Key Benefits
Compact workcell suited to high-mix production
Mounted on a common base for quick installation and relocation
High productivity without increased footprint or integration complexity

Application
Arc Welding

Models
ArcWorld 50
ArcWorld 52
ArcWorld 50S
ArcWorld 52S

Controller
YRC1000

- Designed specifically for high-mix production of small- to medium-sized parts.
- Workcell is shipped pre-assembled on a common base.
- Power supply and controller are on a sub-base which can be pulled out for servicing access.
- Twist-lock connectors are included on all interconnection cables.
- AR1440 arc welding robots can reduce cycle time by 15 percent, greatly enhancing productivity.
- AR-series robots are backed by the industry’s only two-year torch cable warranty.
- The AW50 models include a single welding station with fixed tooling (AW50) or a servo-driven MH185 headstock (AW50S).

- Dual-station models are available with fixed tooling (AW52) or with two MH185 headstocks (AW52S).
- Due to high payload capacity of headstock, a tailstock is not needed.
- Tooling risers are provided for the fixed-station workcells. Dowel pins can be used for changeover between multiple parts/fixtures.
- Single large tabletop (AW50) or two smaller tabletops (AW52) are available as options.
- Dual station eliminates sweep time of part positioner between parts.
- Powered roll-up door(s) improve operator ergonomics.
- Robot operation is interlocked with roll-up doors to safeguard the operator during part load/unload.
AW50 Series

SPECIFICATIONS

Robot
AR1440: 12 kg payload; 1,440 mm reach

YRC1000 Controller
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

ArcWorld Welding Package
Weld-in-Teach mode function
Graphic arc files
Digital weld interface
Integrated torch package
Arm-mounted 4-roll wire feeder
Welding power source

Common Workcell Features
Cell assembly base
Robot controller and welding power source base
Wire mesh or solid fence panels
Dual sliding doors for access

Operator Control
Push-button operator station mounted on right of each workstation’s barrier door
Cycle start palm button
Auto/manual selector switch
E-Stop palm button

Fixture Mounts (AW50 and AW52)
Risers provide both locating pins and threaded holes
Center post supports single fixture completely (AW50) or one side of the two smaller fixtures (AW52) per side

MH185 Headstock (AW50S and AW52S)
185 kg payload @ 152 mm off-center, 250 mm (7.9”) overhang
Rated speed: 12.4 rpm
Rated weld current: 400A
Coordinated motion software

Total Safety Environment
(in compliance with ANSI/RIA R15.06-2012 and Canadian safety standards)
Barrier guarding with protective arc curtains
Safety-rated, tamper-resistant interlock
Interlocked access doors at the sides of the cell
E-Stop (pendant and operator station)
FSU software safeguarding without safety PLC or robot base switches

Configuration Options
- Wire mesh or solid fence panels
- 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 request station

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