FUJI JET FILTER

Dock to Dock Maintenance-Free Super Fine Filter for Marine Use

FJMA-L-TYPE AUTOMATIC

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FUJI JET FILTER is an innovative filtration system for marine fuel and lubricants with outstanding filtration capability.
The concept of direct cleaning of filtration media by high-pressure jet spray and “Dock to Dock Maintenance Free” for previous model, FUJI JET FILTER has cut down on space, improved operation procedures and optimized devices.
FUJI JET FILTERS offers countless benefits to our valuable users.

Features

* “Dock to Dock Maintenance Free” “Saving the man power”, “Saving the running cost” operates without overhaul inspection for long periods of time under normal usage.
* Improvement of protection level for the downstream equipment, made possible with high filtration accuracy of stainless steel sintered woven wire-mesh filtration media.
* Withstands long-term repeated cleaning operations due to high mechanical strength.
* By means of very effective cleaning method, facilitates stable direct filtration against inferior low grade oil even with high levels of contaminants.
* Cut down on installation space and simplified installation procedures.
* Downsized the control panel integrated with filter housing by adopting programmable relay.
* Adopted an alarm system to notify excessive cleaning for quicker comprehension of F.0 condition.
* By reducing the amount of drainage, the drainage treatment work time and process cost is reduced work time and process cost is reduced.
* Bypass filters are basically unneeded as FUJI JET FILTER continuously filters even during cleaning operation.

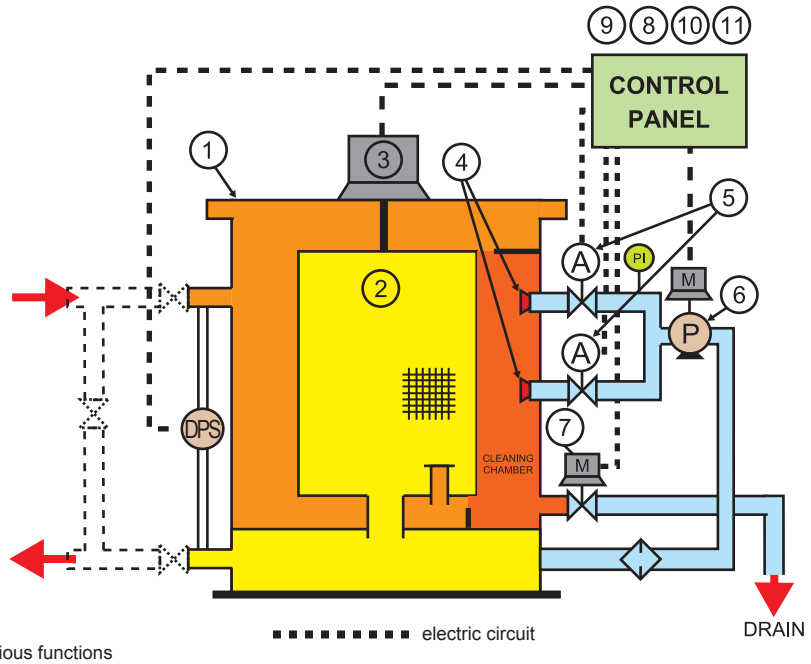
Composition

Ⅰ. Filtration functions
- ① Filter housing
- ② Filter element- FUJI PLATE
- ③ Driving motor

Ⅱ. Cleaning functions
- ④ High-pressure spray nozzles
- ⑤ Solenoid valves
- ⑥ High-pressure pump
- ⑦ Valve for drainage discharge line

Ⅲ. Control functions
- ⑧ Periodical interval timer cleaning
- ⑨ Differential pressure cleaning (backup function)
- ⑩ Manual cleaning (backup function)
- ⑪ Monitoring and alarm

