



## SYSTEM AVAILABILITY

# TNK12 Improves Reservoir Flow Path Efficiency, Prevents Leakage and Air Contamination

Technical Application Bulletin

## CHALLENGE

An MRO operating ice resurfacing equipment started experiencing varying degrees of air in oil problems (i.e. excessive noise, component damage, cavitation, oil degradation, and decrease in filter performance).

## APPROACH

Schroeder's analysis and computer simulations revealed that the reservoir was improperly sized for the equipment, resulting in a suboptimal flow path and short dwell time that severely impacted the tank's deaeration capability. Combined with poor assembly quality, tank movements, and leaking seals, large quantities of air constantly entered the hydraulic system.

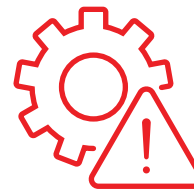
Schroeder Industries provided an optimized tank assembly utilizing a TNK12 rotomolded reservoir in an all-in-one package equipped with filter housings, breathers, and other components.

## RESULTS

- Optimized TNK assembly provided a 50% decrease in volume, saving on oil expenses and providing a 79lb decrease in overall system weight
- Updated assembly resulted in annual savings of \$222.86 per unit, conserving \$33,429 across 150 units annually

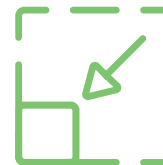
## TNK Series

- ◆ Complete tank packages with filter housings, breathers, other components
- ◆ Rotomolded TNK designed with internal baffling for improved deaerating performance
- ◆ Extremely durable in extreme heat, cold, and other intense operating conditions



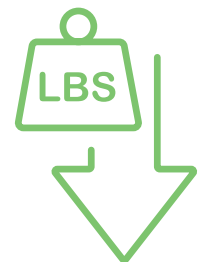
AIR IN OIL IMPACTING PERFORMANCE OF MACHINE & FILTER

ANALYSIS IDENTIFIES SUBOPTIMAL TANK ASSEMBLY WITH LEAKING SEALS



50% VOLUME REDUCTION

79 LBS SYSTEM WEIGHT REDUCTION



\$33,429 ANNUAL COST REDUCTION (\$222.86/ UNIT UTILIZING TNK)

