



BRINK® AN FIBER BEDS MIST ELIMINATORS FOR AMMONIUM NITRATE (AN) PRILL TOWERS

UNPARALLELED PERFORMANCE IN COLLECTION EFFICIENCY AND ELIMINATION OF SALTS PLUME

Designing fiber bed mist eliminator systems for AN prill towers requires acute knowledge of salts formation and the effects on the efficiency and operation of the system and plant. To wash the AN salts and control their formation on and in the fiber beds, an irrigation system is a must. MECS has designed and successfully deployed irrigation systems that use spray-wetted mesh pads for pre-filtration and humidification.

Additional element throat sprays are also used for effective fiber bed irrigation and washdown. This AN prill “scrubber” arrangement has resulted in very high efficiency, zero opacity and long fiber bed life. The largest single-tower AN plant in the world is a Brink® application.



AN PLUME
BEFORE BRINK®

AN PLUME
AFTER BRINK®



BRINK® AN FIBER BEDS

MIST ELIMINATORS FOR AMMONIUM NITRATE PRILL TOWERS

The heart of this AN prill tower “scrubber” system is the Brink® fiber bed, which employs three special design features for AN service:

- Glass, polyester and/or high-temperature polymeric fiber for long life
- Bulk pack or rigorous quality-controlled fiber angle wrap for customized performance and pressure drop characteristics
- Bicomponent fiber bed for fast drainage of captured mist and irrigation artifacts for highest efficiency

HOW THE BRINK® AN FIBER BEDS WORK

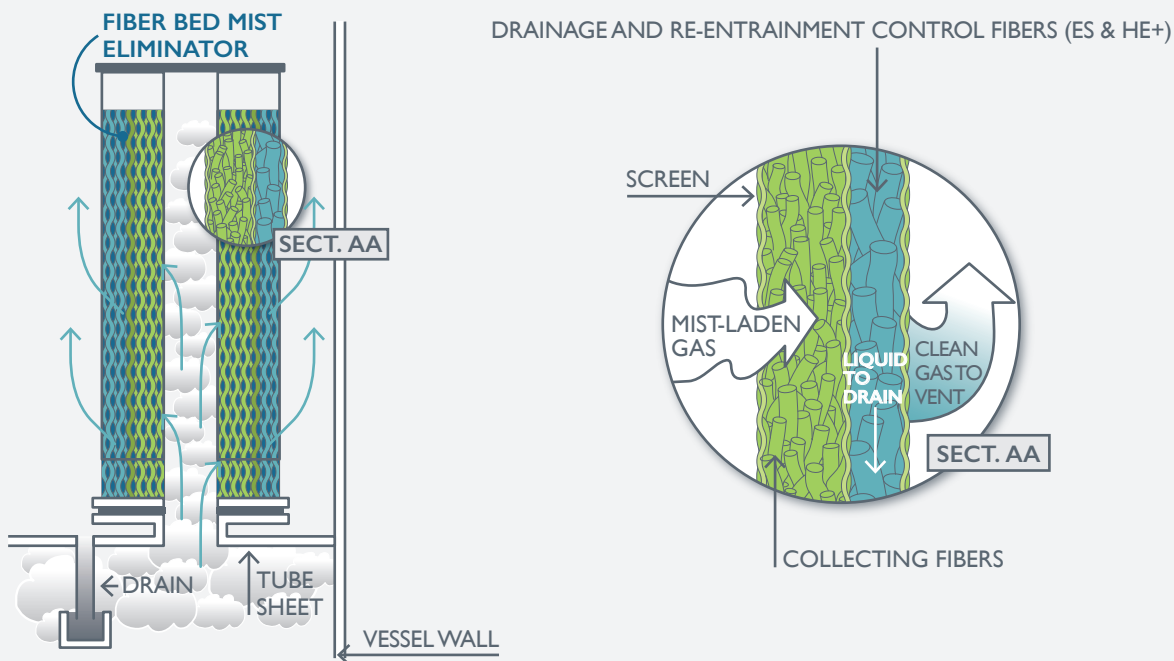
The Brink® HE+ and ES designs include an engineered layer of coarse fibers downstream of the finer collecting fibers. This design combination eliminates spitting or re-entrainment and results in the highest efficiency and cleanest stacks in the ammonium nitrate industry.

FEATURES AND BENEFITS:

- High Efficiency Plus (HE+) bulk-packaged fiber beds or Energy Saver (ES) angle wraps may be recommended based on operating conditions and overall performance for each specific AN application
- Unmatched experience and technology for irrigation and humidification of the fiber beds for reduction of AN salts buildup
- Customers have reported up to 10 years of service life of their Brink® fiber beds in AN applications, including prill towers, neutralizers, evaporators and cooler/dryer drums

