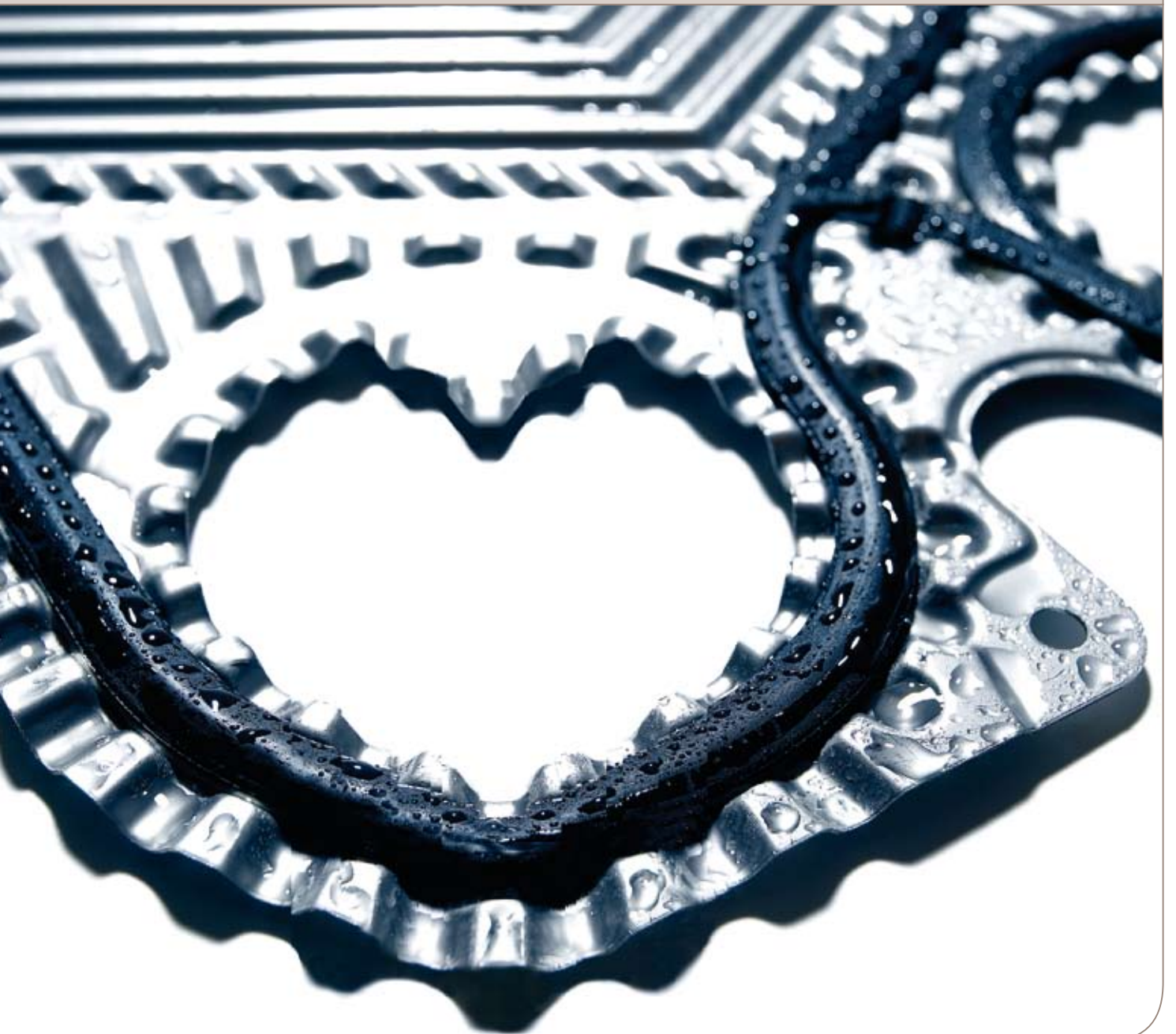




## Wise investments deliver uptime

Plate heat exchanger gaskets from the sealing technology experts





# Longer lifetime ...

## Longer lifetime, more uptime

Genuine rubber gaskets ensure tighter seals, longer life and more uptime for your plate heat exchanger. Alfa Laval's expertise in sealing technology can help you.

