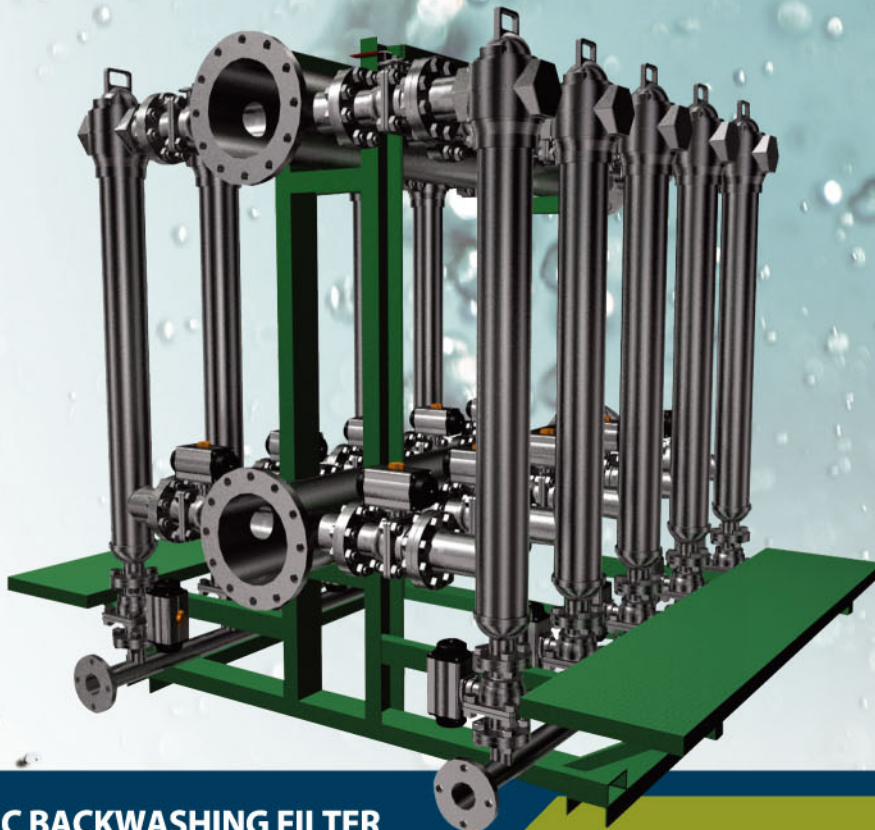


PLC

Automatic Backwashing Filter



■ PLC AUTOMATIC BACKWASHING FILTER

Features

■ High processing amount :

With multi-tube design you can adjust the combination of the filters to suit your actual processing needs.

■ Backwash function :

We use both Timer and pressure differential detection to automatically clean the screens.

■ Constantly filtering :

Because of the multi-tube system, you can backwash one by one and do not need to turn off the whole system when using the backwash function.

■ Fully automatic control system :

By using the PLC program controls and man machine interface, the system can work automatically after setting.

■ Highly labor-saving :

There is no need to have workers operate and monitor. Simple operation process makes you save large amount on labor cost.

■ Easy to maintain :

It is automatic cleaning designed. All you have to do is to clean and maintain the machine body regularly.

PLC

Automatic Backwashing Filter



■ ■ ■ PLC Introduce

We choose the design of inside backwash which can make the whole system filter constantly without being affected by the backwashing, and maintain the high filtration efficiency.

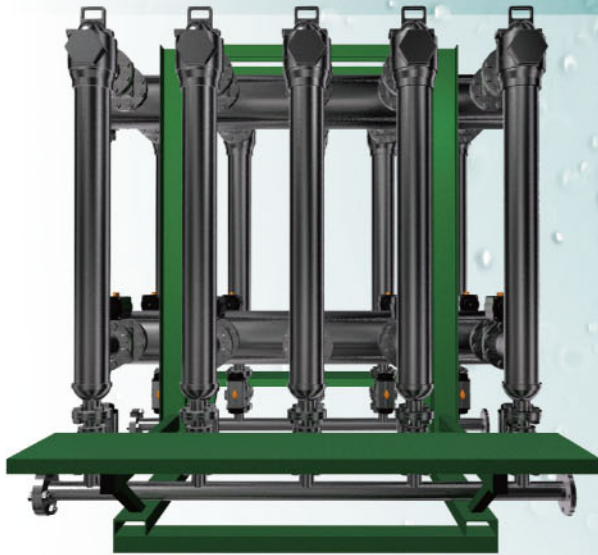
In the multi-tube system, there is a set of backup screen. Under normal conditions, the backup screen shares the filtering workload. When the backwash function starts, it can be used for backwash process. The design of backwash is to clean the screen one by one and backwash with the clean liquid which has already

been filtered in the system. When backwashing, only one screen is cleaned and the others still work to maintain constant filtering.

