

## Kelvion Pressure Gas Cooler

# STAY COOL UNDER PRESSURE



## DESIGN & FUNCTION

Pressure gas coolers are used in different industrial processes to control the gas temperature after compression or between single compression stages. Our longstanding and extensive experience allows us to tailor pressure gas coolers to customer needs and provide the right combination of design and materials.

Since the efficiency of compressors is essentially determined by the cooler technology integrated, we have essentially contributed to technological progress through development of the extensive fin-tube ranges. Our line of systems for compressed-gas cooling covers basic market requirements for gas volumes from 5,000 to approx. 500,000 Nm<sup>3</sup>/h in pressure ranges up to 50 bar. It includes water-cooled pressure gas coolers for industrial gases such as air, oxygen, chlorine, carbon dioxide, helium, hydrogen, gaseous hydrocarbons, gas mixtures etc.

## ADVANTAGES

- ▶ **CUSTOMIZED ENGINEERING**
- ▶ **COMPACT AND CFD OPTIMIZED DESIGN**
- ▶ **OPTIMAL MATERIAL SELECTION**
- ▶ **STRENGTH CALCULATION & THERMODYNAMIC DESIGN**

# APPLICATIONS



Chemicals



Steel production



Petrochemicals



## MEDIA TUBE SIDE

Water



## MEDIA SHELL SIDE

Process gases e. g. Air, O<sub>2</sub>, N<sub>2</sub>, CO<sub>2</sub>, H<sub>2</sub>



## GAS STREAM

5,000 ... 500,000 Nm<sup>3</sup>/h



## PRESSURE

Up to 50 bar



## TEMPERATURES

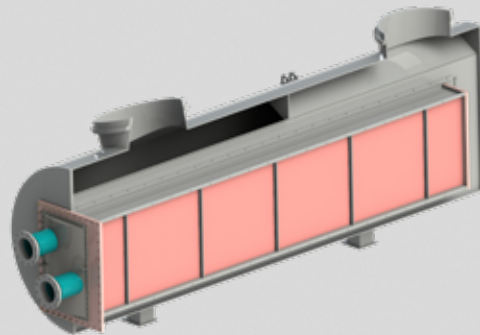
Up to 250° C

# VERSIONS

Vertical cooler position



Horizontal cooler position



# REGULATIONS

- ▶ AD2000
- ▶ ASME U-Stamp
- ▶ PED 2014/68/EU
- ▶ EN13445
- ▶ Further on request

## MATERIALS

Tubes	Fins	Tube sheets	Header
Copper	Copper	CuNi10	CuNi10
CuNi10	Aluminum	CuNi30	CuNi30
CuNi30	Copper tinned	CuZn38SnAl	C-Steel + Rilsan Coating
Brass	Stainless steel	C Steel	Stainless steel
Stainless steel	Aluminum epoxy	Stainless steel	Titanium
Titanium	Blygold Coating®	Titanium	
Duplex			

## COMPACT SYSTEMS

### Flat fins or divers turbulators

Tube System	Tube Diameter	Tube wall thickness	Tube Pitch	Fin Pitch
S119 - 32	12 mm	0.6 mm	32 mm	1.2 - 3.0 mm
S141 - 34*	14 mm	0.7 mm	34 mm	1.4 - 3.0 mm
S201 - 34*	20 mm	1.0 mm	34 mm	1.4 - 3.8 mm
S201 - 50	20 mm	0.8 / 1.0 mm	50 mm	1.6 - 3.0 mm

\* Also available as Double Tube Safety Heat Exchanger