Schroeder INDUSTRIES
Advanced Fluid Conditioning Solutions®

HYDRAULIC & LUBE FILTRATION

Improved Reliability

Branded Solutions

Lower Maintenance Costs

Schroeder Industries' products are continually tested using the latest ISO and NFPA test procedures in our engineering lab. Our dynamic test stands are in constant operation, subjecting our filter housings to cyclic pressure to verify their rated fatigue and burst pressures per NFPA Standard T2.6.1*. Statistically sampled elements are tested to ensure fabrication integrity in the manufacturing process. They are also tested for efficiency and dirt-holding capacity in a multi-pass test stand, equipped with in-line particle counting capabilities, which are calibrated to ISO standards.

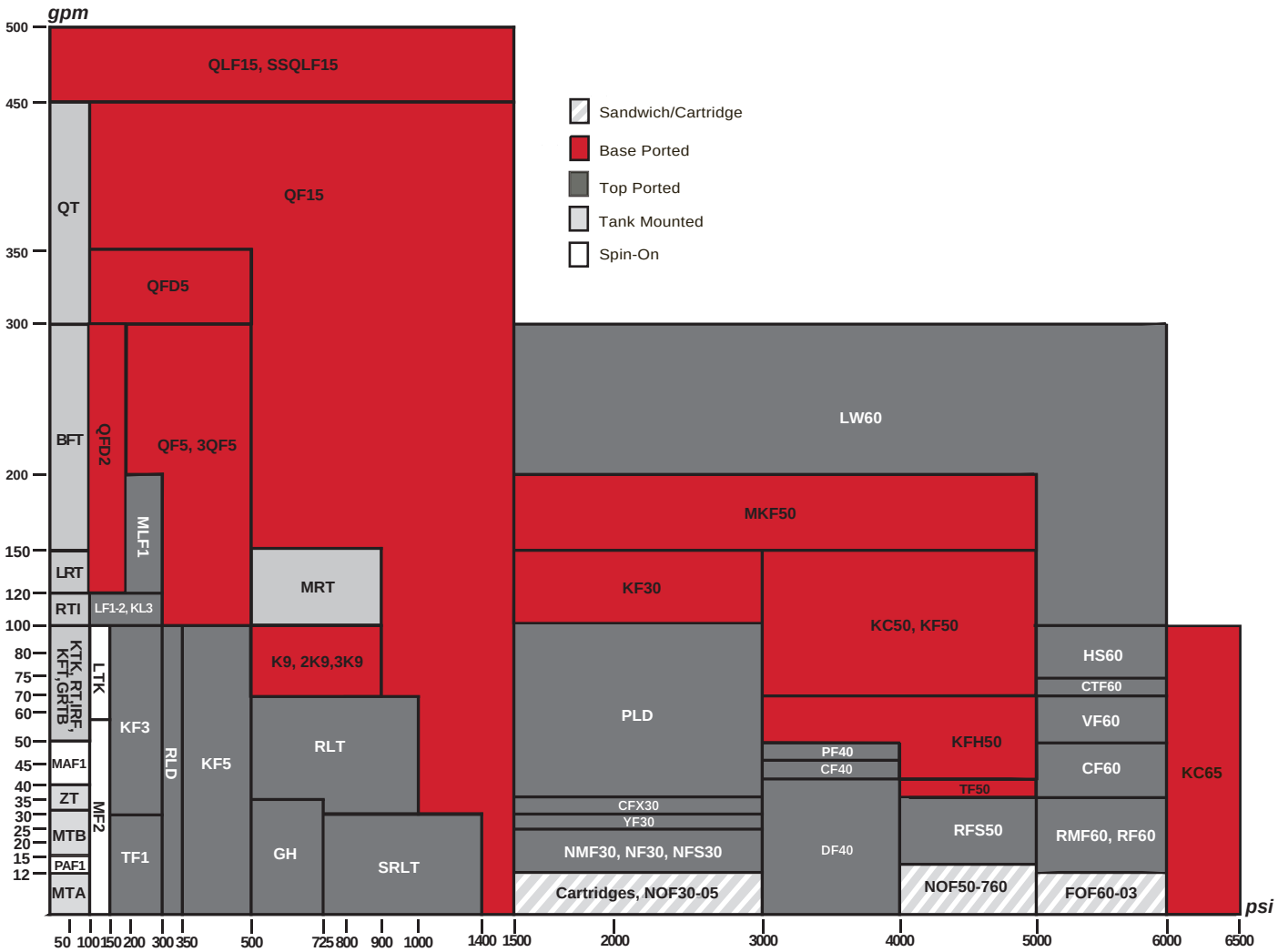
*The T2.6.1 Pressure Rating document is available from the National Fluid Power Association, 3333 N. Mayfair Road, Milwaukee, WI 53222-3219.

