



Xiris Weld Cameras





BETTER IMAGES.
DECISIONS.
PROCESS CONTROL.

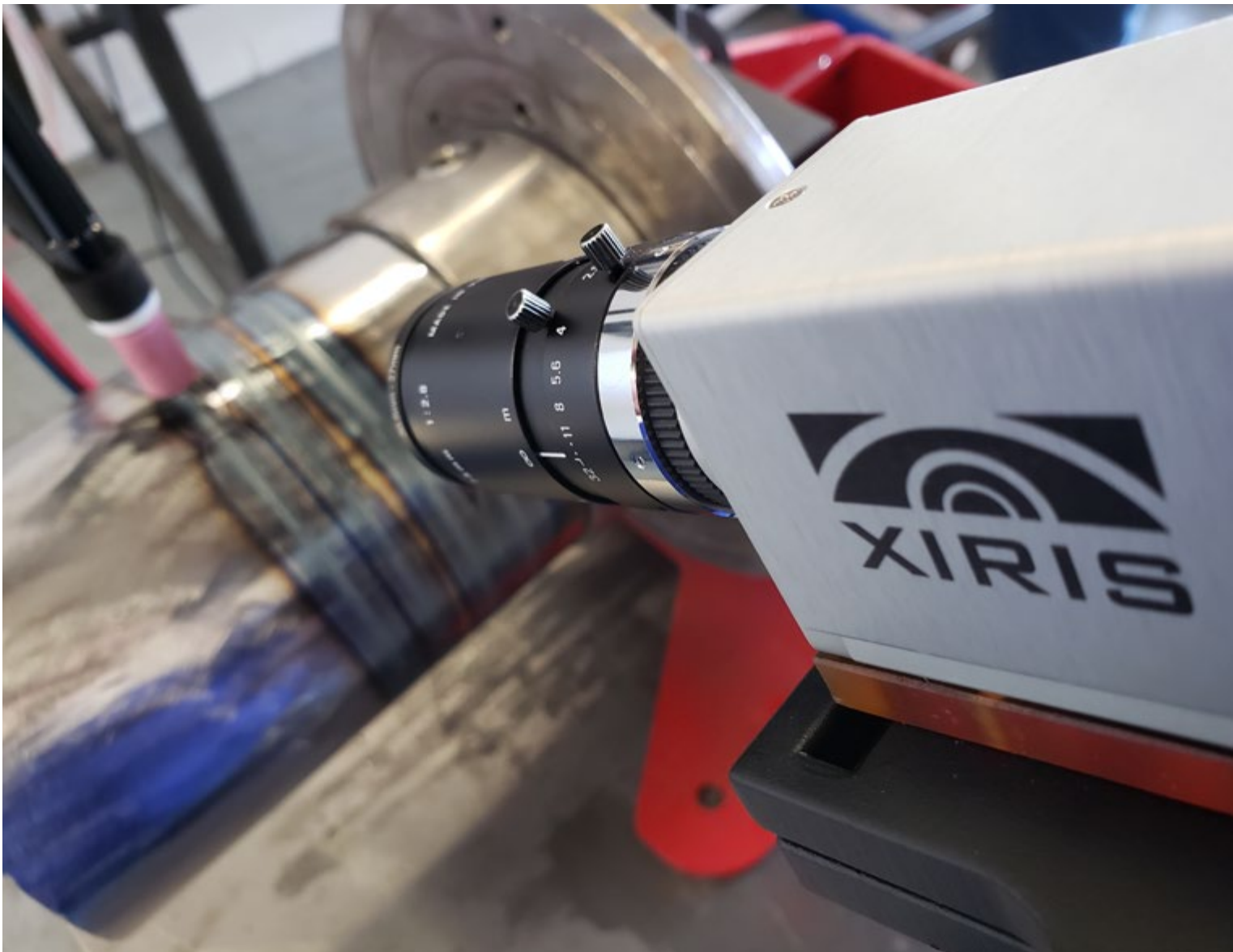
Weld Monitoring Cameras

Monitoring a welding process presents a challenge: how to see the detail of the bright areas of the weld arc and its darker surrounding background all at the same time?

See the welding process like never before with Xiris weld cameras.

By implementing Xiris weld cameras, users have improved welding productivity and realized numerous benefits:

- Reduced scrap
- Increased health and safety of operators
- Real time verification of process parameter adjustments
- Recorded video of the weld process for offline playback
- Improved results in weld education and training



Open Arc Monitoring

In all open arc welding processes such as MIG, TIG, Plasma, Laser and more, the challenge is to see in one image: the weld arc detail, the melt pool, the weld seam and the immediate background.

All Xiris open arc weld cameras use an extreme +140 dB High Dynamic Range (HDR) sensor that allows you to capture all the details of the weld process in full 1280 x 1024 pixel resolution.

