

Shri Ramdeobaba College of Engineering and Management **Center for Invention Innovation incubation & Training RCOEM-TATA-CIIIT.** Nagpur Integrated Advanced Manufacturing Center of Excellence



TATA

TATA TECHNOLOGIES

Arc Welding Robot

Technical Specifications: Make: Yaskawa AR-1440

- Slim, fast, six-axis AR1440 welding robot achieves unrivaled welding performance and productivity.
- 12 kg payload supports a wide variety of motorized torches and sensors.
- Slim profile design allows close proximity placement of robots for high-density work cells.
 - Contoured arm allows easy access to parts in tight spots and avoids potential interference with fixtures.

• 50 mm thru-hole for torchcabling, hoses and sensor wires reduces cable interference and wear. • Minimal U-axis cable protrusion and S-axis internal cable management prolongs cable life

•Extended length manipulator cables

Seam tracking and seam finding packages

•Wide variety of fieldbus cards

Variety of weld packages

• Functional Safety Unit (FSU)

Options

• Robot risers

Vision systems

External axes

	motion range	Maximum speed	Allowable moment	moment of inertia
	degrees	0/sec	N∙m	kg∙m2
s	±170	260	-	-
L		230	-	-
U		260	-	-
R	±150	470	22	0.65
В		470	22	0.65
т	±210	700	9.8	0.17

equal torch access to both sides of part.

wrist rigidity and consistent weld quality.

and maximizes part access

• High allowable moment and inertia ratings provide

Item	Unit	AR1440
Controlled axes		6
Maximum payload	kg	12
Repeatability	mm	0.02
Horizontal reach	mm	1440
Vertical reach	mm	2511
Weight	kg	150
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	1.5

KKEY BENEFITS

- Streamlined arm design reduces interference
- Expanded wrist range improves application flexibility
- Single robot-to-controller cable connection enables fast setup

SPECIFIC ATIONS

- 12 kg payload
- 1,440 mm horizontal reach 2,511 mm vertical reach
- 0.02 mm repeatability **APPLICATION**

Arc Welding **CONTROLLER**



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https://forms.gle/4k7bFiGFeH9vg8WD8

YASKAWA

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

