

Schroeder
INDUSTRIES

Advanced Fluid Conditioning Solutions®

AFT

AIR FUSION TECHNOLOGY

Product Overview



Schroeder's Air Fusion Technology – Next Generation Tank optimization

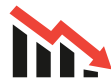
40 gpm (151 L/min) | 100 psi (7 bar)



Tank Optimization Goal:



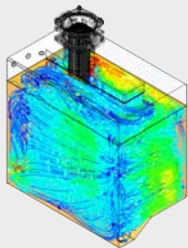
Maximize the dwell time of the fluid in the tank for optimal de-aeration of the return fluid



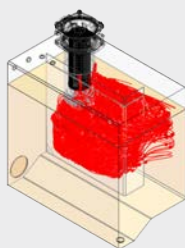
Minimize the total fluid in the tank to meet optimal operation functionality defined by our customer's parameters.



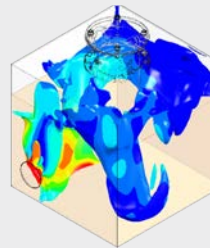
Through CFD analyses we can provide our customers with real world data on flow, de-aeration, sloshing, thermal and structural characteristics.



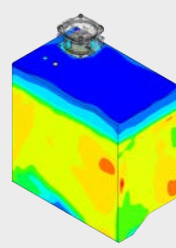
Flow



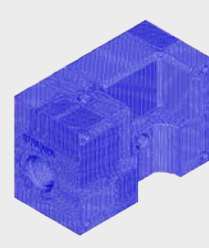
De-aeration



Sloshing



Thermal



Structural

AFT + TNK = Complete Tank Optimization Solutions



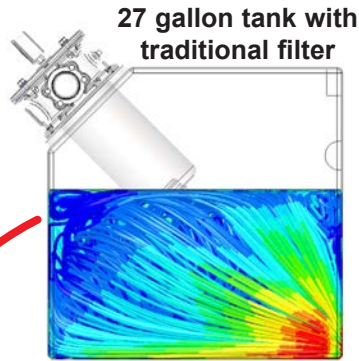
MAXIMIZE the potential of your hydraulic system utilizing our next generation filters and our **HIGH STRENGTH**, and **LIGHT WEIGHT** composite reservoirs!



Schroeder offers all your **RESERVOIR ACCESSORIES** from **breathers** to **strainers** to **fluid level gauges**. No matter the application. *Schroeder has a hydraulic solution for you!*

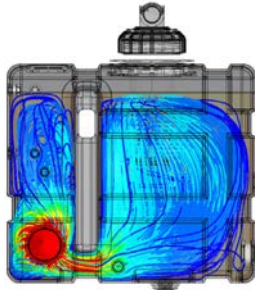
How does Air Fusion Technology compare against the traditional return line filter?

The AFT can provide up to a **60% decrease in reservoir size** with a up to a **30% increase in deaeration performance**



- High velocity into the tank
- Minimal Dwell Time
- Requires baffles to manage high fluid velocity and to utilize full volume of the tank
- Increases costs and complexity of tank
- Turbulent flow into tank creates sloshing and unfavorable air bubbles

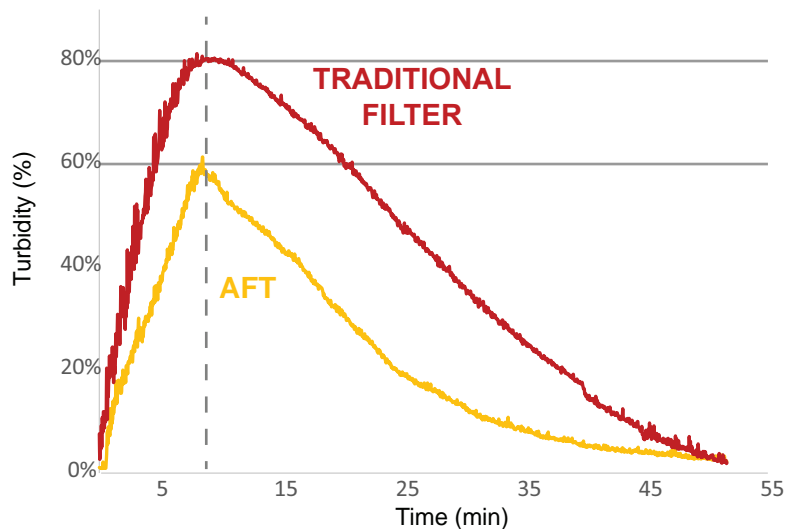
12 gallon tank utilizing AFT



- Radial exit velocity with exceptional air bubble coalescing
- Unconventional flow path design to smoothly remove air from the fluid
- Significant dwell time in a smaller space
- Laminar Flow = No Sloshing

