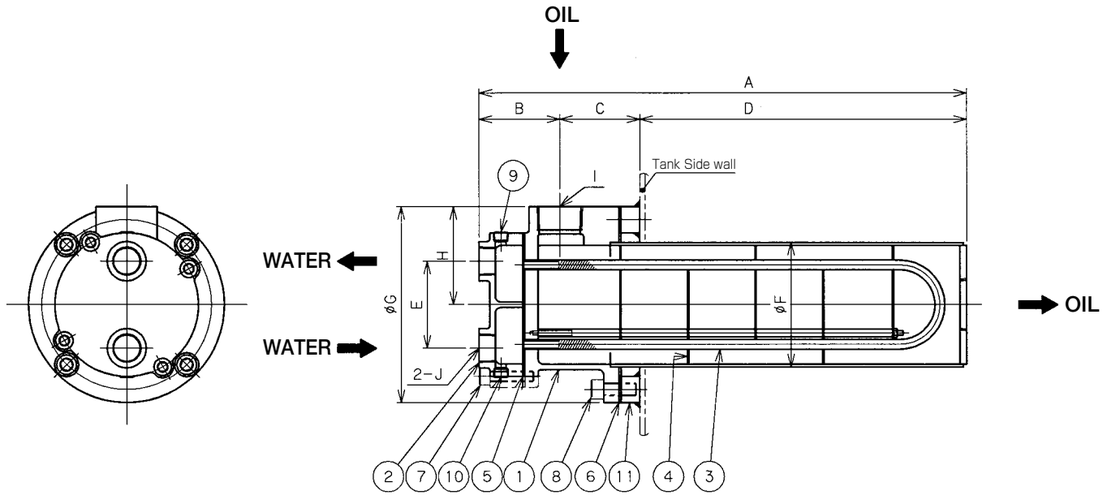
FCU

Direct tank mount U shape tube cooler

Construction & Dimensions



Model \ Code	A	B	C	D	E	F	G	H	I	J	Cooling surface ㎡	Weight kg
FCU-108	377	60	52	265	60	φ90	φ144	72	Rc3/4	Rc1/2	0.4	9
FCU-144	577			465							0.7	10
FCU-122	777			665							1.1	12
FCU-226	547	74	73	400	80	φ114.3	φ180	90	Rc11/4	Rc3/4	1.3	18
FCU-234	687			540							1.7	20
FCU-242	827			680							2.1	23
FCU-256	1057			910							2.8	27

Model Number

□ — FCU — □□□ — □

- Fluid…NON : Mineral based oil
  G : Water Glycol
- Model…Select one model based on specifications
- Set number for baffle plate
  Select 0,1 or 2 by graph.

Specifications

Type		Direct tank mount U shape tube cooler
Max. operating pressure		Shell side : 1.0 MPa
Fluid		Shell side : Mineral base oil, Water Glycol etc. Tube : Fresh water（except sea water）
Tube material		9mm dia.　Low fin tube（C1220T）
Cooling area		0.4～2.8㎡
Features	Size	Unique low fin tube allows 20% size and weight reduction.
	Space	Direct tank mount means less space and piping.
	Corrosion Proof	Inside of water chamber cover is coated with a tar-epoxy paint to prevent corrosion.

Component Parts

No.	Parts name
1	Shell
2	Chamber cover A
3	Fin tube
4	Baffle plate
5	Packing
6	Packing
7	Bolt/Nut
8	Bolt/Nut
9	Vent plug
10	Drain plug
11	Flange

Spare Parts

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

Model	No.	Parts name	Q'ty	Size	Material
FCU-1□□	5	Packing (with partition)	1	t2×φ104／φ85	None asbestos
	6	Packing	1	t2×φ144／φ104	None asbestos
FCU-2□□	5	Packing (with partition)	1	t2×φ132／φ109	None asbestos
	6	Packing	1	t2×φ180／φ132	None asbestos

