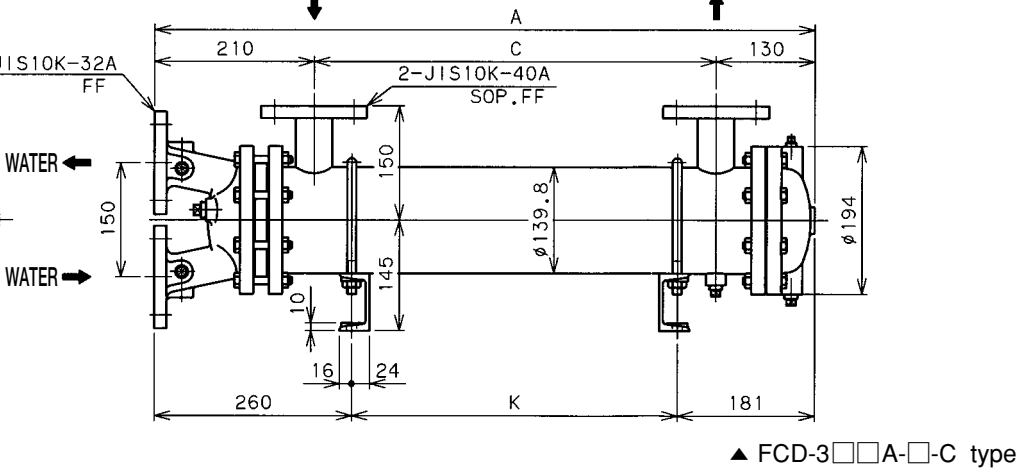
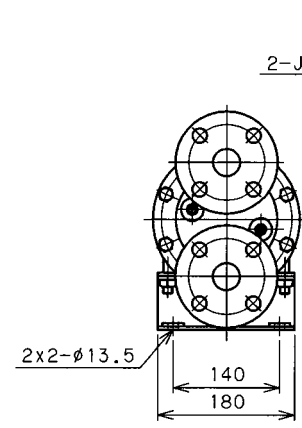
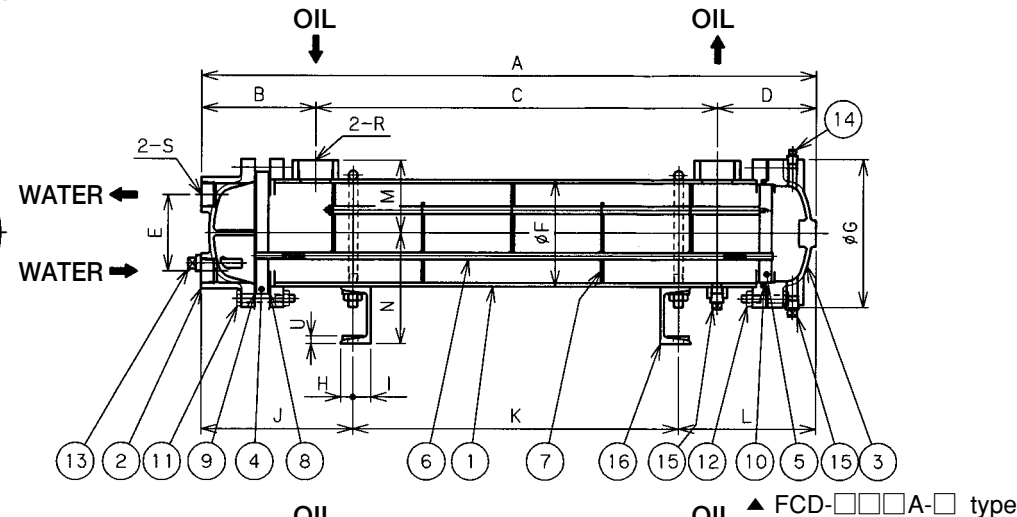
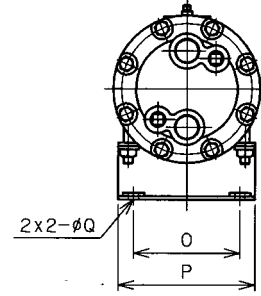
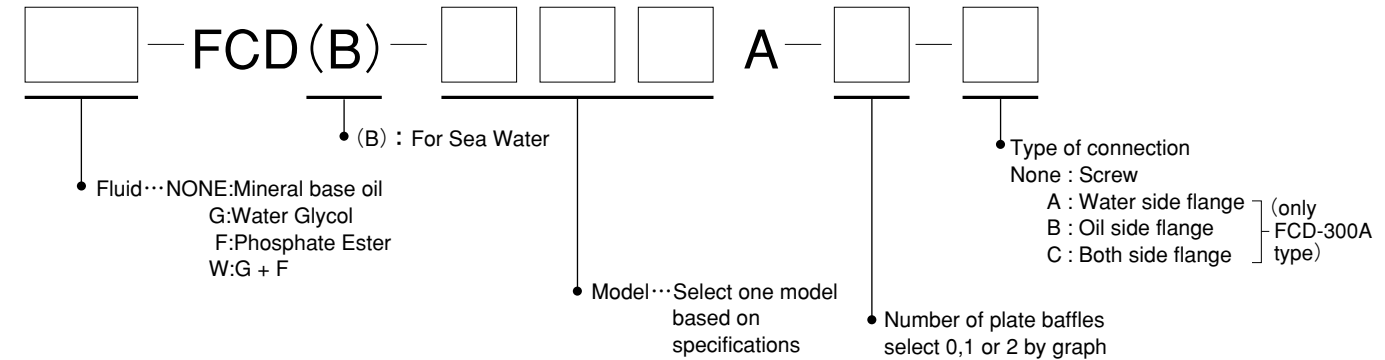


