

# Performance is everything



# The highest degree of heat transfer

The right heat exchanger can propel your application to a whole new level of efficiency and reliability. So having the right heat transfer supplier can make a world of difference – not only to your product, but also your bottom line. With a heritage of more than 130 years designing and delivering world-class heat transfer products for nearly every industry, API Heat Transfer understands that performance is everything.

With API Heat Transfer, you're not just buying a heat exchanger – you're gaining a partner. Whether you need a custom-engineered design tailored to meet your specifications or a readily available standard unit, we'll work with you every step of the way. We'll analyze your application. We'll design to your needs. And we'll create the most effective and efficient heat transfer solution to help your process perform like never before.



“What differentiates API Heat Transfer is the knowledge of the product – of our product and their product. When you want a heat exchanger, you go to API Heat Transfer.” – **Buyer, Industrial Market**



## Your industry is our business

API Heat Transfer's breadth of product and market expertise is second to none – giving us the unique ability to craft the right heating or cooling solution that seamlessly fits into your design, no matter your market.

Our experience includes:

- Air dryers
- Air separation
- Alternative fuels
- Chemical, petrochemical, and process
- Compressors
- Diesel engine cooling
- Fluid power
- Food, beverage, brewery, and dairy
- Healthcare
- HVAC
- Industrial
- Marine
- Off-highway
- Oil and gas
- On-highway
- Pharmaceutical
- Power generation
- Refrigeration



# More technologies More possibilities

Every application comes with its own set of requirements and challenges. By offering all three main technologies of heat transfer, we can select the product design that best fits your requirements, without forcing a solution due to limited product scope. Our versatility also means we are your single source for heat transfer, eliminating the need to deal with multiple suppliers. And our range of experience enables us to better understand your business and needs, leading to a stronger, more productive partnership.





## Airtech air-cooled

Airtech heat exchangers are constructed from 100% aluminum, and offer unparalleled performance and cost-effectiveness in a rugged, compact, and lightweight package. Our designs include both bar and plate as well as tube and header construction. Bar and plate construction allows an infinite number of core configurations and sizes to customize a solution specifically to your exact requirements, with minimal or no tooling. Tube and header construction provides a cost-effective, lightweight solution.

All Airtech products utilize a vacuum brazing process, allowing us to use higher-strength materials. The result is a bonded unitary core – ensuring reliable operation even under the harshest conditions. Finally, we offer a wide variety of internal and external fin configurations to maximize heat transfer while minimizing pressure drop, and ensuring suitability for the cooler's operating environment.

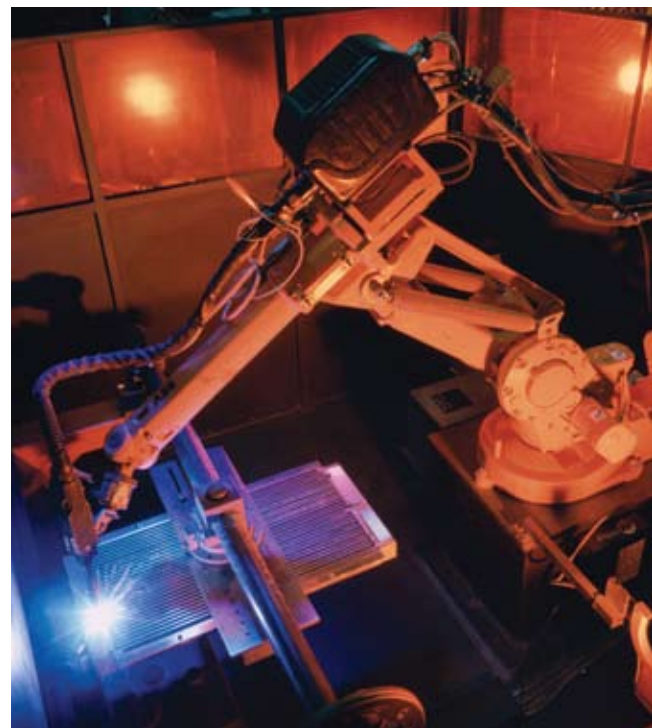


Quality certification  
■ ISO 9001:2000

Pressure certification  
■ PED



Our patented PCR<sup>®</sup> heat exchanger is the industry-leading solution for refrigerant air dryers. Featuring a 3-in-1 design, these units offer energy-saving heat recovery between the incoming and outgoing air streams, an efficient refrigerant cooling section, and integrated moisture separation all in a single, compact, cost-effective package.





