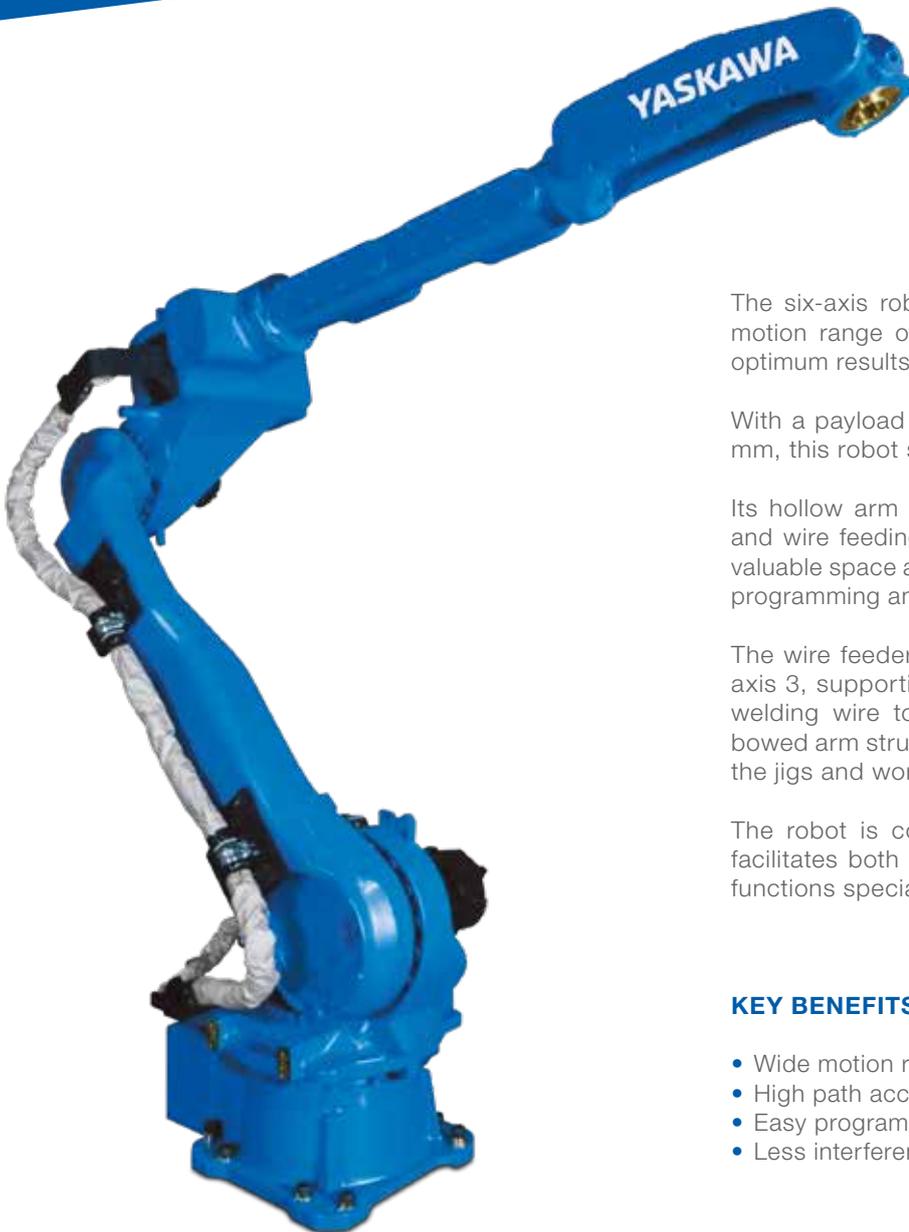


YASKAWA

MOTOMAN AR3120

Arc Welding with the AR-series



The six-axis robot MOTOMAN AR3120 provides the widest motion range of our AR-series and high path accuracy for optimum results of arc welding applications.

With a payload of up to 20 kg and a motion range of 3124 mm, this robot supports welding of bulky workpieces.

