

# ULTRAFLO

## Baghouse

STATIONARY

SKIDDED

PORTABLE







Gencor has been in the forefront of design technology for the hot mix industry for over 50 years. Over that time, our focus has continued to be on advances in energy reduction and increased environmental controls to provide contractors with the cleanest and most pristine performing hot mix facilities in the industry. As a result, Gencor has set the environmental standard for the industry. From our award winning

Ultraplant to our revolutionary Ultraflo baghouse, Gencor continues to design solutions that exceed federal and state standards for the environment while at the same time achieve the lowest production and maintenance costs to the contractor.

**Gencor...The Environmental Solution**

**ULTRAFLO**  
Baghouse



## ULTRAFLO BAGHOUSES



*Gencor Industries introduces the latest technology in baghouse filtration systems.*

*Gencor's engineers, through extensive research, have created the ultimate alternative to pulse jet baghouses. Developed primarily to increase efficiency, reduce maintenance and reduce size and weight, the Ultraflo Baghouse cleaning system from Gencor provides many advantages to typical pulse jet baghouses.*

The most obvious feature is the compact yet rugged modular design of the Ultraflo, which allows greater cleaning efficiency with reduced size and weight for ease of transport and setup. The Ultraflo is provided standard, with full sidewall and top section insulation to maintain a consistent baghouse temperature, avoiding condensation dew point levels while increasing the efficiency of the filtration system.

The filter medium is a 100% virgin Aramid singed fiber elliptical bag supported by a corrosion resistant galvanized cage, which allows three times more filter cloth per bag than conventional baghouses. Due to the unique design of the Ultraflo baghouse, spacing of the bags is not critical, as in other baghouse designs, because each row of bags is isolated during the cleaning cycle for thorough expansion of the bags, assuring that the dust falls completely to the bottom hopper and is not re-entrained in the adjacent row of bags.

The result is a compact baghouse filter design which provides more filter area in a much smaller structure along with fewer moving parts and much lower maintenance and operating costs compared with conventional pulse-jet baghouses.

With the ever changing environmental requirements, contractors are looking for better ways to increase productivity and efficiency. Gencor meets this challenge with the latest evolution in pollution control systems—Ultraflo.



## ULTRAFLO ADVANTAGES

- Smooth cleaning with reduced wear on the bags
- Smaller compact design; less weight for easy transport
- More cloth area in a reduced size structure
- Fully insulated for high efficiency
- No air compressor or solenoid valves
- Fewer moving mechanical parts
- High efficiency radial vortex exhaust damper
- Corrosion resistant steel construction



Stationary baghouse designs are shipped in two modular sections for easy field installation. All bags and cages are completely pre-fitted from the factory, eliminating the need for field bag installation.

Stationary baghouses include full insulation package for sidewalls and top section. Various independent fines metering and waste systems are available to accommodate any state requirement.

## STATIONARY FEATURES

- Externally mounting cleaning distributor
- Insulated sidewalls and top
- Bags and cages installed at factory
- Single pitch roof



## SKIDDED UNITS



Skidded baghouse designs are shipped in two modular sections for easy field installation. All bags and cages are completely pre-fitted from the factory, eliminating the need for field bag installation. All Skidded baghouses include a steel base support structure, eliminating

the need for independent concrete footings. Various independent fines metering and waste systems are available to accommodate any state requirement.

## SKIDDED FEATURES

- Two-piece modular design
- Fully insulated sidewalls and top
- Bags and cages installed at factory
- Skidded mounting package



The Portable baghouse design completely eliminates the need for a crane during erection with a full portability tow package. All bags and cages are completely pre-fitted from the factory, eliminating the

need for field bag installation. A standard primary collection unit is provided on all portable units with separate ports for independent metering of return fines to accommodate any state requirement.

## PORTABLE FEATURES

- Crank-down landing pads
- Quick disconnecting
- Single/dual axle portability
- Budd wheels / air brakes / brake lights / mud flaps
- Fifth wheel pin and glad hand connections



