



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, foodstuff, starch and pharmaceuticals.

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

How to contact Alfa Laval

Contact details for all countries are continually updated on our website. Please visit www.alfalaval.com for more information.

LKH Series Centrifugal Pumps

Your Best Choice for Efficiency and Gentle Product Treatment



LKH Series Centrifugal Pumps

LKH Series: Our model of efficiency

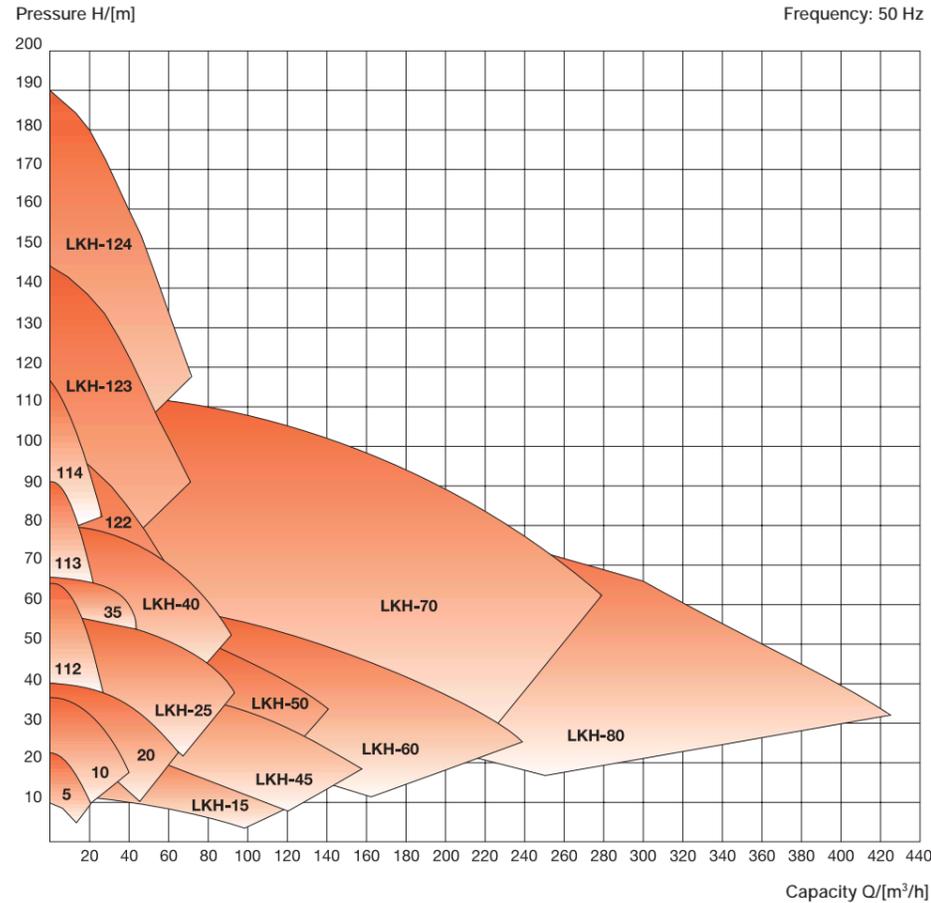
As a leading manufacturer and supplier of premium, high-quality centrifugal pumps, Alfa Laval has quite a reputation to live up to. That is why, when you need to move product through a system gently and efficiently, LKH series centrifugal pumps from Alfa Laval are your best solution. The enlarged inlets combined with an advanced impeller design result in unobstructed product flow and very low NPSH requirements.

Designed for either CIP or manual cleaning, these quiet pumps are available with capacities up to 440 m³/h and pressures up to 190 m (19 bar/275 Psi). All product contact parts – back plate, casing, impeller and the impeller retaining bolt – are made of AISI 316L stainless steel. Polished models are USDA approved and exceed 3A standards so you can be sure you have got the most hygienic centrifugal pump possible.

