Industrial Cooling Systems
Dedicated Products and Solutions
Efficient cooling for industrial applications

Adding service life – subtracting cost

**Overheating – an expensive problem**

An under-sized cooling capacity produces a too high temperature balance. The consequences are poor lubrication, internal leakage, higher risk of cavitation, damaged components, etc. All in all, overheating leads to a significant drop in cost efficiency and environmental consideration.

**Temperature optimisation for cost-efficient operation**

Temperature balance in a hydraulic system occurs when

\[
P_{\text{loss}} = P_{\text{cool}} = P_{\text{in}} - P_{\text{used}}
\]

Temperature optimisation means that temperature balance occurs at the system’s ideal working temperature - the temperature at which the oil’s viscosity and the air content comply with recommended values.

From Parker Hannifin, you can get everything you need to keep cool.

**Benefits of a correct working temperature:**

- Extended system service life
- Extended oil service life
- Increased system availability – more operating time and fewer shutdowns
- Reduced service and repair costs
- Maintained efficiency in continuous operation – system efficiency falls if the ideal working temperature is exceeded

**LAC – AC motor**

- Cooling capacity up to 300 kW
- Single-phase or three-phase AC motor
- Compact and light weight
- Quiet fan and motor
- Low pressure drop
- High cooling capacity
- Service-friendly, easy to retrofit
- LAC-X for ATEX requirements
- LAC-M for marine environments

For Power Units • Lubrication Systems • Marine Cranes • Presses • Wind Power

**SUITABLE PUMPS**

- **QPM Gerotor**
  - Flow from 10 to 80 l/min
  - With or without by-pass
  - Compact design
  - Low noise level
  - Working pressure 10 bar

- **GR Screw pump**
  - Viscosity range 4–2000 mm²/s
  - Free from pulsations
  - Can be installed directly on the electrical motor
  - Easy installation
  - Low noise level
  - Working pressure 40 or 80 bar
  - Large range of models

**Take the next step – with the right accessories**

Selecting the right accessories can further improve your cooling system. We offer a wide range to fit your unique applications and conditions – contact us for guidance!
### LHC – hydraulic motor
- Cooling capacity up to 300 kW
- Hydraulic motor up to 25.2 cm³/rev
- Compact and light weight
- Quiet fan and motor
- Low pressure drop
- High cooling capacity
- Service-friendly and easy to retrofit
- LHC-X for ATEX requirements
- LHC-M for marine environments

For Forestry Machines • Mining Machines • Crushing Machines • Marine Cranes

### LOC – circulation pump
- Cooling capacity up to 45 kW
- Integrated circulation pump
- Compact and light weight
- Quiet fan and motor
- Low pressure drop
- High cooling capacity
- Service-friendly, easy to retrofit

For Power Units • Lubrication Systems • Marine Winches • Presses • Wind Power

### LDC – DC motor
- 12V or 24V DC motor
- Maximal cooling capacity 30 kW
- Can be fitted with Smart DC Drive
- Compact and light weight
- Quiet fan and motor
- Low pressure drop
- High cooling capacity
- Service-friendly, easy to retrofit

For Truck cranes • Body builders • Mining Applications

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### PW0 – Brazed
- Working pressure 15 bar @ +155 °C
- Maximum working temperature +225 °C
- Cooling capacity up to 500 kW
- Flow range up to 1600 l/min
- Light and compact
- Easy to install
- Cost efficient and environmentally friendly
- Wide range for many applications

For Power Units • Lubrication Systems • Marine Cranes • Presses • Wind Power

### GWO – Gasketed
- Working pressure from 0-25 bar
- Working temperature from -30 °C to +180 °C
- Flow ranges from 0 to 4600 m³/h
- Efficient and compact
- Openable for mechanical cleaning
- Expandable for future capacity increases
- The gaskets limits the working temperature and does not suit all fluids

For Power Units • Lubrication Systems • Marine Cranes • Presses • Wind Power

### SWO – Shell & Tube
- Working pressure standard 15 bar
- Working temperature up to +95 °C
- Flow range up to 900 l/min
- Cleaning without opening the hydraulic circuit
- Wide range
- Marine & Industrial series available
- The gaskets limits the working temperature and does not suit all fluids

For Power Units • Lubrication Systems • Marine Cranes • Presses • Wind Power

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### WATER/OIL COOLERS
- Thermo contact
- Screw pump
- Viscosity range 4–2000 mm²/s
- Free from pulsations
- Can be installed directly on the electrical motor
- Easy installation
- Low noise level
- Working pressure 40 or 80 bar
- Large range of models

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### Temperature-regulating valve
- Thermo contact
- Lifting eyes
- Stone and dust guard

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### Cooling capacity
- Lifetime

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### Parker
