



# SLOFEC™ Technique for Pipe Scanning



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SLOFEC™ refers to Saturated Low Frequency Eddy Current.

One of the main applications of Innospection's SLOFEC™ technology is the inspection of pipes. This technique has been proven in the field as a high speed and reliable method in detecting local corrosion in pipes.

The capabilities of the SLOFEC technique in pipe inspection for both on- and offshore applications are:

- Experienced with pipe diameter ranging from 1" to 56"
- Experienced with pipe wall thickness up to 30mm
- Experienced with coating thickness up to 7mm
- Experienced with pipe temperatures of up to 170 deg C
- Able to inspect horizontal and vertical pipes both internally and externally
- Able to inspect different pipe materials (carbon steel, stainless steel, duplex, super duplex, monel, etc)
- Able to provide online "Real Time" inspection analysis including wall loss severity classifications
- Separate reporting available for both internal and external conditions with advanced colour defect mapping capability

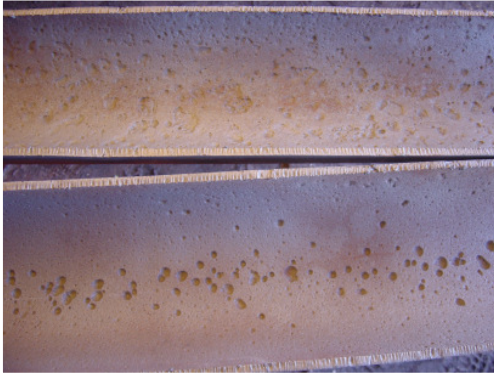


## Examples of SLOFEC Pipe Scanning

### Example 1 : General pipeline scanning

Detected Defects:

- < 20% wall loss from inside
- Ø 2/3mm and larger,
- mainly on the 6 o'clock line



### Example 2 : Furnace tubes screening from the outside

6" furnace tube pipe with wall thickness of 9mm  
Time of inspection ~ < 10 min. for 12m (180° coverage)

Detected Defects:

- 20% int. wall loss, from Ø 3mm
- massive corrosion at furnace side



## Example 3 : Sandblasted internal pipe surface scanning

Oil Rundown Line 30" x 10,8mm  
In service for approx. 7 years

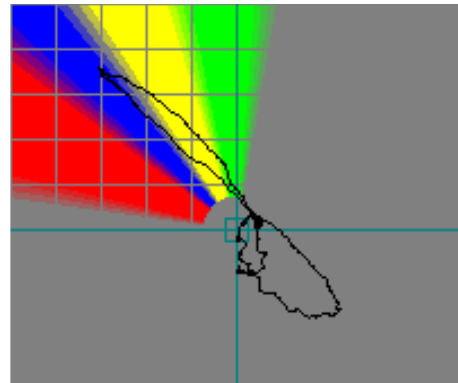
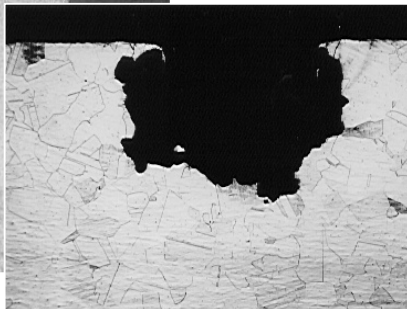
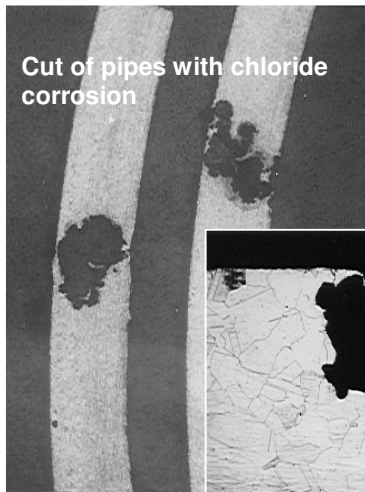
Detected Defects:

- microbiological induced corrosion
- unpredictable in position
- no unique type/volumetric shape of defect (small deep pits or/and large area corrosion)



## Example 4 : Stainless steel pipes scanning

The aim of the scanning is the chloride corrosion detection and depth determination. This is achieved by using the SLOFEC Scan with signal phase analysis. The pipe diameter ranges from 1" to 10" with a wall thickness of 11mm.



SLOFEC Scan of pipes with Signal Phase analysis