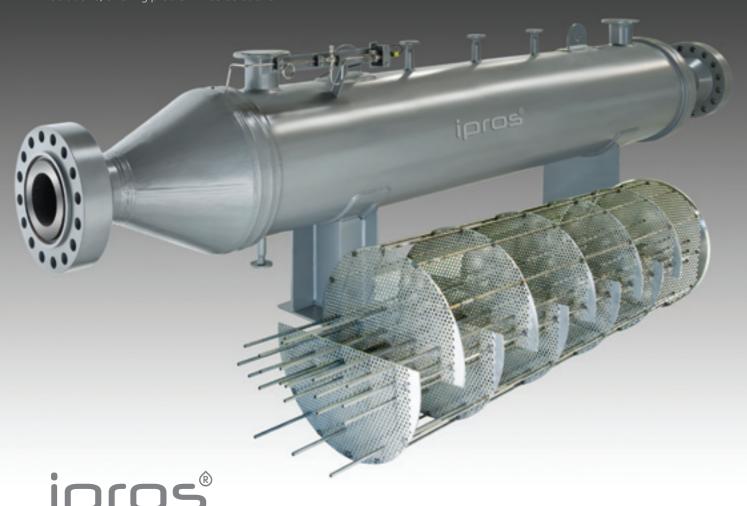




# Tailor made heat exchangers solutions at home in all fields

Ipros Heat Exchangers segment in partnership with the world recognized producers of heat exchangers GEA PHE Systems, Vahterus and GEA Luftkuhler. We are utilizing our focused state-of-the-art process and project knowledge from the whole scope of heat exchanger technologies in each of our products. Produced in a worldwide network of modern manufacturing facilities heat exchangers are individually tailored to their heat exchanging processes: the size of their heat transfer areas, the selection of the materials, their surface profiles and flow control properties, the wide range of connection variants create an almost unlimited modular system for tailor-made heat exchanger solutions, offering problem-free solutions.



#### The future oriented alternative

Heat exchangers by Ipros in partnership with GEA PHE Systems, Vahterus and GEA Luftkuhler separate performance increases as much as technically possible from the consumption of energy, materials, surface areas and operational costs and this makes these HEs a future-oriented alternative for customers. It might sound a relatively simple, but Heat Exchangers are used in almost every field of industry, modern building and machinery in the world and calls for the highest standards in material development, engineering, manufacture and maintenance: Our heat exchangers are energy-conscious and safety-sensitive process components with high performance and have considerable influence on the productivity and degree of sustainability of industrial processes, building air conditioning and automotive systems. The HE's operate in part under extreme conditions in retail marketing cooling chains, in the foodstuffs and beverages industries, in power generation and in transport and logistics systems as well as in the high-rise buildings of the world metropolitan centers – reliable and safe for humans and the environment, compatible with climate and resources, economic for users and operators.

Ipros in the collaboration with the world's leading manufactures and developers of heat exchanger technology can offer one of the widest ranges on the market. Our product ranges include gasketed, brazed, fully welded, shell and tube and fined tube heat exchangers. We also offer process-optimized model ranges, unique in their variety and diverse specialist functions. And this makes us the first choice when it comes to developing tailor-made solutions for your applications.

#### Ipros heat exchangers

- Comprehensive engineering and production knowledge
- Know-how transfer within Ipros Heat Exchangers ensures innovative technical solutions
- Special process knowledge guarantees optimum design of the heat exchangers
- Own after-sales & service network

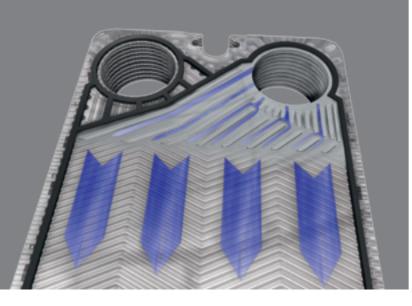
# Ipros – GEA gasketed plate heat exchangers

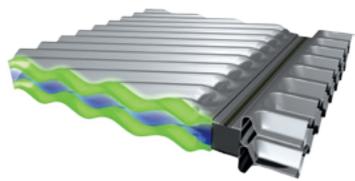
Cutting-edge technology for all applications offers the widest variety of applications. Thanks to plate types available in numerous varieties, lengths and profile variants can meet every demand. It is distinguished by higher performance, more possibilities and reduced investment costs.

