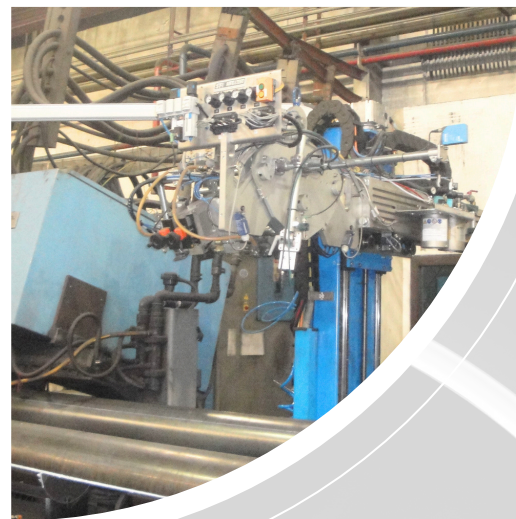
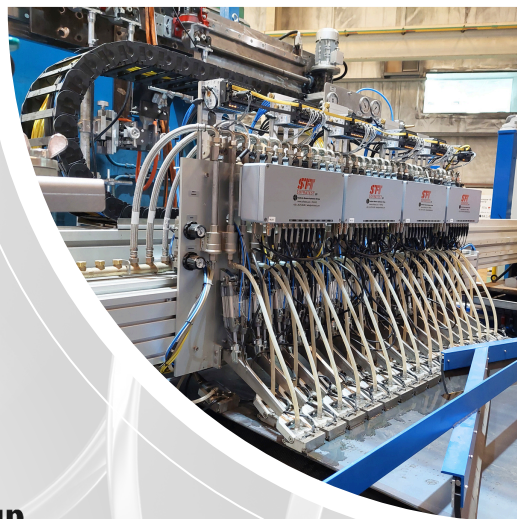
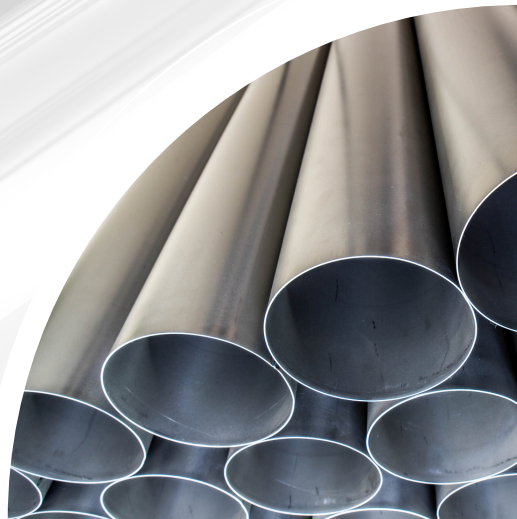


# ERW



**SOFRATEST** BY



**Controle Mesure Systemes Group**

## ULTRASONIC NON-DESTRUCTIVE TESTING SYSTEMS

**World leader in Automated Ultrasonic Inspection Solutions**

**WWW.SOFRATEST.COM**



**Made in France**



## ELECTRICAL RESISTANCE WELDED

- ▶ Resistance heating and high pressure are used to produce a longitudinal weld on a pipe.

## STRIP UT INSPECTION

SOFRATEST Ultrasonic systems perform Non-Destructive Testing (NDT) inspections on strips prior to forming and welding into ERW pipes.

