

# Guided Wave Ultrasonics



## Effective control of long and hidden pipes

Wave Maker G4 uses low frequency ultrasonic waves which are transmitted along the pipes. The equipment is designed for rapid screening of long pipes, and to detect external and internal corrosion.

### Presentation

The equipment consists of three main components: the transducer ring, Wave Maker G4 instrument and the computer that collect data.

The transducer rings use mechanical or pneumatic pressure (depending on the ring) to dry couple the transducers to the pipe being inspected. The transducer sends waves along the cross section of the pipe, when they pass an area with increased/decreased crosssection change, they reflect back as an echo with a magnitude representing the decrease/increase itself, for example corrosion. Therefore, long pipes hard to access are easily inspected, such as piperacks, buried pipes under roads, insulated pipes, pipes in foundations and submerged pipes.

### Advantages

- > 100% of the circumference of the pipe will be tested
- > Efficient and rapid method
- > Can test buried pipes, insulated pipes, pipes through foundations, piperacks etc
- > Looking for both external and internal crosssection change
- > Can be used during operation, ie the media into the tube and the relatively high temperature
- > No external power required
- > High precision in positioning
- > Sophisticated software for performance analysis and historical comparisons



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