**Heat Exchanger**

### Hybrid-Design (with fins)

**EKM/SKM, SCM**
- Straight or bent water tubes (U-tubes), fixed or removable, On-Tank or In-Tank version available.
- 8 different sizes with 2,68 – 6705 hp
- 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 designs upon request

**UKM - UKTM**
- Screwed-Plates in stainless steel, copper or nickel brazed
- Easy cleaning by modular systems

### Standard Shell & Tube Design (without fins)

**CKM**
- Straight- or U-tubes
- 8 sizes: 2,68 – 2011 hp 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 m²

Optional:
- Stainless steel version
- Seawater version

### Fail safe cooler

**CKM-FS**
- Fail safe cooler
- Double-tube design with 100% electronical leakage control
- 6 sizes: Basis CKM-series

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

**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.

### Electrical oil pre-heater

**EDH**
- Electrical oil pre-heater
- 5 sizes 0 – 134 hp / no calculation software necessary. All relevant data on data sheet available.

Optional:
- Indiv. electronical control solutions
- Insulation (different material)
- Surface load: 1W/cm²
- Water and water mixtures

### Special designs

**COOLER-HEATER UNIT**
- Combination of a hybrid – failsafe cooler with a electrical oil pre-heater in only one unit!

Other special designs:
- High pressure (7251 psi)
- High temperature
- Compressed-air cooling
- Etc.

**ASME-CODE**
- ASME certification
- Basis standard or hybrid coolers
- Code: Section VIII, Division 1 with U-stamp

Optional:
- TEMA-C design
- API-614

### 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)