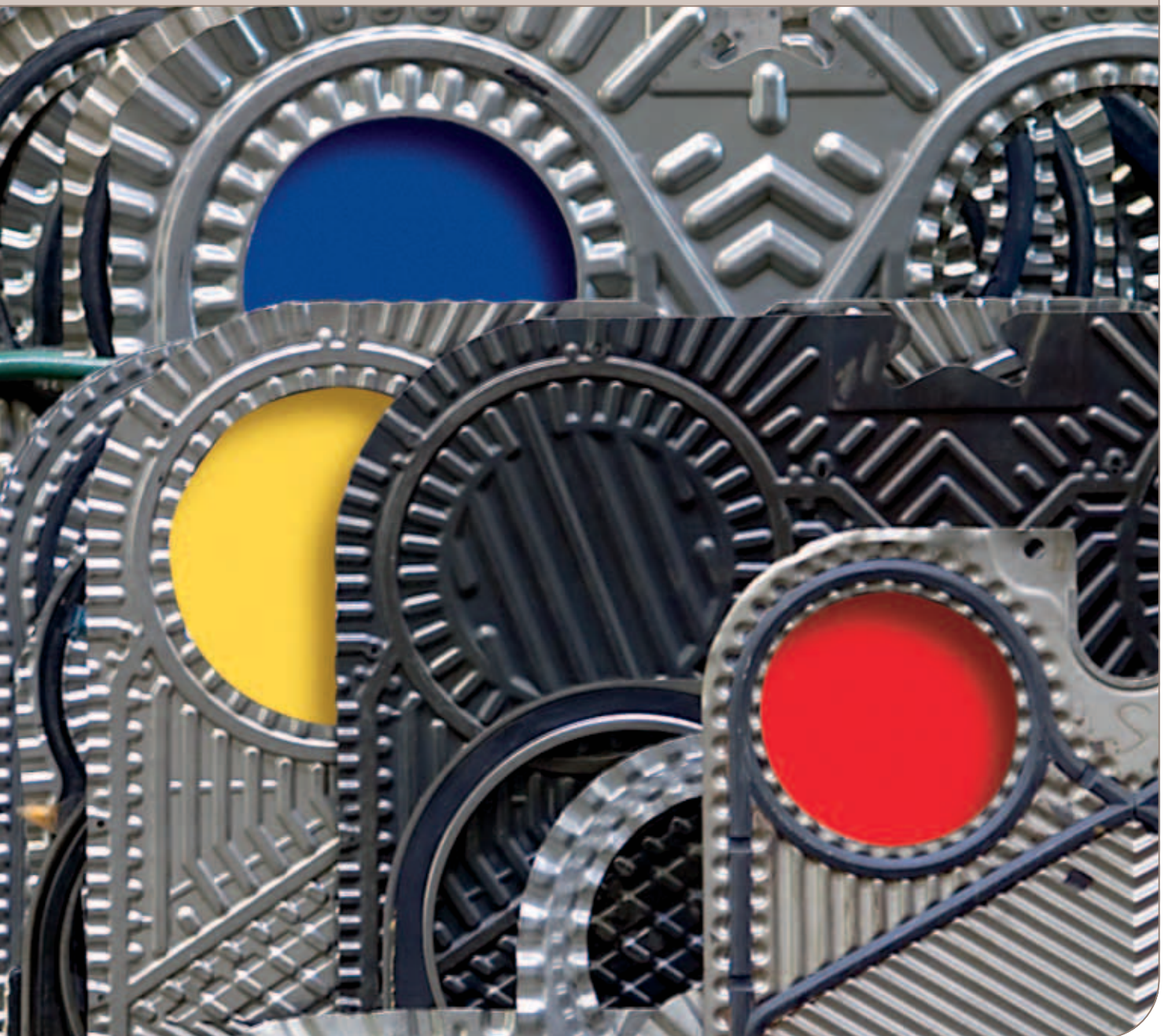
