HYDAC INTERNATIONAL

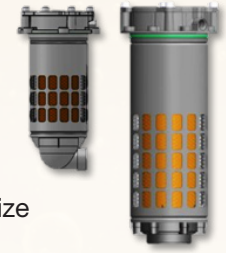
Air Separation Return Filter for Tank Optimization

Features:

IN-to-OUT Filtration

- Directs upstream flow from bottom to an outlet near the oil surface
- Low outlet velocity
- Minimal tank turbulence
- Smooth tank oil blending
- Optional Quality Protection (secures spare parts business)

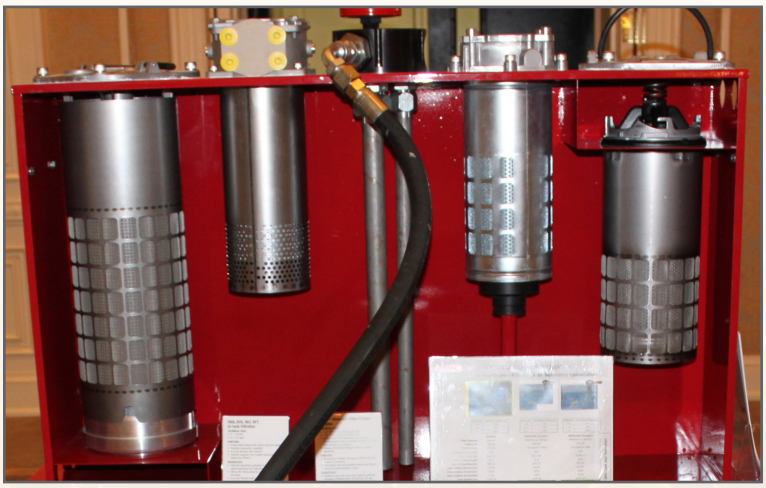
Integrated Deaeration Windows

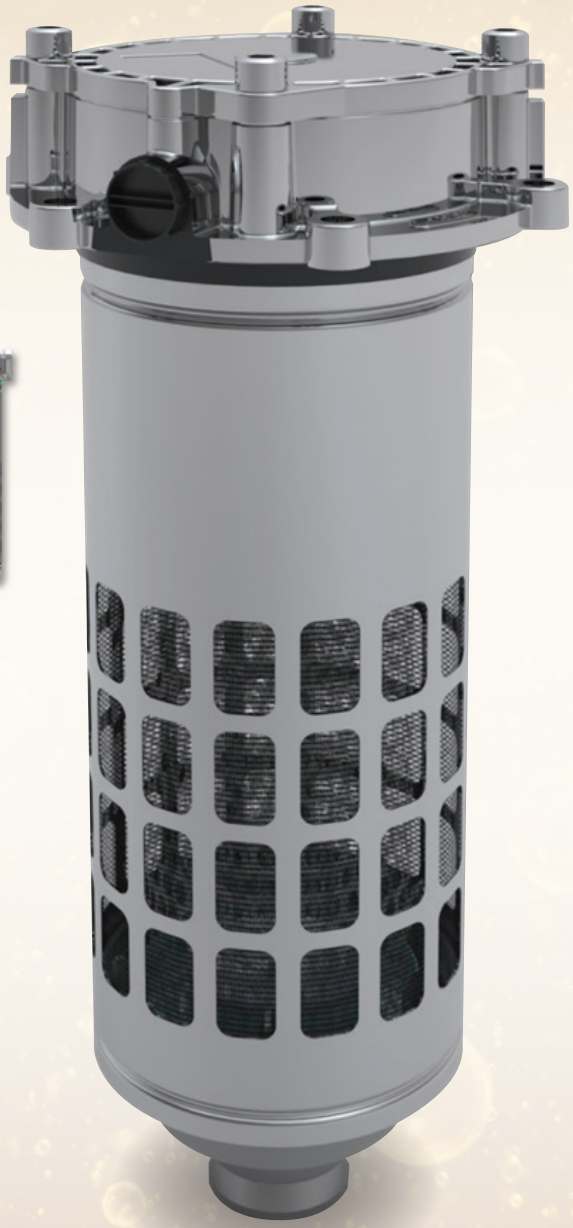


- Directs flow above oil level
- Air bubble coalescence

Available Design Options

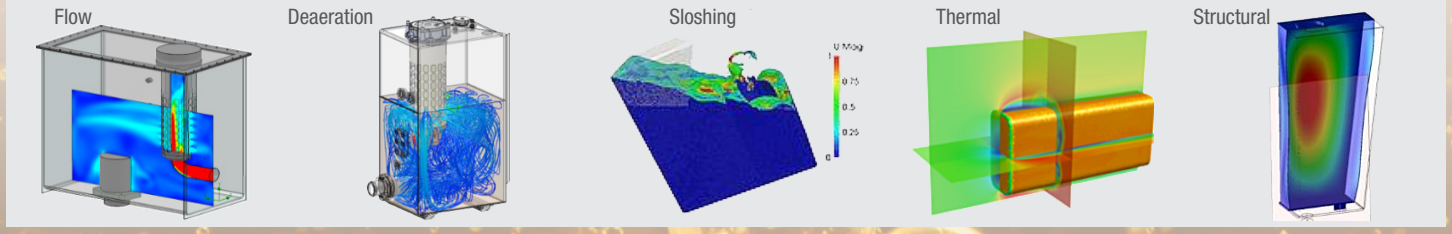
The below filter optional features are designed to maximize tank optimization capabilities.





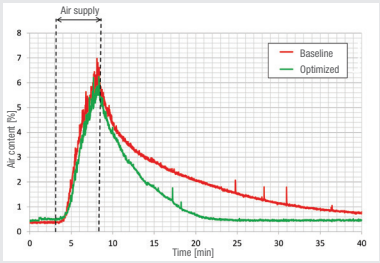
- Upstream flow filter with inlet on bottom
- Upstream flow filter with inlet on side
- Integrated Quality Protection
- Custom solutions & tank analysis services are also available

TANK SIMULATION (Computer-aided optimization of tank systems)



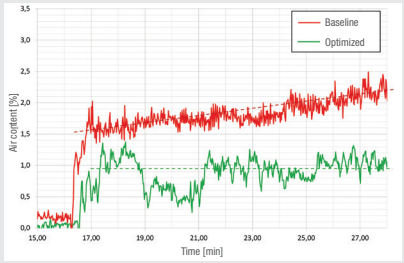
More Tools for System Optimization

Laboratory Tests



- Simulation - Tank system de-aeration performance
- Advanced air content sensor for quantitative characterization, optimization and validation of tank systems

Field Tests



Characterization and validation under real working conditions

- Air content measurement in real world conditions
- Analysis - Influence of operating conditions on air content
- Final validation of optimized tank systems

Advantages

- Improved de-aeration - increased machine reliability
- Oil volume reduction - costing-saving, environmental-friendly
- Tank size reduction - material cost savings, increases available area for other components
- Simplifies tank fittings and connections - material and assembly cost savings

Real Cost Saving Examples:

Oil volume and tank material savings *(see chart)*

Tank Size Reduction Benefit

Machines - 1000 pcs/year	Standard Tank Design	HYDAC Solution	
Number of Return-line Filters used	1	1	30% Tank Reduction
Oil Volume of Tank	23.8 gal	16.6 gal	
Weight of Tank	218.3 lbs	152.8 lbs	
Oil turn over	2.1	5.5	
Savings in Oil Volume		$48.60	
Savings in Tank		$22.28	
Total Savings per Machine		$70.88	
Total Annual Savings		**$70,875.00**	

Proprietary element design / Quality Protection - 100% of spare parts business for revenue growth *(see chart)*

Spare Parts Retention with Quality Protection