## FEATURES

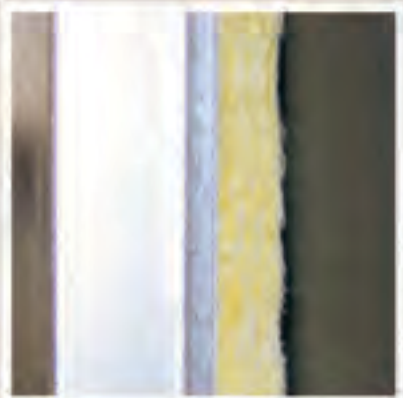
VORTEX  
DAMPER



ELLIPTICAL  
BAGS



SIDEWALL  
INSULATION



SEQUENTIAL  
CLEANING  
DISTRIBUTOR



## OPTIONS

BUILT-IN  
PRIMARY



PORTABLE  
PRIMARY



VARIABLE  
FREQUENCY  
DRIVE

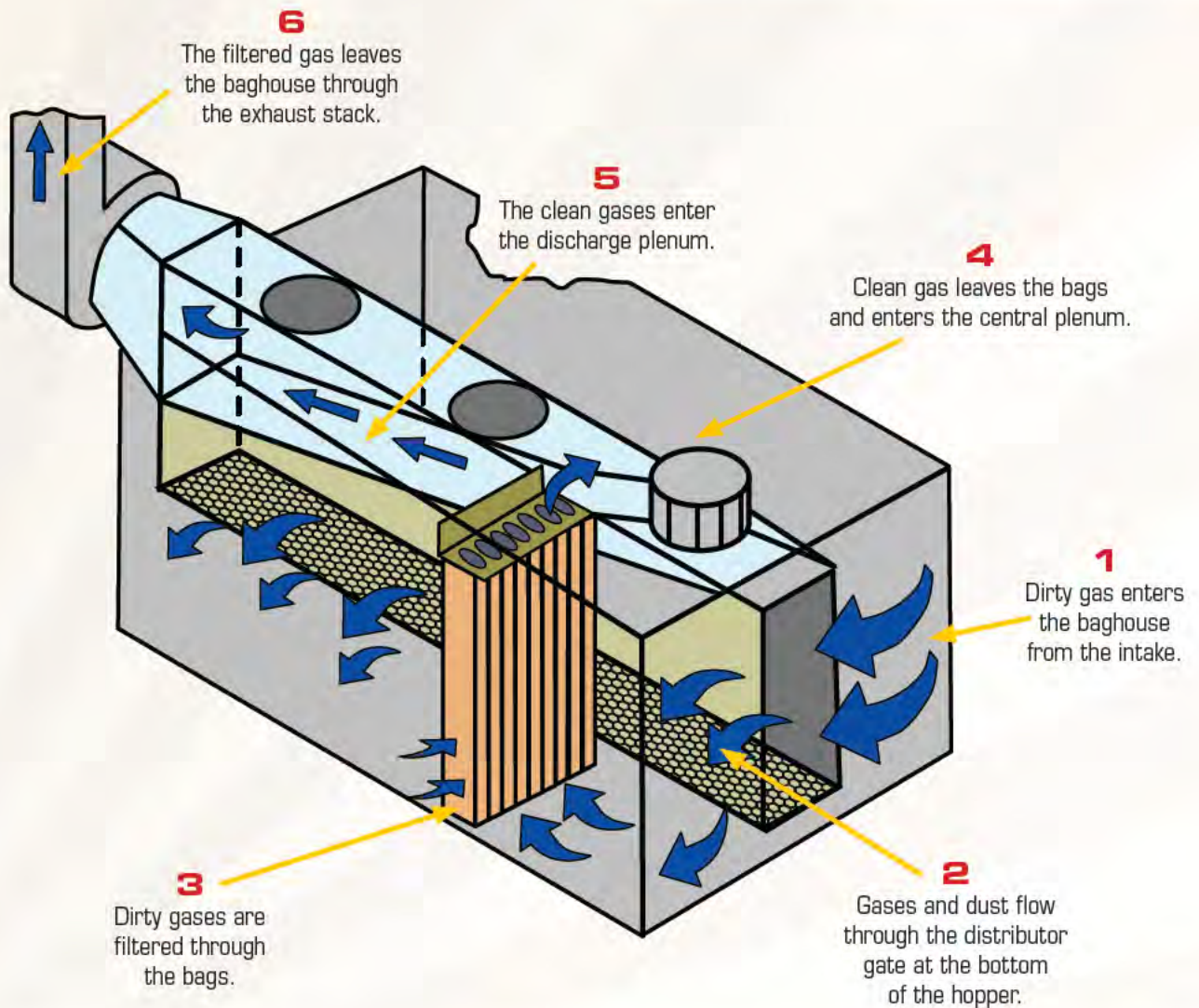


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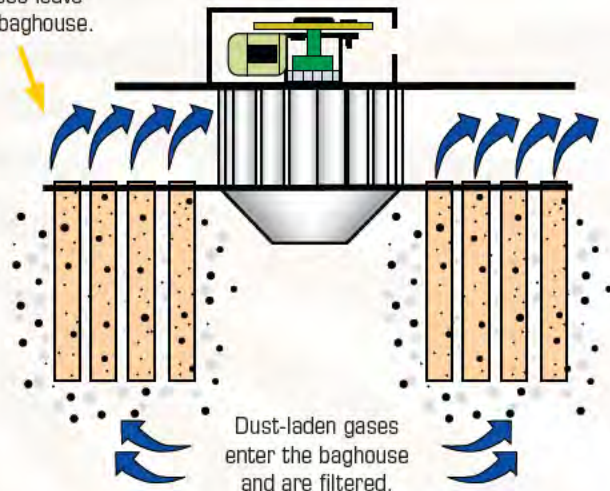




## AIR FLOW PROCESS



Clean exhaust gases leave the baghouse.



