

Corporate Overview

“The Filter Company”



Schroeder Industries is “The Filter Company” for the process industry. The filtration requirements of our customers are our primary objective, and we are proud of our proven track record of providing quality filtration products over the last fifty years. The designs you see in this catalog are the result of thousands of hours of field-testing and laboratory research... and decades of experience.

Schroeder was one of the first companies to demonstrate the need for, and benefits of, hydraulic filtration, and we now offer our experience to the process and related industries. We pioneered the development of micron filtration, helping to set performance standards in areas of industry. As a result, Schroeder is now a leader in filtration and fluid conditioning—and the proof of our expertise lies in our broad mix of unsurpassed products. Our mission statement reflects our continuing commitment to excellence:

Partnerships

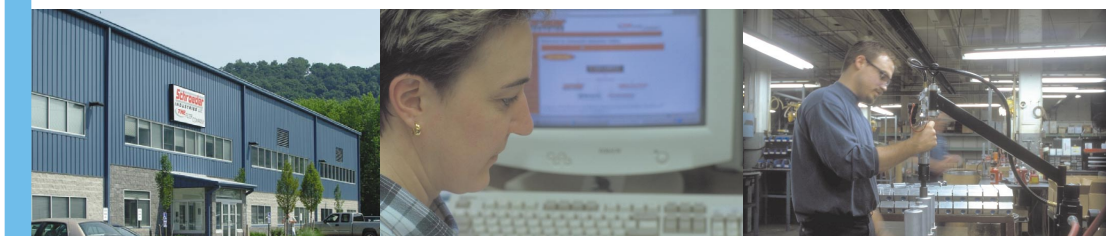
Innovating products, solutions, processes and services to improve performance and efficiency in industry.

We design solutions for industry and for the success of our customers by:

- Optimizing the use of technology with applications
- Using an efficient, timely customization process to fill specific customer needs
- Increasing manufacturing capacity and streamlining operations
- Preserving our reputation for reliability
- Expanding globally to support our customers and stay current with new technologies
- Leveraging and sharing our knowledge to meet challenges openly
- Nurturing a creative, cooperative culture committed to the individual and to providing the best solutions for our customers

Our goal is to be your partner in filtration. Our expertise in filtration technology, superior filter and element manufacturing capabilities, and a level of dedication to customer service and product support that are the reasons we’re considered “The Filter Company.”

Committed to providing the best available filter products, Schroeder Industries will show how we meet all of the necessary cleanliness levels at a competitive price. As a cost-effective quality producer, we will work with your purchasing department to supply filtration technology and develop long-range pricing programs that can improve your company’s bottom line.



Introduction to Process Filtration Technology

Schroeder PURE is the Process filter division of Schroeder Industries. The keystone product of this group is the SC automatic self-cleaning back flush filter. This filter along with bag filters, cartridge filters, rolling media filters and custom designed systems allows Schroeder PURE to offer you complete solutions to your process filtration needs.

Our process filters are used to remove solid contamination from fluids and protect the integrity of high grade components that depend on low viscosity water or water based fluids and emulsions. Schroeder offers high performance filters for all industrial sectors. Improvements in operational efficiency, reduced downtime, lower maintenance costs and reduced environmental impact can all be expected.

Schroeder PURE's back flush filters come in many sizes to fit a wide range of applications. From pressures of 150 psi to 5,000 psi and flows from 20 gpm to 33,000 gpm, there is a back flush solution for many processes. Back flush filters are either automatic or manually operated. Many are made from stainless steel, but they are also available in carbon steel, with protective coating or from brass. Back flush filters are generally used more for course filtration.

Fine filtration can be achieved in many ways. Schroeder PURE offers bag filters, rolling media filters, cartridge filters and basket strainers to filter fluids as low as 1 micron. Bag, cartridge and rolling media filters are an economical filtration solution. The elements are disposable and easily changed. Basket strainers are cleanable elements that do not need to be replaced.

The most important aspects of filter selection include performance, efficiency, system parameters and of course economic impact. Choosing the proper filter for your specific need is not difficult, but certainly requires some attention and understanding of specific parameters. This catalog was designed to help you find the right filter to meet your needs.



Industries Served



Agriculture

Irrigation is critical to the success of the agriculture industry. Filtering irrigation water will extend the life of pumps, pipes, nozzles and headers.



Automotive Manufacturing

Better filtration of cutting fluid water emulsions to extend service life and reduce environmental impact. Treatment of the cooling water allows for a cleaner, less abrasive supply.



Chemical Processing

Improving the product quality by filtration of process fluids.



Industrial

Continuous filtration of cooling water, cutting fluids and other service liquids within the plant increases component reliability and reduced downtime due to service interventions.



