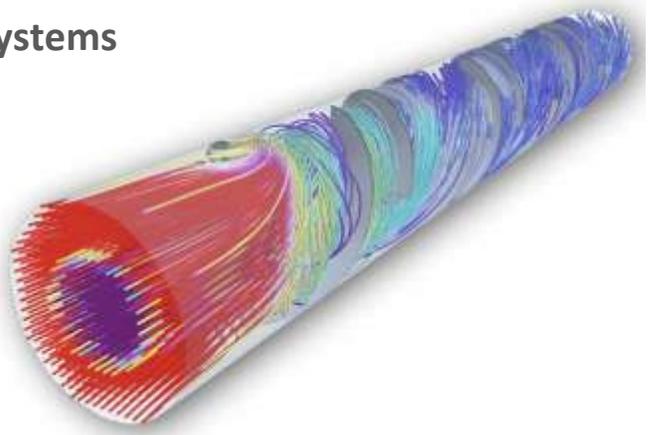




Amine Carry-Over Recovery Systems

Amine losses are a prevalent problem in most amine units in refineries, gas plants, upstream operations, metal processing facilities, petrochemical plants, SO₂ removal plants, and CO₂ sequestration plants. Losses are caused by aerosolized droplets of amine solution in gas streams, and by solubility or emulsification of the amine solution with hydrocarbon liquids (generally LPG). The loss of amine in treated streams are to some extent unavoidable due to issues such as foaming episodes, mechanical entrainment due to high absorber velocities, absorber flooding, or absorber design deficiencies.



Amine recovery systems developed by Amine Filtration are designed to recover any amine that is carried over in the treated gas or emulsified in treated LPG. The system is designed to also extract dissolved amine in the LPG, and remove solid and liquid contamination to protect downstream assets. Amine recovery systems are low cost, compact in footprint, flexible in configuration, completely skidded, and operate at 90%+ amine recovery rates in treated hydrocarbon streams.

Conventional methods for amine recovery are limited in efficiency and performance and involve large capital investments. By contrast, Amine Filtration provides amine recovery systems utilizing high efficiency contactor-separator technology for enhanced performance. The cost associated with amine losses can reach millions of dollars per month. One can consider the following economic impacts of amine losses:

- Amine cost (up to USD 5/lb for formulated amines)
- Amine inventory, storage, and replenishment maintenance
- Downstream impacts in fuel gas lines, burners, compressors, and turbines
- Downstream impacts in mercaptans removal, alkylation, and caustic units

The amine recovery systems by Amine Filtration provides a unique and highly improved extraction system for emulsified, mechanically entrained, and dissolved amine in treated hydrocarbon streams (gas or liquids) that is significantly superior to other devices such as water washes or liquid scrubbing. Amine solvents can be effectively recovered and routed back into the amine unit.

For more information, please contact **Amine Filtration** at Help@AmineFiltration.com.