The development of the world's first gasketed plate heat exchanger for pasteurizing milk a good 80 years ago showed us the way forward to utilize these laws of nature for sustainable heat transfer. Since that time our scientists, engineers and technicians have been improving and varying this apparently simple, but actually highly complex and demanding technology of heat exchangers: Liquids or gases at different temperatures flow through channels between separate, corrugated plates and transport thermal energy from the system with the higher temperature to the system with the lower temperature.

#### NT and NX technology

Thanks to the optimized plate design of the NT and NX Series you can achieve your goals with less heat transfer surface area and therefore save on investment costs. Together with the flexible and universal plate range the NT Series combined with the NX Series can now be configured even more exactly and flexibly to your objectives and field of application.





### LWC Series Double NT technology for critical media

When handling critical media, conventionally gasketed plate heat exchangers quickly reach their limits. We have resolved this problem using state of-the-art technology. The laser-welded cassettes contained in the LWC plate heat exchangers ensure safe and reliable flow of aggressive products.

### Free Flow Series for media containing solids and pulp

Our Free Flow plate heat exchangers are ideally suited for media containing solids and pulp. With their low investment and operating costs these are a viable alternative to shell-and-tube and spiral heat exchangers. The capabilities of conventional plate heat exchangers are often not sufficient particularly for media containing solids and pulp. And this is where the strengths of our Free Flow plate heat exchangers come to the fore. Their special feature is the constant flow gap width between the individual plates and the coarse corrugation of the actual plates. The gap between the plates can be up to 12 mm. The constant gap width ensures blockage-free operation.

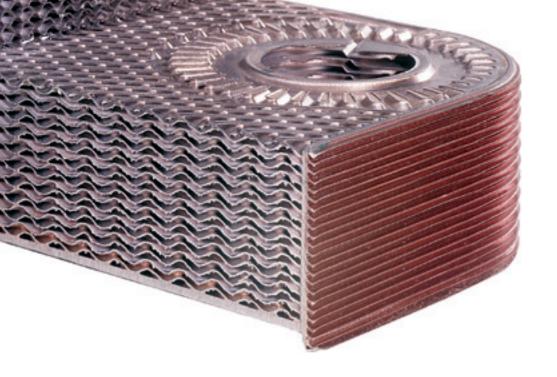


## Varitherm systematic product variety

Advantages at a glance whether in heating or cooling of liquids containing particles of up to 2 mm in size, in condensing vapors or in gas cooling and gas dehumidifying in special cases – Varitherm plate heat exchangers offer a convincing solution with the widest range of possible applications. The gentle treatment of products caused by the soft corrugation makes the Varitherm the obvious choice for the foodstuffs industry.

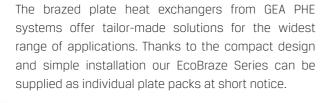


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## **GEA Ecobraze - brazed plate heat exchangers**

Suitable for heating systems, as economizers, evaporators or for swimming pools, heating and service water systems, under floor heating oil coolers, heat pumps, Safe CO2 use and many other industrial applications.



Depending on the specific application we select either copper or nickel braze for the plate heat exchangers. We configure the most economically favorable model till the GG series suitable for drinking water, or the DW – double wall ensures double safety, we can select for you from the wide range of available sizes and the numerous optional features and adapt this with individually positioned connections to exactly meet your requirements.