"Timer control" and "pressure differential detection" are two mechanisms to start the backwash system. When the timer or the pressure difference reaches a certain measurement, the PLC automatic control system will start backwash process and clean the screens one by one. It can keep the cleanliness of the screen and maintain high filtration efficiency.

PLC

Automatic Backwashing Filter



PLC AUTOMATIC BACKWASHING FILTER

■ Fast removable upper lid :

It's easy to use and maintain. Pull the tenon and turn it to 90° to remove the upper lid.

■ Electric controlled pneumatic ball valve set :

They are installed at the inlet and discharge tube of each filter. Using the PLC control system to carry out the backwash process.

■ PLC control system :

The man machine interface works with the PLC program which uses the Timer and the pressure differential detection device to carry out the backwash process. Through operating the control plate, you can start the entirely backwashing or any single filter backwashing. It is easy to operate and practical.

■ Manual ball valves :

They are installed at the outlet of each filter and help to maintain the equipment.

■ Single filter :

The whole system is assembled by the CJS single filters. It is fast to install and uninstall and easy to maintain.

■ Support bracket :

It is used to support and fix the whole equipment and makes the equipment safe, steady and durable.

■ Working platform :

It is convenient for workers to operate and maintain the equipment.

■ Pressure gauge and the pressure differential detection device :

You can see the data of the inlet pressure, outlet pressure and pressure difference. It shows the pressure condition of the whole system.

■ Inlet tube :

It is the inlet of unfiltered liquid and located at the bottom of the equipment.

■ Outlet tube :

It is the outlet of filtered liquid and located on the top of the equipment.

■ Discharge tube :

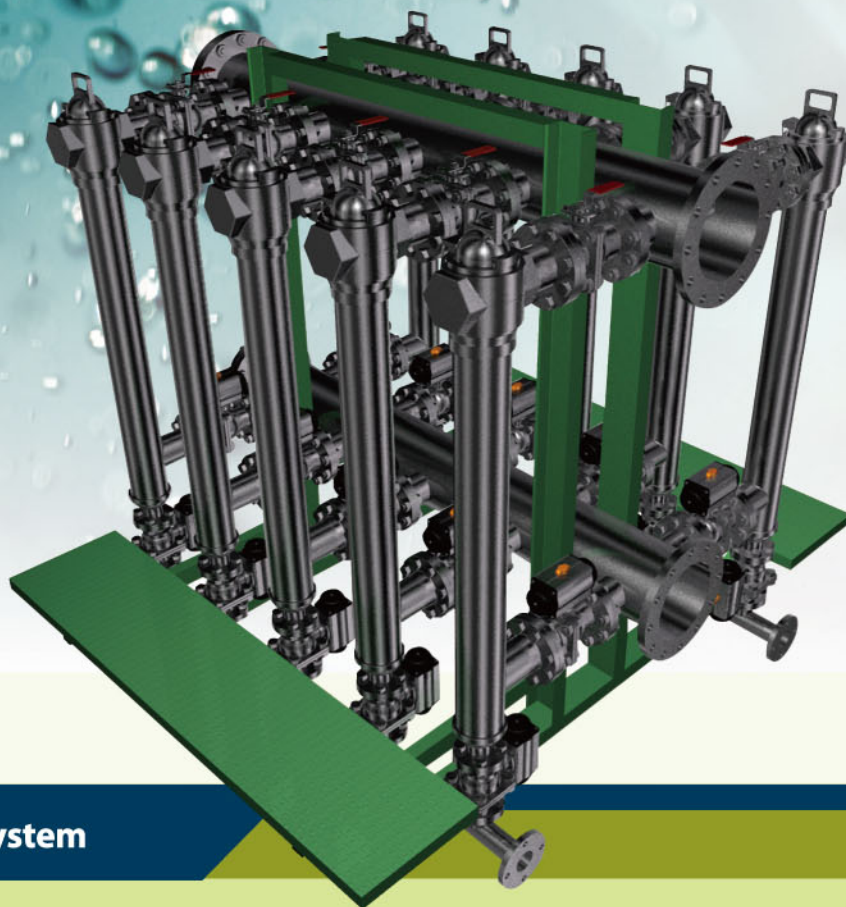
It is the outlet of impurities and backwashing liquid and controlled by the use of discharge valve.

