

TANK OPTIMIZATION SERVICE



Customized Filtration & Deaeration

Complete Internal Filtration System

Increased Thermal Conductivity

Why Do We Recommend Tank Optimization?

With global competition continuously placing strong pressure on OEMs to decrease costs and increase energy efficiency, it is tough to install additional engine components in the already quite limited design space around the tank. Schroeder saw the immediate need for flexibility in reservoir accessories and components, and made available an all-inclusive **Optimization Service**.

By offering Optimization Services, we are truly able to visit each individual customer site and observe all individual needs and system requirements to create a truly optimized, and personalized hydraulic tank solution.

Changes in design engineering driven by the market and the resulting space increase for new components are among the many factors Schroeder must be mindful of when creating these tanks. In every existing tank system, Schroeder sees the opportunity of optimizing and reducing the tank. Many OEMs and end-users have already benefitted from lower costs thanks to less material demand as well as smaller oil volume, environmentally friendly products and from additional space in the engine compartment.

Standard Product Range for Tank Optimization

► In-to-Out Filtration

- ◆ Upstream flow from the bottom - outlet close to oil surface
- ◆ Low outlet velocity
- ◆ Minimized turbulences in the tank
- ◆ Smooth oil blending in the tank
- ◆ Additional options (Quality Protection to secure the spare parts business)

► Integrated Deaeration Windows

- ◆ Guidance of flow above oil level
- ◆ Coalescence of air bubbles

► Different Designs

Within the Schroeder standard product range of filters, we offer different designs such as:

- ◆ Filter solutions with upstream flow from the bottom
- ◆ Filter solutions with upstream flow from the side
- ◆ Integrated Quality Protection (as an option)

All of which enable maximum tank optimizing potential. Besides to standard filters, we provide even customized solutions.

► Advantages

- ◆ Reduction of oil volume
 - ◆ Environmental protection, cost-savings for the end-user
- ◆ Reduction of tank size
 - ◆ Available design space for additional components
 - ◆ Cost-savings for OEM (material)
- ◆ Lower complexity of tank, fittings and connections
 - ◆ Cost-savings for OEM (material, assembly)



COMPLETE TANK PACKAGES

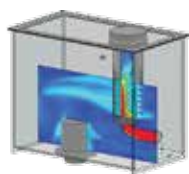
How Schroeder Industries Supports You

Our optimizing experts in the field of tank and filtration systems support you during the design-engineering revision of your machine through:

- ◆ Simulations, tests and experience
- ◆ Optimized filter systems
- ◆ Reduction of complexity of the tank and optimization of space
- ◆ Spare part management

Tools for System Optimization

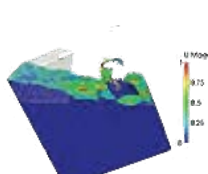
► Tank Simulations (Computer-aided optimization of tank systems)



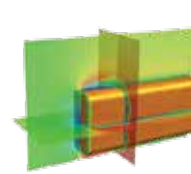
Flow



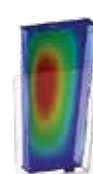
Deaeration



Sloshing

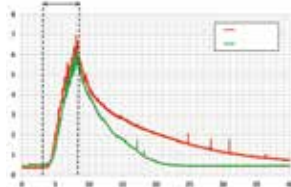


Thermal



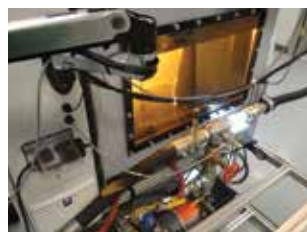
Structural

► Laboratory Tests



- ◆ Experimental investigation of the deaeration performance of tank systems
- ◆ Unique air content sensor for quantitative characterization, optimization and validation of tank systems

► Experience & Know-How



- ◆ Many years of experience in the field of "Air In Oil"
- ◆ Research & Development Center for Filtration
- ◆ Innovative lab and test equipment
 - ◆ Individual system analysis
 - ◆ Customized and application-specific solutions

► Field Tests (Characterization & validation under real working conditions)



- ◆ Measuring the air content in the real hydraulic system
- ◆ Investigation of the influence of working conditions to the air content
- ◆ Final validation of optimized tank systems



About Us

As an ISO 9001:2015 certified company, Schroeder Industries has been designing, manufacturing, and marketing a complete range of Advanced Fluid Conditioning Solutions® for over 73 years.

With products for diagnostic, as well as filtration tools, we have been recognized as *the* leader in the fluid conditioning industry for markets that use hydraulic oils, fuels and water.

Schroeder Industries' corporate headquarters is located in Leetsdale, PA, with manufacturing facilities at the Leetsdale location, as well as in Cumberland, MD.

Markets Served



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Complete Tank Solutions

If you do not require a full hydraulic system evaluation, Schroeder also offers standard catalog options of tanks in addition to the optimization services mentioned in this brochure. Unlike the optimization process, these tank solutions come standard and are **available to order today!**

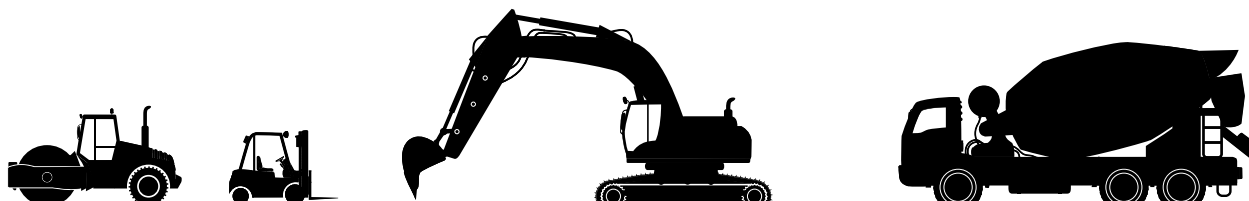
These standard tanks (or TNKs) are offered in 12, 18 or 25 gallon sizes and provide guaranteed protection from air-in-oil and sloshing of the fluid.

Below is a brief product description. Should you require additional information on these or anything mentioned in this brochure, feel free to contact us at sisales@schroederindustries.com or visit us on the web at www.schroederindustries.com.



TNK Series | Complete Tank Packages

- ◆ Complete hydraulic reservoir solution with accessories like gauges, in-tank filters, and air breathers already installed
- ◆ Tanks are certified clean, eliminating any time consuming flushing processes
- ◆ Patented integrated baffle wall creates settling zone for returning oil (degassing) with simultaneous cooling effect
- ◆ Tested for leakage (no testing is required)
- ◆ Lightweight and cost efficient
- ◆ No risk of corrosion
- ◆ Available in three (3) performance optimized sizes (12, 18, 25 gal.)
- ◆ GeoSeal® patented element technology



Visit us online @ www.schroederindustries.com for our complete product offering!



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