Expert Prefiltration prevents subsequent expense:
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- Lower energy consumption
- Lower maintenance costs as a result of longer service intervals
- Increased process reliability
- Reduced operating costs
- Guaranteed quality

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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 multistage 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

97% Saltwater
The majority of the earth’s water contains salt

3% Fresh Water
Much of this is frozen around our polar ice caps.

3% Surface Water
A tiny fraction of the world’s fresh water resources are visible in the form of rivers, lakes, and ponds

1% Ground Water
Found deep in the earth

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
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- Nozzle protection:
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- Pre-Treatment to:
  - Membranes
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  - Ion Exchange
  - Carbon Filters
  - Ozone

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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

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.

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
- Flow rates up to 3,600 m³/h

Process Inline Filter | PLF1

- Separation of solid particles from low viscosity fluids
- Suitable for applications with the highest purity requirements
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- 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

Automatic Twist Flow 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

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

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
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Duplex or Single Bag Housings | DBH and BH

- 304 or 316 Stainless Steel Construction
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