



JX FILTRATION

Product Quality and Reputation are our first principle.

www.jxfiltration.com

Company Profile



Automatic Backwash Sand Filter

Product Introduction

JX Filtration sand filter system consists of one or more standard high-speed filtering units that can effectively remove particles and reduce turbidity. If feeding with particular media, such as activated carbon, anthracite, etc., correspondingly, the filter can also absorb and remove the organics, ions, etc.

JX Filtration supplies several control systems for its sand filters, such as Electrical Control boards, Programmable Logic Controllers (PLCs), for supporting any size of media filters installation.

JX Filtration control systems start the self-cleaning cycle under the following conditions:

4. Getting a signal from the Pressure Differential Switch
5. The time interval parameter is set at the control system
6. Manual start



Working Principle

◆ Filtration Processing

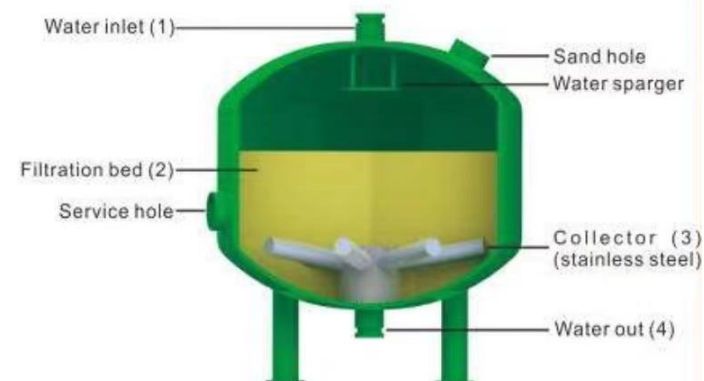
Raw water enters from the filter inlet (1) and percolates through the filter bed (2).

Suspended materials come into contact and attach to the media particles. Clean water flows through the filtration nozzles (3) and out of the filter via the outlet (4).

◆ Cleaning processing

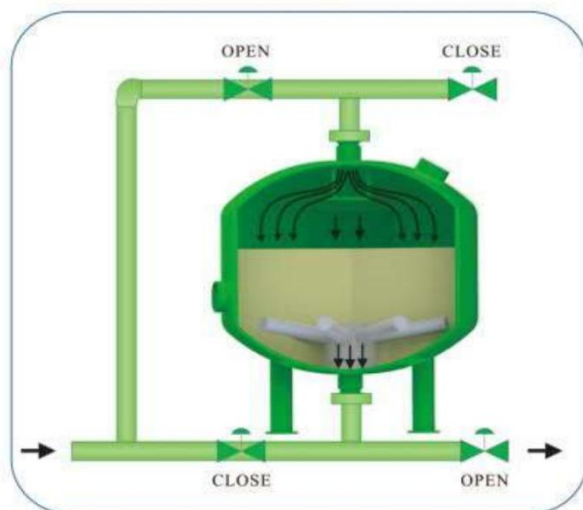
Pressurized water flows in the reverse direction- from the nozzles upwards, causing the filter bed suspension, thus releasing the suspended matter from the bedding. The dirt particles are then washed out of the filter through the back-flush valve.

When the pressure differential switch senses that the differential pressure across the system reached a pre-set value, a signal is sent to the flushing controller. The self-cleaning process begins.

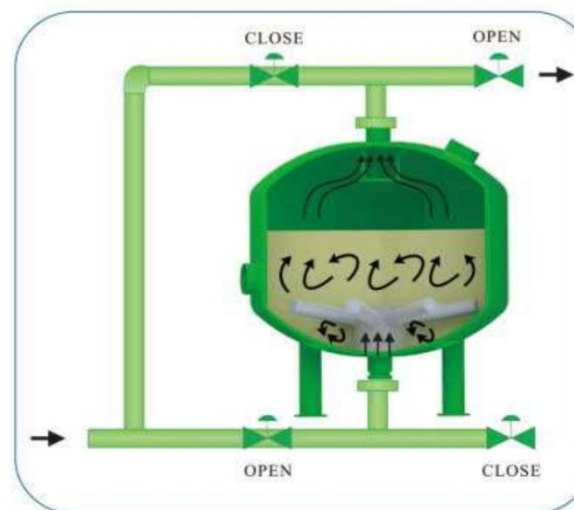


PRODUCT STRUCTURE

■ FILTETING STATUS



■ BACKWASHING STATUS



Application

- ◆ Industrial process water: such as protection filtration for nozzle and heat exchange station.
- ◆ Industrial circulating water: metallurgy, paper-making, heat exchanger, electric power, petrochemical, food, air conditioning system, etc.
- ◆ Raw water treatment: surface water, river, lake, and seawater, etc.
- ◆ Irrigation: farmland, park, municipal, and golf course water filtration.
- ◆ Aquaculture, swimming pool, and water park, and so on.

Advantages

- ◆ Core components brands (BERMAD, BACCARA, SIEMEN, MITSUBISHI), no external power supply is required.
- ◆ The filtration unit's design is a single chamber with a better backwash effect, and the probability is less than sand flow out.
- ◆ It is utilizing a stainless steel collector who has a longer life. The water outlet is located at the bottom of the vessel that is convenient for maintenance.



