



# RF100 IND Q INSTRUCTIONS

Please read before installation

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## Installation Instructions

### Rotorflush RF100 IND Q Self-Cleaning filter

#### 1. 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 biohazards for example bacteria, fungal spores and viruses.

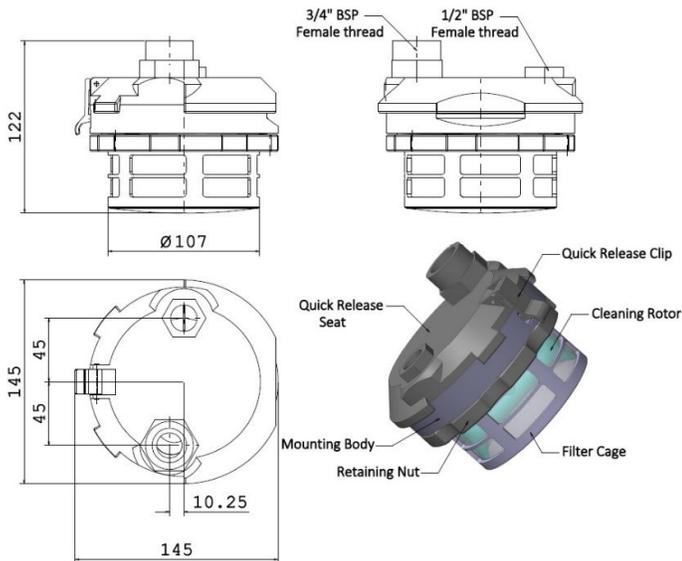
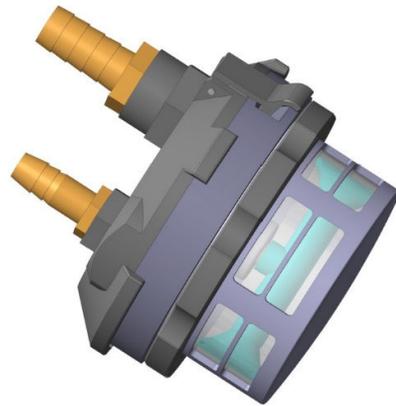
When starting the pump keep well away from all pipe work so that if there are any leaks there is no possibility of coming into contact with the fluid.

#### 2. Description:

The Self-Cleaning filter is for use as a pre-filter for pumps pumping water (2-85C). It is designed for attachment to the end of the suction line. It has an internal cleaning rotor that continually backflushes 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:

<b>Filter cage:</b>	Polypropylene
<b>Quick Release Body:</b>	ABS
<b>Cleaning rotor:</b>	Acetal
<b>Bearing:</b>	304 stainless steel
<b>Filter screen:</b>	Nylon
<b>Weight:</b>	1kg.





## **Flow rates:**

The maximum usable flow through the filter (with standard 250 micron screen) is 30 litres per minute with an additional 10 litres per minute required for the feed to the Backwash rotor (backwash flow can be higher than this if required). 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 ie. 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 200mm and a minimum depth of 150mm. 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 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:

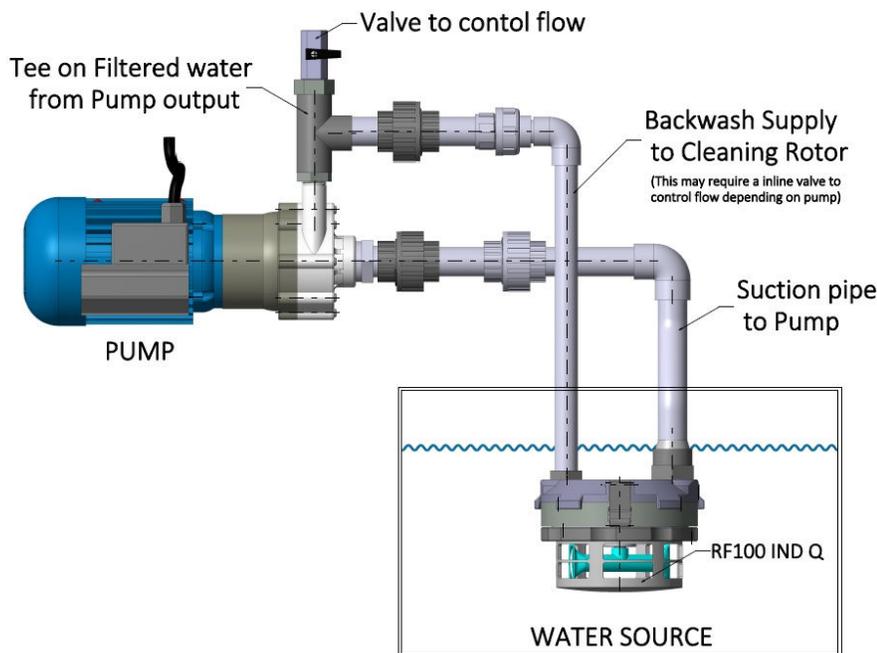
The filter can be hung from a flexible hose.

