

PARTICULATE CONTROL

Fabric Filter



ISO9001&14001



OHSAS18001



S E M I S 2

ACTIVE

www.ATEI8.com

The spirits of "Innovation", "Integrity & Credit" and "Service" are our team members' focus on providing our customers professional services in environmental projects. We pursue the respect of natural environment, and execute effectively the energy economization & waste reduction operation, in order to reduce the pollution and impact to the environment.

SYSTEM DESCRIPTION

ACTIVE system pulse jet fabric filter is one of the most advanced filters of its type. The filter uses state-of-the-art design concepts and computer design programs to optimize sizing and component selection for maximum cost benefit. Solid state electronic controls maintain low operating pressure drop for greatest energy savings. The above features combined with ease of maintenance makes the pulse jet filter the leading dust collector.

PRINCIPLES OF OPERATION

The dust laden air enters the filter through a baffled inlet in the filter housing. Actual position and style of inlet is determined by the type and concentration of the dust being collected. The inlet baffle will cause the heavier particles to fall into the hopper while the lighter dust will be evenly distributed throughout the collector.

As the air passes through the filter bags, the dust is deposited on the outside of the bags. The cleaned air travels up the inside of the bags to the clean air plenum and out of the collector.

The collected dust is periodically removed from the filter bags by jets of compressed air directed downward inside the bag. The dislodged dust then falls into a hopper where it can be removed.

ACTIVE FABRIC FILTER SYSTEM

ACTIVE dust collector is welded factory assembled in largest piece construction practical to minimize field erection. Unit designed for dust tight operation as follows:

❑ CONSTRUCTION

10 gauge tubesheet. 12 gauge plenum, housing and hopper. Stiffeners for 18" WG.

❑ STRUCTURALS

Designed for 100 MPH wind load for the seismic zone specified by customer.

❑ BAGS

Snap band seal using a double fold style gasket over a stainless steel snap band. 6" diameter x 6', 8' or 10' long.

❑ CAGES

Drop in style with venturi integral with cage. Top flange is designed to rest on the tubesheet.

❑ HEADER

Prepiped 5" diameter manifold mounted and shipped in place. 1" right angle diaphragm valves with solenoid operators in NEMA 4 cast aluminum enclosure. The valves are mounted above the manifold to prevent compressor moisture draining through the valve. The manifold has a 0-150 PSI gauge and an automatic valve. Solenoid operated to purge moisture from the manifold.

❑ BAFFLE PLATE

Baffle are installed to evenly distribute the inlet plenum gas stream, reducing turbulence and uneven dust loading.

❑ SCREW CONVEYOR

Screw conveyors employ a revolving screw feeder located at the bottom of the hopper to remove the dust from the bin.

❑ ROTARY AIRLOCK VALVE

Rotary valve is similar to a revolving door. the paddle or blades form an airtight seal with the housing, and the motor moves the blades to allow the dust to discharge from the hopper.

❑ MAGNEHELIC PRESSURE GAUGE

A magnehelic gauge is used to measure the pressure drop (AP) in a fabric filter. Pressure drop is an important indicator for system operation.

❑ ACCESS DOOR

Top and side locations facilitate easy access and removal of bag, plenum 18"x60" with neoprene gasket for air tight seal. Hopper 18"x24" bolted with gasket seal.

❑ FAN

This is a heavy duty (centrifugal type) industrial fan, mounted on a spring isolated unitary base. The air-tight housing is fabricated of continuously welded, heavy gauge steel. It is supplied with clean out door, shaft and bearing guard, extended grease fittings, and flanged inlet and outlet connections.

