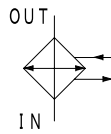
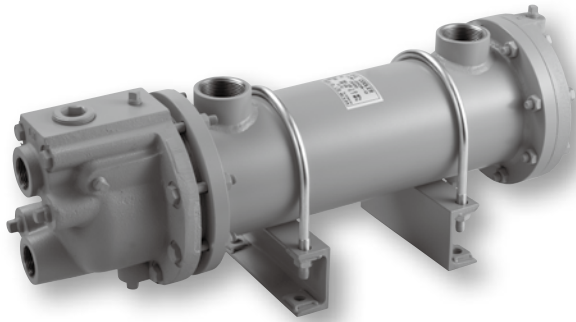


Floating Tube Sheet type Oil Cooler with built-in Thermostat



Water-cooled type cooler

Characteristics

- Built-in thermostat automatically controls cooling water quantity and keeps temperature setting
- $\phi 9$ Low Fin Tube enables high cooling performance and compact design
- High flexibility of installation by adjustable U-bolt stand
- Cleaning and replacement of tube bundle are available with floating tube sheet type

SPECIFICATION

	Shell side		Tube side
Max working pressure MPa	1.0		0.7
Max working temperature °C	80		80
Pass structure	1 pass		2 passes
Fluid type	Standard	Mineral oil	Fresh water
	G	Water glycol fluid	
		Fatty ester fluid	
	F	Phosphate ester fluid	
	W	G+F	

Shell size code		3□□
Cooling tube type		$\phi 9$ Low Fin Tube ☆
Main material	Cooling tube	Phosphorous-deoxidized copper
	Tube plate	SS
	Body	SGP、SS
	Channel	FC
Coating	Outside coating	Aqua blue
	Inside of channel	Tar-free epoxy coating

☆ TAISEI original high performance cooling tube enables 20% size reduction compared with general $\phi 12.7$ low fin tube.

MODEL CODE

<Model code example>

F — **FCW** — **350A** — **2** — **40**

Code	Fluid type (Shell side)
Blank	Mineral oil
G	Water-glycol fluid
	Fatty ester fluid
F	Phosphate ester fluid
W	G+F

Code	Heat transfer area	Shell size
350A	2.5㎡	$\phi 139.8$ (125A)
370A	3.5㎡	
390A	4.5㎡	
311A	5.5㎡	

Code	Flow rate*1
0	Large
1	Medium
2	Small

Code	Temperature of opening valve (inlet temperature)	
Blank	51 ± 3 °C	Standard
40	40 ± 3 °C	Special specification☆
45	45 ± 3 °C	

☆ Since standard spec, price, and delivery are different for 40 and 45°C, please ask us.

* 1 "Flow rate" is for optimization of flow velocity by adjusting the number of baffle plate depend on flow amount variation.