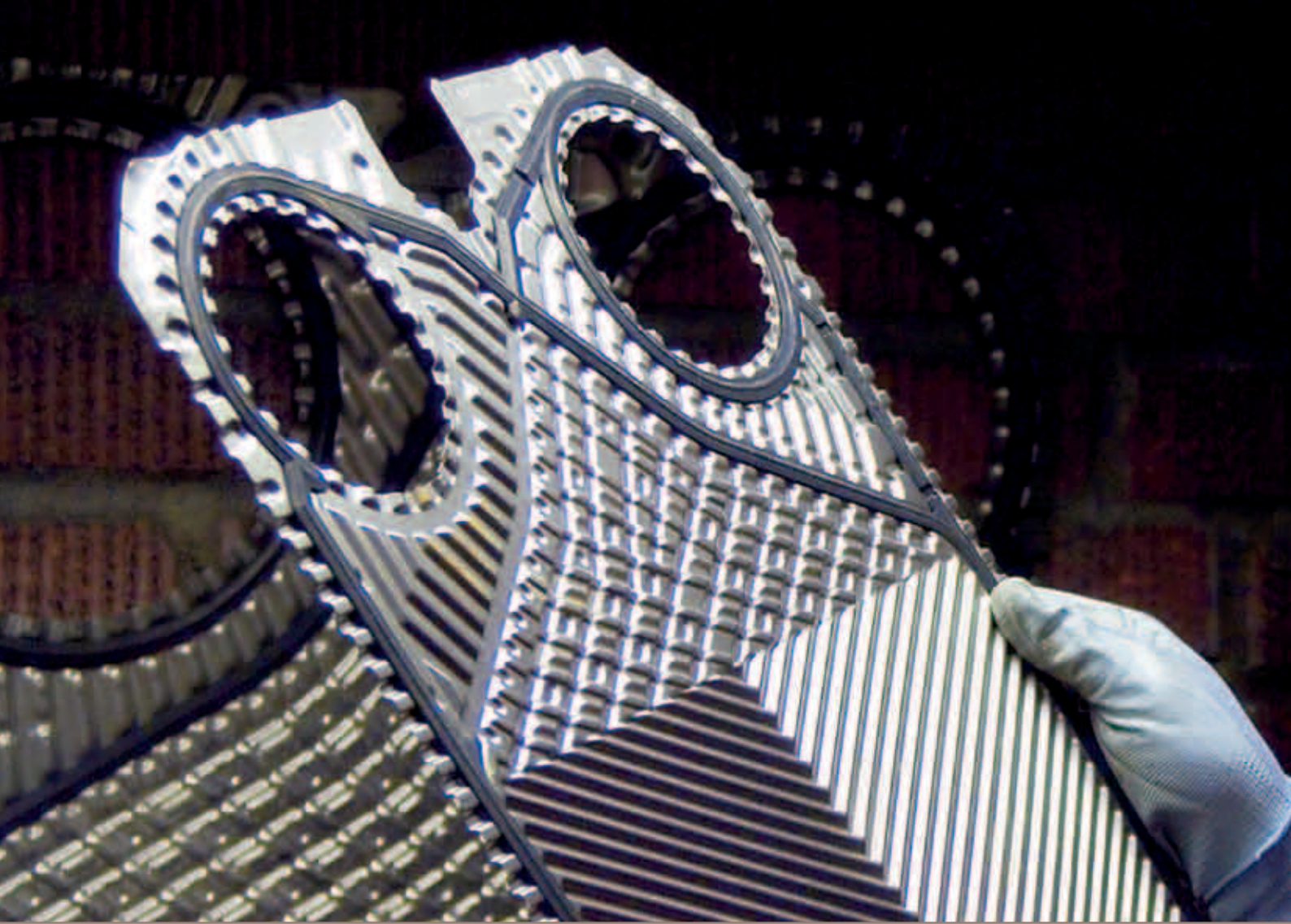