### **Quality means performance**

Quality gaskets from Alfa Laval have staying power. They are made to endure the wear and tear of specific plate heat exchanger applications. Our experience has shown that genuine parts always deliver more uptime, outlasting their less-expensive counterparts.

Even though two gaskets may look alike, they may not perform alike. That's because the composition of their rubber compounds may be very different. These differences, however small, have great consequences on the local sealing force. If the local sealing force is too low, both the performance and life of the plate heat exchanger is reduced. If the sealing force is too high, the risk of mechanical damage increases.

### **Details make a difference**

High quality gaskets that deliver top performance aren't designed by chance. They are the result of an indepth understanding – not only of the gasket itself but of the plates and application, too. At Alfa Laval, we pay particular attention to details such as the selection of gasket profile, width, thickness, type and quantity of rubber and sealing force.

We also design our plates to ensure a tight gasket fit in the groove and secure gasket attachment on the plate. It is our extensive knowledge about plate and gasket design and manufacturing as well as a broader perspective of how these components can be combined to optimize performance of specific applications that distinguish Alfa Laval gaskets for their performance excellence.

### **Performance verified**

Before approving a new gasket, it undergoes rigorous testing to ensure that any performance imperfections are detected and/or corrected. Alfa Laval has developed special analytical and functionality testing, which is conducted by our design engineers. These tests include: Pressure-Sensing Technology, FEM or the Finite Element Method and Hydrostatic Testing.

If a gasket's performance does not meet our strict standards, we re-test and make final adjustments based on further laboratory results. This uncompromising, critical process safeguards the life of the gasket.



... more uptime ...

## All gaskets are not created equal

Developing new or improved rubber compounds for plate heat exchangers requires the right combination of substances from some 1700 different types and grades of polymers, vulcanization chemicals, processing aids and anti-degradants. The proportions of the raw materials used to manufacture the rubber compound determine the quality of a gasket. Although gaskets may have the same designation, a gasket from one supplier does not necessarily have the same properties as that from another.

Quality gaskets usually contain approximately 50 percent polymer. Lower-priced imitations contain less than 20 percent polymer and more fillers and softeners. Specifying gaskets based solely upon polymer type and hardness, for instance, will prove inadequate for sealing technology requirements.

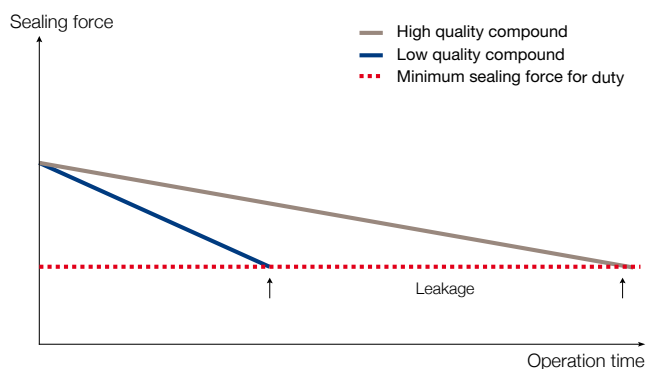
The less expensive the rubber, the faster it ages and the less effectively it seals. That's why it is a worthwhile investment to develop gasket material that meets the precise requirements of various media and applications. Alfa Laval's ongoing

research and development improves the rubber used for our gaskets. The result? More reliable operations and longer equipment service life.

