

CERTIFICATE

No. 30220901E/SW12.02.2021

The valve with the brand name

BELLOW VALVE zBEL Fig. 234

of the manufacturer

**ZETKAMA Sp. z o.o.
PL – 57-410 Scinawka Srednia**

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

- stem sealing:
- 1 pc. bellow; material: X6CrNiMoTi17-12-2; manufacturer: BOA Group; dimensions: \varnothing 26.5 x \varnothing 18 x 53 mm,
 - 1 pc. gland packing GRAFMET 950; material: graphite; manufacturer: Spetech; dimensions: \varnothing 22 x \varnothing 16 x 10 mm.
- body sealing:
- 1 pc. SPETOGRAPH GUS 40; material: graphite; manufacturer: Spetech; dimensions: \varnothing 76 x \varnothing 66 x 1 mm.

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

test no.:	21-020	
endurance class:	CO1	isolating valve
temperature:	RT / 450	°C
test pressure:	40 / 13.1	bar
medium:	He	
tightness class:	AH	
mechanical cycles:	205	pcs.
stem motion:	14	mm (stroke)
stem diameter D_0 :	16	mm
number of stem seal adjustments (SSA):	0	pcs.

The maximal leak rate measured with the helium leak detector during the test with 205 mechanical cycles and 2 thermal cycles was $5.9 \cdot 10^{-7}$ mg/(s·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 AH – CO1 – SSA 0 – t400 (450 °C) – (40/13.1 bar) – ISO 15848-1

This qualification may be transferred to untested valves with a stem diameter of $D_0 / 2 \leq D \leq 2 \cdot D_0$, 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 3022091/- and the boundary conditions listed therein.

amtec Advanced Measurement Messtechnischer Service GmbH

Lauffen, 12.02.2021


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