



Case Study: Fiberglass Pultruded Mist Eliminator System – Stronger, Lasts Longer and Reduces Operating Costs

Since 1977 ABB Environmental Systems' mist eliminator design has performed far in excess of the company's expectations. They believe this system can benefit many utilities by reducing operation and maintenance costs of their flue gas scrubber systems. The patented standard Mist Eliminator (ME) System consists of a pultruded Bulk Entrainment Separator (BES), two stages of pultruded chevron vanes and a high pressure intermittent wash system. Features which contribute to its reliability and maintainability are:

- Rugged design utilizing 1/4" thick pultruded FRP vanes adhered to compression molded end caps. This system is strong and the molded end caps add an extra dimension of stability to the system. This design, based on the strength and corrosion resistance of pultruded shapes, is superior to FRP molded blades that are not as strong and unreinforced thermoplastic (such as polypropylene) vanes that lose strength and stiffness rapidly as temperatures rise.
- 3-inch vane spacing and high pressure, intermittent washing utilizing modified sootblowers. Other Flue Gas Desulfurization suppliers offer low pressure continuous wash systems and vane spacing of 1-1/2" or less. ABB Environmental Systems' approach is less susceptible to plugging problems and does not place restrictions on the wash water quality.
- The pultruded material system significantly enhances the design's structural and chemical resistant properties compared to compression molded or thermoplastic blades and vanes.

These features coupled with over 8,100 megawatt of fullscale operating experience provides ABB Environmental Systems with the expertise to custom design ME systems for any type of SO₂ wet absorber. Furthermore, built-in design flexibility (pultruded shapes are easily cut to specified length) allows the system to be retrofitted into either rectangular or round vessels and to be integrated into existing equipment subsystems such as wash systems or support systems.