



Installation instructions

Rotorflush RF100 Triplex Self-Cleaning filter

Safety Precautions

The relevant safety precautions must be taken with respect to the fluid that the Filter is being installed into. Factors that should be taken account of are: corrosive or poisonous liquids, poisonous or explosive gases, and bio –hazards for example bacteria, fungal spores and viruses.

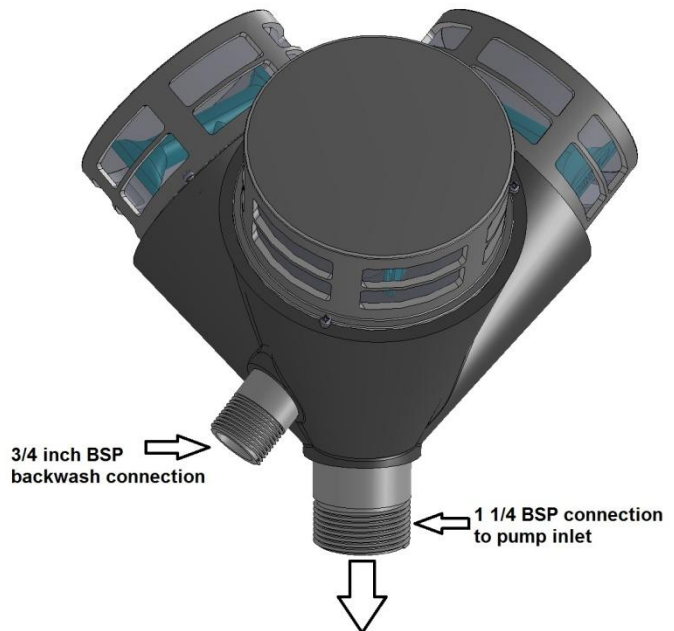
When starting the pump keep well away from all pipe work so that if there are any leaks there is no possibility of coming into contact with the fluid.

Description

The self cleaning filter is for use as a pre-filter for pumps pumping water (2-60C). It is designed for attachment to the end of the suction line. It has internal cleaning rotors that continually back flushes the filter screen, removing suspended solids that are adhering to the filter screen. The cleaning rotor is powered by taking a Tee off the output of the pump.

Construction:

Filter cage	Polypropylene
Body	ABS
Cleaning rotor.	Acetal
Bearing.	304 stainless steel
Filter screen.	Nylon
Weight:	0.5 Kg



Flow rates:

The maximum usable flow through the filter, is 90 litres per minute with an additional 18- 25 litres per minute @ 0.25-0.4 bars are required for the feed to the back flushing rotor. Maximum usable flow rate may be reduced depending on the total suspended solids contained in the fluid and the type of solids, (fatty/ sticky solids will reduce performance)



Installation.

Siting of the Rotorflush Filter.

The filter can be sited in tanks, ponds/lagoons, rivers/streams and channels/flumes where it is immersed in water.

It is very important that the detritus backwashed from the filter has sufficient space to move away from the filter.

Flowing water-when siting in flowing water, (in rivers/streams, channels/flumes, where the flow is great enough to stop settlement of solids), space around the filter is not as important. Detritus backwashed from the filter will be carried away downstream by the flow. When siting in a channel with flowing water, we would advise a minimum channel width of 12 inches. In this situation the filter may sit on the floor of the channel as long as there are no obstructions stopping the flow of detritus away from the area of the filter.

Tanks ponds/lagoons – when siting the filter in a tank or pond/lagoon, detritus backwashed from the filter will build up in the tank or pond/lagoon. Periodically this detritus will need to be removed. To allow the filter to work for as long as possible in the tank before cleaning out is required, it is important that there is sufficient space around and below the filter for detritus to move away and settle. In some circumstances the detritus may float and form a crust on the water in the tank, in this situation the filter should be sited with enough water above it so that a crust can form away from the filter.

Mounting of the Filter.

The filter can be hung from a flexible hose

Pipe Connections.

1. Connect the suction pipe from the pump to the 1¼ inch BSP connection. Fit a 1 ¼ inch BSP non- return valve in the suction line near to the filter to make sure the pump remains primed. It is important that when the pump is switched on water is immediately being returned to the back flushing rotor inside the filter
2. Take a “T” off the output pipe of the pump. The return pipe from the Tee connects to the ¾” BSP connection. When the pump is switched off the upstream pipeline may drain back through the filter backwashing line. If this is a problem, fit a non-return valve upstream of the Tee.
3. Prime pump and run.
4. As the amount and type of contamination in the water to be filtered is variable depending on application, a certain amount of trial and error may be required to get the balance of flow to the cleaning rotor correct. It is helpful for adjustment of the flow to fit valves on the main pump output and on the line back to the cleaning rotor so that they can be adjusted to give sufficient fluid flow back to the cleaning rotor to keep the filter screen clean in the prevailing conditions.

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