### STRIP INSPECTION FEATURES

- ✓ Early detection of defects in the manufacturing process
- ✓ Fully customizable system according to customer needs
- ✓ 100% coverage of the strip body and edges
- ✓ High inspection speed
- ✓ Robust and durable mechanical design
- ✓ Multi-channel UT systems
- ✓ Offline calibration station
- ✓ Designed to operate in harsh environments

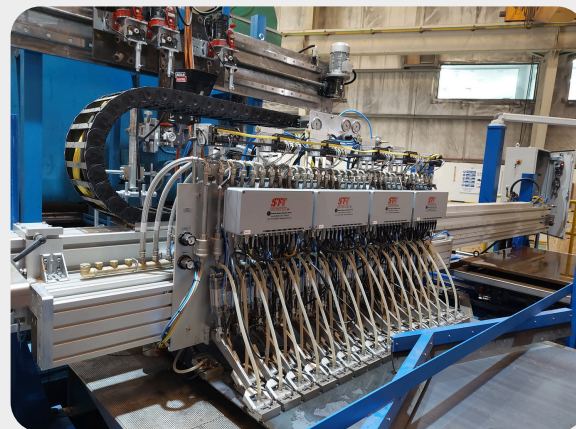
### APPLICATION PRINCIPLES



Lamination defects detection



Loss of coupling detection



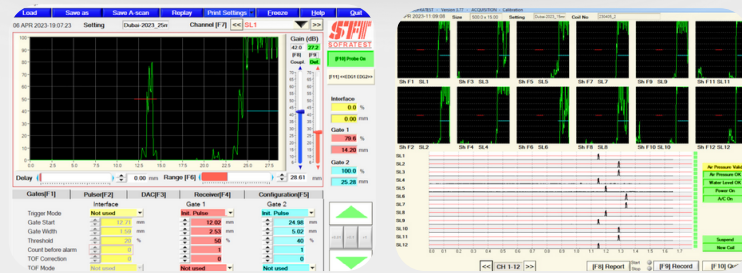
STRIP UT INSPECTION SYSTEM



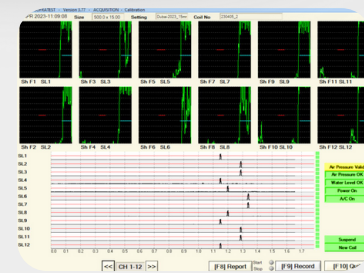
OFF-LINE CALIBRATION TABLE

### SOFRATEST SOFTWARE

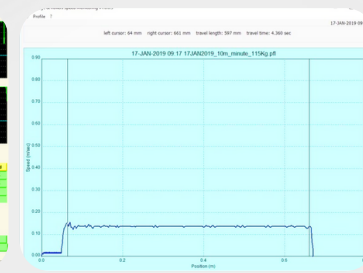
- Powerful and intuitive software
- Real-time display of inspection results
- User-friendly interface for managing ongoing inspections and configuring precise parameters
- Full traceability through the creation of complete and customizable inspection reports
- Speed profiling software for calibration



UT A-SCAN



STRIP CHART



CALIBRATION SPEED PROFILING SOFTWARE

## SCARFING MONITORING SYSTEM (I/O PROFILE)

The Scarfing Monitoring System performs internal and external weld profile analysis and thickness measurement on ERW pipes.

### SCARFING MONITORING FEATURES

- ✓ Turnkey system
- ✓ Adapted to pipe diameter and curvature
- ✓ High stability enabling high inspection speeds in harsh environments
- ✓ Fully customizable system
- ✓ Cooling liquid on the line can be used as coupling
- ✓ Designed to be installed immediately after the welding process
- ✓ Optional safety sensor for enhanced protection

