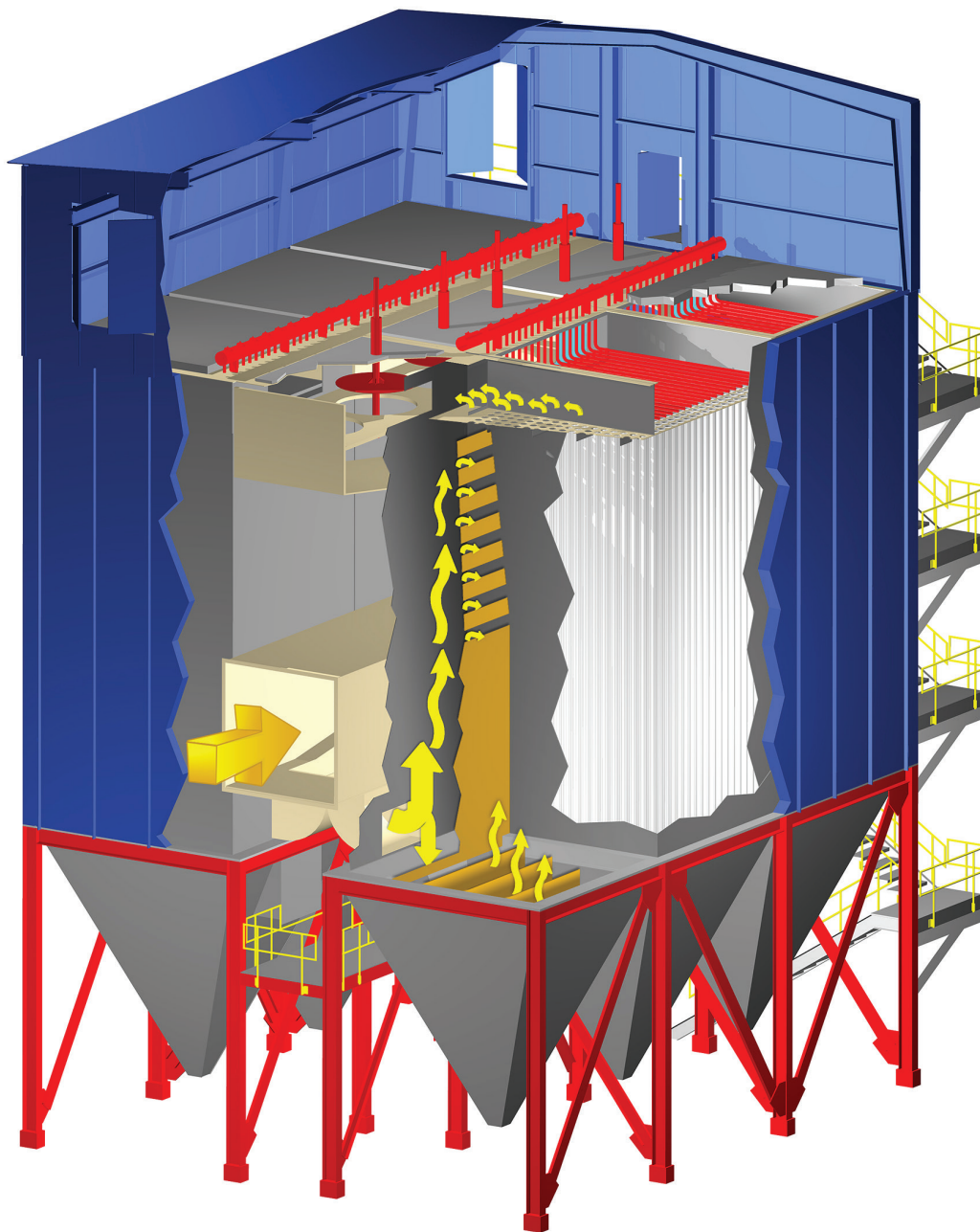


# ***Fabric Filters for Industrial Combustion Applications***



EXPERIENCE CLEAN AIR

**SOUTHERN**  
*environmental* INC.

# ***PULSE JET FABRIC FILTERS FOR COMBUSTION APPLICATIONS***



**Fabric Filter Removing Particulate From  
4 Coal Fired Boilers – 780,000 lb/hr Steam Total**



**Fabric Filter as Part of a  
Circulating Dry Scrubber on a  
Specialty Metals Application**



**Fabric Filter with Dry Sorbent Injection  
for Industrial Boiler MACT Compliance**



**Fabric Filter with Dry Sorbent  
Injection on a Brick Kiln**



**Fabric Filter with Dry Sorbent Injection  
on a Military Propellants Incinerator**

# **GAS DISTRIBUTION**

SEI utilizes CFD and physical flow modeling to ensure proper gas and particulate distribution throughout the fabric filter.