## Basco shell and tube

Our shell and tube heat exchangers are available in a full range of standard and custom designs. Using cutting-edge software, our team of experienced application and mechanical engineers can rate and design a heat exchanger to meet the most stringent specifications, and manufacture a wide array of designs including TEMA, HEI, extended surface, hairpin, and a variety of commercial standards.



The Basco Type 500 remains the industry standard for ultimate value and long-term reliability.



Quality certification

■ ISO 9001:2008

Pressure certifications

■ ASME U, UM, R, and S Codes

■ Chinese GB-code

■ Korean Factory Registration

■ PED

■ Australian

■ GOST



API Heat Transfer is a long-standing, active member of the Tubular Exchanger Manufacturers Association (TEMA).



## Schmidt plate and thermal systems

Experienced in-house design coupled with precise production allows our Schmidt line to be a smart choice for a wide variety of markets. Our SIGMA gasketed plate and frame heat exchangers offer various plate corrugation geometries and sizes, allowing for optimal thermal and hydraulic performance to meet your specifications. Plates and gaskets are available in numerous materials to ensure proper operation and long service life for the fluids being processed.

Our patented SIGMAFIX mechanical-fixed, adhesive-free gaskets provide superior fastening for quick and easy replacement. The Schmidt family also includes our SIGMADUAL semi-welded, SIGMAWIG fully welded, SIGMASHELL plate and shell, and SIGMABRAZE brazed-plate heat exchangers – providing you with a complete portfolio of plate solutions.



### Quality certifications

- ISO 9001:2008
- 3 A Certification

### Pressure certifications

- ASME U Code

- PED

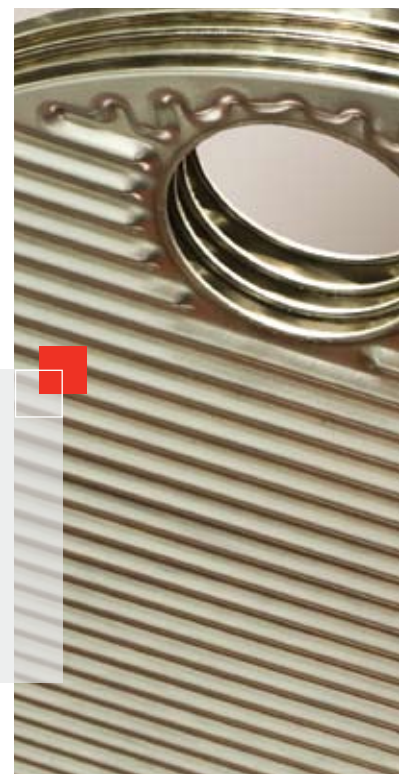
- GOST/  
ROSTECHNADZOR

- Chinese GB-code

With excellent product distribution, short residence times, and low pressure loss, our patented SIGMASTAR® rising-film plate evaporators offer superior concentration. Other thermal systems include dealcoholization, deaeration, and pasteurization.



Our SIGMASHELL combines the high-pressure capability of a shell and tube with the thermal efficiency of a plate heat exchanger.



# A powerful process

Before a heat exchanger is installed in your application, it has to exceed our high standards. From expert design to skillful manufacturing to rigorous testing, you can be sure every step of the API Heat Transfer process is held to the industry's highest level of quality.

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"They just design it. We give them the criteria we are looking for – the technical specs in a 'box'. That box goes over to API Heat Transfer, and because of their talent level and experience, they turn it into a heat exchanger design. And they make it easy, which saves us a substantial amount of time."  
– Program Manager for New Product Development, Industrial Market



