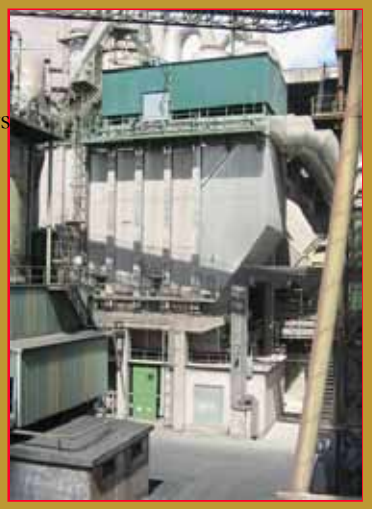
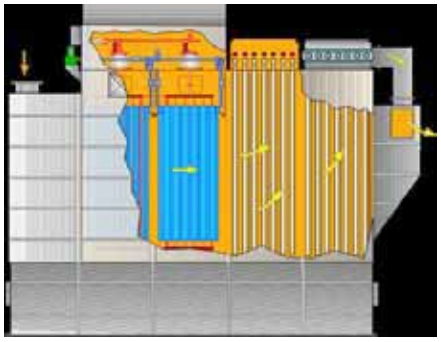
AIR SYSTEMS LTD.

HYBRID ELECTROSTATIC FILTER

AIRSYSTEMS is a leading partner for the Gas Cleaning industry and this is validated by a highly professional and proficient team of engineers.We offer the right answer to combat polluted air.Electrostatic Precipitators continue to be the most cost effective means of removing dust particles from gas stream.We take pride in being a flexible organisation fully focussed on the needs of our customers and continually strive to find better ways to give not only what is needed but also when it is needed.



The Air System Hybrid Filter is a combination of ESP and the bag filter.With the installation of Hybrid filter, the ESP collects the majority of the dust including the large particles, while the Fabric filter removes the fine particles. The Hybrid filter therefore ensures optimum particulate removal efficiency with lower operating costs. It is also less expensive to install than a new fabric filter.Thanks to the synergy of ESP and bag filter,resulting from this combination that very good pure gases can be achieved from the stack emission at low energy costs.One ESP field alone is capable of eliminating at least 90% of the dust volume at very low energy cost. The balance 10% of the cleaning performance is only carried out by the fabric filter, which consequently extends the life and maintenance intervals of the filter media. As a result, overall efficiency of the equipment is higher than with fabric filters.This concept is ideally suited for conversion of old Electrostatic Precipitator.



FEATURES

- Pre collection in the precipitator section of the filter reduces the dust load and wear on the filter bags.
- Less dust on the filter bags results in lower pressure drop, fewer cleaning cycles, and significant compressed air savings.
- Constant low emissions inspite of varying operational conditions.
- Reduced energy consumption compared
- Use of existing ESP structure makes the Hybrid solution cost effective

Choosing a Hybrid filter instead of an ESP or fabric filter offers several advantages - not only from an emission point of view, but also when considering the capital investment and the operating costs.

1) **Emission performance:**

a. Emissions from a Hybrid filter are generally lower compared to a non-converted ESP

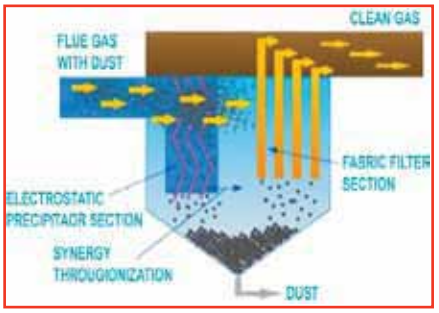
b. The Hybrid filter is active even when the ESP isde-energised.

2) **Capital investment:**

a. Lower investment compared to new fabric filter, because

i. Filter casing and structure, dust handling, control system etc. can be reused

ii. Higher A/C reduces number of bags, cages etc.



3) **Operating costs (normal operation):**

a. Since 90% of dust from the gases is separated in the ESP section, which minimises the cleaning requirement in the Fabric Filter section, it reduces the consumption of compressed air.

b. The total power consumption of the ESP rectifier set and the Fabric Filter fan is normally lower than that of the fan for a conventional fabric filter which has to handle the total dust load.

AIR SYSTEMS -- SINGLE SOURCE SUPPLIER- TURNKEY SOLUTIONS

Whether designing a plant from scratch, performing an upgrade on an existing Electrostatic Precipitator or supplying individual components, it is of the utmost importance to ensure that all necessary processes right from the initial planning through to handover are fully co-ordinated and duly optimised. **AIRSYSTEMS** provides individual or complete services for the construction or refurbishment of ESP ensuring that all elements comply with the highest possible quality and function together in total synergy.Besides supply of ESP,Hybrid Filters or internals, we provide a complete range of professional services tailored to specific requirements which can include the following.

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