

Alfa Laval SB Self-cleaning CO₂-valve

Control/Check valves

Introduction

The Alfa Laval SB Self-cleaning CO₂ Valve is a combination gas supply-gas vent valve to control the flow of carbon dioxide in tank top systems and other applications in order to vent and/or pressurize a vessel. Fully cleanable and self-draining, this hygienic valve provides safe, reliable and cost-effective gas management.

Application

This gas management valve is designed to vent and/or pressurize vessels used in hygienic applications, mainly used in brewery industries.

Benefits

- Cost-effective, hygienic design
- Safe, reliable operation
- Minimized risk of overpressure and underpressure
- Self-cleaning and self-draining
- Straightforward installation

Working principle

The Alfa Laval SB Self-cleaning CO₂ Valve uses a stainless steel spring to force open the internal polypropylene valve body, enabling the full flow of gas to pass through the valve in both directions. The introduction of CIP fluid through a special drilled opening in the valve body in a direction counter-current to the spring force pushes the internal valve body into closed position and ensures cleaning of all valve parts. The CIP flow is approximately 800-900 l/h, depending on the valve size.

Standard design

The SB Self-cleaning CO₂ Valve consists of a valve housing comprised of two parts held together by a threaded connection. Inside there is a valve body and a spring to keep the body in open position. A special drilled opening in the valve body ensures internal cleaning of the valve during Cleaning-in-Place (CIP).

Typically positioned as an integrated part of the gas/CIP pipe at the top plate, the valve can be mounted at an angle of 45° (maximum) to the ideal vertical position.



TECHNICAL DATA

Maximum gas flow (both directions) at max. 0.1 bar ΔP

Size	Flow (m³/h)
1"/DN25	25
1½"/DN40	50
2"/DN50	150
2½"/DN65	250
3"/DN80	450
4"/DN100	600

PHYSICAL DATA

Materials

Steel parts:	EN 1.4404 (AISI 316L) with 3.1 cert.
Product wetted seals:	EPDM
Product wetted polymers:	Polypropelen

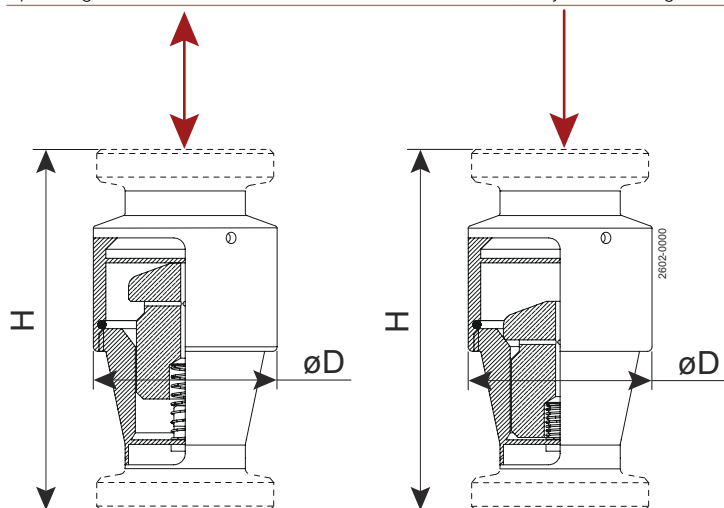
Connections

Weld end acc. DIN 11850
Weld end acc. ISO 2037
Unions DIN 11851
Hygienic - Unions DIN 11853
Clamps ferrule ISO 2852

Dimensions (mm)

Open for gas in/out

Partly closed during CIP flow



	25/DN25	38/DN40	51/DN50	63.5/DN65	76.1/DN80	101.6/DN100
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Welding End - DIN 11850	78	86	113	133	165	165
Welding End - ISO 2037	78	86	113	133	165	165
DIN Male Part - DIN 11851	122	130	159	183	215	225
Clamp Ferrule - ISO 2852	130	137	164	184	216	216
DIN Hygienic Male Part - DIN 11853	130	148	175	205	249	265
DIN Male/Weld End - DIN11851 / DIN11850	100	108	136	158	190	195
Clamp Ferrule/Weld End - ISO2852 / ISO2037	104	112	139	159	191	191
Hygienic/Weld End - DIN11853 / DIN11850	104	117	144	169	207	215
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	49	64	81	106	130	159

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