■ Blind Flange :

In order to lower the cost of installation for clients, there are blind flanges installed at the in-outlets of each filter.

PLC

Automatic Backwashing Filter



■ Inside Backwash System

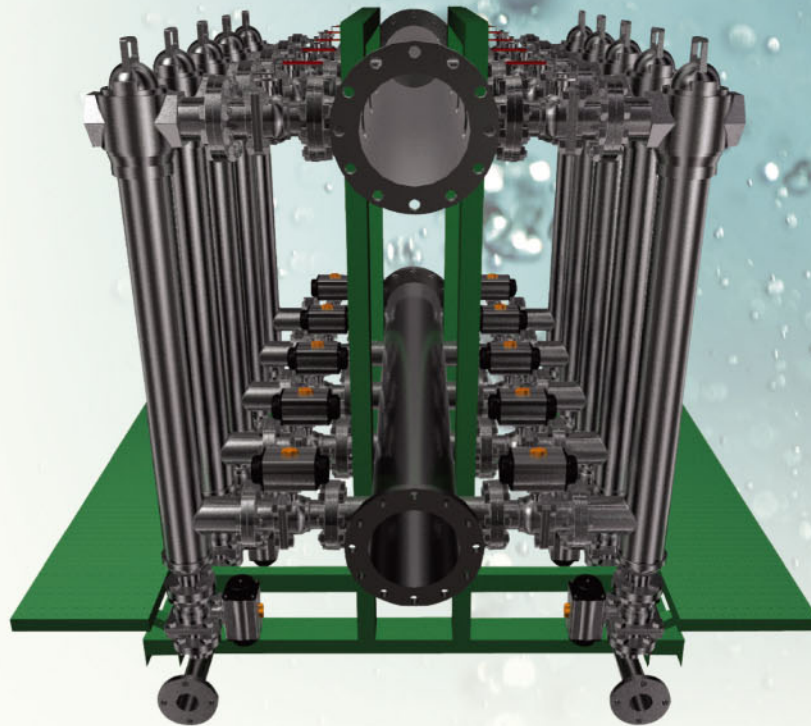
The unfiltered liquid enters through the inlet at the bottom of the equipment and is distributed evenly to each filter. After constantly filtering, the impurities accumulate on the surface of the screens, and the pressure difference increases gradually. When the pressure difference reaches 0.5~1.5bar, the system will automatically start to backwash. During the backwash process, only one filter stops filtering each time. The system closes the inlet valve and opens the discharge valve, and the backwash liquid enters from the outlet into the inside screen in the opposite direction, washes the impurities off the screen and discharges them through the discharge valve. The backwash time for

each filter will only take 3~8 seconds, and after all the filters being cleaned, the pressure difference will return to 0.05~0.4 bar.

The backwash system starts by (1) "Pressure Differential Detection" and (2) "Timer Control". These two mechanisms always work correspondently. The pressure differential detection works according to the clogging condition of screen, and the Timer control works regularly. Both of them work together to make up a perfect backwash system.

PLC

Automatic Backwashing Filter



■ The Reference Table of The In-outlet Size Selection for Clean Water

In-Outlet Size A(B)	32	40	50A	65A	80A	100A	125A	150A	200A	250A	300A
The Processing Amount (ℓ/min) (flow speed : 1 m/sec)	56	75	117	217	301	529	783	1131	1960	3038	4352

■ The Table of Single Filter Flow Amount (ℓ /min)

Screen Size Diameter × Length (mm)	Screen Slot											
	450 mesh 0.025	300 mesh 0.050	200 mesh 0.075	150 mesh 0.100	120 mesh 0.125	100 mesh 0.150	80 mesh 0.175	75 mesh 0.200	60 mesh 0.250	50 mesh 0.300	45 mesh 0.350	40 mesh 0.400
ø85×1000-12S	145	290	422	554	677	792	924	1000	1221	1419	1584	1742
ø85×1000-18S	96	193	281	369	451	528	616	666	814	946	1056	1161
ø85×1000-22S	80	161	234	307	376	440	513	555	678	788	880	967

- 12S steel wire 1mm is suitable for the working pressure under 10kg/cm²
- 18S steel wire 1.5mm is suitable for the working pressure between 10 and 30kg/cm²
- 22S steel wire 1.8mm is suitable for the working pressure above 30kg/cm²