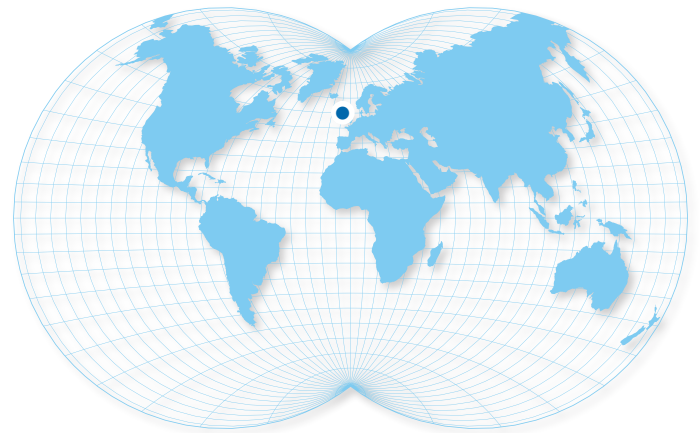


FREDRICKSHAVN, DENMARK: DDCS SALM®



Scope of Work

SOFEC designed, constructed, and supervised installation of a SALM to operate in ice-laden water to import fuel, diesel and Mogas.

General Description

| | |
|--------------------|--|
| Client Name: | Danish Defense Construction Service (DDCS) |
| Contract Award: | 1982 |
| Installation Date: | 1983 |
| Application: | Jet Fuel, Diesel and Mogas Import |

Project Specifications

| | |
|-----------------------|---------------------------|
| Water Depth: | 15m (50ft) |
| Tanker Size: | 35,000 dwt |
| Dimension: | 9.2m x 4.0mØ |
| Floating Hose System: | 2 x 10-in. |
| Hawser System: | 12-in. Single hawser |
| Anchor Leg System: | 4-in. Ø with Chain swivel |
| Anchor System: | 4 x 30-in. Ø Mooring base |

Comments

The DDCS mooring terminal is a shallow water dual product import SALM. There are two unique features of this SOFEC SALM:

- It is located in 15.2m of water making it one of the shallowest SALMs in the world
- It employs a dual sink/float 10-in. hose system. The hose design allows the floating hoses to be submerged and secured on the seabed when not in use.

This SPM system is installed to supply the pipeline system in Jutland and replaced a former CBM.

This terminal is very well adapted to winter sea and ice conditions found in this location. The principle products are MOGAS and jet fuel.