The colour of performance

Blue, yellow and red reconditioning packages for plate heat exchangers





Reconditioning makes sense

Having Alfa Laval service your plate heat exchangers (PHEs) is more than just practical – it makes good business sense. By restoring heat transfer and pressure drop, we ensure quality, productivity and energy efficiency. And by curing your PHEs of leakage, we reduce production losses and protect equipment and the environment.

With our coloured reconditioning packages – red, yellow and blue – reconditioning has never been easier. No matter what your PHE needs, we have a package to match your time, budget and application requirements for any brand of PHE.



Why choose Alfa Laval?

PHEs are no small investment. There is every reason to safeguard their performance, and no better reason for turning to Alfa Laval.

Alfa Laval's local specialists are part of a global network of service and support. They know your business and its needs, and they have a thorough knowledge of PHE chemicals and cleaning methods. Drawing on Alfa Laval's experience and resources, they ensure high-quality results and rapid turnaround.

At Alfa Laval's well-equipped service centres, our experts remove gaskets and scaling with specialized tools and chemicals. This prevents corrosion and creates an ideal surface for re-gasketing – without you having to handle the chemicals or waste. In addition, they thoroughly examine your PHEs, correcting any sealing problems or deformities.



Gaskets that look alike may not perform alike. Alfa Laval uses only high-performance gaskets.



Any PHE model or brand can be reconditioned with Alfa Laval's AllBrands service.

Only reliable parts

No matter which reconditioning package you choose, you can count on the quality of Alfa Laval parts. Alfa Laval uses only brand-quality spares, and we offer the industry's best gaskets, glues and mounting procedures. Each year we fit over a half-million gaskets in our service centres alone, and our specialized engineers lead the way in gasket and glue development.

For any model or brand

Regardless of where or when they were made, Alfa Laval is well equipped to service your PHEs. Through our unique AllBrands service, we can restore any PHE to optimal working condition.

By providing solutions for any PHE model or brand, we give you a single speaking partner with total quality assurance. Our qualified service specialists, more than 70 years of PHE experience and extensive database of solutions make us the simple path to top-notch performance.

Service is not black a

With Alfa Laval, reconditioning your PHEs is simple. Leave them to us, and we will return them in optimal condition.

To make it easier, our services are organized into three standardized packages: red, yellow and blue. You choose the package that meets your needs, without lengthy discussions or questions during service.

Since the service scope and price are defined in advance, you pay for no more than what you require. And since Alfa Laval is in charge of the work, you get no less than the performance you need.

Mix and match

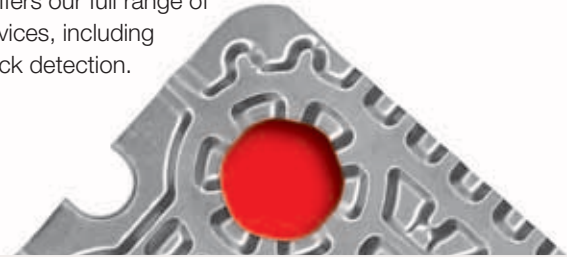
Having a choice does not mean having to choose. In most cases, service needs vary from one PHE to another.

Instead of selecting a single package for all of your PHEs, you can assign the most appropriate colour to each. And if circumstances should change, your choice of packages can be changed to meet them.

Our service specialists can help find the arrangement that suits you best.

For heavy demands

Our red reconditioning package is for PHEs with heavy demands. It offers our full range of services, including crack detection.



WHEN

Each coloured package is designed for a specific type of situation. Meeting just one of the conditions can make the package worthwhile.

- PHEs in processes that involve corrosion or fouling
- PHEs with a high importance to their process
- PHEs that must operate continuously at maximum performance
- PHEs that may have to be opened frequently
- PHEs whose leakage would pose a risk to product quality, safety or the environment

WHAT

Each coloured package contains its own sequence of service steps.

- Pre-cleaning inspection
- Removal of gaskets
- Hydrojet cleaning*
- Chemical cleaning
- Visual inspection
- Crack detection
- Replacement of defective plates up to an agreed level*
- Reassembly with new Alfa Laval gaskets
- Oven-cured heat- and chemical-resistant glue***
- Reconditioning report with recommendations

Additional options

- Frame refurbishment
- Pressure testing

WHY

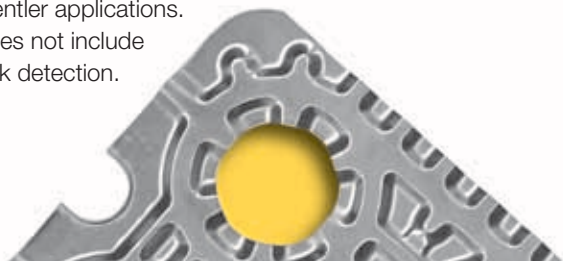
Each coloured package offers its own range of benefits.

- Restored heat transfer
- Reduction of pressure drop
- Excellent sealing and elimination of external leakage
- Reduction of fluid-intermixing risks
- Prolonged PHE lifetime
- Process improvement
- Total peace of mind

nd white

When less is more

Our yellow reconditioning package is an economical approach for PHEs in gentler applications. It does not include crack detection.



