



# ELECTROSTATIC PRECIPITATORS

## Leading Technology . . . Innovative Solutions

**Clyde Bergemann EEC** designs and supplies Air Pollution Control (APC) equipment and services for a wide variety of applications and customers. A leading supplier since 1946 with over 1500 installations worldwide Clyde Bergemann EEC, formerly **Environmental Elements Corporation (EEC)**, has enabled customers to operate their facilities in compliance with regulatory requirements and, depending upon the application, recover valuable by-products. Clyde Bergemann EEC has one of the largest installed bases of electrostatic precipitators in North America. An electrostatic precipitator (ESP) is a high efficiency, particulate removal device that collects suspended particulate matter from high temperature combustion or process gas streams. The electrostatic precipitator works by first charging the particulate matter entrained in the gas stream with high voltage discharge electrodes and then electrostatically influencing those particles to oppositely charged collecting plates within the ESP.

### ELECTROSTATIC PRECIPITATOR

The Clyde Bergemann EEC precipitator incorporates state-of-the-art design elements consisting of **RIGITRODE®** discharge electrodes, **MODULOK™** collecting plates, **OPTI-RAP™** rapping systems and **DOCIII™** microprocessor based automatic voltage controls to provide unsurpassed emissions performance and equipment operating characteristics.

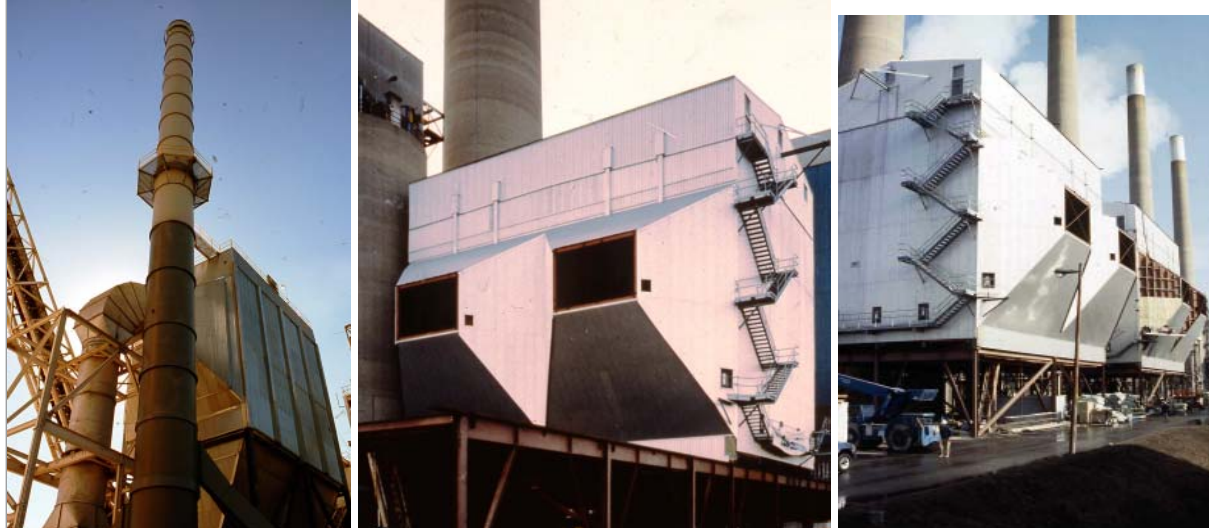
**RIGITRODE®** discharge electrodes have successfully demonstrated excellent performance characteristics over a wide variety of applications and performance requirements. The electrode is fabricated from tubing with uniformly spaced corona studs welded along the length of the electrode to optimize the voltage/current relationship required for each application. Assembled into the precipitator as a rigid structural matrix, the system has sufficient stiffness to resist displacement due to electrical forces and lateral forces resulting from over-full hoppers.

The **MODULOK™** collecting electrode was specifically developed to achieve exact plate alignment and structural integrity necessary for today's challenging applications, yet still provide excellent rapping response for dislodging the collected particulate. Extensive testing and broad application have demonstrated its superior ability to transmit rapping energy and its cleanability under all types of service and plate heights. The plate is comprised of a series of roll formed modules with interlocking edges that snap securely together for a strong mechanical bond. The design requires no field assembly and prevents deformation and oil-canning which occurs when individual panels are welded together along their vertical height.

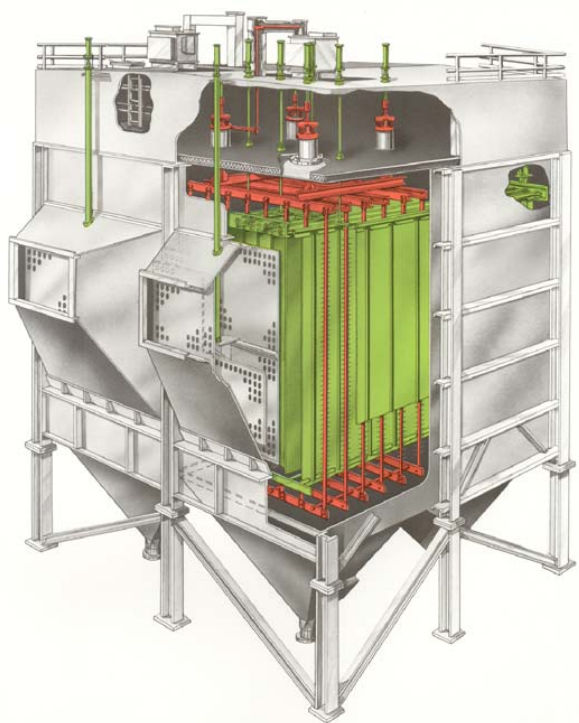
Clyde Bergemann EEC can offer a variety of rapping system options. In each case, the entire rapping system is located outside the gas stream and can achieve plate acceleration in excess of 200g.

Clyde Bergemann EEC offers an array of microprocessor based controls for its precipitator system. The **DOCIII™** automatic voltage power controller and the **OPTI-RAP™** rapping system controller are the latest in a series of state-of-the-art features.





**Serving the Power Generation, Pulp & Paper, Iron & Steel, Rock Products, Wood Products, Petrochemical and Waste-to-Energy industries**



*Typical Clyde Bergemann EEC Electrostatic Precipitator*

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### **Spare and Replacement Parts**

Toll Free: 800-PART EEC  
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### **Emergency Service - 24 hour Help Line**

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