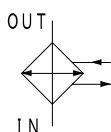
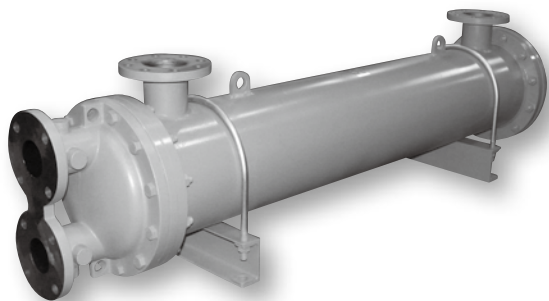


Middle-sized Basic Oil Cooler



Water-cooled type cooler

Characteristics

- ϕ 12.7 Low Fin Tube enables high cooling performance and compact design
- Low-priced model with high cooling performance
- High flexibility of installation by selectable flow direction and 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		1.0
Max working temperature °C	90		60
Pass structure	1 pass		2 passes
Fluid type	Standard	Mineral oil	Fresh water
	G	Water glycol fluid	
	F	Fatty ester fluid	
	W	Phosphate ester fluid	
		G+F	

Shell size code		5□□-B	5□□-C	6□□-C
Cooling tube type		ϕ 12.7 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 has larger number of fin thread per inch than general ϕ 12.7 low fin tube.

MODEL CODE

(Model code example)

G - **FPD** - **518** - **2** - **B**

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
518	9m ²	ϕ 216.3 (200A)
522	11m ²	
526	13m ²	
531	15.5m ²	
535	17.5m ²	
540	20m ²	
544	22m ²	
549	24.5m ²	
554	27m ²	
634	17m ²	
644	22m ²	
652	26m ²	
658	29m ²	
666	33m ²	

Code	Flow rate*1
0	Large
1	Medium
2	Small

Code	Connection type*2	
B	Shell side	Flange
	Tube side	Rc threaded
C	Shell side	Flange
	Tube side	Flange

* 1 "Flow rate" is for optimization of flow velocity by adjusting the number of baffle plate depend on flow amount variation. * 2 Only for FPD-5 □□. Flange pipe connection only for FPD-6 □□.

