


# EcoServe - After-Sales & Service for Plate Heat Exchangers

Worldwide and reliable for all brands



## Where demand and reality meets

Our dedicated specialists are the figurehead of our After-Sales & Service. They are at your disposal all over the world whenever you need reliable and competent support. Their commitment guarantees you one thing above all – convincing experience.

# EcoServe – Global service and support from an experienced provider

We are service specialists for plate heat exchangers of all types and brands. Our portfolio comprises all after-sales and other services from installation up to innovative tightness testing. Our global network of locations enables 24/7 service, thus supporting maximum availability of your systems everywhere, at any time.



As a leading manufacturer of plate heat exchangers, we work for our customers every day all around the globe and in this process, the service work carried out enhances our knowledge and experience every day, thus producing valuable improvements.

These have a positive effect among others on precise installation of apparatus, on visual inspections within the scope of proactive maintenance and on mechanical and chemical conditioning of plates in our special workshops.

## One of the reasons that make us the leading service specialist - the services aim at tangible values:

### Quality and safety
Maximum service quality is the result of individual customer advisory service and precise work.

### Innovation
Flexibility creates solutions for the different requirements specified by our customers.

### Efficiency
Optimised operational sequences and maximum availability of systems ensure better economic profitability

### Expert knowledge
Our indepth knowledge and experience result in focussed competence, thus offering decisive benefits to our customers.

### Trustworthiness
Reliability, sense of responsibility and transparency in customer communication distinguish the work of our service staff.



Extensive stockkeeping and intelligent logistics put us in a position to deliver any spare part you need to any point in the world on schedule.

## Flexibility meets profitability

What are we offering our customers as plate heat exchanger specialists? In general, you benefit from the comprehensive scope of services provided by a reputable expert for gasketed, fully welded and brazed plate heat exchangers - and from a worldwide network of service locations. In particular, you also enjoy the benefits of no-compromise customer orientation, assuring you of individual and differentiated service. A service meeting your demands in a well-aimed way and providing suitable solutions within a short time.



Our highly qualified technicians lay the foundations for smooth operations with initial installation and commissioning. Inspections, maintenance, repairs and improvements are realized for all types and brands. In addition we carry out all regular work such as cleaning or fitting new gaskets for all plates and gaskets. Your benefit: We have wide-ranging know-how based on findings from decades of development work in the field of plate heat exchangers.

One result: To track down any material fatigue we have developed a leakage testing method to be used as a preventive tightness test. In this process, a special inert gas detecting even the most minuscule compromise, is introduced into the closed plate heat exchanger.

