

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Bulkhead/Deck Penetration**with type designation(s)
"MCT Brattberg 2000" composed of steel frames

Issued to

MCT Brattberg AB
KARLSKRONA, Swedenis found to comply with
DNV GL rules for classification – Ships, offshore units, and high speed and light craft**Application :****Approved for penetration in bulkheads or decks limited to**

- water pressure of 4,0 bar
- gas pressure of 2,66 bar.

Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.Issued at **Høvik** on **2017-03-28**This Certificate is valid until **2022-03-27**.for **DNV GL**DNV GL local station: **Malmö**Approval Engineer: **Nicolay Horn**

Andreas Kristoffersen
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Job Id: **262.1-006785-3**
Certificate No: **TAE00001U2**

Product description

MCT Brattberg 2000" composed of steel frames types either: RGS, RGSO, RGSR, RGSF or RGSK in sizes 2, 4, 6 or 8 and combinations welded to the steel division (deck or bulkhead) and filled with MCT-inserts blocks made from "Lycron".

Application/Limitation

Approved for penetration in bulkheads or decks and between gas safe and gas dangerous spaces to water pressure of 4,0 bar and gas pressure of 2,66 bar.

Type Approval documentation

Tests carried out

Pressure tests with water according to DNVGL Class Program Type approval Ed. Feb. 2016 doc. no. DNVGL-CP-0165.

Marking of product

The product or packing is to be marked with name of manufacturer and type designation.

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routines (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and Type Approval Certificate.

Assessment to be performed at 2 and 3.5 year.

END OF CERTIFICATE