

TYPE APPROVAL CERTIFICATE

Certificate No: **TAP00000KD** Revision No: 2

This is to certify:

That the Globe Valve

with type designation(s) 01252, 03252, 01272, 03272

Issued to

HEROSE G.M.B.H. ARMATUREN UND METALLE

Bad Oldesloe, Schleswig-Holstein, Germany

is found to comply with

DNV rules for classification – Ships Pt.4 Ch.6 Piping systems DNV rules for classification – Ships Pt.5 Ch.7 Liquefied gas tankers DNV class programme DNV-CP-0186 – Type approval – Valves DNV offshore standards

Application:

Bellow sealed globe valves.

Products approved by this certificate are accepted for installation on all vessels classed by DNV. For installation on Offshore units the requirements specified in the applicable DNV Rules for Classification of Offshore units (RU-OU) are to be observed.

Type: Temperature range: Max. working press.: Sizes:

01252, 03252 -196°C to +120°C PN 50 DN 10 to DN 50 01272, 03272 -255°C to +120°C PN 50 DN 10 to DN 50

Issued at Hamburg on 2022-11-28

for **DNV**

This Certificate is valid until 2027-11-27.

DNV local unit: Essen

Approval Engineer: Ana Cristina Do Carmo Insfran

Sven Klinger Head of Section

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.



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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.



Job Id: **262.1-022898-3** Certificate No: **TAP00000KD**

Revision No: 2

Product description

Type 01252 Globe valves

Bellow sealed globe valve.

Butt weld or socket weld connection or stainless steel stubs according to DIN EN ISO 1127 or ASTM A312

Materials:

Body Mat.no 1.4308 ASTM A351 CF8

Valve seal: PTFE/Carbon filled 25 %

Disc Mat.no 1.4301 ASTM A276 Grade 304

Bonnet gasket PTFE

Headpiece Mat.no 1.4301 ASTM A276 Grade 304 Bellow stem: Mat.no 1.4571 ASTM A276 Grade 321 ASTM A194 B8 Mat.no 1.4301/A2 Bolts: Mat.no 1.4571 ASTM A276 Grade 321 Bellow: Elongation tube Mat.no 1.4541 **ASTM A213 TP 321** Upper part ASTM A276 Grade 304 Mat.no 1.4301 Bush: CW452K ASTM B103 Alloy A ASTM A276 Grade 304

Stem Mat.no 1.4301 Gland packing: Graphite/PTFE

Gland nut: Mat.no 1.4305 ASTM A276 Grade 303

Handwheel Aluminum Alloy

Size range: DN 10, 15, 20, 25, 32, 40, 50

Type 01272 Globe valves

Bellow sealed globe valve.

Butt weld or socket weld connection or stainless steel stubs according to DIN EN ISO 1127 or ASTM A312

Materials:

Body Mat.no 1.4409 ASTM A351 CF3M Valve seal: PCTFE

Valve seal: PCTFE
Disc Mat.no 1.4404 ASTM A276 Grade 316L

Bonnet gasket Graphite

Headpiece Mat.no 1.4404 ASTM A276 Grade 316L Bellow stem: Mat.no 1.4571 ASTM A276 Grade 316Ti

Bolts: Mat.no 1.4571/A4 ASTM A194 B8T

 Bellow:
 Mat.no 1.4571
 ASTM A276 Grade 316Ti

 Elongation tube
 Mat.no 1.4571
 ASTM A276 Grade 316Ti

 Upper part
 Mat.no 1.4404
 ASTM A276 Grade 316L

 Bush:
 CW452K
 ASTM B103 Alloy A

 Stem
 Mat.no 1.4404
 ASTM A276 Grade 316L

Gland packing: Graphite/PTFE/Mica

Gland nut: Mat.no 1.4305 ASTM A276 Grade 303

Handwheel Aluminum Alloy

Size range: DN 10, 15, 20, 25, 32, 40, 50

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Revision No: 2

Product description - continuation

Type 03252 Globe valves

Bellow sealed globe valve.

