

ARC Mate® 120iC & 120iC/10L

Basic Description

The ARC Mate 120iC series is a six-axis, modular construction, electric servo-driven family of robots designed for precise, high-speed welding and cutting. Based on its simple and reliable construction, the ARC Mate 120iC and ARC Mate 120iC/10L provide accurate and consistent path performance. The robot controller and easy-to-use ArcTool® software provide reliable performance with high productivity.

The ARC Mate 120iC robot series has a process specific design that protects the weld torch cable from the wire feeder to the torch goose neck, reducing cable wear and minimizing wire feeder issues. This simplified routing prevents cable interference with parts and tooling and allows offline programs to be generated and tested without compensating for the torch cable.

Benefits

- Process specific arm protects and minimizes wear of the torch cable.
- Features highest motion speeds in class for maximum performance and productivity.
- Best in class reach versus stroke ratio.
- Compact base allows for close operation to tooling and other robots.
- The ARC Mate 120iC series offers an extremely large work envelope useful for large parts or complex tooling.
- Extremely fast wrist axes reduces aircut times, thus improving throughput.

Features

- Slim wrist size enables the robot to enter into smaller openings in the work space.
- J3 flip-over capability provides large working envelope that is ideal for inverted applications.



- Designed with integral utilities including gas/air lines and a Lincoln Electric wire feed motor cable routed inside the robot arm. This offers improved reliability, reduced setup time and eliminates external cabling requirements.
- Wire feed motor (up to 12 kg) mounted behind the J4 hollow opening, shortens welding torch length which improves wire feed reliability and arc start capability.
- “Plug and play” simplicity with Lincoln Electric’s Power Wave™ or STT™ (Surface Tension Transfer) power sources.
- Arc welding teach pendant with application-specific hard keys offers intuitive control over the process.
- Compatible with all major brands of welding equipment.
- 370 degree motion range on J1.
- ARC Mate 120iC has 1,811 mm reach and 1,407 mm stroke.
- ARC Mate 120iC/10L has 2,009 mm reach and 1,506 mm stroke.
- 20 kg payload on faceplate for ARC Mate 120iC.
- 10 kg payload on faceplate for ARC Mate 120iC/10L.
- Multiple mounting positions include upright, inverted, wall or angle mount with no changes to the mechanical unit.

Options

- ServoTorch™ provides precise wire feed control for aluminum and soft wire application.
- Integrated weld power cable
- EMI shielding kits for TIG (GTAW), plasma (PAW) and plasma cutting (PAC) allow operation in harsh EMI (electro-magnetic interference) environments.
- Multiple process I/O welding boards integrate multi-channel welding equipment such as 4 channel TIG and 3 channel MIG.
- Various robot connection cable lengths for flexible cabinet placement and optional track rated cables.
- J1 axis stroke modification kit.
- Auxiliary axis packages for integration into welding positioners.
- iRVision® (Integrated Robot Vision) system delivers high-performance 2-D and 3-D machine vision capabilities with FANUC reliability.

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