PERFORMANCE GRAPH

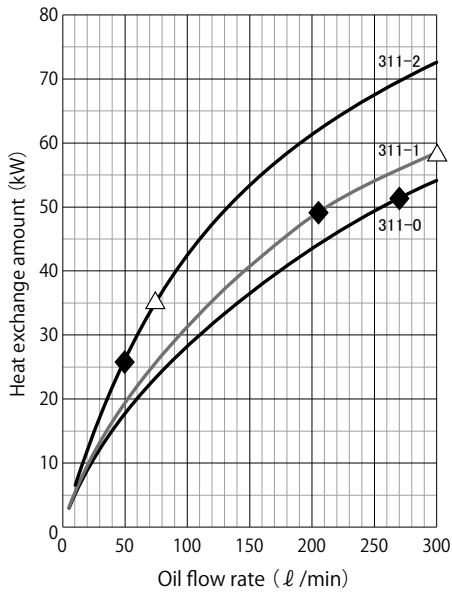
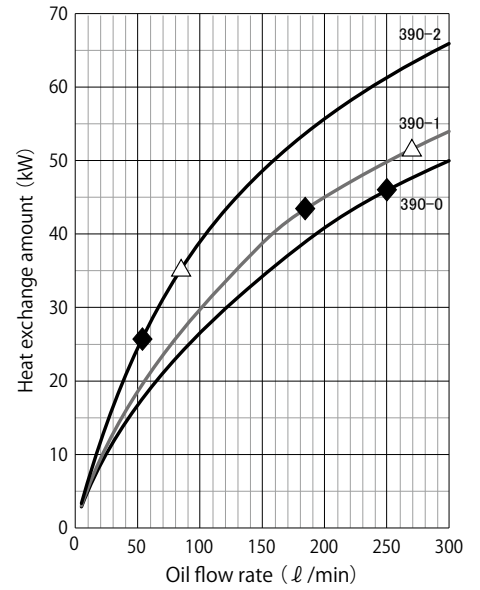
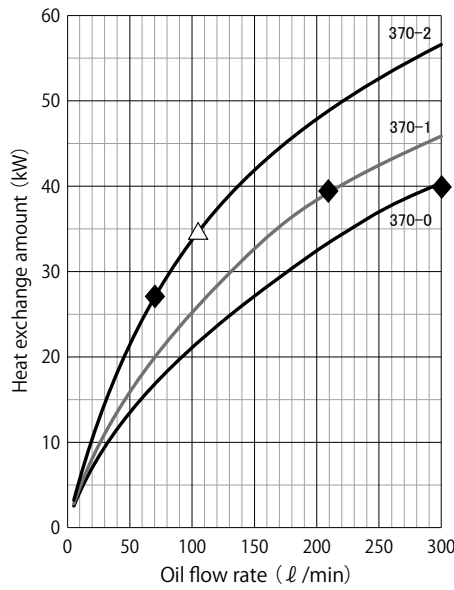
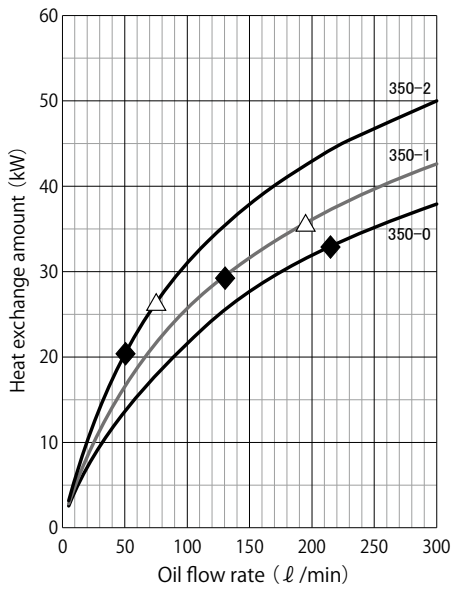
■ Condition

Fluid type		Corresponding to ISO VG46		Pressure drop	Shell side MPa	◆ : 0.05
Inlet temperature	Shell side °C	55			Tube side MPa	△ : 0.1
	Tube side °C	30		Scale coefficient at tube side m ³ C/W 0		
Flow rate at tube side		Max allowable flow rate				

■ Allowable flow rate

Model code	FCW-3□□A
Shell side ℓ/min	50~300
Tube side ℓ/min	30~100

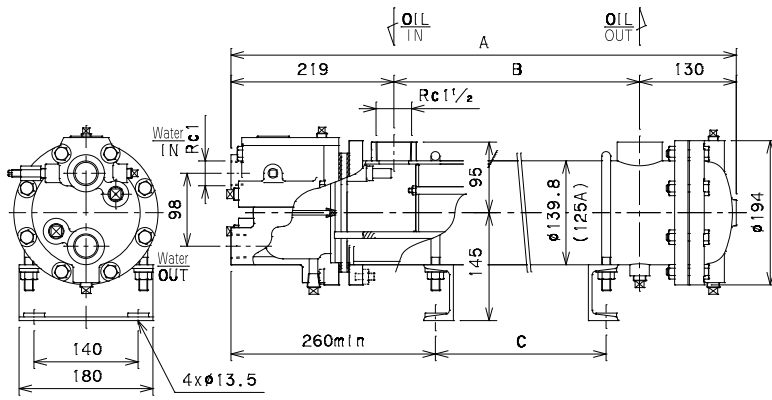
★ It is max value and It depends on each working condition.