Machine Tool

Improving the condition of emulsified cutting fluids to extend service life and reduce environmental impact.



Marine

Filtration of inlet water used for cooling various components, fire suppression, bilges, ballast and raw stock for potable water generators.



Mining Technology

Underground spray water filtration for process consistency and improved reliability of pumps and cutting heads. Treatment of water hydraulics in long-wall applications to increase component life and reduce environmental impact.



Offshore

Filtration of inlet water used for cooling various components, fire suppression, bilges and raw stock for potable water generators.



Paper Industry

Protecting screen spray nozzles and dynamic shaft seals through efficient filtration to increase efficiency and extend service life.



Power Generation

Treatment of inlet cooling water supply for the generators allows for a cleaner, less abrasive supply. Filtration of the water supply to the dynamic "sliding-ring" water seal on the turbine shaft increases service life of the seal.



Sewage and Waste Water Treatment

Coarse filtration of the water supply and pre-treatment of effluent. In industrial situations, take-off filtration of the clear run water saves valuable potable resources.



Steel Making

Treatment of inlet cooling water supply used for various processes, including rolling mills and furnaces. Nozzles and pumps in descaling operations are protected by thorough filtration of the water.



Thermal Transfer

Protection of heat exchangers and radiant devices from becoming clogged with solid contaminants in the transfer fluid.

When considering a Schroeder process filter/strainer for your application, you can select from three basic designs:

1. **Back flush filters/strainers** (automatic and manual) – Back flush filters/strainers cover a wide range of flows and filtration ratings. Some are automatic using electronics and pneumatics controlled by a PLC based panel. Others require an operator to manually back flush the filter/strainer. The elements in each of the back flush filters/strainers are reusable.
2. **Bag filter/strainer systems** – These filter housings come standard sizes 1, 2, 3 and 4. Size 2 multi-bag housings are available for higher flow applications. The filter bags are disposable and available in many types of felt and mesh. They are suitable for coarse and fine filtration.
3. **Cartridge filter/strainer systems** – Cartridge elements utilize depth filtration to increase dirt holding capacity while offering efficient filtration. The elements are well suited for fine filtration. Housings for these elements are available in polypropylene for single cartridges and stainless steel for multiple cartridges, and rolling media filters/strainers for large dirt loads.

There are eight (8) main considerations in choosing the proper filter housing

1. **Fluid Compatibility** – How will the materials of construction and seals for both the housing and element withstand the process medium?

