

## ALOnsite

### On-site services for Packinox heat exchangers

Ensure high and reliable performance from your Packinox heat exchanger with Alfa Laval as your service partner. As its original manufacturer, we know every detail of your heat exchanger and how to maintain it to ensure stable operation and maximum efficiency over time. We are by your side for the entire lifespan of your heat exchanger, ready to assist you with everything from regular maintenance to upgrades.

Alfa Laval's 360° Service Portfolio includes all the services required for high performance, operational efficiency, and reliable uptime throughout the entire lifespan of your Packinox heat exchanger.

Our on-site services include:

- Operator, service and maintenance training programme
- Pre-commissioning review
- Start-up assistance
- Test run
- Cleaning supervision
- Inspection and test
- Repairs and troubleshooting
- Replacement of the plate pack
- Genuine spare parts supply



# Installation and commissioning services

Operator, service and maintenance training programme – keeping your staff involved

Our standard training programme for your personnel is performed on site, right after the delivery of your Packinox heat exchanger and just before it is installed. The course includes the following sections:

- The design of a Packinox
- Installation
- Operating instructions, including starting and stopping procedures
- Maintenance instructions, including cleaning

We can of course also conduct customized trainings covering selected topics in greater detail.

Your operators are key for safe and trouble-free operation. With the right training, they are the best possible condition monitoring solution, keeping an eye on the process and the performance of your equipment. Therefore, we recommend our customers to conduct regular refresher trainings to ensure that all staff has the adequate knowledge.

## Pre-commissioning review – the best preparation

When installing a new Packinox heat exchanger, we recommend you make a pre-commissioning review before you start it up.

A service technician from Alfa Laval Packinox verifies the surrounding equipment, inspects the installation, checks that all recommendations and standards have been followed, and advises on how to prepare for the start-up.

## Start-up assistance – fine-tune your equipment

Customers, both existing and new to Packinox technology, often find it valuable to have one of our technicians on site during the initial start-up of a new heat exchanger to check that your equipment operates according to its specifications and to ensure long-term operational reliability.

The technician provides advice on how to conduct the start-up and suggestions on future maintenance.

## Test run – ensure high performance

A test run establishes the performance of a newly installed Packinox heat exchanger. The test evaluates the thermal and hydraulic performance to ensure the heat exchanger is operating correctly and delivers the high performance agreed on.

A technician from Packinox is present on site as support during the test and makes sure it is performed correctly. The operating data are thereafter analysed and the conclusions are presented in a report.

To continue verifying the performance of your Packinox heat exchanger, we recommend using Packinox Performa, see our web site for more information.



# Regular maintenance

## Cleaning supervision – restoring original performance

Regular cleaning is essential for high and reliable performance over time and key for energy efficiency. For best results, we recommend having one of our service technicians supervise the cleaning, guiding your staff through the entire process and ensuring all necessary actions are performed.

