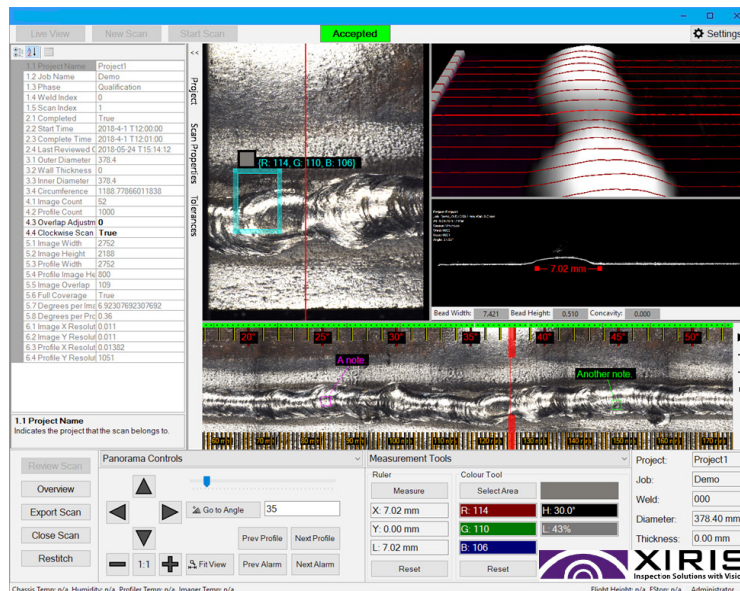


Better Images. Better Decisions. Better Process Control.

BeadScan - Weld Bead Root Pass Monitoring System

The Xiris BeadScan System is specifically designed to accurately scan and record the surface geometry and 2D visual image of welded beads typically found on the back side of a first pass weld process. Such weld inspection and imaging capability helps the Xiris BeadScan system to ensure the integrity of a first pass weld in applications that are difficult to see manually. The surface geometry of the weld bead can be analyzed to determine if the first pass was properly welded and is complemented with a very high resolution on-axis 2D image that makes a complete visual recording of the weld bead. The data can be recorded and played back for off line and reviewed for quality purposes, or kept as a production reference in case any issues arise in the future with the welded product.

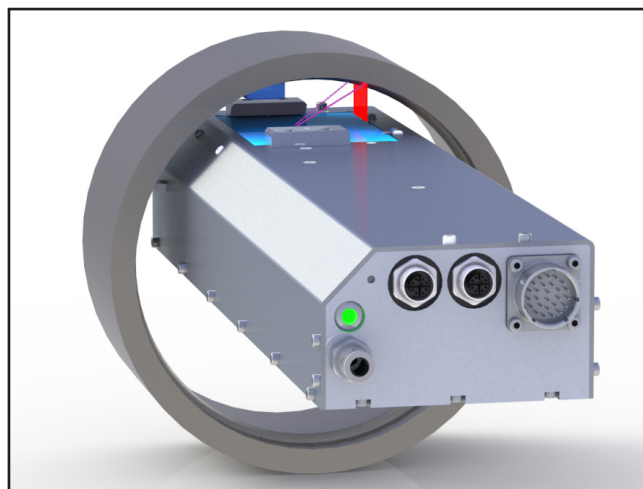
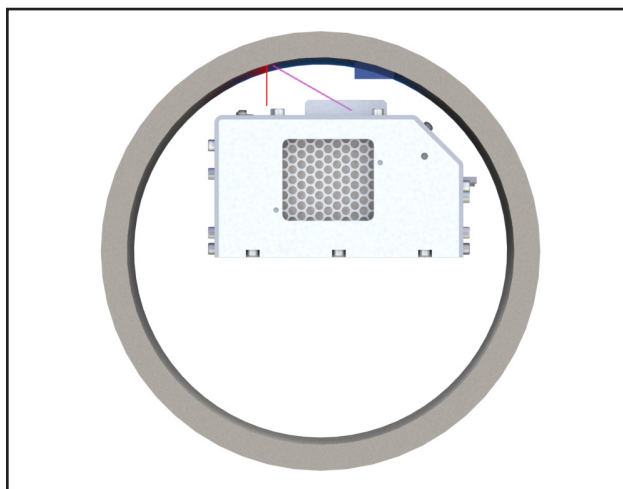
The system includes sensor head hardware comprising a high-resolution laser triangulation system and a high resolution on axis camera with its own specialized lighting. The system comes with a full software package to fully inspect, analyze, annotate and record each weld with an intuitive, easy to use interface for first-pass weld beads typically found in large welding projects such as pipeline, ship building, pressure vessel manufacturing.



BeadScan System Features

- Compact integrated sensor head with a low-profile design fits inside a pipe, ID 300mm (12") or larger.
- Advanced optical design provides a large depth of field to ensure excellent image quality and accurate measurements across a range of up to 8 mm of bead depth variation.
- High resolution laser profile and 2D on-axis area scan image sensors capture both the profile measurement and weld bead appearance in color.
- Powerful software to measure, analyse, annotate and record weld profiles and color 2D images of the complete weld profile.
- Integrated bead profile inspection tools, for measuring bead width, height, concavity, undercut and mismatch. Limits for each measurement can be user defined; when measurements exceed limits, they are highlighted to the user for review.
- Various data recording features for saving and sharing measurement data.
- Robust ethernet connectivity for high rates of data transfer on cable up to 100m in length.

Better Images. Better Decisions. Better Process Control.



BeadScan System Specifications

Sensor Head:	
Dimensions	112mm (W) x 86mm (D) x 415mm (L)
Stand off height (from sensor to pipe wall)	20mm
Maximum FOV - Image Camera	33 mm (W) x 18.5 mm (V)
Bead Measurement Sensor Resolution	0.010mm (along bead length) 0.015mm (along bead height)
Operating Ambient Environment Storage Environment	10°- 35° C -20 to +60° C
Weight	8.5 kg
Camera Connections	2 x M12 X-coded (GigE), up to 100m cable. Power & I/O connectors
Triangulation Camera Image Size	2752 (along bead length) pixels x 2200 (profiler height) pixels
On-Axis 2D Camera Image Size	4108 (along bead length) pixels x 2176 (across bead width) pixels
Software:	
Weld Bead Measurements Made	Mismatch, Bead Height, Bead Width, Concavity, Undercut
Image Processing / Analysis Tools	Image stitching, Digital Zoom, Color Tools, Caliper tools for measurements, Annotation tools
Required Operating System	Windows® 7 or 10 (32 or 64 Bit)
Controller Hardware:	
	Provided on request



Xiris Automation Inc.
1016 Sutton Drive, Unit C5
Burlington, Ontario, Canada L7L 6B8
T: +1.905.331.6660 F: +1.905.331.6661
E: sales@xiris.com www.xiris.com

Xiris Automation GmbH
Holterkamp 18
40880 Ratingen, Germany
T: +49.2102.126.3835
E: sales@xiris.eu www.xiris.com