



CORROSION [kə'roʊzən]

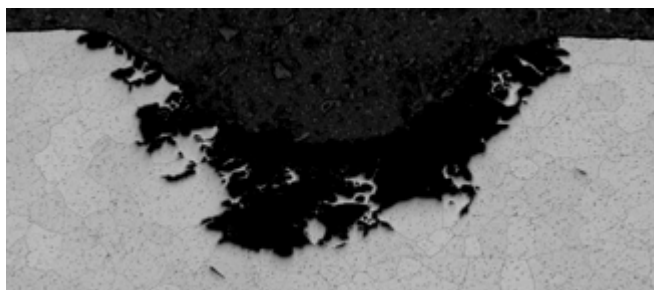
METALLURGY AND ANTI METALLURGY

Corrosion of metals was born when man started refining, with fire, mineral to metal. At the same time, natural forces began to operate in opposite direction, reverting back metal to a lower energy state corroding it to bring it back to the compound.

OMECO offers a complete range of the main corrosion tests for material qualification, many of which are ISO 17025 accredited. The tests carried out in **OMECO** cover the needs of various fields, in particular the Oil&Gas, chemical, petrochemical, energy and nuclear industries.

For tests on materials dedicated to fertilizer production plants (UREA), **OMECO** is a Saipem and Casale qualified laboratory.

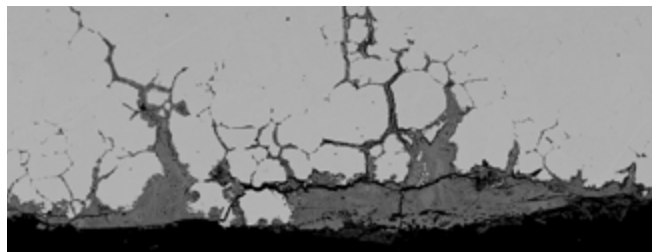
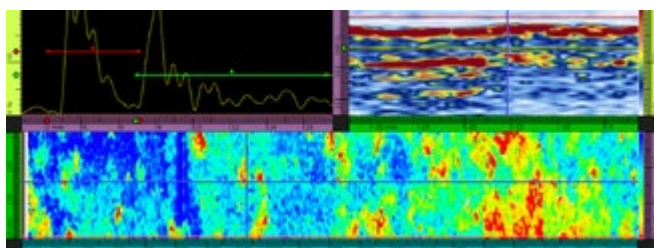
In addition to metallic materials, **OMECO** supports customers to develop and manage articulated and often customized corrosion tests aging tests and corrosion failure investigations on materials of different nature (polymers, gaskets, paints, coatings).



The transversal competences of the laboratory provide important support in the management of monitoring and maintenance of systems, equipment or components and in particular in the management of a possible corrosion failure.

OMECO proposes itself as a partner for the monitoring of possible deterioration or for periodic inspection required by standards and maintenance plans, providing complete support through traditional and advanced non-destructive tests.

No matter how much care is taken in the design, use, monitoring and maintenance of a system, component or material, possible inconveniences due to unexpected corrosion degradation phenomena can still occur.

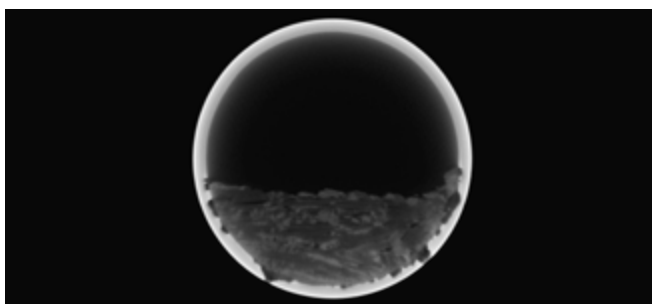


Understanding the reasons of the damage, the causes of corrosion is of fundamental importance in order to take the appropriate containment and corrective actions.

OMECO offers support to its customers in the search for causes of corrosion, supporting them in the general management of failure analysis and in the development of a short and long-term action plan.

Corrosion tests carried out in accordance with the main national and international standards (EN, ISO, ASTM):

- **salt spray corrosion tests;**
- **intergranular corrosion tests;**
- **localized corrosion tests for pitting and crevice corrosion.**



Non-destructive testing for monitoring (can be performed in the field and in the laboratory):

- **Traditional non-destructive testing**
 - VT, PT, MT, RT, UT
 - Leak Test LT.
- **Advanced controls**
 - Phased Array (PA) and TOFD
 - Eddy Current (ET)
 - Corrosion mapping even without insulation removal (PECT).
- **Other non-destructive testing**
 - PMI chemical analysis using XRF and OES technique
 - Hardness even with portable instruments
 - Non-destructive metallography (metallographic replicas) - INAIL Qualified Lab.



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