

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV GL SE based on the notification of the Federal Maritime and Hydrographic Agency of Germany.

This is to certify:

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

with type designation(s)
HH-MF-P, HH-MF-M

Issued to

Jingjiang Haihong Plastics & Rubbers Science-Technology Co., Ltd
Jingjiang, China

is found to comply with the requirements in the following Regulations/Standards:

Regulation **(EU) 2019/1397**,
item No. MED/3.26b. SOLAS 74 as amended, Regulation II-2/9, IMO MSC.1/Circ.1276, IMO 2010 FTP Code and IMO MSC.1/1488

Manufacturers authorised representative

Jingjiang Haihong Plastics & Rubbers Science-Technology Co., Ltd
Jingjiang, China

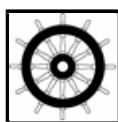
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2025-07-14**.

Issued at **Hamburg** on **2020-07-15**

DNV GL local station:
Jiangyin

Approval Engineer:
Hagen Markus



Notified Body
No.: **0098**

for **DNV GL SE**

Gerhard Aulbert
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 European Community and the United States of America on Mutual Recognition of Certificates of Conformity for Marine Equipment", signed February 27th, 2004, and amended by Decision No 1/2018 dated February 18th, 2019.

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 SE 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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

Single pipe penetration system composed of a steel sleeve pipe with a length of minimum of 140mm up to 160mm and pipe wall thickness of minimum 5 to 7mm.

Sleeve pipe welded on both sides to the steel deck or bulkhead.
Additional thermal insulation with min. density of 170 Kg/m³ to be provided according to installations drawings.

Within the sleeve pipe, the media pipe is to be sheathed with EXPERT black-grey coloured fireproof filling tape, nominal density <1300 kg/m³ as specified in the insulation drawing.

Sleeve pipe to be closed at each end with EXPERT grey coloured sealant made of latex, 310ml/piece and nominal density < 1400kg/m³, 20mm length.

Type HH-MF-P is approved for penetration of thermoplastic pipes of type PVC, PE and PP whereas type HH-MF-M for carbon steel, stainless steel and copper pipes.

Application/Limitation

Approved for use as pipe penetration system in Class A-60 Steel Bulkheads and Decks, general application.

For application on A-0, A-15 and A-30 divisions, the penetration system shall be insulated as approved for class A-60. The penetrated division is to be insulated as for A-60 at least 200 mm around the penetration. Other applications are subject to case-by-case approval.

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

Each pipe penetration system is to be supplied with its actual manual for installation and use.

Size range of penetration pipes (media pipe)

Pipe material	Type	Outer diameter
Metallic	Carbon Steel, Stainless Steel and Copper	10mm up to 275mm
Thermoplastic	PE (PE100, PE-RT)	20mm up to 160mm
	PP (PP-R, PP-H)	
	PVC (UPVC, CPVC)	

Installation

The installation and insulation of the HH-MF-P and HH-MF-M penetration system is to be carried out according to the following manufacturer`s instructions:

Drawing Title	Model	Drawing
Plastic Pipeline Penetration – A60 Bulkhead	HH-MF-P	HH-B-001
Metal Pipeline Penetration – A60 Bulkhead	HH-MF-M	HH-B-002
Plastic Pipeline Penetration – A60 Deck	HH-MF-P	HH-D-001
Metal Pipeline Penetration – A60 Deck	HH-MF-M	HH-D-002



Job Id: **344.1-008666-1**
Certificate No: **MEDB00004KY**

Tests carried out

- Fire tests according to IMO Res.MSC.307(88) -(2010 FTP Code).
- IMO MSC.1/Circ.1488

Type Examination documentation

Job Id: **344.1-008666-1**
Certificate No: **MEDB00004KY**

Marking of product

The product or packing is to be marked with name and address of manufacturer, type designation, fire technical rating, the Mark of Conformity and USCG approval (see first page).

APPENDIX

Additional application / information for water tightness/gas tightness (not part of the Marine Equipment Directive requirement)

GK Packing System	Water Pressure		Gas Pressure (air)	
	Test pressure	Approved pressure	Test pressure	Approved pressure
HH-MF-P – d20-d160	0.675MPa	0.45MPa	0.45MPa	0.3MPa
HH-MF-M – d10-d275	0.675MPa	0.45MPa	0.45MPa	0.3MPa

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

Test carried out

Pressure tests according to DNV GL CP-0165, Sec. 2 - Ch.4 Water tightness and gas tightness.

Type Approval documentation

Test report	Date	Test specimen		
EXPERTA60 Samples Record of Classification Society	2018-08-24	1	d10/d275	Copper pipe
		2	d20/d160	PE100
		3	d20/d160	PP-R
		4	D20/d160	UPVC

End of certificate