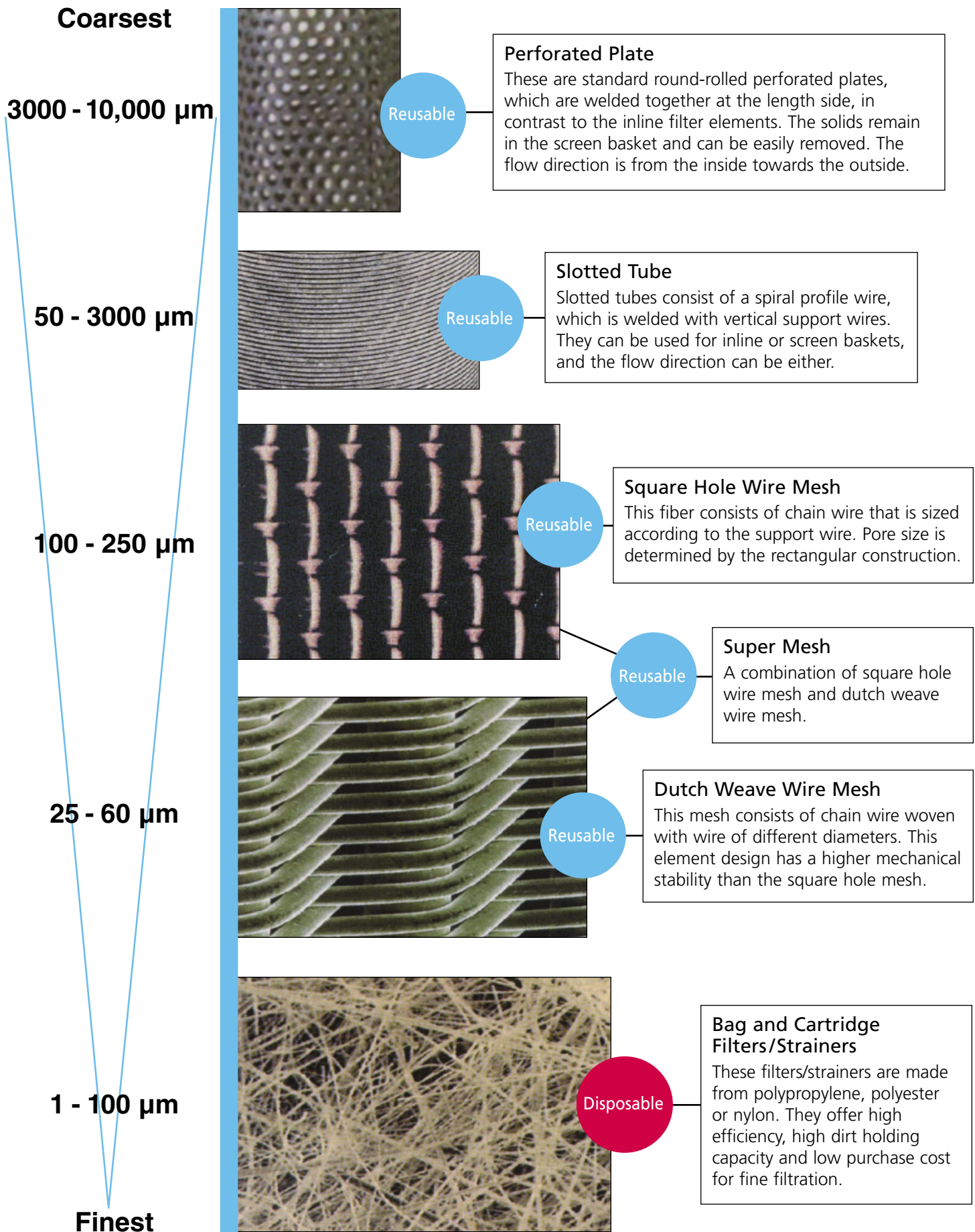
Materials of Construction

- a. Housing Construction – Carbon steel, stainless steel, polypropylene, brass and more.
 - b. Seals – Buna, EPDM, Viton, Teflon® (a registered trademark of DuPont Dow Elastomers) and more.
 - c. Filter Elements – see Element Selection Guide and Technical Data section, page 6, for more detailed information.
2. **Pressure Rating** – The maximum sustainable working pressure of the system.
 3. **Pressure Drop (loss)** – How important is maintaining pressure rating and heat generation in the system?
 4. **Process Connection Size** – The process piping and specific requirements of the system determine these criteria.
 5. **Filter Element Options** – What is the desired pore size of the element and the requirements of the system (see Filter Element Selection).
 6. **Overall Efficiency** – based on filter element selection.
 7. **Accessories** – gauges, system monitoring, control panels.
 8. **Economic Considerations**

The model numbering selection chart on each product spread will provide an easy method to fully define the product you need for your specific application.

The information provided in this section is for reference only, and should be used as a guide when selecting the proper filters/strainers, elements, materials of construction and determining fluid compatibility. For your specific application, contact Schroeder Industries at www.schroederpure.com, by phone at 724.318.1100, or fax at 724.318.1200.

Element Selection Guide



The fundamentals of filter element selection will focus upon the type of fluid you are filtering, and what filtration level you require.

In some cases, basic filtration is required when coarse materials in the fluid are to be removed. In other instances, extremely fine filtration may be needed for the specific process or equipment within the system.

There are two classes of Schroeder Industries filter elements

1. Reusable
2. Disposable

Once again, Schroeder Industries sets the standard for environmental stewardship with reusable filter elements. When choosing the proper filter element, you now have a choice not only based on filtration requirements, but on the materials of construction and the possibility of environmental impact. As you begin the selection process for filters/strainers and filter elements, you will be able to add to your criteria whether a disposable or reusable element suits your application best. Consideration should be given to all of the environmental consequences, and we urge you to contact our application engineers during the selection process.

Reusable Elements

Designed to allow the user to replenish the media through cleaning, these elements utilize metallic media for long-term usage. Reusable elements are easily cleaned. In some cases, "intelligence" is built into the filter housing and through an internal process, the filter/strainer performs the cleaning process itself. This feature is the benchmark of the SC back flush products.

Disposable Elements

Schroeder's disposable bag and cartridge elements are manufactured from polypropylene, polyester, nylon and other low cost durable materials. They are engineered to offer high dirt holding capacity and high efficiency at an economical price. These elements are reliable and are used for fine filtration.

The graphical representation on the previous page demonstrates five differing element types and their corresponding micron range. This is critical to selecting the level of cleaning required in your system. It is important to select the medium that is appropriate to your application. There are dangers in both under-sizing and over-sizing of the element. Selecting a pore size too large can have adverse effects on your process or the equipment you are trying to protect. Selecting a pore size smaller than your requirements will add unnecessary protection and introduce pressure drop and heat that may affect your process. If you are unsure of your specific requirements, please contact our Application Engineers for assistance.

The filter model number selection chart on each product spread will provide an easy method to fully define the product you need for your specific application.