

ARC-R Dual Specification Sheet

ARC-R Dual · Two-Robot Coordinated System



2 × W7

Robots

14

Robot axes

17

Coordinated axes

20+

With dual rails and lift axes

CONFIGURATION

Robots	2 × Catfish W7
Robot axes	14
Coordinated axes	17 with shared rail + 2-axis positioner
Extended configuration	20+ with two rails and two vertical lift axes
Workstations	Single or multi-station
Seam sensing	Laser seam sensor on each robot
Controller	Control X coordinating both robots, rails and positioner from one EtherCAT master

OPERATION

Production modes	Independent, Coordinated, Parallel; robot-to-robot handoff
Work division	Mission Control splits the weld list across both robots
Collision validation	Supported
Job orchestration	Supported
Production monitoring	Supported
Traceability	Supported

PRODUCTION

Applications	Larger structural assemblies, higher-throughput fabrication, marine components, structural steel, multi-station manufacturing, repetitive production with changing geometry
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PROCESS

Welding	MIG/MAG, FCAW on both robots
Parameters	Each robot welds to the WPS assigned to its joints
Adaptive correction	Per robot, only within the approved procedure and configured process limits; every correction logged
Work	Stiffened panels, stiffeners, subassemblies, structural weldments

SOFTWARE

Included	Studio, Weld, Proof, Mission Control
Optional	Fleet
Record per weld	Robot ID plus current, voltage, wire feed, travel speed, torch angle, path, sensing corrections, WPS, operator, software version, inspection result

INTEGRATION

Plant protocols	OPC UA, PROFINET, EtherNet/IP, MQTT, shared by both robots through one controller
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SAFETY

Safety architecture	Installation-specific industrial safety architecture
Safety elements	Emergency-stop circuits, safety-rated interlocks, safety PLC, perimeter guarding, access gates, area scanners, light curtains, machine-state monitoring, controlled zones, status towers, safe-stop functions
Coverage	Both robots and the shared workspace
Real-time loop	Cloud is never in the real-time loop

FUNCTIONS**Parallel Welding**

Both robots weld different seams of the same assembly at the same time.

Robot Handoff

One robot positions or holds a part while the other welds it.

Weld-List Splitting

Mission Control divides the weld list between robots by reach, sequence and WPS.

Collision-Aware Shared Workspace

Control X plans both arms in one model so they never contest the same space.

Independent Mode

Each robot runs its own station and job when the work does not need coordination.

Multi-Station Operation

Load one station while both robots weld at another.

Distortion-Aware Sequencing

Balanced weld sequences across two robots help manage heat input on long parts.