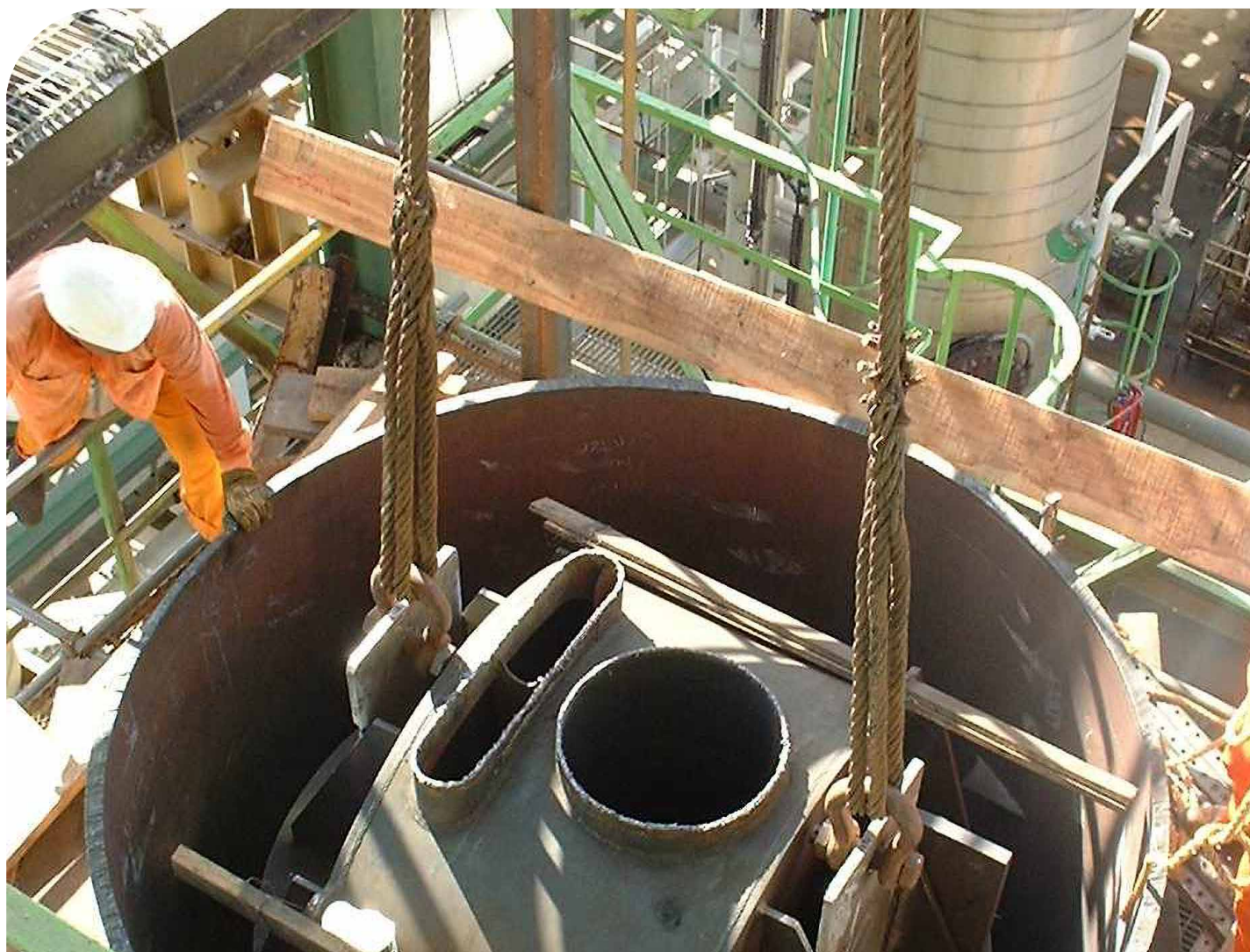
Based on your operating data and the nature of your duty, we help you determine the type of fouling involved, which cleaning methods to use, and when cleaning is required. We provide cleaning procedures optimized for safe and effective removal of all types of deposits.

To secure top performance while keeping the required downtime to an absolute minimum, we recommend you perform cleaning during scheduled plant turnarounds.

## Inspection and test – know the true condition of your equipment

An Alfa Laval specialist tests and inspects all the parts and welds inside your Packinox heat exchanger right after it has been cleaned. The results are presented in a comprehensive report with recommendations on service and maintenance.

Together with cleaning, condition audits are the foundation for good preventive maintenance.



# Corrective maintenance and upgrades

## Repairs and troubleshooting – secure production

A Packinox heat exchanger is a sustainable solution, designed and built for long, reliable uptime. But nonetheless repairs are sometimes required.

If you encounter problems, we will quickly send a Packinox service supervisor to your site to determine which measures to take to correct the problem.

Repairs might involve welding. All welds in a Packinox heat exchanger are accessible for repairs, and, if necessary, it is possible to plug individual channels in the plate pack.

To be able to repair a Packinox, a welder needs extensive training, years of experience and an intimate familiarity with the design of Packinox heat exchangers. That is why we use welders from our production facility for all repair work as well. This way we ensure the best possible weld quality and maximum reliability.

After the repair, we will perform a thorough analysis to identify the root cause of the problem and offer suggestions for further improvements.

## Replacement of the plate pack – upgrade your heat exchanger

You can increase the performance of your Packinox heat exchanger, and extend the lifetime of your unit, by upgrading the plate pack. By doing so, you will benefit from the latest improvements and developments in Packinox technology.

We provide all required parts and support you by supervising the entire installation process, either at your site or a service centre.

## Genuine spare parts supply – ensuring uptime and safety

Using genuine spare parts when servicing your Packinox heat exchanger is paramount. Only parts from Alfa Laval Packinox have the correct specifications, return your heat exchanger to its original condition, and give you full assurance of dependable uptime.

There are only a few spare parts available for a Packinox heat exchanger. The main ones are:

- Spray Bars
- Expansion bellows
- Plate pack

We recommend that you stock a set of Spray Bars and expansion bellows to be prepared for all eventualities.

Please contact Alfa Laval Packinox for further information. Contact information is available on our website:

[www.alfalaval.com/packinox/service](http://www.alfalaval.com/packinox/service)



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## 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)

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