DNV·GL

Certificate No:
TAF00000M0

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Class A and B Penetration

with type designation(s)
Wearflex® Q-Fire Sealing System

Issued to
Insulcon B.V.
STEENBERGEN NB, Netherlands

is found to comply with
DNV GL rules for classification – Ships
DNV GL offshore standards
DNV GL statutory interpretations DNVGL-SI-0364 – SOLAS interpretations
DNV GL class programme DNVGL-CP-0165 – Type approval – Cable and pipe penetrations

Application :

Approved for use as a pipe penetration system in A-60 class steel bulkheads.

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Issued at **Høvik** on **2017-03-20**
This Certificate is valid until **2022-03-19**.
DNV GL local station: **Rotterdam, Product Certification /Verification**

Approval Engineer: **Helge Bjørnarå**

for **DNV GL**

Petter Langnes
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.

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Product description

"Wearflex® Q-Fire Sealing System"
Pipe penetration system consisting of a steel sleeve, preinsulated pipe and a Wearflex® Q-Fire Expansion Bellow.

The sleeve is to be at least 8 mm thick and minimum 214.5 mm long. On the side of the bellow the sleeve shall be extended 6 mm and be fitted with a small protrusion (Ø 6 mm) on the edge. The gap between sleeve and preinsulated pipe is to be maximum 55 mm

The preinsulated pipe consists of a steel pipe insulated with 4x10 mm Aerogel XTF covered with a 0.8 mm thick stainless steel cladding fixed with self-tapping screws.

The sealing system consists of a 10.4 mm thick multilayer bellow type Wearflex® Q-fire system fitted to the pipe and sleeve on one side of the bulkhead. The bellow is secured to the pipe and sleeve with a stainless steel power clamp. On top of the power clap on the pipe, there shall be fitted a flange cover. On the sleeve, on both sides of the bulkhead, there shall be fitted a collar. In the gap between the pipe and sleeve, there shall be fitted a strip of intumescent material.

For details on parts and arrangement, please consult drawings No. W16028070, Rev.4 and No. W16028080, Rev.1.

Application/Limitation

Approved for use as a pipe penetration system in class A-60 steel bulkheads. For A-0, A-15 and A-30 applications, the penetration shall be insulated as for A-60 and the division is to be fitted with A-60 insulation for a minimum distance of 200 mm around the penetration.

Approved for preinsulated steel pipes with outer diameter Ø 95-875 mm. The maximum gap between insulated pipe and sleeve is 55 mm.

The penetration system shall not be used for penetrating boundaries of tanks.

Watertightness and gastightness is not covered in this certificate.

Type Approval documentation

Certification in accordance with Class Programmes DNVGL-CP-0338, October 2015 and DNVGL-CP-0165, February 2016.

Test report No. 2017-Efectis-R000248 dated February 2017 from Efectis Nederland BV, The Netherlands.

Drawing No. W16028070, Rev.4, dated 2017-01-19 from manufacturer.
Drawing No. W16028080, Rev.1. dated 2017-01-19 from manufacturer.

Tests carried out

Tested according to IMO 2010 FTP Code part 3.

Marking of product

The product or packing shall be marked with the name of the manufacturer, type designation and fire technical rating, as applicable.

Periodical assessment

DNV GL's surveyor is to be given permission to perform Periodical Assessments at any time during the validity of this certificate and at least every second year. The arrangement is to be in accordance with procedure described in DNVGL-CP-0338 Section 4.