



Pressure, vacuum-relief  
& gas collection safety valve  
for inerted tanks

## BOG<sup>®</sup>



Sealing:  
**FDA**



Optional  
sealing:



### OVERVIEW:

BOG safety valves are intended to protect low pressure tanks not covered by PED against vacuums (vacuum breaker) and/or excess pressure. Depending on the version, the valve blow-off can be collected.

SERVINOX possesses design tools to dimension a valve with respect to tank characteristics (diameter, height), resistance (pressure, vacuum) and washing conditions (temperature, flow-rate).

### KEY BENEFITS:

- ▲ Fully autonomous (no external control required for its operation)
- ▲ Different models available according to requirements: Pressure/vacuum (with or without blow-off collection), Pressure only (with or without blow-off collection), Vacuum only
- ▲ Safety valves compatible with hot/cold washing (after validation by the validation tool)
- ▲ Simplified and cost-effective maintenance
- ▲ Low pressure sealing
- ▲ Hygienic design
- ▲ Freeze protection option on request

### APPLICATIONS:

- ▲ Manufacture and storage of food and non-food products in a controlled atmosphere (dairy products, beverages, waters, creams and other cosmetic products, fine chemicals, etc.)
- ▲ Tanks not covered by PED, where the service pressure is less than 0.5 bar and the service temperature is less than 120 °C
- ▲ Exclusively designed to transport gases



### TECHNICAL SPECIFICATIONS:

**Sizes:** DN 40, DN 65, DN 100, DN 150 compliant with most connection standards (DIN, SMS, OD, ISO)

**Tank connection:** Smooth weld end, male, female, clamp, flange

**Washing nozzle connection (option):** Mini-clamp

**Weight pressure calibration:** 2 to 50 mbar

**Pressure calibration with spring:** 50 to 490 mbar

**Weight vacuum calibration:** -2 to -50 mbar

**Vacuum calibration with spring:** from -50 mbar

**Temperature:** +1 °C to 120 °C

**Inside surface state:** Ra 0.8 µm

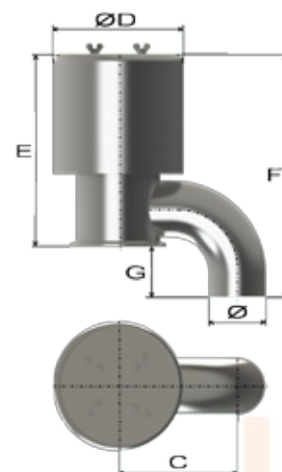
#### Materials:

- Parts in contact with the product: 1.4404 (316L) stainless steel
- Non-return valves: PTFE (polytetrafluoroethylene, eq. Teflon®) or 1.4404 (316L) stainless steel as per calibration
- Other parts: 1.4307 (304L) stainless steel
- Sealing: EPDM (Ethylene Propylene Diene Monomer) seals

### SIZES IN MM (APPROXIMATE VALUES ONLY):

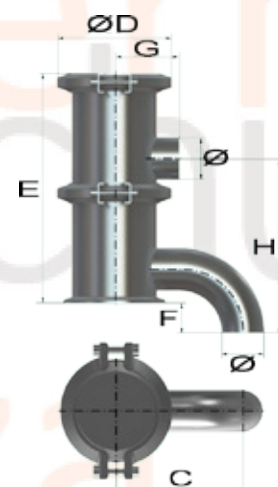
#### Pressure & vacuum valve:

BOG A SIZE	DN 40		DN 65		DN 100	DN 150
	SMS	DIN	SMS	DIN	SMS/DIN	DIN
C	103	123	146	148.5	197	392
D	162	162	162	162	325	325
E	204	204	240	239.5	311	357
F	243	233	303	303.5	385	493
G	39	29	62	64	74	136
Ø	38x1.25	41x1.5	63.5x1.6	70x2	104x2	154x2



#### Pressure & vacuum valve, collected pressure:

BOG B SIZE	DN 40		DN 65		DN 100	DN 150
	SMS	DIN	SMS	DIN	SMS/DIN	DIN
C	115	122	142	148.5	19	392
D	91	91	119	119	183	284
E	203	203	234	234	358	476
F	26	48.5	62	64	74	136
G	58	63	82	82	112	167
H	156	179	218	223	313	453
Ø	38x1.25	41x1.5	63.5x1.6	70x2	104x2	154x2



