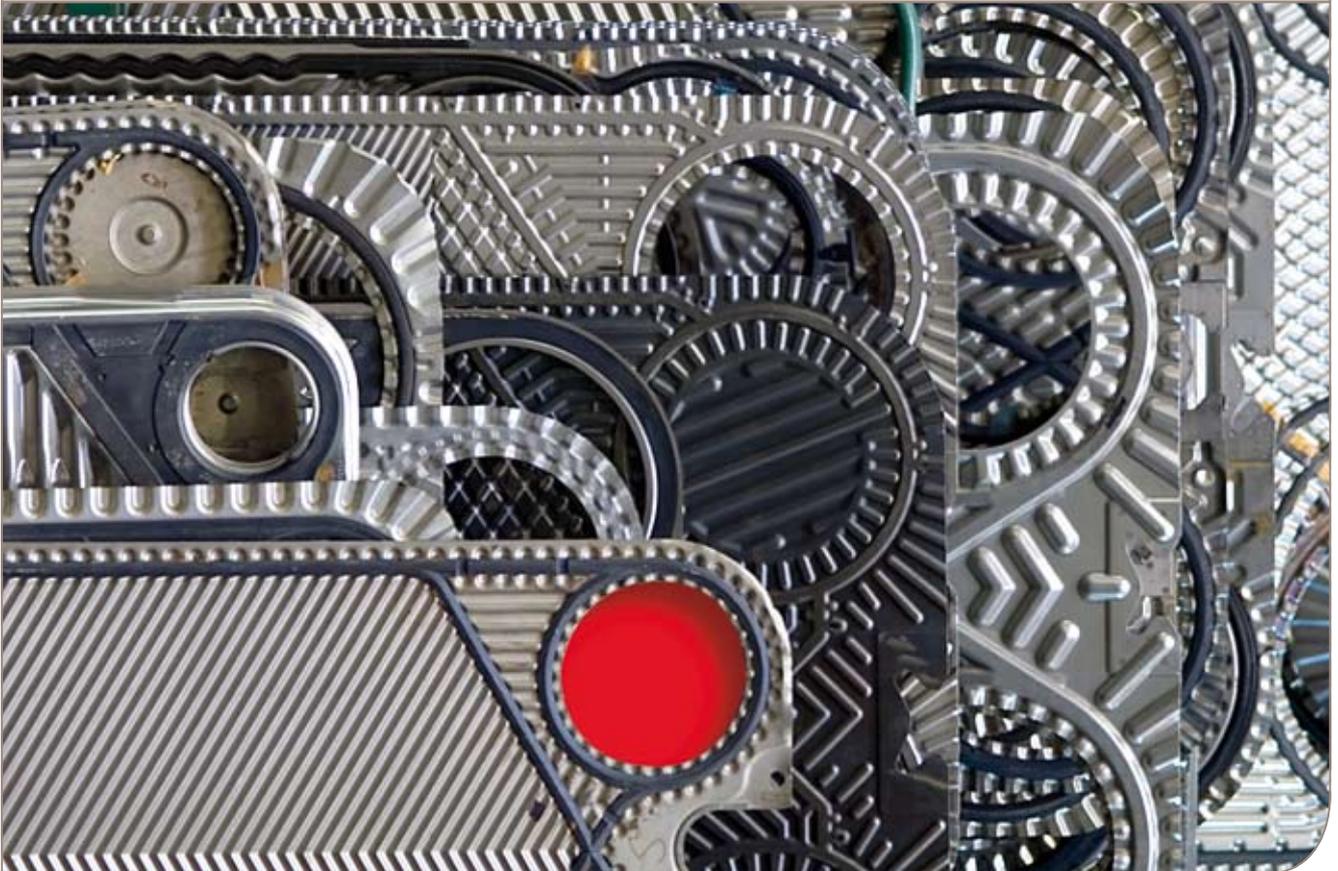




## Red PHE reconditioning package

**For heavy demands**



### **Plate heat exchanger reconditioning packages**

Alfa Laval's reconditioning services for plate heat exchangers (PHEs) are organized into three coloured packages: red, yellow and blue. This lets you choose the option that best meets your time, budget and application requirements.

Because the packages are standardized, they eliminate both unforeseen expenses and discussions that can otherwise arise during service. You pay only for what you select, and if desired, you can choose a different colour for each of your PHEs.

Each package is handled by our expert service team and is supported by Alfa Laval's more than 70 years of PHE experience.

### **Red – For heavy demands**

Our red reconditioning package is a full-service option for PHEs in high-demand situations. It is generally used with PHEs that are part of a crucial process, or with PHEs in applications that involve aggressive chemicals and heavy fouling.

In addition to cleaning and inspection, the package includes crack detection and the remounting of gaskets by glue-free means or with heat- and chemical-resistant glue. All PHEs reconditioned in this way receive a warranty from Alfa Laval.

### **AllBrands**

Alfa Laval reconditioning packages can be used not only with Alfa Laval PHEs, but also with PHEs from other manufacturers. Our unique AllBrands service, which draws on our experience and our extensive database of solutions, lets us restore any PHE to optimal working condition. As the leader in PHE manufacturing and service, we can thus provide you with a single speaking partner.



**1. Pre-cleaning inspection**

Upon arriving at the service centre, the plates are examined for major corrosion, erosion and deformities. This determines whether the plates should be reconditioned or replaced.



**2. Removal of gaskets**

In most cases, the plates are immersed in liquid nitrogen at  $-196^{\circ}\text{C}$ , which makes the gaskets brittle and causes them to separate cleanly. On other occasions chemical means are used to remove the gaskets.



**3. Chemical cleaning**

The plates are immersed in specially formulated chemical baths, whose concentration and temperature are carefully regulated for the gentle removal of deposits. In case of excessive residue, the chemical cleaning may be preceded by hydrojet washing at a pre-agreed added price.



**4. Visual inspection**

The plates are thoroughly assessed a second time, in order to locate any defects that might not have been visible with dirty plates or with the gaskets in place. These include any deformations of gasket grooves or contact points, as well as any corrosion or erosion of the plate surface.



**5. Crack detection**

Advanced techniques, such as dye penetrants and ultraviolet light, are used to detect cracks and pinholes that may be invisible to the naked eye. Plates that fail this or the preceding inspections are replaced up to an agreed level.



**6. Reassembly with new gaskets**

New Alfa Laval gaskets, which are chosen for optimal performance with the media, pressure and temperature of the application, are mounted by glue-free means or with heat-and chemical-resistant glue according to original factory procedures. Alfa Laval gaskets are coded by material grade and are clearly marked with our logo and the date of manufacture.



**7. Oven curing**

The glue used for glued gaskets is a two-component epoxy, which is carefully oven cured. This ensures optimal bonding between the plates and the genuine Alfa Laval gaskets.

**8. Certification**

The entire plate pack is manually inspected again, both to ensure proper gasket mounting and as a final check for corrosion and erosion. Once the inspection is completed, a work conformity certificate and an inspection report with recommendations are issued.

**Additional options**

- Frame refurbishment
- Fast tracking
- Pressure testing
- Turnkey service

**Red package 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

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Subject to local conditions.

Alfa Laval reserves the right to change specifications without prior notification.

**How to contact Alfa Laval**

Up-to-date Alfa Laval contact details for all countries are always available on our website at [www.alfalaval.com](http://www.alfalaval.com)