Using a fully digital GigE protocol, the open arc weld cameras produce robust, high bandwidth image transmission up to 100 meters from the point of welding, without any image quality degradation.



XVC-1000 Weld Camera

Ideal for welding research, precision welding applications, laser welding, welding education and more.

- Small size format (42x40x70 mm)
- Multiple mounting points
- Maximum flexibility with easy to swap out lenses and filters
- Available in monochrome (XVC-1000) or color (XVC-1100)



XVC-1000e Weld Camera

Ideal for harsh environments, cladding/overlay, welding seamers, orbital welders and more.

- Ruggedized IP65 rated housing suitable to withstand airborne particulates
- Air or water cooled housing
- Integrated motorized optics and LED lighting
- Available in monochrome (XVC-1000e) or color (XVC-1100e)



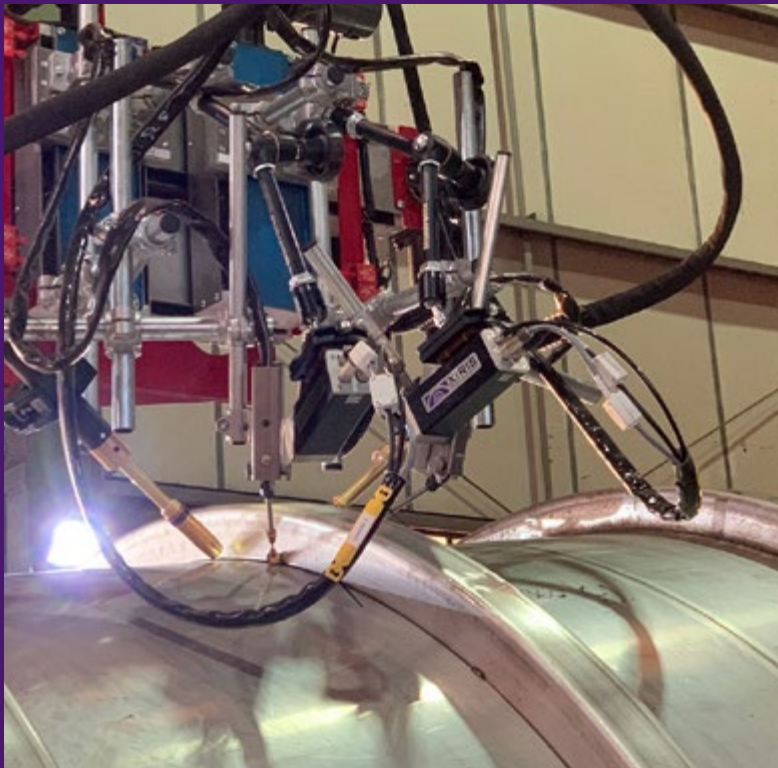
XVC-700 Weld Camera

Ideal for robotic welding, orbital welding, ID cladding in small diameter pipe or where weight and size are a critical factor.

- Lightweight slimline size format (89g, 22x22x107 mm)
- Optics can be angled from 0-90° for more flexibility and help in minimizing the weld head size of automated equipment
- Cooling options and lighting accessories are available
- Available in monochrome (XVC-700) or color (XVC-710)



Xiris Cameras in Action on Various Applications

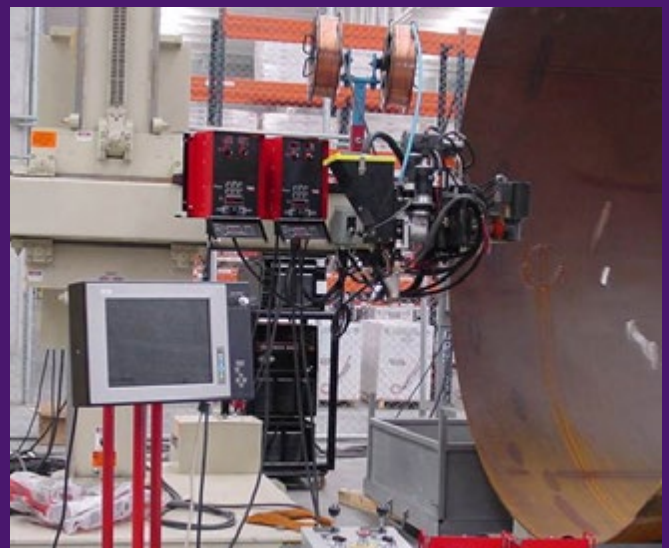


For various welding processes:

- MIG
- TIG
- Stick
- Laser
- Plasma
- Metal AM
- And more

For various types of welding automation:

- Manual and semi-automated
- Orbital welders
- Cladding/overlay
- Welding tractors
- Automated seamers
- Robotic welders
- And more