## Always there: first-class replacements

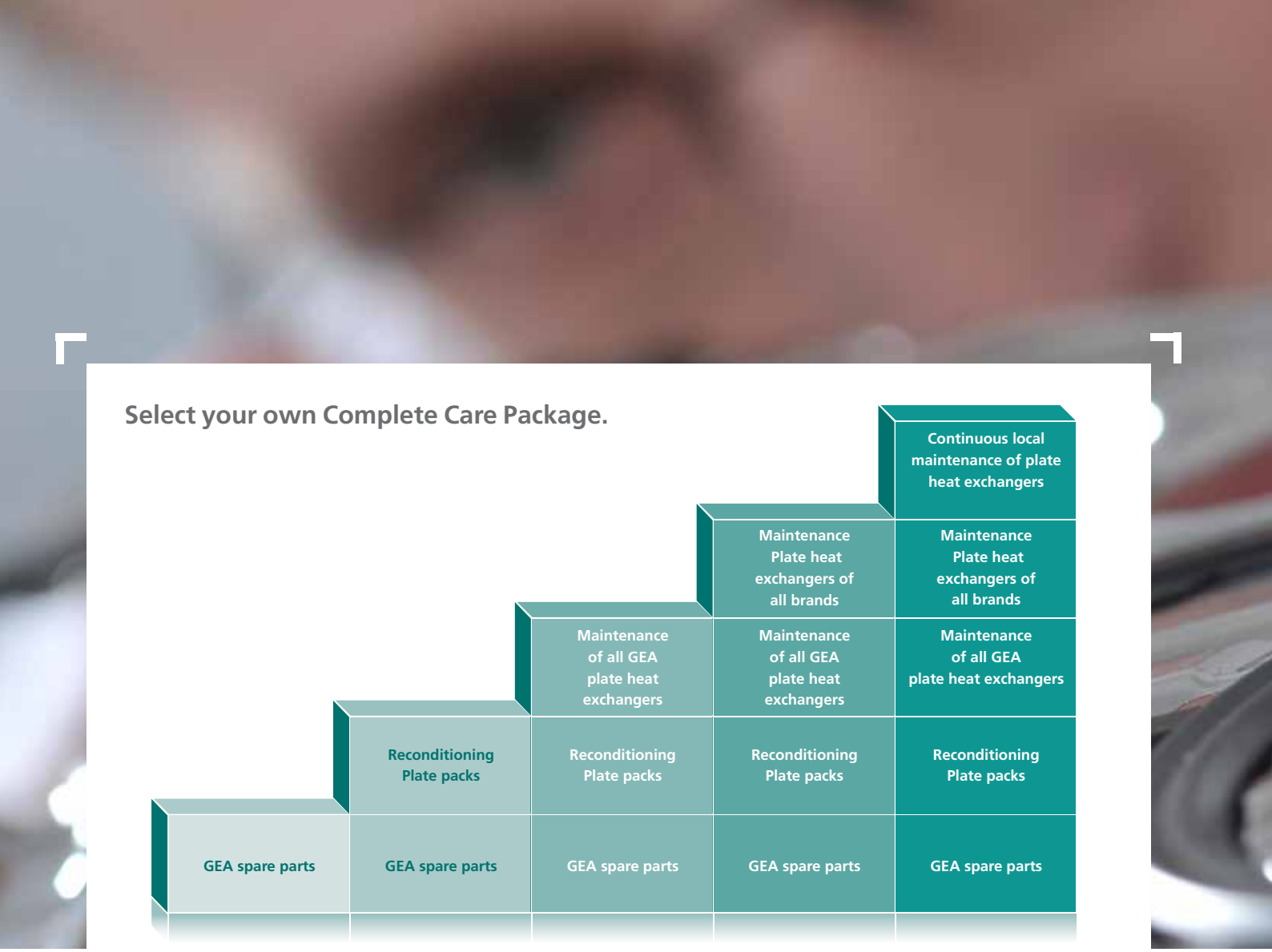


Maximum system and apparatus availability is the key to increased profitability. Depending on the degree of loading, you must expect wear even on high-performance plate heat exchangers sometime. The order of magnitude in question: The cost of failure or downtime of a system can be three or four times the maintenance cost of a system. This is why spare parts supply plays a particularly important role in our services.

For you, this means: We deliver the spare parts needed to you at any place as quickly as possible at any time. This avoids costly delays and gives you more flexibility in your processes.

Trust in our consistent product quality: Replacement by GEA means high-quality and absolutely perfect-fit plates and gaskets of all series and brands.

In addition, our stores permanently stock gaskets for almost all brands and models or can at least procure them at short notice. Our service specialists who are perfectly familiar with the respective process requirements know which solution is the optimum in your case.



## Select your own Complete Care Package.




# Step by step with the best service quality

Excellent quality from one single source.

As GEA experts for plate heat exchangers, we stand for pioneering spirit, well-founded engineering and quality workmanship. This results in innovative and extremely wear-resistant plates and materials. But even with quality grades like this, plants and systems must be cleaned and maintained at regular intervals. The bonus effect: higher availability, more profitability.

The GEA PHE Systems After-Sales & Service offer is based on a stepped model care system maintenance contract individually tailored for every customer. These stepped maintenance contracts also specify aspects such as cost control and planning safety with the desired service modules. Another plus: The clearly defined content ensures reliable cost transparency. Your benefit – the services can be combined at will to form an individual service agreement: Tailor-made to suit your needs, you have the flexibility to choose your personal service package containing the modules that take your special requirements into account - and support your company's success.

## Three priorities characterize our range of services

(1) Detailed consulting by our technicians and experts regarding all questions on the subject-matter of plate heat exchangers
(2) Preventative inspection and maintenance used for optimizing the availability of your systems
(3) Direct control of the life cycle costs



In addition, the service contracts also include numerous options within a defined cost frame. From delivering original spare parts to personnel training and assistance in case of emergency up to permanent local service, a wide range of options is available to you.

Our extensive research & development, world class production facilities and design expertise gives our customers confidence and peace of mind.

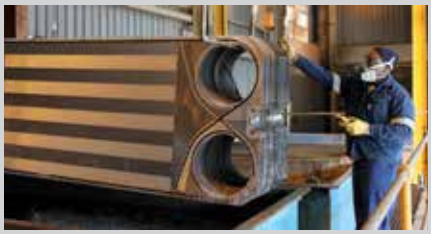
# Reconditioning
## A perfect result in 10 steps



**1** Upon receipt of your plates, we will perform an initial inspection of the plate and gasket integrity. This step is performed to eliminate any unnecessary and costly process steps



**2** Thorough removal of the old gasket to ensure a good clean surface area prior to adhering a new gasket



**3** Chemical cleaning of the plates removes stubborn deposits. Depending on the type of deposits, either acid or caustic bath will be utilized



**4** Dye test and second inspection is performed to determine if there are any cracks or pin holes in the plate



**5** Removal of residues after dye penetration test



**6** The gasket groove is cleaned and prepared for the regasketing process



**7** Final inspection of each plate



**8** The gasket groove is cleaned and prepared for the regasketing process



**9** For glued gaskets – tensioning of plate pack and glue curing in an oven



**10** Final EcoServe stamp of approval and careful packaging of plate pack for safe transportation

Proper installation is decisive for the service life of a new gasket. For this reason, we leave nothing to chance in maintenance and ensure you get a first-class result from our tried-and-tested 10-step process.

