



Alfa Laval Redesign

for gasketed plate heat exchangers

Maximize efficiency and longevity under changing conditions

When you face operational changes, such as variations in processes or surrounding environments that deviate from the heat exchanger's original design, our redesign service will secure the optimal performance of your unit. Instead of opting for a completely new GPHE, which entails changes in system size and connections, the redesign service focuses on plate reconfiguration. This approach extends the lifespan of your existing equipment and meets the new requirements in a more sustainable and cost-effective manner.

We first make a comprehensive assessment of your unit and propose a redesign solution, such as adjusting the number of plates to align with your heat transfer requirements. Then our technicians execute the implementation on site.

Our services help you with:

- Extended lifetime of existing equipment
- Optimized output with lower investment
- Improved energy efficiency

How it works

Thanks to our access to original design parameters, we can fully understand your system's specifics. Combined with our engineering expertise and extensive experience from numerous cases, it lets us tailor the most efficient and accurate upgrade plans for you.

1. **Data collection:** We gather the necessary performance data, either directly from you or from our performance assessment report, to determine the upgrade requirements.
2. **Performance verification:** Our technical engineers verify the performance of the current heat exchanger installation against the collected data.
3. **Design recommendation:** Based on this verification, we recommend a new design, such as revised heat transfer areas and updated frame parts like tightening bolts.
4. **Action plan & implementation:** We provide a detailed action plan. As a final step, our professional service technicians go on site to execute the needed changes, ensuring seamless integration and optimal performance.

How the service can be delivered



On site



Remotely



At service centres



On board



In dry dock

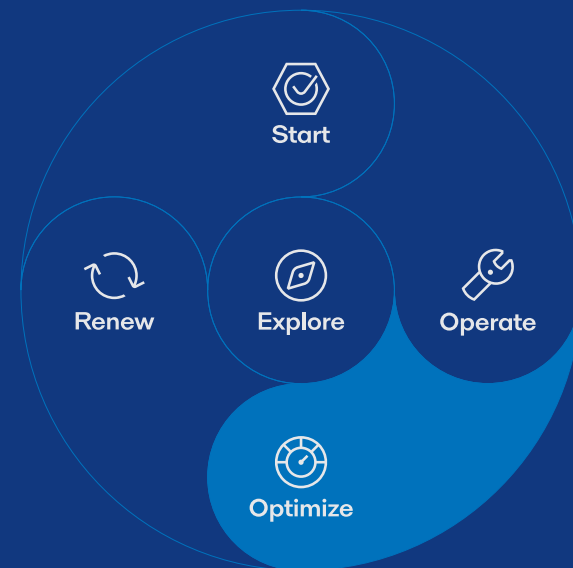
Case story

Large GPHE redesign nets cost and energy savings for oil company

An oil company in the Middle East faced process operating conditions heat exchangers that varied the design, where actual cooling water temperature was higher, especially during the summer on offshore platforms. This led to significantly reduced performance. They had three critical trains, all facing the same issue, which were essential for operational performance. Alfa Laval engaged with the Maintenance and Improvement Engineer to discuss the performance issues. After thorough design calculations, Alfa Laval proposed a redesign that involved adding plates to the units to meet the new performance requirements. By implementing the redesign, the customer achieved their performance goals under the existing conditions and saved more than €8,000 to €10,000 in annual operating expenses. The redesign also resulted in energy savings of approximately 200 MW and an annual reduction of more than 100 tonnes of carbon emissions.

Benefits

- Significant costs savings allowing reallocation of resources and benefits to the bottom line.
- Improved heat exchanger performance led to energy saving and process efficiency
- Substantial reduction in carbon emissions helps support reaching corporate sustainability goals.



Related services

Performance assessment
Smart heat exchanger
Visual condition assessment

Contact Alfa Laval

Service and support

We are here to help you!
Please provide details about your needs,
and we'll connect you with the best team
to advise you.



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Redesign