



# Guided Wave testing on pipes and pipelines in oil and gas, chemical and petro-chemical facilities.

## MAJOR CHALLENGES IN THE OIL AND GAS AND PETROCHEMICAL INDUSTRY.

- Corrosion under insulation (CUI)
- Internal corrosion

## PRINCIPLE OF THE GUIDED WAVE METHOD AND TESTING.

- Guided waves travel along the pipe and are reflected from changes in the cross-section
- Amplitude of the reflection is related to the total change in the pipe wall cross-section
- Reflection gives a measure of the cross-sectional area change of the defect (which is why it is a screening tool).



## Guided Wave testing can inspect long lengths of pipes under insulation, such as mineral wool or PE foam materials.

### ADVANTAGES OF THE GUIDED WAVE METHOD.

- We can inspect underground and aboveground pipes.
- Not necessary to remove the whole length of pipe insulation, only a half meter for fixing the coils.
- We can use this method also on pipes in operation, filled with liquids or gas.
- We can screen large distance in both directions from the transducer ring
- We can inspect pipe diameters 2,3,4,6,8,10,12,14,16 inch.

### WHY GUIDED WAVE?

- Screen large areas of pipe (external and internal)
- Inspect restricted access pipes (buried, cased, insulated, cross road/wall, etc.)
- Tackle adverse operational conditions
- Pin-point areas of corrosion or defect (mechanical defect and crack)
- Facilitate informed decisions on asset management

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### YOUR BENEFITS.

- Quick reliable inspection at lower costs, no loss of production, accurate corrosion rates, no loss of time and cost for removing insulation
- Guided Wave detects corrosion under insulation with lower costs, not removing the insulation saves time and money, direct real time results with no loss of production
- High Productivity: up to 500 meters per day
- Testing performed with pipe in-service (regardless of operation medium, up to 40-50 C deg. maximum)
- 100% coverage, except for flanges, tees and other large features
- Cost Effective
- Access cost minimized (Access required only at discrete locations)
- Avoid scaffolding, rope access, insulation removal & reinstatement costs at complete length

PROFIT FROM OUR EXPERIENCE  
CONTACT OUR GUIDED WAVE EXPERTS