Coating factory side water filtration



Chemical plant side water filtration



Filtration system for irrigation

Features

- ◆ High-speed flow and low-pressure loss.
- ◆ Modular and compact design. (The area decreased by more than 40% and piping reduced by at least 50%).
- ◆ Manual, semi-automatic, full-automatic backwash is optional.
- ◆ Backwashing could choose filtering cleaning water or another water source, which is free to switch (when needed)
- ◆ 16-96" vessels are combined to make flow expand freely.
- ◆ Carbon steel vessels and pipelines are anti-corrosion processed through phosphate surface treatment and 240°C high-temperature electrostatic coating.

■ SINGLE VESSEL SYSTEM



■ COMBINATION VESSELS SYSTEM



Product Material

Housing	Carbon steel with coating/ stainless steel
Filtration nozzle	Stainless steel/ nylon
Pipeline	Carbo steel/ stainless steel/ HDPE
Flush valve	Nylon/ stainless steel
Solenoid valve	Nylon/ stainless steel/ brass
Controller housing	Plastic / stainless steel

Performances Comparison

Items	JX sand media filter	Traditional sand filter
Backwashing water consumption	Only 0.8%-1.5% of the filtering water	Generally over 5% to 8%
Status of water supply	Each unit back washed in turn and continuously supplied water	Stop supply water when cleaning
Required space	Compact design. e.g., one filter with flow 300m ³ /h that covers about 13 m ² and a height of 2.5m	300m ³ /h filter, e.g., converting about 47m ² , height around 5 meters
Civil foundation	Operation weight 25t without special foundation treatment	Operation weight 60 tons, needing special ground foundations
Carry and installation	Simple installation with short time	Need special lifting equipment and longer cycle
Operation	Full automatic control and simple maintenance	Easy to be damaged and complex maintenance

Model Selection

Model	Diameter (mm)	Inlet and Outlet (DN)	Filtering area (m2)	Flow (agricultural)	Flow (Industrial)
JX-16	400	40/50	0.2	10	6
JX-24	600	50	0.3	15	11
JX-28	700	80	0.4	30	15
JX-32	800	80	0.5	35.5	20
JX-36	900	80	0.7	40	35
JX-48	1200	80	1.2	80	50
JX-54	1400	100	1.48	107	72
JX-60	1500	100	1.82	--	90
JX-66	1700	100	2.21	--	108
JX-72	1800	150	2.63	--	128
JX-78	2000	150	3.08	--	150
JX-84	2100	150	3.58	--	175
JX-90	2200	150	4.11	--	200
JX-96	2400	200	4.67	--	228

Model Selection

Model	Vessel Qty	Flow (agricultural) (m3/h)	Flow (industrial) (m3/h)	Min. pressure (Mpa)	Max. pressure (Mpa)	Backwash flow (m3/h)	Water in/out	Backwash valve (agricultural) (inch)	Backwash (industrial) (inch)	Drain valve (agricultural)	Drain valve (industrial)	Filtrating area (m2)
JX24-2-A	2	30	22	0.2	1.0	15	DN80	2	2	DN50	DN50	0.6
JX24-3-A	3	45	33	0.2	1.0	19	DN80	2	2	DN50	DN50	0.9
JX28-2-A	2	60	30	0.2	1.0	30	DN100	3	2	DN80	DN50	0.8
JX28-3-A	3	90	45	0.2	1.0	50	DN100	3	2	DN80	DN50	1.2
JX32-2-A	2	75	40	0.2	1.0	35	DN100	3	3	DN80	DN80	1.0
JX32-3-A	3	115	60	0.2	1.0	50	DN150	3	3	DN80	DN80	1.5
JX36-2-A	2	80	70	0.2	1.0	40	DN100	3	3	DN80	DN80	1.2
JX36-3-A	3	120	105	0.2	1.0	50	DN150	3	3	DN80	DN80	1.8
JX48-2-A	2	160	100	0.2	1.0	80	DN150	4	3	DN100	DN80	2.2
JX48-3-A	3	240	150	0.2	1.0	80	DN200	4	3	DN100	DN80	3.3

Model Selection

Model	D(mm)	L(mm)	W(mm)	H1(mm)	H2(mm)	H3(mm)	H(agricultral) (mm)	H(industrial) (mm)
JX24-2-A	600	1330	630	130	1215	1450	400	600
JX24-3-A	600	2030	630	130	1215	1450	400	600
JX28-2-A	700	1520	720	140	1305	1580	400	600
JX28-3-A	700	2320	720	140	1305	1580	400	600
JX32-2-A	800	1720	820	140	1345	1620	400	600
JX32-3-A	800	2620	820	170	1395	1695	400	600
JX36-2-A	900	1920	920	140	1385	1660	400	600
JX36-3-A	900	2920	920	170	1440	1740	400	600
JX48-2-A	1200	2620	1220	170	1593	1925	400	600
JX48-3-A	1200	4020	1220	200	1648	2005	400	600

**Note: Multiple parallels could get the more massive flow*