

# Bag Dump Work Stations And Related Equipment



- 
- efficient dust control
  - effortless systems integration
- 

 **AMERICAN  
PROCESS  
SYSTEMS**  
Member Eirich Group

# Modular Dump Stations

## for easy integration into existing or new set ups

American Process Systems Dump Stations are modular in design and easily adaptable to fit into virtually any existing or future setup.

This intelligently engineered dust collection system provides dependable dust control by immediately drawing dust away from the operator. The result is a clean, healthy work environment which complies with regulations set forth by government agencies such as OSHA (Occupational Safety & Health Administration) and local AQMD (Air Quality Management Districts).

- **Efficient dust removal and filtration**
- **No loss of product**
- **On-line filter cleaning via alternating blasts of air**
- **Easy, tool-less filter replacement**
- **Light weight, highly efficient wide pleat filter cartridges**

For Many Applications, Including—

- |   |   |
|---|---|
| <input type="checkbox"/> Bakery Mixes         | <input type="checkbox"/> Detergents           |
| <input type="checkbox"/> Pigments & Dyestuffs | <input type="checkbox"/> Herbicides           |
| <input type="checkbox"/> Calcium Carbonate    | <input type="checkbox"/> Pesticides           |
| <input type="checkbox"/> Carbon Black         | <input type="checkbox"/> Spice Mixes          |
| <input type="checkbox"/> Starch               | <input type="checkbox"/> Flavored Drink Mixes |
| <input type="checkbox"/> Dairy Powders        | <input type="checkbox"/> Soup Mixes           |
| <input type="checkbox"/> Pharmaceuticals      | <input type="checkbox"/> Your Product?        |
| <input type="checkbox"/> Vitamin Pre-Mixes    |   |



A quiet, specially designed, non-overloading and internally mounted exhaust fan draws ambient air across the removable bar grating where bags or drums are being emptied.

## Keeping dust away from the worker

Over 1,000 cfm of air produce in excess of 200 fpm capture velocity at the point where the bags are being opened, keeping the dust out of the workers environment.

## Full Product Recovery

Light weight, wide pleat filter cartridges stop the captured dust, then alternating blasts of compressed air pulse it back into the hopper or process below. Only clean, filtered air re-enters the plant.

Efficient dust removal means full product recovery, a clean work environment, no make up heating or cooling HVAC air considerations and no ducting to a central bag house.

## User-Friendly— Low Maintenance— Fast Change-Overs—

By simply removing the bar grating and air flow baffle, the heart of the dust control system is exposed. A simple swing away cam arrangement allows the operator to quickly and easily replace or substitute the cartridge filters.

Change over for different products is typically accomplished in less than two minutes.

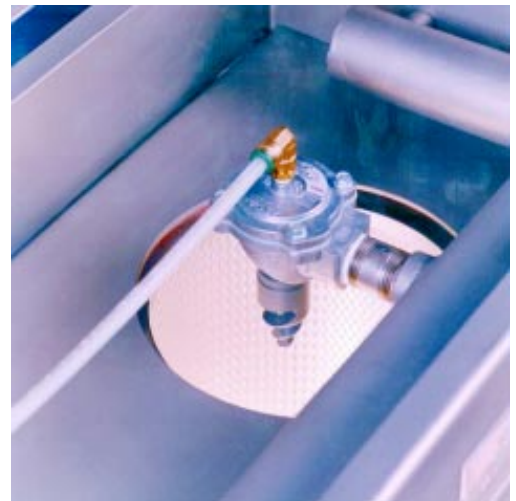
Pulse jet air divertors provide efficient cartridge cleaning. Air is directed downward, spiralling around the inner wall of each cartridge.

Wide pleat filter cartridges are available in PTFE felt, polyester, Gore-Tex Teflon, hydrophobic and oleophobic membrane.

Filtration efficiencies are possible to 99.97% retention on 0.3 microns.



Easy to remove filter cartridges capture dust particles as small as submicron size and returning all airborne product to the hopper.



Pulse jet air divertors insure efficient cartridge cleaning. Timers control both frequency and duration of air blast.



Internally mounted fan, pulse jet cartridge cleaning divertors and compressed air manifold.



