



TYPE APPROVAL CERTIFICATE
No. **MAC033824CS**

This is to certify that the product identified below satisfies the requirements of the standard quoted under "Reference standard"

<i>Description</i>	Metal-plastic composite pipes and metal fittings
<i>Type</i>	Pe-Xc/Al/Pe-Xc and Pe-Xb/Al/Pe-Xb pipes, 5T00_5G00 joints
<i>Applicant</i>	GENERAL FITTINGS S.P.A. Via Camillo Golgi, 73/75 25064 Gussago (BS) ITALY
<i>Manufacturer</i>	GENERAL FITTINGS S.P.A.
<i>Place of manufacture</i>	Via Camillo Golgi, 73/75 25064 Gussago (BS) ITALY
<i>Reference standards</i>	Part C, Chapter 1, Appendix 3 of RINA Rules

Issued in **Genoa** on **March 20, 2024**. *This Certificate is valid until* **September 16, 2028**

RINA Services S.p.A.
Rosario Pitruzzo

This certificate consists of this page and 1 enclosure.

This certificate annuls and replaces Type Approval certificate No.MAC332023CS.

TYPE APPROVAL CERTIFICATE
No. MAC033824CS
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 Pe-Xc/Al/Pe-Xc pipes and 5T00_5G00 joints

Reference documents

Technical catalogues as per approval letters:

- PRMT/2023/442/SM007 dated 20.09.2023

- PRMT/2024/256/SM007 dated 20.03.2024

Test Reports as per approval letter PRMT/2023/434/SM007 dated 17.09.2023

Technical characteristics

Pe-Xc/Al/Pe-Xc pipes (Henco) Pe-Xb/Al/Pe-Xb pipes (S.A.MI: PLASTIC S.P.A.)			5T00_5G00 joints (General Fittings)		
Outer Diameter (mm)	Max. working temperature(°C)	Max. working pressure (bar)	Diameter (mm)	Max. working temperature (°C)	Max. working pressure (bar)
12	95	10	16x2.0	120	10
14			20x2.2		
16			26x3.0		
18			32x3.0		
20			40x3.5		
26			50x4.0		
32			63x4.5		
40					
50					
63					
75					

Fields of application

Sanitary systems, heating and cooling systems for non essential services for which flame spread characteristic is required as indicated at [2.3.2] of Part C, Chapter 1, Appendix 3 of RINA Rules

Acceptance conditions

Pipes are acceptable on open decks, within tanks, cofferdam, pipe tunnels, ducts and further locations where fire endurance tests are not required according to Table 1 of Pt. C, Ch 1, App. 3 of RINA Rules.

The marking of pipes is to be made in accordance with [2.1.2] of Pt C, Ch 1, App 3 of RINA Rules.

The arrangement on board is to be made in accordance with the instructions of the Manufacturer and with [3] of Pt C, Ch 1, App 3 of RINA Rules.

Workshop tests are to be made in accordance with [4.2] of Pt C, Ch 1, App 3 of RINA Rules.

Testing after installation on board are to be made in accordance with [4.3] of Pt C, Ch 1, App 3 of RINA Rules.

Manufacturer of different components are specified inside parenthesis in the tables.

These pipes can be used only with fittings 5T00_5G00 joints.

The installation on board ships built according to the "Rules for the construction and classification of high speed crafts" of RINA is subject to the satisfactory outcome of the tests foreseen by IMO Resolution A.753(18).

Validity of this certificate is subject to satisfactory outcome of periodical audit as per RINA " Rules for Testing and Certification of Marine Materials and Equipment".

Genoa March 20, 2024

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