

Kimre

# AEROSEP®

## Multi-Stage Aerosol Separation System

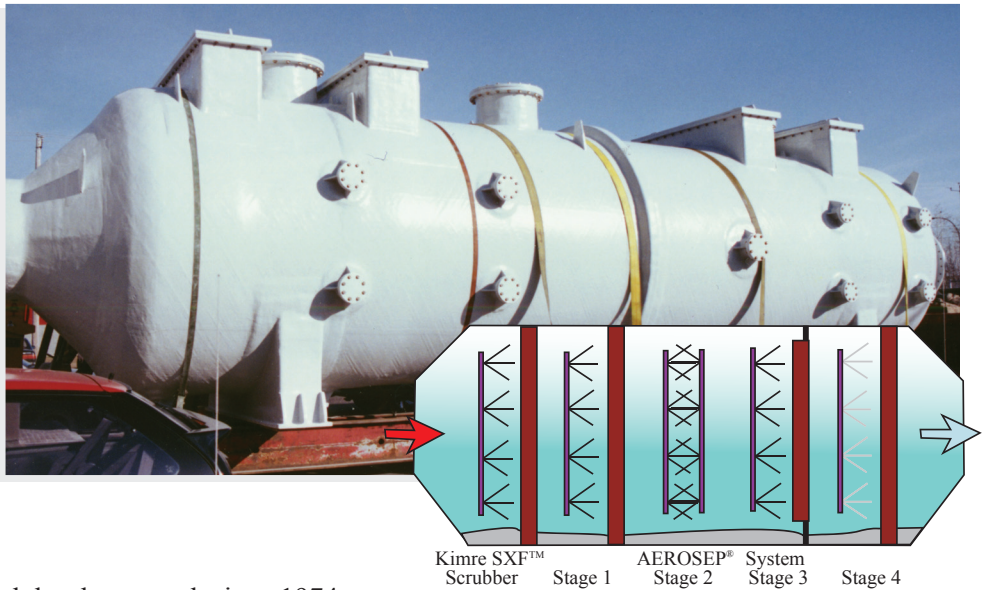
Kimre's AEROSEP® Multi-Stage Aerosol Separation Systems offer a unique and proven technology that has provided submicron aerosol removal successfully for more than 20 years across the United States, Europe, Asia and South America. Each application is site-specific; the user can expect lower investment cost and lower operating cost with AEROSEP technology than with any other technology of comparable removal efficiency.

AEROSEP technology is based on Kimre's patented structure used in our B-GON® Mist Eliminators and our KON-TANE® Tower Packing which has been used since 1974 in over 20,000 installations worldwide.

An AEROSEP removes particulates and aerosols in the submicron range - to as small as 0.2 micron diameter (measured when they are dry). It works by a combination of particle growth and particle removal. The particle growth is produced by a process known as "flux force" or "nucleated" condensation. Nuclei grow to approximately one-micron diameter droplets in the presence of only a small amount of supersaturation with pure water; one-micron droplets are then easily coalesced and removed with Kimre™ technology.

The AEROSEP system utilizes a stage wise approach to separating liquid and solid aerosols.

Each stage is specifically designed to target a particular particle size range and condition. Therefore, each stage can be optimized to provide maximum efficiency and pluggage resistance, while keeping pressure drop to a minimum.



- 1) Gas Saturation and removal of incoming particles or mist larger than 3 microns.
- 2) Growth of incoming submicron particles to approximately 1 micron.
- 3) Coalescing the 1 micron particles to a size of 10<sup>+</sup> microns.
- 4) Final removal of re-entrained droplets from stage 3.



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