## **Effective Cleaning**

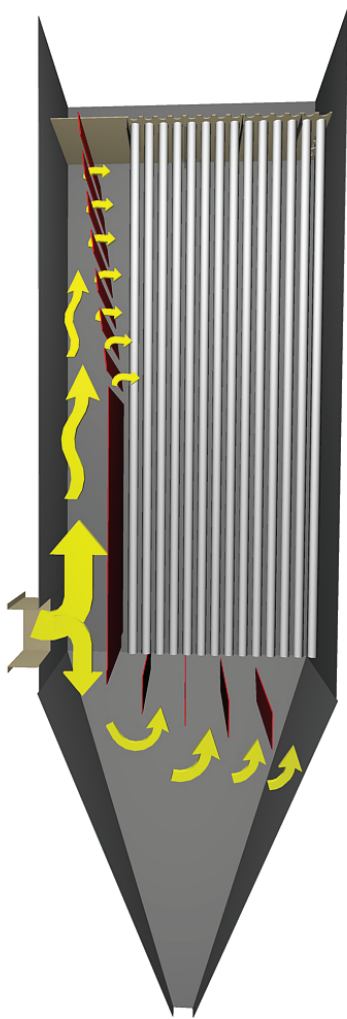
High “can velocities” are avoided so that when the bags are pulsed, the particulate is not re-entrained and can fall to the hopper for disposal.

## **Long Filter Bag Life**

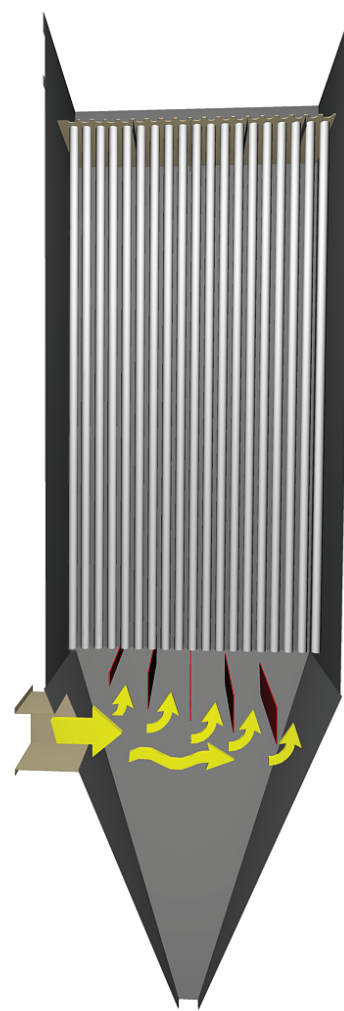
Maintaining acceptable flue gas velocities throughout the fabric filter minimizes the risk of abrasion on the filter bags.

## **Enhanced Scrubbing Efficiency**

When used in conjunction with dry scrubbing, dry sorbent injection or activated carbon injection, the fabric filter is designed to direct the sorbents to the filter bags where they become part of the filter cake. Contact between the pollutants in the gas stream and the sorbents is particularly intimate because of the dense cake and very slow gas movement.



**SIDE ENTRY**



**HOPPER ENTRY**

# BAG ACCESS

Bag maintenance is accomplished from the top of the baghouse, in the clean gas plenum. Access is via top doors or a man door into a walk-in plenum.

Multiple module fabric filter systems can be fitted with a single, large access door for each module. A monorail or bridge crane is provided to lift the top doors. The bag pulsing system, including blowpipes, comes off with the door, exposing the bags for immediate access. Work is done in a safe, dust free area that is not classified as a confined space.