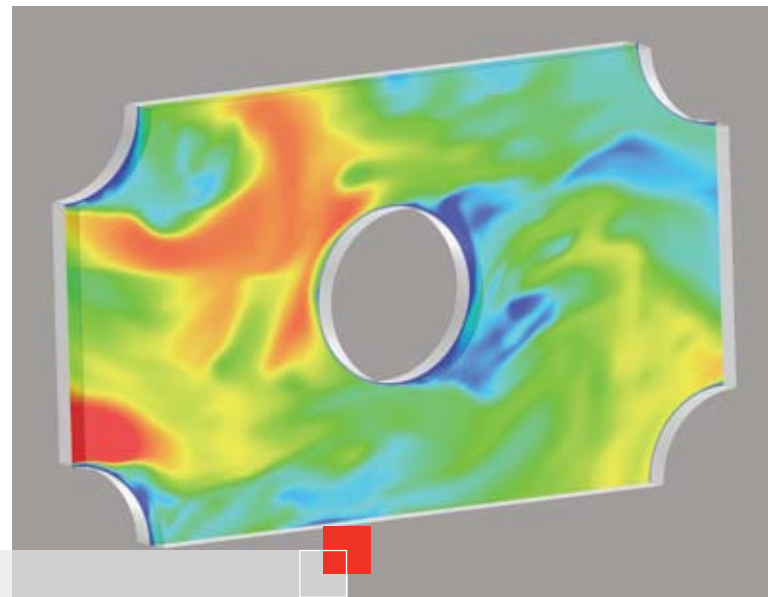




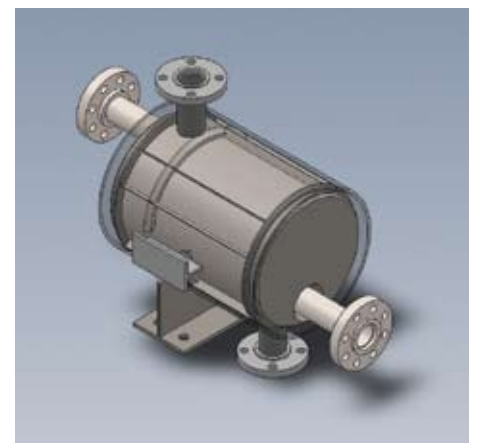
## Engineering excellence

At API Heat Transfer, we work hard to find the best heat transfer system for your application. After reviewing your specifications, our engineering team will work directly with your staff. This collaboration helps us gain a greater sense of your project and goals.

We pride ourselves on the engineering value we bring to each project, and how that knowledge translates to the best-performing heat exchangers in the industry. The engineering consultation we provide not only ensures you are receiving a quality product, but also saves you time by helping you identify and avoid critical missteps in the design phase.



Harnessing the power of state-of-the-art Computational Fluid Dynamics (CFD) software, our engineers can analyze and address flow issues, allowing us to more accurately design efficient heat transfer solutions.





## Made to work Built to last

After the design is complete, our manufacturing and fabricating teams bring your heat exchanger to life. Our workforce includes highly trained, skilled men and women who take pride in the work they do. We also utilize industry-leading technology and manufacturing processes, including advanced computer networks, CNC machining centers, automated welding systems, work cells, and inventory control systems.

Our commitment to quality is unwavering throughout the engineering, manufacturing, and equipment startup processes. Each critical milestone is thoughtfully reviewed and inspected – from drawing reviews to incoming materials to final product assembly. Our in-house quality team works closely with each department, along with third-party inspectors if appropriate, to ensure proper procedures are in place and strictly followed.





## Innovation and validation

The research, development, and testing of our technologies are hallmarks of API Heat Transfer. Our Product Development team is comprised of advanced-degree thermal, mechanical, and software professionals. Their goal is to provide you with the most innovative and thermally efficient products in the market – from primary and secondary heat transfer surfaces to innovative fin designs to emission-reducing solutions. At the Product Development team’s disposal are state-of-the-art test and validation facilities, as well as proprietary software developed to ensure accuracy and continually improve our productivity.

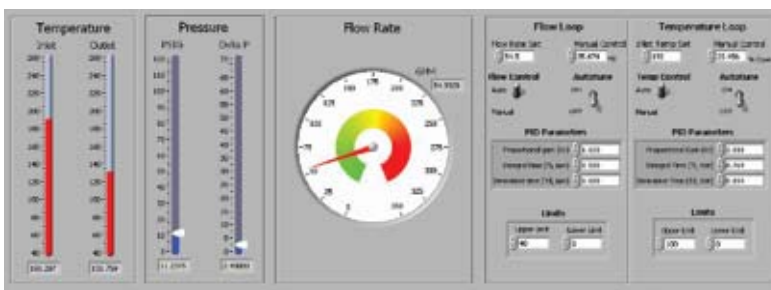
API Heat Transfer has multiple lab facilities where technicians can validate our heat transfer solution before implementing it into your equipment. We welcome your involvement and participation during our performance tests.

Our in-house testing capabilities include:

- Thermal and hydraulic performance testing
- Moisture and separation measurement
- Pressure and thermal cycling
- Evaporation pilot plant testing
- Measurement of various physical properties



Our Buffalo, NY facility now features a state-of-the-art high-capacity Calorimetric Flow Test Stand with semi-open loop temperature control, all monitored by an advanced site-wide data acquisition system and Labview software.



# 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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