

# BOILER MACT COMPLIANCE SOLUTIONS



ENGINEERED SYSTEMS & SERVICES





SonicKleen™ WESP



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## MEGTEC TurboSonic Boiler MACT Compliance Solutions

MEGTEC TurboSonic is a leading supplier of proprietary air pollution control solutions for MACT compliance. Extensive industry experience combined with application knowledge from hundreds of installations worldwide allows MEGTEC TurboSonic to deliver the most effective services and solutions, from equipment upgrades to turnkey installations.

### SONICKLEEN™ WET ELECTROSTATIC PRECIPITATOR (WESP)

To meet Boiler MACT requirements, boilers with an existing wet scrubber, such as a venturi, may require enhanced particulate and acid gas (HCl, SO<sub>2</sub>, SO<sub>3</sub>) removal.

Installed downstream of an existing venturi, the SonicKleen™ WESP:

- Provides high efficiency removal of submicron particulate, heavy metals including Total Selected Metals (TSM), acid gases and fumes,
- Controls opacity that a venturi cannot.

The SonicKleen™ WESP is designed to achieve Boiler MACT requirements with the venturi operating at reduced pressure drop, allowing the WESP to operate within the existing fan capacity.

MEGTEC TurboSonic is also an experienced scrubber designer and provider with the expertise to evaluate and upgrade or detune existing scrubber systems to optimize the air pollution control system.

### Design Features and Performance Advantages

- Two stage, low-maintenance approach with existing venturi pre-scrubber before WESP stage.
- Can optimize the operation of the existing venturi scrubber(s).
- Allows the mill to continue operation during construction with a short tie-in shutdown.
- Energy efficient WESP system with low system pressure loss and advanced WESP power supplies.
- High quality equipment, materials and components.
- Redundancy of critical components available as option.
- Rugged & durable design.
- Low maintenance & high reliability.
- All internal components exposed to process gas are automatically cleaned with self-cleaning features and an integral flushing system.
- Easy access for maintenance and inspections.
- No maintenance, patented, Hood Mist Eliminator (HME) offers unparalleled performance.



## TURBOVENTURI SCRUBBER AND SONICKLEEN™ WESP SYSTEM

Boilers without an efficient pollution control device benefit most from MEGTEC TurboSonic's TurboVenturi Scrubber and SonicKleen™ WESP System. The TurboVenturi is used to clean and condition gas prior to treatment in the SonicKleen™ WESP. The system is designed to operate 24/7 and provide reliable performance with virtually maintenance-free operation.

### AIR POLLUTION CONTROL EQUIPMENT UPGRADES WESP Upgrades

MEGTEC TurboSonic's WESP upgrades bring facilities with existing APC equipment into compliance. These upgrades are eliminating carryover and costly maintenance by utilizing MEGTEC TurboSonic's patented and proprietary solutions. Improvements to T/R sets, water treatment systems, gas flow distribution and mist elimination improve performance, reduce operating costs and protect downstream equipment.

- Replace worn out, corroded internals,
- Optimize internal collection area, upgrade HV electrodes, upgrade T/R sets.

### Venturi Upgrades

Upgrading the venturi can:

- Provide complete quenching,
- Improve particulate and acid gas removal efficiencies,
- Improve mist elimination.

## SPRAY TOWER AND SONICKLEEN™ WESP SYSTEM

Boilers with an existing dry ESP often require acid gas control, enhanced particulate removal, and/or haze/opacity control to meet Boiler MACT. To achieve compliance, MEGTEC TurboSonic can provide:

- Gas conditioning to lower dust resistivity, increasing ESP performance,
- Spray towers for acid gas removal with a new wet stack.



TurboVenturi Scrubber



TurboVenturi and SonicKleen™ WESP



High Frequency T/R

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