



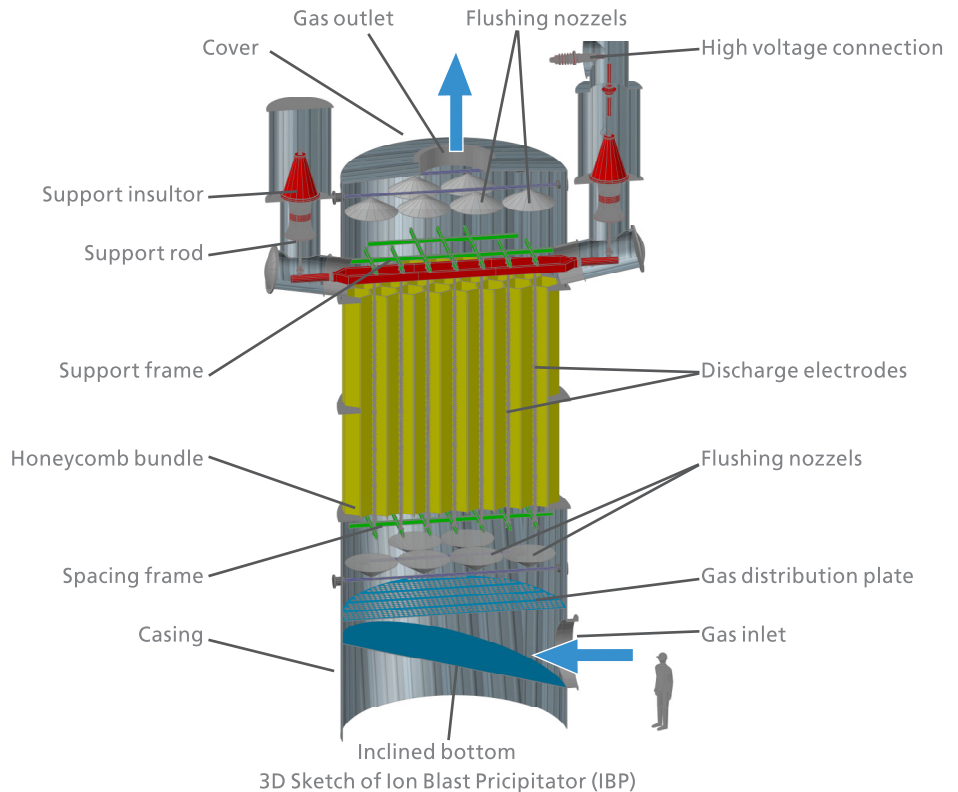
Ion Blast for iron and steel industry

Emission Control Technology by GEA Bischoff

Advanced gas cleaning technology for Iron & Steel industry

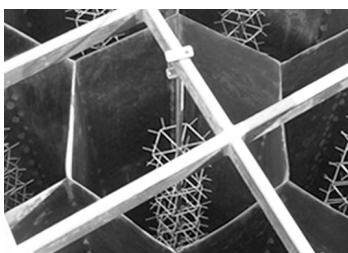
Electrostatic precipitation has entered a new age - and new application areas - with Ion Blast™ Precipitator (IBP) technology. Utilization of the Ion Blast Effect has made it possible to design precipitators that are smaller and more efficient than the conventional ESPs.

Being the original creator of Bischoff Venturi Scrubber and LT dry process within the iron and steel industry, GEA Bischoff is proud to present another proven innovation: The IBP800



ONE SOLUTION – EIGHT ADVANTAGES:

Ion Blast technology is a novel electrostatic precipitation method utilizing particularly high voltages up to 250 kV. Solid particles as well as droplets are charged in the electrostatic field inside a cleaning chamber. The collection of the charged particles onto the grounded collector walls is intensified by a physical phenomenon called the Ion Blast Effect. The collected dust is continuously flushed from the walls of the chamber by the collected water film and additional sprays. The dust content in the clean gas can be reduced typically to 10 mg/Nm³ and even to 1 mg/Nm³ for special applications.



