The background of the entire page is a close-up, slightly blurred photograph of industrial heat exchanger components. It shows several cylindrical metal tubes of varying lengths and diameters, some with flanges, arranged in a grid-like pattern. The lighting creates highlights and shadows on the metallic surfaces, emphasizing their texture and form.

A tradition of specialisation

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Custom heat exchangers – as unique as your individual requirements.

>> 01



More than 65 years of expertise Kühner – the family company

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The perfect heat exchanger for every application. This has been our motto since our company founder Wilhelm Kühner developed solutions hand-in-hand with customers to meet their specific requirements. Three generations later, the Kühner family company continues to stand for individual quality products manufactured in Germany. We count on modern production technologies and precise craftsmanship along with the know-how and dedication of all our employees. Thanks to our continuous further development, we will always be able to offer our customers premium Kühner heat exchangers.

„Since three generations, the special dedication and skill of all employees are part of every Kühner heat exchanger.“

Elisabeth Poša, Company Management



>> 01.1 Kühner values Added value for our customers

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Kühner heat exchangers support the production processes and therefore the success of our customers. Not only our technical know-how but also a system of values we put into practice every day is part of every Kühner product. Solidarity, quality, esteem and transparency guide our thoughts and actions.

We maintain partnerships with our customers through individual consulting and substantiated engineering services. Our safety, organisation and cleanliness guidelines are carefully followed.

This is because first-rate Kühner heat exchangers can only be produced in an optimum work environment. We communicate openly and clearly within the company and with our business partners. This expresses our esteem and makes us a reliable partner. We guarantee a high standard of quality and utilise every potential for the continuous further optimisation of our processes and products.

Every partner and customer with values that match our own is welcome.

>> 02

Kühner heat exchangers made to measure **100% individual – 100% Made in Germany**

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We develop and design Kühner heat exchangers, air heaters, air coolers and exhaust gas heat exchangers to perfectly fit various industries and applications. Every product is unique, created on the basis of proven technology modules and in close coordination between the customer and a personal Kühner contact person. All this in the shortest possible time. It takes no more than one or two working days from the first enquiry to the individual solution.

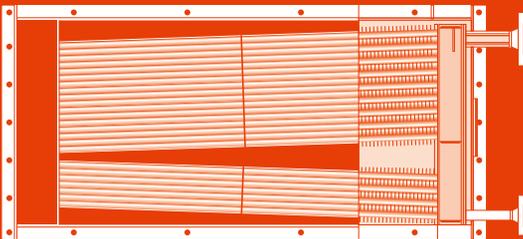
We fabricate our products using only materials of high quality, with diligent craftsmanship and in ISOcertified processes directly in the Kühner plant or through select production partners. In doing so, we guarantee products of excellent technical quality with a balanced price-performance ratio and a 100% warranty on the thermodynamic layout.

„Heat exchangers have to perform thermodynamic miracles, take up barely any space and be unobtrusively priced. At Kühner we achieve something like squaring the circle with every one of our products“

Andreas Nowak, Technical Sales

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02.1 Kühner heat exchangers Perfect heating and cooling of gases



Heat exchangers are generally used to transfer heat from one medium to another. Kühner heat exchangers are designed especially for heating or cooling air and gases, with the second medium circulating in the tubes.

Heat exchangers from Kühner are made precisely to measure according to individual requirements regarding temperature, pressure and corrosion resistance. Various materials and tube versions are available for this purpose: plate-fin heat exchangers, straight-tube heat exchangers and finned tube heat exchangers.

Kühner air heaters
Heating air and gases



Kühner air heaters are used to heat air and gases. The hot medium can be subsequently used for various fields of application, for example in ventilation engineering or drying ovens. Powerful Kühner air heaters operate with maximum efficiency.

Kühner air coolers
Cooling air and gases



Kühner air coolers are used to cool air and gases. The cold gas can be used for a variety of applications, for example in air conditioning systems or in process technology. Condensate of the air generated in the process is effectively drained.

Kühner coolers
Controlled heat dissipation



Kühner coolers are used for the permanent or temporary controlled dissipation of excess heat produced by systems to the ambient air. A perfect interplay between the heat exchanger and fan defines the Kühner coolers, making them convincing systems that meet the respective requirements reliably and economically – with virtually any media in the tubes.

Steel with full bath galvanising
Economical all-round protection



Kühner heat exchangers made of steel are fully hotdip galvanised for perfect all-round corrosion protection. The high strength and good temperature resistance of steel combined with full galvanising is the technically and economically ideal solution when copper is no longer adequate and stainless steel is not yet required.

