

SeeScan® Corrosion Mapping - An Improved Scanning System for Sophisticated Maintenance Strategies

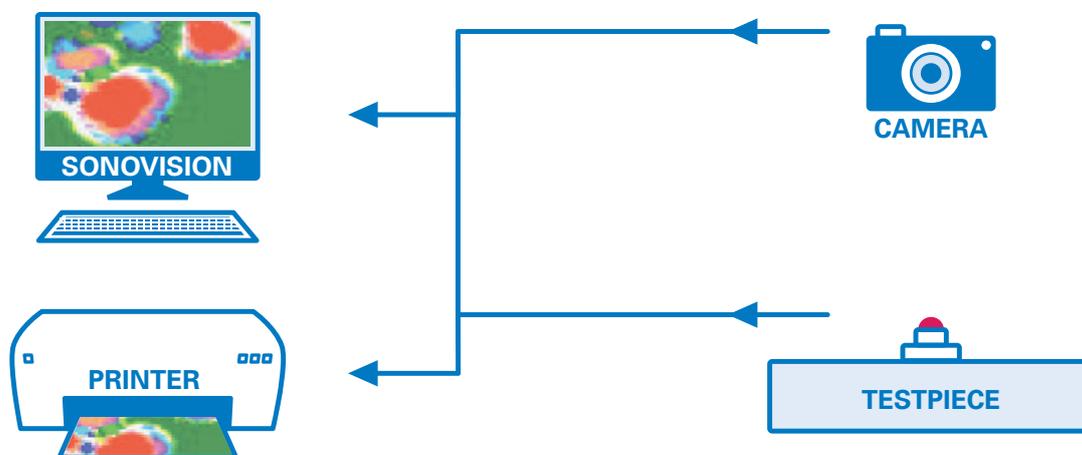
Corrosion and erosion can inflict significant damage upon petrochemical vessels and pipework. Other phenomena such as hydrogen induced cracking and high temperature hydrogen attack can also prove costly to plant operation. Due to the risks involved, it is important to recognize corrosion damage as early as possible, especially when such knowledge can assist in planning an operational maintenance strategy.

With SeeScan®, a corrosion mapping solution is available to assist clients in developing condition-determined maintenance strategies which can be used in calculations for

the remaining lifetime of a plant. In addition it can also be used within a structured plant maintenance program.

SeeScan® also offers a visual representation of the results with a comprehensive report of the affected areas aiming to avoid unplanned shutdowns.

TÜV Rheinland has the expertise necessary to demonstrate and define the true condition of any industrial plant. This service is available worldwide, with techniques applied by highly trained and qualified staff who are greatly experienced in ultrasonic corrosion detection.



Inspection approach

The TÜV Rheinland Sonovation SeeScan® system makes use of modern video techniques to overcome the rigidity of traditional scanning systems, such that no geometrical restrictions remain; any object in the field of view of the camera can be imaged. Areas such as valves, tee pieces and dome ends can be imaged using the system. As there is no long table of numbers in the reporting format it is therefore easier to refer to the colour image which instantly gives the condition of the area under test.

SeeScan® combines conventional ultrasonic practice with the technology of miniature CCD (Charged Coupled Device) video cameras to provide a simple yet highly effective method of recording and presenting ultrasonic data during corrosion and erosion inspection applications.

Benefits at a glance

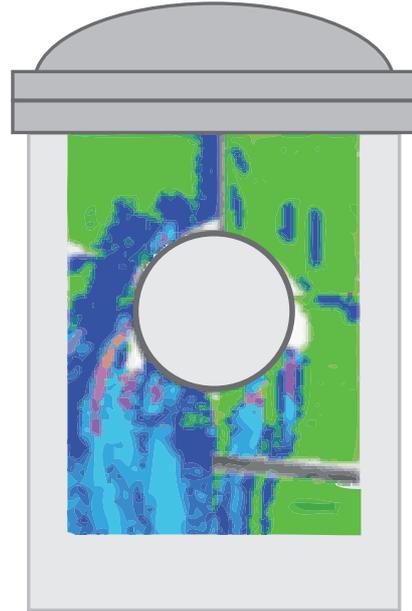
- A built-in quality control tool.
- Online measurements at high temperatures (>300° C).
- More accurate prediction of trends.
- A visual representation of the area under test.
- A greatly improved probability of corrosion detection.
- Thickness measurements in an easily understandable topographical color map
- Mapping of complex geometries.
- Numerous different geometries can be examined.
- Damage progress can be accurately monitored.



Areas for application

Over the years, SeeScan® has been developed into a system suitable to a wide range of applications.

- Condition evaluation of lines, piping, storage tank walls and floors, vessels that cannot be opened for economic or operational reasons.
- Screening of systems prone to Hydrogen damage.
- In service inspection of equipments at temperatures varying from -25°C to over 300°C.
- Inspection of complex structures such as valves, tee pieces, and dome ends.



About TÜV Rheinland:

Founded 140 years ago, TÜV Rheinland is a global leader in independent inspection services, ensuring quality and safety for people, the environment, and technology in nearly all aspects of life.

Our experience - your benefit

TÜV Rheinland Sonovation has over twenty years of experience with weld testing by means of TOFD. Our inspection team is one of the best-resourced in the world. Our involvement in equipment development, inspection solutions and accredited TOFD training courses demonstrate our commitment to this technique.

Your contact:

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