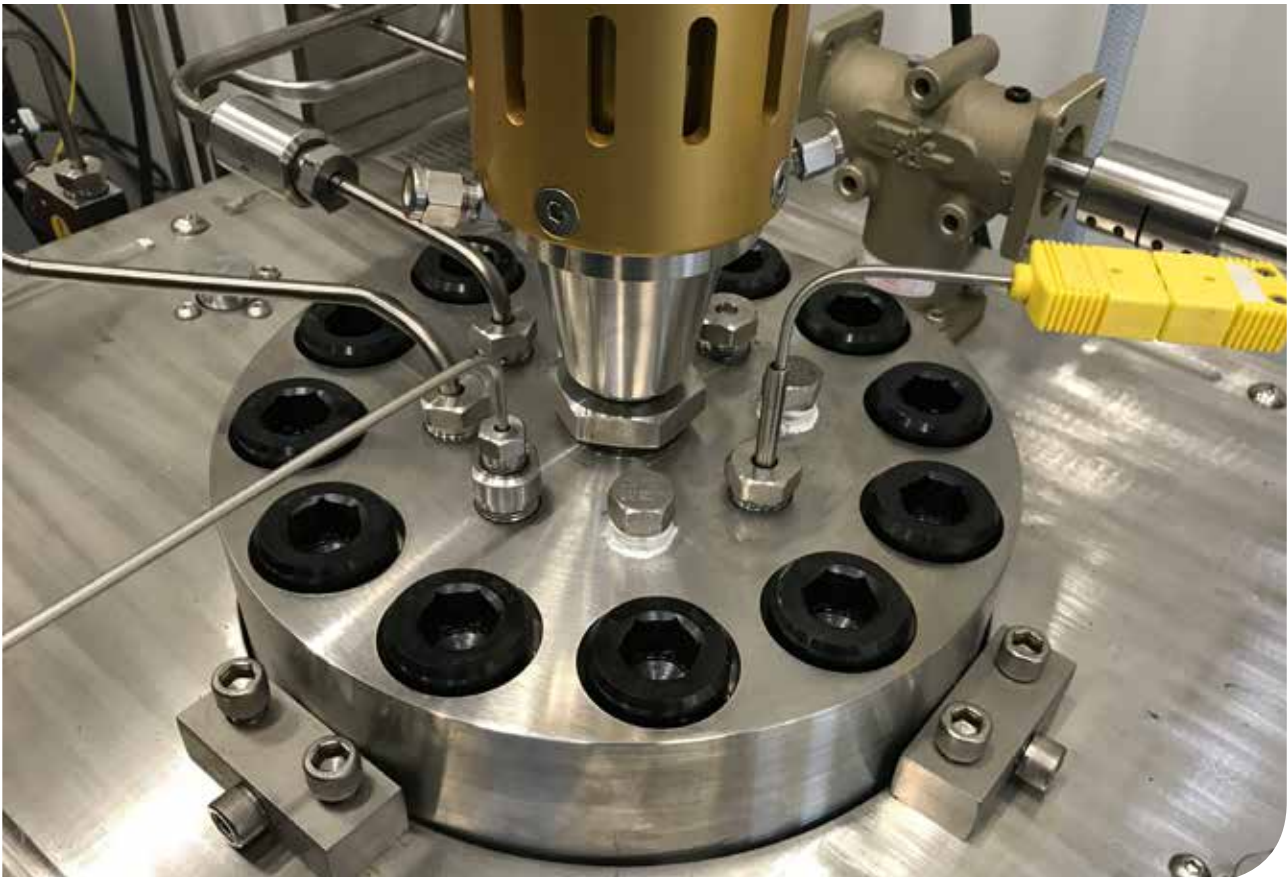


## FACT-Lab - test of materials in realistic environment

– We test your material candidates to fulfil the standard.... and even further



Is your company challenged on materials in aggressive environments? FACT-Lab gives you the possibility of choosing between a wide range of tests, including standard tests (e.g. NACE, ASTM etc.) and special tests such as laboratory and full scale tests.

### Equipment and facilities

The test equipment facilitates high pressure and temperature testing in aggressive environments (liquids and gases). A large variety of techniques are offered for examination of aqueous corrosion of metals, focusing especially on corrosion resistant alloys (CRA's).

You can test degradation of other materials including polymers, composites and surface treatments. It is also possible to simulate aggressive environments in e.g. a chemical process or a reservoir.

