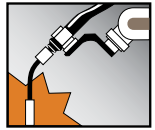




ALMEGA AX SERIES

AX-H3



COMPACT ARC WELDING ROBOT



Robot Features & Benefits

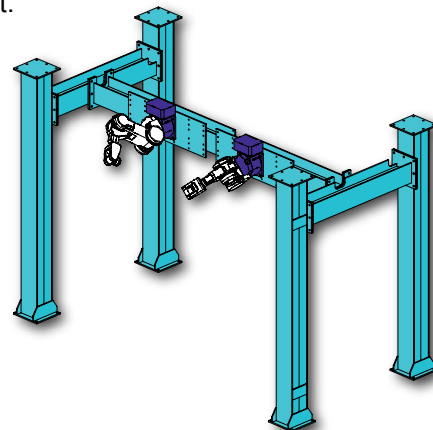
- High-speed motion improves productivity dramatically.
- Easily mounts to walls and ceilings, ideal for automobile manufacturing lines.
- Ideal for welding and cutting in both narrow places as well as large workpieces.
- Compact design reduces required manufacturing floorspace.
- Suitable for all arc welding application, including CO₂, MAG, MIG, TIG, and air plasma cutting.
- Utilizes the AX-C robot controller for fast communication and improved robot movement control.
- Seamless digital interfacing with all OTC DAIHEN D-Series products.

Increase Your Productivity

The compact design of the AX-H3 also allows for more robots to be placed in a single system. Typically, AX-H3 robotic systems range from two- to four-robot configurations. By adding more robots to a system, you can effectively reduce your cycle times and increase productivity.

Easy Robot Mounting

The lightweight design of the AX-H3 also allows it to easily be mounted for ceiling and wall mounted configurations, ideal for reaching positioning equipment.



Two side-mounted AX-H3 robots

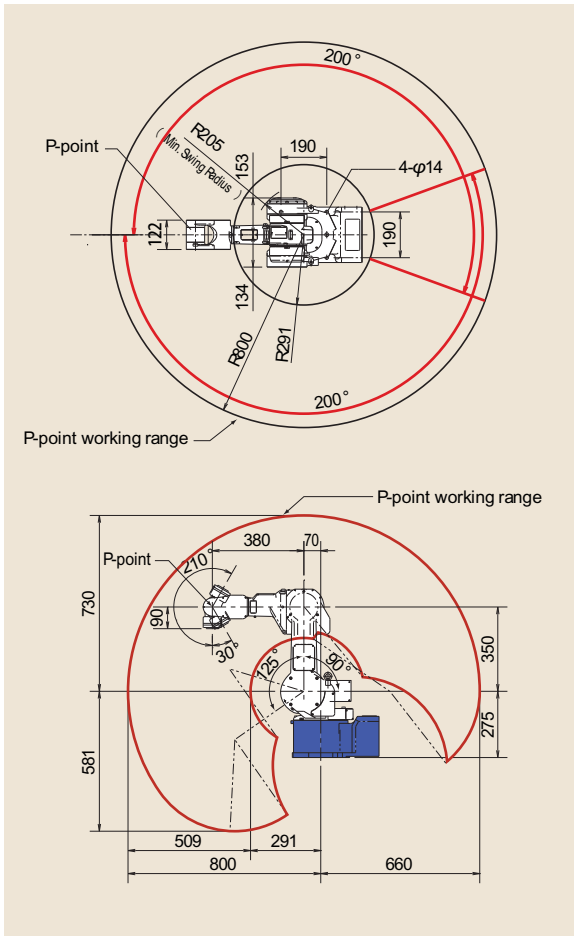
Compact Design Provides Huge Space Savings

Manufacturing floor space is one of the largest considerations any company has to make when designing automated systems. Robots in particular require a large amount of space to accommodate safety measures such as fences and light curtains. The amount of space is determined by the movement range of the robot, and manufacturing areas are often consumed by providing the required safety space.

The AX-H3 arc welding robot is designed to reduce the amount of required space. The smaller, compact design of the AX-H3 provides a smaller working envelope than conventional robots, as well as a smaller required safety area. By reducing the amount of space required, you get more manufacturing space for other systems.

