

# Damage and material analysis

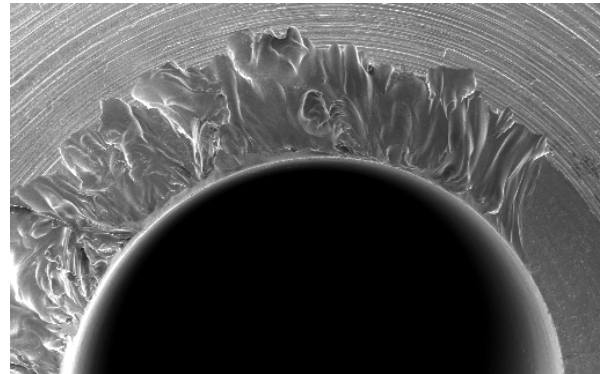
## Expert opinions and expertises

**Eurofins Qualitech AG has the largest private, independent and ISO/IEC accredited testing centre for damage analysis in Switzerland. In the technical-legal field, we prepare expertises and reports for companies from industry and the insurance sector as well as for lawyers and courts, both nationally and internationally.**

### Clarify facts and responsibilities

Damage can be caused by one or more factors and is often multifaceted in nature. Today's complex value chains with several parties involved (customers, suppliers, subcontractors) often lead to legal disputes in the event of damage. Only by engaging a trustworthy and neutral testing laboratory can the facts and responsibilities be clarified. Our confidentiality and neutrality are based on our long-standing commitment and guarantee the systematic and objective clarification of the causes of damage.

objective clarification of the causes of damage and the definition of responsibilities in technical terms. In connection with specifications, functional specifications and standards, we also offer technical consulting and expert reports. We help you to introduce improvements and preventive measures for the future and ensure the quality of your products so that your success can continue to grow on solid foundations in the future.



Erosion damage to a fuel valve caused by abrasive particles in the fluid flow (electron microscopy)



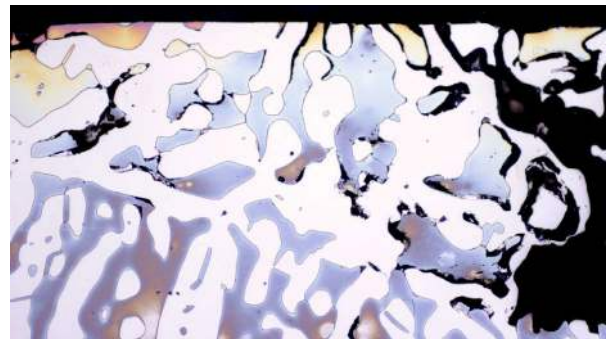
Vibration fracture in the cylinder block of a gas compressor, caused by a corrosion attack in the cooling water channel (macrophotography)

### Methods of damage analysis

Depending on the type and significance of the damage, an adapted investigation programme is defined, usually together with the customer, in order to clarify the cause of the damage. In addition to visual assessment, the structure or fracture surface is often analysed more closely using microscopy. A comprehensive range of instruments is available to characterise samples in terms of chemical composition and physical and mechanical properties. Even the smallest quantities of corrosion products, coatings or foreign substances can often be analysed. For large damaged parts, information can also be obtained on site and non-destructively, e.g. through plastic imprints and microstructure replicas.

### Further training

The Damage and Materials Analysis Group at Eurofins Qualitech AG offers seminars on damage analysis and prevention, as well as corrosion and corrosion protection



Selective corrosion on a duplex steel pump housing in a flue gas cleaning system (light microscopy)

