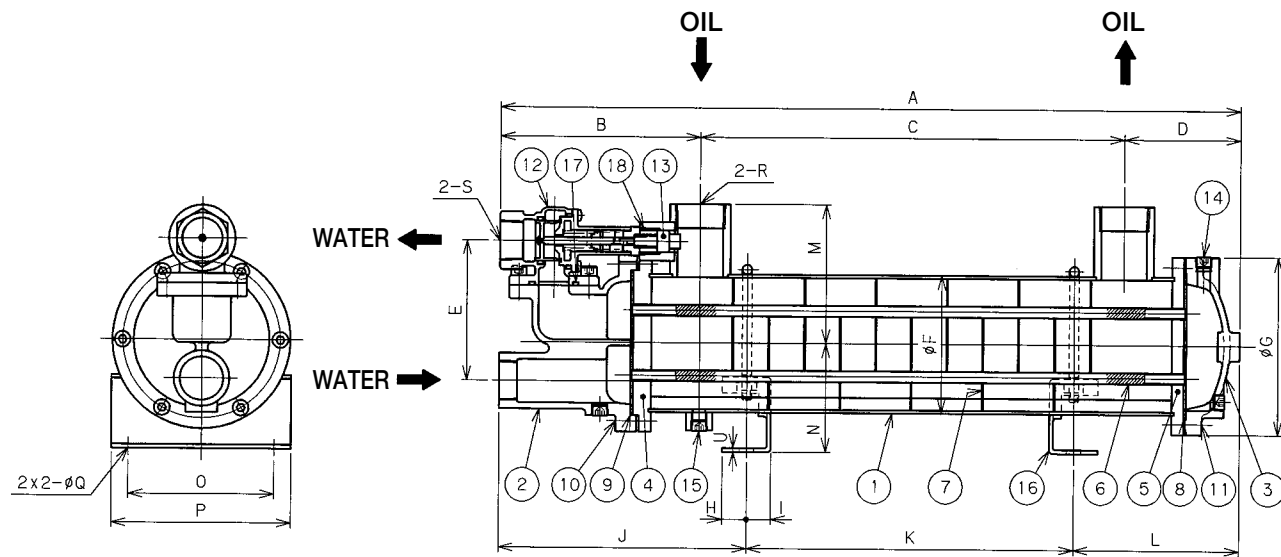
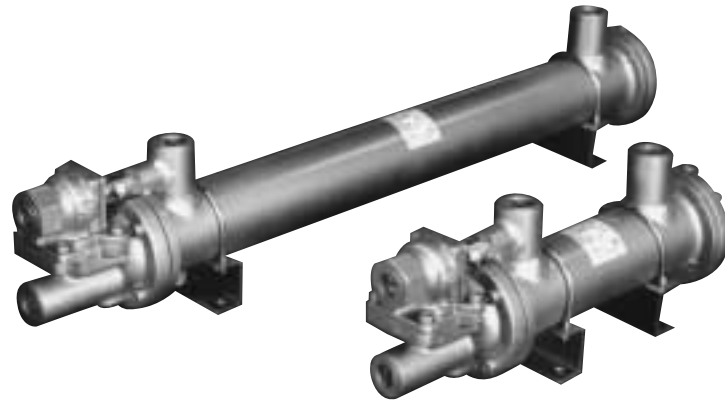
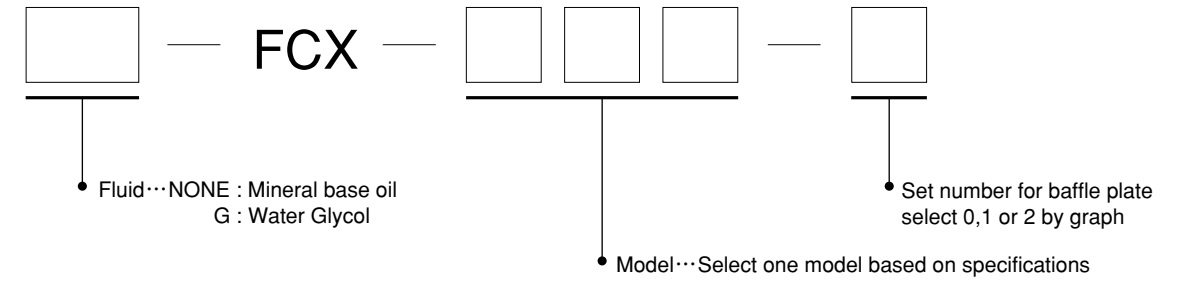