Standard Specifications

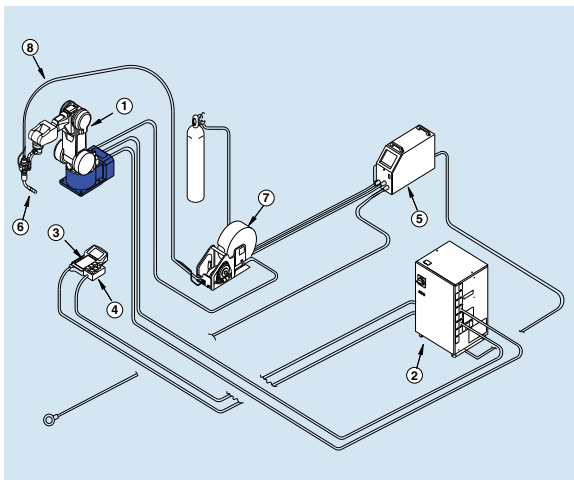
AX-H3 DIMENSIONS AND STANDARD SPECIFICATIONS



Item	Specification		
Name	AX-H3		
Structure	Vertical Articulated Type		
Number of Axes	6		
Max. Payload Capacity	6.6 lbs (3 kg)		
Positional Repeatability	±0.003" (±0.08mm) <small>note 1</small>		
Drive System	AC Servo Motor		
Position Feedback	Absolute Encoder		
Working Range	Arm	J1 (Rotation)	400° (±200°) <small>note 2</small>
		J2 (Lower Arm)	215° (-125° ~ +90°)
		J3 (Upper Arm)	355° (-125° ~ +230°)
	Wrist	J4 (Swing)	360° (±180°)
		J5 (Bending)	240° (-30° ~ +210°)
		J6 (Twist)	720° (±360°)
Max. Speed	Arm	J1 (Rotation)	3.23 rad/s (185°/s) [2.27 rad/s (130°/s)] <small>note 3</small>
		J2 (Lower Arm)	2.79 rad/s (160°/s)
		J3 (Upper Arm)	4.54 rad/s (260°/s)
	Wrist	J4 (Swing)	5.93 rad/s (340°/s)
		J5 (Bending)	5.93 rad/s (340°/s)
		J6 (Twist)	7.33 rad/s (420°/s)
Wrist Load	Allowable Movement	J4 (Swing)	6.76 N·m
		J5 (Bending)	5.44 N·m
		J6 (Twist)	3.92 N·m
	Allowable Moment of Inertia	J4 (Swing)	0.159 kg·m ²
		J5 (Bending)	0.103 kg·m ²
		J6 (Twist)	0.053 kg·m ²
Ambient Temperature	0~40° C		
Ambient Humidity	20~80% RH (No Condensation)		
Mass (Weight)	121 lbs (55 kg)		
Installation Type	Floor, Ceiling or Wall Hanging Type		
Origin Return	Not Necessary <small>Note 4</small>		
Paint Color	Arm: White, Base: Blue		

- Notes**
1. Positional repeatability calculated after operating conditions stabilize from repeated automatic operations.
 2. The value shown in () indicates wall-mounted conditions.
 3. The value shown in [] indicates wall-mounted conditions.
 4. Positional data protected by battery-backed storage inside the manipulator

TYPICAL CONFIGURATION



Item	CO2 / MAG	Pulsed MAG
1 Manipulator	AX-H3	
2 Controller	AX-C	
3 Teach Pendant	AXTPDSON-EC08	
4 Operation Box	AXOP-0005	
5 Welding Power Source	DM350	DP400 / DP500
6 Welding Torch	MTXC-3531 (350A, Air cooled) MTXCW-5031 (500A, Water cooled)	
7 Wire Feeder	AFF-4001	
8 Coaxial Power Cable	L-6625	

For more information on **OTC** brand products from DAIHEN Inc., visit our website at www.daihen-usa.com, or send us e-mail at sales@daihen-usa.com.



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