* Please refer to technical data sheets for various functions



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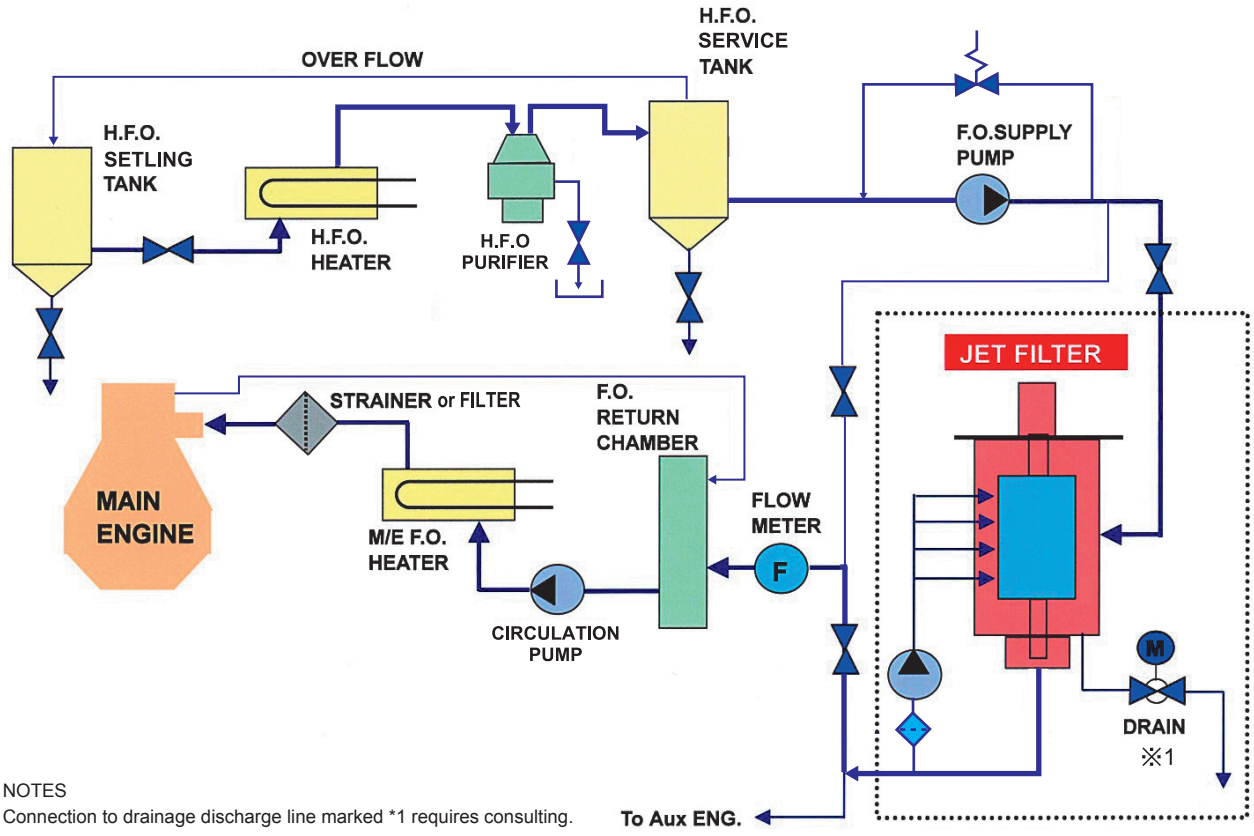
Recommended installation (flow diagram) of FUJI JET FILTER



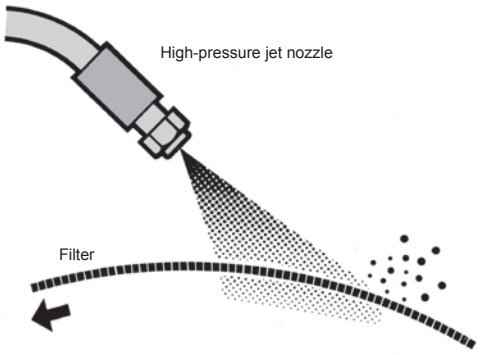
NOTES
Connection to drainage discharge line marked *1 requires consulting.

JET CLEANING SYSTEM

Jet cleaning system developed for the FUJI JET FILTER is an innovative cleaning system and the most redeeming feature of FUJI JET FILTER. (Much effective than backwashing method)

∗ Cleaning mechanism with use of jet flow ∗

In previous cleaning systems, the filters had to be taken out and then washed with compressed air or steam. However in this system, the cleaning is done completely automatically. Portions of the filtrate is pressured under high- pressure to 10MPA (=100kg/cm2), then sprayed at set periods of time from jet spray nozzles inside the cleaning room of the filter housing. The pressure is converted to flow rate in the nozzle. With the amount and speed of the fluid, sludge and other particles caught on the surface of the filter element (FUJI PLATE) are peeled off and dispersed as shown in the diagram. Using the line pressure once the cleaning cycle starts, the removed sludge are then drained through the drainage discharge valve in the cleaning room. There is no need to stop filtration during cleaning process as is it not a backwashing method.



