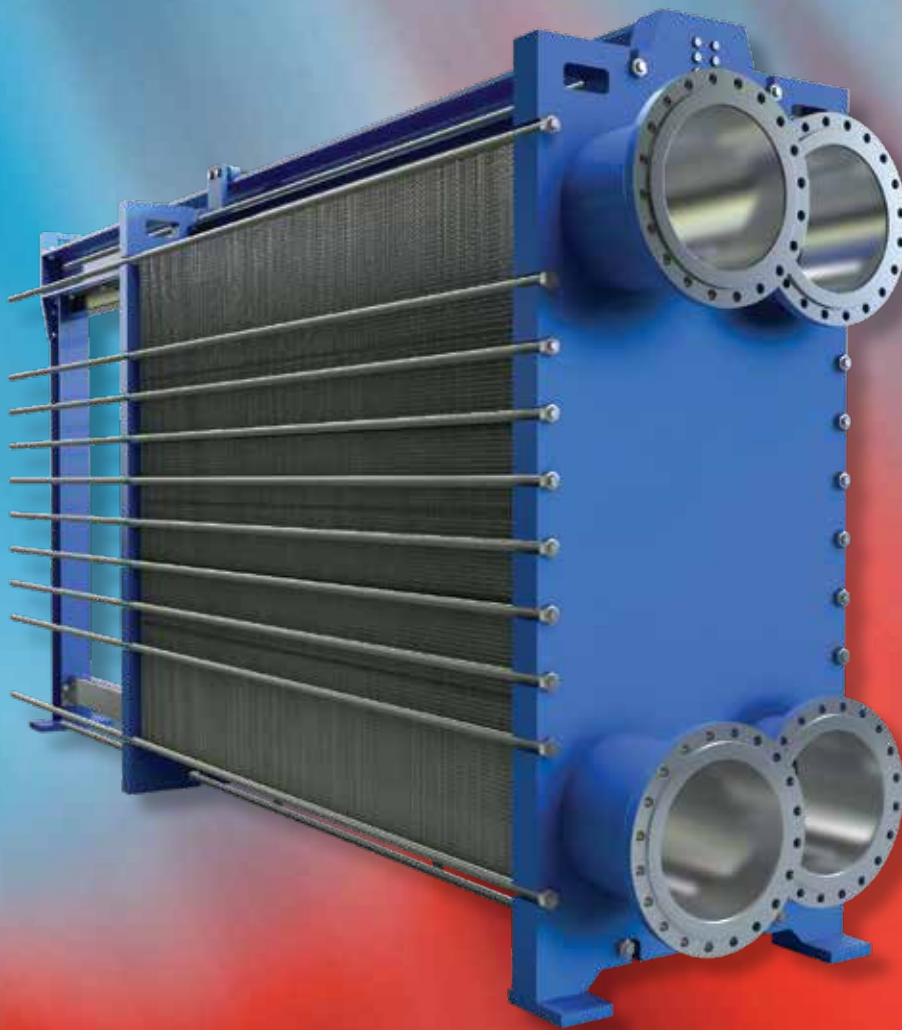


# SCHMIDT® SIGMA PLATE HEAT EXCHANGERS





With more than 40 variants, the Schmidt® SIGMA plate heat exchanger has proven itself more than 100,000 times in practically all applications and under the harshest operating conditions—from vacuums to 25-bar operating pressure and temperatures from -30 °C to 250 °C.

## Markets and applications

Our long-standing experience in sophisticated applications allows us to provide our clients with custom-tailored, cost-effective solutions. Our SIGMA plate heat exchangers offer industry leading solutions for a variety of thermal process applications in practically any market.

### Markets Served:

- Automotive industry
- Beverage industry
- Chemical and Petrochemical industries
- Engine manufacturing
- Food industry
- HVAC
- Industrial engineering
- Marine & Offshore
- Metal processing
- Pharmacy and Life Science
- Power generation
- Pulp & Paper industry
- Refrigeration technology
- Renewable energies
- Steel mills and cooking plants
- Surface technology



# Modular components of SIGMA plate heat exchangers

APPLICATION RANGE	
Operating pressure	up to 25 bar for standard units
Operating temperature	up to 170 °C for standard units

*higher values on request*

PLATES	
Materials	AISI 304, AISI 316L, AISI 316Ti, alloy 926, AISI 904L, SMO 254®, nickel, nickel alloys, titanium grade 1, titanium grade 11

GASKETS	
Materials	Elastomers (nitrile, EPDM, FKM / Viton® and others) PTFE-enveloped elastomers (SIGMACOAT), Aramid fibers, materials for industrial and foodstuff applications.
Fixing	Gasketed plates: - with mechanically fixed gaskets (SIGMAFIX) - with glued gaskets Semi-welded modules (SIGMADUAL): - with mechanically fixed gaskets (SIGMAFIX) - with glued gaskets