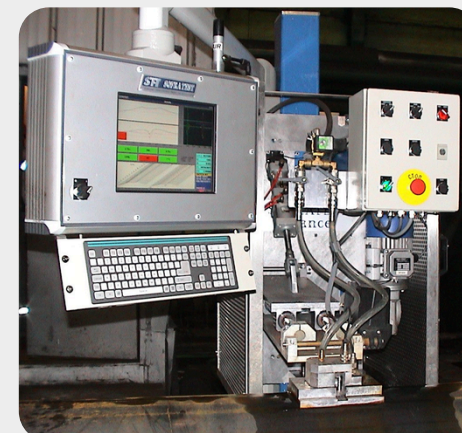
### APPLICATION PRINCIPLES



Inner/Outer Weld Profile Analysis



Weld Thickness Measurement

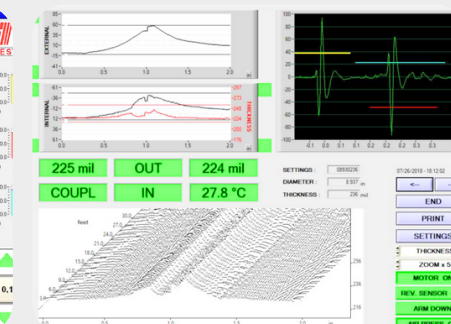


SCARFING MONITORING SYSTEM

**“The assurance of a quality inspection”**



UT SETTINGS



DISPLAY OF WELD PROFILE



SECURITY SENSOR

## ON-LINE WELD INSPECTION

The on-line welded inspection unit allows checking the quality of the weld near the welding station and detecting potential defects early in the production process.

### INSPECTION FEATURES

- ✓ Turnkey and robust system
- ✓ Designed according to pipe diameter and thickness
- ✓ Tailor-made probe shoes to perfectly adapt to different pipe curvatures
- ✓ Fully customizable to customer requirements
- ✓ High inspection speed
- ✓ Off-line calibration performed on a standard pipe
- ✓ Pilot line tracking system to follow the position of the weld
- ✓ Phased array electronics can be integrated into SOFRATEST systems



ERW OFF-LINE CALIBRATION STATION



ERW ON-LINE WELD INSPECTION

### APPLICATION PRINCIPLES



Internal/External longitudinal and transverse defects in the weld



Lamination defects detection in the HAZ and in the pipe body



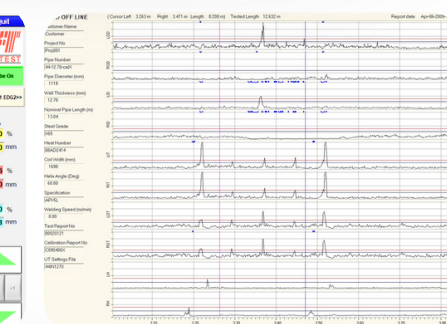
Loss of coupling detection

### SOFRATEST SOFTWARE

- Powerful and user-friendly UT software
- Inspection results displayed in real time
- Summary and detailed reports with traceability for each detected defect or loss of coupling
- User-friendly interface for managing ongoing inspections and configuring precise parameters
- Comprehensive and customizable reports generated at the end of the inspection and after each calibration