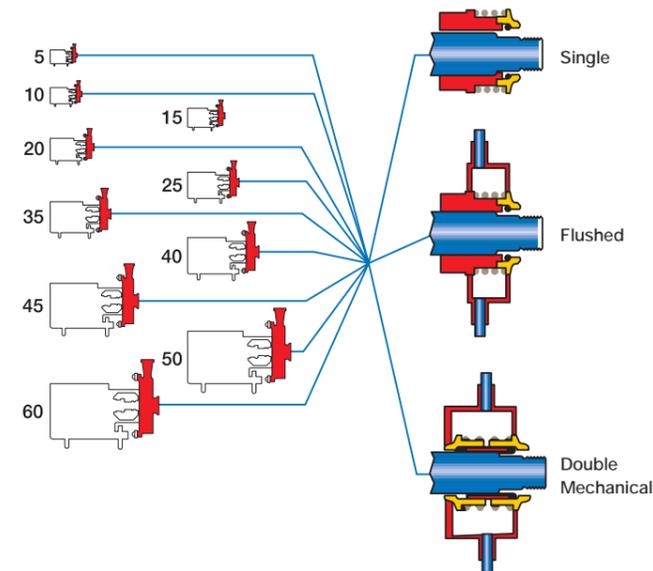
- **LKH**
the premium centrifugal pump for most applications
- **LKH-Multistage**
for high outlet pressures
- **LKHP-High Pressure**
for high-pressure applications
- **LKH-UltraPure**
for high-purity applications
- **LKHSP**
for self-priming applications

LKH Centrifugal Pumps: Features & benefits

- Gentle product treatment
- Simplicity and cost saving in spare parts stock
- Easy conversion from single to flushed shaft seal or double mechanical shaft seal
- Hygienic design can easily be cleaned in place (CIP)
- Easy maintenance at low costs
- Low power consumption
- Low noise level
- Low NPSH requirements mean minimum risk of cavitation
- Authorized to carry the 3A symbol
- Tested in accordance with EHEDG hygienic requirements



Performance across the range. LKH series pumps are available with capacities up to 440 m³/h and pressures up to 190 m (19 bar/275 Psi).



Identical shaft seal for easy maintenance and flexibility

Only one size of shaft seal is required for all LKH standard models (LKH 5–60), so keeping the right parts in inventory is simple and inexpensive. Plus, a single mechanical seal can be easily changed to a flushed or a double mechanical seal in minutes with just a few extra components.

Ease and performance: Built right in

Interchangeable seal options

Three interchangeable seal types are available: single, flushed and double mechanical.

Easy motor attachment

LKH series centrifugal pumps are easily attached to standard, readily available IEC or NEMA C motors.

Spring-loaded, externally-balanced shaft seal

No spring or other complex component comes in contact with the pumped product, making for a more hygienic seal. The external design allows for quick disassembly to simplify seal replacement, and allows for easy visual leakage detection to reduce the risk of contamination. The balanced seal is not susceptible to leakage due to high pressure or pressure shock.

Inlet options

Inlet and outlet connections are available to all major standards: SMS, DIN, ISO, BS, DS, Tri-clamp, bevel seat, DC, H-line, etc.

Stainless steel adapter ring

Allows quick and easy motor service/change even after several years of service. Adapter rings are investment cast, providing a smooth, easy-to-clean surface.