- PHEs in non-corrosive or less demanding processes (operating at lower temperatures and pressures)
- PHEs that need:
 - Restored heat transfer
 - Lower pressure drop
 - Elimination of external leakage
- Not PHEs that exhibit internal leakage or are opened frequently

- Pre-cleaning inspection
- Removal of gaskets
- Hydrojet cleaning*
- Chemical cleaning
- Visual inspection
- Replacement of defective plates up to an agreed level*
- Reassembly with new Alfa Laval gaskets
- Optimized rubber glue for general applications***
- Reconditioning report with recommendations

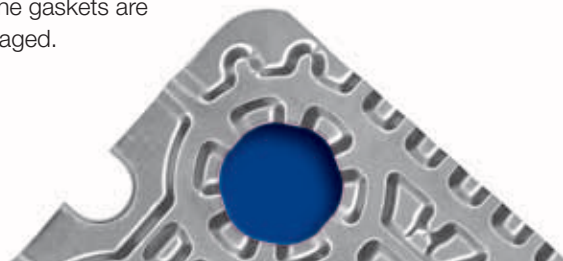
Additional options

- Frame refurbishment
- Pressure testing

- Restored heat transfer
- Reduction of pressure drop
- Excellent sealing and elimination of external leakage
- Prolonged PHE lifetime
- Process improvement

The simple solution

Our blue reconditioning package is an interim service, offering fast cleaning when the gaskets are undamaged.



- Clogged PHEs that are normally serviced with our red package (interim service)
- PHEs that need a quick solution to:
 - Improve heat transfer
 - Reduce pressure drop
 - Eliminate external leakage (clip-on gaskets only)
- Not PHEs that exhibit internal leakage or PHEs with glued gaskets that exhibit external leakage

- Pre-cleaning inspection
- Removal of gaskets**
- Hydrojet cleaning
- Reassembly with used gaskets**
- Re-gluing of gaskets (up to 10%)*

Additional options

- Reassembly with new Alfa Laval gaskets
- Frame refurbishment
- Pressure testing

- Minimal turnaround time
- Improved heat transfer
- Reduction of pressure drop
- Optimization of gasket lifetime
- Moderate process improvement

* If judged necessary by Alfa Laval service specialists and at a pre-agreed added price.

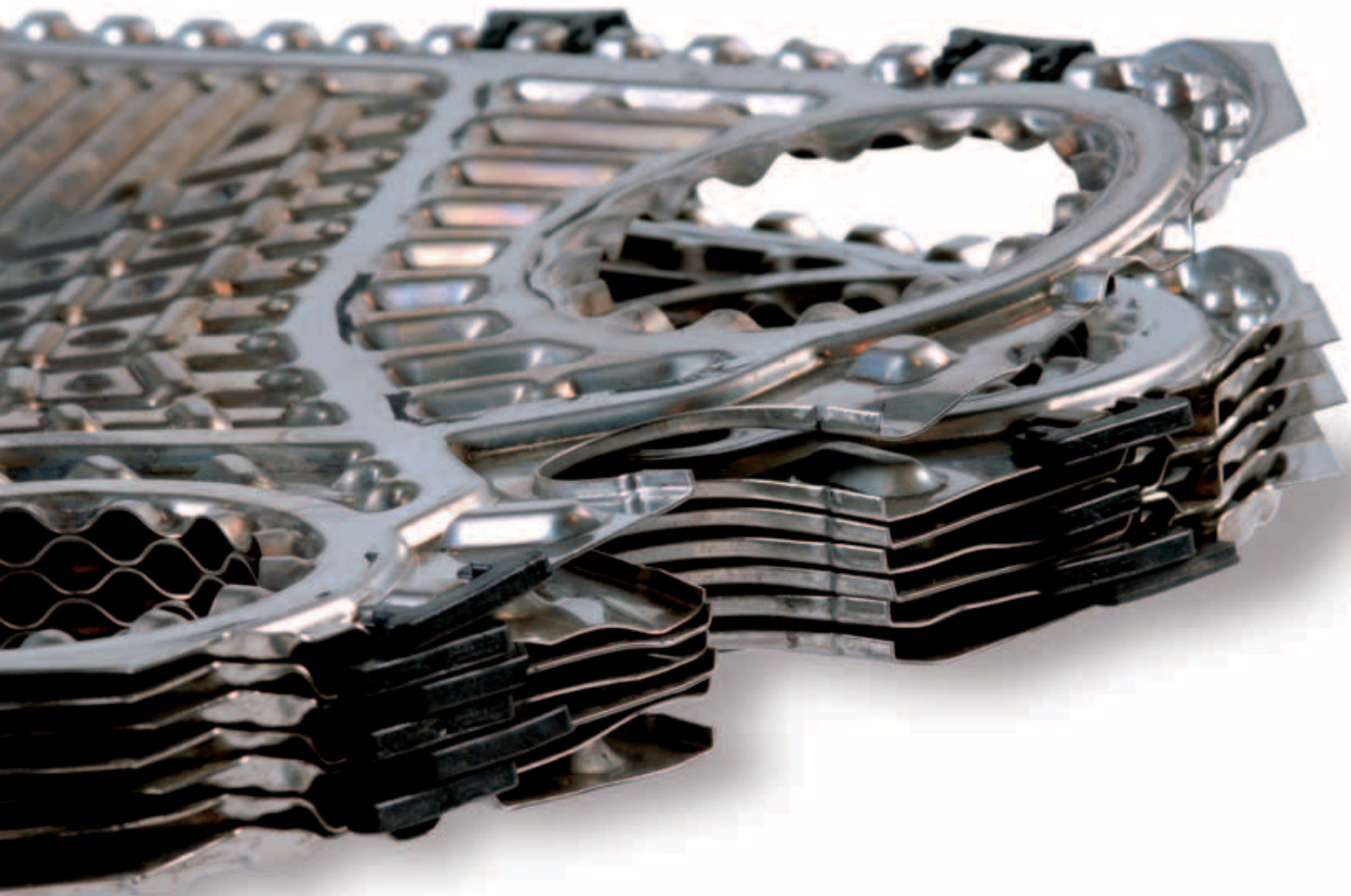
** Plates with glue-free gaskets only.