PERFORMANCE GRAPH

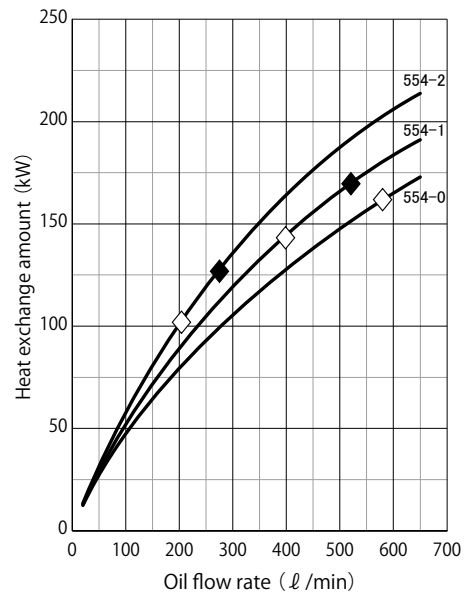
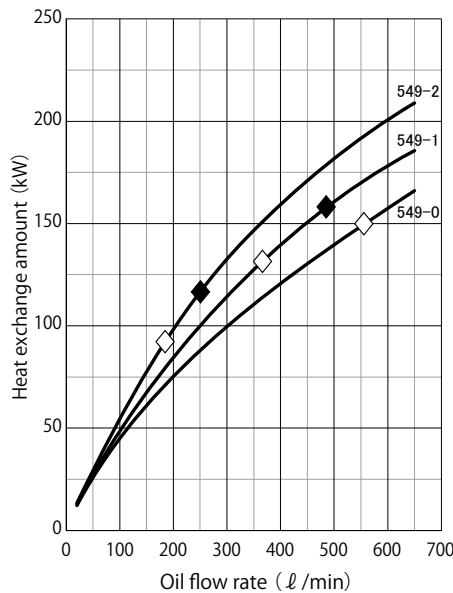
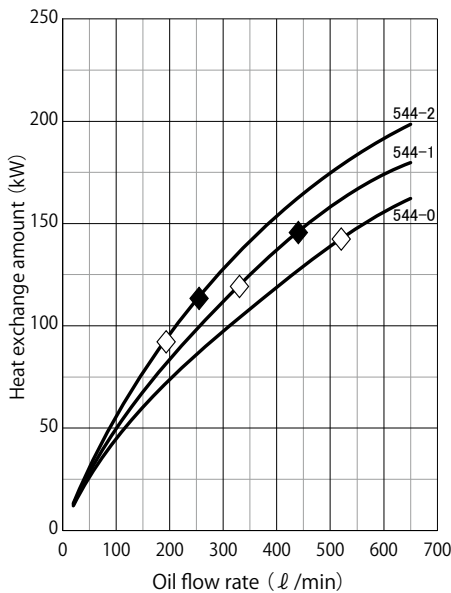
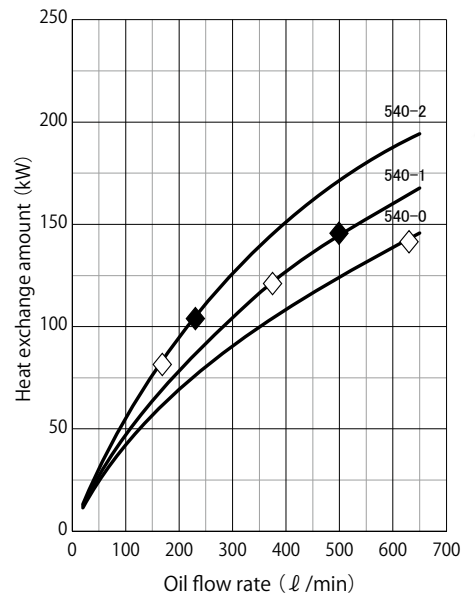