# **GEA Ecoweld - Powerful, compact, economical - fully welded PHE**



Our fully welded plate heat exchangers - major selling points are their compact size, outstanding heat-transfer coefficients and comparatively low capital cost. They are particularly robust and easy to clean and maintain. The advantages in structural

design are therefore especially effective in fields where load capacity is called for as well as performance. Each model series has its own special advantages and fields of application.



#### GEA Bloc and GEA Flex standard yet customized to your needs

GEA Bloc and GEA Flex fully welded plate heat exchangers by GEA Ecoflex are a reaction tailored to answer the call for increased servicing in welded plate heat exchangers. Access from both sides is its special feature, offering particular ease of cleaning and maintenance. GEA Bloc and GEA Flex is a convincing solution offering compact design, low weight, low investment costs and high flexibility for applications in the processing industry. This heat exchanger is suited for the production of chemical and petrochemical products.

GEA Bloc can be supplied in a wide range of designs – in special steel, alloy, nickel, duplex and titanium.

Gea Flex - you no longer have to decide between shell-and-tube and plate heat exchangers as GEA Flex combines the advantages from both principles in a single unit and saves on two counts: in investment and in operation.

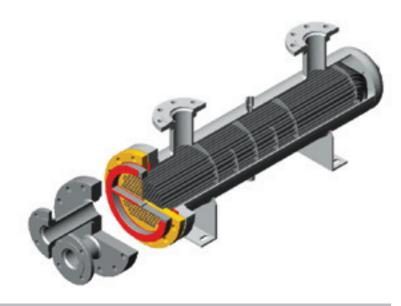
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# Vahterus fully welded plate heat exchangers - extremely reliable

Vahterus is a fully welded plate heat exchanger which satisfies very exact requirements in relation to process reliability. The heat exchanger plates designed for individual solutions are welded into a pack and mounted in the fully welded pressure vessel. This design principle ensures that the exchanger is both highly resistant to extreme pressure, from vacuum till 150 bars and extreme temperature from -190°C till 700°C. Vahterus is configured as to accord with technical requirements and at the same time minimize capital outlay and running costs.





### Ipros Shell and tube heat exchanger - commonly known solution

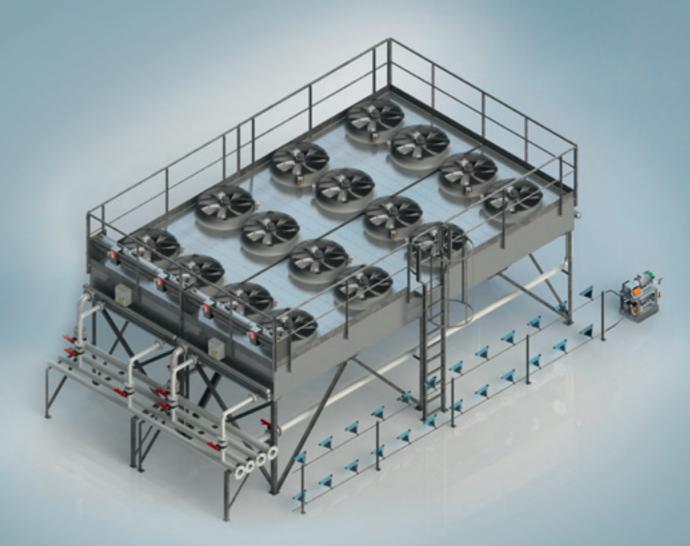
Ipros shell and tube heat exchanger is well known for the variants of applications for all kind process industry. They are known for the robustness and reliability for all type of applications like HVAC, sugar, chemical, food and also till the pharmaceutical industry where spatial sanitary and sterile standards has to be meet.