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Specification

Standard (Automatic)	Model No.	FJSA-L-10	FJMA-L-10	FJVA-L-10	FJLA-L-10	FJXA-L-10
	Flow Rate	2.0 ㎥ /Hr	4.0 ㎥ /Hr	6.0 ㎥ /Hr	8.0 ㎥ /Hr	16.0 ㎥ /Hr
Option1 (Manual)	Model No.	FJSM-L-10	FJMM-L-10	FJVM-L-10	FJLM-L-10	FJXM-L-10
	Flow Rate	1.6 ㎥ /Hr	3.2 ㎥ /Hr	4.8 ㎥ /Hr	6.4 ㎥／Hr	12.8 ㎥／Hr
Weight (kg)		290kg	360kg	480kg	510kg	1375kg
Flange size		50A	50A	65A	65A	65A
Highest Temperature		130℃				
Max.Operating Press		0.5Mpa				
Classification		NK, LR, ABS, DNV, BV, KR, RINA, Other				
Previous Model No		FS-L-10	FM-L-10	—	FL-L-10	FX-L-10

*Option 2: Segmentation model of main unit and control panel is also possible

Example) :

FJSA - L - 10

FJSA: Model; L: Type; 10: Filtration Rating

〈Mid-level Type〉

L : Supply Line usage / 0 5MPa 130℃

H : Supply Line usage / 1.4MPa 、130 ℃

E : Circulation Line usage / 1.4MPa、150 ℃

Filtration Rating : Nominal 10μm

＊Also possible to accommodate to 5μm、20μm filtration rating.

Flow rate changes with different filtration ratings

MAXIMUM Permissible flow rate（m3/h）

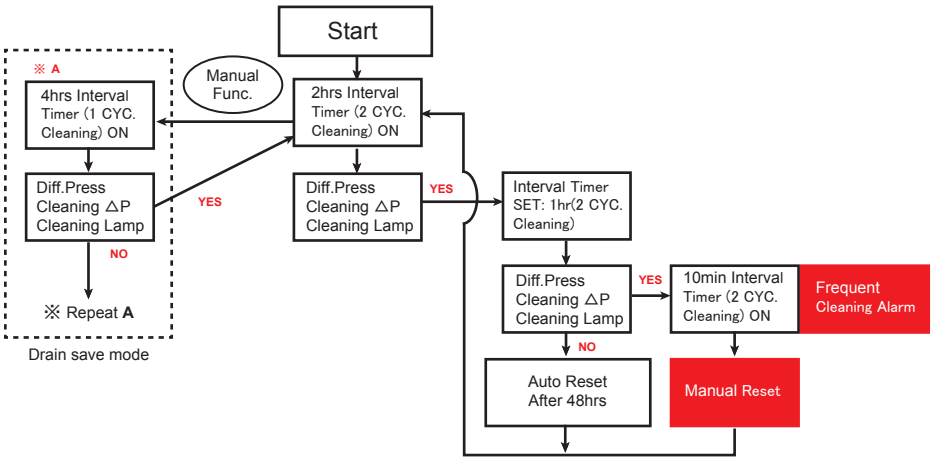
	FJSA	FJMA	FJVA	FJLA	FJXA
5μm	1	2	3	4	8
20μm	4	8	16	25	50

Selection of type/model

When installing in a supply line, selection is decided from amount of FO consumption. (M.C.R.)

1. Grade of F.O./L.O.
2. Condition of use; flow rate, working pressure, temperature, etc.
3. Filtration rating
4. Ship' s classification

Automatic Alarm/ Variable Cleaning Interval



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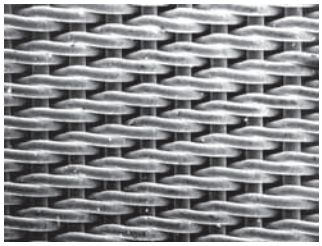
Features and composition of FUJI PLATE filter element

Filtration media used in the FUJI JET FILTER is the FUJI PLATE filter element, developed and manufactured by Fuji Filter Manufactuing.

Features

* Extremely high filtration accuracy.
* Uniformed pores.
* No delamination, mesh distortion or leak out.
* Large ratio of open pore to unit area.
* Outstanding in mechanical strength, impact resistance and pressure resistance.
* Outstanding in cleaning durability.

Cross-section of FUJIPLATE for FUJI JET FILTER



Surface of FUJIPLATE for FUJI JET FILTER

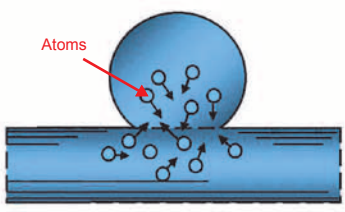
Structure

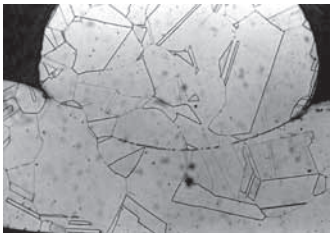
* The element used is FUJI PLATE; sintered layers of fine mesh with accurately controlled pore diameter, distribution layer and reinforcement layer.
* Standard material: Stainless steel.
* Filtration accuracy is 10μm Nominal.
* Available to other filtration accuracies (5μm, 20μm Nominal).