20%
LESS AIR
IN SUCTION
STRAINER
WITH AFT

AFT vs Standard Out - to - In Flow Return Filter - 20GPM



Percent of Air Bubbles De-aerated			
Air Bubble Size	Standard Return Line	AFT Return Line	AFT Performance Increase
1 mm	28%	65%	37%
2 mm	64%	99%	35%
3 mm	83%	100%	17%

SCHROEDER INDUSTRIES' AIR FUSION TECHNOLOGY



AFT is Coalescing Savings for You!

When reducing the tank size, you also need to consider the savings back into your pocket! With a project where we reduced a **9-gallon reservoir to a 2-gallon reservoir**, over a 10 year span **we can save our customer up to \$750,000!** This assumes an annual usage of 400 units.



Benefits of reducing tank size:



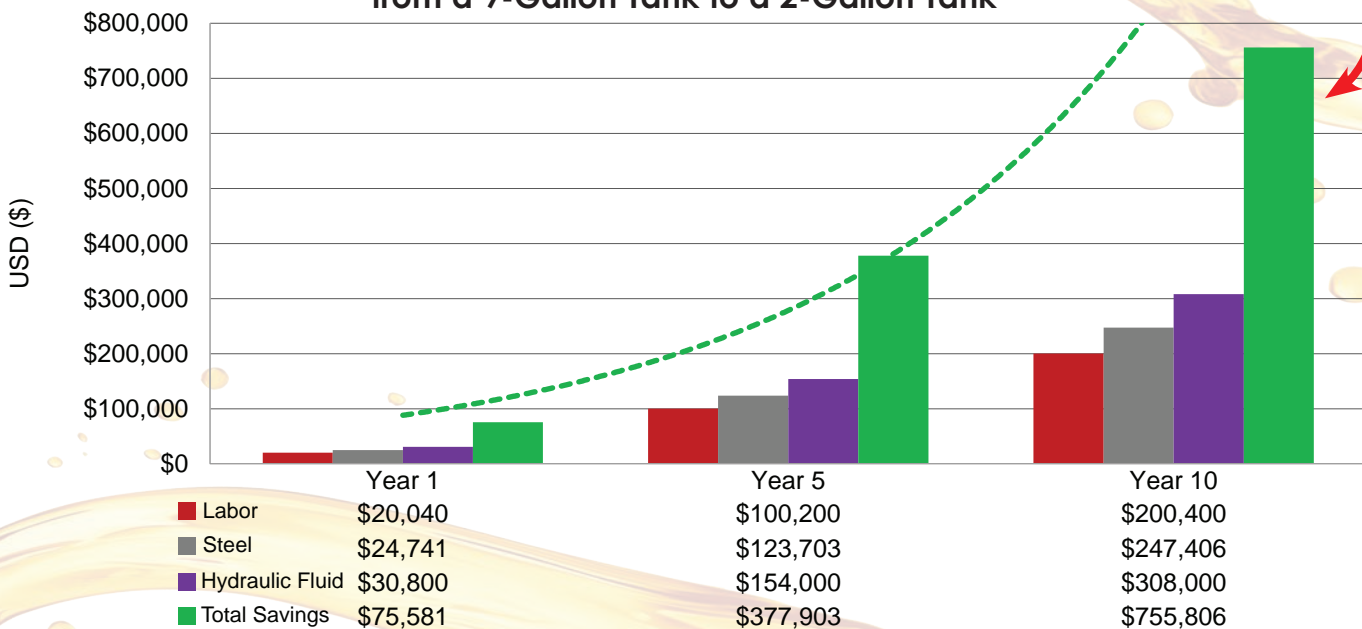
Shortens the time to get to operating temperature by about 15 minutes, this is **15 minutes less time in cold start by-pass!**



Smaller tank **creates space for new features** that could be more appealing to the end user, like a larger toolbox, a larger fuel tank, additional features to give them a step forward in the marketplace.

**OVER \$750K
TOTAL SAVINGS!**

Customer Projected Savings over the next 10 Years from a 9-Gallon Tank to a 2-Gallon Tank



7 gallons less hydraulic oil required for your machine decreases the amount of carbon dioxide emitted from hydraulic oil production by 165 lbs/CO2 per machine. Our Optimization with Next Gen Filtration will reduce your carbon footprint over the year by 66,000 lbs of carbon dioxide per year!