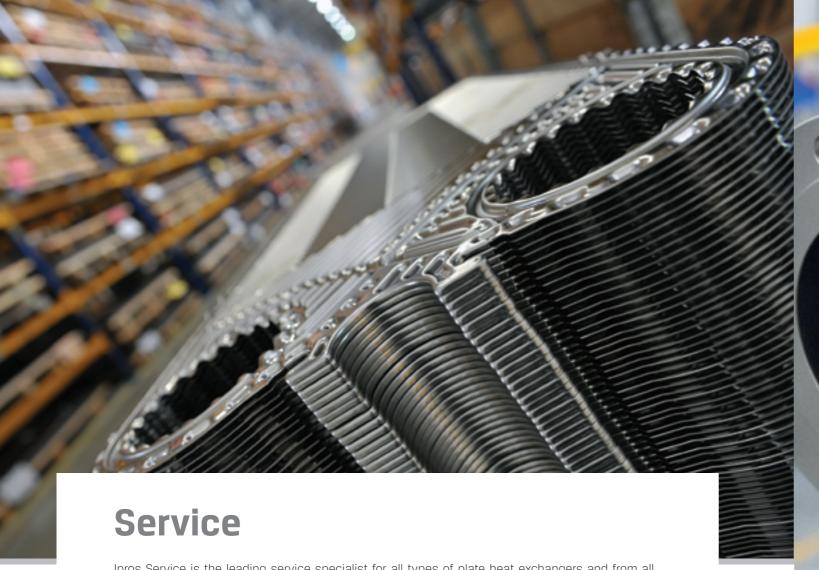
Ipros shell and tube heat exchangers are produced following the TEMA standards and special constructions like the double wall where safety comes first.

#### **GEA Luftkuhler**

The HX-Factor is our promise. It stands for our unique expertise in heat exchange (HX = HEAT EXCHANGE) and ensures a wide range of product benefits for you. Like with GEA Industrial Dry Coolers, our top quality products with highest modularity and flexibility. They offer best performance and efficiency for a competitive price.

With more than 80 years of experience in the design and construction of heat exchangers, GEA has developed countless types of compact fin tube systems to meet all specific requirements involving media temperature, pressure, noise levels, reduced footprint, vibration, and protective coatings. In partnership with Blygold, GEA Luftkuhler has developed a unique automated process to apply a perfectly graduated coating. It protects the compact finned coils against harsh environmental conditions such as erosion by sand or salt. It provides a barrier and avoids the risk of electrolytic reactions between the two metals involved.





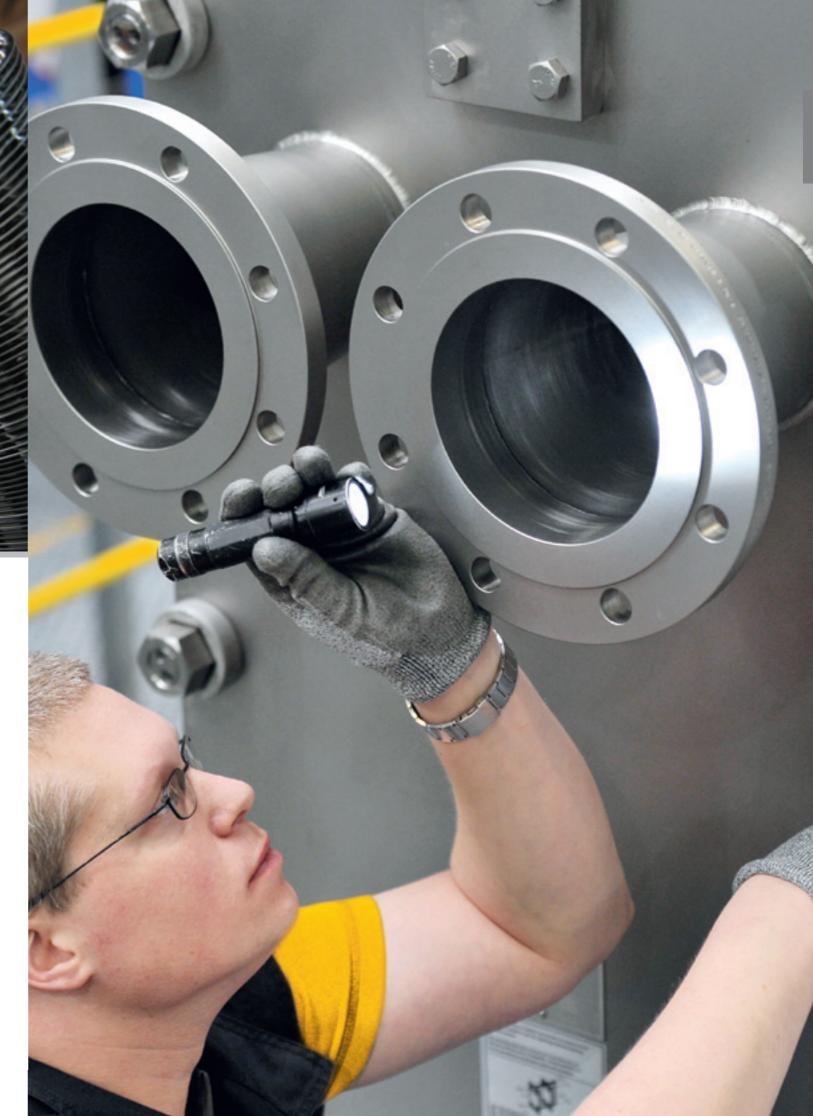
Ipros Service is the leading service specialist for all types of plate heat exchangers and from all manufacturers. Our service is backed up by more than 25 years of experience in after-sales & service and by the competence of Ipros as a producer and partner of GEA PHE Systems as an internationally renowned manufacturer of high-performance plate heat exchangers.