Construction & Dimensions



Code	Model																			Cooling surface	Weight	
Model	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	U	m ²	kg
FCD-108A	345		148								75							Rc1	Rc3/4	2.3	0.4	7.5
FCD-114A	525	104	328	93	52	φ76.3	φ110	15	15	140	255	130	60	70	80	102	φ10	Rc1	Rc3/4	2.3	0.7	10
FCD-122A	755		558								485										1.1	13
FCD-226A	435		208								120										1.3	15
FCD-234A	545		318								230										1.7	19
FCD-242A	625	120	398	107	76	φ114.3	φ147	20	20	165	310	150	85	90	120	148	φ12	Rc11/4	Rc1	3.2	2.1	22
FCD-256A	775		548								460										2.8	25
FCD-270A	945		718								630										3.5	31
FCD-350A	581		301								200										2.5	40
FCD-370A	811		531								430										3.5	55
FCD-390A	981	150	701	130	100	φ139.8	φ194	16	24	200	600	181	95	145	140	180	φ13.5	Rc11/2	Rc1	10	4.5	68
FCD-311A	1101		821								720										5.5	85

Model Number



Specifications

Type	Shell & tube, Floating tube plate
Max.operating Pressure	Shell Side : 1.0MPa / Tube Side : 1.0 MPa
Fluids	Shell side : Mineral based oil, Water Glycol and Phosphate Ester etc. Tube side : Fresh water / sea water
Tube material	9mm dia. Low Fin Tube
Cooling area	0.4~5.5m ²
Features	Space: Unique low fin tubes allows 20% size and weight reduction.
	Leg: U bolt type legs allow free installation
	Corrosion Proof: Inside of water chamber covers are coated with a tar-epoxy paint to prevent corrosion

Component Parts

No.	Parts name	No.	Parts name
1	Shell	9	Packing
2	Chamber cover A	10	Packing
3	Chamber cover B	11	Bolt/Nut
4	Tube plate A	12	Bolt/Nut
5	Tube plate B	13	Zinc plug
6	Fin tube	14	Vent plug
7	Baffle plate	15	Drain plug
8	Packing	16	Leg

Spare Parts

Remarks: Please note part numbers and quantity, when placing orders. Material of part depends upon the type of fluid.

Model	No.	Parts name	Q'ty	Size	Material
FCD-1□□	8	Packing	1	t2 × φ 83 / φ 72	None asbestos
	9	Packing (with partition)	1	t2 × φ 83 / φ 72	None asbestos
	10	Packing	1	t3 × φ 79.2 / φ 71	NBR, (FKM*)
	13	Zinc plug	2	R3/8	Zn, FcMB
FCD-2□□	8	Packing	1	t2 × φ 120 / φ 109	None asbestos
	9	Packing (with partition)	1	t2 × φ 120 / φ 109	None asbestos
	10	Packing	1	t3 × φ 115.2 / φ 107	NBR, (FKM*)
	13	Zinc plug	2	R3/8	Zn, FcMB
FCD-3□□	8	Packing	1	t2 × φ 160 / φ 134	None asbestos
	9	Packing (with partition)	1	t2 × φ 160 / φ 134	None asbestos
	10	Packing	1	t4.5 × φ 140.2 / φ 128	NBR, (FKM*)
	13	Zinc plug	2	R1/2	Zn, FcMB

* FKM Packings are used for fluid "F" and "W" type.

