Red-D-Arc Weld Automation
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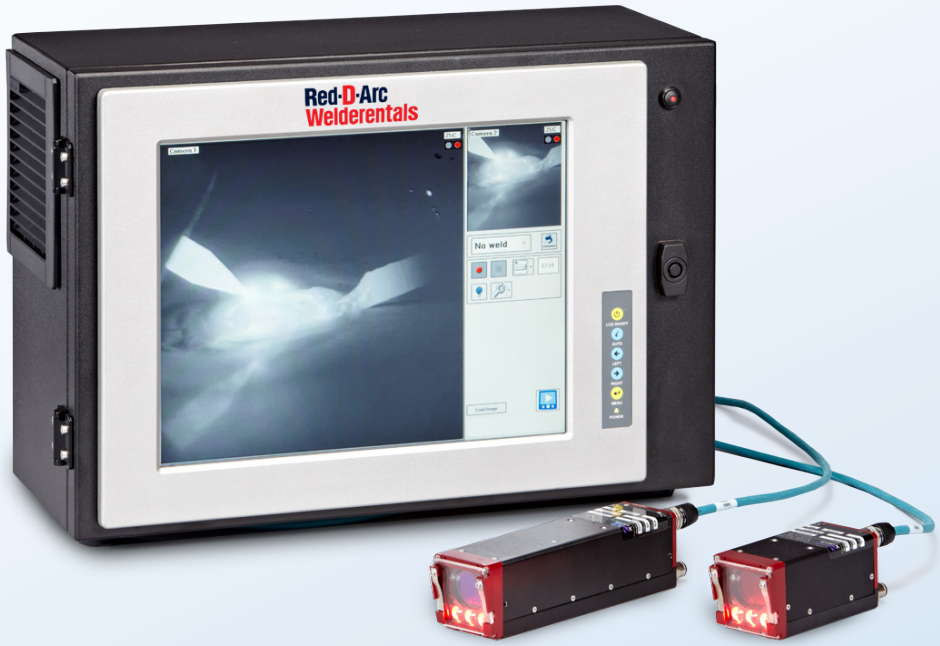
Airgas

XVC-O Open Arc Welding View Camera

Better Images. Better Decisions. Better Process Control.



The XVC-O is intended for monitoring all open arc welding processes such as, MIG, MAG, TIG, Plasma, Laser or Stick. Combining sophisticated sensor technology with advanced electronics to provide high contrast, wide dynamic range images, the XVC-O View Camera delivers a clear view of the brightest features of a welding torch tip while still being able to see the weld pool and surrounding darker background. The XVC-O also provides the ability to record, store and playback vital welding processes off line for quality assurance monitoring and process verification.

Workforce demands, government regulations, changing business practices, and increasing environmental awareness are driving the manufacturing environment to be quieter, cleaner, healthier, safer and "friendlier" for workers. The XVC-O viewing camera allows the welding process to be viewed safely from the ground level and assists the operator during setup to set the wire length and torch position, as well as make corrective adjustments to the welding process "on the fly", increasing productivity with more "arc on" time, and less operator machine stops.

Red-D-Arc Welderentals, an Airgas company, rents and sells welding and weld-positioning equipment - around the world.

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Benefits

Reduced set up time - Better images reduce the time required to set up the weld tool and materials

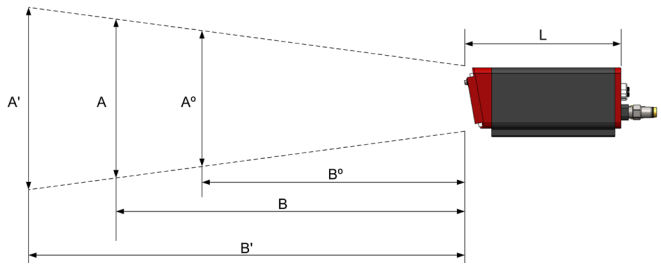
Operational productivity - Allows operator to make corrective adjustments to the welding process “on the fly”

Run time productivity - Reduces scrap and rework, mitigating profit loss from weld failures in the field

Troubleshooting - Provides the ability to verify that the weld process is functioning correctly and identifies the source of any potential problems

Health and safety - Provides the means to remove the operator from the direct weld area, providing a quieter, cleaner, healthier and safer work environment

Video recording - Provides ability to record, store and playback vital welding processes off line for quality assurance monitoring and process verification



XVC-O Optical Specification Chart				
	XVC-O80e/s	XVC-O34e	XVC-O21e	XVC-O8e
A°	59x59 mm	28x28 mm	17x17 mm	8.5x8.5 mm
A	83x83 mm	34x34 mm	21x21 mm	8.7x8.7 mm
A’	140x140 mm	45x45 mm	29.5x29.5 mm	9.5x9.5 mm
B°	240 mm	360 mm	365 mm	455 mm
B	345 mm	480 mm	480 mm	480 mm
B’	585 mm	670 mm	715 mm	520 mm
L	202/132 mm	202 mm	202 mm	202 mm

A - Field of view
B - Camera working distance
L - Camera body length
A^{o}, A’, B^{o}, B’ range are achievable via the remote focus in the camera module

Specifications

HMI Console

Dimensions:	484mm (W) x 212mm (D) x 340mm (H)
Weight:	16 Kg
Input Power:	100 - 240 VAC, 2 A, 50 - 60 Hz
Display:	15” Flat panel LCD touch screen
Computer:	PC running Windows® embedded operating system
Environmental Rating	IP54 / NEMA 13
Hard Disk Storage:	Able to hold up to 14.5 hours of recorded video
Cooling:	Dual continuous fans
Other Ports:	USB, Ethernet, video output (optional)
Cameras:	Up to 2

Camera Module

Dimensions:	Approx. 51 x 51 x 132 mm (short) Approx. 51 x 51 x 202 mm (extended)
Weight:	0.500 Kg (short) / 0.650 Kg (extended)
Environmental Rating:	IP67 / NEMA 6
Sensor:	Ultra wide dynamic range (140db+)
Sensor Resolution:	1280 (h) x 1024 (v)
Remote Controls:	Gain, motorized focus (optional), contrast enhancement
Auxiliary Lighting:	Solid state, 3x high powered LEDs, controlled by weld-on sensor
Mounting:	T-slot, compatible with M5 or 10-32 screws
Front Protection:	Removable protective glass cover
Cable Lengths:	10 / 20 / 30 / 40 m

System Options

Window de-dusting
Camera air cooling
Digital I/O module
Camera and console mounting options
Active camera/ HMI console air cooling
High volume video drive

Software Functions

Crosshairs and target grid
Automatic / manual light control
Record and playback video
Image rotation (0°, 90°, 180°, 270°)
Contrast / brightness adjust
Image sharpening
Up to 100X digital image zoom
Image mirroring

Environmental Conditions

Operating temp: < 45°C (113°F)
Storage temp: -20 to 60°C (-4 to 140°F)