



Sales Information Filterpump E Series

The unique Rotorflush Filterpump E combines the benefits of Rotorflush self-cleaning filter technology with the high performance, reliability and cost advantages of a World-class submersible, multi-stage, centrifugal pump.

By removing suspended solids down to 50 microns, the filter unit protects the pump, enabling it to deliver filtered water continuously at pressures up to 6.8 bars (*depending on model, see performance curves*) and at temperatures up to 40°C.

The filter screen is cleaned continuously up to 120 times per minute by twin, high pressure water jets powered by a secondary impeller. The patent protected filter design is robust and reliable with just one moving part, which operates on the clean side of the filter screen so it is unaffected by suspended material.

Suitable for numerous applications in industry, agriculture, sewage, water treatment, cleaning and plant protection (*excluding explosive or inflammable environments and corrosive or dangerous liquids*) the Rotorflush Filterpump provides many user benefits at a low capital cost.

Combined high performance pump and self-cleaning filter

- Compact and easy to handle
- Greatly extends pump's operational capability
- Replaces larger, more expensive pumps

Filter self-cleans continuously

- No downtime to clean or replace filters
- Reduced risk of filter blockage
- No flow-rate reduction due to partial blockages

Filter provides more efficient pre-filtration than coarse strainers

- Improved pump protection
- Reduces contamination of in-line cartridge/bag filters

Replaces bag and cartridge filters (above 50 microns)

- Provides end-user with self-cleaning benefits
- Provides OEM with an attractive selling feature

More cost-effective than other self-cleaning filter systems

- Lower capital cost
- Only one moving part, operating on clean side of filter.
- No expensive seals, blades etc to replace or fail
- Flushed by filtered water which returns to input side

Less need for settlement of solids

- Replaces or permits smaller settlement tanks
- Requires less water/solvent in circulation

+++ *Improved pump performance*

+++ *Reduced capital costs*

+++ *Reduced filtration costs*

+++ *Reduced maintenance costs*

+++ *Reduced space requirement*

+++ *Improved pump handling*



Applications include:

- *Wastewater treatment*
- *River water extraction*
- *Irrigation*
- *Washing systems*
- *Incorporation into OEM pumping/filtration systems*

clean solutions

In applications where filtered water has to be delivered under pressure from water containing significant levels of suspended solids, the pump usually pumps most of the solids for subsequent in-line filtration, since pre-filtration is usually limited to settlement tanks and/or coarse pre-filters, which only remove heavy/larger particles. Settlement tanks take up space and often fill with solids or overflow. Solids handling pumps tend to be large and expensive in relation to their liquid pumping performance. Premature damage and wear to pump impellers and seals is common and often accepted as inevitable.

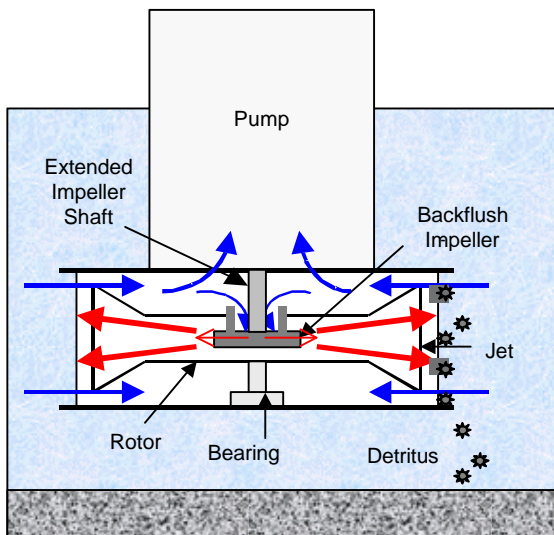
Conventional liquid/solid filtration systems offer a compromise between effective filtration and stable flow rates. As they become clogged, the flow rate progressively falls and could stop altogether. This can lead to reduced production efficiency, stoppages and equipment failure. Frequent filter changes can help maintain efficiency but this increases downtime, cleaning, replacement and disposal costs.

A variety of self-cleaning filters have been developed to address these problems but most of these are complicated pieces of machinery which can be expensive to buy, expensive to operate and expensive to maintain. Those which rely on periodic back-flushing interrupt the flow for a significant period of time and can waste large quantities of water and energy. Those which rely on various forms of mechanical scraping often cannot deal with fibrous materials and can require regular replacement of expensive seals or other components.

