

FH □

HOW □



HOWF Series

Specific Product Precautions

Be sure to read this before handling the products.
Refer to back page 50 for Safety Instructions.

Design

Caution

1. Do not use at a pressure that exceeds the operating pressure range.
2. Do not use at a temperature that exceeds the operating temperature range.
3. **Fluid**
Do not use the product with gases.
4. **Fatigue damage**
Under the following conditions, special measures are required:
 - 1) If the product will be subjected to pressure surges.
 - 2) If the product is not mounted securely and will be subject to friction or vibrations.
5. **Corrosion**
The product may corrode depending on usage conditions and environment.

Selection

Warning

1. When selecting products, carefully consider the usage purpose, the required specifications, and the usage conditions (fluid, pressure, flow rate, temperature, environment), and ensure that the specification range is not exceeded.
2. The fluid used must not be heated to the boiling point.
3. Do not use the product with air or other gases under any circumstances.
4. Do not use the product in circumstances where it will be exposed to pressure that exceeds 1 MPa, such as with a water hammer or surge pressure.

Fluid

Warning

1. Use tap water or industrial water as cooling water.
Do not use seawater.
2. Do not use for cooling chemicals or food products.

Piping

Caution

1. Make sure to allow sufficient space for maintenance when installing and piping.
2. **Connections**
Make sure no cutting chips from pipe threads or sealing material gets inside the piping. If sealant tape is used, leave 1.5 to 2 thread ridges exposed at the end of the male thread.
3. **Filter installation**
Install #100 μm filters into the inlet pipes of the oil cooler on both the oil and cooling water sides.
4. **The cooling water inlet and outlet can be reversed. However, the oil inlet and outlet cannot be reversed, and the cooling water and oil flow paths cannot be switched.**

Operating Environment

Caution

1. If the product is used in an environment or location conducive to corrosion, discoloration or deterioration due to corrosion may occur.
2. Fatigue damage may occur if the product is used in a location subject to vibrations or impacts.

Maintenance

Caution

1. Wash out the cooling water side once a year.