Construction & Dimensions



| Code | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | U | Cooling surface m ² | Weight kg |
|---------|------|-----|-----|----|-----|--------|------|----|----|-----|-----|-----|-----|----|-----|-----|-----|---------|-------|-----|--------------------------------|-----------|
| FCX-108 | 422 | | 180 | | | | | | | | 70 | | | | | | | | | | 0.4 | 9 |
| FCX-114 | 602 | 160 | 360 | 82 | 83 | φ76.3 | φ110 | 15 | 15 | 215 | 250 | 137 | 90 | 70 | 80 | 102 | φ10 | Rc1 | Rc3/4 | 2.3 | 0.7 | 10.5 |
| FCX-122 | 832 | | 590 | | | | | | | | 480 | | | | | | | | | | 1.1 | 13 |
| FCX-226 | 501 | | 240 | | | | | | | | 160 | | | | | | | | | | 1.3 | 17 |
| FCX-234 | 611 | | 350 | | | | | | | | 270 | | | | | | | | | | 1.7 | 19 |
| FCX-242 | 691 | 165 | 430 | 96 | 116 | φ114.3 | φ147 | 20 | 20 | 204 | 350 | 137 | 115 | 90 | 120 | 148 | φ12 | Rc1 1/4 | Rc1 | 3.2 | 2.1 | 20.5 |
| FCX-256 | 841 | | 580 | | | | | | | | 500 | | | | | | | | | | 2.8 | 25 |
| FCX-270 | 1011 | | 750 | | | | | | | | 670 | | | | | | | | | | 3.5 | 28 |

Model Number



Specifications

| | | |
|-------------------------|--|--|
| Type | Fixed tube plate Shell & tube | |
| Max. operating pressure | Shell side 1.0MPa / Tube side 0.5MPa | |
| Fluid | Shell side : Mineral based oil, Water Glycol etc. Tube side : Fresh water, Industrial water. (except sea water) | |
| Tube material | 9mm dia. Low fin tube | |
| Cooling area | 0.4~3.5m ² | |
| Oil control temp. | Adjustable between 35°C~55°C | |
| Features | Size | Unique low fin tube allows 20% size and weight reduction |
| | Leg | U bolt type legs allow free installation |
| | Corrosion Proof | Inside of chamber cover is coated with a tar-epoxy paint to prevent corrosion. |

Component Parts

| No. | Parts name | No. | Parts name |
|-----|-----------------|-----|---------------|
| 1 | Shell | 10 | Bolt/Nut |
| 2 | Chamber cover A | 11 | Bolt/Nut |
| 3 | Chamber cover B | 12 | Thermo valve |
| 4 | Tube plate A | 13 | Thermo sensor |
| 5 | Tube plate B | 14 | Vent plug |
| 6 | Fin tube | 15 | Drain plug |
| 7 | Baffle plate | 16 | Leg |
| 8 | Packing | 17 | O ring |
| 9 | Packing | 18 | O ring |

Spare Parts

Remarks : Please note part numbers and quantity, when placing orders.

| Model | No. | Parts name | Q'ty | Size | Material |
|---------|-----|--------------------------|------|--------------|---------------|
| FCX-1□□ | 8 | Packing | 1 | t2×φ83/φ72 | None asbestos |
| | 9 | Packing (with partition) | 1 | t2×φ83/φ72 | None asbestos |
| | 17 | O ring | 1 | P-34 | NBR |
| | 18 | O ring | 1 | P-18 | NBR |
| FCX-2□□ | 8 | Packing | 1 | t2×φ120/φ109 | None asbestos |
| | 9 | Packing (with partition) | 1 | t2×φ120/φ109 | None asbestos |
| | 17 | O ring | 1 | P-34 | NBR |
| | 18 | O ring | 1 | P-18 | NBR |

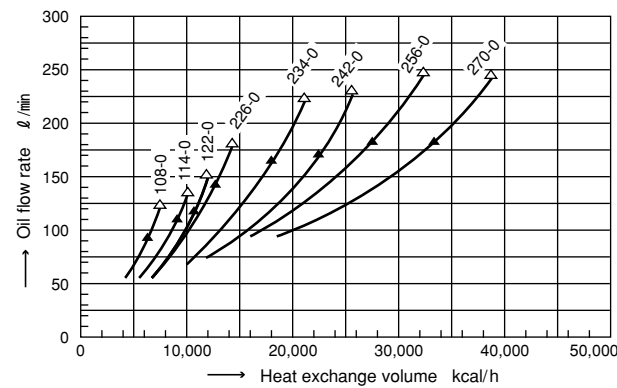
▶ Cooler selection graph

Condition

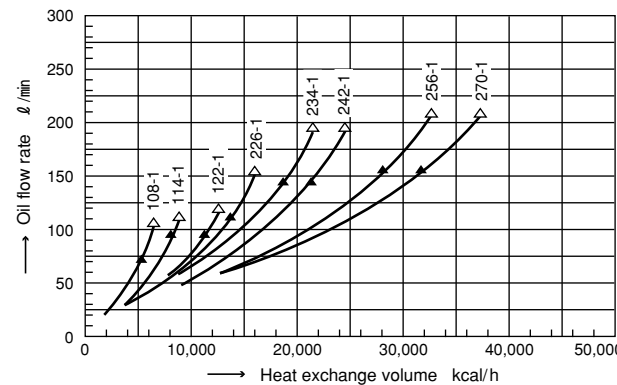
- Fluid : ISO-VG46 or equivalent
- Oil inlet temp. : 55°C
- Water inlet temp. : 30°C
- Water flow rate : 1/2 of oil flow (reference table to right)
- Oil side pressure drop : ▲···0.1MPa
- Water side pressure drop : △···0.15MPa
- drop : 0.01~0.03MPa

