# ADVANCED

NON-DESTRUCTIVE TESTING

### **PRODUCT & SERVICE CAPABILITIES**





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## NON-DESTRUCTIVE TESTING



#### Who we are

Shaw Pipeline Services (SPS) is a global leader in automated ultrasonic and real-time radiographic non-destructive testing. Our primary focus is compliance in girth-weld inspection requirements.

Our total weld inspection philosophy combines the best in ultrasonic and radiographic technologies with advanced instrumentation and software to ensure complete weld coverage.

Our mission is to employ highly experienced, highly trained personnel to provide clients with the most accurate, efficient and highest quality weld-inspection services available. Our approach is driven by a long-term commitment to research and development of advanced technologies and their implementation by the best personnel in the industry. This combination of tools and talent provides our clients with the best results to assist them in navigating the many challenges being faced today in the oil and gas industry.

#### Services provided

#### Offshore girth-weld inspection

- S-Lay
- J-Lay
- Reel Lay

#### **Onshore girth-weld inspection**

- Double Joint Yards
- New Pipeline Construction
- Pipeline Integrity

#### Long seam-weld inspection

- Submerged Arc Weld (SAW)
- Electric Resistance Welded (ERW)



#### **Technologies provided**

#### **Automated Ultrasonic Testing (AUT)**



**Hybrid Phased Array (PA):** This external AUT system combines the latest phased array technology with advanced pulse-echo technology and time-of-flight diffraction (ToFD) to provide the most flexible inspection solution available today. In keeping with our total weld inspection philosophy, the technology utilizes software control with single probes that generate multiple waveforms at specific frequencies and angles to allow quick changeovers on projects with multiple wall thicknesses or weld bevel designs.



**Internal Crawler:** This remotely controlled system provides real-time evaluation of long seam ERW, long seam SAW and girth welds from inside the pipe. It can run either phased array with latest ToFD, and is capable of inspecting sizes from 8-48" in diameter. With advanced tracking technology for real-time feedback, the system can perform in-situ inspections up to 300 feet from either side of an opening, thereby eliminating many costly excavations and pipe extractions. It can also be adapted to client-specific application and inspection requirements.

#### Real-Time Radiography (RTR)



**Double Wall RTR:** This fully external high-definition, real-time radiography system features patented x-ray generation and detection technology. It is ideal for the inspection of tie-in welds and piggyback lines, use in pipe spool yards, in-service inspection applications, and where an internal radiation source is difficult to employ.



**Single Wall RTR:** This twin-head detector system provides high-definition, real-time radiography. It operates in conjunction with an internal crawler for inspection of mainline welds (both onshore and offshore), as well as use in pipe spool yards and in-service inspection applications.



**Orbital RTR:** This is a high-definition, real-time radiography system for large-diameter pipe. It comprises an internal crawler equipped with a patented orbiting head x-ray tube synchronized with an advanced detection system. It is ideal for inspecting 24-56" mainline welds (both onshore and offshore), as well as for use in pipe fabrication yards and in-service inspection applications.

#### **Film Radiography**



Although SPS recommends our patented real-time radiography solution, we still offer traditional film radiography for your projects as needed.

#### A global leader in non-destructive testing solutions

#### How can we assist you?

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Shaw Pipeline Services is registered to ISO 9001:2008