

# Heat Exchange Systems

open type

*flexible  
design as  
application  
conditions*



## APPLICATION FIELDS

Industrial chilling with peak loads

- Production of food
- Dairies
- Breweries
- Production of soft drinks

Chilling in the production of

- Chemicals
- Pharmaceuticals

Industrial thermal engineering

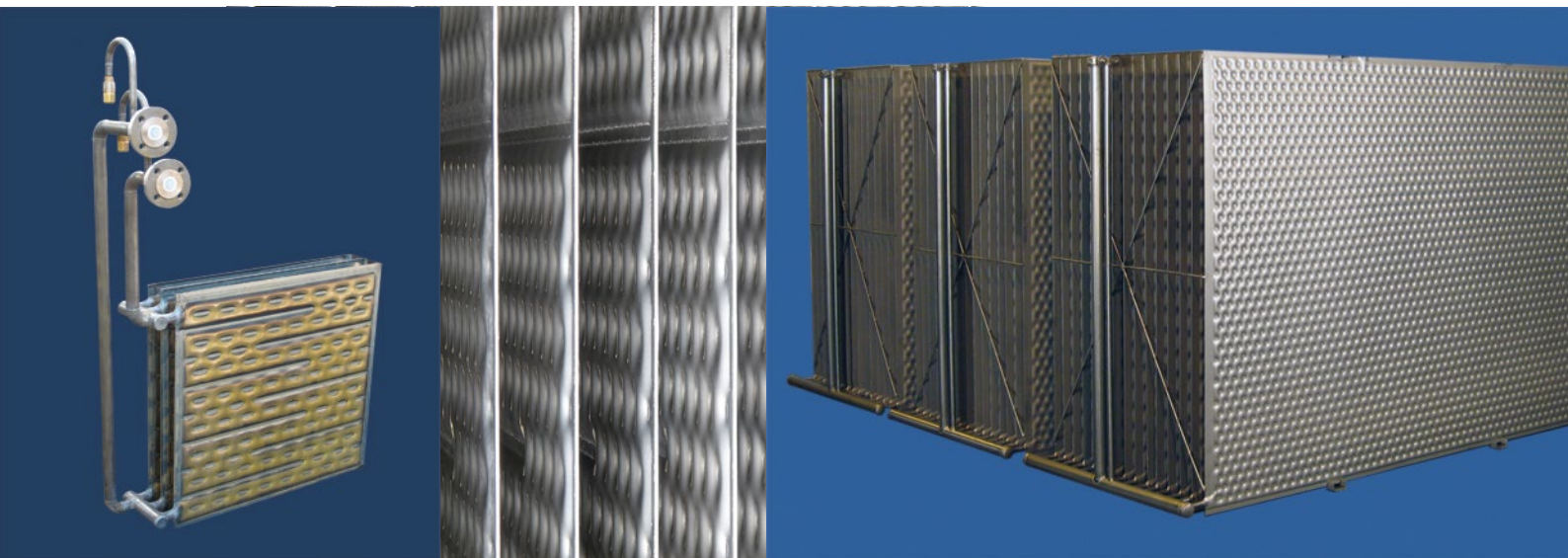
- Heat recovery
- Heat pump evaporators
- Condensers

## EFFICIENCY

The big heat exchange areas ensure a safe process operation with homogeneously guided temperature control. The u-values will only be influenced marginally, when pollution or dirt covers the heat exchange panels.

At the end of the day the open type heat exchangers result in a much better efficiency compared to compact external heat exchangers of any closed type.

The open type heat exchanger allows a quick inspection and incomplex cleaning procedure.



## APPLICATION AND BENEFIT

- Homogenous tempering of liquids in tanks.
  - With buffer effect at changing flow or temperatures.
- Tempering of liquids:
  - for polluted media or media with particles.
  - when regular inspection or cleaning is required.
  - at the danger of building ice.
- Heat recovery from waste water, waste gas, or moist air channels.
- Heat pump evaporators for surface water.
- Condensators in the top of process columns.

