

**PRESSURE & TEMPERATURE TESTING**  
*Facility for testing at downhole conditions*



**High  
Energy  
Test  
Environment**



**Description**

The High Energy Test Environment facility (HETE) can provide a safe testbed that meet the most extensive safety requirements during testing at extreme energy levels. Driven by design criteria; testing under high pressure and high temperatures including large volume test objects, can be done in a safe and contained manner.

Dimensions of test pit are; 20 m long, 2 m wide and 3 m deep. The total weight of floating-pit is 400 metric tons, supported with a unique crash-box system to avoid impact damages internally on the pits wall and furthermore to the overall facility. Extreme testing has never been safer.

The IRIS barrier system is safe to handle kinetic load impact of 5600 kJ, (equal an object of 300 kg with speed of 194 m/sec or 700 km/h)

All tests are evaluated before the decision on which facility to use.

Test capacities	Media	Values
Pressure	Water, glycol	4000 bar
Pressure	Nitrogen	2600 bar
Temperature range	Nitrogen, glycol	-20°C to 300°C*
Static load in test pit		300 Metric tonnes tension**

\*pressure & temperature range can be enlarged.

\*\* 17 meter test object length

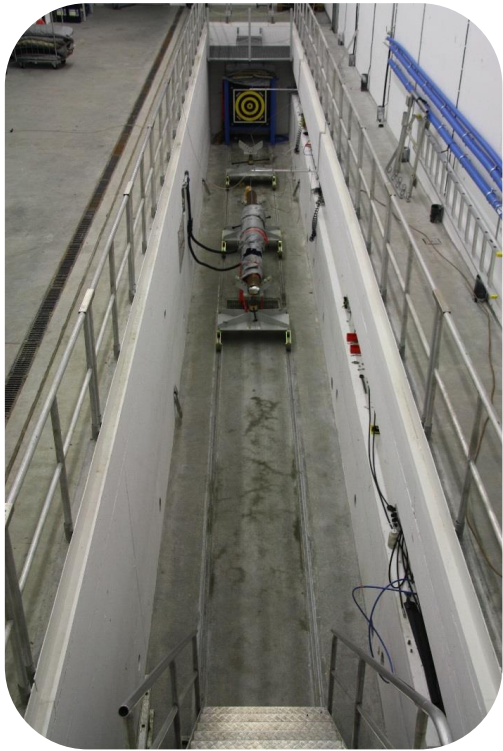
PLC conducted control

The facility is equipped with a comprehensive data acquisition system flexible for adjustments to customer needs. Facility is remotely operated from a separate building. Increased technical capacities on request.

**Application**

A range of packers, plugs, liner hangers downhole equipment in general have previously all been thoroughly tested utilising this facility. Special test chambers can be fabricated in-house and utilized together with the infrastructure of the facility to pressurise and heat all types of tools and equipment.

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**IRIS crash box system** installed in the 20-meter-long custom designed test-pit. These will assure dampening of objects accidentally released during testing. Load absorption capacity is 5600 kJ which equates to an object mass of 300 kg travelling at 194 m/sec or 700km/h.

Test facility facts	Value	Unit
Test object length (including crash boxes in test pit)	18000	mm
Test object size (square)	1950	mm
Pressure capacity on test objects limited to	4000	bar
Temperature standard mode	-20 to +300	°C *
Tension on object up to 17 meters length	300	Metric tons

PLC conducted control  
Strain gauge can be facilitated  
Separate loadcell on request for tension applications  
\*pressure & temperature range can be enlarged

**Typical test programs**

Statoil TR 2385      ISO 14998      ISO 14310      Custom programs  
Available bleed down procedures for gas to avoid Rapid Gas Decompression (RGD)

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