

# ELEMENT TECHNOLOGY

Product Brochure



**Schroeder**  
**INDUSTRIES**  
Advanced Fluid Conditioning Solutions®

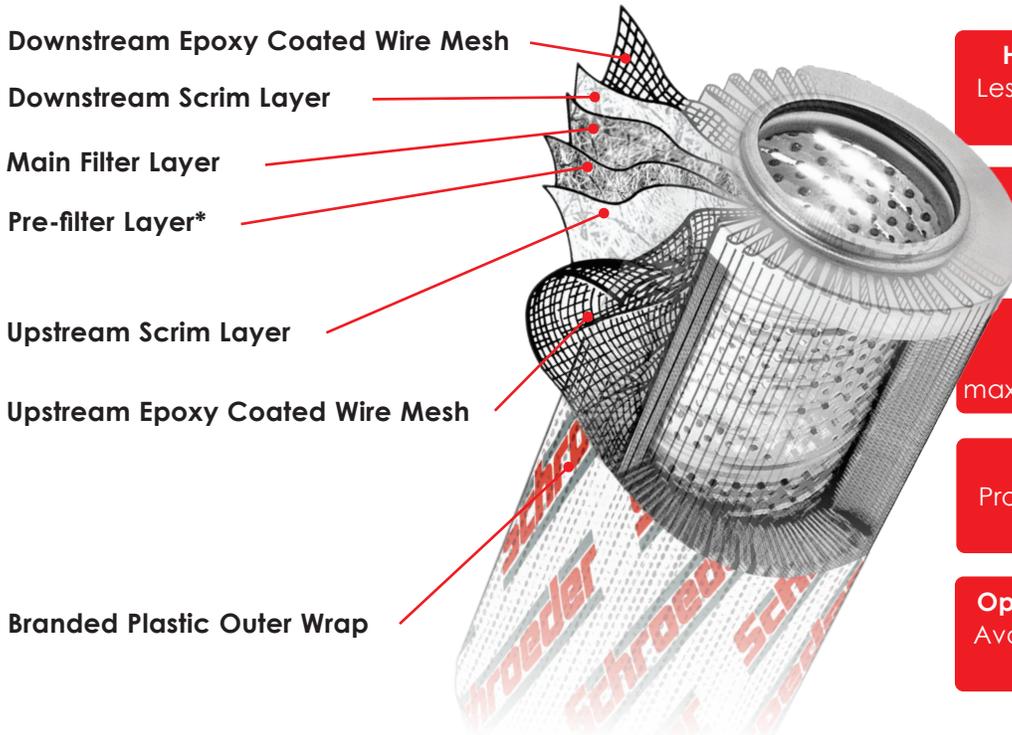


**Did you know? The vast majority of hydraulic equipment failures are the result of fluid contamination!**

**The right filter element can be the difference between smooth, efficient operation or costly downtime and repairs. Schroeder Industries has engineered a wide range of elements for filtration you can rely on:**



**The Foundation of Schroeder's Exceptional Filter Elements**



**High Cost-Effective Media Area**  
Less restriction, lower pressure drop, lower hydraulic load

**Wire Mesh Upstream and Downstream**  
Better pleat stability

**Multilayer Filter Media**  
Intricate passageways for the maximum entrapment of dirt particles

**Multilayer Media Support**  
Provides strength and protection to the support media layers

**Optimized for Different Applications**  
Available in a wide range of micron ratings and element sizes

The special class of micro-glass and other fibers used in Z-Media® are manufactured with utmost precision, to specific thicknesses and densities, and bonded with select resins to create material with extra fine passages.

