

CERTIFICATE

No. 30383401E/SW/20.12.2019

The valve with the brand name

**Ball Valve 14-M
NPS 1.5" / Class 1500**

of the manufacturer

**Perrin GmbH
D – 61130 Niedderau**

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

- stem sealing:
- 5 Pcs. Packing Rings BuraTAL-Flex 6070; material: graphite; manufacturer: EagleBurgmann; dimensions: 35 x 30 x 2.5 mm,
 - 2 Pcs. Belleville Springs; material: Inconel 718 (2.4668); manufacturer: Mubea; dimensions: 63 x 31 x 2.5 mm.
- body sealing:
- 2 Pcs. Statotherm® R Profilrings R901/B; material: graphite; manufacturer: EagleBurgmann; dimensions: 31 x 26 x 2.5 mm,
 - 2 Pcs. Statotherm® R Profilrings R901/B; material: graphite; manufacturer: EagleBurgmann; dimensions: 81 x 74 x 3.5 mm,
 - 2 Pcs. Statotherm® R Profilrings R901/B; material: graphite; manufacturer: EagleBurgmann; dimensions: 52 x 47 x 2.5 mm.

In the laboratory of amtec a test was conducted under the following test conditions:

test no.:	19-505	
endurance class:	CO2	isolating valve
temperature:	RT / 400	°C
test pressure:	248.2 / 147.2	bar
medium:	He	
tightness class:	BH	
mechanical cycles:	1500	pcs.
stem motion:	90	°
stem diameter:	30	mm
number of stem seal adjustments (SSA):	0	pcs.

The maximal leak rate measured with the helium leak detector during the test with 1500 mechanical cycles and 3 thermal cycles was $6.3 \cdot 10^{-5} \text{ mg/(s}\cdot\text{m)}$ for the stem sealing. The concentration for the body sealing was less than 50 ppmv.

The performance class of the tested valve is:

ISO FE BH – CO2 – SSA 0 – t400 – CL1500 – ISO 15848-1

This qualification can be extended to untested valves if the criteria listed in chapter 8 of the DIN EN ISO 15848-1 are fulfilled. This certificate is only valid in combination with the test report 3038341/- and the herein defined boundary conditions.

amtec Advanced Measurement Messtechnischer Service GmbH

Lauffen, December 20th, 2019



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