ArcWorld® 6000 Series

Key Benefits
- Pre-engineered arc welding solution
- High robot utilization; parts can be loaded/unloaded at operator station, while the robot processes parts internally
- Functional Safety Unit (FSU) eliminates complex switches or a costly safety PLC
- Sealed or auto-lubricated drives minimize maintenance
- 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 6000
ArcWorld 6200
ArcWorld 6300

Controller
YRC1000

- Customizable cells that are intended for medium- to large-sized parts or large quantity production runs.
- Common cell base supports fencing and provides an elevated platform for programmers. Removable deck plates provide access for cable routing.
- Controller(s), power source(s) and auxiliary equipment ships on the same base reducing cable connections and installation time.
- Twist-lock connectors are included on all interconnecting cables.
- Positioner base and cell base bolt together for easy layout and positive location. All bases have leveling bolts with lag provisions.
- Interlocked hinged door on rear of cell provides safe and easy programming, and maintenance access.
- High-speed Motoman® AR-series arc welding robots can reduce cycle time; multiple robots can be combined for HyperProductivity®.
- Enhanced safeguarding, including Functional Safety Unit (FSU) is fully compliant with latest robot safety standard (ANSI/RIA R15.06-2012).

RM2-Series Positioners
- Ferris wheel positioners provide infinite part positioning, enabling the weld joint to be kept in a gravity-neutral welding plane, improving weld quality.
- RM2-755 offers 755-kg payload capacity with 2.9 second index time.
- RM2-1255 offers 1,255-kg payload capacity with 3.8 second index time.
- Both models offer a 2.0 or 3.0 meter tooling span, with up to 1.3-m tooling diameter.
- Patented MotoMount™ fixture mounting system facilitates fixture changes and extends life by reducing stresses in bearings.
- Provisions for utilities include a 41 mm tailstock thru-hole; optional slip rings allow continuous rotation for EtherNet/IP fixture signals and ½-inch air line.
- Coordinated motion technology allows multiple robots to be synchronized with the positioner and other external axes.
- Reduced cycle time due to fast overhead sweep, comfortable load height, and optimal programming/processing position.
## SPECIFICATIONS

<table>
<thead>
<tr>
<th>Robot</th>
<th>ArcWorld Welding Package</th>
<th>RM2-Series Ferris Wheel Positioners</th>
<th>Total Safety Environment</th>
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<tr>
<td>AR1440: 12 kg payload; 1,440 mm reach</td>
<td>Weld-in-Teach mode function</td>
<td>MSR-755</td>
<td>(in compliance with ANSI/RRIA R15.06-2012 and Canadian safety standards)</td>
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<tr>
<td>AR2010: 12 kg payload; 2,010 mm reach</td>
<td>Digital weld interface</td>
<td>MSR-1255</td>
<td>Barrier guarding with protective arc curtains</td>
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<tr>
<td>YRC1000 Controller</td>
<td>Integrated torch package</td>
<td>Rated load</td>
<td>Safety-rated, tamper-resistant interlock</td>
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<td>Programming pendant with single point of control</td>
<td>Arm-mounted 4-roll wire feeder</td>
<td>Index time (seconds)</td>
<td>Interlocked access door at the rear of the cell</td>
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<td>Large color touch screen</td>
<td>Welding power source</td>
<td>Maximum tooling diameter: 1,300 mm</td>
<td>Powered barrier door with torque limit for safety</td>
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<td>USB and SD card memory storage</td>
<td>Common Workcell Features</td>
<td>Pin-to-pin dimension: 2.0 m</td>
<td>E-Stop (pendant and door guards)</td>
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<tr>
<td>Standard workcell software functions</td>
<td>Cell assembly base</td>
<td>Rated weld current: 1,200A</td>
<td>FSU software safeguarding without safety PLC or robot base switches</td>
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<td>Multi-tasking (up to 7 jobs at once)</td>
<td>Robot controller and welding power source base</td>
<td>Coordinated motion software</td>
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<td>Coordinated motion</td>
<td>Wire mesh or solid fence panels</td>
<td>MotoMount flexible fixture mount</td>
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<td>Twin synchronous</td>
<td>Rear hinged door for access</td>
<td>Operator Control</td>
<td>Total Safety Environment</td>
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<tr>
<td>Mirror copy</td>
<td>Push-button operator station pedestal</td>
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<tr>
<td>Ladder logic editing/display</td>
<td>Cycle start palm button</td>
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<tr>
<td>Collision detection</td>
<td>Auto/manual selector switch</td>
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<tr>
<td>Software weaving</td>
<td>E-Stop palm button</td>
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<td>Ethernet port</td>
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<td>Ethernet I/O options</td>
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</table>

## Configuration Options

- Wire mesh or solid fence panels
- Barrier guard door with or without integrated light curtains
- Interior light curtain
- 2.0 or 3.0 m tooling span
- Digital I/O or Ethernet slip rings

## 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

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AW6300-755 shown. All dimensions are metric (mm) and for reference only. Request detailed drawings for all design/engineering requirements.

AW6000 Series