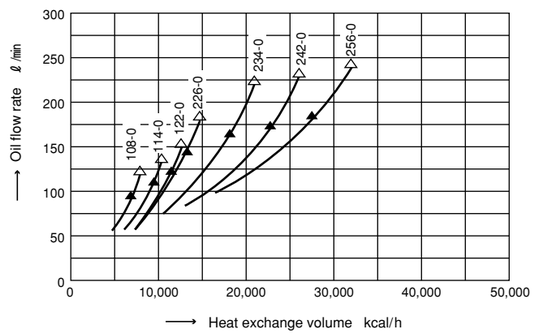
▶ Cooler selection graph

Condition

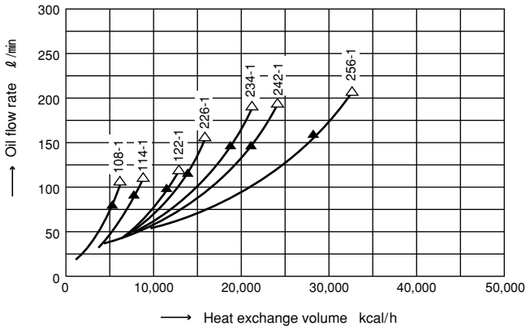
Fluid	: ISO-VG46 or equivalent
Oil inlet temp.	: 55℃
Water inlet temp.	: 30℃
Water flow rate	: 1/2 of oil flow（reference table to right）
Oil side pressure drop	: ▲…0.1MPa △…0.15MPa
Water side pressure drop	: 0.01～0.03MPa

Model \ Water flow	Minimum	Maximum
FCU108～122	10 ℓ /min	30 ℓ /min
FCU226～256	15 ℓ /min	55 ℓ /min

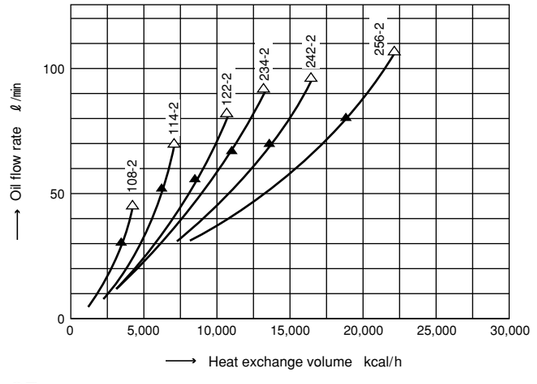
FCU-108～256-0 type



FCU-108～256-1 type



FCU-108～256-2 type



Shell and Tube-type Coolers

To safely use cooler, read cautionary notice and disclaimers.
Before handling this item, read the instruction manual carefully and handle cooler with care.

1. Warning

⚠ **Caution Do not use any other fluids except mineral-based fluids or specified fluids.**

⚠ **Caution Do not exceed the maximum operating pressure of the cooler.**

2. Out of Warranty

When coolers are used for applications other than those specified in this brochure, the warranty is not applicable, even if the product is in the warranty period.

（1）Purpose

Do not use coolers for unintended purposes
Examples of unacceptable applications
a) Heater
b) Beside oil(air, gases and water in shell side)

（2）Fluids in use

Do not use any other fluids except mineral-based fluids or specified fluids.

（3）Maximum operating pressure and temperature

Maximum operating pressure—1.0MPa(10kgf/cm^2)
Maximum operating temperature—80℃

（4）Cooling water

Use fresh water, deep-well water and industrial water to obtain water quality within recommended water quality shown on front page.

3. Maintenance

(1) In cases of long cooler shutdown periods, drain water from the cooler to avoid corrosion.
(2) In winter conditions, drain the cooling water during shutdown periods to avoid freeze fractures.
(3) Prevent foreign material from entering into the cooling water.
(4) Clean the cooler every 6 months or at least once a year.
Change gasket and packing when disassembling the cooler.