Johnson screens®

A Weatherford Company

The simplest and most reliable method of preparing uninterrupted flow of water for the next down stream process

How the Johnson In-Line Self-Cleaning Filter Works:

The media being filtered enters the intake connection, passing through the specially designed stainless steel Vee-Wire screens from the inside to the outside. Debris accumulates on the surface or may drop into the filter sump chamber.

Build up of the filter cake causes the development of head loss across the screen. When the head loss builds to a predetermined limit, the differential pressure switch initiates a cleaning cycle. The backwash valve is automatically open to atmosphere, creating a pressure drop from the initially pressurised filter chamber. This results in a strong localised reverse flow along the entire length of the backwash tubes.
The motor rotates the reinforced Vee-Wire screen and the localised pressure drop at the backwash tubes remove the filter cake reliably and efficiently.

Features:

- Manufactured in Brisbane, Australia.
- Filter housing manufactured in SAF 2205, 304, 316L stainless steel or carbon steel.
- Vee-wire (Wedge Wire) filter screen manufactured in 304 or 316L stainless steel.
- Flow rates of up to 1000 m^3/hr.
- Filtration range: 50 to 3500 micron.
- Fully automatic self-cleaning backwash cycle.
- No interruption to flow during self-cleaning.
- Manual or electronically controlled automatic self-cleaning backwash operation.
- Self-cleaning operation initiated on pressure differential and/or controlled time sequence.

Applicable Industries:

- Oil refineries and depots
- Energy exploration, development & storage
- Power stations and associated applications
- Mining and metals production
- Sugar mills
- Wastewater treatment plants
- Water treatment plants
- - Civil and municipal works
-
- Process and general industry
- Food and allied industries
- Glass manufacturing
- Hospitals, resorts, buildings, schools
- Clay and cement quarrying

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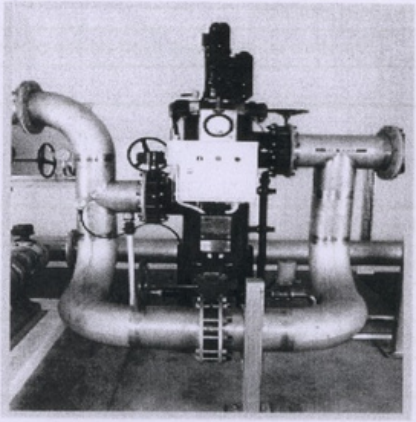

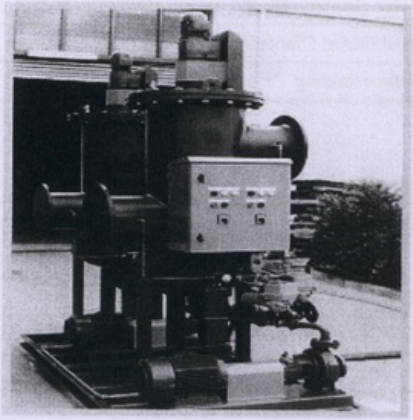

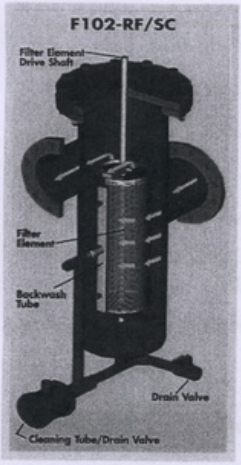

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General

Filter Range	50 to 3500 Micron.	
Maximum Flow Rate	1000 m^3/hr	Consult Johnson Screens for optimum flow & design specs.
Pressure range	200– 3400 kPa	Subject to manufacturing materials specified. or lower if pressure is increased during flushing cycle.
Max. Working Temperature	90°C	Carbon steel, SAF2205, 304 or 316L grade stainless steel.
Filter Configuration	Offset or in-line connections available.	
Inlet/Outlet Diameter	80mm – 750mm	Standard table flanges used unless otherwise specified.
Filter Housing	Up to 1,200mm	

Control

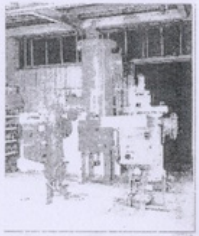
Control Method	Fully automatic backwashing cycle; manual or auto sump drain valve.
Control Voltage	24V AC, 240V AC or 12V DC
Electric Motor	9 Output r.p.m.
Available Voltages	24V AC, 240V AC, 415V AC or 12 V DC
Casing Type	IP 66 rated

