



TYPE APPROVAL CERTIFICATE
No. **MAC275212CS**

This is to certify that the product identified below is in compliance with the regulations herewith specified.

<i>Description</i>	Pipes and couplings
<i>Type</i>	MAPRESS CUNIFE
<i>Applicant</i>	GEBERIT MAPRESS GMBH KRONPRINZSTR. 40 D-40764 LANGENFELD GERMANY
<i>Manufacturer</i>	GEBERIT MAPRESS GMBH
<i>Place of manufacture</i>	KRONPRINZSTR. 40 D-40764 LANGENFELD GERMANY
<i>Reference standards</i>	Part C, Chapter 1, Section 10 of RINA Rules
<i>Reference documents</i>	RINA Type approval system

Issued in **Genoa** on **September 18, 2012**. This Certificate is valid until **September 18, 2017**

RINA

Francesco Sciacca

This Certificate consists of this page and 1 enclosure.
This Certificate cancels and replaces the previous No MAC146907CS



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MAPRESS CUNIFE

Reference documents

Mapress CUNIFE Catalogue edition March 2008.

Test reports MFI 54/2002 dated 16.04.2002, SZMF D469/2004 dated 22.10.2004 and SZMF D090/2008 dated 30.01.2008.

Test reports WTD 71 No 12/02, 13/02, 14/02 dated 17.06.2002.

Test reports "Fire resistance test" 2012CS011891/1-2-3 dated 09.07.2012

Materials/Components

Mechanical joints and pipes: CuNi10Fe1.6Mn according to DIN 86019 and BWB material performance sheet WL 2.1972 as well as mapress working standard

CuNi10Fe1Mn according to Deutsches Kupferinstitut material sheets

O-rings: NBR, FPM, CIIR (depending on working temperature and media used)

Technical characteristics

Maximum allowable working temperature: from -20 °C up to +120°C

Pipe sizes and maximum allowable working pressure according to the following table:

Pipe external diameter (mm)	Pipe thickness (mm)	Maximum allowable working pressure (bar)
15	1.0	13
22	1.0	13
28	1.5	13
35	1.5	13
42	1.5	13
54	1.5	13
76.1	2.0	13
88.9	2.0	13
108	2.5	13



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Fields of application

Application of the mechanical joints and their acceptable use for each service are indicated in Table 16, Part C, Chapter 1, Section 10 of RINA Rules.

Application of the mechanical joints depending upon the class of piping is indicated in Table 17 of a.m. Rules. Particularly press type compression couplings are not allowed on piping systems of I and II Class.

Acceptance conditions

The acceptance of the a.m. products on board ship and other units classed with RINA is subject to the satisfactory outcome of testing as per RINA Rules.

The installation on board of mechanical joints is to be made in accordance with the Manufacturer's assembly instructions and with the applicable requirements of Par. 2.4.5, Sec 10, Ch 1, Pt C of RINA Rules. Where special tools and gauges are required for installation of the joints, these are to be supplied by the Manufacturer.

The gasket (o-ring) material is to be suitable for the conveyed medium.

The selection of the fittings, pipes and "O" rings for the corresponding application and the right mounting with the stipulated pressing tools is to be in accordance with the instructions of the Manufacturer.

The Manufacturer's list of the chemical resistance of the piping components is to be observed.

Penetrations of Class divisions shall provide a resistance to fire equivalent to that of the deck and bulkheads in which the penetrations are situated. These arrangements are to be tested in accordance with "Recommendations for Fire Test Procedure" (IMO Res.A754 (18) as amended).

Remarks

This Certificate cancels and replaces the previous No. MAC146907CS dated 15 July 2008

Genoa 18/09/2012

