



DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. P-12170
This Certificate consists of 4 pages

This is to certify that the
Pipe System with Couplings
with type designation(s)
Mapress

Manufactured by
Geberit Mapress GmbH
Langenfeld, Germany

is found to comply with
Det Norske Veritas' Rules for Classification of Ships
Offshore Standard DNV-OS-D101, Marine and Machinery Systems and Equipment
Det Norske Veritas' Standards for Certification 2.9 No. 5-792.20

Application
Compr. air, wet sprinkler, local appl. fire fighting system and water mist total flooding systems. Add., the stainl. steel fittings: domestic fresh and portable water, main and aux machinery fresh water-cooling. Unalloyed fittings: fresh water heating.

| | |
|--------------------|--------------------------------|
| Temperature range: | -20 to 120°C |
| Max. pressure: | 16 bar |
| Design: | Pipes and press fitting system |

Place and date
Høvik, 2006-04-24
for DET NORSKE VERITAS AS

John Olav Nøkleby
Head of Section



Local Office
DNV Essen

This Certificate is valid until
2009-12-31

Per Jørgen Tviberg
Per Jørgen Tviberg
Surveyor

Notice: This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



Cert. No.: P-12170
 File No.: 791.10
 Case No.: 262.1-000937

Product description

Unalloyed and stainless steel pipes and press fittings with o-ring seal

Material:

Unalloyed and galv. steel : RSt 34-2 (normalised or annealed) acc. DIN 2393
 Austenitic Stainless steel : WNo. 1,4401 acc. DIN 17455
 O-ring : butyl

Piping system of unalloyed steel:
 steel:

Piping system of austenitic stainless
 steel:

| Product description: | Product description: |
|---|--|
| Sleeve, straight, short | Sleeve, straight, short |
| Sleeve, straight, long | Sleeve, straight, long |
| Elbows 90° | Elbows 90° |
| Elbows 90° short | Elbows 90° short |
| Elbows 90°, one plain end | Elbows 90°, one plain end |
| Elbows 45° | Elbows 45° |
| Elbows 45° one plain end | Elbows 45° one plain end |
| Elbows 90°, plain ends | Elbows 90°, plain ends |
| Elbow 90° male threads one end | 90° angle adapter, female threads |
| 90° angle adapter, male threads one end | 90° elbow, male threads one end |
| Reducer, straight | 90° elbow, with wall plate |
| Combination pipe, welded end | 90° elbow, with wall plate and two outl. |
| Male adapter, male threads one end | 90° extension elbow, female threads |
| Male adapter, male threads one end | Reducer straight |
| Reducing sleeve, female threads one end | Straight adapter, female threads |
| Equal Tees | Straight adapter, male threads |
| Tees one enlarged end | Equal Tee |
| Tees one reduced end | Reducing Tee |
| Branch Tee BSP | Branch Tee BSP, female threads |
| 90° Crossover | Bulkhead penetration |
| Primed and propylene coated steel pipes | Flange adapter |
| | Stainless steel pipes |

Application/Limitation

The fittings are only to be used together with "MAPRESS" pipes.

Threaded couplings DN > 50 mm are not covered by the type approval.

The fittings may be used in compressed air wet sprinkler, local application fire fighting system and water mist total flooding systems.

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