

In the dry dock

The Danish Maritime Museum,
Helsingør, Denmark



↑ As part of the museum construction process, the old dock wall was completely uncovered and the dry dock left empty.

Located a good hour's drive north of Copenhagen, the new Danish Maritime Museum in Helsingør is spectacular – even though it can't be seen from close by. There is a very good reason for this – the architects from Bjarke Ingels Group (BIG) who won the competition in 2007 had to comply with the stipulation not to block the view of Kronborg Castle. As a result, they had no choice but to build downwards, not upwards. The site for the museum was a disused dry dock – a remnant of the famous Helsingør shipyard.

As part of the conversion, the old dock wall was completely uncovered and the dry dock left empty, with the architects developing the museum in a subterranean space created around this empty basin. As a result, visitors looking down eight meters onto the bottom of the dry dock from behind the glass railing at the top get an immediate sense of the scale of the 150-meter-long, 21-meter-wide dock structure. The museum is accessed via a sloping bridge which smoothly zigzags down to the entrance in the underground floor. The

bridge also simultaneously fulfills the requirement of creating barrier-free access to the museum. The oblique bridges and steep stairways which lead through the structure are designed to cause the visitors to sway and convey the feeling of being on the high seas. The permanent exhibition on the history of Danish seafaring features glass display cabinets which look like transparent icebergs and sink into the floor at an angle. ←

Jan Henriksen, engineer at Aksel V. Jensen:

The maritime museum's unusual architecture posed us several problems. With the downward-sloping entrance bridge, we had to ensure that the rainwater can run off while still on the bridge before reaching the entrance to the museum. According to our calculations, it would take the rainwater only three minutes to reach the entrance. To prevent it from entering the rooms and damaging the exhibits, we worked together with a technical advisor from Geberit to calculate the optimal positions on the bridge for the Pluvia roof drainage system based on a rainfall intensity of 13 liters per second.

**The Danish Maritime Museum,
Helsingør (DK)**

Building owner: The Danish Ministry of Culture,
Copenhagen (DK)

Architects: Bjarke Ingels Group,
Copenhagen (DK)

Opened: 10/2013

Sanitary engineers: Aksel V. Jensen.

Rådgivende Ingeniørfirma A/S, Hillerød (DK)

Plumber: Fredensborg VVS Teknik,
Fredensborg (DK)

Geberit know-how

Pluvia roof drainage systems

Duofix installation systems