>> 02.2 Kühner heat recovery Using heat efficiently

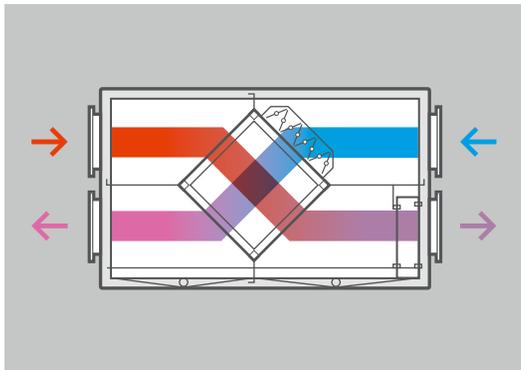
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Heat recovery is a heat exchange process that focuses on utilising the extracted energy. Cooling the gas is merely a side effect. Depending on the application, the heat can be transferred from gas to gas or to a liquid heat transfer medium. Kühner offers a broad product range covering a wide variety of applications.

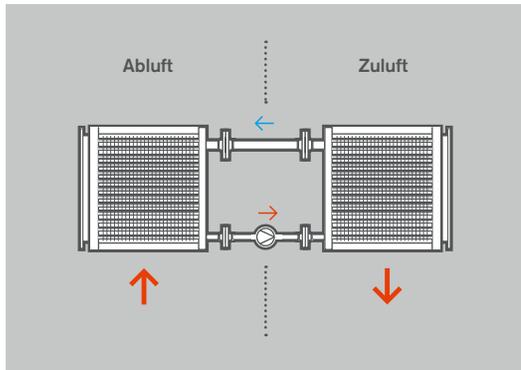
With Kühner heat exchangers, available heat can be used efficiently in other locations where it is needed – which allows energy costs in the company to be significantly reduced. Heat recovery is meaningful from an ecological perspective as well, because no fossil fuels are burned in order to generate the required heat.

Kühner plate heat exchangers
Direct heat transfer
from gas to gas



Kühner plate heat exchangers make it possible to exchange heat directly and efficiently between two gas flows. The gas flows are conducted separately through the plates in a cross-flow or counter flow. The field of application is broad and ranges from ventilation and air conditioning applications to gasproof stainless steel plate heat exchangers that can be used at temperatures up to 600°C.

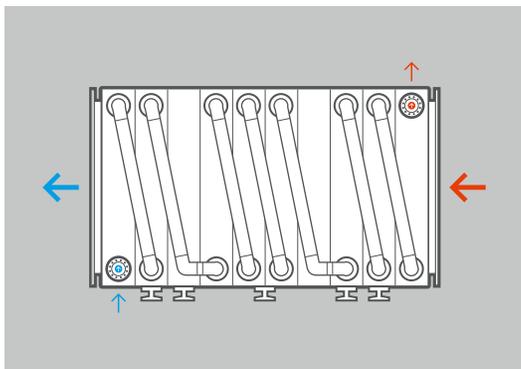
Kühner coil heat exchanger system
Heat transfer from air to air
through a liquid closed loop



Kühner coil heat exchanger systems exchange heat for availability in two different locations. They perfectly meet a wide variety of requirements for the gas flows, for example when exchanging heat from aggressive exhaust gases with clean ambient air.

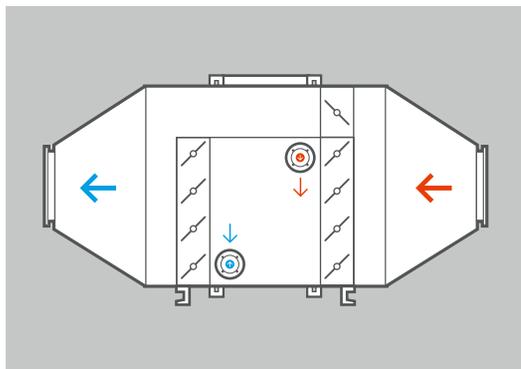
The two heat exchangers in the Kühner coil heat exchanger systems are optimally matched to each other. Both units are connected by medium tubes and only realise their full performance as a team.

Kühner exhaust gas heat exchangers
Heat transfer from exhaust gas to
a liquid heat transfer medium



Kühner exhaust gas heat exchangers transfer energy from a hot and humid exhaust gas flow to a liquid heat transfer medium, such as water or thermal oil. The layout of every Kühner product takes into account the type of exhaust gas, its composition, condensation and the resulting risk of corrosion.

