



Certificate No:
TAE00004S8

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Bulkhead/Deck Penetration

with type designation(s)

**Remitite RS-105 Pipe penetration sealing system,
Remitite RRS-15 Pipe penetration system**

Issued to

**Remitite Co., Ltd.
Gimhae-si, Gyeongsangnam-do, Korea, Republic of**

is found to comply with

DNV rules for classification – Ships, offshore units, and high speed and light craft

Application :

**Non-fire rated pipe penetrations approved for water tightness in steel division of bulkheads or decks.
Products approved by this certificate are accepted for installation on all vessels classed by DNV.**

Issued at **Høvik** on **2023-07-03**

This Certificate is valid until **2028-07-02**.

DNV local unit: **CMC Korea**

Approval Engineer: **Ivar Bull**

for **DNV**

**Frederik Tore Elter
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.



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Product description

"RRS-15/RS-105" penetration system composed of rectangular or circular 180 mm deep steel sleeve with thickness of at least 5 mm welded symmetrically to the bulkhead

RRS-15 (Remitite Rubber Sleeve 15) is wrapped around the pipes and fitted between the steel sleeve and pipes.

RS-105 (Remitite Silicone Sealant #105) of 20 mm thickness is applied to both ends of the sleeve.

Application/Limitation

Approved for use as a pipe penetration system in steel bulkhead/deck of class A-0 without insulation. The penetration is approved for installation in steel bulkheads/decks

Approved range for deck and bulkhead penetrations:

Type	Size (W x H), mm	Pipe filling ratio (min. – max.)	Sleeve position in deck or bulkhead
Rectangular	300 x 140	0% - 40%	General application

Approved range for deck penetrations:

Minimum distance between pipes and between pipes and coaming is 5 mm.

No more than 40% of the inside cross-sectional area of each transit should be occupied by pipes.

Approved for penetrations in steel bulkheads limited to a pressure of 1.0 bar water tightness and 0.2 bar gas tightness (test pressure 1.5 bar and 0.3 bar respectively).

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

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

Type Approval documentation

Tests carried out

Pressure tests with water according to DNV Class programme DNV-CP-0165 September 2021.

Marking of product

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

Periodical assessment

The scope of the periodical assessments to verify that the conditions stipulated for the Type approval is 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 Production Sample Tests (PST) and Routines (RT) checked (if not available tests according to PST and 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 and at renewal. END OF CERTIFICATE