| Model | Water flow | Minimum | Maximum |
|-------------|------------|----------|----------|
| FCX-108~122 | | 10 l/min | 35 l/min |
| FCX-226~270 | | 20 l/min | 80 l/min |

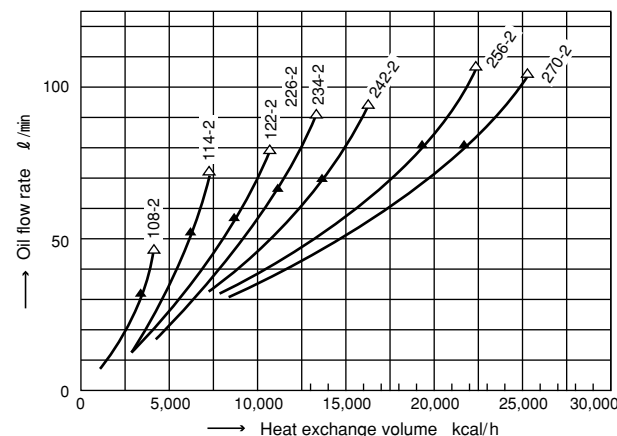
FCX-108~270-0 type



FCX-108~270-1 type



FCX-108~270-2 type

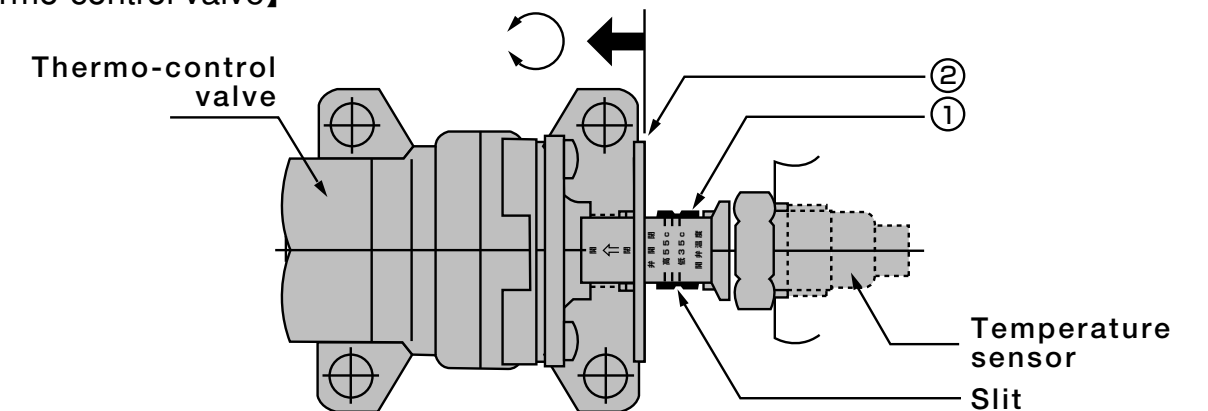


▶ Supplementary Items

【Cooler Selection】

- This model is a fixed tube plate cooler, so that tube bundle can not be removed.
- Select model number with oil flow and heat exchange volume shown in the graph.
If specification is not within the range of graph, consult Taisei for further assistance.
- Consult Taisei if your specification is among these listed conditions:
 - (1) Very high viscosity - for low fin tube, use viscosity below 150 cSt.
 - (2) Cutting fluid, has a tendency to cause rusting.
 - (3) Low quality of water.
 - (4) Fluid is not oil.

【thermo-control valve】



- Adjustable temperature setting
Set the desired temperature by turning the temperature adjustment ring ① (the factory setting is 35°C).
- If the control valve does not operate
If the control valve does not operate or requires a setting below 35°C, pull the emergency lever toward the valve, rotate a couple of times and leave it. The valve will open to allow water flow.
- Water leakage
The standard leakage of the valve seat is less than 30 cc/min with a water supply pressure of 0.15MPa. Please note that this thermo-control valve is not a check valve. Use shut-off valve when the cooler is not in use.

【Maintenance】

- In winter conditions, drain the cooling water during shutdown periods to avoid freeze fractures.
- Prevent foreign material from entering into the cooling water.
- Clean the cooler every 6 months or at least once a year.
- Thermo-control valve is not a shut-off valve. Small leakage will occur through the valve.
Shut off main water supply line when the machine is not in use.