DIMENSION

FCW-3□□A-□

Unit : mm

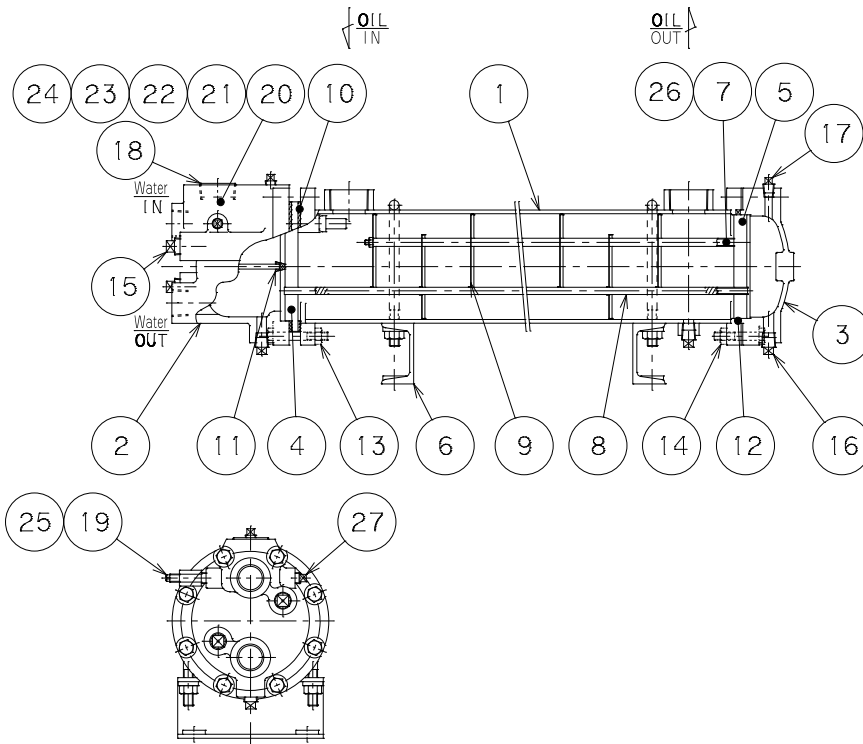


Model code	Length			Weight (kg)
	A	B	C	
FCW-350A-□	650	310	50~220	43
FCW-370A-□	880	531	50~450	58
FCW-390A-□	1050	701	50~620	71
FCW-311A-□	1170	821	50~740	88

★Stand position is adjustable.

CROSS SECTION

PARTS LIST



No	Item	Qty
1	Body	1
2	Channel "A"	1
3	Channel "B"	1
4	Tube plate	1
5	Tube plate	1
6	Stand	2
7	Rod	4
8	Fin tube	n*
9	Baffle plate	n*
10	Packing	2
11	Packing	1
12	Packing	1
13	Bolt · Nut	8
14	Bolt · Nut	8
15	Zinc plug	2
16	Drain plug	3
17	Air vent plug	2
18	Plug	1
19	Manual valve	1
20	Thermo sensor	1
21	Ball	1
22	"O"ring	2
23	Packing	1
24	Packing with spring washer	1
25	"O"ring	1
26	Distance pipe	n*
27	Plug	1

n* : The number of part depends on model.

SEALING PARTS & ANTICORROSIVE PARTS LIST

No.	10	11	12	Sealing parts set*2				
				22	23	25	15	
Model code	Special packing non asbestos	U-shaped packing NBR	Special packing NBR	No. : 10~12	JIS B2401 1A	Special packing	JIS B2401 1A	Zinc plug
				Material	Code of sealing parts set (Item code)	Size (Item code)	Size (Item code)	Size (Item code)
FCW-3□□A	t3×φ160/φ134	12×12×134	t4.5×φ140.2/φ128 Oval	NBR	SA-FCW-300 (SSC000049)	P12 (712P01210)	t3×φ32/φ22 (K24000043)	P3 (712P00310)
				FKM	SA-F/W-FCW-300 (SSC000050)			

MAINTENANCE TOOL LIST

Item	Size (mm)	Item code	Remarks
Tube brush	D6x1000	KZZ000001	For periodic cleaning of tube to prevent scale.
Tube plug	D5.5x7.5x25	BZZ000021	For closing a tube when leakage occurs due to tube corrosion. 2 plugs are required for a tube.

* 1 Standard material of sealing part is NBR, but other material is selectable depending on fluid type.

* 2 Sealing parts attached around thermostat (part No.22, 23, 25) and zinc plug (part No.15) is not included in sealing part set.