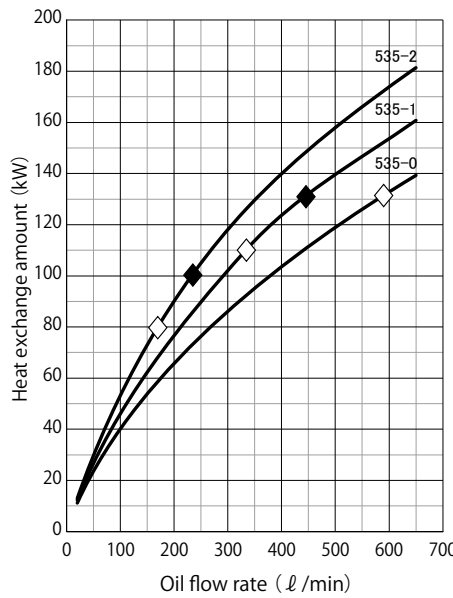
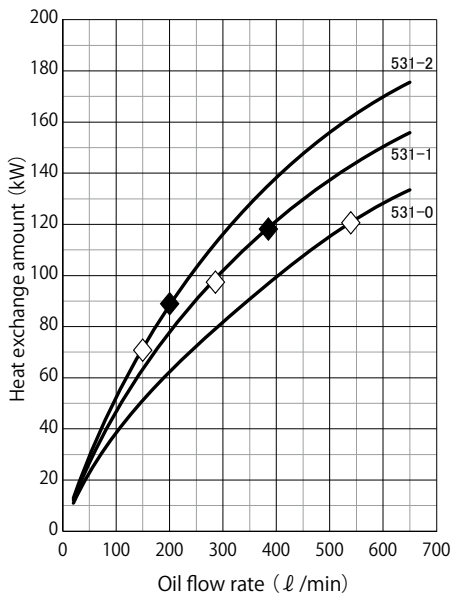
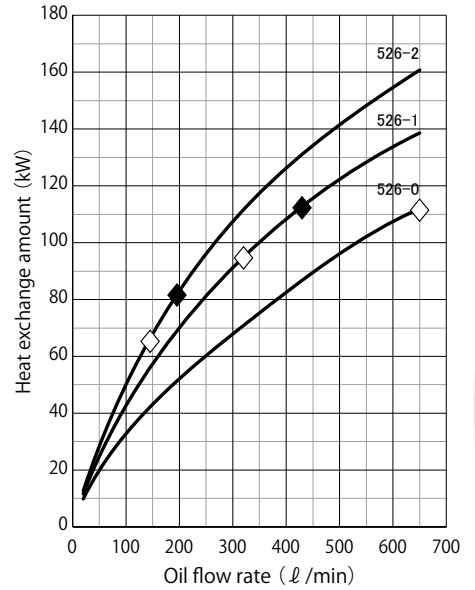
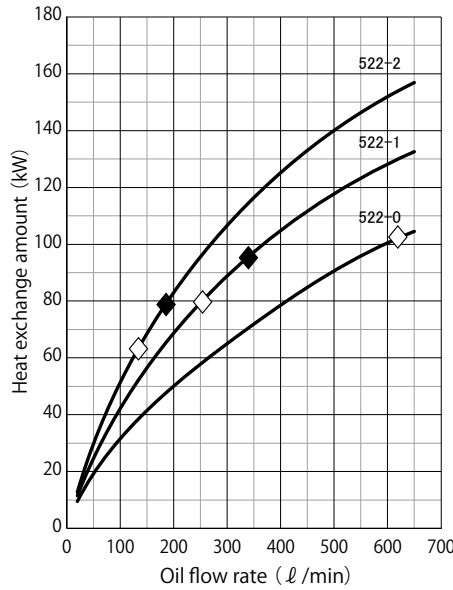
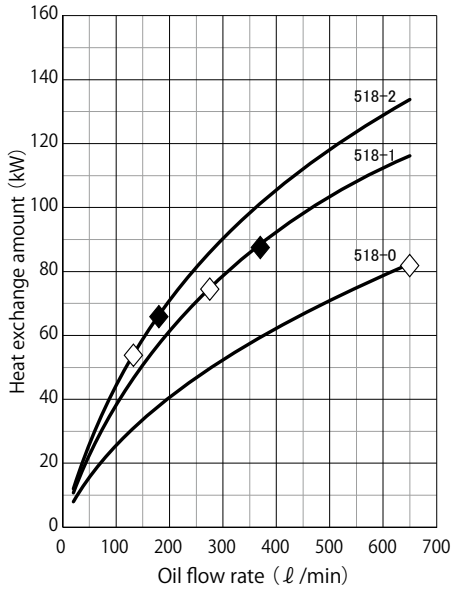
Condition