Design and Testing Standards of Schroeder Filter Housings

Description	Standard
Burst Pressure Test	NFPA/T-2.6.1
Fatigue	NFPA/T-2.6.1
Pressure/Life Rating of a Spin-On Filter	NFPA/T-3.10.17
Pressure Drop vs. Flow	ISO 3968

The application of individual filters should take fatigue ratings into consideration when there are flow or pressure variations creating pressure peaks and shock loads. Typical hydraulic systems that use highly repetitive operations include plastic injection molding machines, die-cast machines, and forging and stamping press systems. In these and other similar applications, rated fatigue pressure should be considered when selecting a filter.

Filter Housings: Flow vs. Operating Pressure



Product Application Examples

GRTB

Problem: Equipment manufacturers in the agriculture, construction and forestry markets need a high performing filter to deliver quality equipment at the lowest possible price.

Solution: The GRTB was designed from the ground-up to be price competitive, while also featuring the high-performance standards for which Schroeder is known. Aftermarket element sales are guaranteed with our patented GeoSeal® as the standard on all models.

GKL3

Problem: Serviceability can be a driving factor when it comes to selecting the correct filter for a given application. Furthermore, equipment manufacturers looking to grow aftermarket sales need branded solutions.

Solution: The GKL3's threaded bowl facilitates easy element change-out in a variety of applications, while the exclusion of mounting flanges between the head and bowl eliminates the risk of misplacing loose parts while the bowl is removed. Available with GeoSeal®, the GKL3 also provides OEM's with a solution for capturing aftermarket element sales.

GKC65

Problem: In the mining industry, changing elements in tight quarters and dusty environments can be no small task. Contamination and moisture can easily affect the components of a hydraulic system during the change-out process.

Solution: The GKC65 filter offers the highest operating pressure rating of any filter in our product line and features a special cap designed specifically for underground mining applications. The patented coarse cap threads reduce the likelihood of cross-threading when replacing the cap after changing elements. An outer O-ring provides further protection against moisture and solid contaminants.

HS60

Problem: Hydrostatic circuits are a critical and overlooked application for filtration. Reverse flow, pressure spikes and heat degradation often discourage the use of filtration because the filter or filter element will not meet the demand of the application.

Solution: The HS60 has been designed to meet the challenges of in-line, hydrostatic applications. Developed with one compact valve that functions as the forward-flow bypass as well as the full, reverse-flow check valve, the HS60 is rated for 100 gpm in both directions. Available with media as fine as 3 micron, the HS60 offers unsurpassed filtration for the most critical applications.

DBE

Problem: Difficult to access hydraulic tanks are located in damp environments and present significant challenges to access and change breathers.

Solution: The DBE has 4 check valves so only air entering passes over the dual-stage desiccant, effectively increasing moisture capacity of the breather in the same space. The DBE also has a 2 micron element to eliminate particulate ingression into the system.

Why Filter?

Over 90% of all hydraulic system failures are caused by contaminants in the fluid. Even when no immediate failures occur, high contamination levels can sharply decrease operating efficiency. Contamination, any substance which is foreign to a fluid system, can exist as a gas, liquid or solid. Elevated contamination levels accelerate component wear, decrease service life and increase maintenance costs.

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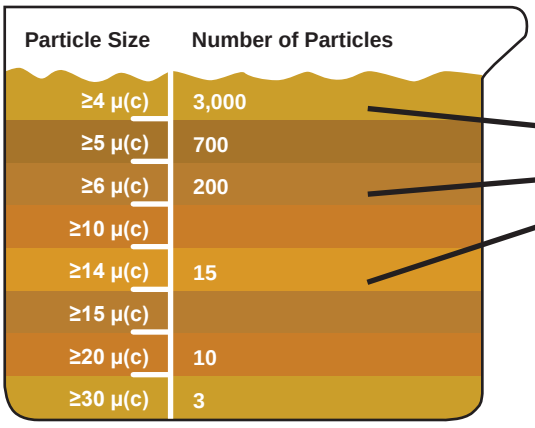
How a System Gets Contaminated

Contaminants come from two basic sources: they either enter the system from outside (ingestion) or are generated from within (ingression). New systems often have contaminants left behind from manufacturing and assembly operations. Unless they are filtered as they enter the circuit, both the original fluid and make-up fluid are likely to contain more contaminants than the system can tolerate. Most systems ingest contaminants through such components as inefficient air breathers and worn cylinder rod seals during normal operation. Airborne contaminants are likely to gain admittance during routine servicing or maintenance. Also, friction and heat can produce internally generated contamination.

Determining the ISO Rating of a Fluid

Using ISO 4406:1999



If Particle Count Falls Between	Scale Number is*
2500-5000	19
160-320	15
10-20	11

*Source: ISO 4406:1999

The Sample Fluid is ISO 19/15/≥11.

Note: When the raw data in one of the size ranges results in a particle count of fewer than 20 particles the range code for that number for that size range shall be preceded with a ≥ sign.

For more information, please contact sisales@schroederindustries.com

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