

# QSR® - "QUANTITATIVE SHORT RANGE" SCANNING UNDER SUPPORT CORROSION

The QSR® system was developed for the inspection approach to indirectly measure corrosion at supports.

QSR® automatically measures at each location:

- Pipe Diameter
- Top Path Wall Thickness
- Bottom Path Wall Thickness
- Bottom Path **Minimal Wall Thickness**

## Wave Mode

QSR® uses **Circumferential Shear Horizontal** guided waves to measure pipe geometry and the minimum pipe wall thickness in corroded areas under supports. Shear Horizontal waves move (propagate) in the direction perpendicular to the movement of the particles.

## Inspection

- QSR® procedures are currently designed for the inspection of Horizontal Pipes for **Simple Touch Point Corrosion**.
- QSR® automatically measures the size of corrosion of depths up to half of the pipe wall thickness, which extends at least 1.5 inches axially.
- Qualitative results are obtained for deeper wall losses
- Scanning is done along the top of the pipe under its own power.
- The system does not require the use of any couplant.
- Inspection is possible through thin coatings.



## Results from a 12" line with corrosion at Support with follow-up laser Inspection

B-Scan Image from QSR

