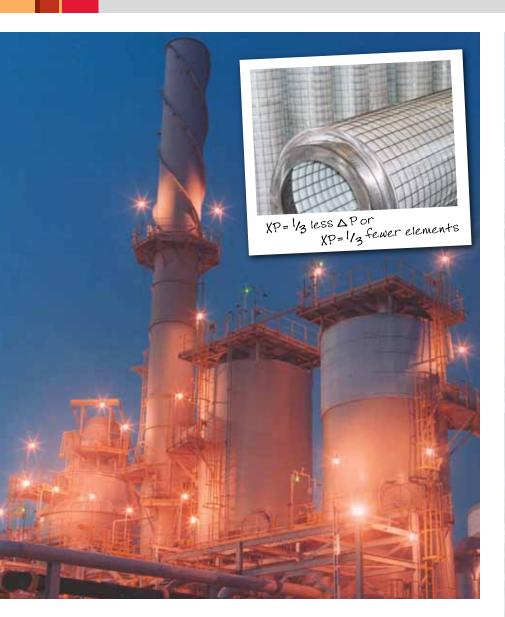


# BRINK® MIST ELIMINATORS EXTRA PERFORMANCE XP™ FIBER BEDS FOR SULFURIC ACID PLANTS



### SAVE MONEY WITH ONE-THIRD FEWER ELEMENTS. SAVE ENERGY WITH ONE-THIRD LESS PRESSURE DROP.

Following a decade of research and over 5 years of acid plant experience, MECS® now designs and builds the eXtra Performance XP™ for all acid towers. The eXtra Performance offers the lowest pressure drop available in one to one match-ups when compared to other elements. The pressure drop per XP element is 1/3 less than a typical element of the same size and efficiency. As a result, a sulfuric acid plant may use up to one third fewer filter elements at the same Delta P and fewer filter elements means lower life-cycle maintenance costs. New installations can benefit from lower initial capital cost due to smaller vessel size and footprint. New installations may also benefit from using standard design vessel sizes with element blank offs for future expansion capability.

#### **FEATURES AND BENEFITS:**

- Unique fiber bed design results in the lowest pressure drop available
- Guaranteed 99% acid mist removal at design inlet loading for most applications
- Significant inlet mist over-load capacity for inlet excursions up to 3X, while maintaining low emissions requirements
- Re-packable by MECS® with NO degradation in performance
- A proven technology using:
  - more than 50 years experience and R&D in fiber bed filter elements
  - over 5 years in sulfuric acid towers with stunning success
- Standard element on all new MECS<sup>®</sup> sulfuric acid plant designs





Learn more at www.mecsglobal.com



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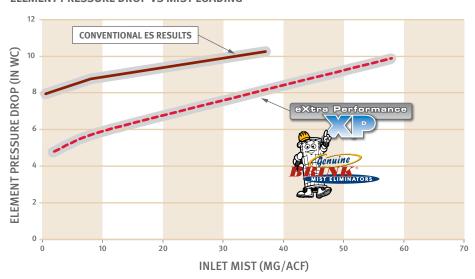
#### EXTRA PERFORMANCE XP™ FOR ENERGY EFFICIENCY

New plant/tower replacement: Annual cost increases for purchased electric power are becoming commonplace today. Where new plant construction or tower replacement is necessary or being considered, another design approach should be evaluated. To minimize the effects of escalating energy costs, consider a design where the towers are FULL sized with a FULL complement of eXtra Performance XP™ elements. This design approach will reduce the overall plant pressure drop and reduce the energy required to drive the main compressor. Depending upon the local cost per kilowatt hour of electricity and availability of energy conservation tax credits, payback may be as low as 0.5 years.

**Existing elements replacement:** In addition to new construction and revamps, replacing existing elements with XP also results in significant power savings. The resulting power savings allows for the incremental price difference of XP elements to be recaptured quickly.

#### **BRINK XP ELEMENTS SIGNIFICANTLY OUTPERFORMED ES**

#### **ELEMENT PRESSURE DROP VS MIST LOADING**



#### **EXTRA PERFORMANCE XP™ FOR COST REDUCTION**

CAPITAL COST ECONOMIC ANALYSIS – FEWER ELEMENTS AND SMALLER TOWER

EXAMPLE:	CONVENTIONAL ES NO. OF ELEMENTS	EXTRA PERFORMANCE XP™ NO. OF ELEMENTS	REDUCED DIAMETER VESSEL SIZE
1	40	27	19.6' to 16.3' (6.0M to 5.0M)
2	90	63	28.7' to 23.4' (8.7M to 7.1M)
3	95	67	28.7' to 24.3' (8.7M to 7.4M)

**NOTE:** Other economic analyses, using additional variables are available.



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