



Alfa Laval Unique SSV 6-Inch

Single seat valves

Introduction

The Alfa Laval Unique SSV 6-Inch Valves are versatile and reliable pneumatic single seat valves with a single contact surface between the plug and the seat to minimize the risk of contamination.

With a modular, hygienic design, the single seat valve meets the highest process demands in terms of hygiene and safety. Few moving parts ensure high reliability and low maintenance costs. A wide range of optional features enables customization to specific process requirements.

Application

The Alfa Laval Unique SSV 6-Inch valve is designed for use in a broad range of hygienic applications across the dairy, food, beverage, brewery and many other industries.

Benefits

- Cost effective and versatile
- Easily handles highly viscous fluids and large particles
- Durable, long-lasting construction
- Compliant with 3-A and hygienic standards

Standard design

The Alfa Laval Unique SSV 6 Inch valve is designed to deliver years of reliability and performance you've come to expect with all products. The TR2 seat ring with enhanced CIP capabilities and hygiene comes standard with all Unique SSV series valves. For added confidence, the valve can be supplied with a compression elastomer seal ring. The standard actuator comes with a five year warranty.

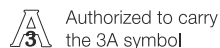
The valve can also be fitted with the Alfa Laval ThinkTop V70 for sensing and control of the valve.

Working principle

The Alfa Laval Unique SSV 6-Inch is operated by means of compressed air from a remote location. The actuator smooths operation and protects process lines against pressure peaks. The valve can be controlled using an Alfa Laval ThinkTop®.



Certificates



Authorized to carry the 3A symbol



TECHNICAL DATA

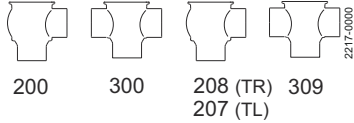
Temperature

Temperature range:	14 °F to +284 °F (Standard EPDMseal) / 14 °F to +170 °F (TR2 seal)
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Pressure

Max. product pressure (depending on valve specifications):	145 PSI (10 bar)
Min. product pressure:	Full vacuum
Air pressure:	72.5 to 101.5 PSI (500 to 700 kPa (5 - 7 bar))

Valve Body Combinations



Actuator function

- Pneumatic downward movement, spring return (NO-lower seat)
- Pneumatic upward movement, spring return (NC-lower seat)

PHYSICAL DATA

Materials

Product wetted steel parts:	AISI 316L (internal Ra < 32 μ inch)
Other steel parts:	AISI 304
Plug seal:	PTFE (TR2) (standard)
Optional elastomer plug seal:	EPDM, Buna or SFY (fluorelastomer)
Product wetted seals:	EPDM
Optional product wetted seals:	Buna or SFY (fluorelastomer)
Other seals:	Buna

Options

- Weld ends or connection types other than Tri-Clamp
- Control and Indication (ThinkTop V70)
- Product wetted seals of NBR or FPM
- Product wetted seals in EPDM, Buna or SFY
- Low profile plug

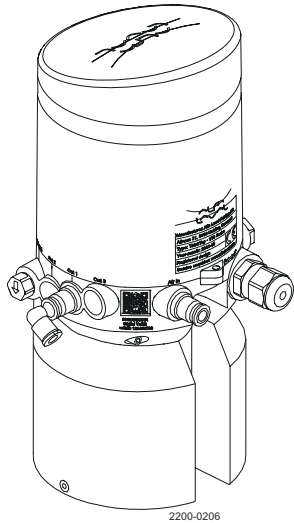


Figure 1. ThinkTop V70 with adapter

Dimensions (inch)

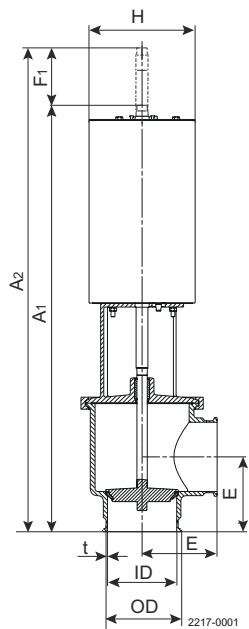


Figure 2. Shut-off valve

Nominal size	Inch
A ₁	40.30
A ₂	45.20
OD	6
ID	5.78
t	0.11
E with welding ends	6.50
E with Tri-clamps	6.25
F ₁	4.84

Nominal size	Inch
H	8.86
N (tangential valve body)	1.04
Weight (lb)	164.60



Note!