The Rotorflush Filterpump the Clean Solution

The Rotorflush Filterpump overcomes these limitations in many non-hazardous environments. The coarse strainer normally fitted to the suction end of a submersible, centrifugal, multi-stage pump is replaced by a Rotorflush self-cleaning filter unit which is driven by a secondary impeller. The filter unit self-cleans continuously, providing a constant flow of filtered water into the pump and protecting it from impeller fouling and damage. Higher pressures and flow rates can now be achieved by a more compact and less expensive pump which will now operate more reliably and with less maintenance.

By removing solids above 50 microns – 250 microns (*depending upon application requirements*) the Rotorflush Filterpump can replace or substantially extend the life of fine in-line filters, thereby reducing their replacement and disposal costs.

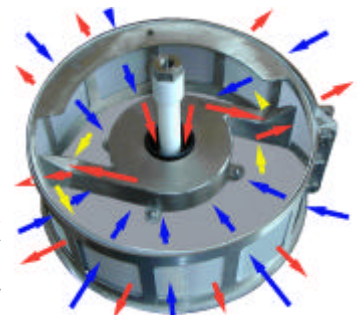


How it Works

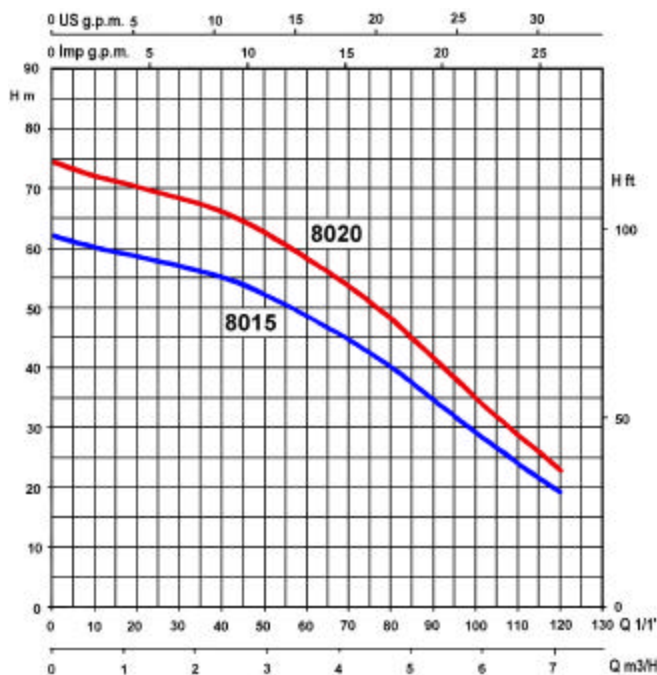
The proprietary stainless steel pump supplied by a leading multinational manufacturer is fitted with a specially designed Rotorflush filter in place of the usual coarse strainer.

Continuous self-cleaning of the filter screen is provided by filtered water (red) from inside the filter cage which is pumped by a secondary impeller located inside a dual-headed rotor to create water jets which flush the filter screen up to 120 times per minute. Any solid material drawn onto the outside of the screen is immediately forced off by the pressure and turbulence of the water jets.

The optional Sensorflush control system is recommended if there is a risk that surges in solids levels might suddenly block most of the filter screen. A pressure transducer linked to a computerised control unit monitors the pressure inside the filter and if this falls, an electrically actuated valve temporarily stops the pump output allowing the backflushing rotor to completely clear the filter screen. The flow is interrupted for approx 15 seconds and is then progressively returned to normal as the pressure inside the filter returns to normal.



Patent Applied for



2 POLE 50 Hz. Operating curves at 2800 rpm. Water test temperature: 20°C.
Performance limits: ISO 2458. Specification for standard class C pumps

| | E8015M Single Phase | E8020T Three Phase |
|---------------------------|------------------------|-----------------------|
| Dimensions (mm) | | |
| - height | 600 | 626 |
| - filter diameter | 210 | 210 |
| - pump diameter | 130 | 130 |
| Weight (Kg) | 19 | 20 |
| Output | See pump curves | |
| Nominal output power (kW) | 1.2 | 1.6 |
| Float switch available | Yes | No |

clean solutions

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