
- 50 mm thru-hole for torch cabling, hoses and sensor wires reduces cable interference and wear.
- Minimal protrusion from the U-axis and internal S-axis routing prolong cable life and maximize part access.
- Optimized feeder mounting area on arm reduces equipment interference.
- Modular robot harness design for improved diagnostics and maintenance.
- Single pendant provides control of up to eight robots and multiple positioners.
- Precise coordinated motion with other Yaskawa robots and servo positioners.
- Variety of advanced, exclusive programming functions maximize weld quality and speed.
- Floor-mounted model is standard. Wall-, tilt- or ceiling-mounted versions are available.
- Compact YRC controller utilizes the lightweight standard teach pendant with intuitive programming.

AR2010 ROBOT

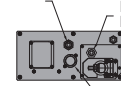


VIEW A



VIEW B

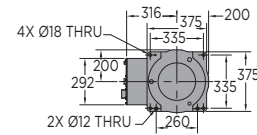
INTERNAL USER AIR LINES 3/8" PIPE CONNECTION WITH PLUG (A)



INTERNAL USER AIR LINES 3/8" PIPE CONNECTION WITH PLUG (B)

INTERNAL USER WIRING CONNECTOR (BASE SIDE) TYPE JL05-2A20-29PC (WITH CAP) MATCHING CONNECTOR IS NOT SUPPLIED BUT COMPLETE CABLES ARE AVAILABLE AS AN OPTION.

VIEW C



VIEW D

INTERNAL USER WIRING CONNECTOR (WITH CAP) TYPE JL05-2A20-29SC MATCHING CONNECTOR IS NOT SUPPLIED BUT COMPLETE CABLES ARE AVAILABLE AS AN OPTION.



INTERNAL USER AIR LINES 3/8" PIPE CONNECTION WITH PLUG (B)

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

SPECIFICATIONS

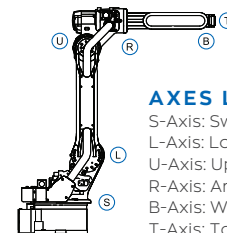
Axes	Maximum motion range	Maximum speed	Allowable moment	Allowable moment of inertia
	degrees	°/sec	N·m	kg·m ²
S	±180	210	-	-
L	+155/-105	210	-	-
U	+160/-86	220	-	-
R	±150	435	22	0.65
B	+90/-135	435	22	0.65
T	±210	700	9.8	0.17

Mounting Options: Floor, Wall, Tilt or Ceiling

Item	Unit	AR2010
Controlled axes		6
Maximum payload	kg	12
Repeatability	mm	0.03
Horizontal reach	mm	2,010
Vertical reach	mm	3,649
Weight	kg	260
Internal user I/O cable		17 conductors w/ ground
Internal user air line		(1) 3/8" connection
Power requirements		380-480 VAC
Power rating	kVA	2

OPTIONS

- Extended length manipulator cables
- Robot risers
- Wide variety of fieldbus cards
- Vision systems
- Variety of weld packages
- Seam tracking and seam finding packages
- Functional Safety Unit (FSU)
- External axes
- MotoSim® offline programming



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

YASKAWA

YASKAWA AMERICA, INC. 100 Automation Way | Miamisburg, OH 45342

937.847.6200 | motoman.com

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