In the associated full scale test facility products and components may be tested under similarly aggressive conditions.

We will happily cooperate with your technicians and customers and we also provide witnessed tests, e.g. with the possibility of remote surveillance.

The provided tests include:

- Fit for purpose test
- Standardised testing according to e.g. EN, ASTM and NACE
- Stress Corrosion Cracking Tests (SCC)

- Hydrogen induced cracking (HIC)
- Sulphide stress cracking (SSC)
- Autoclave test system with flow
- Electrochemical testing
- Product- and component tests.

You can plan your own test programme, if a standard test is not available for your application – or we can assist you defining the test.

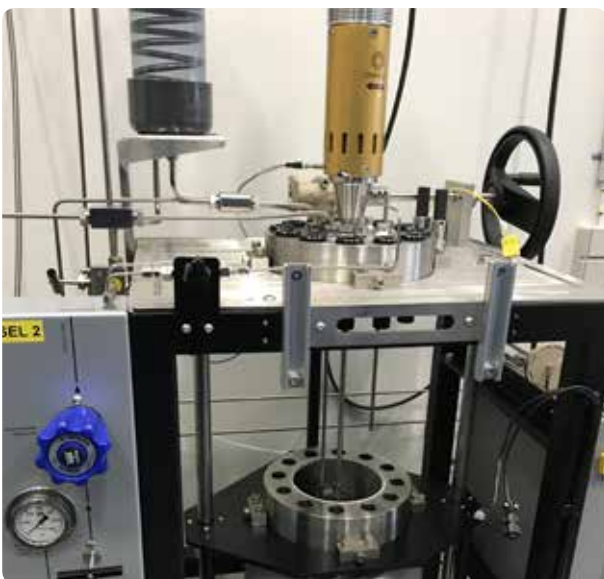
We hold extensive experience at facilitating and supplying solutions for:

- Oil and gas industry (H<sub>2</sub>S, CO<sub>2</sub>)
- Pharmaceutical and food industry (high temperatures in e.g. evaporators, boilers, reactors)
- Biogas- and waste handling (H<sub>2</sub>S, H<sub>2</sub>SO<sub>4</sub>)
- Chemical and petrochemical industries (large spectrum of chemicals, products, processes)
- Cleantech (decomposition of hazardous materials at high-pressure boiling)
- Geothermal energy and storage (concentrated salt brine, scaling and descaling)
- Water electrolysis (hot, aggressive base)
- Pyrolysis, combustion and motors/engines (aggressive products at high temperatures)
- Paper and pulp industry (aggressive environment, processes for recycling of residual products)
- Research & development projects.

### Test possibilities

FACT-Lab holds specialised equipment and facilities, to test your candidate materials:

- Pressure 0-350 bar
- Temperatures (25-350 °C)



Autoclave with a volume of 7.5 litres ready to go

### Yderligere information

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We test up to 350 bar

- Flow simulation or other movement
- Possibility for dosing of chemicals and gas mixtures during testing
- Electrochemistry directly in the autoclave (HPHT reference electrode).

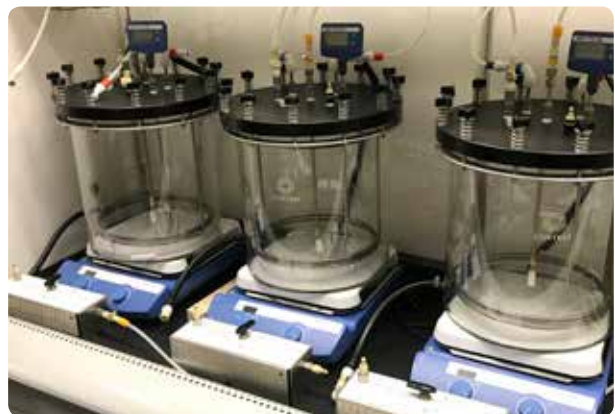
### Full scale equipment

The full scale test laboratory is used to test large components.

The facility comprises a safety container with an inserted test container. The equipment facilitates performance test of components or system integrity tests for e.g. damage and failure or validation testing to ensure compliance with your requirements.

### HSE

We meet the strictest safety requirements, for personal protection as well as environmentally – with triple safety barriers for pressurised tests, removal of hazardous gasses in scrubber units and collection of fluids for neutralisation tanks.



Test cells for multi gas flow tests