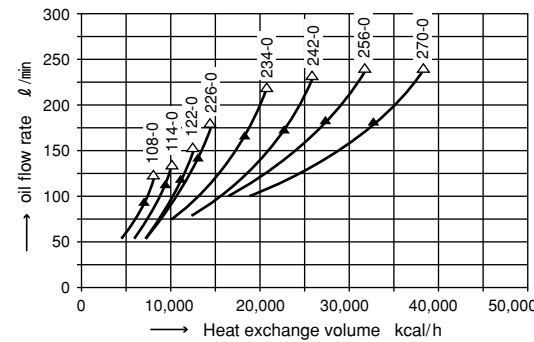
► Cooler selection graph

Condition

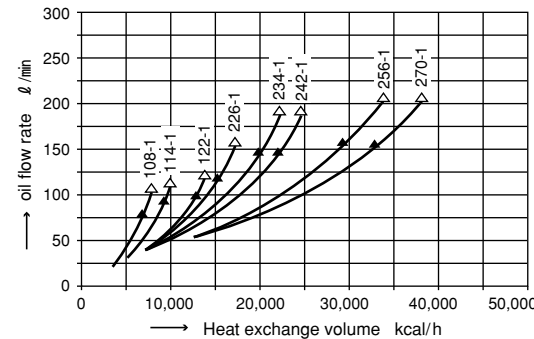
Fluid : ISO-VG46 or equivalent
 Oil inlet temp : 55°C
 Water inlet temp. : 30°C
 Water flow rate : 1/2 of oil flow (reference table to right)
 Oil side pressure drop : ▲···0.1MPa △···0.15MPa
 Water side pressure drop : 0.01~0.03MPa

Model	Water flow	Minimum	Maximum
FCD-108A~122A	10 ℓ/min	10 ℓ/min	35 ℓ/min
FCD-226A~270A	20 ℓ/min	20 ℓ/min	80 ℓ/min
FCD-350A~311A	30 ℓ/min	30 ℓ/min	110 ℓ/min

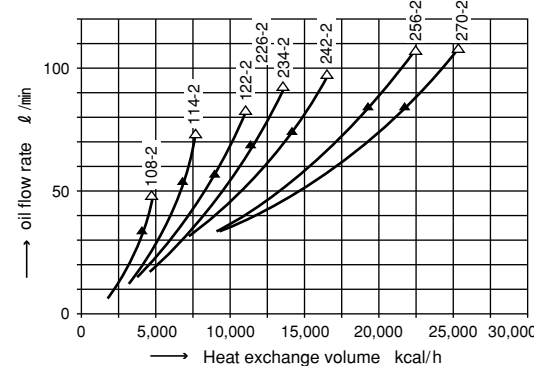
FCD-108A~270A-0 type



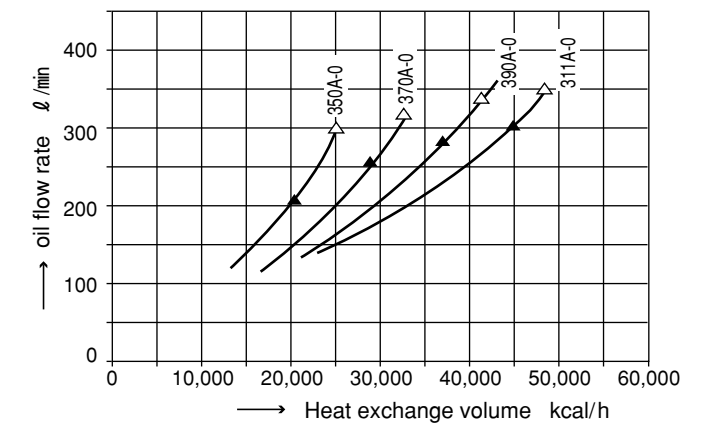
FCD-108A~270A-1 type



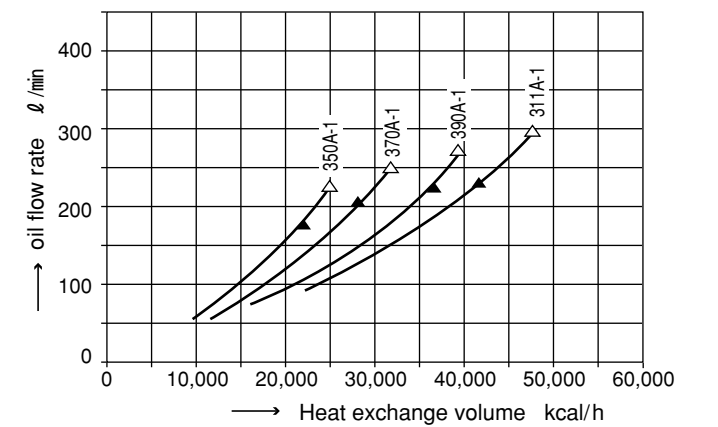
FCD-108A~270A-2 type



FCD-350A~311A-0 type



FCD-350A~311A-1 type



FCD-350A~311A-2 type