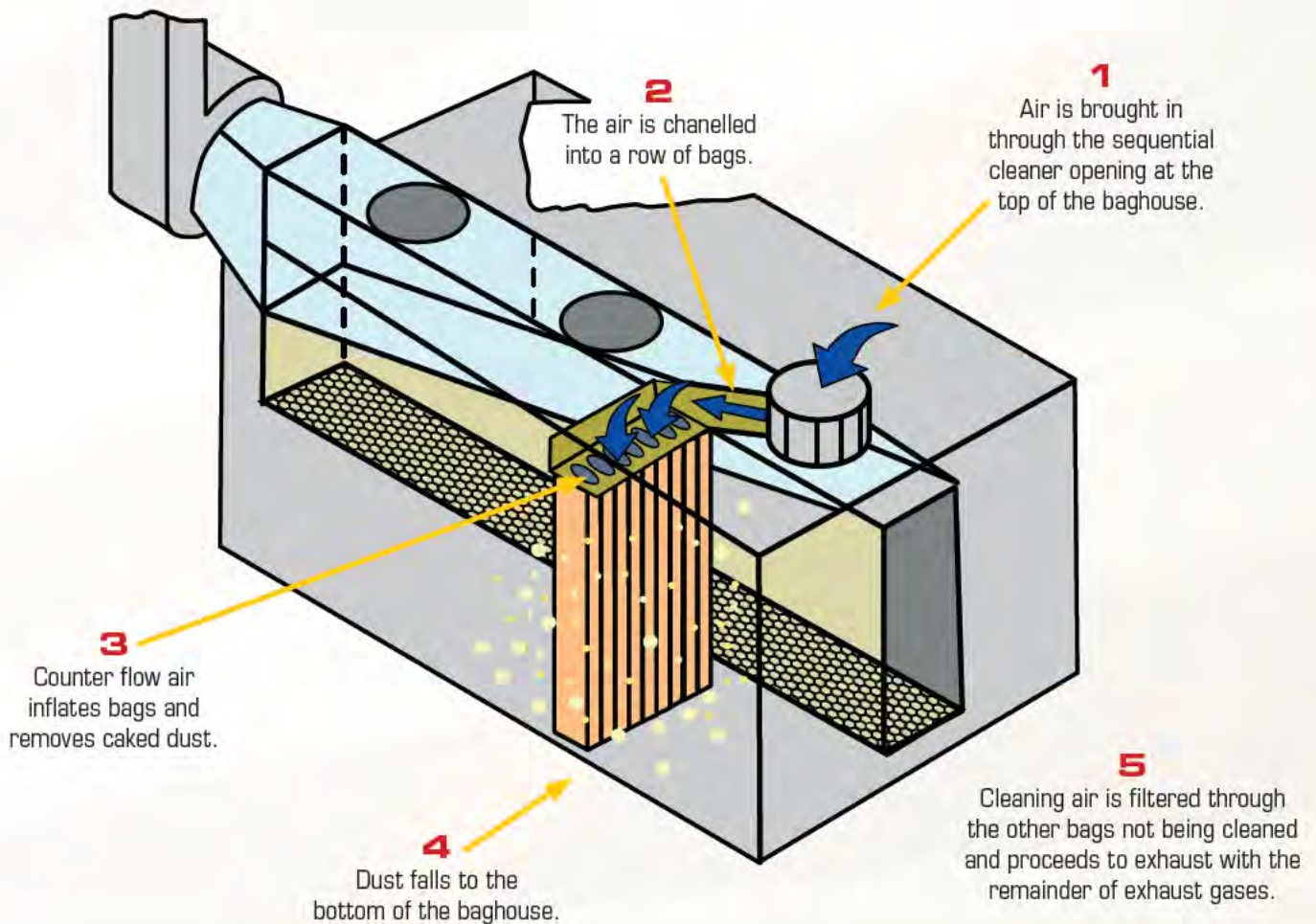
## AIR FLOW PROCESS

Particulate-laden exhaust gases enter the center of the lower baghouse section and are evenly distributed across the entire filtration medium through a specially designed gas plenum that maintains a consistent air flow and pressure across the full length of the baghouse. Each row of bags is isolated from the next to allow closer spacing of the bags, and each elliptical bag provides three times more filter cloth area per bag.

A series of rotating cleaning distributors is located on top of the baghouse. Each cleaning distributor is responsible for approximately 18 isolated rows of bags. The cleaning distributor, while in the parked position, allows exhaust gases to pass through the bags. Dust particles are captured by the bag, and a dust cake layer is formed on the outside of the bag. Filtered exhaust air leaves the bag and passes through the parked cleaning distributor to the clean air plenum and exhaust system.



