



Certificate No:
TAF00001N2

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Class A and B Penetration

with type designation(s)
Exhaust gas pipe penetration for Bulkhead

Issued to

Schwingungstechnik-Broneske GmbH
Quickborn, Schleswig-Holstein, Germany

is found to comply with

DNV rules for classification – Ships
DNV class programme DNV-CP-0165 – Type approval – Cable and pipe penetrations
DNV statutory interpretations DNV-SI-0364 – SOLAS interpretations, Edition July 2021

Application :

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

Issued at **Hamburg** on **2022-03-01**

This Certificate is valid until **2027-02-28**.

for **DNV**

DNV local station: **Hamburg – CMC North/East**

Approval Engineer: **Hagen Markus**

.....
Olaf Drews
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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Form code: TA 251

Revision: 2021-03

www.dnv.com

Page 1 of 4

Product description

Flexible Fire-Watertight exhaust gas pipe penetration for bulkheads.

The penetration is positioned on one side of the A-Class Bulkhead as specified below.

It consist of welded steel ring (disk), outer steel coaming ring, upper holder ring closed by fire tight/watertight seal package with layers fibre glass cloth, glass fabric insulation, flexible seal fixed by clips.

References:

- Data sheet "Pipe Penetration Flexible Fire – And Watertight SBP500-00402"
- Assembly Instructions Manual "Flexible Fire-Watertight Penetration & Separated Penetration"

Application/Limitation

The sealing system "SBP" is type approved for penetrating of A-60 class bulkheads.

For single steel pipes of outer diameter size range 42mm up to 1520mm (ND32 to ND1500).

For applications in A-0, A-15 and A-30 class steel bulkheads, an additional A-60 Class

An insulation collar is to be fitted around the penetration for a minimum distance of 200mm (for pipe penetrations between ND32 to ND350) and 450mm (for sizes above ND350 up to ND1500), on both sides of bulkheads and retained by welded steel pins of Ø3 mm and steel washers Ø38 mm with max. spacing 300mm between centers.

In all cases, the full length of the carbon steel exhaust gas pipe has to be insulated with 120mm thick Rockwool SeaRox WM 620 insulation (90kg/m³) or equivalent.

Approved positions and size range

General application, i.e. positioning of the penetration on the exposed or nonexposed side.

Size range

ND 32 up to ND 1500 - Rockwool SeaRox WM620 insulation (90kg/m³).

ND 32 (new version) up to ND 250 - Insulfrax S Blanket insulation (96kg/m³).

Insulation of exhaust gas pipes – all diameters

Exhaust gas pipes have to be insulated completely on the exposed side.

On the unexposed side at a length of at least 500mm (measured from the insulation of the bulkhead and the pipe penetration respectively)

Reference Assembly Instruction's Manual "Flexible Fire-Watertight Penetration & Separated Penetration".

Water tightness

The exhaust pipe penetration has been type tested with regard to the requirements on pipe penetration penetrating watertight bulkheads and decks as follows:

Water		
Test pressure	Approved pressure	Leakage rate l/min
0.6bar	0.4bar	0

Penetration systems are generally not to be used for penetrating boundaries of tanks. The use in dry void spaces is approved.

Installation

Each product shall be supplied with its manual for installation and maintenance.

Reference

- "SB BRONESKE Flexible Fire-Watertight Penetration & Separated Penetration - Assembly Instructions Manual"



Job Id: **262.1-036678-1**
Certificate No: **TAF00001N2**

Type Approval documentation

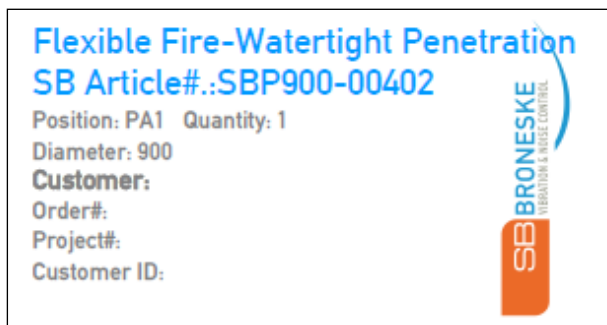
Tests carried out

- Fire tests according to IMO Res. MSC.307(88) / IMO 2010 FTP Code - Annex 1, Part 3, Test for "A", "B" and "F" class divisions.
- Water and gas tightness tests acc. to CP-0165

Marking of product

Each product is to be marked by a name plate or sticker with at least the following content:

Example



Periodical assessment

For retention of the Type Approval, a DNV Surveyor shall perform periodical assessment to verify that the conditions for the Type Approval are complied with. Refer to the Class Programme DNV-CP-0338, Sec.4.

To check the validity of this certificate, please look it up in <https://approvalfinder.dnv.com>

End of certificate