



Marine & Offshore
Division

Certificate number: 06690/E0 BV

File number: ACM 135/1318/01

Product code: 2170H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

Geberit International AG

Jona - SWITZERLAND

for the type of product

PIPE COUPLING WITH O-RING SEAL

MAPRESS CARBON STEEL PRESSFITTING SYSTEM

Requirements:

BUREAU VERITAS Rules for the Classification of Steel Ships

This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 24 Feb 2022

For BUREAU VERITAS,

At BV HAMBURG, on 24 Feb 2017,

Udo Storm



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine & Offshore Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 October 2014

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Carbon steel pressfittings

Shaped pipe fitting system with integral O-ring seals.

1.1 Design:

Mapress carbon steel system pipe could be also zinc-plated inside and outside or externally galvanized

Galvanized fittings with a zinc coating of 8 µm

Zinc coated plates according to DIN 10326

1.2 Identification and technical data:

File Number	Outer Diameter [mm]	Thickness [mm]	Maximum Pressure [bar]	Maximum Temperature [°C]
ACM 135/1318/01	12	1.2	16	120 / CIIR black 180 / FKM/FPM
	15	1.2	16	
	18	1.2	16	
	22	1.5	16	
	28	1.5	16	
	35	1.5	16	
	42	1.5	16	
	54	1.5	16	
	76.1	2	10	
	88.9	2	10	
	108	2	10	

1.3 Material specification:

Fittings and pipes	Unalloyed steel E 195 and E 220 (DIN EN 10305)
Seal rings	CIIR black, FKM/FPM

2. DOCUMENTS AND DRAWINGS:

According to catalogue Geberit supply system 2010 / Mapress carbon steel.

3. TEST REPORTS:

SZMF test report D129/2007 witnessed by an IACS member, according to the type tests performed at Salzgitter Mannesmann Forschung in Duisburg:

- Leakage test
- Vacuum test
- Pull-out test
- Bursting pressure test
- Pulsation pressure and vibration test
- Fire endurance test

4. APPLICATION / LIMITATION:

4.1 The pressfittings intended to be used on the following services:

- Sea water and fresh water
- Fuel, lubricating and hydraulic oil (see item 4.3)
- Closed hot water heating systems
- Air conditioning systems
- Cooling water systems
- Water spraying systems, foam and sprinkler systems
- Gas piping systems (max. 10 bar)
- Compressed air systems (max. 10 bar)

- 4.2 The pressfittings is not to be used in potable water system and for flammable fluids with flash point below 60 °C.
- 4.3 The galvanized pipes are not to be used for fuel, lubricating and hydraulic oil.
- 4.4 The fittings are to be at any time accessible.
- 4.5 All pressfittings delivered under this type approval shall be in compliance with an assembly procedure issued by the manufacturer.
- 4.6 The application and installation of the pressfittings are to be in accordance to the manufacturer's specifications and instructions and the BUREAU VERITAS Rules requirements.
- 4.7 For bulkhead unions, it must be ensured that water, oil or fire cannot penetrate through the watertight bulkheads or decks.
- 4.8 The nature of the used materials should be suitable for the intended service.

5. PRODUCTION SURVEY REQUIREMENTS

- 5.1 The pressfittings are to be supplied by **Geberit International AG** in compliance with the type described in this certificate.
- 5.2 This type of product is within the category HBV of BUREAU VERITAS Rule Note NR320.
- 5.3 **Geberit International AG** has to make the necessary arrangements to have its works recognized by BUREAU VERITAS in compliance with the requirements of NR320 for HBV products :
Geberit International AG, Jona / SWITZERLAND
- 5.4 Water pressure test should be carried out through watertight bulkhead for bulkhead unions.

6. MARKING OF PRODUCT

Each pressfitting is to be clearly marked with at least:

- Manufacturer's name or logo
- Type designation
- Size

7. OTHERS

- 7.1 This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the units at any time and that **Geberit International AG, Jona / SWITZERLAND** will accept full responsibility for informing shipbuilders, ship owners or their subcontractors of the proper methods of use and general maintenance of the units and the conditions of this approval.
- 7.2 This certificate supersedes the Type Approval Certificate N° 06690/D0 BV issued on 19 Jul 2011 by the Society.

*** END OF CERTIFICATE ***