Kühner Ecomomizer
Exhaust gas heat exchanger in a housing
with flaps and bypass



The Kühner Economizer is an exhaust gas heat exchanger in a functional housing. A bypass with flaps makes temporary interruption or controlling the heat transfer possible. It also serves as a safety device to avoid overheating of the liquid heat transfer medium.

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02.3 Kühner custom solutions and replacement units Copied 1 to 1 or according to customer requirements

We also offer our know-how as heat exchanger specialists for the realisation of replacement units or custom equipment.

We make copies of both Kühner products and third-party models, or develop entirely new heat exchangers. The Kühner serial numbers, samples, drawings and technical data or individual dimensions serve as the basis. In-depth consulting with the Kühner contact person ensures a technically and economically optimised solution in every case.

**Kühner replacement units
with the same or adapted specifications**



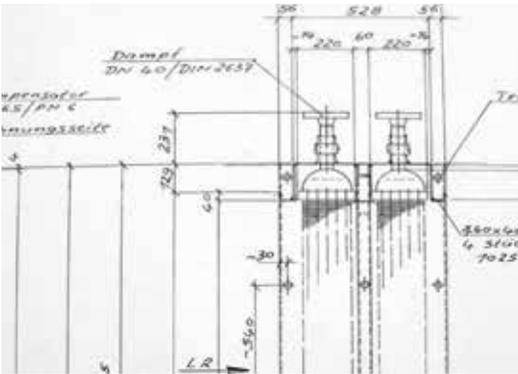
The technical data and dimensions along with the selection of materials for the specific application have been established. We realise the optimal Kühner heat exchanger as a replacement unit based on these specifications.

**Kühner replacement units
based on an actual 3D model**



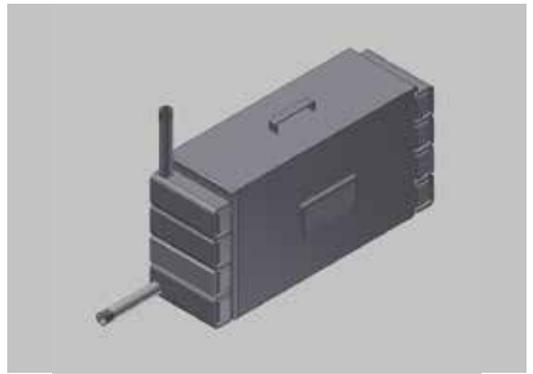
When documents with technical data no longer exist for a heat exchanger, we are able to clarify based on a model whether building a copy is technically and economically feasible and expedient.

**Kühner replacement units
according to a drawing or data**



If a technical drawing and/or digital data are available for the heat exchanger being copied, we are able to realise the replacement unit on this basis.

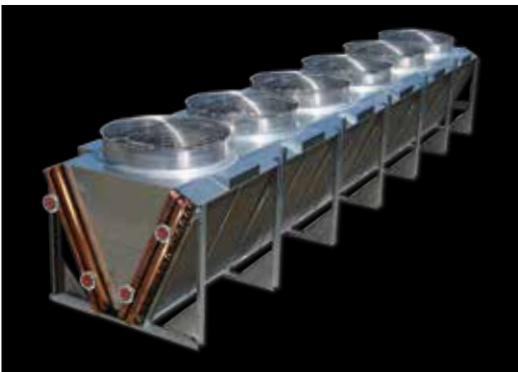
**Kühner replacement units
according to individual requirements**



If you are looking for a special heat exchanger and technical drawings, data or a model do not exist – all you have is an idea – we can build that too. Special applications require special heat exchangers.

Kühner dry coolers

Dissipating waste heat to the environment



Dry coolers dissipate waste heat in the form of hot water, thermal oil or steam to the ambient air with the help of fans. Kühner dry coolers are systems with up to twelve fans that can be made precisely to measure for a wide variety of applications. The many years of Kühner experience with steam and thermal oil are incorporated into every system – for optimum functionality and maximum operating safety.

Due to a broad range of high-quality materials, Kühner dry coolers meet the highest standards in terms of pressure and temperature resistance. With various voltages and frequencies, the fans that are installed can also be used in international production processes.

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02.4 Kühner materials

Flexible in every way – economical for any application

Kühner products meet the highest standards in many different industries and fields of application. With the purposeful selection of materials, we harmonise the individual requirements for heat transfer, corrosion and temperature resistance, mechanical strength and cost.