Fluid type		Corresponding to ISO VG46		Pressure drop	Shell side MPa	◇ : ≤ 0.03
Inlet temperature	Shell side °C	55			Tube side MPa	◆ : 0.05
	Tube side °C	30			0.01 - 0.03	
Flow rate at tube side		Max allowable flow rate		Scale coefficient at tube side m ² C/W 0		

Allowable flow rate

Model code	FPD-5□□	FPD-6□□
Shell side ℓ/min	150~650	150~800
Tube side ℓ/min	85~360	120~590

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



PERFORMANCE GRAPH

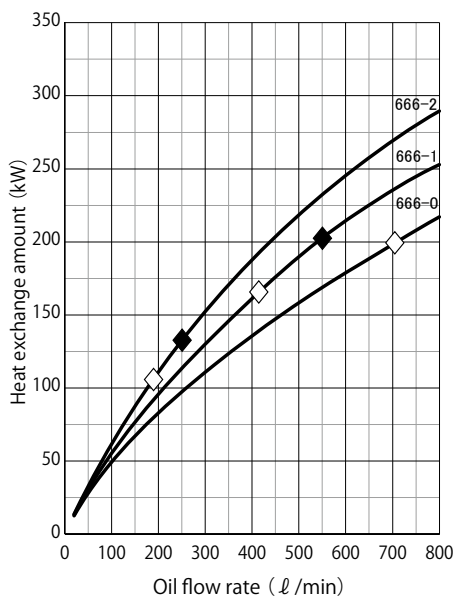
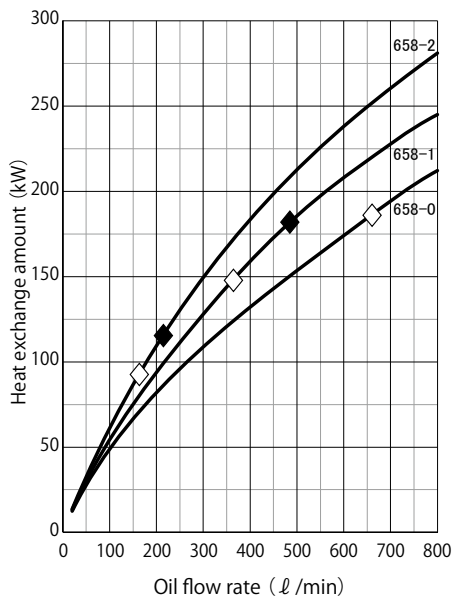
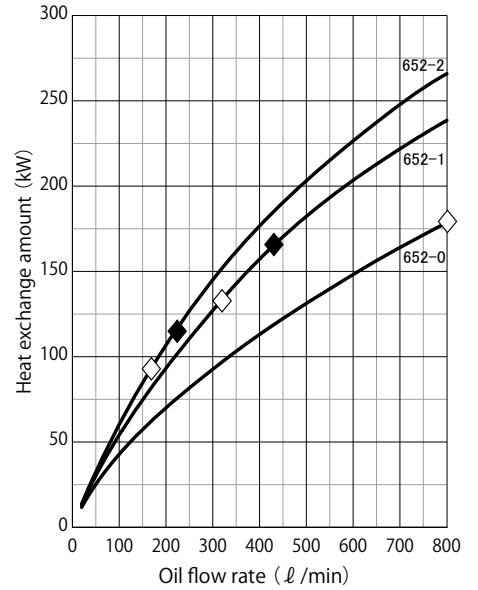
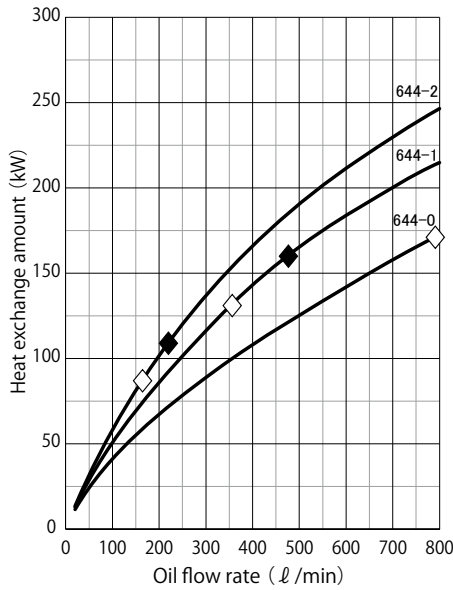
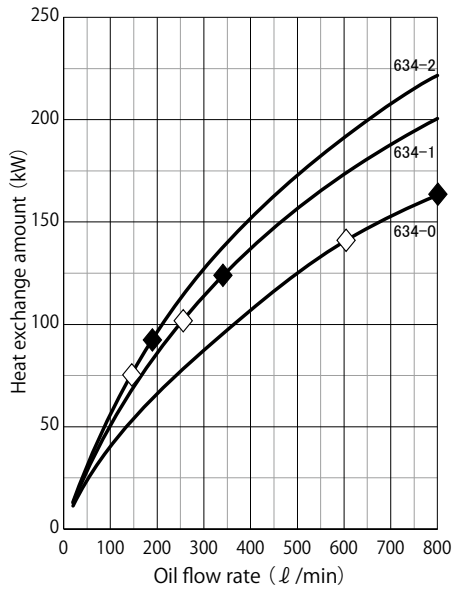
Condition

Fluid type		Corresponding to ISO VG46	Pressure drop	Shell side MPa	◇ : ≤ 0.03
Inlet temperature	Shell side °C	55		Tube side MPa	◆ : 0.05
	Tube side °C	30	Scale coefficient at tube side m ² °C/W 0		
Flow rate at tube side		Max allowable flow rate			