*** Plates with glued gaskets only.

Subject to local conditions

Right or wrong?

Plate heat exchangers have an essential role in most applications. If they function poorly, they may lead to lower product quality, reduced safety and higher energy costs. And if they fail, they can lead to costly downtime and major losses in production. This makes it important to perform maintenance – and important to do it correctly.



The risks

“Do-it-yourself” reconditioning or the use of a less qualified supplier may seem to cut time and expense. But without the right knowledge, small defects can be missed, creating bigger problems down the road.

Worse still, reconditioning with the wrong tools or parts can seriously damage your PHEs. Scraping and chemicals can harm the plates, and improper sealing can lead to leakage. In this way, poor reconditioning risks not only your productivity, but also your safety.



When old glue and gaskets are not completely removed, insufficient sealing is the result. This creates a high risk of leakage.



Chemical cleaning requires the right concentration, temperature and cleaning time. Otherwise, the plates can be destroyed.



Deformities can be difficult to see without experience and proper tools. Even small defects can cause production losses and safety risks.



The wrong gaskets or poor gluing can cause leakage. The wrong glue may even destroy the plate.



If standard glue is used on a frequently opened PHE, the gaskets may fall off, making it necessary to re-gasket after opening.

The reasons

By combining experience, resources and established routines, Alfa Laval finds the tiniest defects in any PHE. Our tools and facilities are designed for reconditioning, and we have the industry's most respected range of quality spares. As a major PHE manufacturer, we invest heavily in our people, services and parts.

In other words, we offer efficient reconditioning with optimal results. So with so much riding on your PHEs, there is no good reason for taking a chance.



With media such as liquid nitrogen and caustic soda, we remove gaskets gently and completely, leaving the groove intact.



To ensure the perfect cleaning cycle, we rely on specially designed hydrojet cleaning or specialized chemical baths with the right concentration and temperature.



Alfa Laval gaskets and glues are specially formulated for their applications, thus ensuring an optimal alignment and seal.



We search for pinholes and deformities with advanced techniques, including dye penetrants and UV illumination. This lets us find even the smallest crack



We use an oven-cured, two-component epoxy for PHEs that are frequently opened, so that gaskets stay in place after countless openings.

Alfa Laval in brief

Alfa Laval is a leading global provider of specialized products and engineered 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 website. Please visit www.alfalaval.com to access the information.

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