Custom-Built Self-Cleaning Filters

POA

Rotorflush Can Build a Bespoke Self-cleaning Strainer to Meet Your Project Requirements

By combining our award winning self-cleaning filter technology with sound engineering and modular design principles, Rotorflush Filters Ltd. can design, manufacture and deliver a purpose built industrial water intake strainer for your application or project. We can scale our filters to meet required flow rates and vary the configuration to fit particular locations and industrial applications. Capacities up to 2000 m³ per hour.

Key Features

- All our bespoke filters feature
- Stainless Steel filter mesh
- Filtration from 300 microns to 6mm
- High reliability and easy to use
- Flow rates as required
- All stainless steel construction including rotors
- 304 or 316 grade steel as required
- CAD and CFD analysis
Description

Custom-Built Self-cleaning Filters to Suit Your Application

Our larger filters are increasingly being custom built for many industrial sectors where there is a need for raw water filtration without the expense and delay of major capital works.

Customers are able to filter their intake directly from a water source with minimal risk of pumps and filters blocking.

All our products are made to order and we are more than happy to provide custom-built self-cleaning filters and strainers to your specifications.

Designs can vary according to the capacity being pumped and the location of the filter.

The simple and extremely strong stainless steel design make Rotorflush the automatic backwash filter of choice in difficult and demanding filtration conditions.

A typical industrial application is to mount a self-cleaning Rotorflush filter directly onto the intake of a large vertical pump. Size and shape can be varied: a recent customer, who wanted to filter water for dockside firefighting pumps at a refinery, specified a design with convex rather than concave ends to save space yet gain the capacity they needed.
Our modular design approach allows us to customise Rotorflush self-cleaning technology to exactly suit our customer’s industrial applications.

Our custom built self-cleaning filters and strainers have no need of any power supply other than the flow of water from the pump. The design is simple, installation is easy and maintenance is minimal.

An Oil and Gas customer recently commissioned five purpose built 750 m³ filters for raw water abstraction.

The strength and reliability of these large industrial custom built automatic backwash filters makes them a popular and inexpensive choice when considering capital projects.

All our custom-built self-cleaning filters and strainers can be made Eel Friendly to meet current EU and UK regulations for Eel Recovery.
Models & Specification

Custom design and build any viable size, shape and capacity self-cleaning inlet filter

All our self-cleaning inlet filters incorporate the same tried and tested continuous backwash system to keep the filter mesh clear.

By combining our award winning self-cleaning filter technology with sound engineering and modular design principles Rotorflush Filters Ltd. can design, manufacture and deliver custom-built self-cleaning filters. You can order an industrial self cleaning water intake strainer to meet your particular project requirements.

Both Filters have a maximum capacity of 360 m³ per hour

<table>
<thead>
<tr>
<th>Model</th>
<th>Diameter</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>RF600-800R</td>
<td>600mm</td>
<td>1380mm</td>
</tr>
<tr>
<td>RF800-600R</td>
<td>800mm</td>
<td>1110mm</td>
</tr>
</tbody>
</table>

Within reason we can scale our filters to meet particular flow rates and size them to fit difficult locations. We can do this by varying the diameter relative to the height of the filter, and by combining filters together to meet a given flow rate.
Size and Capacity

Our custom-built self-cleaning filters can be scaled to meet particular flow rates. The capacity of the strainer is determined by diameter and height of the mesh area.

Our filters are specified on this basis, so an RF800-600R is a Rotorflush filter with a filter mesh 800mm in diameter and 600 mm high. Similarly an RF600-800R filter is a Rotorflush filter with a filter mesh 600mm in diameter and 800 mm high. These filters will have the same area, and the same intake capacity.

So we can vary both the shape and the size of our filters.

Custom Sized Filters and Strainers

The table below gives indicative flow rates by dimensions, diameter on the left column, height of mesh across the top.

<table>
<thead>
<tr>
<th>Rotorflush Self-cleaning Strainer Maximum Flow Rates in M$^3$ by Diameter and Height of Filter Mesh</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model</strong></td>
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<tr>
<td>-----------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>RF600R Perforated</td>
</tr>
<tr>
<td>RF600R Woven</td>
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<tr>
<td>RF800R Perforated</td>
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<tr>
<td>RF800R Woven</td>
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<td>RF1000R Perforated</td>
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<tr>
<td>RF1000R Woven</td>
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<tr>
<td>RF1500R Perforated</td>
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<tr>
<td>RF1500R Woven</td>
</tr>
<tr>
<td>RF2000R Perforated</td>
</tr>
</tbody>
</table>
Our large industrial strainers are designed for large volume low maintenance water abstraction and filtration. These self-cleaning basket strainers can reduce the capital costs of civil engineering works typically associated with water intake screening because the filter can be mounted on a pipe directly in to the water source.

These are self-cleaning coarse screened strainers with capacities from approximately 100 cubic meters per hour up to 1500 cubic metres per hour.

The strainers are all stainless steel construction and the filter mesh sizes are 3mm and 6mm as standard. Filters with mesh sizes from 1 mm to 10 mm can be provided.

The continuous automatic backwash ensures that debris is kept clear of the screen thus preventing blinding.
Other Filter Configurations

In addition to scaling our filters, existing designs can be combined to provide desired flowrates to fit particular locations.

For example, our RF400 self cleaning filters have a capacity of 60 m³ per hour. We have produced double sized RF400 filters to meet customers’ requirements for 120 m³ per hour in a shallow river, and for a narrow sump.

The RF400 Duplex is a custom built self-cleaning filter that comprises 2 self-cleaning filters sharing a single output, for use in water of a minimum depth of approx 375mm.

The RF400-400 filter provides the same capacity as two RF400 filters but can be used in a narrow 800mm diameter sump.
# Custom Filter Materials and General Characteristics

<table>
<thead>
<tr>
<th>Component</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filter cage and shell</td>
<td>316 Stainless Steel</td>
</tr>
<tr>
<td>Central turbine</td>
<td>316 Stainless Steel</td>
</tr>
<tr>
<td>Jets</td>
<td>Natural rubber / 316 stainless steel</td>
</tr>
<tr>
<td>Bearings</td>
<td>Acetal copolymer / 316 stainless steel</td>
</tr>
<tr>
<td>Standard filter mesh screen</td>
<td>3mm or 6mm 316 Stainless Steel</td>
</tr>
</tbody>
</table>

**General Characteristics**

- Water supply to cleaning rotor: Tapped from output of main pump
- Backwash flow and Pressure: 0.4 bar
- Maximum output (m³/hour): Dependant on diameter and height
Ordering

Rotorflush Custom-built Self-cleaning Filters and Strainers

Our strainers are designed for large volume, low maintenance abstraction and filtration in industrial settings. Our self-cleaning filters can be mounted on a pipe or pump directly into the water source. Our filters operate at wildlife friendly velocities and have a range of mesh sizes.

All our industrial water filters and strainers have a continuous automatic backwash that keeps debris clear of the filter screen. This prevents blinding and blockage of the strainer, pump and any other equipment down the line.

The strength and reliability of these automatic backwash filters makes them a popular and inexpensive choice when considering filtration on capital projects.

Please contact us to discuss your requirements for custom-built self-cleaning filters.

Please note:

All our products are manufactured to order

Delivery is by carrier and is usually between 5 and 14 days from order depending on product and availability.

Carriage and packing charges are extra.

Can’t find what you need? Want to talk with us directly?

We’re here to help. Call us on +44(0) 1297 560229