



As-good-as-new guarantee for Nonstop Performance

Nothing lasts forever. Even the highest quality equipment is subject to eventual wear and tear. Plate heat exchangers are no exception.

But when plate heat exchangers go down, so do productivity and profitability. The trick is to maintain your plate heat exchangers in good working order. Alfa Laval helps you do just that.

Reconditioning plate heat exchangers on a regular basis keeps them in good working order. When Alfa Laval takes full responsibility for reconditioning, we give you our "as-good-as-new guarantee". It's part of our Nonstop Performance concept. So productivity doesn't ever come to a stop, keeping your bottom line as good as gold.

And we know you'd like that to last forever.

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 assisting customers in optimizing the performance of their processes. Time and time again.

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

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

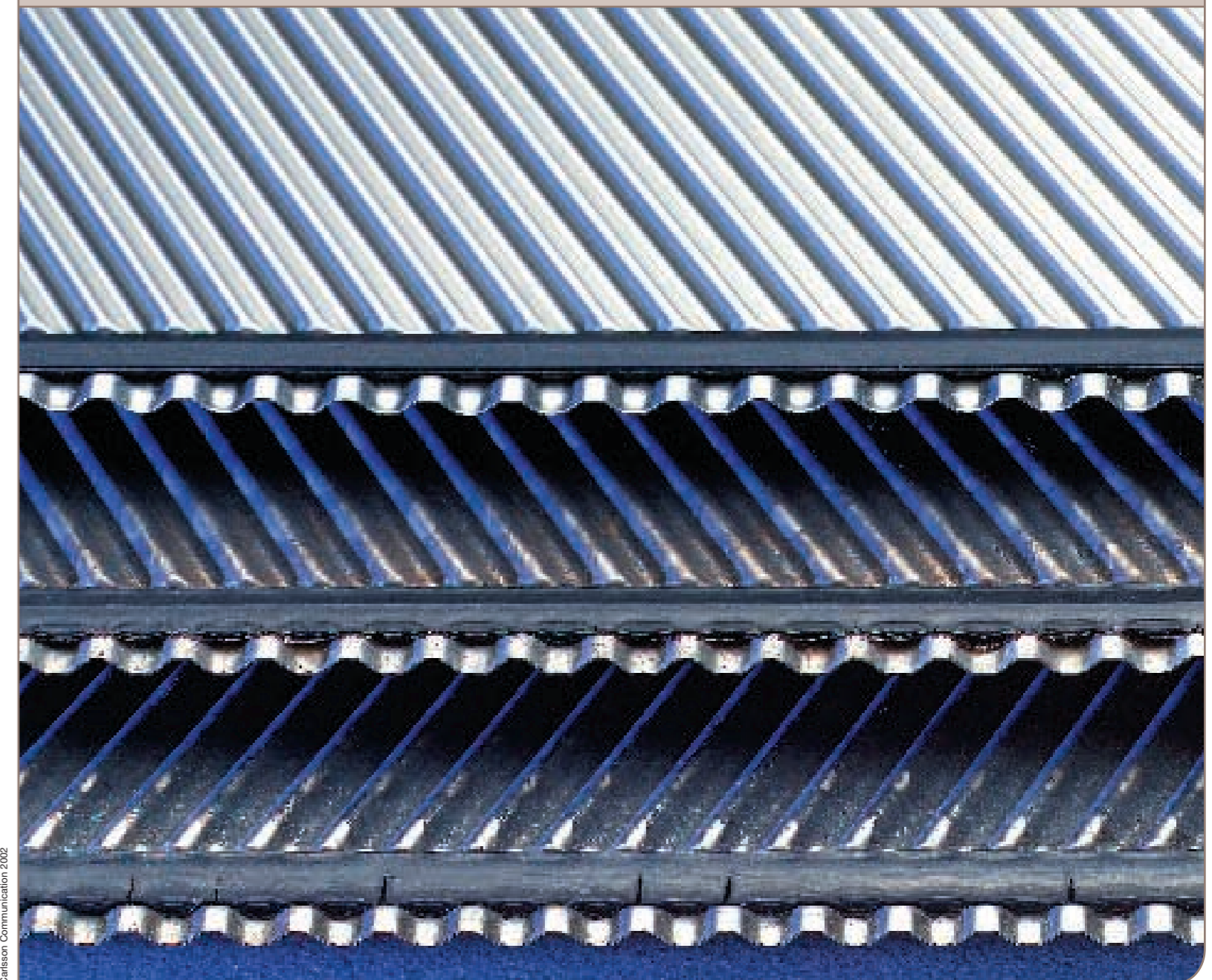
How to contact Alfa Laval

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



How to get as-good-as-new performance

Plate heat exchanger reconditioning



Beyond regasketing

Reconditioning involves more than simply regasketing worn plates. Find out if your plates are up to the task for which they were designed by consulting the reconditioning specialists at Alfa Laval.

By conducting a thorough plate assessment, we determine the best course of action to maximize uptime – from plate cleaning and replacement to advice for improving your production process.

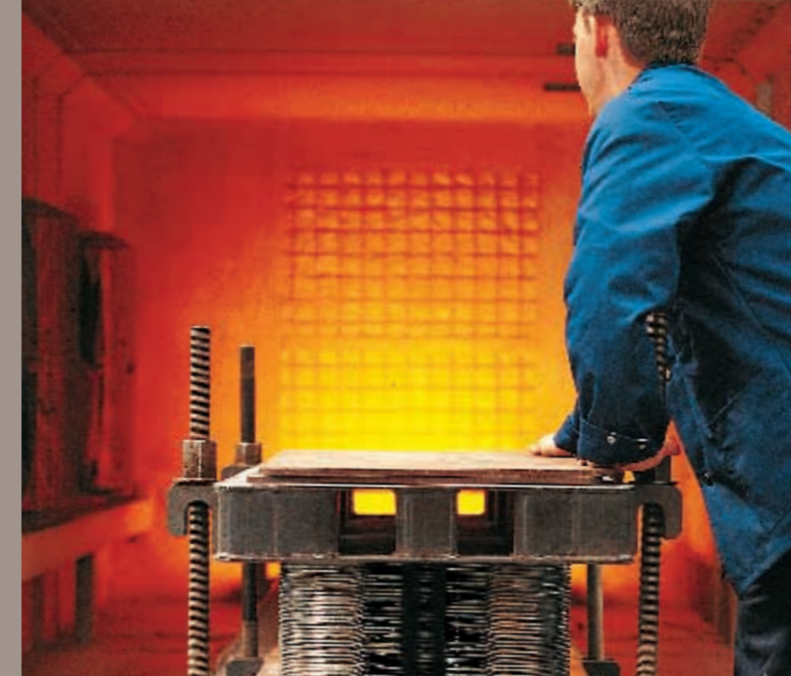
Alfa Laval's reconditioning process goes beyond regasketing to ensure Nonstop Performance for your heat exchanger.



Reconditioning ensures peak performance

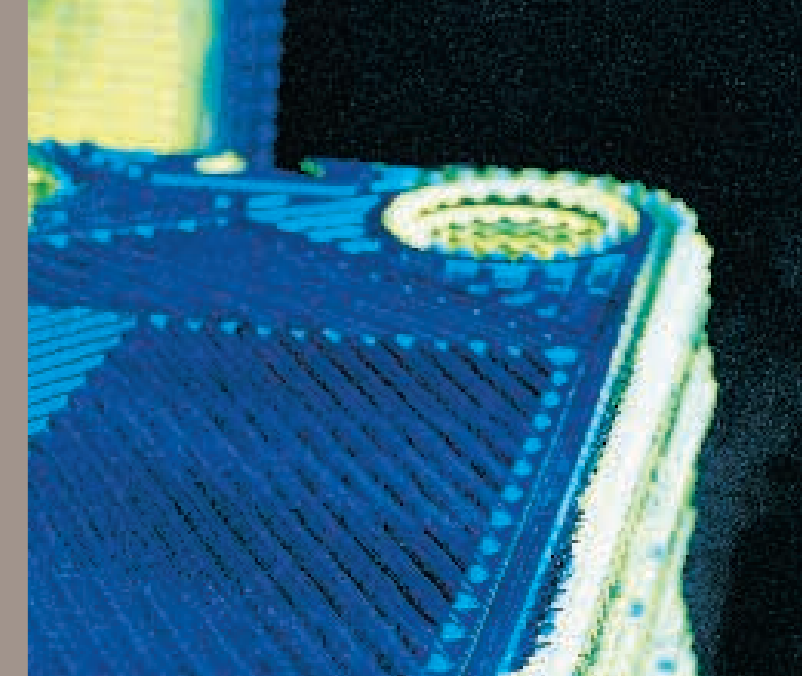
Protect valuable investments by scheduling regular reconditioning routines with Alfa Laval. This saves time and money by providing:

