

# Application Tip

## Lubricating Oil Coolers for Coal Fired Power Plants

Lubricating oil heat exchangers, or “lube oil coolers” as commonly referred to in the industry, are vital to maintaining the required oil temperature used in major pieces of equipment found in every coal fired power plant across the USA.

Common oil coolers include:

- Steam Turbine Oil Coolers
- Air Compressor Oil Coolers
- Bearing Oil Coolers of Blowers & Fans
- Emergency Power Unit Oil Coolers



Emergency Power Lube Oil Cooler



Duplexed Shell & Tube Lube Oil Coolers  
with Transfer Valve

Standard Xchange offers a wide portfolio of products, including Gasketed Plate & Frame, Brazed Plate, Pre-Engineered Shell & Tube, Engineered Shell & Tube and Air Cooled heat exchangers, that can be selected to fit the customer’s needs for each one of the lube oil cooling applications above.



Duplex Plate & Frame Lube Oil Coolers before piping

Lubricating oil cooling applications typically involve cooling an ISO VG 32 or 46 oil to a set maximum outlet temperature, often in the range of 120 to 140 degrees F. The inlet temperature is typically not specified, but is determined by the maximum heat load that is specified by the customer, which relates to the amount of heat that is absorbed by the oil in the lubricating oil system of the operating equipment (ie: engine, turbine, etc.).

The lubricating oil is normally cooled with cooling water or an ethylene or propylene glycol & water solution, but can sometimes be brackish or sea water. These applications can be handled by Gasketed Plate & Frame, Brazed Plate, Pre-Engineered Shell & Tube, Engineered Shell & Tube and Air Cooled heat exchanger designs, and the materials of construction typically depend on the type of coolant that is being used. For example, carbon steel or copper may be used when good quality water is available, or a Plate & Frame unit with Titanium thermal plates would normally be used if the coolant is sea water.



Air Cooled Lube Oil Cooler

Contact the Power Applications group if you require selection and quotation of a lubricating oil heat exchanger that is outside our ESP Thermal capabilities.

Xylem Inc.  
175 Standard Parkway  
Cheektowaga, NY 14228  
800 – 281 - 4111

Standard **X**change  
a xylem brand