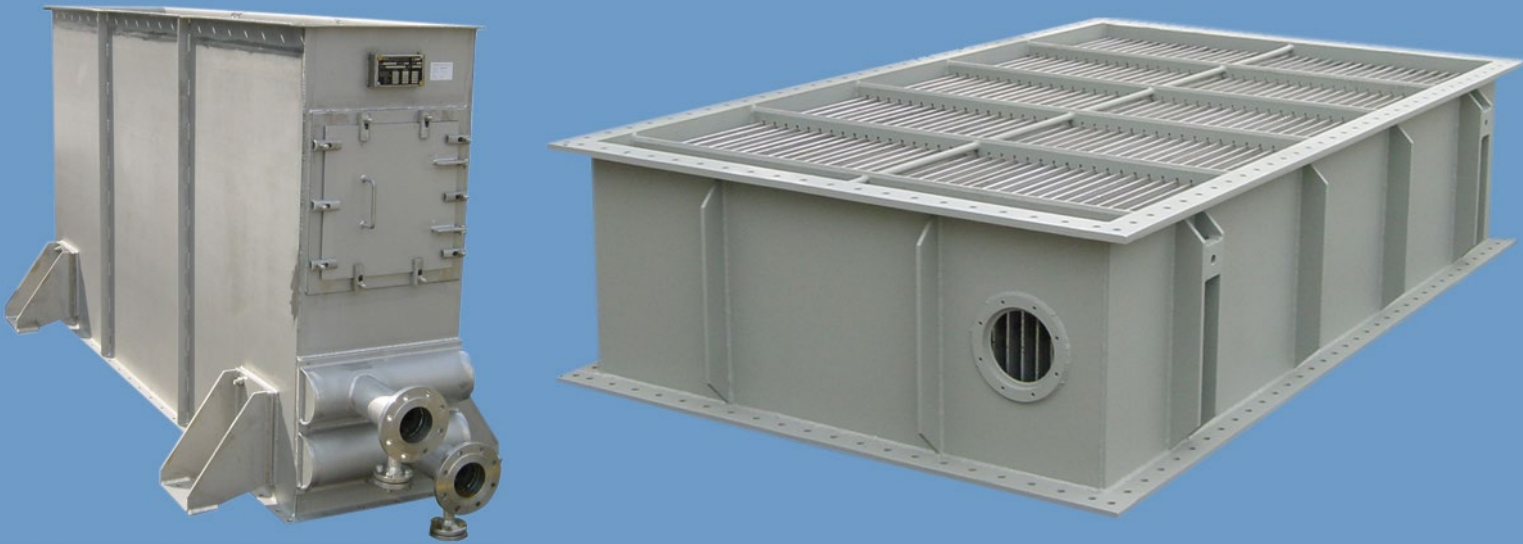
## SPECIFICATIONS

- Material according to application specification:
  - Carbon steel or stainless steel as: AISI 304, AISI 316L, AISI 316Ti up to titanium.
- Heat exchange systems for water, glycol, thermal oil or steam inside the panels.
- Evaporators for all refrigerants used as pump system or dry expansion system.
- Ready to plug cooling systems with refrigeration units up to 20 kW cooling power.
- Certification: TÜV, PED, TR CU (GOST).
- Design according to ASME

