**3D Weld Inspection**

Highly Flexible Automated Inline 3D Inspection

ScanXtream Weld Inspection is a highly flexible automated inline laser-based quality assurance solution that helps identify, report and eliminate a wide variety of welding flaws in the manufacturing process.

Bluewrist’s weld inspection solution improves quality by eliminating manual welding inspections that are prone to inspector error and subjectivity. Automated weld inspection helps achieve 100% accuracy and consistency by comparing weld characteristics against a predetermined quality standard.

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**Weld Defect Detection, Reporting and Visualization**

Our high resolution laser scanning makes ScanXtream Weld Inspection the ideal solution to detect and analyze different surface weld defects that may lead to expensive and time consuming rework.

ScanXtream point cloud processing software gives users a visual indication of defects in the weld based on user-configured data and welding standard parameters. Inspection data and images can be saved for future reporting, record keeping, and review purposes as part of a comprehensive quality assurance program.

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**Multiple Inspection Features**

ScanXtream Weld Inspection uses a 3D profiler or 3D snapshot sensor to capture detailed surface characteristics of the weld in question. The weld profiles can be inspected in their entirety or broken down into individual sections for analysis and comparison against fabrication blueprints to guarantee conformity.

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**Inspection Capabilities**

- **Inspection Features**
  - Weld length
  - Weld width
  - Theoretical throat thickness
  - Leg length

- **Weld Type Suitability**
  - Lap weld
  - Butt weld
  - Plug weld

- **Technical Specification**
  - Scan rate: Up to 200 mm/s
  - Resolution: Up to 0.1 mm

**Weld Defect Detection**

- Spatter
- Porosity
- Cracks
- Underfill and overfill
- Burnthrough
- Undercut and overlap

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**Flexible Inspection Deployment**

ScanXtream Weld Inspection can be configured or modified based on the changing requirements of the manufacturing facility.

**Multiple Configuration Options**

- **Robot Mounted Weld Inspection** - Flexibility for inspecting complex weld patterns or large parts
- **Stationary Mounted Weld Inspection** - High-speed weld inspection in the mass production environment
- **Linear Slide** - Repeatable inspection for predetermined weld inspection at a specific location