

A New ISO Jet Fire Facility

Delivering world
class fire testing

Requiring in excess of two years to build and more than NOK 30m to develop and commission, Gexcon is proud to announce the availability of its new, fully instrumented, jet fire facility, situated at a fire test site on the island of Steinsland, Norway and close to the Gexcon global headquarters in Bergen.

Representing the largest of its type in the world and capable of reaching heat loads in excess of 400kW/m², the facility has undergone trialling and validation in order to deliver a world class testing capability now available to clients across the globe.

“A result of our continued investment into research and development to improve industrial safety, this facility represents a significant step forward in our plans to help our clients test and achieve compliance for safety critical equipment and Passive Fire Protection (PFP) to the ISO standard 22899-1, 2007.”

Kees van Wingerden,
Gexcon SVP & CTO

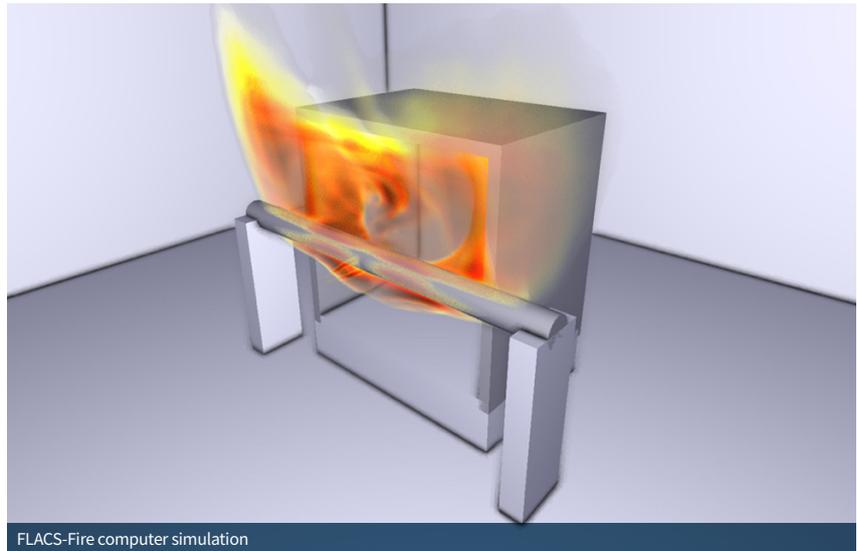


About the facility

The facility takes advantage of novel design technology to attain conditions that have been previously difficult to reach. To achieve heat fluxes representative of a full-bore rupture of large pipelines on an offshore facility, such as a riser, a flame re-circulation chamber has been incorporated into the design. This chamber allows for obtaining an optically thick flame (increasing the heat flux onto the object to be tested) which can also cause flame erosion of PFP due to the high flow velocities.

The facility was designed based on computer simulations derived using Gexcon's own developed software tool FLACS-Fire, a variant of the FLACS 3D software - a mature, well validated software application for gas dispersion and explosion prediction tuned for modelling fire scenarios.

A facility that has been specifically designed to generate typical erosion effects from high intensity jet fires, Gexcon is the only company in the world able to provide testing in such realistic high heat flux conditions.



FLACS-Fire computer simulation

Jet fire & explosion testing

Jet fire tests can also be combined with explosion tests, also available through Gexcon, to represent escalation situations. In this way, realistic accident scenarios can be simulated, for example, where PFP material is exposed to an explosion load followed by a resulting jet fire load.

“With this new facility we have created a world class service for our clients that compliments the project, software and training capabilities that Gexcon also delivers to the market. We are looking forward to serving our clients with such new

technologies and continue to strive to meet their growing expectations“, summarised van Wingerden.

Headquartered in Bergen, Norway with offices across the UK, Europe, America and Asia, Gexcon is a subsidiary of Christian Michelsen Research, a pioneer in research and innovation. Gexcon's experienced engineers are recognised specialist experts that provide risk and safety management support for every stage and requirement of an asset life cycle from design and installation to operations and decommissioning.

Gexcon

World-leaders in the field of safety and risk management and advanced dispersion, explosion and fire modelling.

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