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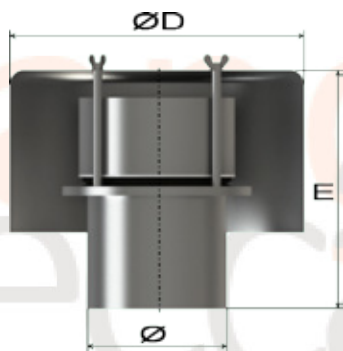
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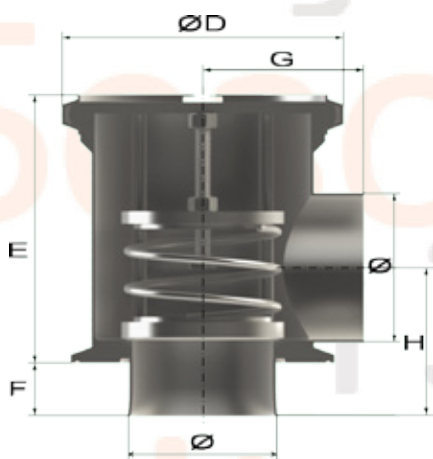
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# Safety & Protection

## Pressure valve:



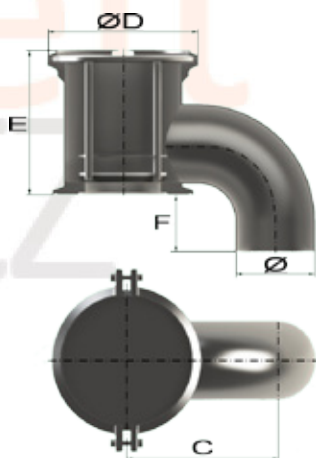
BOG C SIZE	DN 40		DN 65		DN 100	DN 150
	SMS	DIN	SMS	DIN	SMS/DIN	DIN
D	120	120	162	162	213	325
E	125	125	180	180	325	264
Ø	38x1.25	41x1.5	63.5x1.6	70x2	104x2	154x2



## Collected pressure valve:

BOG D SIZE	DN 40		DN 65		DN 100	DN 150
	SMS	DIN	SMS	DIN	SMS/DIN	DIN
D	102	102	119	119	183	284
E	123	123	120	120	185	248
F	25	25	25	25	25	12
G	63	63	82	82	111	147
H	55	56.5	68	71	91	101
Ø	38x1.25	41x1.5	63.5x1.6	70x2	104x2	154x2

## Vacuum valve:



BOG E SIZE	DN 40		DN 65		DN 100	DN 150
	SMS	DIN	SMS	DIN	SMS/DIN	DIN
C	115	123	142	148.5	197	372
D	91	91	119	119	183	284
E	104	104	120	120	185	248
F	26	28.5	62	64	74	136
Ø	38x1.25	41x1.5	63.5x1.6	70x2	104x2	154x2

Only the commercial offer and the technical manual supplied with the equipment may be used for technical and legal purposes.

Servinox is an ISO 9001:2008 certified company

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#### **OPTIONS:**

- Compliant "ATEX 94/9/EC, zones 1 & 2, gas & dust" (models with blow-off collection)
- Compliant PED (vacuum valve)
- Drip collector and anti-insect filter on the vacuum part
- Washing nozzle (the drip collector and anti-insect filter are highly recommended)
- Sterile air intake on elbow-joint enabling all inerting and protection functions to be included on a single tank spigot
- Inductive opening detection in vacuum
- Protection against freezing by a temperature probe, heater cable and thermostat, to ensure valve operation at outdoor temperatures lower than 0 °C
- Specific surface state on request (inside and/or outside)
- Other gaskets (specific service conditions): FKM (Fluorocarbon rubber, eq. Viton®), VMQ (Silicone), NBR (Nitrile rubber), FFKM (Perfluoroelastomer, eq. Kalrez®)
- Gaskets USP Class VI compliant
- PTFE valves + 15 % graphite (ATEX version)

#### **GUARANTEE:**

12 months from the date of delivery (except in the case of special conditions)

#### **COMPLIANCE:**

- Elastomer gaskets compliant with FDA CFR 21.177.2600 and 1935/2004/EC ruling
- Optional: "ATEX 94/9/EC, zones 1 & 2, gas & dust" version on the models with blow-off collection,
- Optional: European PED 97/23/EC version on the vacuum model
- Optional: Elastomer gaskets USP Class VI compliant

SERVINOX follows the recommendations of international guidelines and standards relative to hygienic design and construction, in particular those of the EHEDG and 3-A.

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