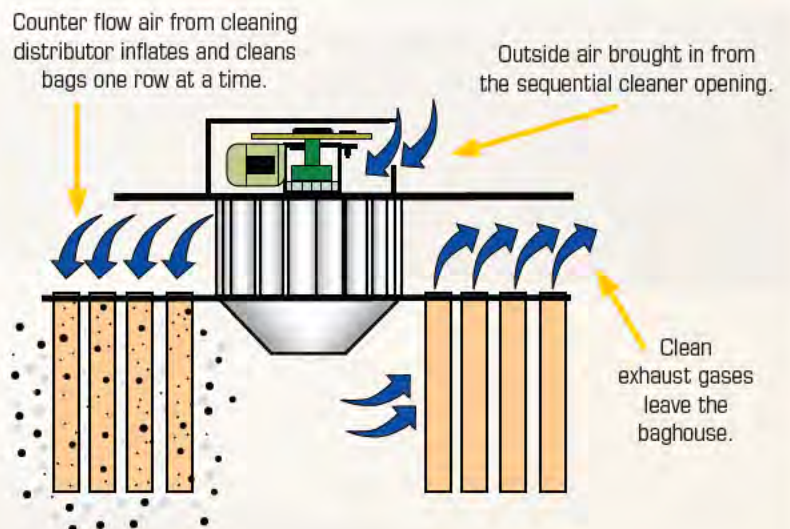
## CLEANING CYCLE



## CLEANING CYCLE

When in the bag cleaning mode, the cleaning distributor rotates clockwise and stops in front of each row of bags, sending a quick burst of counter flow air into the bags. This gentle counter flow burst of air knocks the dust free from the bags and sends it to the bottom of the hopper, where it is removed by the dust auger.

Less than 5% of the total house filtration medium is cleaned at one time, allowing for smooth uninterrupted operation of the filter at constant operating pressure. The sequential cleaning distributor is controlled by means of a preset photohelic gauge, which maintains the house at optimum collection and production efficiency. Because of the smooth transfer of the sequential distributor, the continuous flow of production gases is uninterrupted during the cleaning cycle.





## DUST METERING SYSTEMS



INDIANA FINES



IMPACT FLOW METER



DOUBLE DUMP VALVE



WEIGH AUGER

Gencor offers a wide array of dust metering and dust return systems to accommodate any plant configuration and state requirement. Each dust system is sized per application to assure optimum mix design quality and to meet the tightest state and DOT specifications. Various metering options include impact flow meters, weigh hoppers and weigh augers depending on the level of accuracy and specific production requirement. Specialized systems are available to work in concert with a mineral or other additive system as may be required to assure your plant maximum performance.

### INDIANA FINES

The fines metering system includes a 12-barrel surge hopper with high and low level indicators to accurately maintain a consistent flow of return fines to the mixer. Any overflow of material in the surge system is discharged via the conveyor.

### IMPACT FLOW METER

The impact flow meter is a highly accurate electronic measuring device that measures the mechanical deflection of fines striking a sensing plate. The horizontal force of this deflection is converted into an electrical signal which displays a flow rate and integrated total weight.

### DOUBLE DUMP VALVE

An alternative to conventional rotary airlocks, the double dump valve provides a positive air seal by use of two alternating mechanical flap gates. The gates are operated pneumatically and timing is controlled electronically to match production capacity and the volume of fines. The double dump valve provides increased life and performance in high temperature and high pressure conditions.

### WEIGH AUGER

The weigh auger is a suspension metering device which accurately measures throughput of fines for return to the mix or to an additive silo. The auger is mounted on a double knuckle support on one end to eliminate binding and a load cell mounted on the discharge of the auger. The auger is equipped with two weight pads to allow for calibration using certified weights.



## MINERAL FILL SILOS

Gencor offers a wide array of mineral additive and dust storage systems to accommodate any plant configuration and requirement. Each additive system is sized per application to assure optimum mix design quality and to meet the tightest state and DOT specifications. Mineral silos are available in stationary, portable, and self-erecting configurations ranging from 200 to 900 bbl capacity for addition of fly ash, dust, lime, or other mineral additives to the asphalt product.

A specially designed weigh hopper ensures precise measuring of any required additive. Dust can be augered mechanically or blown pneumatically to the mixer. For plants requiring a lime additive mixture, Gencor can accommodate an optional pugmill mixer for pre-blending of aggregates.



## FEATURES

- Three point loadcell suspension weigh batcher
- Rotary vane feeder
- Access Ladder & Platform
- Rotary airlock [optional]
- Baghouse [optional]
- Pneumatic Blower [optional]



WEIGH POD



ROTARY AIRLOCK



BLOWER



# ULTRAFLO

## Baghouse

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