

AR700

POWERFUL AND COMPACT, HIGH-SPEED DESIGN

KEY BENEFITS

Streamlined arm design is easy to maintain and easy to program

Highest payload, widest work envelope and fastest axis speeds in class

Increased reach and wrist inertia improve throughput and quality

Single robot-to-controller cable connection enables fast setup

SPECIFICATIONS

8 kg payload

727 mm horizontal reach

1,312 mm vertical reach

0.01 mm repeatability

APPLICATION

Arc Welding

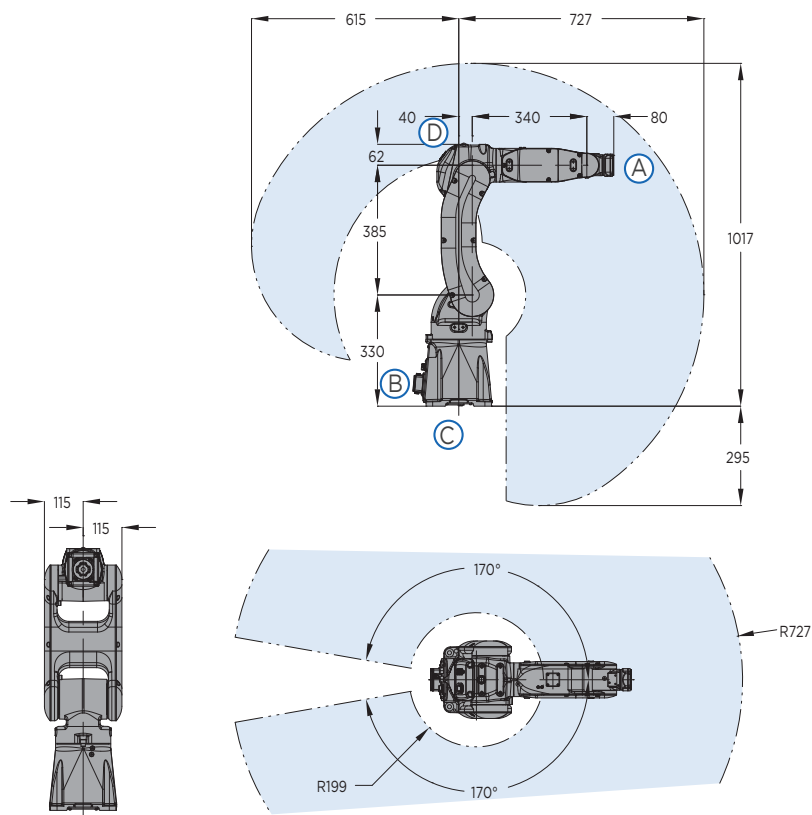
CONTROLLER

YRC1000

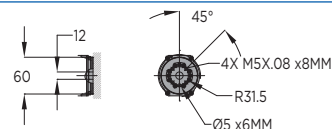


- Slim, fast, six-axis AR700 welding robot achieves unrivaled welding performance and productivity.
- Optimized acceleration / deceleration control for all robot positions for faster cycle times.
- 8 kg payload supports a wide variety of sensors and torches.
- Slim profile design allows close proximity placement of robots for high-density workcells.
- High allowable moment and inertia ratings provide substantial wrist rigidity and consistent weld quality.
- Slim wrist and base axis radius for reduced turning interference and efficient use of space.
- Over arm torch setup is ideal for welding small parts with complicated angles and in tight places.
- Internal airlines and I/O harness enhance cable reliability for accessories.
- 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.
- Optional location (bottom) for manipulator cable connection reduces interference with walls.
- Easy-to-clean surface for use in harsh environments.
- 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.

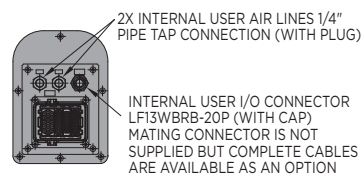
AR700 ROBOT



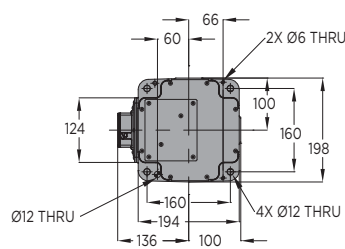
VIEW A



VIEW B



VIEW C



VIEW D



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

SPECIFICATIONS

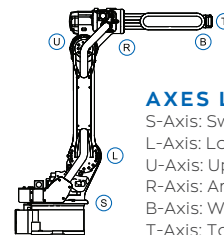
Axes	Maximum motion range	Maximum speed	Allowable moment	Allowable moment of inertia
	degrees	°/sec	N·m	kg·m ²
S	±170	455	-	-
L	+145/-65	385	-	-
U	+190/-70	520	-	-
R	±190	550	17	0.5
B	±135	550	17	0.5
T	±360	1,000	10	0.2

Mounting Options: Floor, Wall, Tilt or Ceiling

Item	Unit	AR700
Controlled axes		6
Maximum payload	kg	8
Repeatability	mm	0.01
Horizontal reach	mm	727
Vertical reach	mm	1,312
Weight	kg	32
Internal user I/O cable		17 conductors w/ ground
Internal user air line		(2) 1/4" connections
Power requirements		380-480 VAC
Power rating	kVA	1

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

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