# Tightness testing

## The innovation for permanent availability

Pressure hammers, temperature change, corrosion: Plate heat exchangers are exposed to external influences that may produce microscopic leaks. This preventative tightness test can reliably detect material fatigue in its starting phase without having to open the plate heat exchanger.

In the past, preventative and reliable tightness testing was not possible on a closed heat exchanger. Consequently, leaks could be detected only after a plate has been compromised due to pin-holes or material fatigue. GEA PHE Systems uses a tightness testing method discovering leaks and starting material fatigue at an early stage without having the unscrew all the plate heat exchanger bolts.

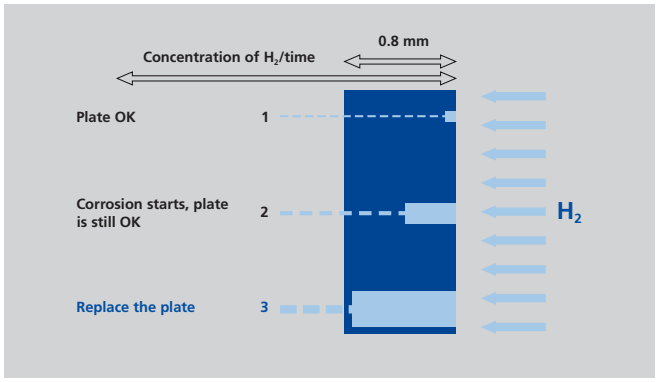
The new testing method involves feeding a hydrogen/nitrogen mixture into the closed plate heat exchanger on the water side which then flows through the plate channels. If one of the plates has only the finest hair crack, a very small quantity of this inert gas will flow to the second and empty side and can be detected there with absolute reliability by a sensor. The time needed for this test per heat exchanger is reduced to around one hour and therefore is only 1/20 of a dye penetration test that delivers results of comparable reliability.

Use of this innovative method, thus prevents unplanned stopages or downtime.
The proactive leakage test by GEA PHE Systems improves process safety, reduces downtime and cuts your operating costs.

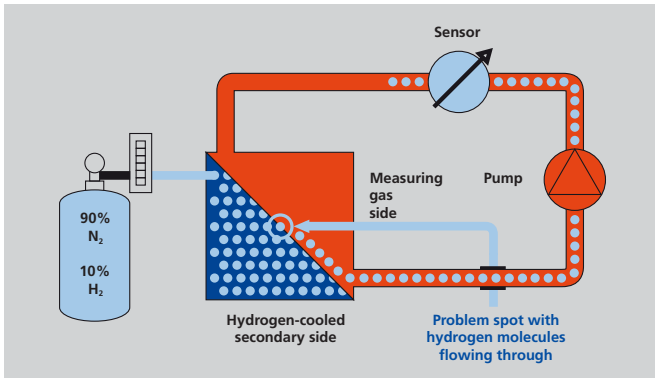


*The test gas used guarantees the highest possible leakage detection rate using technical/physical means. Quality standards such as IFS and HACCP in foodstuff production are met reliably.*

Early detection of material fatigue




Schematic representation of $H_2$ method




***The hydrogen method:***

*The hydrogen method is based on a testing gas (inert gas, consisting of 10 % $H_2$ and 90 % $N_2$) that is suitable for both leak detection and tightness testing. Hydrogen at the correct concentration is absolutely safe (ISO 101569). Actually, hydrogen/nitrogen mixtures are also used a shielding gas atmosphere.*

# At home all over the world

## Global assistance from experienced experts

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## Worldwide service from experiences specialists

With our After-Sales & Service, you benefit from a worldwide service network for all brands around the clock – with preventative service - optimization and extension of existing systems. Wherever you are, we are with you quickly.

*The specifications contained in this printing unit are intended only to serve the non-binding description of our products and services and are not subject to guarantee. Binding specifications, especially pertaining to performance data and suitability for specific operating purposes, are dependent upon the individual circumstances at the operation location and can, therefore, only be made in terms of precise requests.*

*We live our values.*

Excellence • Passion • Integrity • Responsibility • GEA-versity

GEA Group is a global engineering company with multi-billion euro sales and operations in more than 50 countries. Founded in 1881, the company is one of the largest providers of innovative equipment and process technology. GEA Group is listed in the STOXX® Europe 600 index.


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