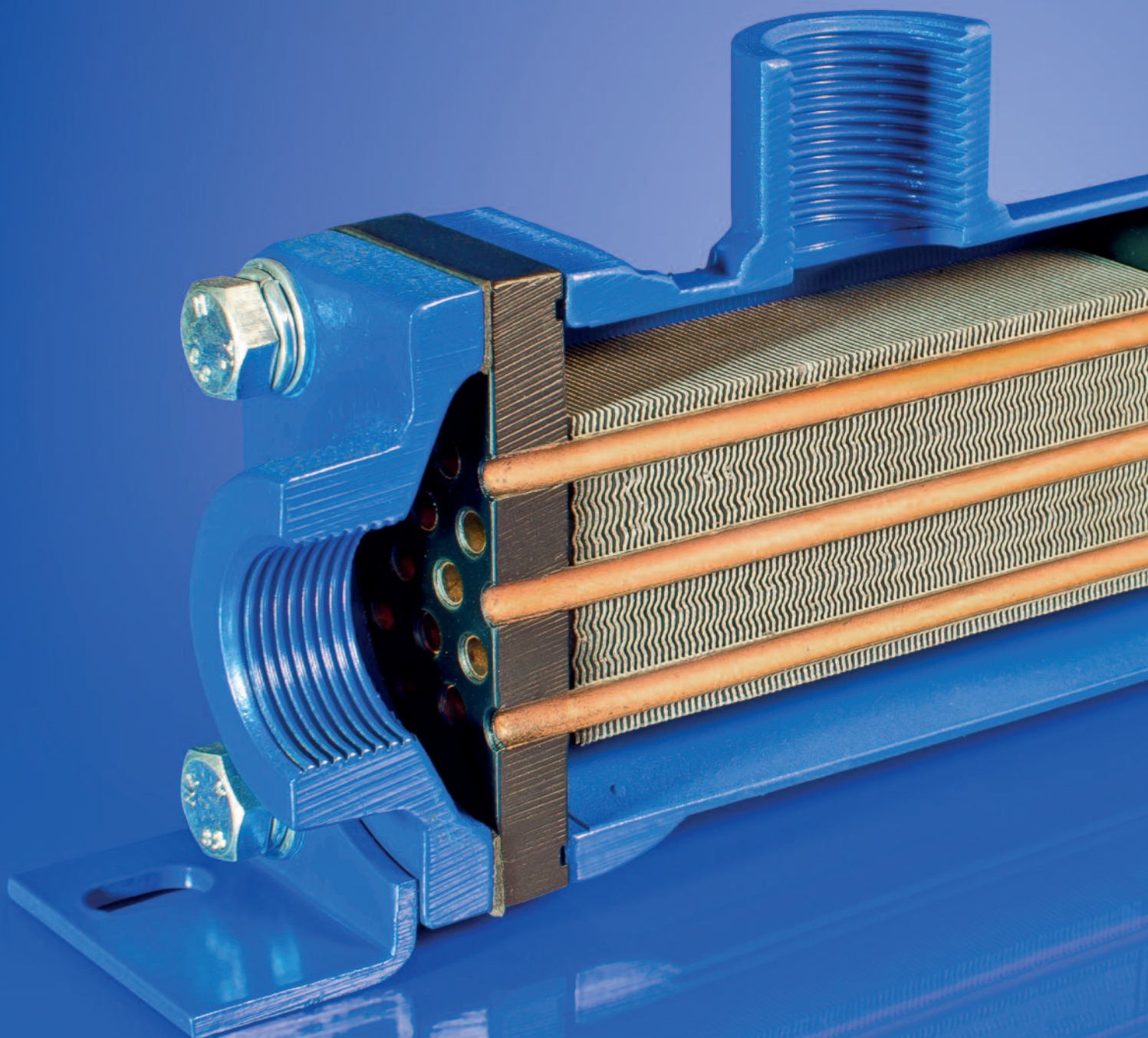


# HYBRID COOLING



**UNIVERSAL  
HYDRAULIK**®



Your Partner for coolers and systems

advanced quality  
customized designs  
made in europe and usa

# Heat Exchanger

## Hybrid-Design (with fins)

**HYBRID  
COOLING**

### EKM/SKM, SCM



Straight or bent water tubes (U-tubes), fixed or removable, On-Tank or In-Tank version available.