Element Media	Filtration Ratio Per ISO 16889			
	$\beta_{x(c)} \geq 75$ (98.7%)	$\beta_{x(c)} \geq 100$ (99%)	$\beta_{x(c)} \geq 200$ (99.5%)	$\beta_{x(c)} \geq 1000$ (99.9%)
Z1	<4.0	<4.0	<4.0	4.2
Z3	<4.0	<4.0	<4.0	4.8
Z5	<4.0	4.2	4.8	6.3
Z10	6.8	7.1	8.0	10.0
Z25	16.3	17.1	19.0	24.0



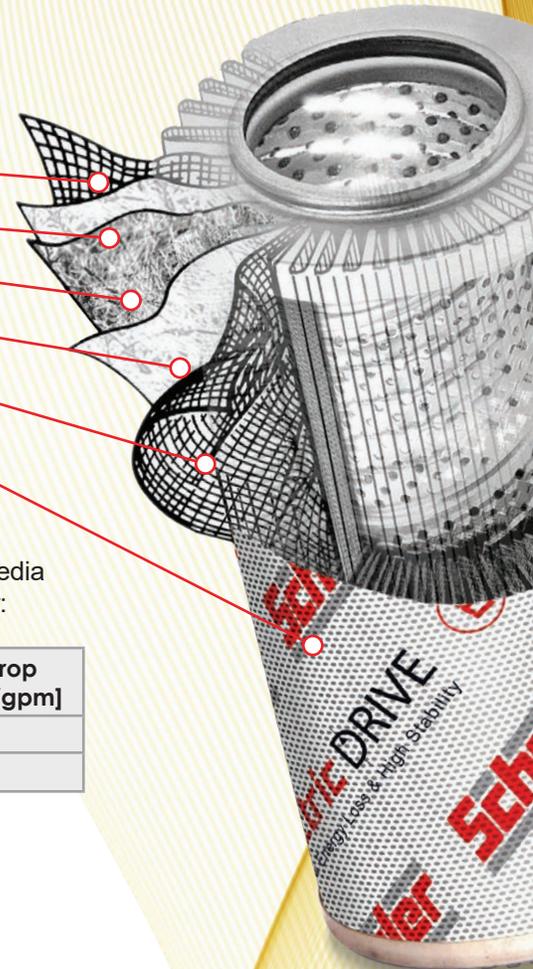
**E** | **ectric DRIVE**  
Low Energy Loss & High Stability

**Reduce Pressure Drop & Increase Energy Efficiency**

- ◆ Specially formulated, high-efficiency, low differential pressure media provides the lower pressure drop at any given level of filtration
- ◆ Exceptionally low pressure drop is ideal for battery drive hydraulic circuits and hydraulic drive motor-pump units, particularly in cold-start conditions

**Si** Part of Schroeder's Energy Sustainability Initiative

- Downstream Epoxy-Coated Wire Mesh
- Downstream Scrim Layer
- Specialty Low DP Filter Media**
- Upstream Scrim Layer
- Upstream Epoxy-Coated Wire Mesh
- Branded Plastic Outer Wrap



When tested against the typical synthetic microglass media currently available, our 10-micron Electric Drive Media element demonstrated a **68% lower** pressure drop factor:

Media Type	$\beta_{200}$ [ $\mu\text{m(c)}$ ]	Pressure Drop Factor [psid/gpm]
E-Drive Media (10 $\mu$ )	10.2	<b>0.050</b>
Typical Synthetic Media (10 $\mu$ )	10.6	0.156

- Element Collapse Rating: 145 psid (10 bar)
- Temperature Range: -22°F to 212°F (-30°C to 100°C)
- Flow Direction: Outside to Inside



**AQUA EXCELLEMENT**®

**For Powerful Dewatering & Particulate Filtration**

- ◆ Includes a layer of optimized, specially formulated water removal media
- ◆ The particulate-removing filtration power of Excellement® media combined with potent water removal capabilities
- ◆ Available in multiple element sizes in both cartridge and spin-on style



# Did you know? Lower oil conductivity means more electrostatic discharge (ESD) in your hydraulic system!

As low-conductivity oils become more widespread, ensure your equipment is protected with the best static-busting filter elements.



## Anti-Stat

A Reliable, High-Performance Solution for Low to Moderate ESD

- ◆ Formerly called Anti-Stat Pleat—same great anti-static performance with an updated look!
- ◆ Specially formulated media dissipates electric charges before they can begin damaging your system
- ◆ Cost effective option for mid-range ESD scenarios
- ◆ Effective for conductivity values **higher** than 100 pS/m

## Anti-Stat PREMIUM

Supercharged Static-Busting Capabilities for Extreme ESD

- ◆ The newest, highest performance option in Schroeder Industries' anti-static element arsenal!
- ◆ Eliminates virtually all static buildup at the source in all operating conditions, including low temperature cold start
- ◆ Effective for even the most critical cases of ESD, tackling conductivity values **lower** than 100 pS/m

## Which Anti-Static Element is Right for Your Application?

Depending on the level of conductivity in your hydraulic fluid, different element options are recommended for High, Medium, or Low/Critical conductivity.

