

Alfa Laval Unique SSV Manually Regulating RF

Single seat valves

Introduction

The Alfa Laval Unique SSV Manually Regulating RF is a versatile, reliable single seat valve with a single contact surface between the plug and the seat to minimize the risk of contamination. Its compact, modular and hygienic design meets the highest process demands in terms of hygiene and safety. It is built on the well-proven Alfa Laval Unique SSV platform. Few moving parts ensure easy dismantling, high reliability and low maintenance costs. A wide range of optional features, including lockable handles, enables customization to specific process requirements.

Application

The Unique SSV Manually Regulating RF is designed for straightforward fine regulating or dosing purposes in hygienic applications across the dairy, food, beverage, brewery and many other industries.

Benefits

- Straightforward, reliable design
- Cost effective and highly modular
- Exceptional valve hygiene
- Long service life
- Low total cost of ownership

Standard design

This manually regulating single seat valve consists of one valve body, plug, sealing, crank mechanism, and clamp ring. The plug can be adjusted to a fixed position with a lock screw. The valve can easily be converted to a pneumatic valve by replacing the crank mechanism with an actuator, sealing element and plug.

Using the Alfa Laval Anytime configurator, it is easy to customize to meet virtually any process requirement.

Working principle

The Alfa Laval Unique SSV Manually Regulating RF operates manually using a crank mechanism to control pressure and flow through gradual opening and closing.



TECHNICAL DATA

Temperature

Temperature range: -10°C to +140°C (EPDM)

Pressure

Max product pressure: 1000 kPa (10 bar)

Min. product pressure: Full vacuum

ATEX

Classification II 2 G D ¹

¹ This equipment is outside the scope of the directive 2014/34/EU and must not carry a separate CE marking according to the directive as the equipment has no own ignition source.

Valve body combinations



200

PHYSICAL DATA

Materials

Product wetted steel parts: 1.4404 (316L)

Other steel parts: 1.4301 (304)

External surface finish: Semi-bright (blasted)

Internal surface finish: Bright (polished), Ra < 0.8 µm

Other product wetted seals: EPDM

Options

- Product wetted seals in HNBR or FPM.

Pressure drop/capacity diagrams

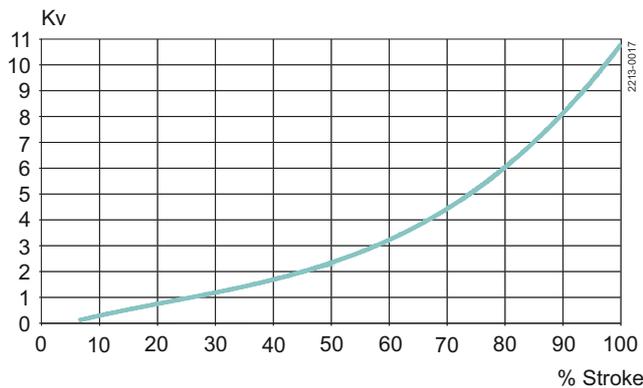


Figure 1. The flow in % of the total flow at a pressure drop of 1 bar

Kv-Factors

Valve size	Kv
38 mm	11

* optional

$Kv = m^3/h$ at a pressure drop of 1 bar

For other pressure drops than 1 bar the flow can be calculated with the following formula:

$$Q = Kv \times \sqrt{\Delta p}$$

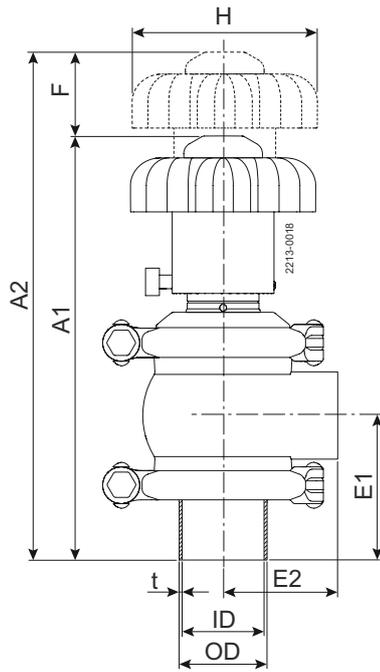
Where

Q = Flow in m^3/h

Kv = See above

Δp = Pressure drop in bar over the valve

Dimensions (mm)



Unique Manually Regulating Valve

Size	38 mm
A ₁	178.8
A ₂	205.4
OD	38
ID	34.8
t	1.6
E ₁	62.9
E ₂	49.5
F ₁	26.6
H	80

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