PRESSURE FRAMES	
Materials	Carbon steel, painted Carbon steel, stainless steel-cladded Stainless steel, solid
Codes (PED)	AD 2000-Merkblatt, ASME Sec. VIII Div. 1, GL, ABS, DNV and others
Connections	Studded bolts acc. to DIN 2501, EN 1092-1, ANSI Flanges acc. to DIN, EN 1092-1, ANSI Threaded connections Aseptic and foodstuff connections

## OPTIONAL ACCESSORIES

- Insulation
- Tie rod protection
- Inline-strainer and automatic filter

## Plate Corrugation Patterns

### H-CORRUGATION

- Fish bone plate profile
- Highest heat transfer coefficients



### W-CORRUGATION

- Fish bone plate profile
- Minimized pressure loss at optimized heat transfer



### Y-CORRUGATION

- Patented fish bone corrugation pattern
- Increased heat transfer at lowest pressure loss



### F-CORRUGATION

- Free flow plate profile with some stamped spacers



Lifting lug

Studded bolts connection  
with metallic liner



Name plate  
showing max. operating  
conditions and tightening  
dimensions

Movable cover  
pressure plate  
movable cover

Slot  
for removing of the  
tie rod at the side



Plate packet

Tie rod

Support column

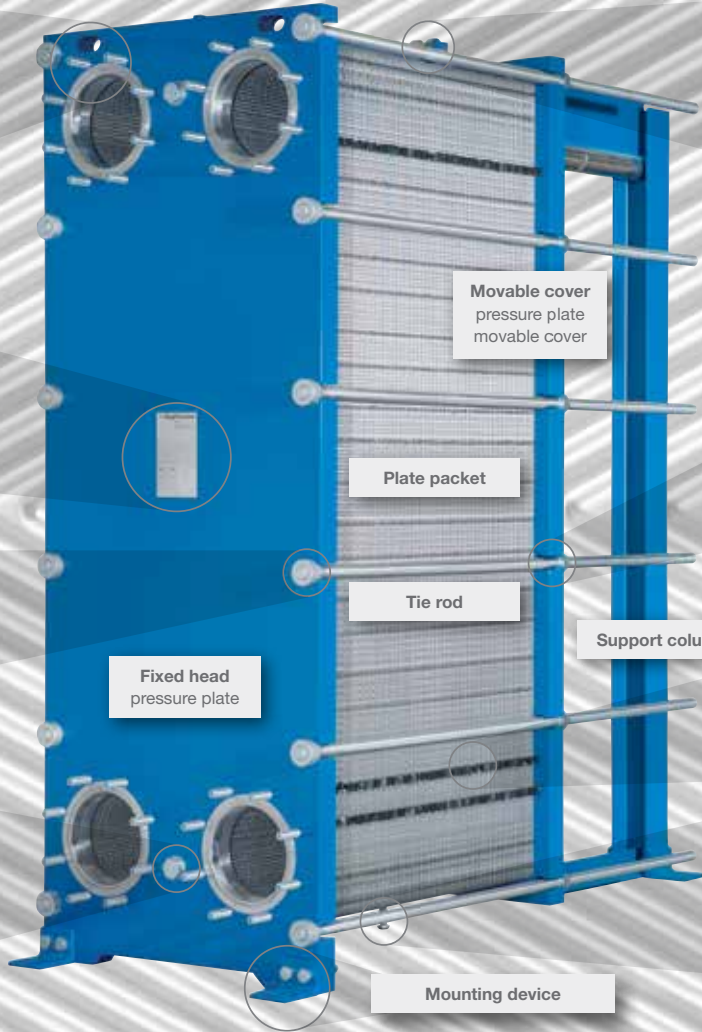
Gasket identification tag  
visible with closed PHE