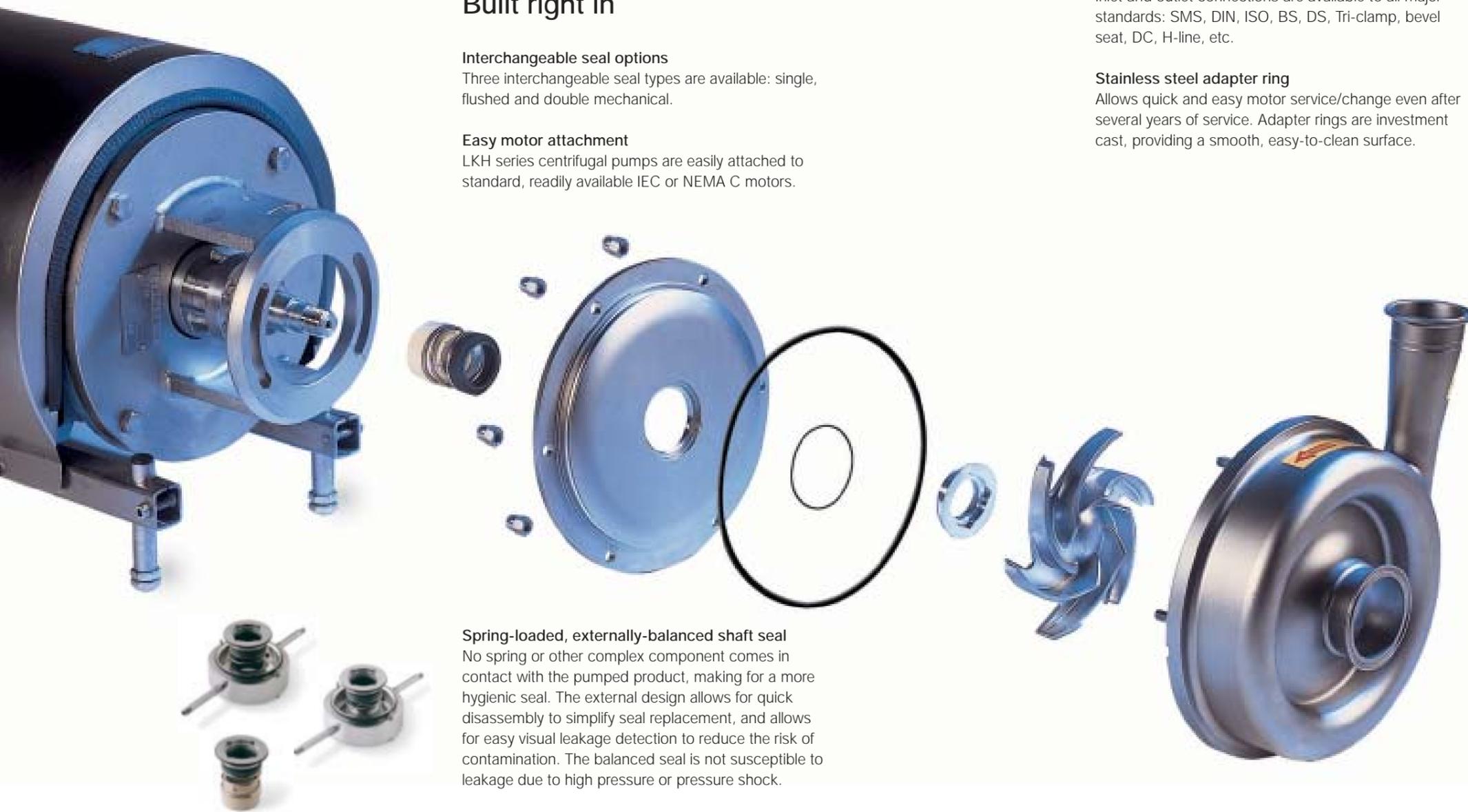


Semi-open impellers

Our impellers are computer-designed and hydraulically balanced for optimum performance. The impeller and retaining screw (optional) present a smooth profile so product will not collect and cleaning is efficient.

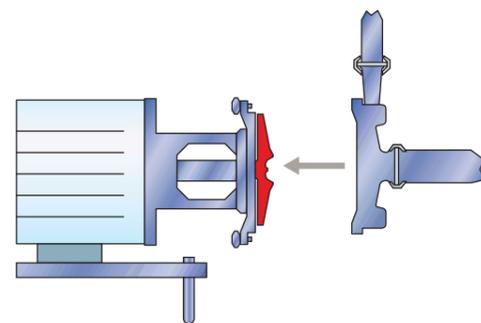
Rugged casing design

Impeller casing is heavy wall steel so there is less risk of material porosity. Close tolerances mean lower internal recirculation and less product damage.



