

AC CORROSION DETECTION PROBE

Detects AC corrosion

The most common type of attack in connection with AC corrosion is local pitting, which causes rapid penetration and very little mass loss.

Immediate indication

The probe indicates immediate when the deepest pit reaches a predefined depth.

Safe and cost efficient

Mechanical function provides clear and reliable results. Limited maintenance and absence of laboratory analysis reduces cost.

Maximum efficiency Minimum effort

It is well known that pipelines located in the vicinity high voltage power lines can be exposed to AC corrosion. Well coated pipelines are especially sensitive. Established corrosion monitoring is expensive and laborious. Results are often known when the corrosion has proceeded too far. Other kinds of equipment cannot monitor the most common type of AC corrosion, can cause rapid penetration of the pipe. The SCS LC Probe can indicate this.

SCS Engineering AB was established based on the idea to have a secure reliable detection of local AC pitting corrosion – the patented LC Probe.

Install the LC Probe on existing and new pipe lines exposed to AC corrosion hazards

Early warning before the pipeline is penetrated helps avoiding major cost due down time in distribution.

The LC Probe is located in the pipe trench of the pipeline it is monitoring and shall be in electrically contact to it. In this way the LC Probe is exposed to the same environment and degree of electrical interference as the pipeline.

All other types of corrosion on the pipeline can be detected by the LC Probe.

When excavating your old detection equipment for analysis, install the LC Probe for continuous monitoring.

Swedegas monitor AC corrosion and secures business using the LC Probe

Today the probes are installed in different types of measuring posts and are monitored manually or remotely.

The LC Probe itself is mechanical and requires no power supply. If controlled remotely from a control centre the equipment sending the signal requires external



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can be easily indicated.

The probe has also been found excellent for detecting corrosion in other areas such as corrosion of reinforcement bars in concrete, pipelines in refineries, etc.

The Probe can be ordered either by a local analogue meter or by a remote operated digital meter.

Tube

Length of gas tube is always adapted to the installation location.

Probe

Defect area can be specified according to requirements. Standard recommendation is 1.0 cm² but can also be 0.5 cm² or 2.0 cm².

Wall thickness depends on the accepted corrosion depth for your surveyed application. Standards: 0.8,

power, which can be from a small solar panel.

Swedegas has installed the LC Probe in a measuring pole powered by solar cells. This enables remote alarms.

The LC Probe in a measuring pole used by Swedegas

How does it work

Simple functionality makes the LC probe reliable in rough environments.

When the deepest pit penetrates the wall of the pressurized steel tube of the LC probe the pressure inside is lost. This is indicated immediately on a pressure meter in the test post or remotely in a control centre by an alarm.

Field investigations of the LC probe performed by Swerea/KIMAB clearly proves that AC corrosion now

