

# ArcWorld® 2000 Series

## Key Benefits

Pre-engineered arc welding solution

Multiple robot, positioner and welding options can be combined for modular solution flexibility

Opposing workstations take full advantage of robot(s) reach

Robot, positioner and workcell covered by single warranty and industry-leading global service organization

Standard workcell is documented and supported by single source – Yaskawa Motoman

## Application

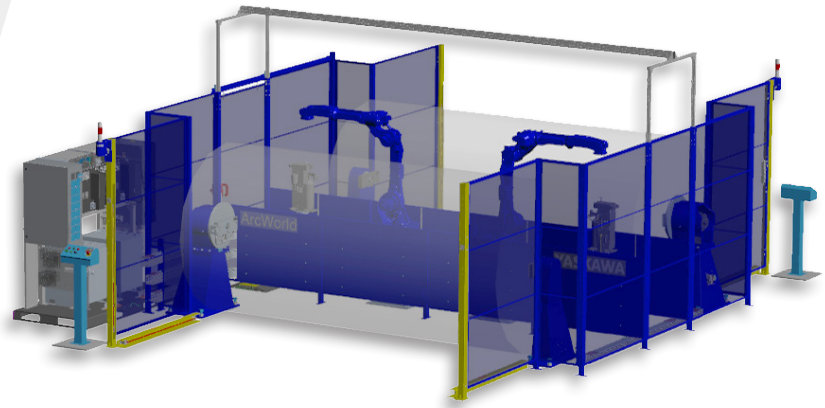
Arc Welding

## Models

ArcWorld 2000  
ArcWorld 2200

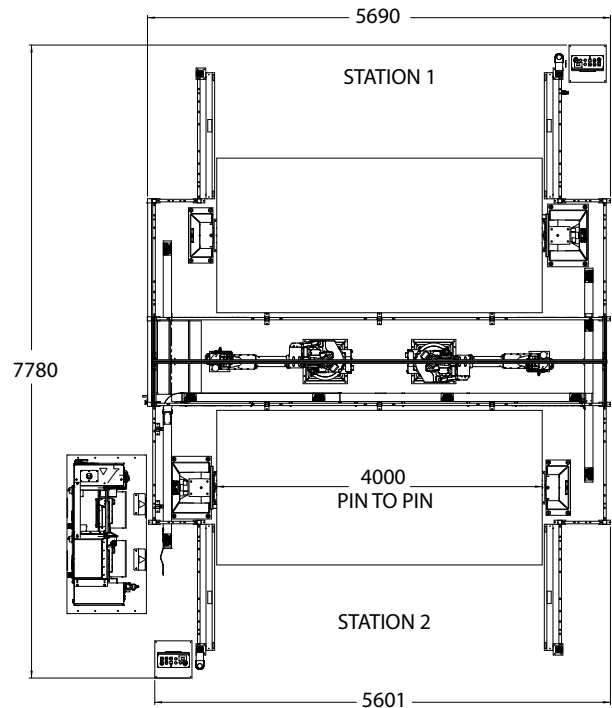
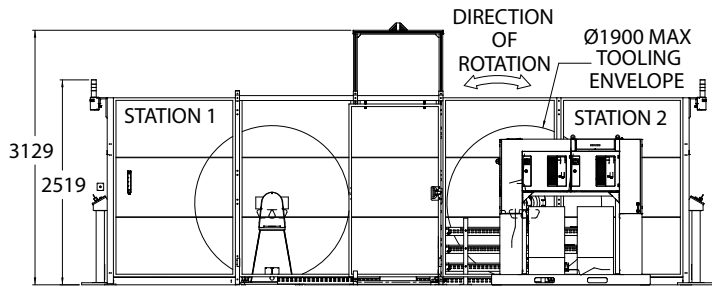
## Controller

YRC1000



- Customizable workcell designed to deliver maximum performance for larger, heavier part production.
- One or two AR2010 Motoman® high-speed arc welding robots for improved throughput and quality.
- Single station configuration allows for reduced floorspace footprint.
- One- or two-station configurations can be designed with a blank station allowing installation of end user supplied fixturing.
- Two-station configuration enables simultaneous welding on one station, while loading/unloading on the opposite station.
- Robot controller and welding power source are mounted on a common base to simplify shipment and installation.
- Built-in wireways provide thorough cable management for added safety, cable protection and cell accessibility for cleaning and maintenance.
- A wide variety of welding power sources and options are available.
- Optional torch cleaners and tip-change stations are installed in a center zone to allow operator access to load stations during robot maintenance functions.
- Functional Safety Unit (FSU) ensures robot operation in areas clear of operator presence.
- Total safety environment complies with ANSI/RIA R15.06-2012 and relevant ISO and CSA safety standards.
- Variety of positioners to support varying part sizes.
- MotoMount™ fixture mounting system simplifies tooling and reduces stress on positioner bearings; positioners can be lagged directly to the floor so precision alignment is not required.
- Tooling spans can be 3 or 4 meters depending on quantity of robots.
- Positioner jogging available at operator station to aid loading and unloading of parts.
- Compact YRC controller utilizes the lightweight standard teach pendant with intuitive programming.

# AW2000 Series



AW2200 shown. All dimensions are metric (mm) and for reference only. Request detailed drawings for all design/engineering requirements.

## SPECIFICATIONS

<b>Robot</b> AR2010: 12 kg payload 2,010 mm reach	<b>ArcWorld Welding Package</b> Weld-in-Teach mode function Graphic arc files Digital weld interface Integrated torch package Arm-mounted 4-roll wire feeder Welding power source	<b>MHT-Series Positioners</b>	<b>MHT555</b>	<b>MHT1655</b>	<b>MHT3155</b>
<b>YRC1000 Controller</b> Programming pendant with single point of control Large color touch screen USB and SD card memory storage Standard workcell software functions Multi-tasking (up to 7 jobs at once) Coordinated motion Twin synchronous Mirror copy Ladder logic editing/display Collision detection Software weaving Ethernet port Ethernet I/O options	<b>Common Workcell Features</b> Robot controller and welding power source base Wire mesh or solid fence panels Rear hinged door for access	Payload capacity (kg) Headstock speed (rpm) Thru-hole tailstock (mm) Rated weld current (Amps @ 100% duty) Max part diameter MotoMount fixture mounting system Pin-to-pin dimension: 3.0 m   4.0 m	1,075 9.8 40 1,200 1,630	3,000 10.8 40 1,600 1,900	6,300 6.7 45 1,600 2,000
	<b>Operator Control</b> Push-button operator station pedestal Cycle start palm button Auto/manual selector switch E-Stop palm button	<b>Total Safety Environment</b> <i>(in compliance with ANSI/RIA R15.06-2012 and Canadian safety standards)</i> Barrier guarding with protective arc curtains Safety-rated, tamper-resistant interlock Interlocked access door at the rear of the cell Powered barrier door with torque limit for safety E-Stop (pendant and door guards) FSU software safeguarding without safety PLC or robot base switches			

## Configuration Options

- Wire mesh or solid fence panels
- Interior light curtain
- 3.0 or 4.0 m tooling span
- Digital I/O or Ethernet slip rings
- Wire spool or bulk delivery method
- Beacon stack light
- Fume extraction hood
- Secondary enabling switch
- Shielding gas flow sensors
- Weld wire sensing kit

## Process Options

- Binzel or Tregaskiss torches and reamers
- Variety of weld packages: Miller, Fronius, Lincoln
- Wide variety of fieldbus cards and HMIs
- Vision systems
- Seam tracking and seam finding packages
- Tip change service box or request station

### Yaskawa America, Inc. | Motoman Robotics Division

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