**EXCELLENT**  
Synthetic Microglass Filtration Media

Anti-Stat

Anti-Stat  
PREMIUM

500 pS/m

Conductivity [pS/m]

100 pS/m

### Conductive Hydraulic & Lubricating Oils

- Fuchs Renolin MR
- Mobile Glygoyle
- Renolin PG
- Fragol TR
- Fuchs Renolin B HV
- Mobile DTE Excel

### Most Zinc & Ash-Free Hydraulic & Lubricating Oils

- Fuchs ZAF
- Texaco Rando
- Panolin HLP
- ESSO Nuto H
- Renolin BHVI
- Shell Tellus S2
- Shell Tellus S
- Total Equivis
- Megol HLP
- Aral Vitam
- Shell Vitrea

### Modern Turbine Lubricating Oils

- Texaco Rando HDZ
- Mobile Terrestic
- Shell Turbo T
- Shell Turbo S4 X
- Mobile DTE
- Addinol MT
- Mobile Terrestic T
- Chevron GST/EP
- ESSO Teresso GT
- Texaco Premium Regal EP
- Shell Turbo S4 Gx
- Castrol Hyspin VG
- Shell Turbo CC
- Shell Turbo GT

HIGH

LOW/  
CRITICAL



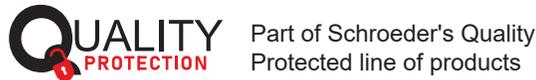
## A Superior Alternative to Inside-Out Filtration

- ◆ DirtCatcher®'s outer shell prevents contaminants from falling back into the system during element changes for increased system protection
- ◆ Provides the excellent dirt retention of Excellement® media
- ◆ DirtCatcher® elements are available in single and double length K, BB, and 18L sizes



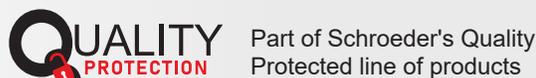
## Unique Solution to Retain Replacement Element Business

- ◆ Provides a unique way for OEM's to retain replacement element business and maintain filter performance
- ◆ Utilizes a non-circular critical sealing arrangement between element and filter housing
- ◆ The unique geometric shape of the element grommet and mating bushing prevents low-quality will-fit substitutes



## Customizable Bushing/Element Interface for Patented Protection

- ◆ Unique interlocking "Lock & Key™" interface between the bushing and element in some filter housings
- ◆ The specific Lock & Key™ pattern allows only corresponding Lock & Key™ Elements to seal correctly
- ◆ Lock & Key™ pattern can be customized for specific OEM requirements



## ***Coalescing Elements***



- ◆ Designed to provide the highest water and particulate removal efficiency for today's ULSD and biodiesel based fuels
- ◆ Patent-pending, three-phase, particulate and fuel/water separation media technology
- ◆ Tested according to the SAE J1488 water removal test and ISO 16889 particulate removal test, modern standards used to evaluate today's fuel cleanliness technology

## ***F-Pack Elements***



- ◆ Engineered for optimal performance in fire-resistant fluids
- ◆ Assures safe and dependable operation in an electro hydraulic system (EHC)
- ◆ The change-over to "F" pack media from a traditional, high performance, synthetic media results in lower clean pressure drop and higher efficiency
- ◆ Eliminates cast-off, or shedding of synthetic fibers, which can result in component failure

## ***CGF Elements***



- ◆ Removes contamination including water, compressor oil, rust, and scale from compressed gases
- ◆ Provides the necessary protection for sensitive components, extending system life and reducing overall maintenance costs
- ◆ High quality solutions available for common compressed gas applications with operating pressure up to 5,000 psi

Premium filter element equivalents for over 42,000 OEM-brand part numbers and counting!

