

# PipeMonit<sup>®</sup> system

High accuracy pipeline corrosion monitoring and wall thickness measurement



The PipeMonit tool is a non intrusive (NDT) "clamp-on" monitoring tool for wall thickness measurement of onshore and topside pipelines. An advantage of the system is that customers can optimize their use of corrosion inhibitors or can predict the remaining service life of their pipeline.

The tool's ultrasonic system provides reliable and repeatable high accuracy wall thickness measurements at selected locations along a pipeline. As the tool can be retrofitted at any time, it can be moved between different locations. It is easily clamped on to new or existing pipelines without special tools. The PipeMonit tool causes no interference with ongoing pipeline operation.

## KEY ADVANTAGES

- Accurate erosion estimates increase the service life of pipelines - improves OPEX
- Autonomous operations, no manual labor required in operation
- Dry coupling of sensors increases reliability and eases operations and installation
- Gives immediate feedback on the effectiveness of corrosion inhibitors
- Data easily available for the customer via a secure web interface
- Customization of the ultrasonic sensors as belts, strips or as area sensing
- Suitable for a wide variety of applications such as pipe bends and joint monitoring

[www.sensorlink.no](http://www.sensorlink.no)

 Sensorlink



A recent PipeMonit installation includes 14 measurement locations with dual 24 or 28 inch PipeMonit belts. Each dual belt set carries 24 ultrasonic transducers monitoring the erosion rates. The belts are installed along a 5 kilometer pipeline. The PipeMonit tool is hooked up to the cell phone network. It communicates with the Sensorlink server which in turn distributes the erosion data directly to the customer via a secure web interface.

For onshore users data is presented in geographical maps (GIS) for ease of localization of measurements. Data are presented to users via a secure web interface. Each location has a status indicator that is sensitive to a predefined maximum wall thickness loss rate. Several more detailed user interfaces are provided for detailed follow-up.

#### DATA COMMUNICATION

The PipeMonit unit communicates via cable, wireless link or cell phone network to the Sensorlink server. If wireless communication is not possible, the data are stored inside the PipeMonit system. Consequently data can be retrieved with a direct hook up using a laptop or by replacing the memory card. The PipeMonit has an internal long-life battery.



#### PIPEMONIT TECHNICAL SPECIFICATIONS

##### PIPEMONIT BELT MECHANICAL

Pipe size:	4" - 34"
Protection:	IP 68
Belt height:	45 mm
Belt width:	77 mm
Material:	PUR mold and stainless steel AISI316 band
Cable length:	max 8 m (between sensorbelt and controller)
UT coupling:	Dry coupling (SoundMax™)
Opt:	Ex-i

##### PIPEMONIT BELT MEASUREMENT

Wall thickness:	3-200 mm
Relative accuracy:	<0.1 mm
Inclinometer:	± 2° (angular)
Temperature:	± 1°C

##### PIPEMONIT CONTROLLER

Supply voltage:	24 V DC
Housing:	IP65
Opt:	GPS position
Opt:	Ex-i

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