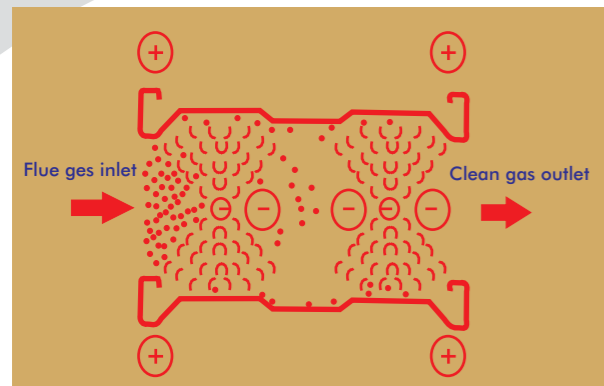


# ELECTRO STATIC PRECIPITATORS

## Principle of operations

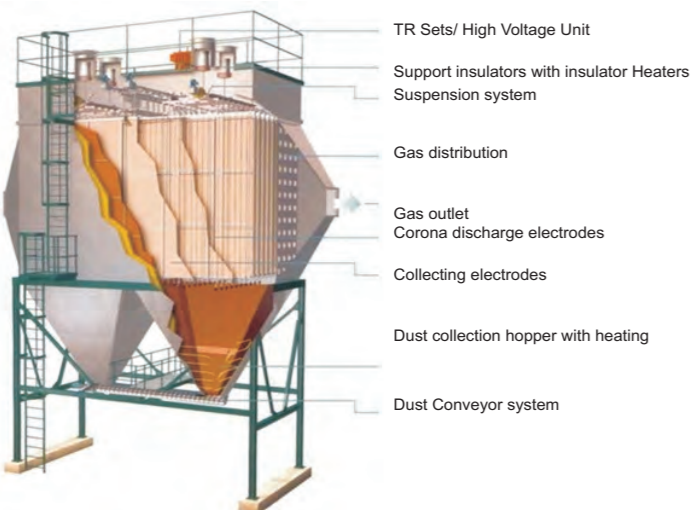
In high voltage electrostatic field, gas ionization takes place, There are tremendous amount of electrons and ions existing in the ionized gas. After the particles are combined with these electrons and ions, they will be polarized, most of them are negatively polarized. Under the action of the field force negatively charged particles migrate towards the Relatively positive electrode (collecting plate) and in turn release electrons and attach to the positive electrode.



When the particles agglomerate and the layer reaches a certain thickness on the plate, the particles will be dislodged from the collecting plate by vibration caused by rapping and falling into the hopper. That ends the collecting process,

## Advantages

- Experience in dealing with a wide range of fuel types
- Most economical design
- Optimum performance under varying load conditions.
- Higher dust removal efficiencies
- Lower operating costs
- Applications in the utility, cement, boilers, heaters.
- Continuous product recovery at low operating costs
- Initial investment in a relatively short time, thereby adding to profitability.
- CFD (Computational fluid dynamics) to get optimum gas distribution



The basic electrical components utilized in our systems are.

- Automatic Power control and Transformer Rectifier Control.
- Complete electrical & instrumentation,
- Provision for remote fault indication
- Responds to change in precipitator-operating conditions
- Optimum power at all times



proper control for the precipitator rapping system is an important contributor to successful precipitator operation. The variables that are regulated by the Rapper Control Systems are :

## Features of Rapper Management System

- The duration or intensity of the rap
- The time for complete rapping cycle.
- The order in which the rappers are triggered

## Special features of our ESP

- Can collect dust in both wet and dry conditions.
- Can collect all sizes of particle from microns to coarser.
- Probably the most versatile collecting equipment, offers the highest efficiency.
- Can be designed in principle for any efficiency for Low operation cost
- Can operate over a wide range of condition of
  - a) Temperature    b) Pressure
  - c) Dust Burden    d) Humidity

Negligible pressure drop (10-15mm) Can be built up multiple units, Can be built for almost any gas volume has a long life, Comparatively free from abrasion effect due to low operating velocity.