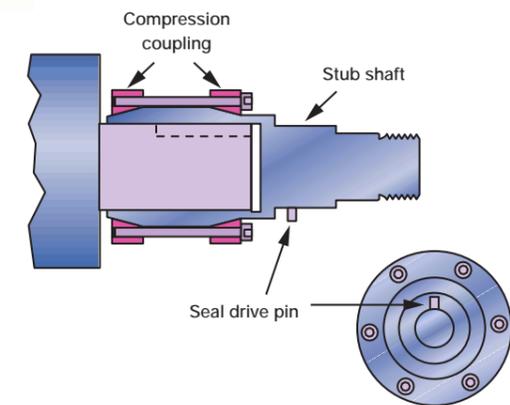
Fast, easy maintenance

With Alfa Laval centrifugal pumps, you can keep the pump head in line when setting the impeller or changing seals, meaning faster, more convenient maintenance.



Simple set-up. Secure attachment

Self-centering to less than 0.02 mm (0.001") runout, our unique stub shaft assembly design provides a simple, yet secure method of attachment that reduces vibration and noise and extends seal and motor life. With our modular stainless steel adapter, you can attach our pumps to any standard IEC or C-frame motor. No special tools are required.



LKH Multistage: The space-savers

Available in two-, three- and four-stage models, our LKH multistage pumps can replace up to three booster pumps in a line, saving you space and energy. They are able to withstand system pressures up to 40 bar (600 PSI) and deliver boost pressures up to 19 bar (275 Psi).

These pumps are primarily used in applications with high pressure and low capacity requirements (e.g. breweries, reverse osmosis and ultra-filtration).

Designed to meet the 3A standards of the dairy industry, multistage units ensure long service intervals and easy maintenance.

Other features and benefits of the LKH multistage pump include:

- Gentle product treatment
- Identical shaft seals for all sizes and for LKHP
- Easy conversion from single to flushed shaft seal
- Hygienic design can be easily cleaned in place (CIP)
- Low power consumption for high efficiency



- Modular design
- Low noise level
- Authorized to carry the 3A symbol
- Flow up to 75 m³/h
- Head up to 190 m (19 bar)

LKHSP: Self-priming LKH pumps

The self-priming LKHSP is suitable as a CIP return pump or for emptying tanks since it can pump products containing air or gas. And, it still offers many of the advantages from the entire LKH line of centrifugal pumps: low energy consumption, low noise level and gentle product treatment.

The LKHSP includes a tank, a non-return valve (normally closed) on the inlet side, a tee and a non-return valve (normally open) on the bypass line. Compared to the liquid ring principal, the self-priming centrifugal pump LKHSP has maintained the essential advantages of our LKH pump line.



LKHP-High Pressure: Built to handle pressure

Along with the standard features found in our LKH models, the LKHP high-pressure pumps feature a reinforced pump casing and backplate, high-pressure internal seals and multiple heavy-duty studs to handle high inlet pressures up to 40 bar (600 PSI).

The internal seal design not only helps maintain product integrity, it also allows for simple seal replacement. Seals are removed by hand in a matter of seconds from the front of the pump – without removal of the back plate. Such pumps are ideal for demanding Nano filtration and reverse osmosis filtration applications.

Other features and benefits of the LKHP pump include:

- Gentle product treatment
- Identical shaft seals for all sizes and for LKH multistage
- Simplicity and cost-saving in spare parts stock
- Easy conversion from single to flushed shaft seal



- Hygienic design for easy CIP (clean in place)
- Easy maintenance
- Low noise level
- Authorized to carry the 3A symbol
- Flow up to 240 m³/h

LKH-UltraPure: For high-purity demands

Our LKH-UltraPure high-purity-water pumps meet specifications for water-for-injection (WFI) and other demanding applications. All surfaces that come in contact with product are AISI 316L stainless steel for corrosion resistance. The pump can be cleaned in place, sterilized in place, or cleaned manually and is authorized to carry the 3A symbol. All other features of the standard LKH models apply.

The minimal finish on our UltraPure pumps is Ra 0.5 mm (150 grit). Additional electro-polishing is available.

Options include:

- Zero dead leg diaphragm valve
- Needle valve before seal housing
- Check valve after seal housing



- PTFE flowmeter
- Air-actuated diaphragm valve
- Fully drainable flush pipework