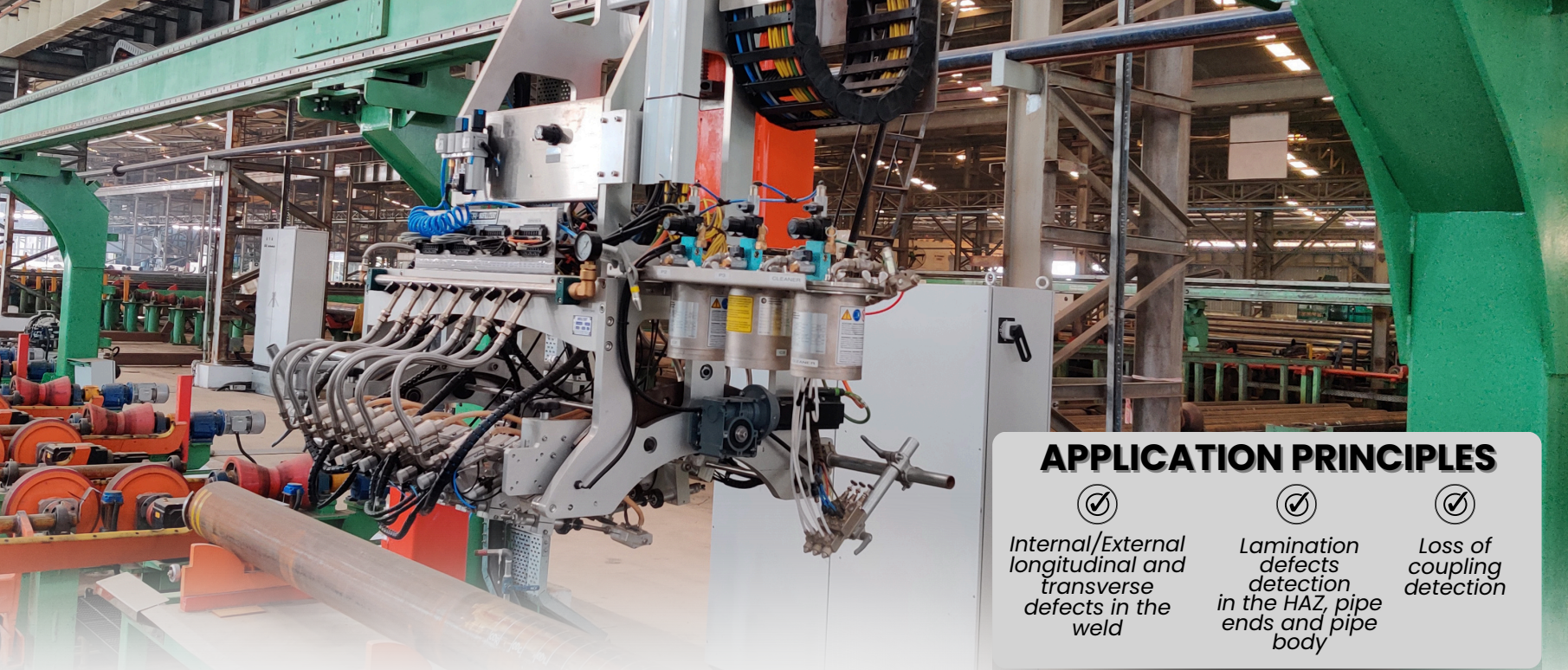


UT A-SCAN



INSPECTION REPORT





## APPLICATION PRINCIPLES



Internal/External longitudinal and transverse defects in the weld



Lamination defects detection in the HAZ, pipe ends and pipe body



Loss of coupling detection

# OFF-LINE WELD INSPECTION

The off-line welded inspection unit allows inspection of the weld seam and/or the full body of ERW tubes outside the production line.

## INSPECTION FEATURES

- ✓ Turnkey and robust system
- ✓ Designed according to pipe diameter, thickness, and length
- ✓ Tailor-made probe shoes to perfectly adapt to different pipe curvatures
- ✓ Fully customizable system according to customer requirements
- ✓ Inspection of pipe ends and body
- ✓ High-speed inspection
- ✓ Dynamic calibration table
- ✓ Pilot line tracking system to automatically adjust the position of the UT head
- ✓ Multiple inspection head configurations available
- ✓ Phased array electronics can be integrated into SOFRATEST systems

## SOFRATEST SOFTWARE

- Powerful and user-friendly UT software
- Inspection results displayed in real time
- Summary and detailed reports, with traceability for each detected defect or loss of coupling
- User-friendly interface for managing ongoing inspections and configuring precise parameters
- Comprehensive and customized reports generated at the end of the inspection and after each calibration



UT A-SCAN



INSPECTION REPORT

## YOUR MANUFACTURING PARTNER FOR NON-DESTRUCTIVE TESTING EQUIPMENT

Since 1985, SOFRATEST has been one of the world leaders in the design and manufacture of automated Ultrasonic inspection systems.

SOFRATEST develops its own heavy-duty systems, specifically engineered to operate under harsh conditions, providing reliable automation solutions and user-friendly software.

Its organizational structure enables the delivery of customized, turnkey solutions to customers.

SOFRATEST serves a wide range of markets, including the aerospace, steel, automotive, and nuclear industries.

# ABOUT SOFRATEST



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