- Maximum uptime and efficiency
- Prolonged lifetime
- Optimal performance



Productivity doesn't stop

- Preventive maintenance for optimal productivity
- Quick, reliable, in-depth service when and where you need it
- Knowledgeable service professionals on call 24 hours a day, 365 days a year
- Strategic plate packs to keep operations up and running while Alfa Laval reconditions your heat exchanger



Renewing your resources

All plate heat exchangers eventually require reconditioning to ensure peak performance and to avoid unscheduled production stops. To extend the life expectancy of your plate heat exchangers, you need to look at the bigger picture – from a particular plant and its machinery to the specific application and media, down to the smallest component.

Two of the most common factors that contribute to poor plate heat exchanger performance are: (1) gasket exhaustion due to limited gasket lifetime, which causes external leakage and (2) fouling of the plate surface, which reduces heat transfer. Reconditioning solves both problems.

Proactive maintenance for profitability

Unexpected breakdowns waste time and money. So don't wait for visible signs of disrepair before scheduling maintenance. We at Alfa Laval take a proactive approach to plate heat exchanger maintenance. Scheduling regular maintenance ensures profitability and maximum uptime. Let's take a quick look at three good reasons to choose Alfa Laval for reconditioning:

Recondition, don't just regasket.

Reconditioning is more than simply putting new gaskets on worn old plates. Even with new gaskets, plate

heat exchangers will continue to leak internally and deliver substandard performance if the plates are severely deformed or have tiny cracks and pinholes that are invisible to the naked eye. When severe plate deformation or corrosion exists, there's really no point in regasketing and plate replacement is required.

Alfa Laval reconditioning engineers assess the overall condition of your heat exchanger's plates and, upon request, help you identify the cause of failure or recommend a solution that better suits your needs, such as increasing plate thickness, using additional plates or employing a different plate material.

Use genuine gaskets as replacements.

Look-alike gaskets do not necessarily perform alike. To achieve optimal sealing function, the type and grade of rubber compound must precisely match a particular duty, operating media and temperatures. Genuine gaskets keep on going stronger and last longer than inexpensive imitations.

Alfa Laval develops genuine gaskets based on our vast expertise in sealing technology. We test all gasket qualities in our laboratories or in the field under real conditions. Our gaskets then undergo rigorous quality assessment. Once approved, all gaskets are clearly marked with our supplier code, batch



1. Plate inspection. Assessment of plate condition, upon arrival at the service centre, which includes thorough examination of all plates for any major deformations. This inspection ensures the plate can be reconditioned, not replaced.



2. Gasket removal. Immersion of plates in liquid nitrogen at -196°C to make the gaskets brittle, causing them to shrink and to separate cleanly from the plate.



3. Plate cleaning. Immersion of plates in specially formulated Alfa Laval chemical baths or other agents removes deposits that hinder efficient heat transfer without harming plate surfaces.

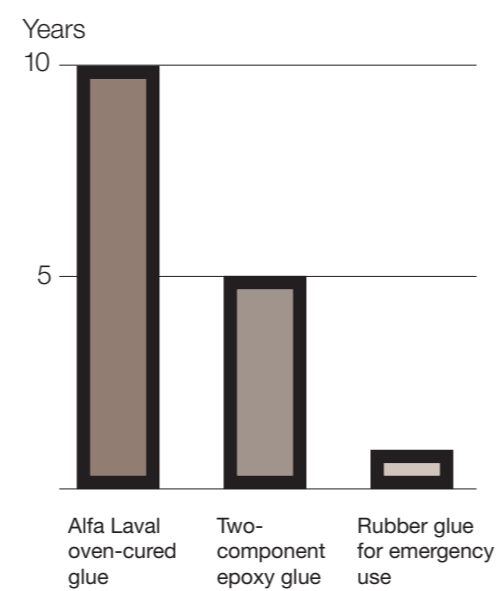
number and date of manufacture to help determine the gasket's age when handling spares onsite.