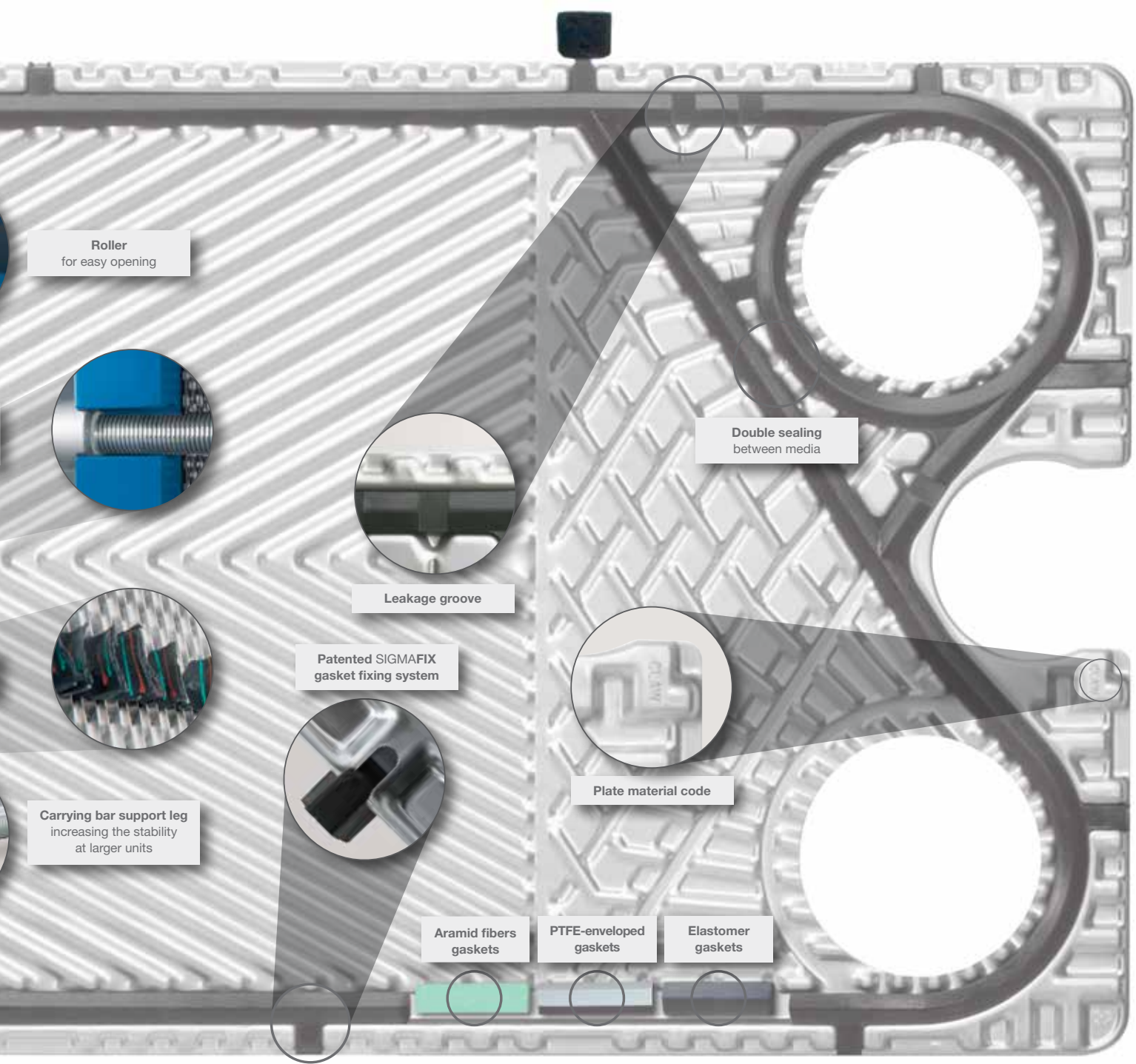
Anchor bolt  
as anti-rotation device

Fixed head  
pressure plate

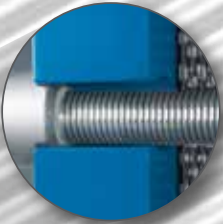
Removable  
carrying bar fixing

Mounting device





**Roller**  
for easy opening



**Leakage groove**

**Patented SIGMAFIX**  
gasket fixing system



**Carrying bar support leg**  
increasing the stability  
at larger units



**Plate material code**

**Double sealing**  
between media

**Aramid fibers**  
gaskets

**PTFE-enveloped**  
gaskets

**Elastomer**  
gaskets



# 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 focused on one goal—to better serve our customers.



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

### Germany

API Schmidt-Bretten GmbH & Co. KG

Langenmorgen 4  
75015 Bretten  
Germany

+49 7252 530

### USA

API Heat Transfer Inc.

2777 Walden Avenue  
Buffalo, NY, 14225  
USA

+1 716 684 6700

### China

API Heat Transfer

156 Qingqiu Street, 3rd District  
Suzhou Industrial Park  
Suzhou, Jiangsu 215126  
China

+86 512 8816 8000

### GLOBAL HEADQUARTERS

2777 Walden Avenue | Buffalo, NY 14225 USA | +1.716.684.6700 | [sales@apiheattransfer.com](mailto:sales@apiheattransfer.com)

[apiheattransfer.com](http://apiheattransfer.com)



PERFORMANCE IS EVERYTHING