

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

BOG[®]



Sealing :



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

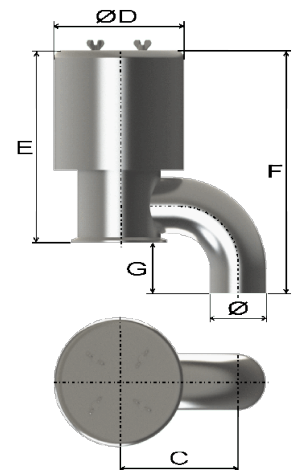
Materials:

- 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

DIMENSIONS IN MM (approximate values only) :

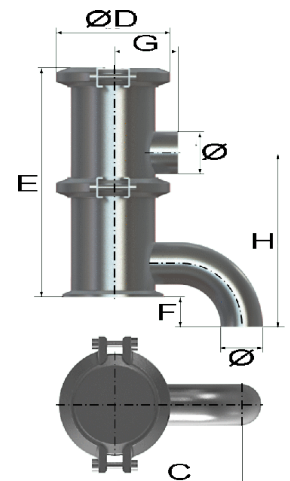
Pressure & vacuum valve :

BOG A Size	DN 40		DN 65		DN 100	DN 150
	SMS	DIN	SMS	DIN	SMS	DIN
C	110	110	152	177	197	392
D	120	120	162	162	325	325
E	204	204	240	240	311	357
F	225	237	303	312	385	493
G	21	33	62	72	74	136
∅	38*1.25	41*1.5	63.5*1.6	70*2	104*2	154*2

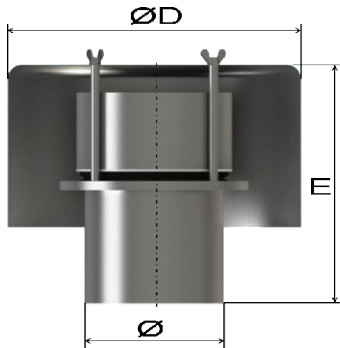


Pressure & vacuum valve, collected pressure:

BOG B Size	DN 40		DN 65		DN 100	DN 150
	SMS	DIN	SMS	DIN	SMS	DIN
C	110	110	152	177	197	392
D	102	102	132	132	196	284
E	204	204	235	235	360	476
F	21	33	62	72	74	136
G	58	69	82	102	112	167
H	151	162	219	229	313	453
∅	38*1.25	41*1.5	63.5*1.6	70*2	104*2	154*2

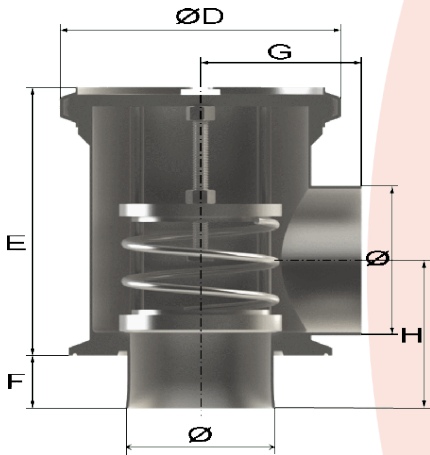


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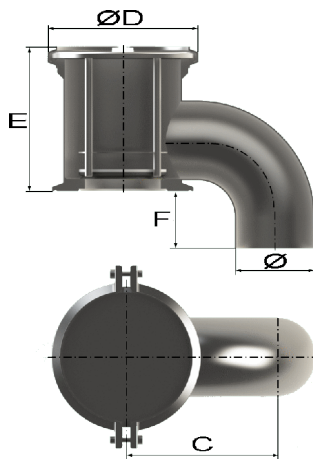
Pressure valve :

BOG C Size	DN 40		DN 65		DN 100	DN 150
	SMS	DIN	SMS	DIN	SMS	DIN
D	120	120	162	162	325	325
E	125	131	180	180	325	264
Ø	38*1.25	41*1.5	63.5*1.6	70*2	104*2	154*2



Collected pressure valve :

BOG D Size	DN 40		DN 65		DN 100	DN 150
	SMS	DIN	SMS	DIN	SMS	DIN
D	102	102	132	132	196	284
E	108	108	123	123	188	248
F	23	23	25	25	25	12
G	58	69	82	102	112	167
H	54	57	68	71	91	101
Ø	38*1.25	41*1.5	63.5*1.6	70*2	104*2	154*2



Vacuum valve :

BOG E Size	DN 40		DN 65		DN 100	DN 150
	SMS	DIN	SMS	DIN	SMS	DIN
C	110	110	152	177	197	392
D	102	102	132	132	196	284
E	108	108	123	123	188	248
F	21	33	62	72	74	136
Ø	38*1.25	41*1.5	63.5*1.6	70*2	104*2	154*2

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OPTIONS :

- Compliant «ATEX 2014/34/UE, 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 shipment (except in the case of special conditions)

COMPLIANCE :

- Elastomer gaskets compliant with **FDA CFR 21.177.2600** and **1935/2004/EC** ruling
- Optional: «**ATEX 2014/34/EC**, zones 1 & 2, gas & dust» version on the models with blow-off collection,
- Optional: European PED **2014/68/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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Only the commercial offer and the technical manual supplied with the equipment may be used for technical and legal purposes.