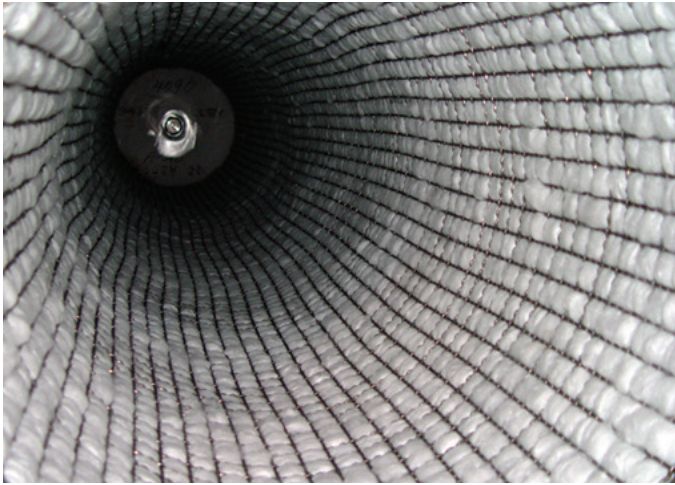
AMMONIUM NITRATE BICOMPONENT BED PRODUCTS

BRINK® HE+ AND ES MODELS



BRINK® AN FIBER BEDS

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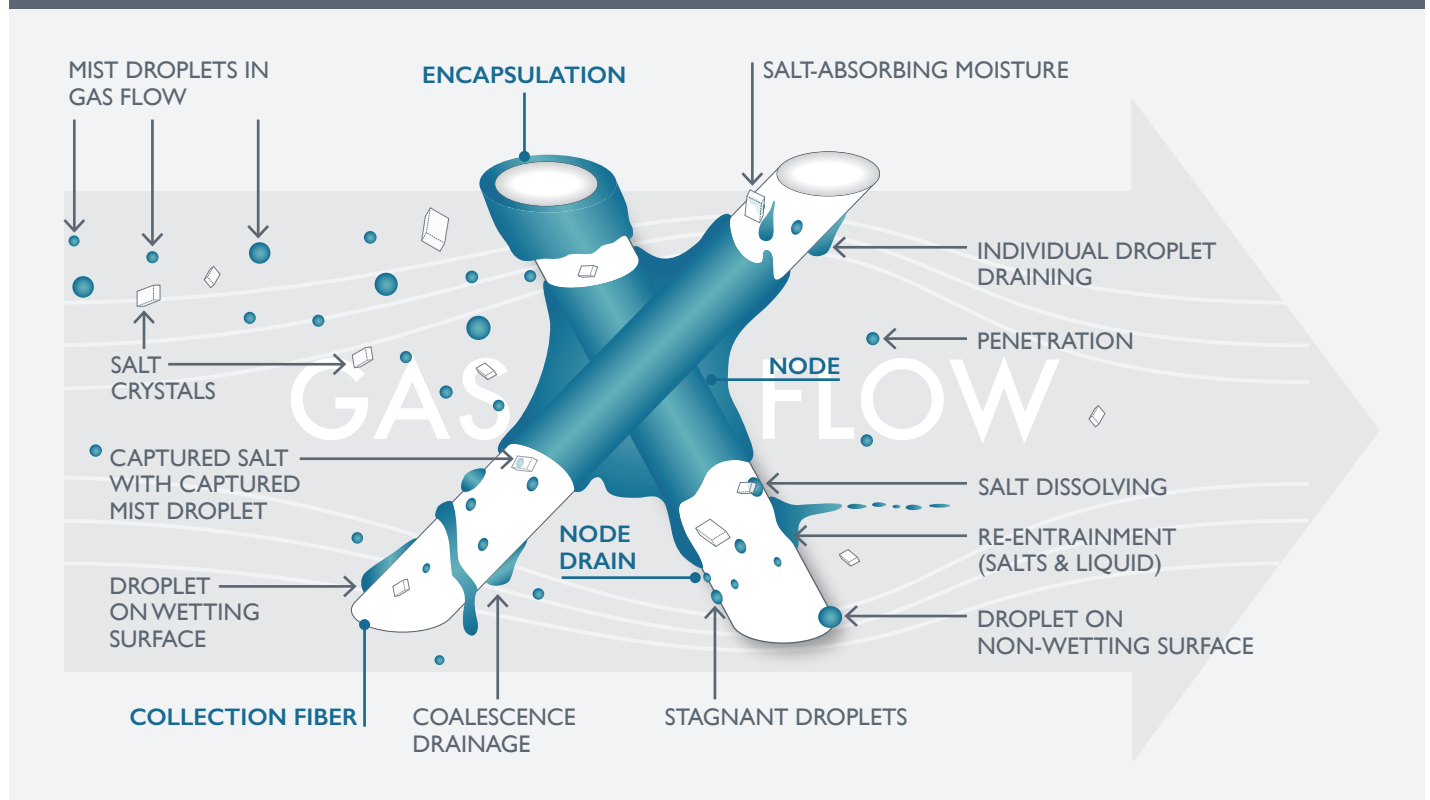


Brink® bicomponent HE+



Brink® bicomponent ES

AN MIST COLLECTION AND COALESCENCE



BRINK® AN FIBER BEDS

MIST ELIMINATORS FOR AMMONIUM NITRATE PRILL TOWERS

ELESSENT CLEAN TECHNOLOGIES is a leading source of solutions for decarbonizing the industrial manufacturing sector and transitioning the industry to a sustainable future. Our clean technology solutions minimize environmental impact and optimize productivity while remaining cost competitive. As a responsible supplier and partner to the metal, fertilizer, chemical, petrochemical and oil refining industries, our technology portfolio includes MECS® sulfuric acid production, STRATCO® alkylation, BELCO® wet scrubbing and IsoTherming® hydroprocessing. Offering critical process equipment, products, technology and services, we are dedicated to helping our customers produce high-quality, cleaner products for the world.



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