



## **Amine Filtration**

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## **Amine Foaming**

Amine foaming is perhaps one of the most common problems that amine units experience during its operation. Amine solution foaming generally takes place in the amine unit absorber and is connected to the change in surface tension of the amine solution.

The root-cause can be a multitude of factors. Among them are:

- Poor inlet separation because of deficient vessel design
- Poor inlet separation because of ineffective coalescing internals
- High velocity inside the amine unit absorber (mechanical foaming)
- Excess suspended solids in the lean amine solvent (solids stabilize foam)
- High soluble iron in the lean amine (rapid solids formation in the absorber)
- Excess antifoam injection (can cross over from anti-foam to foam inducing)
- Hydrocarbons condensation inside the amine unit absorber (lowering surface tension)
- Incorrect activated carbon bed (i.e. activated carbon exposed to phosphorous activation)
- Ingression of gas phase hydrocarbon contaminants (BTEX)
- Ingression of gas phase contaminants (lubrication oils from compressors)

Amine foaming episodes are minimized most effectively by using high efficiency inlet separation, proper amine solution filtration, and activated carbon adsorption beds.

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