All Kühner heat exchangers are made exclusively from high-quality materials. The Kühner material matrix provides an overview of what material combinations are the most suitable. To find an efficient solution for you, the Kühner contact persons are there for you in words and deeds.

Kühner Heat Exchanger with collector tubes
Collector tubes and U-bents distribute the media into the tubes



Tube	Fin				
	Copper	Aluminium	AlMg	AlEp	AlHy
Copper	X	X	X	X	X
Aluminium	X	X	X	X	X
AISI 304L / 1.4306	X	X	X	X	X
AISI 316L / 1.4404	X	X	X	X	X
Titan (Grade II – ATSM B338)	X	X	X	X	X

Kühner Heat Exchanger with chambers
Chambers in different geometries distribute the media into the tubes

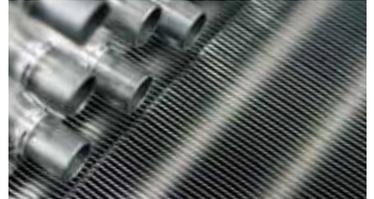


Tube	Fin			
	Stahl	Aluminium	1.4301 / AISI 304	1.4571 / AISI 316Ti
Steel	X*	X	X	X
1.4301 / AISI 304		X	X	X
1.4571 / AISI 316Ti		X	X	X

*The version in steel galvanised in a full bath corresponds to the steel/steel material combination for tubes and fins

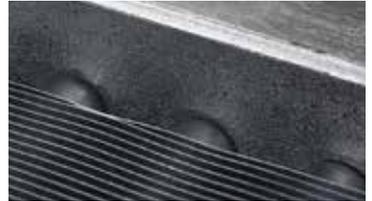
Steel/aluminium
The clever combination

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Steel with full bath galvanising
Economical all-round protection

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Stainless steel
For demanding applications

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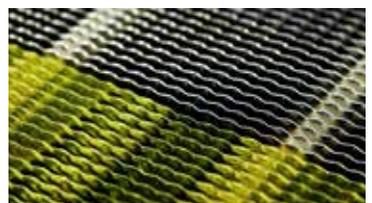
Copper
Versatile in application

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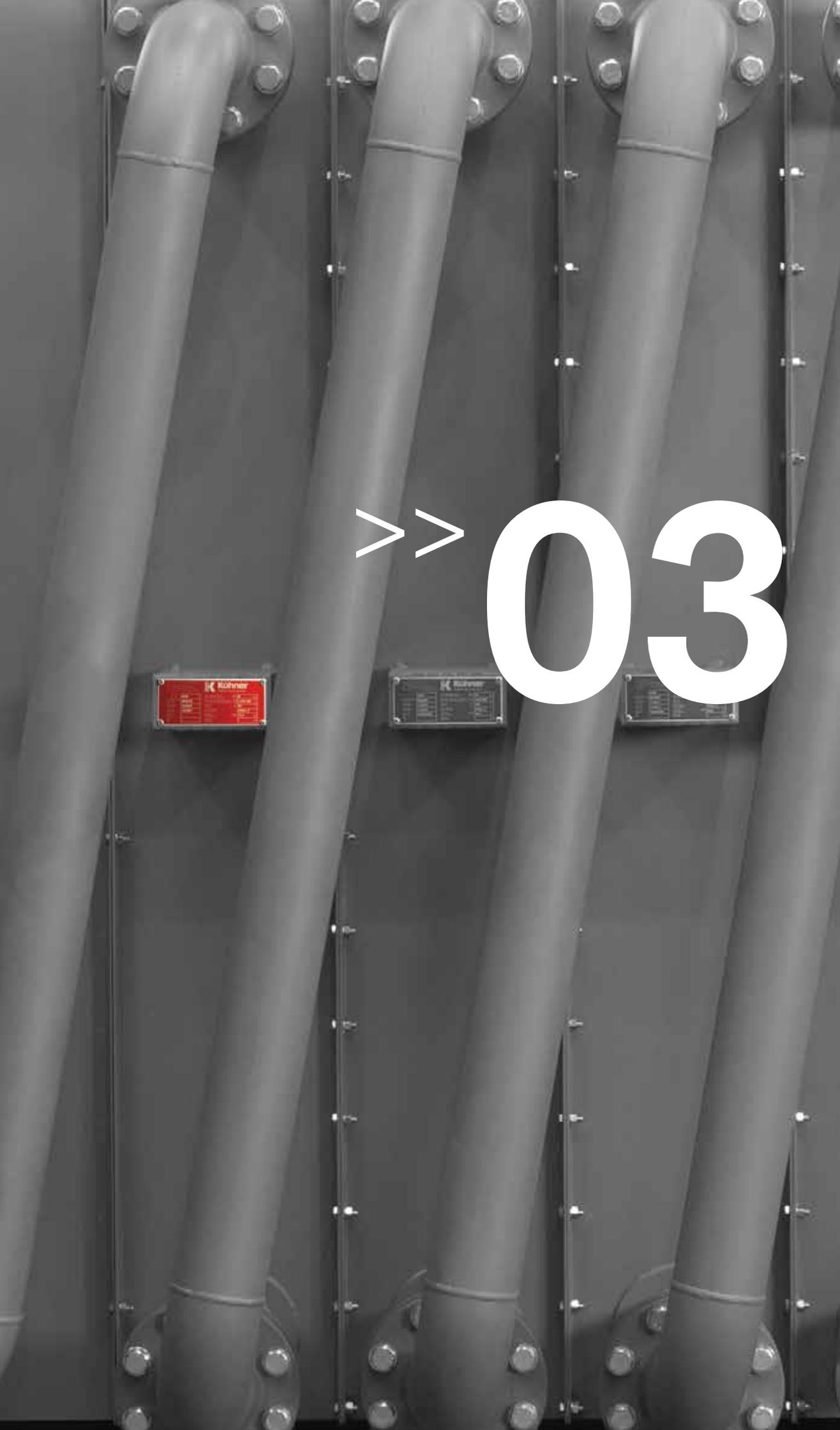
Titanium/special materials
For special requirements

