



Xiris Weld Cameras





BETTER IMAGES.  
DECISIONS.  
PROCESS CONTROL.



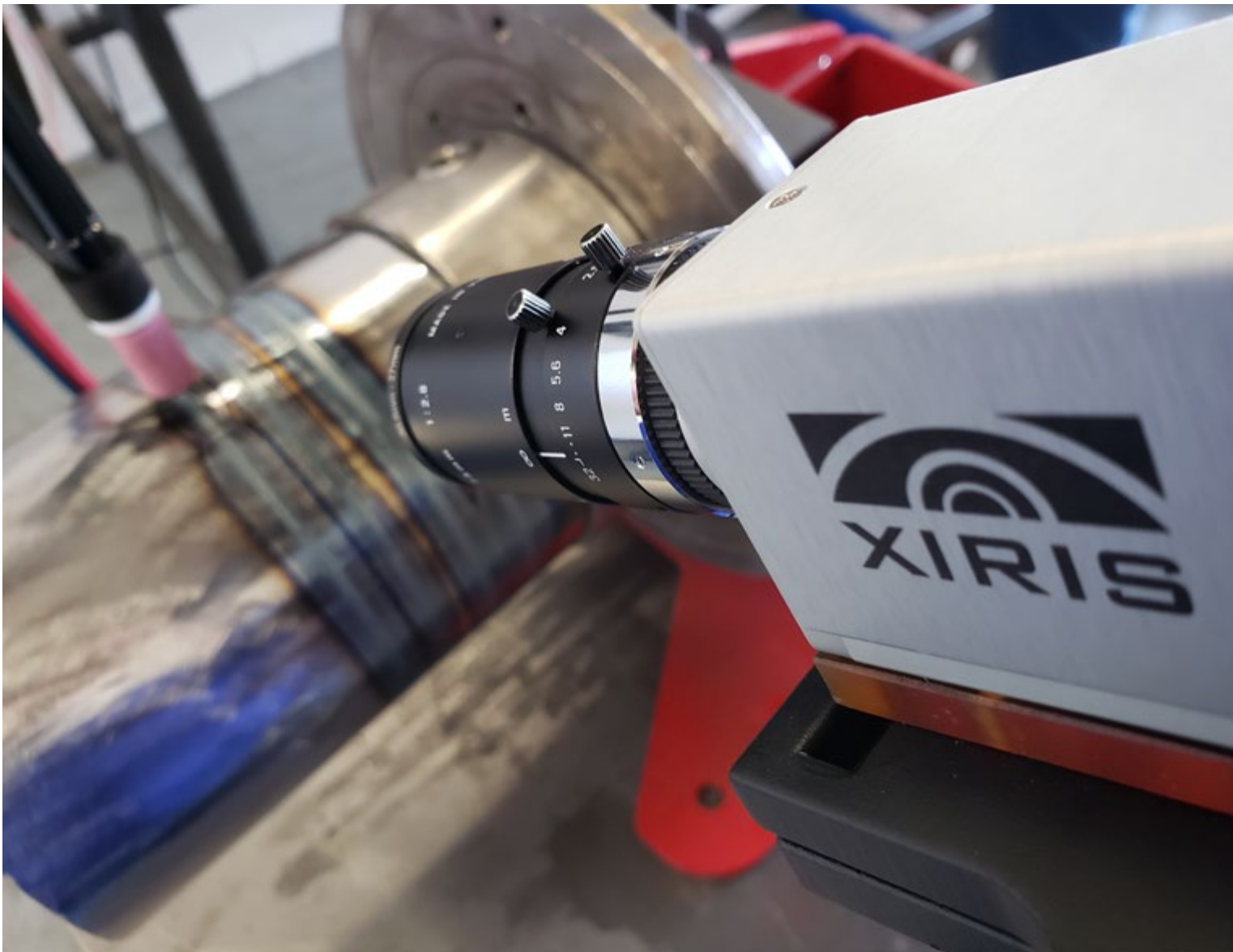
## Weld Monitoring Cameras

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)