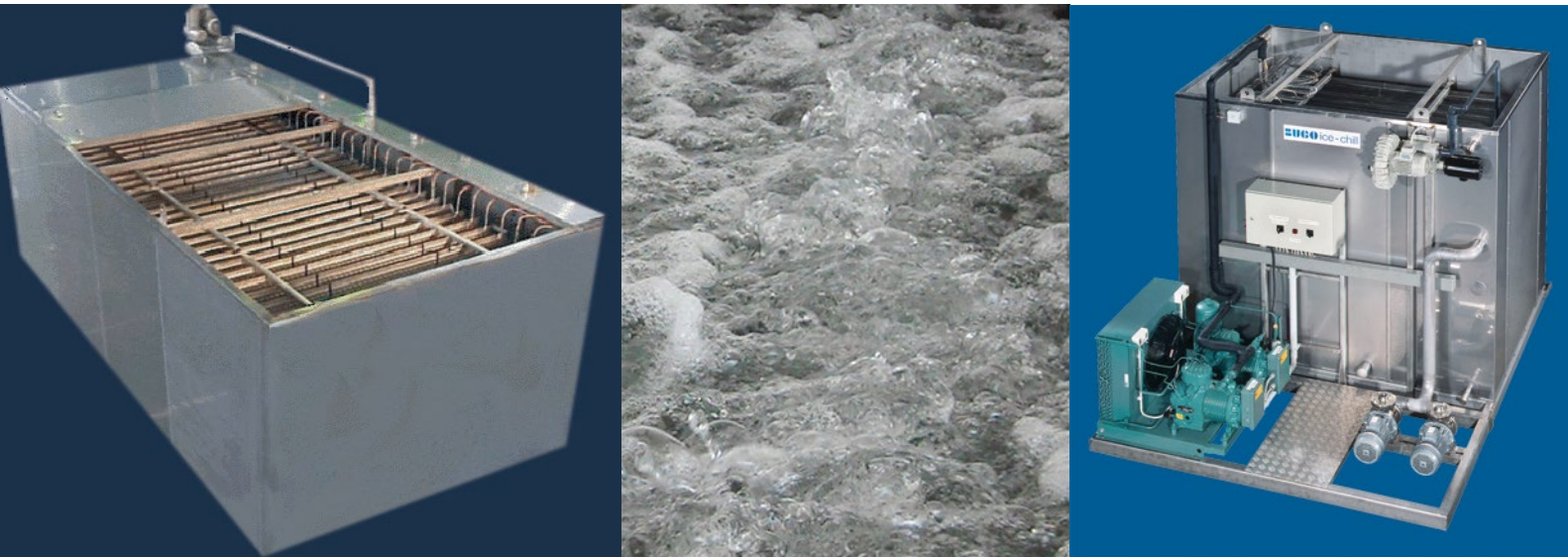


## EXAMPLES OF APPLICATION

Individual design in measurement, shape and material allow flexible use in many industries and extend the normal standard. Our experienced engineers would like to support you to integrate the heat exchange systems into your process.



**PIC:** Panelsystems in flow channels for waste air heat recovery



**PIC (LEFT TO RIGHT):** Panelsystems in a tank, with air agitation to increase heat transfer and reduce fouling effects; Ready to plug cooling system with refrigeration units: (up to 20 kW)

## ADVANTAGES

- Easy access to heat exchange surface
- Easy cleaning
- Stable u-values when pollution or dirt covers the panels
- At changing power demand
  - Compensation of changes in temperature and flow in a tank
  - Easy regulation due to buffer effect
- Minimum pressure drop on the outside
- Reliability
- Long lifetime due to individually chosen materials
- Any design possible according to application criteria or demand

## DESIGN AND DIMENSIONS

- Systems with panel sizes up to 3000 x 2000 mm
- Wall thicknesses from 0,8/0,8 up to 3/3 mm
- Design of systems, flow channels and cross sections individually done by experienced engineers.
- Rolled cylinders or panels adapted to cylindrical tanks
- Operating pressure up to 20 bar, in special cases up to 50 bar.

*“Heat exchange systems for more than 50 year.”*

*“More than 10.000 systems in operation.”*

## REFRIGERATION AG

Gotthardstrasse 27, 6302 Zug, Switzerland

Phone: +41 (0) 3131024 -18 [sales@refrigeration-ag.com](mailto:sales@refrigeration-ag.com)

Fax: +41 (0) 3131024 - 19 [www.refrigeration-ag.com](http://www.refrigeration-ag.com)