

# A formula for success

■ Heat transfer solutions  
for process applications

# Excellence in the making

When it comes to process industries, heat transfer isn't one-size-fits-all. You need a partner who knows the complex nature of your application – from fluid properties to fouling tendencies. A partner who can take that knowledge, and transform it into the optimum heat transfer system. A partner who is committed to you before, during, and after the sale. A partner like API Heat Transfer®.

With an unmatched combination of technical expertise, heat transfer experience, global reach, personal service, and full product offering, we're here to help take the performance of your application to the next level.

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"From the bidding stage to the delivery of products, API Heat Transfer responded timely to our requests. They also acted as a solutions-oriented partner in every circumstance we had."  
– **Senior Project Engineer, Process Market**



## The highest degree of performance

With API Heat Transfer, you'll benefit from working with a global company with wide-ranging experience. We have manufacturing facilities in the United States, Germany, and China, plus sales and engineering support in more than 30 countries – which means we can meet virtually any codes or specifications your project may require.

What also sets us apart is our wide range of heat transfer solutions to meet the demands of the chemical, petrochemical, oil and gas, and energy markets. This includes our extensive selection of gasketed and fully welded plate heat exchangers and our full line of TEMA shell and tube heat exchangers. You'll work directly with our team

of engineers to identify and overcome the unique challenges of your process application. Then we'll size, design, and manufacture the optimum solution using industry-leading proprietary and HTRI thermal rating software, state-of-the-art mechanical software, and modern manufacturing processes – ensuring a final product that meets all the required specifications.

And when it comes to quality, API Heat Transfer is known the world over for delivering heat exchangers that are easy to maintain, offer exceptional lifecycles, and meet your performance requirements the first time, every time.



# We know your industry inside and out

Whether your application is heating, cooling, condensing, or evaporating process fluids, you can trust API Heat Transfer for the most efficient and reliable heat transfer solutions.

## Air Separation



- Air-side cooling
- HyCo (SynGas) cooling

## Alternate Fuels



- RME heater
- Fatty acid cooler
- Mash heater

## Chemical



- Head and column condenser
- Reactor product cooler
- Autoclave tempering

## Gas Transmission



- Gas-to-gas coolers and heaters
- Natural gas liquids (NGL applications)
- Hot oil circulating systems

## General



- Waste water cooler
- Central cooler
- Surface treatment

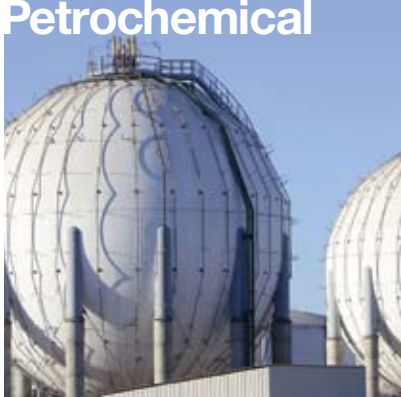
## Oil and Gas



- LNG evaporator
- Crude oil heater
- Gas washer



## Petrochemical



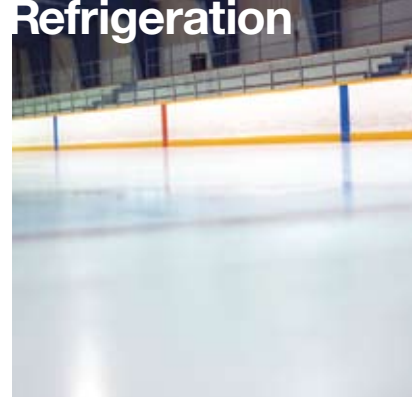
- Crude oil cooler
- Column heat recovery
- Fuel vapor condenser

## Pulp and Paper



- Liquor heaters
- Shower water coolers
- Vaporizers

## Refrigeration



- Ammonia evaporator
- Refrigerant condenser
- Economizer

The largest European chemical company puts their trust in API Heat Transfer plate heat exchangers. Units shown are part of a central cooling system that operates 24 hours per day ensuring the plant operates efficiently.



# Successful solutions

## Schmidt® plate heat exchangers

Our Schmidt line of plate heat exchangers are well-known for their high level of efficiency, flexibility for future duty changes, high level of operational safety, and the possibilities for CIP or mechanical cleaning.

**SIGMA** gasketed plate and frame



Proprietary, high-efficiency corrugated plates resulting in the highest overall heat transfer rate by assuring highly turbulent flow and excellent fluid distribution across the entire surface.

**SIGMADUAL** semi-welded



Advanced laser welding seals two plates together. The resulting plate pack has fully serviceable alternating plate channels, while maintaining the integrity of the welded plate pair. Especially suited for critical fluids and gases where fluid loss is not acceptable.

**SIGMATWIN** double-wall



Achieves the specific safety demands of critical applications where cross contamination of fluids is completely unacceptable. Should a hole or crack develop in a plate, leakage escapes into the gap between the two plates and can be readily seen by visual inspection.

**SIGMAWIG** all-welded



Compact, rugged gasket-free plate design provides exceptional corrosion resistance and high efficiency in a counter-current flow configuration.

**SIGMASHELL** plate and shell



Unique combination of a high pressure shell and a compact, high-efficiency laser welded plate pack. Shell side closures can be all welded or removable for visual inspection and cleaning. Flexible connection sizes also make it ideal for gas phase applications.

**SIGMAFIX** mechanical gasket



Glue-free gasketing system allows for quick and easy gasket replacement through laterally built-in mounting clips.



## Basco® shell and tube heat exchangers

Our Basco family of shell and tube heat exchangers can be custom engineered to meet the exact specifications of your process. Our experience includes a wide variety of materials and design configurations.

Steam condensers



Efficient packaged system that captures leaked steam and air from shaft seals, and condenses the steam before returning it to the main condensate return system.

ES extended surface



The industry leader for intercooler and aftercooler performance. Our unique compact plate fin design provides superior cooling of large air volumes at low pressure drops, which means less energy consumption.

Hairpin



Available in removable and non-removable bundle designs, these units provide true counter-current flow ideal for applications involving a temperature cross or close approach. Handles wide temperature differentials without the use of an expansion joint.

AEW



AEW style exchangers are most commonly used as oil coolers, with the oil on the shell side and water on the tube side. Tubing may either be plain or finned, depending on the heat transfer characteristics of the oil being cooled.

BEP



Ideal for use as intercoolers and aftercoolers with water on the shell side and gas on the tube side. BEPs can handle high pressure on the tube side, and at the same time, keep the pressure drop low when the operating pressure is low.

Custom-engineered shell and tube



This BJU recycle cooler is one of many custom high-pressure TEMA designs manufactured by API Heat Transfer. Our engineers provide thermal and mechanical design solutions for the most complex applications – from high pressures to high-alloy materials to the most stringent design specifications.

# A world of heat transfer solutions

API Heat Transfer's global presence includes manufacturing facilities, R&D locations, and sales support throughout the world, all aimed at one goal – to better serve our customers.



For more information about our heat transfer products, contact your API Heat Transfer sales representative or visit [apiheattransfer.com](http://apiheattransfer.com).



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