Pipe Connections:

1. Connect the suction pipe from the pump to the ¾" BSP female thread which is off-centre at the top of the filter. A ¾" non-return valve should be fitted in the suction line near to the filter. It is important that when the pump is switched on water is immediately being returned to the backflushing rotor inside the filter.
  
2. Take a "Tee" from the output pipe of the pump. The return pipe from the Tee to the ½" BSP fitting in the top of the filter should be a minimum of ½" to avoid excessive friction losses. 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 pump.
  
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.

Note: NPT conversions are available. In this case the fittings become male ¾" & ½" NPT threads.

**RF100 IND Pipe Diagram:**



## MAINTAINANCE:

### Replacing the Filter Mesh:

Over a period of time the filter head may become blocked with detritus that cannot be removed by the backwash mechanism. The filter can be gently cleaned or rinsed (do not use a high pressure hose).

The Filter cage should be replaced every 6 months - replacements are available from Rotorflush Filters Ltd. Please quote the part number when ordering.

60 micron filter mesh cages are Part no. RF-096

115 micron filter mesh cages are Part no. RF-097

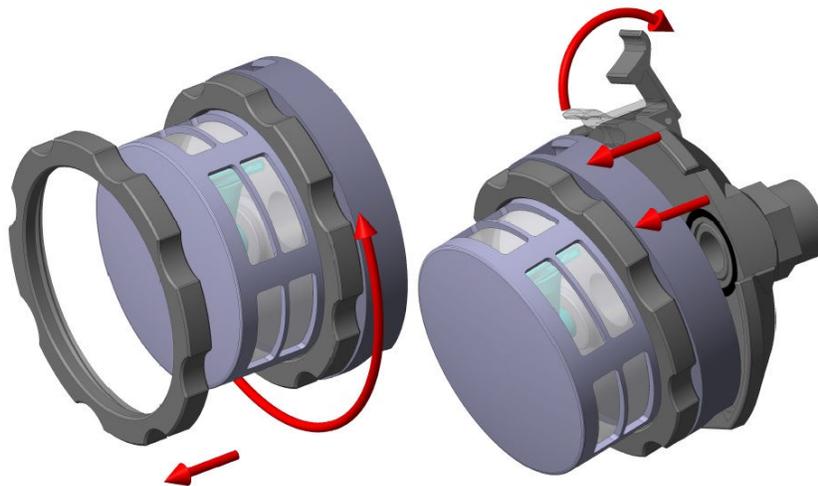
250 micron filter mesh cages are Part no. RF-098

In most conditions the filter will only need maintenance every 6 months. However if there is a lot of detritus in the water to be filtered, particularly if it contains oil, fatty or sticky substances or if there is excessive biological growth then the filter cage may need to be cleaned or changed more frequently.

### Removing the QUICK RELEASE (QR) Filter Head:

Note: If the filter can be easily accessed the whole unit need not be removed from the water source. You can simply release the QR Clip and the Mounting Body and Filter Cage assembly can be removed as one. (Please ensure that the O Rings in the QR Seat stay in place)

1. Unscrew the filter cage and Quick Release (QR) nut from the body of the filter
2. Remove the filter cage from the QR nut
3. Fit the new filter cage into the QR nut
4. Whilst the filter cage is removed check that the blue Backwash Rotor is not blocked.
5. Screw the QR nut and cage onto the filter body. Do not over tighten hand tight is sufficient.





**NOTES:**