

LRUT SERVICE

EXTERNAL PIPING INSPECTION

Pipelines and piping with limited accessibility to the outside surface e.g. at road crossing, buried pipe, insulated pipe or other barriers to a physical inspection can conventionally only be inspected with very high effort.

Our Long Range Ultrasonic (“LRUT”) service provides an efficient screening for corrosion and defects on inaccessible pipeline sections using guided wave ultrasonic bulk wave transmission from a remote location on the pipe.

THE SOLUTION

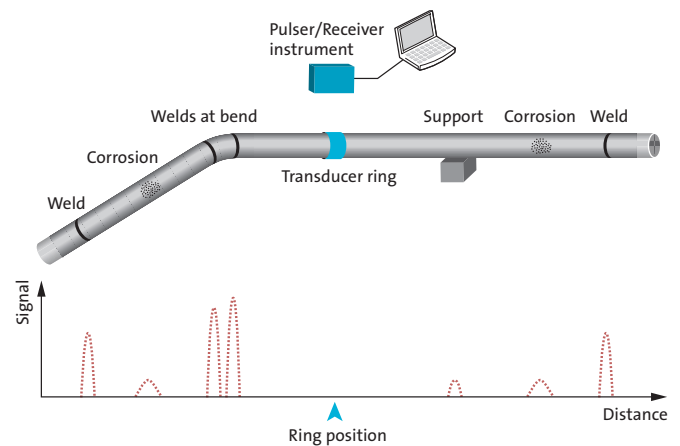
LRUT technology provides a new approach to pipeline inspection. Using low-frequency guided ultrasound waves, it offers several advantages over conventional inspection methods: it is a fast pipe screening technique which supplies accurate data on metal loss features such as corrosion or erosion and precise information on the location along the pipe of the detected anomalies.

LRUT technology works effectively while your piping system is in operation (up to 80°C / 176°F) including on insulated or buried sections. Typical test ranges of ±30m (96ft.) can be achieved from a single location, with up to 150m (450ft.) under ideal conditions.



KEY ADVANTAGES

- Rapid screening with 100 % coverage.
- Detection of internal and external wall loss.
- Focusing capability to evaluate corrosion distribution around pipe circumference.
- Reliable detection for metal loss (corrosion/erosion) even underneath insulation.
- Ideal where conventional testing is impossible or very costly, e.g., clamped, insulated, elevated or buried pipes, road crossings, offshore pipes, etc.
- Testing of elevated or complex piping from convenient locations.
- Integral battery operation.



The system is composed of the three primary components transducer ring, pulser/ receiver instrument and controlling computer.

MEASURING PRINCIPLE

Transducers attached to the pipe send waves tens of meters along the pipe wall and the returning echoes indicate whether metal loss is present. Physical access to the pipe is only required at the position of the transducer.

Guided Wave UT tools are available for use in pipes with diameters ranging from 3" to 48".