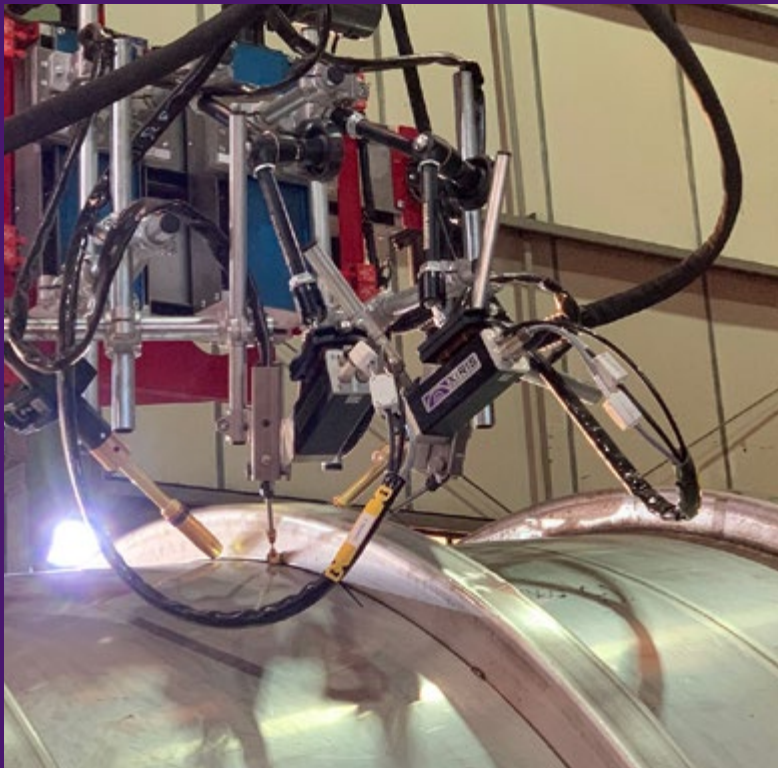
## XVC-700 Weld Camera

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

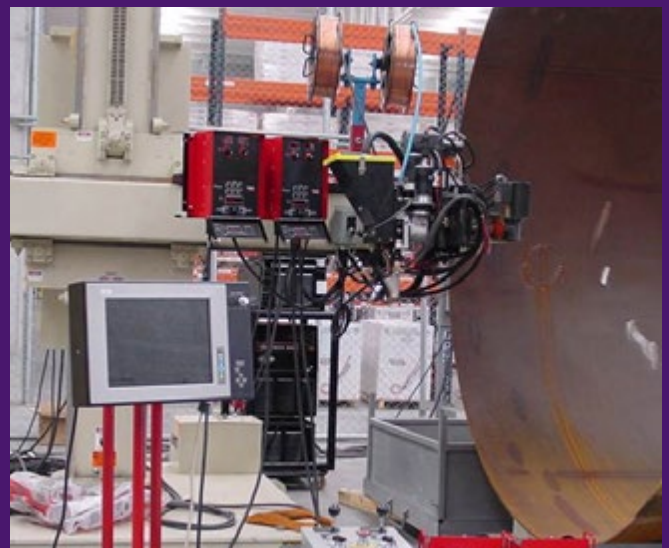


## For various welding processes:

- 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



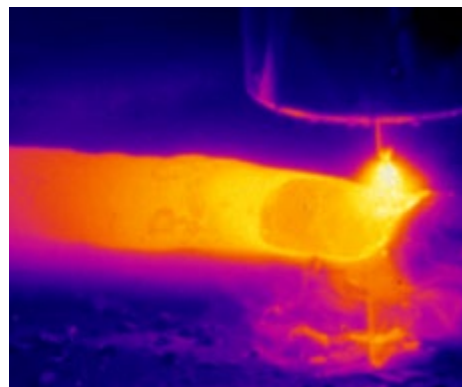


# Thermal Monitoring

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:

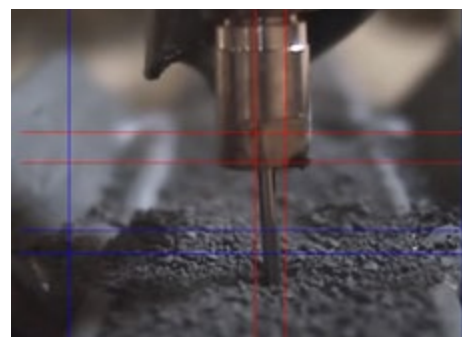
- SWIR InGaAs Sensor technology with HDR (+120 dB) imaging capability
- Calibrated temperature measurement capability in the range of 350-1800°C



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# 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.

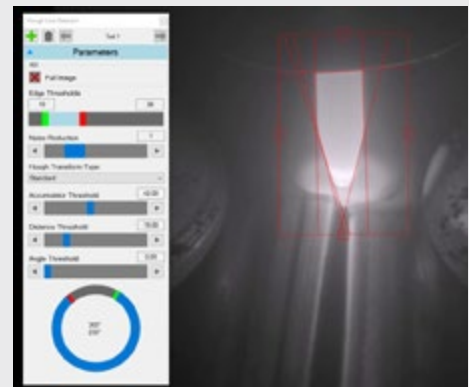
All Xiris cameras include the powerful Xiris WeldStudio™ software that provides users with the ability to monitor, record, playback, and analyze weld images.

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



# xiris.com

Visit our weld video library [blog.xiris.com/video-library](http://blog.xiris.com/video-library)



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