# Easy Process Integration

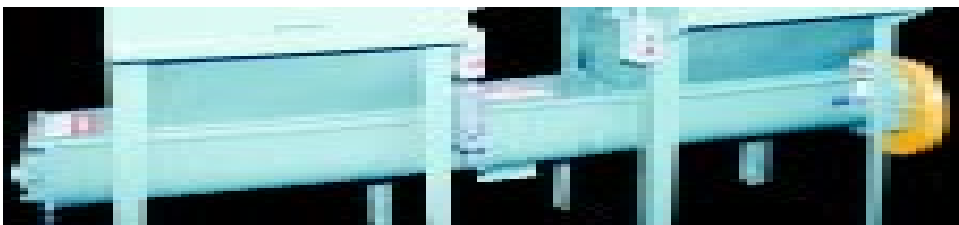
The American Process Systems philosophies of "*Flexibility in Design*" and "*Easy Systems Integration*" are the basis of our complete line of dust control work stations. APS bag dump stations have evolved based on specific customer application and process requirements. Examples of several unique designs and system integration applications are shown on these pages.



2. Combination bag/drum dump station



3. Explosion proof dump station (flange mounted design)



4. Two carbon steel dump stations mounted to a single, bi-directional screw conveyor

- 1: Fully integrated system with flange mounted, non-filtered bag dump station mounted directly on top of ultra-sanitary double ribbon blender; batch weighing hopper; dust control and screening (not shown)
- 2: Combination bag/drum dump station with rotary airlock and pneumatic conveying system. (Platform not shown)
- 3: Explosion proof dump station. Unit of flange mounted design to mate to existing process equipment.
- 4: Two carbon steel work stations discharging into a bidirectional screw conveyor ultimately moving product to a bucket elevator (not shown).
- 5: Vibrating bulk-bag unloader in combination with bag/drum dump, pneumatic bag compactor, in-line rare-earth drawer magnet and 20 mesh, cut-point rotary sifter. (Through mezzanine design.)
- 6: Two bag dump stations sharing a bag compactor. Each dump station also used as a dust collector via ducting to remote dust hood. (Through platform design.)
- 7: Filtered dump station with volumetric screw feeder for dosing minor ingredients.

1. System consisting of flange mounted, non-filtered bag dump station



hop workstation, double ribbon blender, batch weighing hopper and remote dust control system.



5. Bulk bag unloader with bag dump, compactor & sifter



6. Two dump stations sharing single compactor



7. Bag dump with integral volumetric screw feeder

# Optional Features

A wide variety of optional features make American Process Systems Bag Dump Work Stations the most flexible in the industry today. These include:

- 1, 2 or 4 cartridge designs
- Wide range of hopper sizes and shapes
- Flanges and valves to mate with downline equipment
- Wiring to meet any electrical area classification
- Vibrated screens to capture oversize product or torn bags
- Magnetic bar gratings



APS rotary sifter and delumper



Four cartridge, flange mounted bag dump work station to act also as a bin vent while blowing into mixer



Pneumatically vibrated, removable tray with 1/4\" data-bbox="677 607 936 633"/>



Waterproof electricals in stainless steel box; Magnehelic differential pressure gauge



Carbon steel work stations for supersack dumping via spout on front of door.

# Dust Collectors

American Process Systems offers a wide variety of dust collectors, including

- free standing and flange mounted
- 1, 2 and 4 cartridge designs
- 3A Dairy systems.



# Pneumatic Bag Compactors

*APS Bag Compactors allow for empty bag disposal in a dust controlled environment.*

As bags are emptied into a bag dump station, they are slid directly into the integrally mounted compactor. Dust generated in the compaction process is drawn back into the bag dump station and returned to the hopper for product recovery.

- fully pneumatic operation
- no hydraulics
- extremely quiet
- reliable
- convenient bag disposal
- maintenance free

An internal support sleeve assures that the emptied bags are completely compacted into 4 mils thick heavy wall plastic bags for disposal.