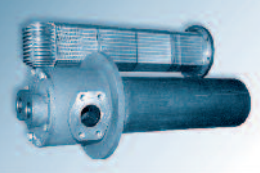
8 different sizes with 2 - 5.000 kW Heat Load

3 tube diameter

Optional:

- Sea water with Marine-certificates (GL, DNV, etc.)
- Compressed-air version
- Stainless steel or titan version
- Bypass-Valve integrated (100% opened)
- special design upon request

### UKM - UKTM



**HYBRID  
FAIL SAFE  
COOLING**

### SCM-FS



Predictive Maintenance 4.0

**Fail Safe cooler** in Hybrid-Design.

Much bigger cooling performance.

Double-tube design with 100% electrical leakage control. 5 Unit sizes.

Basis SCM-Series

Optional:

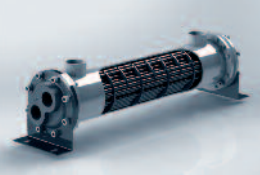
- Sea water with Marine-certificates
- Stainless steel / titan version
- Bypass-Valve integrated (100% opened)

### Advantages Hybrid-Design:

- **Shell side (e.g. Oil):** High performance due to additional fins (plates). Similar performance and size as plate heat exchangers.
- **Water side:** Long life time due to plain tubes instead of formed plates. Easy to clean even with bad water quality.

## Standard Shell & Tube Design (without fins)

### CKM



Straight- or U-tubes

8 sizes: 2 - 1.500 kW cooling capacity

Optional:

- different material combinations (e.g. Stainless steel)
- Sea water (with marine certificates)
- TÜV-approvals
- Special designs by request possible

### UKC-G



**Screw-in Heat Exchanger** for installation in hydraulic tanks, gear boxes or piping systems (e.g. install in existing threads instead of heating elements)

Threadings: G 1 1/4", G 1 1/2" or G 2"

cooling surface: 0,05 - 0,9 m<sup>2</sup>

Optional:

- Stainless steel version
- Seawater version

## Fail safe cooler

**FAIL SAFE  
COOLING**

### CKM-FS



Predictive Maintenance 4.0

**Fail safe cooler:** double-tube design with 100% electrical leakage control, 6 sizes: Basis CKM-series

Optional:

- Sea water (with marine certificates)
- Atex- or TÜV-approvals
- Different material combinations (e.g. Stainless steel)

## Electrical oil pre-heater

**ELECTRICAL  
HEATING**

### EDH



**Electrical oil pre-heater**

5 sizes 0 - 100 kW / no calculation software necessary. All relevant data on data sheet available.

Optional:

- indiv. electrical control solutions
- Insulation (different material)
- Surface load: 1W/cm<sup>2</sup>
- Water and water mixtures

## Special designs

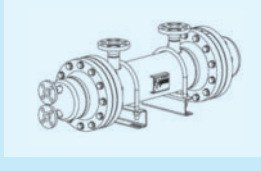
### eg. HIGH-PRESSURE



We develop many different special solutions for special markets by customer requests:

- High pressure cooler (up to 500 bar)
- Gas - cooler/ heater
- Compressed-Air cooler
- Gear box oil cooler - in-tank
- Air Pre-heater
- Slurry (mud water) oil-cooler

### ASME-CODE



**ASME-code**

Basis: Standard or hybrid-designed cooler produced according to ASME code.

- TEMA-C design available
- Various sizes
- Different options by request



## Plate cooler

### PWT



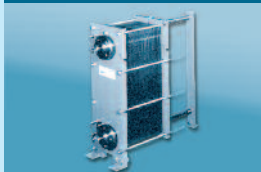
**Brazed plates** in stainless steel, copper or nickel brazed

variable in sizes and amount of plates

Optional:

- Different connections
- Different brackets
- Insulations (e.g. PU hard foam)

### TL



**Screwed-Plates** in stainless steel

variable in sizes and amount of plates easy cleaning by modular systems

Optional:

- Sea water (titan)

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