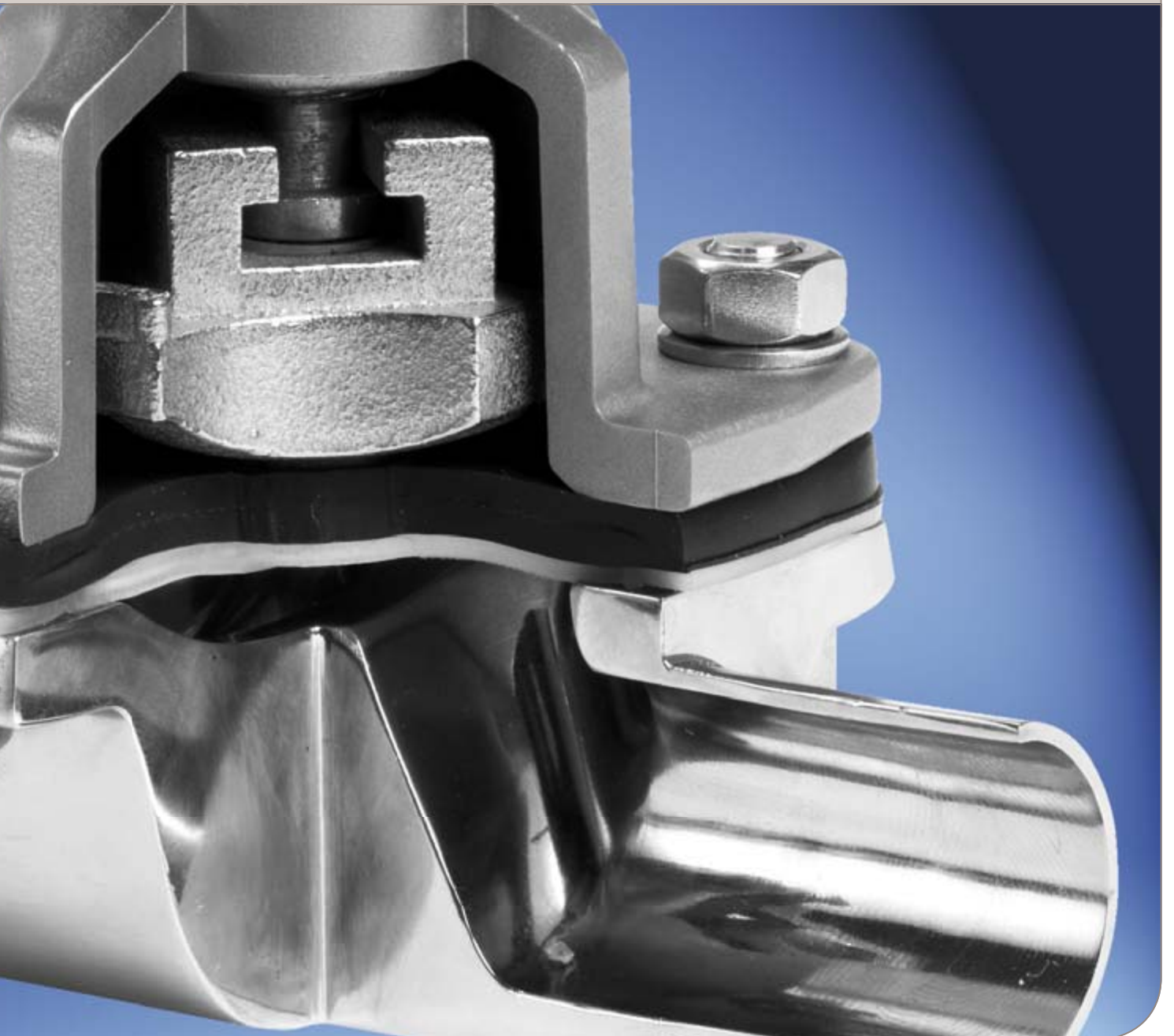




omd 800-648-3326
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Unique diaphragm valves

Unique DV-ST UltraPure – the complete line



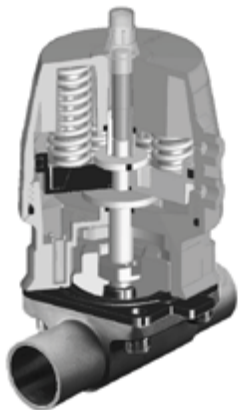
A complete range

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.



