



# Unique diaphragm valves

Alfa Laval Unique DV-ST UltraPure – the complete line



# Optimizing process systems



Automation & control



Actuator



Handles



Diaphragms



Two-way valve



Forged T-valve



Block T-valve



Multi-port valve



Tandem valve

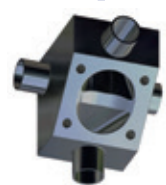
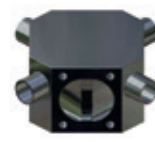
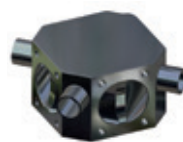
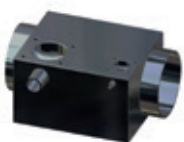


Forged Tank outlet valve



Block Tank outlet valve

Valve Bodies



Multi-port valves

# Technical data



## Actuator

Model	Stainless steel
Max. working pressure EPDM, PTFE/EPDM <sup>1)</sup>	10 bar
Max. working pressure TFM/EPDM <sup>1)</sup>	6 bar
Full vacuum	•
Max. temp. control media	80 °C
Max. control pressure	7 bar
Autoclavable <sup>2)</sup>	•
ATEX	•

1) 0% pressure drop – Working pressure is on both sides of the weir.

2) 121 °C for 60 minutes



## Handles

Model	Stainless steel	Composite/ Stainless steel
Max. working pressure	10 bar	10 bar
Max. working temp	175 °C	175 °C
Over closure protection	•	•

## Diaphragms

Material	Temperature recommendations			Documentation		
	Min.	Max. liquid	Max. steam	FDA	USP	TSE / ADI
EPDM	-40 °C	150 °C	150 °C <sup>1)</sup>	•	•	•
PTFE/EPDM	-5 °C	175 °C	150 °C <sup>2)</sup>	•	•	•
TFM/EPDM	-5 °C	175 °C	150 °C <sup>2)</sup>	•	•	•

1) Continuous temperature

2) 40 min. steam sterilisation

## Valve bodies

Body Type	Material	Delta ferrite	Sulphur content	Mechanical polished	Electro polished
Cast	CF3M (316L)	< 2,0%	< 0,04%	Ra < 0,5 µm (20µ-inch)	Ra < 0,4 µm (15µ-inch)
Forged and block	1.4435 (316L)	< 0,5%	0,005-0,017%	Ra < 0,5 µm (20µ-inch)	Ra < 0,4 µm (15µ-inch)

A wide variety of dimension standards and connections are available

All valve bodies are supplied with 3.1/MTR traceability certificate and surface finish conformity declaration

# Safeguarding biopharm applications

The pharmaceutical and biotech industries are built on trust. Alfa Laval has a long-established history of meeting the industry's requirements for cleanability, documentation and performance.

Today we supply a full range of separation, heat transfer and flow components specifically designed and documented for biotech and pharmaceutical use. Alfa Laval is the name behind the industry's most trusted separation systems, as well as the heritage of the Alfa Laval Tri-Clover® brand.

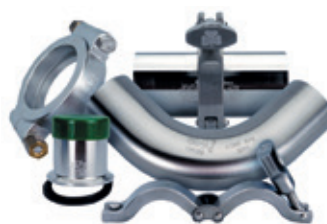
Alfa Laval understands the industry's demands for reliability.

Alfa Laval hygienic equipment and services address industry challenges by cutting energy and water consumption and other production costs while ensuring efficient, hygienic and continuous production.

Our pharmaceutical and biotech offering includes solutions for:



Separation and filtration systems



Tubes and fittings



Agitators



Valves



Tank cleaning equipment



Magnetic Mixers



Pumps



Heat exchangers

For more information visit [www.alfalaval.com/biopharm](http://www.alfalaval.com/biopharm)

# A complete range

Alfa Laval Unique diaphragm valves offer a complete range covering every need, for use in sterile and ultra-hygienic processes. The Unique diaphragm valves consist of a wide variety of valve bodies, diaphragms, actuators, handles, automation and control units.

Unique diaphragm valves deliver consistent performance and live up to the quality standards you expect from Alfa Laval.

## Unique design

As standard, Alfa Laval offers high-quality valve bodies with low delta-ferrite and specified sulphur content. Alfa Laval Unique T-valves and tank outlet valves are available in both block and forged versions. The forged versions ensure a lightweight and cost-effective solution, and are quick to heat up during sterilization.

## Building on innovation

Alfa Laval Unique diaphragm valves are complemented by a well-proven and extensive range of diaphragms, covering most applications. These include a special EPDM diaphragm for continuous steam operation at up to 150 °C.

## Documented performance

Every valve in the range is backed by the peace of mind of Alfa Laval's comprehensive documentation.

Alfa Laval Q-doc is our comprehensive documentation package. Based on Good Documentation Practice (GDP), Q-doc documents every aspect from raw material to delivered equipment. With full transparency of sourcing, production and supply chains it is a simple matter to trace even the slightest change in material or manufacturing procedures – even when it comes to spare parts. With Q-doc you can easily identify wear parts and service kits needed for your Alfa Laval hygienic equipment. Alfa Laval Q-doc comprises conformity declaration, material certificates and relevant test certificates. Just like the factory acceptance tests (FATs) for our equipment, the Q-doc documentation package supports a smooth qualification and validation process, and safeguards long-term peace of mind. Available 24/7 when you need them: [www.alfalaval.com/certificates](http://www.alfalaval.com/certificates)



### **Alfa Laval in brief**

Alfa Laval is a leading global provider of specialized products and engineering solutions.

Our equipment, systems and services are dedicated to helping customers to optimize the performance of their processes. Time and time again.

We help our customers to heat, cool, separate and transport products such as oil, water, chemicals, beverages, foodstuffs, starch and pharmaceuticals.

Our worldwide organization works closely with customers in almost 100 countries to help them stay ahead.

### **How to contact Alfa Laval**

Contact details for all countries are continually updated on our web site. Please visit [www.alfalaval.com](http://www.alfalaval.com) to access the information.