Choose the right adhesives.

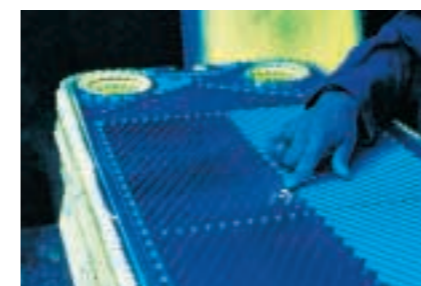
For optimal performance, the gasket must bond perfectly with the plate. Using the wrong adhesive can, in fact, cause improper conformance of gasket to plate, resulting in corrosion.

At Alfa Laval, we use our own oven-

cured epoxy resins. The elevated temperatures of oven-curing guarantees that these adhesives reach full cure for ultimate strength. This is especially useful for plate heat exchangers that are frequently opened and subject to high stress levels. In addition, use of Alfa Laval adhesives can actually extend sealant life expectancy by up to 10 times that of ordinary glues.



Average gasket lifetime using different adhesives



4. Crack detection. Spraying plates with dye penetrants and subsequent inspection under ultraviolet light to reveal cracks and pinholes that are invisible to the naked eye.



5. Plate inspection. Alfa Laval reconditioning engineers conduct another more thorough plate assessment to detect any deformation that may not have been visible with the gaskets in place.



6. Regasketing. Selection of genuine spare parts to ensure optimal sealing performance, to increase uptime and to decrease operating costs. Alfa Laval helps determine the right gasket for your plate heat exchanger, based on media type, pressure and temperature.

Nonstop Performance with Strategic Plate Packs

Alfa Laval ensures that you receive local, on-the-spot service through our global service network of engineers who have unparalleled, practical trouble-shooting experience. We work closely with customers in almost 100 countries. We also have reconditioning engineers on call 24 hours a day, 365 days a year to work for you onsite, or at one of Alfa Laval's 30 plate heat exchanger service centres around the globe.

In critical operations where an emergency shut down is cost-prohibitive or for safety reasons, it is recommended to have a stand-by unit or what we call a strategic plate pack. Upon request, we can customize and provide you with strategic plate packs for several Alfa Laval plate heat exchangers. Inserting a plate pack that is identical to the one you already have in place, including model type, plates and gaskets, decreases production downtime and increases profitability.

Reconditioning half a million plates per year

To protect your plate heat exchanger investments, there's nobody better to turn to than the people at Alfa Laval. Alfa Laval's track record for reconditioning speaks volumes.

We have more than 70 years of experience. Over the years, our customers have provided us with vast knowledge about plate heat exchangers, their performance under specific conditions, their wear and tear, and about the importance of timely, proactive maintenance. More than half a million heat exchanger plates are serviced each year at our global centres. In a word, Alfa Laval has reconditioned more plate heat exchangers than any other company in the world.

Alfa Laval reconditions our own plate heat exchangers as well as all other brands of plate heat exchangers. Called AllBrands, this service provides you with the expertise of knowledgeable Alfa Laval service engineers around the globe. These dedicated men and women have easy access to the online Alfa Laval reconditioning database as well as direct contact with colleagues at headquarters and at locations worldwide. Whatever challenge you may be facing, we have probably dealt with it before and can recommend a solution, putting our vast resources to work for you.

Simply put, when you choose Alfa Laval for reconditioning, you choose Nonstop Performance.



7. Oven-curing. Bonding of genuine gaskets to the plates using a unique, extra-strength Alfa Laval epoxy adhesive.



8. Pressure testing. As an option, Alfa Laval can verify the restoration of a leakage-free sealing function for the entire plate heat exchanger by pressure testing.



9. Frame reconditioning. If required, inspection and power washing of frame assembly and covers. Sandblasting and painting are optional.

10. Installation. Service or supervision, if required, for reinstallation.