

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Class A and B Penetration**with type designation(s)
STI Marine Snap-Seal plug (pipe)

Issued to

Specified Technologies Inc.
Somerville, NJ, USA

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 in A0 - A60 steel and aluminum bulkheads and decks (see under application/limitation on page 2).****This certificate is recognized by Transport Canada.****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**Issued at **Høvik** on **2018-06-28**This Certificate is valid until **2023-06-27**.for **DNV GL**DNV GL local station: **Certification & Inspection Services**Approval Engineer: **Tessa Bieber**

Mårten Schei-Nilsson
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.



Product description

"STI Marine Snap Seal Plug (pipe)"

is a penetration system designed for small metallic and nonmetallic tubes in A-0 through A-60 bulkheads or decks. The device contains intumescent material that expands to keep heat and fire from passing through the penetration within the division.

The STI Marine Snap-Seal Plug consist of a 25mm diameter by 41mm long shell containing intumescent material lining and held by a stainless steel clip used for attachment to divisions. The STI Marine Snap-Seal Cable Plug installed through either side of bulkhead or from top surface of deck with nominal 0.5mm thick stainless steel clip.

For further information see documentation listed under Type Approval documentation below.

Application/Limitation

Approved for use in A0 - A60 steel bulkheads and decks as per table 1 and 2 below. Other applications are subject for case by case approval.

Table 1 : A-60 Bulkhead Penetration Details

Opening [mm]	Fire Rating	Division Type	Penetrant	Insulation Detail
Ø27-Ø28	A-60	Steel	Copper tube – Ø6mm	Bulkhead is insulated by min. 75mm thick mineral wool with density of min. 96kg/m ³ or other approved A-60 insulation. In addition, 25mm thick by min. 127mm width of STI MPACT Filler Blanket wrapped around tube and held with steel wire.
Ø27-Ø28	A-60	Steel	PVC tube – Ø6mm	Bulkhead is insulated by min. 75mm thick mineral wool with density of min. 96kg/m ³ or other approved A-60 insulation.

Table 2: A-60 Deck Penetration Details

Opening [mm]	Fire Rating	Division Type	Penetrant	Insulation Detail
Ø27-Ø28	A-60	Steel	Copper tube Ø6mm	Deck is insulated by min. 50mm thick mineral wool with density of min. 96kg/m ³ or other approved A-60 insulation. In addition, 25mm thick by min. 127mm width of STI MPACT Filler Blanket wrapped around tube and held with steel wire above deck.
Ø27-Ø28	A-60	Steel	PVC tube Ø6mm	Deck is insulated by min. 50mm thick mineral wool with density of min. 96kg/m ³ or other approved A-60 insulation.

The A-60 approved penetrations may also be used as A-0, A-15 and A-30 but shall be insulated as A-60 and in addition the division shall be insulated at least 200 mm around the penetration.

Optional STI MFS Sealant may be installed as an additional continuous seal over Snap-Seal face creating a nominal 2mm film over the face, between Snap-Seal and bulkhead or deck and tube.

Extent of application is to be considered and accepted for each case/project.

Job Id: **262.1-026791-1**
Certificate No: **TAF00000ZG**

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

Type Approval documentation

Certification in accordance with Class Programme DNVGL-CP-0338 edition October 2017.

Test Report Nos.:

- 347336 dated 12th February 2015 – (A-60 Steel Bulkhead)
- 367668 dated 24th October 2016 – (A-60 Steel Bulkhead)

Both from Exova Warringtonfire, Warrington, United Kingdom

Test Report Nos.:

- File R14579 – Report 4786873747 dated 29th April, 2015 from UL LLC, Northbrook, IL, U.S.A (A-60 Steel Deck)

Drawing Nos.:

- STIM0117, MSS Snap-Seal dated 2018-06-25
- MPASSY514, Grommet Assembly Half RFG2, dated 2014-07-07
- MPASSY806 - MSS25, ½ Grommet Assembly, dated 2017-11-08
- MPASSY807 - MSS25, Full Assembly, dated 2017-11-08
- MP2001, Grommet, Half, RFG2, dated 2014-07-02
- MP2482 - MSS25, Metal Insert, dated 2017-09-26
- MP1089, RFG2 Grommet Foam insert, dated 2010-12-22

Tests carried out

Tested according to IMO 2010 FTP Code Part 3.

Transport Canada Approval

Based on the procedures laid down in the Transport Canada Publication entitled "Approval Procedures for, Life Saving Equipment and Structural Fire Protection Products (TP 14612)", DNV GL confirms that the product listed in this certificate is in accordance with Transport Canada's requirements.

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 Class Programme DNVGL-CP-0338, Section 4.

Marking of product

The product or packing is to be marked with name of manufacturer, type designation and fire-technical rating.