Flanged connection acc. to DIN EN 1092-1 PN40 or ANSI B16.5 Class 150 and 300

Materials:

Body Mat.no 1.4308 ASTM A351 CF8

Valve seal: PTFE/Carbon filled 25 %

Disc Mat.no 1.4301 ASTM A276 Grade 304

Bonnet gasket PTFE

 Headpiece
 Mat.no 1.4301
 ASTM A276 Grade 304

 Bellow stem:
 Mat.no 1.4571
 ASTM A276 Grade 321

 Bolts:
 Mat.no 1.4301/A2
 ASTM A194 B8

 Bellow:
 Mat.no 1.4571
 ASTM A276 Grade 321

 Elongation tube
 Mat.no 1.4541
 ASTM A213 TP 321

 ASTM A276 Grade 304
 ASTM A276 Grade 304

Elongation tube Mat.no 1.4541 ASTM A213 TP 321
Upper part Mat.no 1.4301 ASTM A276 Grade 304
Bush: CW452K ASTM B103 Alloy A
Stem Mat.no 1.4301 ASTM A276 Grade 304
Gland packing: Graphite/PTFE

Gland nut: Mat.no 1.4305 ASTM A276 Grade 303

Handwheel Aluminum Alloy

Size range: DN 15, 20, 25, 40, 50

Type 03272 Globe valves

Bellow sealed globe valve.

Flanged connection acc. to DIN EN 1092-1 PN40 or ANSI B16.5 Class150 and 300

Materials:

Body Mat.no 1.4409 ASTM A351 CF3M Valve seal: PCTFE

Valve seal: PCTFE
Disc Mat.no 1.4404 ASTM A276 Grade 316L

Bonnet gasket Graphite

Headpiece Mat.no 1.4404 ASTM A276 Grade 316L Bellow stem: Mat.no 1.4571 ASTM A276 Grade 316Ti

Bolts: Mat.no 1.4401/A2 ASTM A194 B8M

 Bellow:
 Mat.no 1.4571
 ASTM A276 Grade 316Ti

 Elongation tube
 Mat.no 1.4571
 ASTM A213 TP 316Ti

 Upper part
 Mat.no 1.4571
 ASTM A276 Grade 316Ti

 Stem
 Mat.no 1.4404
 ASTM A276 Grade 316L

Gland packing: Graphite/PTFE

Gland nut: Mat.no 1.4404 ASTM A276 Grade 316L

Handwheel Aluminum Alloy

Size range: DN 15, 20, 25, 40, 50

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Application/Limitation

Valves may be used for compressed air, vapours, nitrogen, oxygen, cryogenic liquified gases including LNG.

 Globe valve types
 Working temperature

 01252, 03252
 -196°C to +120°C

 01272, 03272
 -255°C to +120°C

Pressure rating: PN50

Type Approval documentation

Type Approval Application dated on 2022-08-02

Type Approval Assessment Report dated on 2022-10-19

Approval Letter _Approval of valve bodies with double walled valve ends Doc. Order: A1112823-1 dated on 2021-11-08

Drawings Nr.: 01252-DNXX dated on 2020-02-22 01272-X-00XX dated on 2015-10-21

03272-X-00XX and 03252-X-00XX dated on 2019-10-02

Test report from TÛV Nord dated 04.10.2007 and 25.02.2005

Tests carried out

Burst test

Marking of product

For traceability to this type approval the valves are to be marked with:

- Manufacturer's name and/or trade mark
- Valve type designation
- Valve size
- Design pressure
- Design temperature
- Arrow for indication of flow direction

Periodical assessment

For retention of the Type Approval, a DNV Surveyor shall perform periodical assessment after two years (+/- 90 days) and after 3.5 years (+/- 90 days) to verify that the conditions for the Type Approval are complied with. Refer to DNV CP-0338, Sec.4.

The certificate is only valid if required periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in https://approvalfinder.dnv.com

END OF CERTIFICATE

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