Backwashing Data

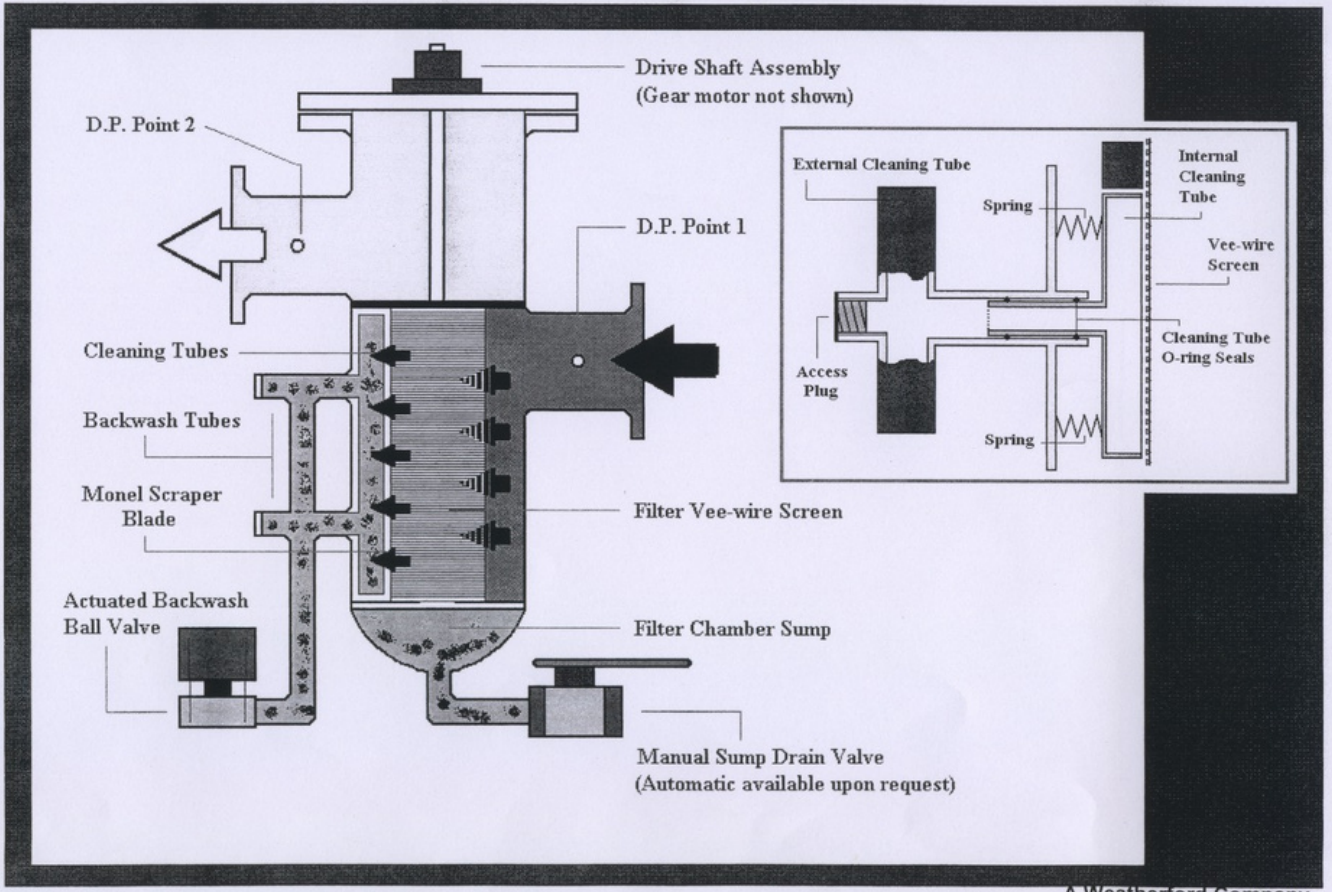
Backwash Valve	50mm – 100mm	
Backwash Water Per Cycle	Approx. 5% of total flow	
Backwash Cycle Time	30 – 40 seconds	Approximately 3 revolutions per cycle.

Construction Materials *

Filter Screens	304 or 316(L) grade stainless steel Vee-wire; wire profile dependent on media type, screen size and pressure rating.
Backwash Valve	304 grade stainless steel actuated ball valve.
Cleaning Mechanism	304 or 316L grade stainless steel.
Seals	Nitrile rubber as standard, otherwise dependent on media type.
Filter Housing and Lid	Carbon steel, SAF 2205, 304 or 316L grade stainless steel.
Control Cabinet	Powder coated steel, 304 or 316 grade stainless steel (IP 66 rated) All controllers are weatherproof.



OPERATIONAL SCHEMATIC



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Control

Control Method	Fully automatic backwashing cycle; manual or auto sump drain valve.
Control Voltage	As required
Available Voltages	As required
Casing Type	STD IP56—Others available if required.

Backwashing Data

Backwash Valve	50mm – 100mm	
Backwash Water Per Cycle	Approx. 5% of total flow	
Backwash Cycle Time	30 – 40 seconds	Approximately 3 revolutions per cycle.

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Quality Endorsed Company