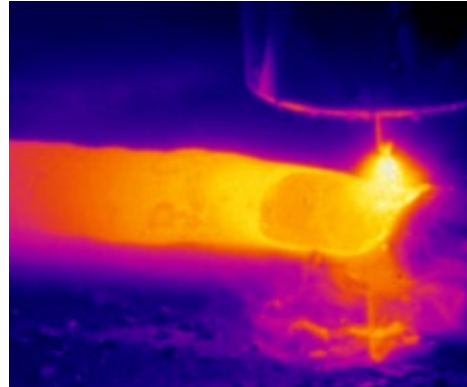


Thermal Monitoring

Combining 120+dB High Dynamic Range (HDR) capability in the Short Wave InfraRed (SWIR) spectrum, the thermal monitoring camera provides enhanced imaging of metal joining processes.

With real time 2D imaging and a temperature map, it can measure metal transition points, producing high temperature measurement accuracy while being able to see through water vapor, smoke and fumes.

Using a fully digital GigE protocol, the thermal camera produces robust, high bandwidth image transmission up to 100 meters from the point of welding, without any image quality degradation.



XIR-1800 Thermal Camera

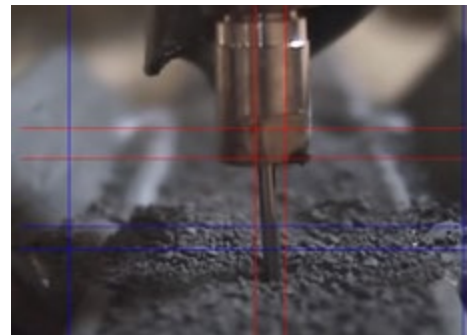
Ideal for additive manufacturing or welding processes where thermal quality assurance is critical such as powder bed additive manufacturing, laser cladding, and more. The XIR-1800 thermal camera features:

- SWIR InGaAs Sensor technology with HDR (+120 dB) imaging capability
- Calibrated temperature measurement capability in the range of 350-1800°C



Sub Arc Monitoring

For submerged arc welding (SAW) applications, the XVC-S series features a low light sensitivity camera in a robust air cooled housing, with adjustable LED lights designed to survive the toughest environments.



XVC-S Weld Camera

The XVC-S offers a robust system right out of the box. Additional options include an OEM control box, monitor mount, camera mount, and cooling.

- Industrial grade components designed for robustness in AC/DC welding
- Single or dual crosshairs with feature rich functions and adjustable field of view



Kits and Enhancements



WeldMic™

Compatible with any Xiris weld camera, the WeldMic™ microphone can give operators the audio necessary to help monitor and control the weld. Audio is recorded in Xiris WeldStudio™ along with captured video of the weld process.



Camera Trigger Kit

An easy to integrate device used to create an electrical trigger signal for Xiris open arc cameras to acquire a more consistent image of a pulsed welding process, typical of MIG or pulsed TIG welding.



CellView Camera

The Xiris CellView camera provides a wide angle view of both automated or manual welding cells to provide an overall view of the manufacturing process during set up or while operating.



Weld Camera Kit

A complete, turnkey solution featuring the XVC-1000/XVC-1100 and all accessories required to immediately start watching and recording the welding process, in a convenient, durable carrying case. Ideal for schools, training centers, R&D labs and for sharing between departments.



Various HMI and PC Offerings

Xiris offers several different image processing PCs and HMIs that are optimized for Xiris cameras, WeldMic™ and WeldStudio™ software for peak performance.

Xiris WeldStudio™ Software

With many years of experience in machine vision, the Xiris engineering team develops all software products in house.

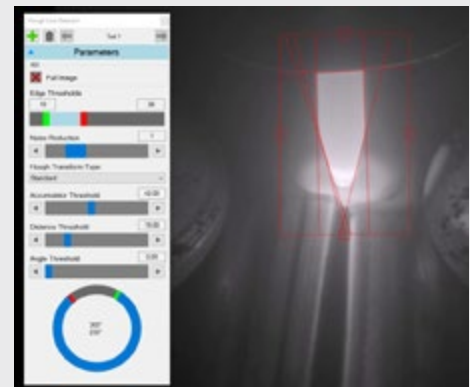
All Xiris cameras include the powerful Xiris WeldStudio™ software that provides users with the ability to monitor, record, playback, and analyze weld images.

Some key features of the software include:

- Ability to support and synchronize two or more cameras
- Thermal mapping tools
- Ability to monitor, record and analyze weld audio
- Machine Vision tools such as Blob Analysis, Edge Detection, Convolution and more

Additional software options include:

- MQTT, OPC and RTSP communication modules for reliable data transfer
- WeldSDK for developers to create custom software applications



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Visit our weld video library blog.xiris.com/video-library

Please contact your local representative for more information

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Check our website for most recent details.

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