

## The complete solution for **Cooling Hydraulic Systems**

Cooling hydraulic systems is vital for the safe, efficient and reliable operation of plant, equipment and machinery. Inadequate cooling within the system is one of the most frequent causes of equipment failure, yet by introducing a high efficiency Bowman heat exchanger into the circuit, system cooling can be easily maintained, ensuring performance and reliability, whilst eliminating the potential for component damage or failure through overheating.

As one of the world's leading manufacturers of heat exchangers and oil coolers, E J Bowman has extensive experience of providing total cooling solutions for a wide range of hydraulic equipment.

Our shell and tube heat exchangers are proven throughout the world, in some of the toughest, most demanding installations imaginable. These include marine and offshore industries, underground and open cast mining, power packs, off highway construction equipment, cranes and lifting systems, plus thrusters and stabilisers for marine propulsion systems.

All Bowman oil coolers are produced to ISO 9001:2008 quality standards in our dedicated UK manufacturing centre and are fully supported with technical advice, a comprehensive replacement parts service plus a network of stockists worldwide.

Bowman has been synonymous with hydraulic cooling for over 90 years. Here are some of the features that have made them the preferred brand around the world:

### Fully floating tube stack

Bowman shell and tube oil coolers feature a precision engineered, fully floating tubestack, which minimises thermal stresses, provides efficient thermal transfer and low pressure drop.

### Long operational life

Bowman oil coolers are renowned for their high quality and operational durability, even in the harshest operating environments.

### SAE flanges

SAE hydraulic oil flange connections are available on larger models.

### Simple to maintain

The tubestack and end covers are easily removable making cleaning and routine maintenance procedures simple and straightforward.

### Rapid delivery

Most models are available ex-stock for rapid delivery worldwide.



# Bowman Hydraulic Oil Coolers – efficient, reliable hydraulic cooling for the most demanding applications.



## Marine & Offshore Industries

Bowman hydraulic oil coolers are established as a 'leading brand' for marine and offshore hydraulic systems. Bowman units can be found cooling hydraulic equipment, in some of the most challenging marine applications, including:

- Hydraulic Winches • Cranes • Power Packs • Deck Equipment
- Power Steering • Stabiliser Control Systems • Thruster Control Systems
- Engine Cooling • Emergency Fire Pump Systems • Generators

## Industrial machines & equipment

Wherever land based hydraulic systems need to be cooled, you'll find Bowman oil coolers at the heart of the control system, protecting equipment from failure through excess heat loads. Typical Bowman applications include:

- Gear Boxes • Mining Machinery • Cranes & Lifting Equipment
- Hydraulic Presses • Active Fire Protection Systems • Irrigation Pumps
- Plastic Injection Moulding Machinery • Processing Machinery

## Creating the right cooling solution for your requirements.

Bowman hydraulic oil coolers are used in a diverse cross section of industries, many of which require a particular specification in order to operate successfully. For this reason, a number of our hydraulic oil coolers can be supplied with alternative specifications to suit the application, including;

### Fire resistant fluids

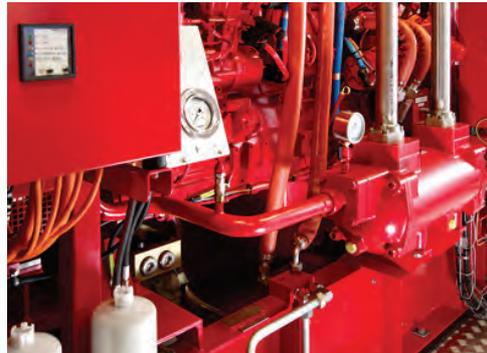
For applications where the oil cooler will be used with fire resistant fluids, the standard nitrile seals can be changed for either Ethylene Propylene or Viton.

### Marine applications

Where sea water or mineral rich fresh water is used as the cooling medium, the standard cast iron end covers can be replaced with either 'C' Coat 300, composite or DZR brass alternatives for increased durability.

### High temperature oil – up to 150°C

For applications where hydraulic oil is required to run at higher temperatures, Bowman offer a range of oil coolers suitable for temperatures up to 150°C.



### Extreme oil temperature – up to 200°C

In operational conditions where extreme oil temperatures are encountered, Bowman also offer a number of oil coolers designed specifically for these higher temperatures. These units feature a cast iron shell, Viton seals and a specially constructed tube stack.

### Mining applications

For mining applications and water pressures up to 35 bar, Bowman can provide a range of oil coolers with a cast iron shell, Viton seals plus a special tube stack with cupro-nickel tube.



Technical product literature is available on request for all Bowman Heat Exchangers and Oil Coolers, or alternatively they can be downloaded by visiting [www.ejbowman.co.uk](http://www.ejbowman.co.uk)

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A World Leader in Heat Exchanger Technology