

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED), issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Authority. This Certificate is issued by DNV GL AS under the authority of the Government of Norway.

This is to certify:

That the Penetrations through "B" class divisions: pipe, duct, trunk, etc penetrations

with type designation(s)
Cabin ventilation units

Issued to

Novenco Marine & Offshore A/S
Køge Sjælland, Denmark

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2017/306**,
item No. MED/3.27b. SOLAS 74 as amended, Regulation II-2/9 and IMO 2010 FTP Code.

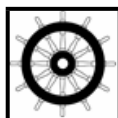
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2023-01-04**.

Issued at **Høvik** on **2018-01-05**

DNV GL local station:
Copenhagen

Approval Engineer:
Nanna Martine Jacobsen



Notified Body
No.: **0575**

for **DNV GL AS**

Vidar Dolonen
Head of Notified Body

A U.S. Coast Guard approval number will be assigned to the equipment when the production module has been completed and will appear on the production module certificate (module D, E or F), as allowed by the "Agreement between the United States of America and the EEA EFTA states on the mutual recognition of Certificates of Conformity for Marine Equipment" signed 17 October 2005.

The mark of conformity may only be affixed to the above type approved equipment and a Manufacturer's Declaration of Conformity issued when the production-surveillance module (D, E or F) of Annex B of the MED is fully complied with and controlled by a written inspection agreement with a Notified Body. The product liability rests with the manufacturer or his representative in accordance with Directive 2014/90/EU.

This certificate is valid for equipment, which is conform to the approved type. The manufacturer shall inform DNV GL AS of any changes to the approved equipment. This certificate remains valid unless suspended, withdrawn, recalled or cancelled.

Should the specified regulations or standards be amended during the validity of this certificate, the product is to be re-approved before being placed on board a vessel to which the amended regulations or standards apply.



Product description

"Cabin Ventilation Units"

Ventilation unit types as specified in the below table, installed in cut-outs in B-15 ceilings. The ventilation units are composed of casings (bodies) made of 0.8 mm thick Al-Zn steel sheets, baffle plates, control mechanisms, inlets, outlets, diffusers, etc. The internal body and selected internal parts are insulated using two types of glued-on Rockwool insulation plates (20 mm thick with density 80 kg/m³, and 25 mm thick with density 60 kg/m³). The RS25, RS35, RS35X and RW35 types are also fitted with heating elements.

The ventilation units are mounted by suspension irons and angle steel to the steel deck using M6 bolting. 40 mm thick Rockwool of density 80 kg/m³ is padded in between the bottom of the ventilation units and the unexposed (upper) face of the ceiling.

For further details regarding lay-out, internal parts, insulation arrangement, suspension details, etc., please see the Type Examination documentation below.

The ceiling ventilation units are manufactured by Novenco Hi-Pres Air Handling Equipment (Wuxi) Co., Ltd.

Application/Limitation

Cabin ventilation unit type	Maximum size (L x W x H)	Maximum weight
MS25	450 x 450 x 130 mm	7.0 kg
MS35	600 x 450 x 175 mm	11.5 kg
MT25	450 x 450 x 130 mm	7.5 kg
MT35	600 x 450 x 175 mm	11.5 kg
RS25	552 x 450 x 130 mm	13.5 kg
RS35	690 x 450 x 175 mm	16.5 kg
AT35	600 x 450 x 175 mm	11.5 kg
RS35X	605 x 455 x 175 mm	18.0 kg
RW35	604 x 450 x 175 mm	11.0 kg

Approved for use in MED approved B-15 class ceilings when mounted as per manufacturer's drawings. The ceiling cut-outs shall not cross the boundary of a joint between two ceiling plates. The manufacturer of ceiling is responsible to document that the structural and thermal integrity is maintained after fitting the ventilation units into the ceiling. The arrangement is subject for approval in each case.

The insulation material used has to be approved according to the Marine Equipment Directive and bear the Mark of Conformity.

Any adhesive used, other than the one used during testing, has to be tested for low flame spread characteristics according to IMO FTP Code Part 5 and to be approved according to the Marine Equipment Directive and bear the Mark of Conformity.

Watertightness and gastightness is not covered in this certificate.

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

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

Type Examination documentation

Test reports from Far East Fire Testing Centre (FEFTC), Shanghai, China: FT12111 dated 9 July 2012, FT12122 dated 9 July 2012 and FT12139 dated 12 July 2012.

Drawings from the manufacturer: 241901-0 (MS25), 241899-0 (MS35), 241900-0 (MT25), 241898-0 (MT35), 241902-0 (RS25), 241903-0 (RS35), 241904-0 (AT35), 241905-0 (RS35X), dated 04 April 2011. 241268-0 (RW35), dated 04 April 2017.



Job Id: **344.1-003635-3**
Certificate No: **MEDB00003BB**

Assessment Report from Danish institute of Fire and Security Technology (DBI), Denmark: PHA10996A dated 07 December 2017.

Tests carried out

Tested according to IMO FTPC Part 3 and in compliance with IMO 2010 FTP Code Ch. 8.

Marking of product

The product is to be marked with name and address of manufacturer, type designation, MED Mark of Conformity and USCG approval number if applicable (see front page).