

PROCESS FILTRATION



Increased Process Reliability

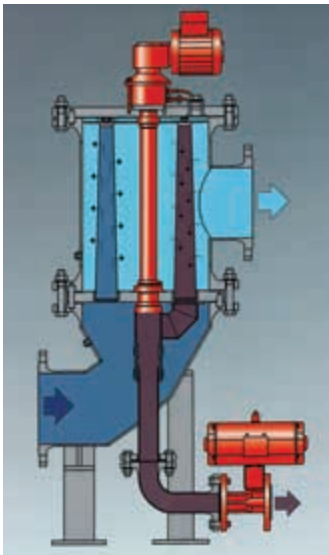
Reduced Operating Costs

Lower Maintenance Costs

Poor Prefiltration Can Prove Expensive

The pretreatment of water is usually the most important step in the multi-stage water treatment process, since it impacts crucially on the operating efficiency of the main treatment and after-treatment processes further downstream. Inadequate retention of solid particles in solution or in suspension during pretreatment (prefiltration) results in:

- ◆ Reduced service times of fine filters and membranes downstream
- ◆ Increased maintenance costs as a result of shorter service intervals
- ◆ Increased energy consumption
- ◆ Reduced process reliability
- ◆ Performance enhanced by isokinetics
- ◆ Safety assured by proven technology and experience



Why Choose Automatic Back Flushing Filters?

- ◆ Fully automatic operation
- ◆ Ready-to-operate unit
- ◆ Maximum utilization of the filter area
- ◆ Full filtration performance following back-flushing
- ◆ Complete cleaning of the conical filter elements
- ◆ Low maintenance requirement
- ◆ Low operating costs

The medium flows through the filter elements from the inside to the outside. Contamination particles then collect on the inside of the filter elements. As the level of contamination increases, the differential pressure between the contaminated and clean side of the filter increases. When the differential pressure reaches the pre-set trigger point, backflushing starts automatically.



RF3

RF7

RF4

Automatic Back-flushing Filter | RF3, RF7 and RF4

- ◆ Separation of solid particles from low viscosity fluids
- ◆ Filtration ratings from 25 μm to 3,000 μm
- ◆ Automation brings efficiency
- ◆ Performance enhanced by isokinetics
- ◆ Safety assured by proven technology and experience
- ◆ RF3 Flow Rates: Up to 10,000 m³/h
RF4 Flow Rates: Up to 220 l/min
RF7 Flow Rates: Up to 7,500 m³/h



PRFS

Process Screen Basket Filter | PRFS

- ◆ Robust filter materials are ideally suited to long-term operation
- ◆ Cleanable filter materials
- ◆ Used as coarse filter or pre-separator
- ◆ Also available as a change-over duplex filter
- ◆ Filtration ratings from 25 μm to 3,000 μm
- ◆ Flow rates up to 3,600 m³/h



PLF1

Process Inline Filter | PLF1

- ◆ Separation of solid particles from low viscosity fluids
- ◆ Suitable for applications with the highest purity requirements
- ◆ Filtration ratings from 1 µm to 90 µm
- ◆ Flow rates up to 2,500 m³/h
- ◆ Innovative element geometry with very high contamination capacity
- ◆ High separation performance
- ◆ Protection of the clean side during element change thanks to fixed support tube
- ◆ Low pressure drops due to large cross-sections and surfaces



ATF

Automatic TwistFlow Strainer | ATF

2 Stage function:

1st stage High contamination loads are tackled by the cyclone-like flow and it is this that achieves the filtration performance and efficiency of a centrifugal separator.

2nd stage The conical filter element guarantees the filtration rating and prevents transfer of contamination to the clean side – irrespective of fluctuations in the operating conditions. Suitable for wide variability in the quality of untreated water.

- ◆ Copes easily with high contamination loads
- ◆ Degree of separation associated with a centrifuge combined with defined filtration ratings
- ◆ No transfer of contamination to the clean side
- ◆ Flow rates up to 400 m³/h



Bag Elements

Schroeder Bag Elements

- ◆ Fully welded seam construction eliminating needle holes and fiber bypass
- ◆ Integrated handles for ease of use
- ◆ Available in mesh, felt, meltblown microfiber and spunbound media
- ◆ 1-1,000 micron ratings
- ◆ Various collar-ring types available



DBH

Duplex or Single Bag Housings | DBH and BH

- ◆ 304 or 316 Stainless Steel Construction
- ◆ Available in a range of sizes and micron ratings
- ◆ Extremely high dirt-holding capacity
- ◆ Economic Filtration Solution
- ◆ Various connection sizes available

Expert Prefiltration prevents subsequent expense:

- ◆ Improved service lives of fine filters and membranes downstream
- ◆ Lower maintenance costs as a result of longer service intervals
- ◆ Reduced operating costs
- ◆ Lower energy consumption
- ◆ Increased process reliability
- ◆ Guaranteed quality

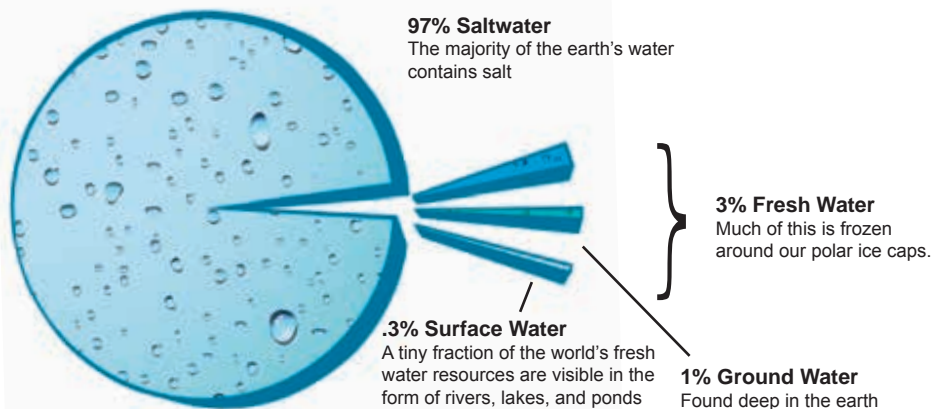
For more information, please visit: www.schroederindustries.com

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Challenges of Water Purification

The aim of water purification is to produce clean water for industry and business. Industrial water treatment is a multi-stage process consisting of pre-, main and after-treatment. As with other engineered process systems, the economic efficiency of the entire process is a key consideration. Cost reductions for water treatment are achieved primarily by employing well-engineered pretreatment methods since these have a profound impact on the generally more expensive processes downstream.

Water Resources



The global demand for water is rising steadily and exceeding the resources currently available. Industry, too, is in many cases reliant on clean process and service water. Industrial water treatment systems are used to produce clean drinking and process water from a variety of sources.

Partial List of Process Applications:

- ◆ Influent from river, lake and well water
- ◆ Recirculation water for aquaculture
- ◆ Protection for cooling water and heat exchangers
- ◆ Irrigation Water Supply
- ◆ **Tertiary Filtration:**
Effluent waste
Grey water
Industrial wastewater
- ◆ **Nozzle protection:**
Descaling operations in steel
Agriculture
Waste water treatment
Mining Operations
- ◆ **Pre-Treatment to:**
Membranes
Ultraviolet disinfection
Ion Exchange
Carbon Filters
Ozone

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