Filter Element

Sintering

When metals are maintained at a temperature near their melting point for a set period of time, counter diffusion of metal occurs at the micro-structure level of the metals at the contact points. Crystal formation takes place between the metals to form a completely integrated metal structure. This gives not only outstanding strength but the durability of material is greatly enhanced.





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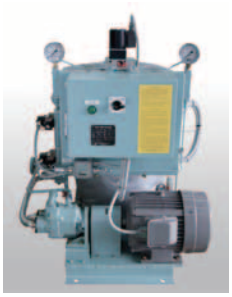
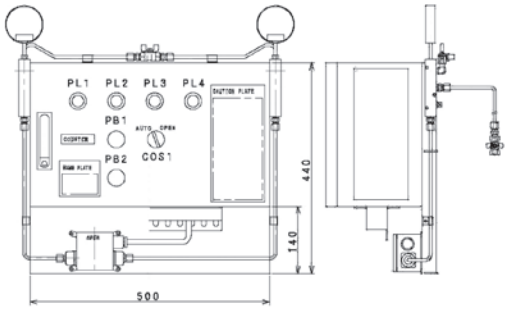
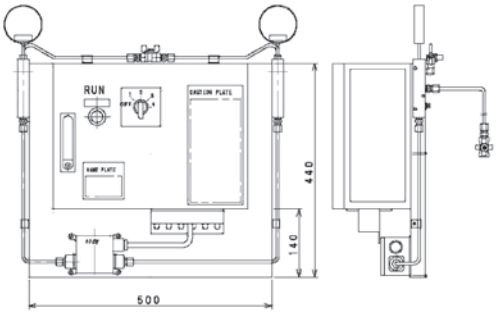


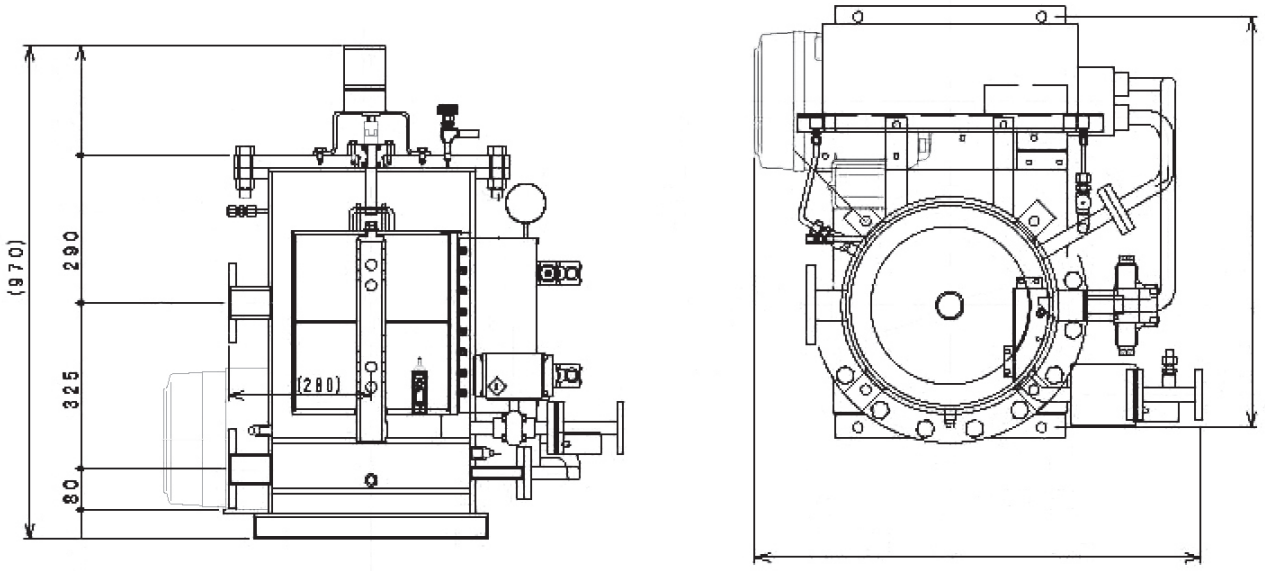
FJMM-L-TYPE MANUAL (OPTION)



Control panel drawing of Type Automatic



Control panel drawing of Type Manual



Drawing of FUJI JET FILTER

※ Please refer to our technical data sheets on the operation of the FUJI JET FILTER system.

Agent

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