❑ CONTROLS

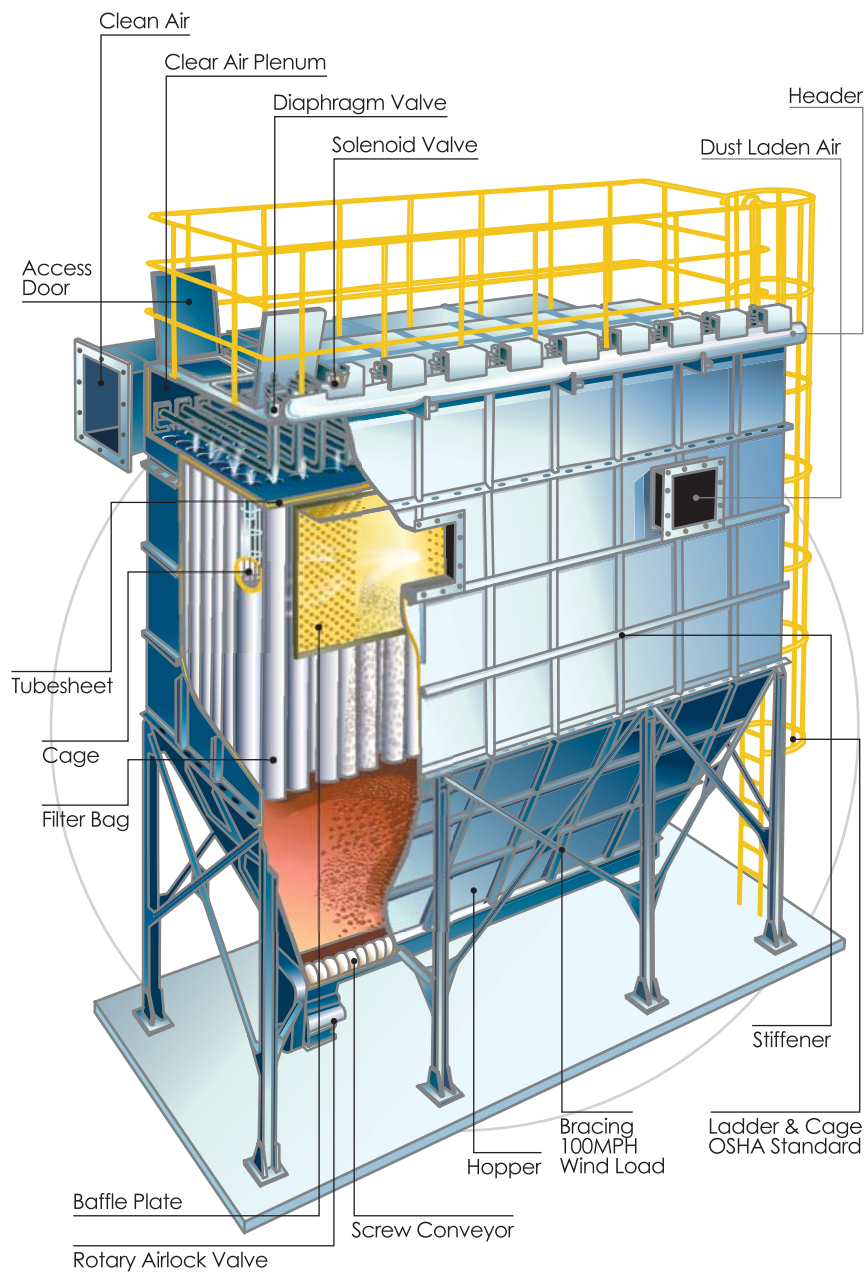
A 10 or 20 position solid state timer is used depending on size of collector. 0-15" magnehelic gauge is provided to measure the pressure drop across the filter media. A filter is standard to prevent plugging the gauge. Timer and gauge are mounted in a NEMA 4 enclosure with clear lexan door for visual monitoring.

❑ DUCTWORK

Continuously welded mild steel, SUS304 and SUS316 material.

❑ STACK

The stack is furnished to discharge the cleaned exhaust at a specified elevation. The stack is fabricated of carbon or stainless steel with sampling platform.



CHARACTERISTICS

- ☐ Unique system supplier with ISO9001 & 14001, OHSAS18001 Certification
- ☐ Complete air pollution control system supplier for fabric filter, scrubber, rotor & oxidizer, carbon tower etc.
- ☐ A wide variety of filter bag supply, from typical to special ceramic & CFE filter bag. (CFE: Compact Filter Element)
- ☐ High efficiency filter bags selected for the specific application.
- ☐ Heavy duty all welded construction.
- ☐ Magnehelic pressure gauge.
- ☐ Access platforms and ladders.
- ☐ No tools required to change bags.

OPTIONS

- ☐ Explosion vents
- ☐ Material handling systems
- ☐ Photohelic pressure gauge for pressure demand cleaning
- ☐ Special finishes
- ☐ High temperature construction
- ☐ Inlet and outlet dampers
- ☐ Off line cleaning
- ☐ FM certification sprinkler

OTHER QUALITY PRODUCTS

- ☐ Pulse jet cartridge collectors
- ☐ Pulse jet envelope collectors
- ☐ Collector maintenance
- ☐ Parts Replacements



Solenoid & diaphragm Valve



Photohelic Gauge



FM Sprinkler



Honeywell TIC



Ceramic Filter



Snapband Filter



Cartridge Filter

INDUSTRIAL APPLICATIONS



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Asphalt Concrete

Brick

Cement

Ceramics Production

Carbon Black

Secondary Non-Ferrous (Al, Cu, Zn, Sn, Pb) Furnace

Incinerator

Boiler

Pharmaceutical

Casting

Welding

TFT-LCD

Wood Finishing

Food Processing

Paint Spraying

Foundry

Grinding

Synthetic Resin

Paper

Sandblast

Steel

Tobacco

Soil Remediation

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