**Walk-In Plenum**

## Single Removable Top Door



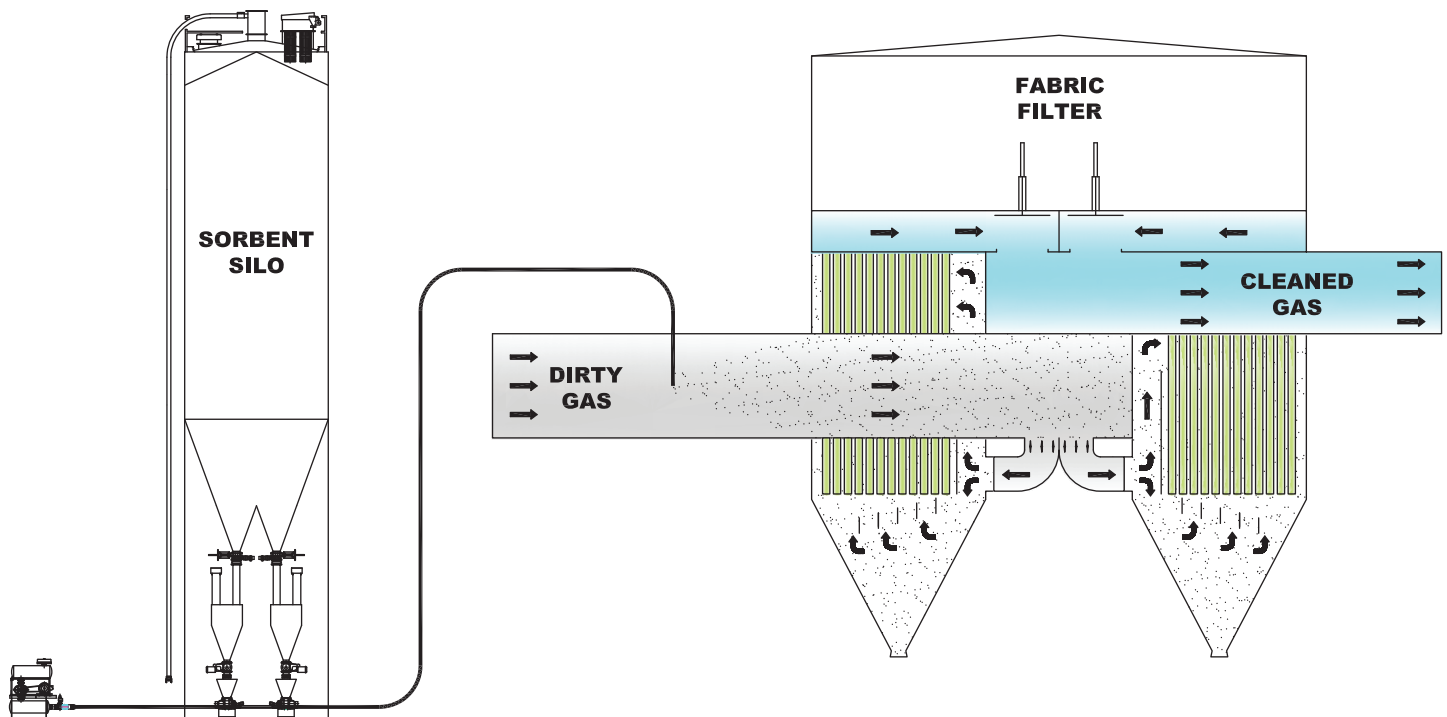
**Removed top door is placed on top of the adjacent module. Top doors are designed to be stacked without impacting the pulse system.**



**With the top door removed, access to the tubesheet is unimpeded.**

# MULTI-POLLUTANT CAPTURE

SEI fabric filters are designed to be more than just a particulate collection device. With more than 25 years of experience designing and supplying systems that incorporate removal of acid gasses, mercury and other toxins; SEI has the expertise to handle complex, multi-pollutant applications.



## SEI Air Pollution Control Systems Can Incorporate:

- Fabric Filter
- Dry Sorbent Injection
- Activated Carbon Injection
- Spray Dryer
- Circulating Dry Scrubber
- Dry ESP
- Wet ESP

## SEI Has Experience with the Following Applications:

- Boilers
  - Coal
  - Wood
  - Bagasse
  - Black Liquor Recovery
- Incineration
- Brick Kiln
- Lime Kiln
- Pyrolysis/Gasification
- Fiberglass Insulation Manufacturing
- FCCU
- Acid Plants

# PARTIAL CLIENT LIST

## **Industrial Fabric Filter Clients**

- ACME Brick
- Alcoa
- Alumax
- Boral Bricks
- Constellium
- Corn Plus Cooperative
- DuPont
- Duke University
- Gemtron Corp.
- General Atomics
- General Shale Brick
- Huntsman Chemical
- Invista
- Kaiser Aluminum
- Kimberly-Clark
- Kruger Inc.
- Metallurg Vanadium Corp
- MSE Technology Applications
- Sunoco
- Tennessee Valley Authority
- Tri-State Brick & Tile Co.

## **Other APC Clients**

- American Electric Power
- Ameren Energy Resource Generating Co.
- Canfor Pulp
- Cascade Pacific Pulp
- Chevron
- Citgo
- Georgia-Pacific
- Duke Energy
- Dynegy Midwest Generation
- Hoosier Energy
- International Paper
- MeadWestvaco
- Packaging Corporation of America
- Pope & Talbot
- RockTenn
- Smurfit-Stone
- Southern Company
- Temple-Inland
- Verso Paper
- Westar Energy
- Weyerhaeuser



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