The actuators can be fitted with an extensive range of automation and control units. They feature a light and compact design and allow easy conversion of the control function (NC-Air/Air-NO). The unique design permits adjustment of the actuator spring pressure to optimize the sealing and lifetime of the diaphragm.

Building on innovation

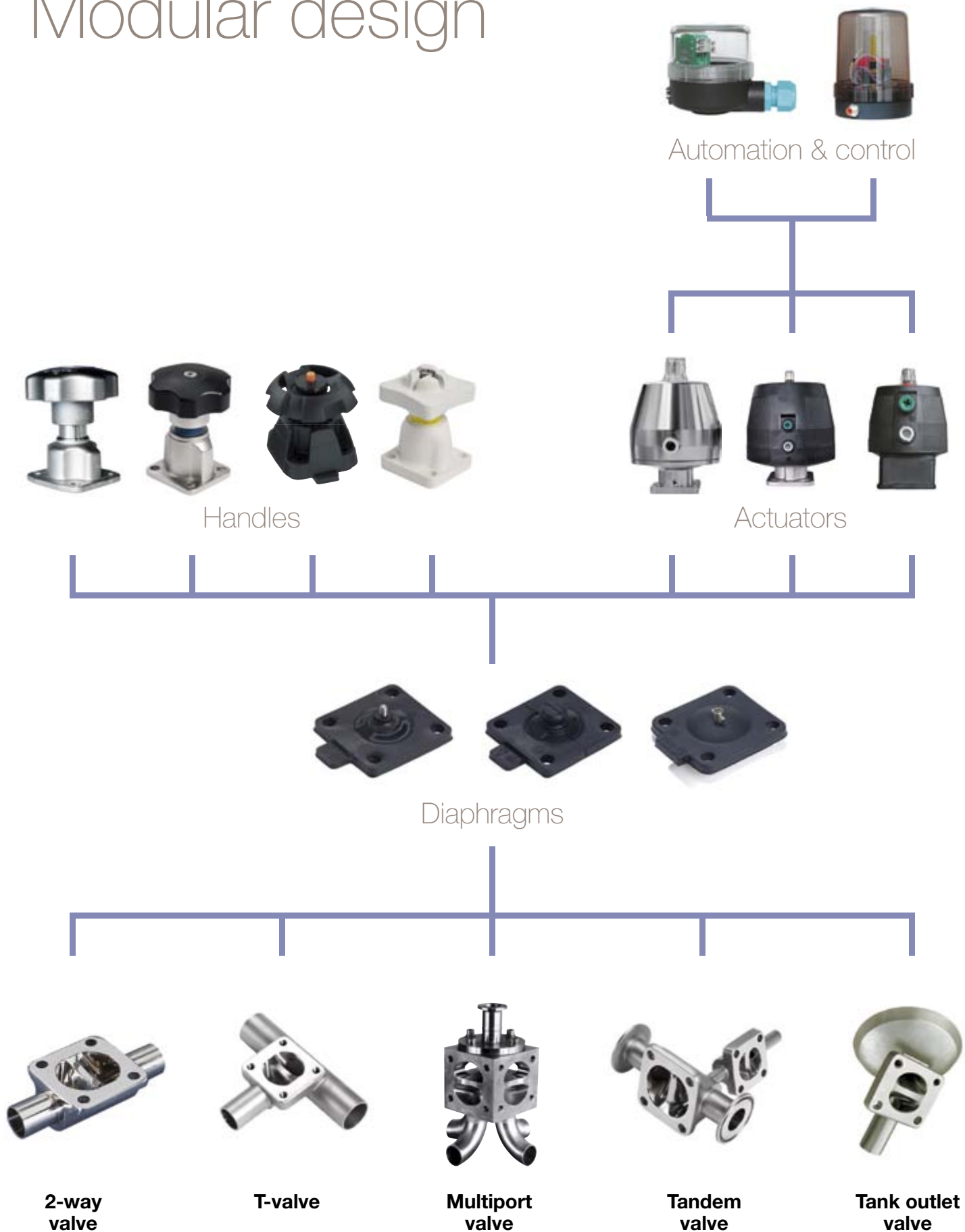
Alfa Laval Unique diaphragm valves are complemented by a well-proven and extensive range of diaphragms, covering most applications. These include the S2, a special EPDM diaphragm for continuous steam operation at up to 150 °C.

