A climatic chamber with huge possibilities
In the climatic test chamber, providing a volume of approximately 900 m³, large components, structures and functional systems can be tested under realistic atmospheric sea conditions.

The climatic test chamber is the only commercially available in Northern Europe providing a combination of three different environmental systems to perfectly simulate an offshore environment:

- Temperature control
- Humidity control
- Salt spray.

The three environmental parameters can be individually controlled or be programmed as combined effects to simulate the harsh offshore atmosphere as realistically as possible.

Can your system withstand the environment?
In addition to the relatively simple exposure tests, accelerated tests can be conducted. An accelerated test can run with single or combined effects designed to react on a particular element of the test subject.

Furthermore, a variety of land-based equipment can be tested. Examples include onshore wind turbines, transportation systems, radar systems, air-conditioning systems, traffic-regulating systems, warning systems and lighting systems.
Specifications for the climatic chamber

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>14x8x8 m (gate 7x7 m)</td>
</tr>
<tr>
<td>Temperature range</td>
<td>+60 °C to -35 °C</td>
</tr>
<tr>
<td>Humidity range</td>
<td>10 %RH to 100 %RH</td>
</tr>
<tr>
<td>Salt spray</td>
<td>Adjustable from 3 sides</td>
</tr>
<tr>
<td>Cooling capacity</td>
<td>210 kW @ -10 °C</td>
</tr>
<tr>
<td></td>
<td>60 kW @ -35 °C</td>
</tr>
</tbody>
</table>

Testing of functional systems

The climatic chamber is especially well suited for testing functional systems e.g. a crane system, an engine or a hydraulic system.

The climatic chamber is located inside a large test hall, which allows for testing functional split-systems. An example is a heating/cooling system consisting of both indoor and outdoor modules, where one part can be located and manipulated inside the climatic chamber while the other part is located in the test hall.

In this way virtually all systems can be tested and verified for both corrosion resistance and for desired performance under a variety of atmospheric conditions.

Customised tests

Testing in the climatic chamber can be customised to meet your specific demands. If you need assistance in the process of designing the test for your needs, we shall be happy to guide you. The climatic chamber is also capable of performing according to a number of standards.

Large scale testing is possible due to the maximum floor load of over 1000 tonne.

The climate chamber is placed inside a large hall making it suitable for split systems testing.

Rely on us to bring your product in front

Our corrosion and metallurgy experts will be available to help during the entire design and production chain. This will enable you to find the right solution for your product in order to avoid unexpected corrosion or material damage or operational failures.

Testing, evaluating and optimising your equipment properly before installation will confirm lifetime robustness of your product.

Strategic partnership for the benefit of industry

FORCE Technology has assisted industries world-wide with challenges relating to materials and systems for more than 75 years. Our vast experience is one of our most essential values to our customers.

However, we are constantly striving to develop advanced materials and testing solutions. Therefore, FORCE Technology has formed a strategic partnership with Lindoe Offshore Renewable Centre (LORC) in order to offer tests of large components and systems.

The partnership between LORC and FORCE Technology has resulted in establishing Lindoe Component and Structure Testing A/S. The new facility for developing and testing of large components and systems has been established at the Lindoe Port of Odense, Denmark.

Other services

Lindoe Component and Structure Testing A/S also offers related testing and development services:

- Mechanical Tests of Large Structures
- High Power Laser Welding.

Further information

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