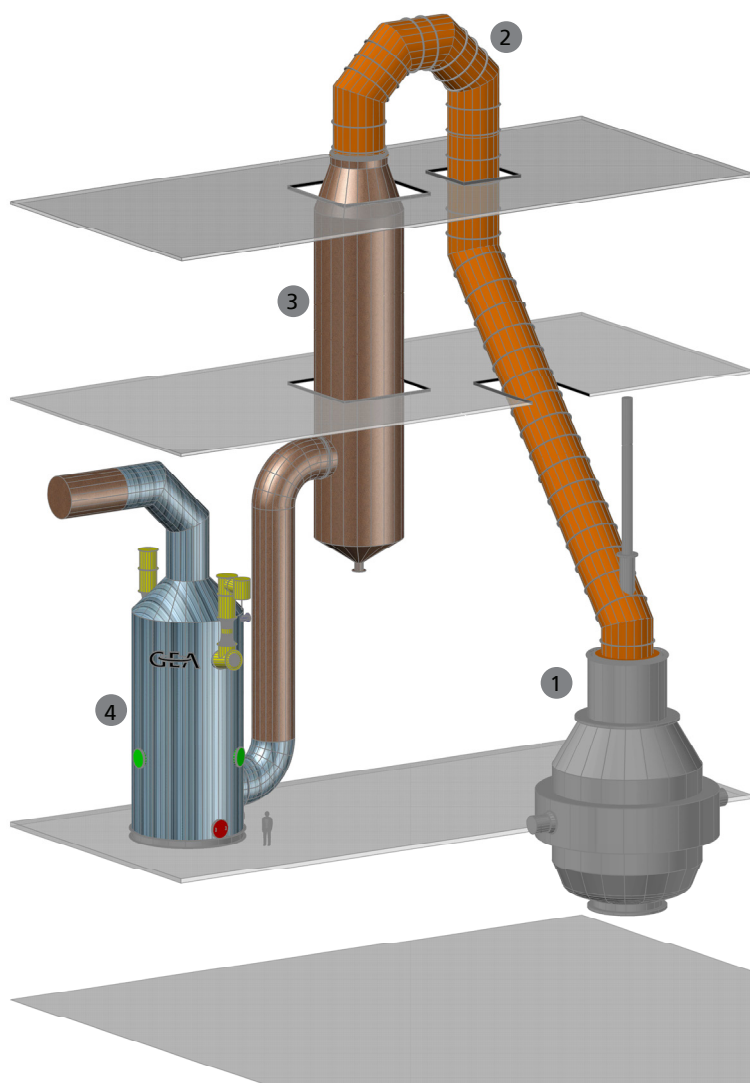
Internals of Ion Blast precipitator (IBP)

Advantages of Ion Blast Technology

- 1 SMALL FOOTPRINT OF ION BLAST TECHNOLOGY
- 2 POWER SAVINGS BY REDUCTION OF ID-FAN LOAD
- 3 SIMPLE AND RIGID STRUCTURE
- 4 SUPERIOR HIGH VOLTAGE TECHNOLOGY (UP TO 250 KV)
- 5 VERY HIGH COLLECTION EFFICIENCY
- 6 EXCELLENT SEPARATION OF SMALL PARTICLES
- 7 EXPLOSION-PROTECTED EQUIPMENT
- 8 VERY SHORT DOWNTIME FOR PLANT INTEGRATION

COMPANY HISTROY

GEA Bischoff combines durable technologies with state-of-the-art solutions. We have for decades supplied equipment and technologies for the metallurgical industry. Among our market leading products are the Bischoff scrubber for blast furnace and BOF-shops and the famous LT dry converter gas cleaning process. GEA Bischoff is active also in other industrial markets and has also introduced here innovative technologies which are BAT (best available technology) solutions.



Upgrading of OG-System by Ion Blast Precipitator (IBP)

ION BLAST PRECIPITATOR (IBP) – APPLICATIONS FOR THE IRON & STEEL INDUSTRY

Upgrading of existing OG systems. An IBP can simply be installed downstream of an existing scrubber not meeting environmental requirements. No further investments are required in order to achieve lowest contents in the clean gas.

Tar Separation in Coke Oven Plants

Fine Gas Cleaning upstream of Gas Turbines

Gas Cleaning in Rolling Mills

IBP 800 WITHIN THE PROCESS CHAIN

- 1 Converter
- 2 Cooling stack
- 3 Scrubber (existing)
- 4 Ion Blast Precipitator 800

SMART SOLUTION

With the long time experience and profound know-how of GEA Bischoff our Ion Blast technology will help our customers not only to optimize their production processes to the latest standards but also to save cost.

A conventional wet type converter gas cleaning plant equipped with a standard venturi scrubber and not a Bischoff RSW (ring slit washer), is not capable of achieving the extremely low clean gas dust concentrations of the LT dry process. With environmental regulations constantly getting more strict on emissions, many steel producers using the wet process are facing trouble in meeting these regulations requirements.

The IBP800 is the smart solution to their problems, bringing LT dry process gas cleaning efficiency to existing wet converter gas cleaning plants.

Furthermore, by reducing the pressure drop of the gas cleaning plant and reducing the load of the ID-fan, the IBP800 can help to lower energy consumption resulting in power savings.

Also, the IBP800 is a flexible solution which is not only restricted to primary converter gas cleaning.



Detarring in a Coke Oven Plant



We live our values.

Excellence • Passion • Integrity • Responsibility • GEA-versity

GEA Group is a global engineering company with multi-billion euro sales and operations in more than 50 countries. Founded in 1881, the company is one of the largest providers of innovative equipment and process technology. GEA Group is listed in the STOXX® Europe 600 Index.

GEA Process Engineering

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