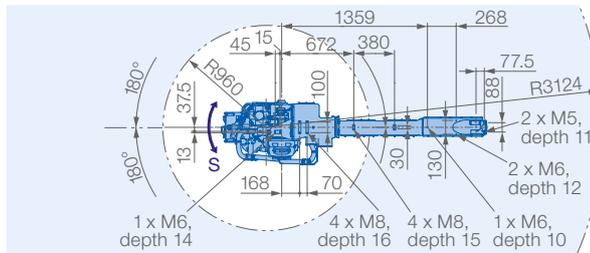
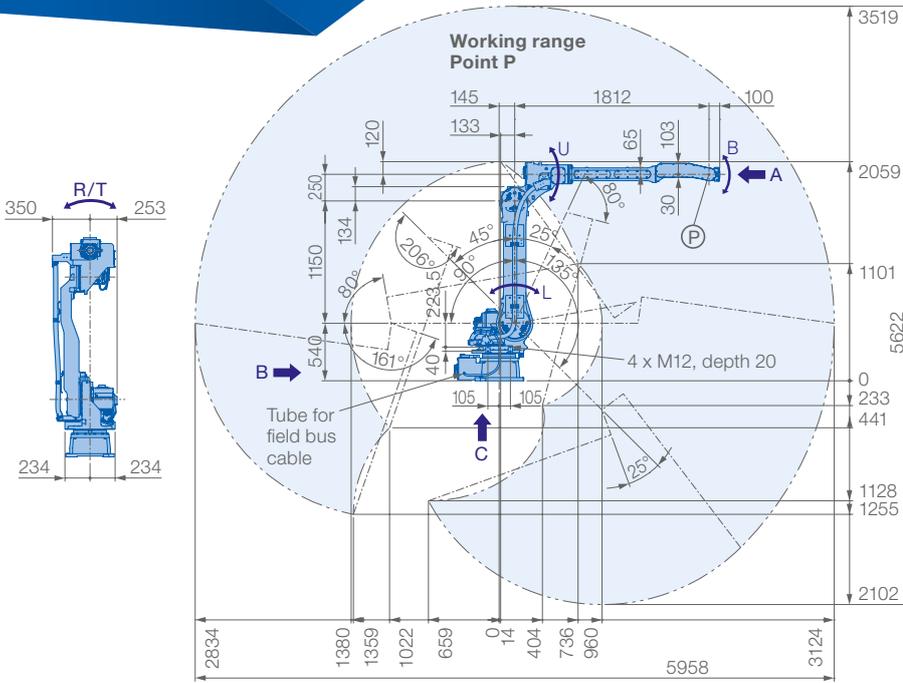
Its hollow arm design enables leading the welding cables and wire feeding through the arm to the wrist, which saves valuable space around it. The MOTOMAN AR3120 allows easy programming and enables high freedom of motion.

The wire feeder can be mounted in the prepared space at axis 3, supporting short distance and centric supply of the welding wire to the weld torch. The streamlined, slightly bowed arm structure reduces the interference area between the jigs and work pieces.

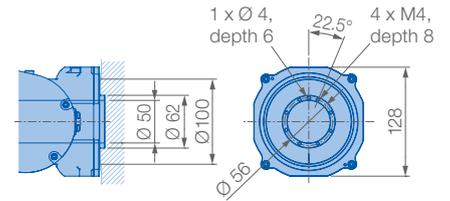
The robot is controlled by the YRC1000 controller which facilitates both programming and use with a wide range of functions specially designed for arc welding applications.

KEY BENEFITS

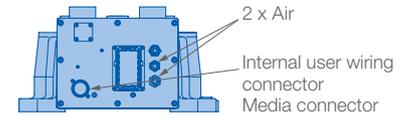
- Wide motion range
- High path accuracy
- Easy programming
- Less interferences due to optimized design



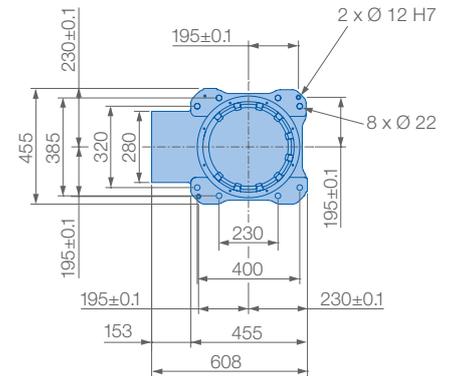
ViewA



ViewB



ViewC



Mounting options: Floor, ceiling, wall, tilt*
 Protection class: Main axes (S, L, U) IP54, wrist IP67

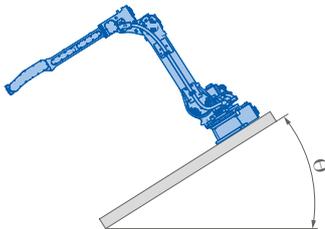
* tilt with condition of angle – see table below

Robot installation angle θ [deg.]	S-axis operating range [deg.]
$0 \leq \theta \leq 30$	± 180 degrees or less (no limit)
$30 < \theta \leq 35$	± 60 degrees or less
$30 < \theta \leq 45$	± 45 degrees or less
$45 < \theta$	± 30 degrees or less

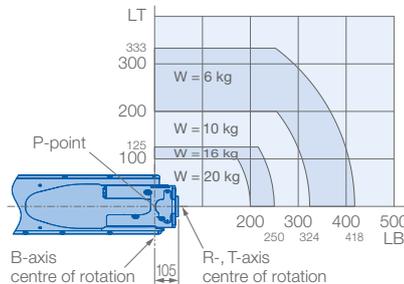


Prevent interaction of the robot with:

- Corrosive gases, liquids or explosive gases
- Exposure to water, oil or dust
- Excessive electrical noise (plasma)



Allowable wrist load



Specifications AR3120					
Axes	Maximum motion range [°]	Maximum speed [°/sec.]	Allowable moment [Nm]	Allowable moment of inertia [kg · m²]	Controlled axes
S	± 180	180	–	–	6
L	+135/–90	180	–	–	Max. payload [kg]
U	+206/–80	180	–	–	Repeatability [mm]
R	± 200	400	39.2	1.05	Max. working range R [mm]
B	± 150	430	39.2	1.05	Temperature [°C]
T	± 455	630	19.6	0.75	Humidity [%]
					Weight [kg]
					Power supply, average [KVA]

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