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AISI 304L / 1.4306 AISI 316L / 1.4404

X	X
X	X
X	X
X	X
X	X

A grayscale photograph of a control panel. Three vertical grey tubes run from top to bottom. At the top, each tube is connected to a circular flange with four bolts. At the bottom, each tube is also connected to a circular flange with four bolts. Between the tubes, there are three indicator lights. The leftmost light is red, and the other two are silver. Each light has a label with the 'Kühnle' logo and some illegible text. The background is a dark grey panel with a grid of small screws.

>> 03

Kühner Service From the enquiry to installation

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Kühner heat exchangers are tailored precisely to your individual requirements in many different industries and fields of application. We provide comprehensive support with tailor-made services on the way to the perfect solution.

A Kühner contact person stands by your side in words and deeds from the initial enquiry to putting the solution into operation. We perform calculations and provide technically substantiated, individual consulting. We are committed to top-class production quality as well: Kühner heat exchangers are developed and produced exclusively in certified processes – for technically outstanding products with maximum operational reliability.

„We have been producing tailor-made solutions for numerous industries for almost 70 years – with all our experience, passion and diligence as heat exchanger specialists.“

Elisabeth Poša, Company Management



03.1 Kühner certificates Quality made in Germany

Kühner heat exchangers are produced with great care using ISO-certified processes in the Kühner plant. This ensures that our customers receive technically first-rate products offering operational reliability with a 100% warranty on the thermodynamic layout. A claim that is effectively supported by our certificates and permits.

We develop, design and produce according to European and optionally also international standards. Welding work on the tubes and chambers is performed exclusively by certified welders. We are also

certified for welding technology according to **HPO** and **DIN EN 3834-2**. Regular training for our team is monitored and approved by TÜV SÜD.

Type testing has been performed for numerous Kühner heat exchangers and they are carefully fabricated according to these specifications. We also offer **individual TÜV approval** for every heat exchanger to meet special requirements.

03.2 Kühner expert team Individual and competent

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Kühner consulting

What are your requirements?

Every product from Kühner is unique, created on the basis of proven technology modules and in close coordination between you and Kühner. With our knowhow as a heat exchanger specialist, we can for example prepare tender documents, compare versions and provide advice regarding Kühner heat exchangers and heat recovery. This guarantees that our customers receive precisely the solution that best meets their respective requirements and offers the optimum price-performance ratio in the long term.

Kühner calculations

The best all-round results

Once all requirements for the Kühner heat exchanger have been defined – what will be cooled or heated and how, which material will be used and how large the new unit can be – the heat exchanger calculations are prepared. We use modern calculation programmes in order to determine the best respective solutions and obtain reliable data. The Kühner specialists support our customers, for example with the optimum thermodynamic layout, the design of heat recovery systems or also with recalculations.



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