Documented performance

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



Modular design



For more configuration options please visit www.alfalaval.com/biopharm

Technical data



Actuators

Model	Stainless steel	Composite/Stainless steel	Composite
Max. working pressure ¹⁾	10 bar	10 bar	10 bar
Max. temp. control media	80 °C	50 °C	50 °C
Max. control pressure	6 bar	6 bar	6 bar
Autoclavable ²⁾	•	•	
ATEX, Ex II 2GDc	•	•	
Optical positioner	•	•	•
Interchangeable control function	•	•	•
Adjustable spring pressure to minimize wear on diaphragm	•	•	•

1) Depending on temperature

2) 121 °C for 60 minutes



Handles

Model	Stainless steel	Composite/ Stainless steel	Composite	Epoxy
Max. working pressure ¹⁾	10 bar	10 bar	10 bar	10 bar
Over closure protection	175 °C	175 °C	80 °C	175 °C
Autoclavable ²⁾	•	•		•

1) Depending on temperature

2) 121 °C for 60 minutes

Diaphragms

Code	Description	Temperature recommendations			Documentation		
		Min.	Max. liquid	Max. steam	FDA	USP	TSE / ADI
S2	EPDM	-40 °C	150 °C	150 °C ¹⁾	•	•	•
70	FPM	-5 °C	150 °C	Not recom.	•		•
80	Silicon	-40 °C	175 °C	175 °C ²⁾	•	•	•
93/70	PTFE/FPM	-5 °C	175 °C	150 °C ²⁾	•	•	•
93/S2	PTFE/EPDM	-5 °C	175 °C	150 °C ²⁾	•	•	•
LC/S2	TFM/EPDM	-5 °C	175 °C	150 °C ²⁾	•	•	•

1) Continuous temperature

2) 40 min. steam sterilisation

Valve bodies

Body Type	Material	Delta ferrite	Sulphur content	Mechanical polished ¹⁾	Electro polished
Cast	CF3M (316L)	< 1,0%	< 0,04%	Ra < 0,6 µm (25µ-in.)	
Forged and block	1.4435 (316L)	< 0,5%	0,005-0,017%	Ra < 0,5 µm (20µ-in.)	Ra < 0,4 µm (15µ-in.)

1) Other surface finishes are available on request

A wide variety of dimension standards and connections are available

All valve bodies are supplied with 3.1/MTR traceability certificate

Safeguarding biopharm applications

The biotech and pharmaceutical 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 Tri-Clover® brand.

Alfa Laval understands the industry's demands

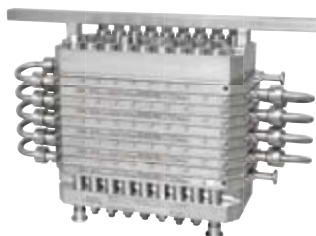
for reliability. Our solutions ensure the best possible consistency, both within and between batches, and are designed for the ultimate in hygiene and contamination safety.

Processing solutions such as separation systems are delivered after FATs and with documentation packages based on customer demand, while standardized components such as pumps and valves are supplied with the comprehensive documentation package Q-doc.

Our biotech and pharmaceutical offering includes solutions for:



Separation and filtration systems



ART, Plate reactors



Pumps



Valves



Tubes and fittings



Tank equipment



Heat exchangers

For more information visit www.alfalaval.com/biopharm

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 to access the information.