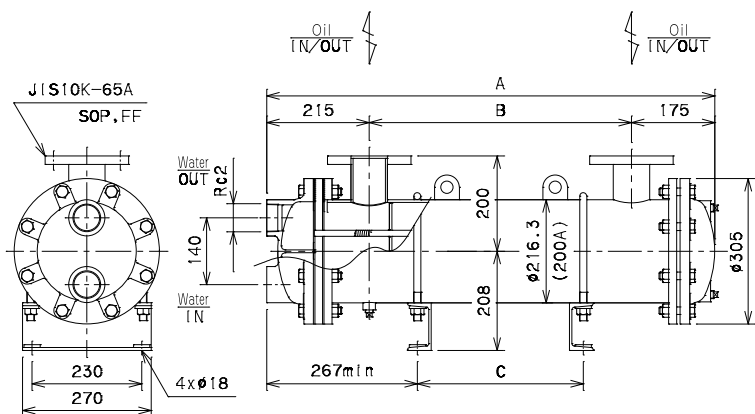
Allowable flow rate

Model code	FPD-5□□	FPD-6□□
Shell side ℓ/min	150~650	150~800
Tube side ℓ/min	85~360	120~590

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



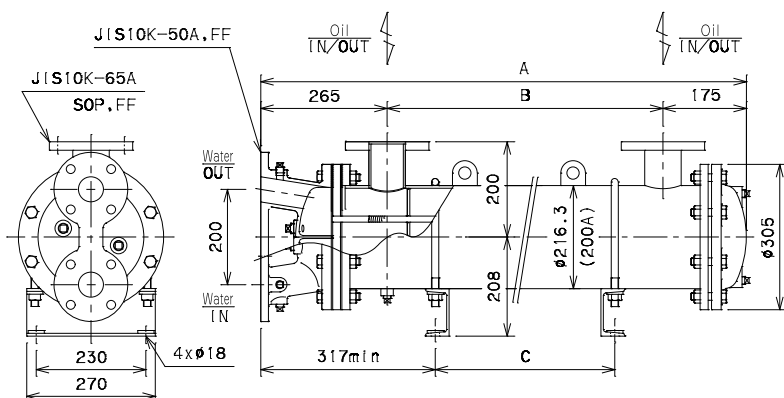
FPD-5□□-□-B



Model code	Length			Weight (kg)
	A	B	C	
FPD-518-□-B	867	477	60~370	111
FPD-522-□-B	1017	627	60~520	121
FPD-526-□-B	1167	777	60~670	132
FPD-531-□-B	1337	947	60~840	144
FPD-535-□-B	1497	1107	60~1000	156
FPD-540-□-B	1657	1267	60~1160	173
FPD-544-□-B	1827	1437	60~1330	185
FPD-549-□-B	2007	1617	60~1510	198
FPD-554-□-B	2117	1787	60~1680	209

★Stand position is adjustable.

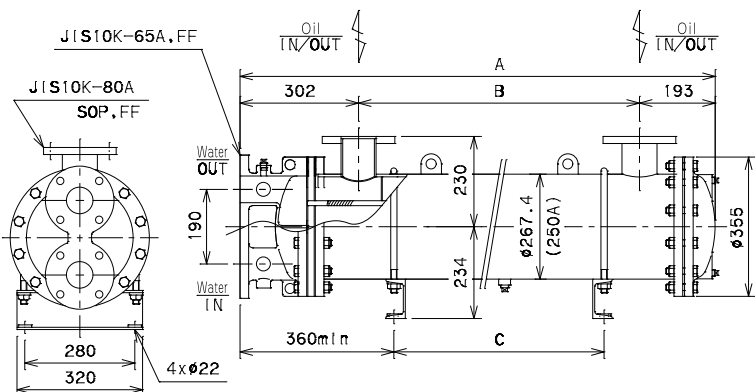
FPD-5□□-□-C



Model code	Length			Weight (kg)
	A	B	C	
FPD-518-□-C	917	477	60~370	116
FPD-522-□-C	1067	627	60~520	126
FPD-526-□-C	1217	777	60~670	137
FPD-531-□-C	1387	947	60~840	149
FPD-535-□-C	1547	1107	60~1000	161
FPD-540-□-C	1707	1267	60~1160	178
FPD-544-□-C	1877	1437	60~1330	190
FPD-549-□-C	2057	1617	60~1510	203
FPD-554-□-C	2227	1787	60~1680	214

★Stand position is adjustable.