lpros has a team of specially trained personal with more than 25 years of experience in manufacturing and maintaining all type of plate heat exchangers.

#### Ipros scope in the after-sales & service

- Installation
- Commissioning
- Servicing (24/7)
- Maintenance
- Spare parts
- Leakage testing
- Servis contract
- Maintenance logistic
- Training

To enhance productivity of your process line, Ipros offers preventive maintenance programs ranging from scheduled parts supply over on-site inspection, service and testing to complete re-conditioning at Ipros Service station. For large installations involving multiple plant cooling PHEs, Ipros is capable of supplying complete service contracts including maintenance and exchange plate pack programs.







Cesta v Gorice 30 1000 Ljubljana Slovenija

Peter Požar

T:+386 1 200 26 29 F: +386 1 423 18 24 E: peter.pozar@ipros.si

www.ipros.si

#### **ROMANIA** Ipros - representative office RO

Drumul Ciorogarla, 159, sect. 6. Bucharesti Romania

Popa Alin Daniel **T/F**: +40 21 380 13 30 **M**: +40 748 06 07 08 E: popa.alin@ipros-ro.com

www.ipros.si



#### **CROATIA**

Ipros - representative office CRO

Milanovačka 14 10090 Zagreb Republika Hrvatska

Vjekoslav Piljek **T**: +385 1 3483 114 **F**: +385 98 356 349

E: vjekoslav.piljek@ipros-hr.com www.ipros.si



#### MACEDONIA ECOTIP Ltd.

ul.Orce Nikolov 190-3/5 1000 Skopje Macedonia

**T**: +389 (2) 3176 920; 3176 907 **F**: +389 (2) 3177 206

E: info@ecotip.com.mk www.ecotip.com.mk



#### **SERBIA**

Ipros - representative office SRB

Majevička 5 21000 Novi Sad Srbija

Dragan Brenesel **T/F**:+381 21 403 242

M:+381 63 513 819,+386 59 233 162 E: dragan.brenesel@ipros-rs.com

www.ipros.si



os. Podzamcze sek. c 21/4 48300 Nysa

Poland

Łukasz Berbeć **T:** +48 71 723 02 94 **F:** +48 71 723 01 51 **M:** +48 667 344 377 E: info@craftech.pl www.craftech.pl