## Our Vision

Our vision is to be a globally reputed engineering Company with moral values and Social Responsibilities

We endeavor to have a strong and enduring relationship with our customers based on quality and service.

We at Balkrishna Boilers Pvt Ltd, excel since last 2 decades in providing complete solution to our customers on Steam Boilers, Thermic Fluid Heaters, Hot Air Generator Pollution Control Systems, Burners and Accessories.

We are proud to further our clean Environment Policy by introducing Electrostatic Precipitator Systems.

We are into Domestic Sales as well as International Sales. We are taking Turnkey Projects and Specialized Projects based on different Applications and needs of clients. We believe in Complete solution with customer satisfaction.

We have further strengthened our ESP team. With the Technical Support from **Mr. Kizhedath Suresh Kumar**, who has varied experience of more than 37 years with ESP's.

He is well versed with Design, Manufacturing, Commissioning of ESP Systems. Apart from that he has expertise in trouble shooting, Refurbishment, Upgradation, Rectification and Maintenance and Retrofit solution on ESP.

Together we will be working towards giving our Clients complete solution on ESP for **Clean** and **Green** Environment.

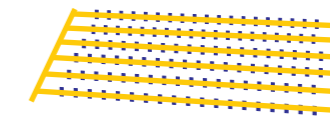
## Recommended Spares



Transformer



Collecting Rapping Shaft & Emitting Rapping Shaft



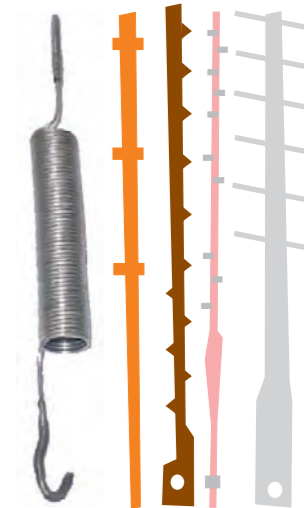
Emitting Electrode frames & Emitting Electrode Suspension Systems



Rotary Air Lock Valve



Special Type Hammers (Outer Arm)



Emitting / Discharge Electrodes



Support Insulators, Shaft Insulators, Pin Insulators & Bushing Insulators



Suspension Bar / Rod



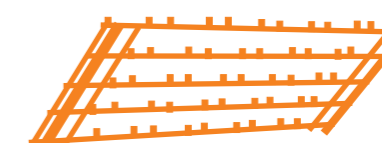
Thumbling Hammers (Outer Arm)



GD Screen at Inlet & Outlet



Plain Bearing

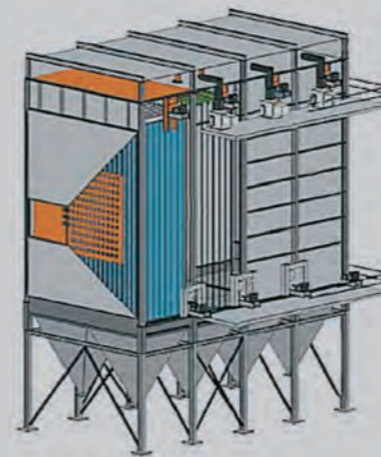


Collecting Electrodes Suspension Systems



Inner Arm





Engineering Excellence for Clean Environment

# Electrostatic Precipitator Systems

for a pollution-free tomorrow



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• URI : [www.balkrishna.com](http://www.balkrishna.com) , [www.indianboilers.com](http://www.indianboilers.com)

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Calcutta, Trichy, Ankleshwer, Rajkot, Hyderabad, Solapur, Surat

### OUR PRODUCT :

- Wood, Coal, Gas, Oil & Multi fuel Fired
- Steam Boiler
- Thermic fluid Heater
- Hot Air Generator
- Hot Water Boiler
- Air Pollution Control
- Water Treatment
- Power Generation
- Boiler Accessories
- Steam Accessories

Note : In view our constant endeavors to improve of our products, we reserve the right to alter or change specification without prior notice