FPD-6□□-□-C



Model code	Length			Weight (kg)
	A	B	C	
FPD-634-□-C	1091	596	60~480	194
FPD-644-□-C	1327	832	60~715	221
FPD-652-□-C	1497	1002	60~885	241
FPD-658-□-C	1657	1162	60~1045	260
FPD-666-□-C	1827	1332	60~1215	280

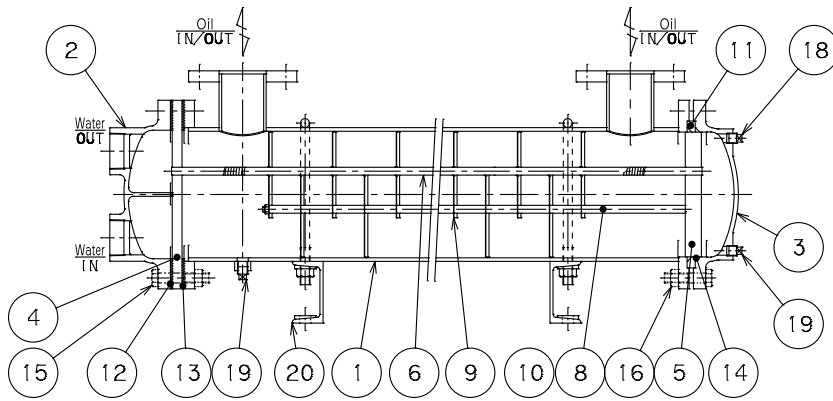
★Stand position is adjustable.



CROSS SECTION

PARTS LIST

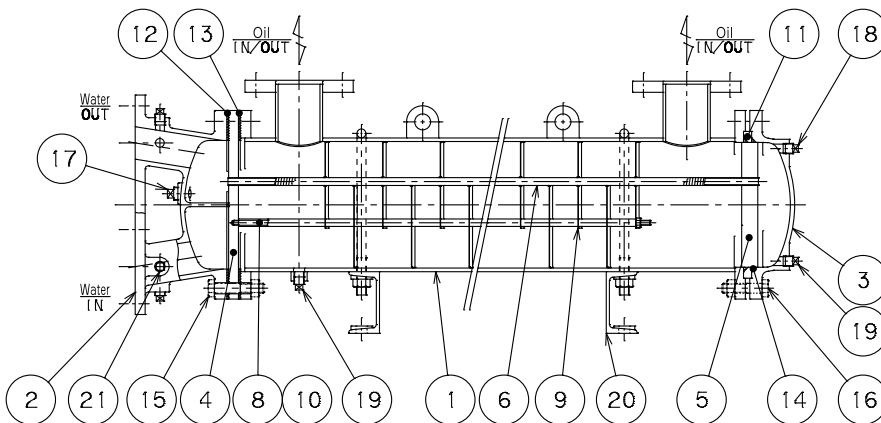
FPD-5□□-□-B



No.	Item	Qty
1	Body	1
2	Channel "A"	1
3	Channel "B"	1
4	Tube plate "A"	1
5	Tube plate "B"	1
6	Fin tube	n*
—	---	—
8	Distance pipe	n*
9	Baffle plate	n*
10	Rod	4
11	Ring	1
12	Packing	1
13	Packing	1
14	O-ring	2
15	Bolt · Nut	n*
16	Bolt · Nut	n*
17	Plug (Only for 5□□-□)	2
18	Air vent plug	1
19	Drain plug	2
20	Stand	2
21	Plug (Only for 5□□-□)	6

n* : The number of part depends on model.

FPD-5□□-□-C、FPD-6□□-□-C



SEALING PARTS LIST

No.	Item · Standard*1	12	13	14	Sealing parts set	
					No. : 12~14	Code of sealing parts set (Item code)
		Special packing non asbestos		JIS B2401 1A	Material	
FPD-5□□		t3xφ305/φ208, W6 (with partition)	t3xφ305/φ208	G200	NBR	SA-FPD-500 (SSC000022)
					FKM	SA-F/W-FPD-500 (SSC000025)
FPD-6□□		t3xφ355/φ258, W6 (with partition)	t3xφ355/φ258	G250	NBR	SA-FPD-600 (SSC000023)
					FKM	SA-F/W-FPD-600 (SSC000026)

Upper side : Code or Size Under side : (Item code)

MAINTENANCE TOOL LIST

Item	Size (mm)	Item code	Remarks
Tube brush	D9x1820	KZZ000002	For periodic cleaning of tube to prevent scale.
Tube plug	D9.5x11.5x25	BZZ000023	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.