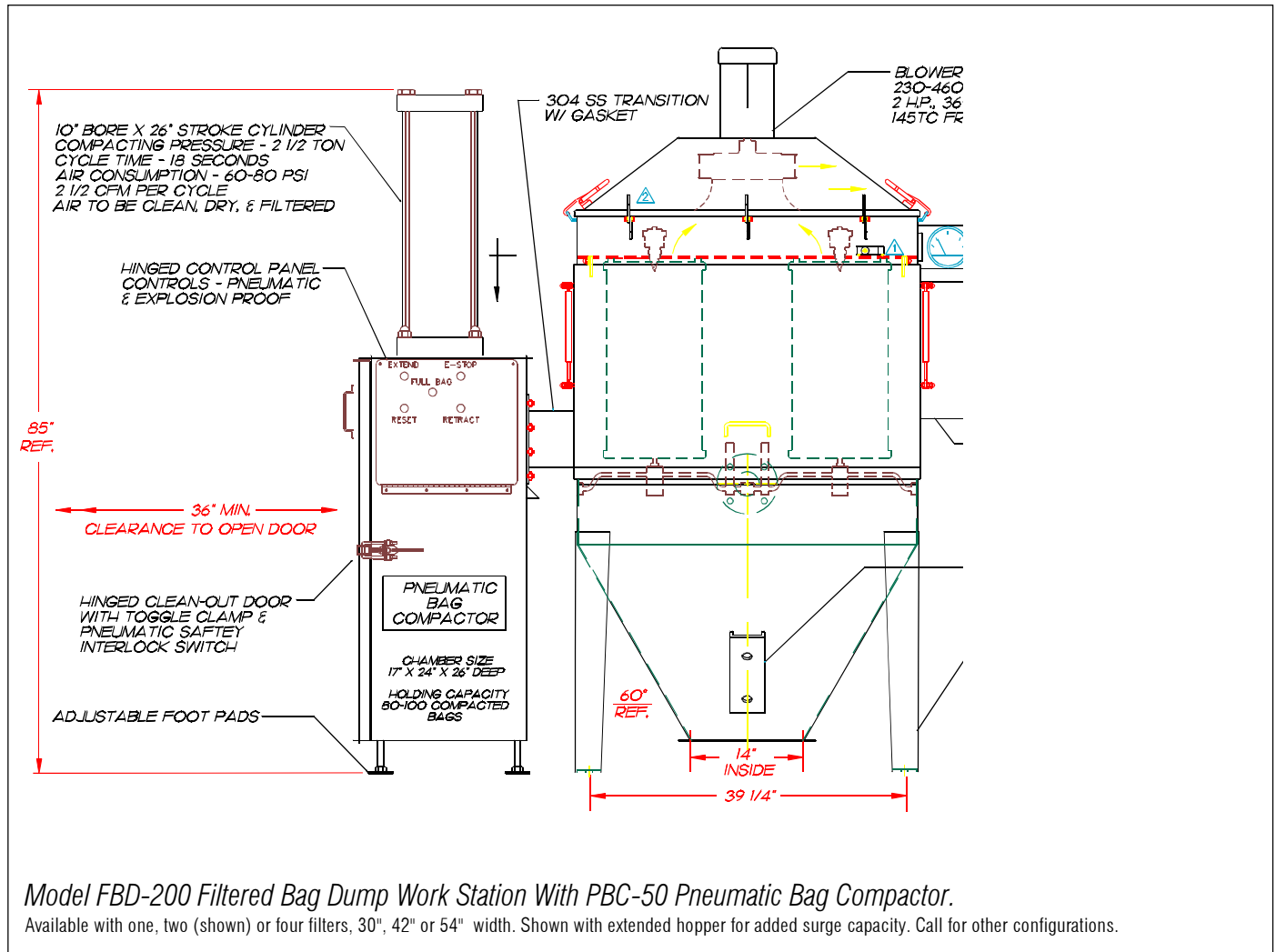
Designed with pneumatic push-button and controls. Safety interlocks require that the bag dump and compactor access doors be closed before the compactor can be activated.

Units are available in carbon steel and stainless steel.

PBC-50 Pneumatic Bag Compactor  
(door removed to show interior)



# Filtered Bag Dump Work Station With Pneumatic Bag Compactor



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