

## **CERTIFICATE**

No. 30383403E/SW/20.12.2023

The valve with the brand name

Ball Valve 75-S DN 80 PN 40

of the manufacturer

Perrin GmbH DE - 61130 Nidderau AMTEC Advanced Measurement Messtechnischer Service GmbH Hoher Steg 13 D-74348 Lauffen Phone: +49 7133 9502-0 Fax: +49 7133 9502-22 E-Mail: temes@amtec.de

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was tested according to DIN EN ISO 15848-1 (dated July 2017). The following sealing systems were used:

shaft sealing(s):

- 1 pc. Stem Packing; material: PTFE-2 GEW.% LEITPIGMENT; manufacturer: Heute + Comp. GmbH + Co.; dimensions: Ø 35 x Ø 30 x 27.5 mm,
- 1 pc. Sealing Ring; material: PTFE-25% GLAS; manufacturer: PTFE Competence Center GmbH; dimensions: Ø 31 x Ø 26 x 2.5 mm,
- 2 pcs. Belleville Spring; material: 1.4401/1.4404; dimensions: Ø 50 x Ø 31 x 2.5 mm. body sealing(s):
  - 1 pc. Body Gasket; material: GRAPHIT; manufacturer: ProPack AG; dimensions: Ø 143 x
     Ø 136 x 3.5 mm,
  - 1 pc. Sealing Ring; material: PTFE-25% GLAS; manufacturer: Heute + Comp. GmbH + Co.: dimensions: Ø 140 x Ø 136 x 2 mm.

In the laboratory of amtec a test with the test no. 23-616 was conducted under the following test conditions:

isolating valve CO<sub>3</sub> endurance class: RT / 200 °C test temperatures: 40 / 33.7 bar test pressures: He medium: BH tightness class: 2500 DCS. mechanical cycles: 90 ° (rotation) shaft movement: 30 mm shaft diameter Do: number of shaft seal adjustments (SSA): pcs.

The maximal leak rate measured with the helium leak detector during the test with 2500 mechanical cycles and 4 thermal cycles was **7.1 · 10<sup>-5</sup> mg/(s·m)** for the shaft sealing. The concentration for the body sealing was less than 50 ppmv.

The performance class of the tested valve is:

ISO FE BH - CO3 - SSA 0 - t200 °C - (40/33.7 bar) - ISO 15848-1

This qualification may be transferred to untested valves with a shaft diameter of  $D_0 / 2 \le D \le 2 \cdot D_0$ , provided that the criteria listed in Chapter 8 of DIN EN ISO 15848-1 are met. This certificate is valid only in connection with the test report 3038344/- and the boundary conditions listed therein.

amtec Advanced Measurement Messtedhnischer Service GmbH Lauffen, December 20th, 2023

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