“Alfa Laval’s commitment goes beyond the products themselves. Our pharma experience, technical innovation, local presence and world-class service and support make us a valued partner.”

Amir Jahangiri,
Global Product Manager,
Pharma Heat Exchanger

Count on quality that goes deeper

Alfa Laval is the world leader in heat exchangers, with the widest selection on the market. The breadth of our offering ensures we can always deliver the optimal solution.

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.

Scan QR code for more info or visit **www.alfalaval.com/biopharm**

Authorized Distributor

THANYANON

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Deeper knowledge. Superior support. Peace of mind.

Alfa Laval pharma heat exchangers are designed to meet the industry’s stringent demands. A closer inspection reveals not just technical innovation, but also decades of pharma experience and a deep commitment.

We provide an unparalleled level of service and support, including installation and operational qualification; service/maintenance training and advice; and spare parts provision. We can always recommend the right heat exchanger for the application. But more than that, we can support it over the long term, ensuring continuous performance, maximizing uptime and minimizing cost of ownership.

Designed and manufactured in Sweden, our tubular pharma heat exchangers deliver optimal hygiene and performance.
Naturally reliable and efficient, they make a significant contribution to cost-effective processes.

Pharma-line Point of Use is a compact point of use cooler for water-for-injection or purified water systems.

Alfa Laval Pharma-line | Data table

	Pharma-line S	Pharma-line P
Heat transfer area	0.1 – 8.5 m²	From 0.1 m²
Materials	Stainless steel Tube SS316L Shell SS304L	Stainless steel Tube SS316L Shell SS304L
Gasket	PTFE	PTFE, EPDM, FEP/Silicone
Surface	0.5 MP, 0.4 EP	0.5 MP, 0.4 EP
Connection	Product: Plate to connect to Tri-clamp; ASME BPE Shell: Flange; DIN2635/EN1092	Tri-clamp: ASME BPE, DIN32676, DIN11864-3, ISO2037, other options are available on request Shell: Flange; DIN2635/EN1092, ANSI B16.5 other options are available on request
PV code	PED, TSG (China)	PED, ASME VIII (U-stamp as option), TSG (China)
Temperature:	-10 to 200 C	-19 to 200 C
Pressure	FV/10 bar	FV/10 bar 15 bar available on request
Design	U-tube, 4-pass	U-tube, straight, multipass
Removable tube bundle	No	On request
Insulation	On request. Mineral wool (ASTM C795) with SS 304 cladding	On request. Mineral wool (ASTM C795) with SS 304 cladding
Welding	According to SS-EN ISO 15614-1, SS-EN287-1, SS-EN 1418, ASME IX	According to SS-EN ISO 15614-1, SS-EN287-1, SS-EN 1418, ASME IX
Double tube sheet	Yes	Yes

Pharma-line

Pharma-line S, Pharma-line P

Versatile heating and cooling

Alfa Laval Pharma-line is a double tube sheet shell-and-tube heat exchanger that can be delivered in a variety of sizes and options, with special designs available on request. This flexibility makes it suitable for almost any hygienic application, whatever the demands. Typical uses include water systems, water for injection, purified water and Cleaning-in-Place systems, as well as general product heating and cooling duties.

Leakage detection
Double tube sheets protects against service media leaking into the product.

Hygienic design
Seamless tube with smooth and controlled surface finish. Crevice-free design ensuring no contamination.

Compliant design
In line with ASME BPE, USP, cGMP requirements.

Drainable
Fully drainable on the product side, with no dead spots. Vent and drain possibilities on utility side.

Flexibility
The Pharma-line S range is designed with legs for flexible positioning of the heat exchanger. It can be mounted on the floor, wall or ceiling.

Comprehensive documentation
A high-quality documentation package as standard, with most specials available

Pharma-line Point of Use

Efficient point of use cooling

A compact heat exchanger module developed for point of use cooling in pharmaceutical water systems. Pharma-line Point of Use is designed to remain sanitized even when not in use (standby mode).

Easy installation
Pharma-line Point of Use is built as a plug-and-play module for easy installation.

Fast and efficient
The low hold-up volume and quick heat exchanger response mean cold water is available within seconds and waste of water for injection and purified water is minimized.

Pharma-line Point of Use | Data table

Models:	PoU200, PoU300, PoU400
Heat transfer area:	0.3-0.7 m²
Flow up to:	1200 l/h
Materials:	SS316L, seamless tubes
Surface:	Ra<0.5 µm EP on all product wetted parts
Connections:	Tri-clamp metric or ANSI
Design temperature:	140°C
Design pressure:	10 barg, 6 barg if pneumatic valve
Welding:	According to EN-287-1

Unique design
Designed to eliminate risk of contamination. No internal welds, and fully drainable on the product side.

Tube-in-tube
The product has a unique design that gives high shear force and turbulence. This minimizes risk of bio-film build-up and ensures an efficient heat transfer. This in turn means that less cooling water is needed.

The world's broadest portfolio

Alfa Laval is the world's leading supplier of heat exchangers. We offer a comprehensive range in addition to the shell-and-tube models featured here. Whatever the application, we can always supply the heat exchanger that best matches the demands.

Gasketed plate heat exchangers
– With single or double wall plates.

Spiral heat exchangers
– Compact and self-cleaning for a wide range of applications.

Compabloc condenser
– Compact, fully welded plate condenser designed for patient safety, operational reliability and production efficiency.

AlfaNova
– Fusion-bonded plate heat exchanger made completely of stainless steel.