Opening/closing time will be effected by the following:

- The air supply (air pressure)
- The length and dimensions of the air hoses
- Number of valves connected to the same air hose
- Use of single solenoid valve for serial connected air actuator functions
- Product pressure

Air Connections Compressed air:

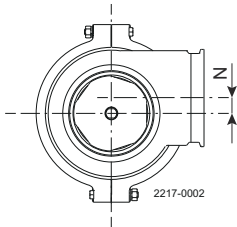


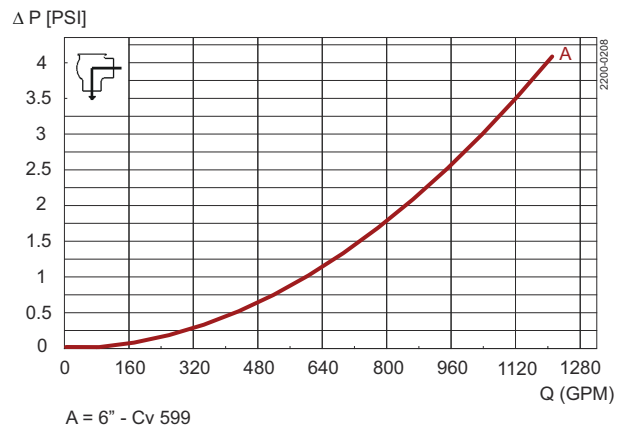
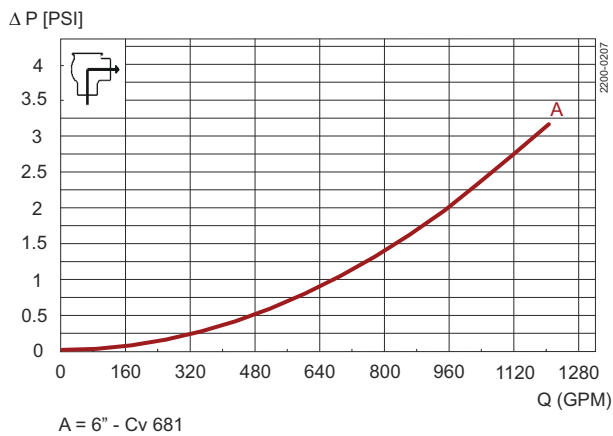
Figure 3. R 1/8" (BSP), internal thread.

Air Consumption

(In3 free air) for one stroke

Size	6"
NO and NC	19.5 x air pressure [PSI]

Pressure drop/capacity diagrams



Note!

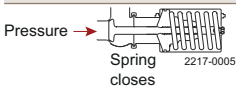
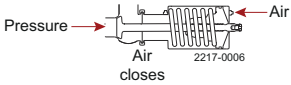
For the diagrams the following applies:

Medium: Water (68 ° F/20 ° C)

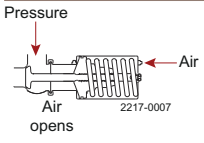
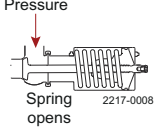
Measurement: In accordance with VDI2173

Pressure data for Unique SSV 6-Inch

Max. pressure in PSI without leakage at the valve seat

Actuator / Valve body combination and direction of pressure	Air pressure (PSI)	Plug position	Max Pressure (PSI)
 <p>Pressure → Spring closes 2217-0005</p>		NC	60
 <p>Pressure → Air closes 2217-0006</p>	87.6	NO	60

Max. pressure in psi against which the valve can open

Actuator / Valve body combination and direction of pressure	Air pressure (PSI)	Plug position	Max Pressure (PSI)
 <p>Pressure ↓ Air opens 2217-0007</p>	87.6	NC	60
 <p>Pressure ↓ Spring opens 2217-0008</p>		NO	60

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