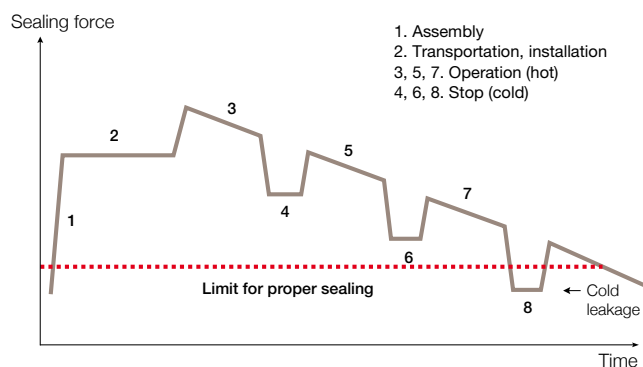
### Proper care limits wear

It is important to know the capabilities and limitations of a gasket rubber compound. New gaskets are highly resilient, expanding to seal in the media and to direct flow. Maintaining this condition helps ensure optimum performance. To maximize gasket lifetime: (1) invest in the right type of gasket – one capable of compression in order to resist the stress and force generated by the flow of media, and (2) select the right gasket materials.

Over time, all gaskets – even those of the highest quality – age because temperature affects rubber. Each Alfa Laval gasket is stamped with the year and quarter in which it was manufactured to help you determine the age and handling of spare gaskets onsite.



Comparison of two gaskets of the same designation, but with different properties. A high-quality gasket compound ensures longer lifetime.



The lifecycle of a plate heat exchanger gasket.

# ... optimal performance

## Environments affect performance

Gaskets can lose elasticity and sealing capabilities at a faster rate due to operating conditions. For instance, gaskets in plate heat exchangers for applications involving water, especially at low temperatures, can be in service for decades without leaking. On the other hand, gaskets used in the process industry, where plate heat exchangers handle corrosive materials, such as lye and acids, at high temperatures are subject to high stress and wear more quickly.

### **Choose the right material for the environment**

Specific environments attack different types of rubber in different ways. The type of rubber polymer is the most important factor in determining the environmental resistance of the gasket. One formulation may be completely destroyed by a specific environment, while another of the same elastomer type may remain essentially unaffected. Therefore, compatibility predictions must be based on experience with actual plate heat exchanger formulations.

### **Unique solutions require application expertise**

Every gasket material compound is unique. Each is developed with reference to the type of media in the plate heat exchanger and to the ambient environment. Quality gasket materials maintain tight seals for a longer period of time, while providing maximum resistance to degradation from exposure to oxygen, high temperatures and other factors.

Alfa Laval can help you determine the right solution for your unique applications. Your uptime is our main concern.



Alfa Laval plate heat exchangers.



# Quality means reliability. Choosing to use Alfa Laval gaskets for Alfa Laval plate heat exchangers means more uptime.

## Professional advice from sealing technology experts

Alfa Laval has global reach with local expertise in more than 100 countries. No matter where you are in the world, you're never far from our most valuable resources – the knowledgeable people who make Alfa Laval specialists in sealing technology. Two of the many services that we offer are gasket advice and reconditioning.

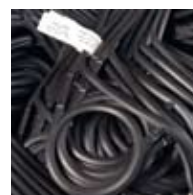
*Gasket advice.* Alfa Laval customers, upon request, can take advantage of complimentary professional services to determine which rubber compound best suits real-world requirements. For instance, Alfa Laval can support testing the new media in your plate heat exchanger by providing a test pile with a range of appropriate test seals to use in your process. Our experts then analyze the gasket material for changes in properties and sealing force, and recommend the best gasket compound to use with the new media. Alfa Laval

experts can also advise you on the right gasket for your plate heat exchanger based on your operating conditions using our comprehensive gasket database.

*Reconditioning.* When it's time to replace your gaskets, Alfa Laval's service centres are there to assist you – no matter what kind of gaskets are in place. We help you make the best gasket-replacement decisions based on your needs.

If regasketing is required, we employ the same meticulous processes as those used during the original manufacturing procedures to ensure optimal gasket performance is restored. Our service centres also assess and test the plates and gaskets to ensure the quality of the sealing function of the entire plate heat exchanger.

Simply put, look-alike gaskets do not perform alike. Invest wisely. Choose Alfa Laval gaskets.



**Always choose genuine Alfa Laval spare parts.**



Alfa Laval can help you select the right gaskets for your plate heat exchangers and, when required, replace them.

### **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, 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**

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