- ◆ Affordable filtration solutions sized to fit a wide variety of applications and replace a wide range of competitor elements
- ◆ Cartridge and spin-on styles available
- ◆ Variety of media grades (cellulose, synthetic, water removal, anti-stat, stainless steel, metal mesh)
- ◆ Available for private label branding
- ◆ Try our convenient Element Cross Reference Search Tool: [schroederindustries.com/cross-reference/](http://schroederindustries.com/cross-reference/)



## Private Labeling

OEM private labeling is available for Schroeder Industries' signature high-performance elements

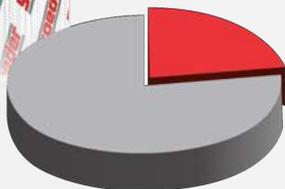
- ◆ Increase aftermarket revenue
- ◆ Ensure appropriate use of high-quality elements
- ◆ Reduce warranty claims



### Schroeder Branding

Expected Retention Rate:

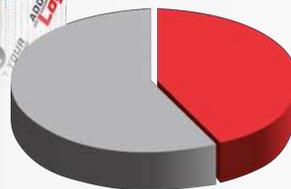
**20-25%**



### OEM Branding

Expected Retention Rate:

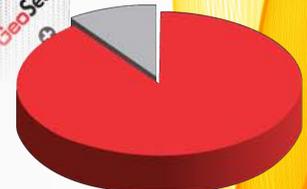
**35-50%**



### OEM Branding + Quality Protection

Expected Retention Rate:

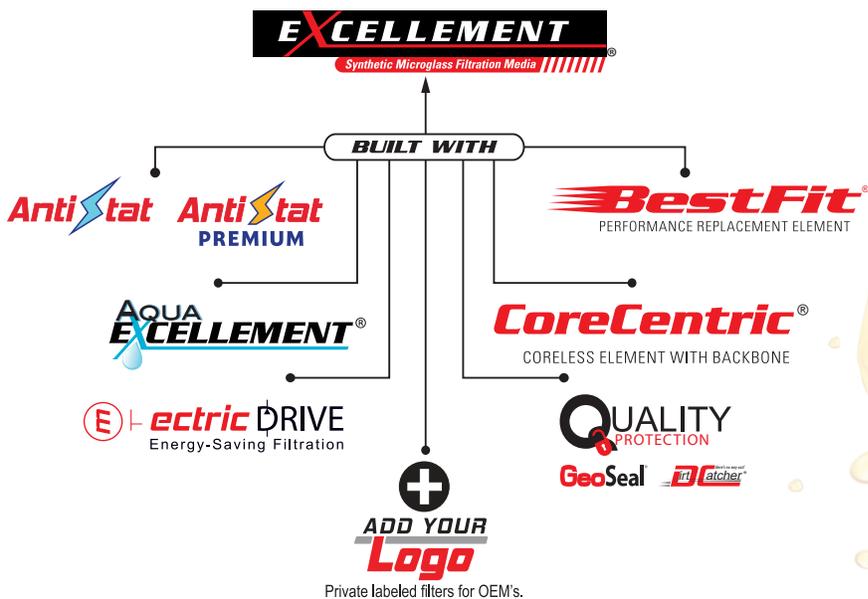
**90-100%**





# ELEMENT TECHNOLOGY

L-4360 | 2025



## The Wide World of Schroeder Z-Media®

Schroeder Z-Media® elements are tested under cyclic flow conditions to verify flow fatigue characteristics. Extra strength and rigidity are engineered into every one of these filter elements through the use of stainless steel wire fabric and additional support layers. (ZX Series high crush strength capabilities are available for 3000 psi applications.)

A wide range of Schroeder Z-Media® elements, developed through comprehensive laboratory testing and field performance studies, enable you to achieve the desired cleanliness level for your system and tackle application-specific challenges.

We are confident that the high efficiencies, exceptional dirt holding capacities, and low pressure drops—combined with Schroeder’s competitive prices— make elements made with Z-Media® the best value in the market today.

Visit us online @ [www.schroederindustries.com](http://www.schroederindustries.com) for our complete product offering!



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