EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Certificate No:
MEDB00007F2

Application of: Directive 2014/90/EU of 23 July 2014 on marine equipment (MED). This Certificate is issued by DNV 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)
RM DRAIN F1, M1, M2, M3 and RM DRAIN M4 and Scuppers

Issued to
RACCORDERIE METALLICHE S.P.A.
Campitello di Marcaria MN, Italy

is found to comply with the requirements in the following Regulations/Standards:
Regulation **(EU) 2020/1170,**
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

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

This Certificate is valid until **2026-06-16**.

Issued at **Hamburg** on **2021-06-17**

DNV local station:
Italy/Malta CMC

Approval Engineer:
Hagen Markus

Notified Body
No.: **0098**

for **DNV SE**

Christine Mydlak-Roeder
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 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 This certificate remains valid unless suspended, withdrawn, recalled or cancelled.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.

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.

Product description

RM DRAIN - Pipes

The pipe penetration of type series “RM DRAIN“ consists of a stainless-steel pipe fitting with carbon steel flange/sleeve/coaming, continuously welded to the bulkhead or deck.
Pipe fitting will be connected to stainless steel pipe of same diameter with push-fit socket couplings.
Each coupling set fitted with a rubber ring gasket made of EPDM.
Further details refer to “RM DRAIN Product Range”, pipe penetration and scuppers

A-60 / A-0 Bulkhead and Deck Steel

Types	Design details	A-60 Bulkhead	A-60 Deck	A-0 Bulkhead	A-0 Deck
823/F1	Mid-positioned carbon steel flange, outer diameter 200mm, 5mm thick, welded to stainless steel pipe with socket connection/plain end.	DN40 up to DN150	DN40 up to DN125, DN150	DN40 up to DN150[3]	DN40 up to DN150[4]
823/M1	Carbon steel sleeve/coaming, 45mm long, welded to middle of stainless-steel pipe with socket coupling side/plain pipe end.	DN40 up to DN150	DN40 up to DN125, DN150[1]	DN40 up to DN150[4]	DN40 up to DN150[5]
823/M2	Carbon steel sleeve/coaming, 45mm long, welded to socket coupling side.	DN 40 up to DN150	DN40 up to DN125, DN150	DN40 up to DN150[3]	DN40 up to DN150[4]
823/M3	Carbon steel sleeve/coaming, 45mm long, fitted on socket coupling side. Pipe fitting is a 90° elbow type.	DN40 up to DN100	DN40 up to DN100	DN40 up to DN100[3]	DN40 up to DN100[5]
823/M4	Outer carbon steel sleeve/coaming, 100mm long, welded to middle of stainless-steel pipe with socket coupling side/plain pipe end.	DN40 up to DN100	DN40 up to DN125[2]	DN40 up to DN150[3]	DN40 up to DN150[5]

Notes
[1] DN125 and DN150 limited to A-30
[2] DN125 limited to A-30
[3] without insulation acc. to “RM DRAIN_Insulation dimensions_Bulkhead”
[4] only DN40 without insulation, for bigger sizes insulation same as for A-60
[5] all sizes to be insulated acc. to A-60

RM DRAIN - Scuppers

The scupper of type series “RM DRAIN” are made of stainless steel AISI 316L – 1.4404. Joining to the deck by flange connection or welding.

Scupper fitting will be connected to stainless steel pipe of same diameter with push-fit socket couplings.
Each coupling set fitted with a rubber ring gasket made of EPDM.

Further details refer to “RM DRAIN Product Range”, pipe penetration and scuppers

A-60 / A-0 Steel

Article	Joining method to deck	Outlet	A-60 Sizes DN	A–0 Size DN
825/01	Flange	Horizontal	40, 50, 65	40, 50, 65
825/02	Welding		40, 50, 65, 100[1]	40, 50, 65, 100
825/03	Flange	Vertical	40, 50, 65	40, 50, 65
825/04	Welding		40, 50, 65, 100	40, 50, 65, 100
825/05		Horizontal	40, 50, 65, 100[1]	40, 50, 65, 100
825/06 C			40, 50, 65	40, 50, 65
825/06 Q			40, 50, 65	40, 50, 65
825/07 Q		Vertical	40, 50, 65	40, 50, 65
825/07 C			40, 50, 65	40, 50, 65

Notes
[1] A-30 only

Application/Limitation

Class A-60 an A-0 Steel Bulkheads and Decks, general application. Scuppers flush deck, welded or flanged.
For application on 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.

Insulation dimensions instructions

RM DRAIN Scuppers	RM DRAIN_Insulation dimensions_DECK
RM DRAIN pipes	RM DRAIN_Insulation dimensions_BULKHEAD Pag. 1
	RM DRAIN_Insulation dimensions_DECK Pag. 1

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.

Installation

System pipes to be connected to the pipe penetration and scuppers by using RM Drain tubes with socket connection and a ring gasket made of EPDM according to manufacturer instruction specified in RACCORDERIE METALLICHE S.P.A “DRAIN Technical Handbook”.

The welding of the RM DRAIN penetration for pipes and scuppers is to be carried out according to “Technical Handbook, Annex I”- Welding instructions“.

Type Examination documentation

Tests carried out

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

Marking of product

Each penetration is to be marked at least as follows:

Scope	Example
Type designation	RM DRAIN
Size here DN40	42
Material designation	316L 1.4404
Manufacturing country, here Italy	IT
Traceability number to production (6 digits)	100035
Mark of Conformity[1]	0098/2021
US Coast Guard Number	Acc. to MED Module D certificate

Note

[1] may only be affixed to the type approved equipment, in case the associated production surveillance module (D, E or F) is valid.