



## CO-GEN PLANT DIAGRAM

The following is diagram of where our Airsweep® material activation system, Dazic® zero speed switches, and Acousticlean® sonic horns can be used in a co-gen plant. If you're not running a co-gen plant, send us your process layout and we can customize a diagram for you.

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### TRUSTED BY THE WORLD'S LARGEST BRANDS

 Nestlé PURINA.



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## 1. COAL SILOS

Bituminous Coal is crushed prior to being fed into the combustors. It is mixed with limestone in the combustion zone of the boiler.

## 2. COMBUSTION ZONE

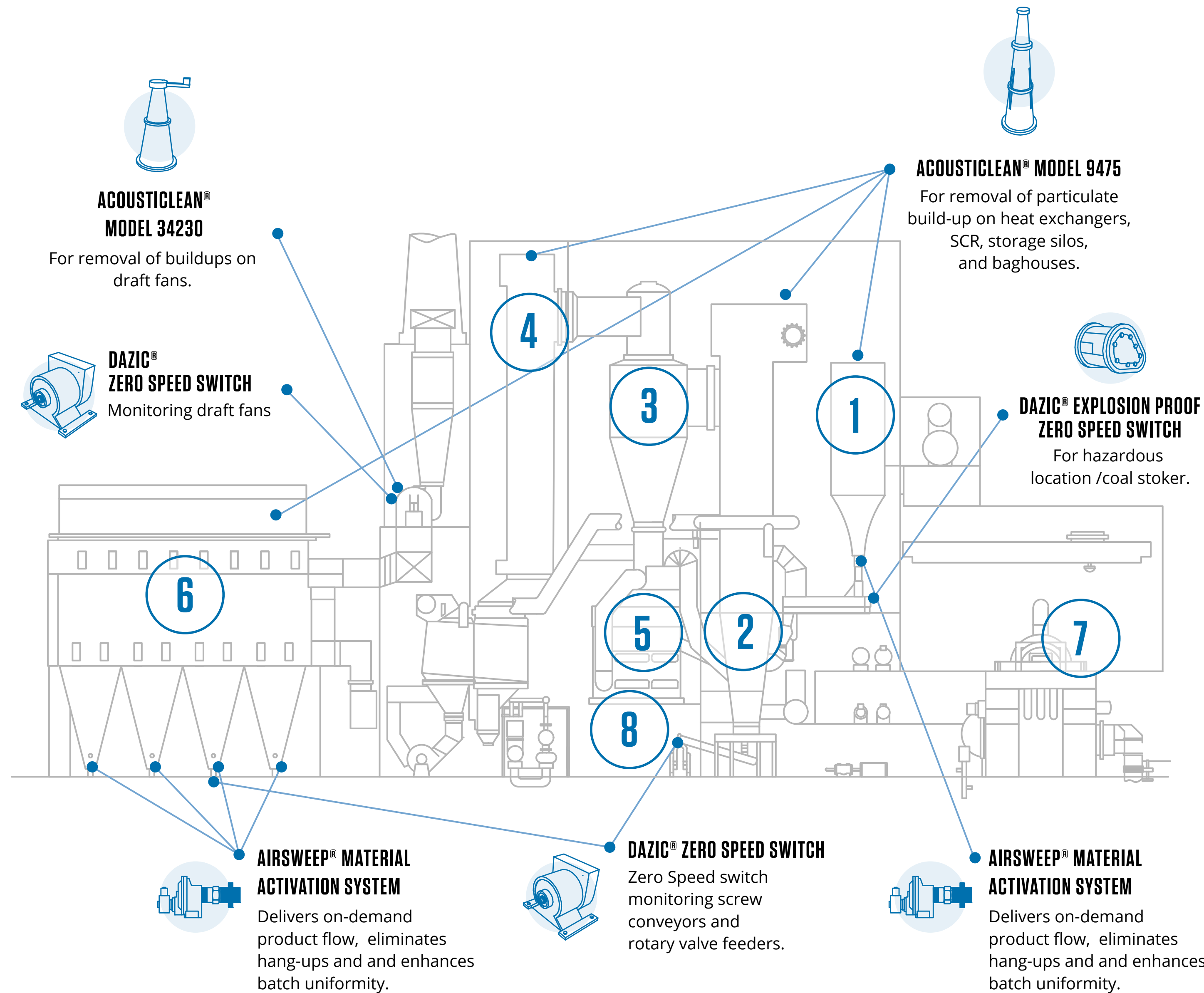
A strong upward flow of air holds the fuel and limestone particles in suspension in the combustion zone. As the coal burns, sulfur dioxide is absorbed by the limestone and the lighter particles move upward in the Combustion Chamber.

## 3. HOT CYCLONE

Ash and hot gases at 1560°F flow out the top of the combustor to the hot cyclone. The gas exits the cyclone to the convective pass. Partially burned fuel and ash pass from the cyclone back to the combustor for recombustion. Thus the combustor achieves a high degree of fuel efficiency.

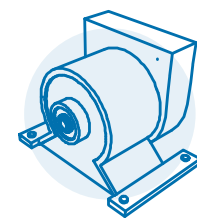
## 4. CONVECTIVE PASS

Hot exhaust gas from the combustor pass over banks of water and steam piping helping to produce the steam for the turbine.



### ACOUSTICLEAN® MODEL 34230

For removal of buildups on draft fans.

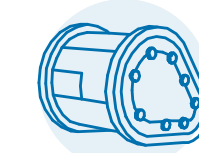


### DAZIC® ZERO SPEED SWITCH

Monitoring draft fans

### ACOUSTICLEAN® MODEL 9475

For removal of particulate build-up on heat exchangers, SCR, storage silos, and baghouses.

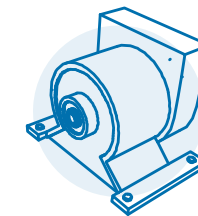


### DAZIC® EXPLOSION PROOF ZERO SPEED SWITCH

For hazardous location /coal stoker.

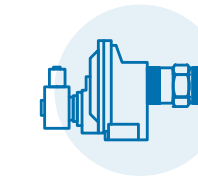
### AIRSWEEP® MATERIAL ACTIVATION SYSTEM

Delivers on-demand product flow, eliminates hang-ups and enhances batch uniformity.



### DAZIC® ZERO SPEED SWITCH

Zero Speed switch monitoring screw conveyors and rotary valve feeders.



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Delivers on-demand product flow, eliminates hang-ups and enhances batch uniformity.

## 5. FLUID BED HEAT EXCHANGER

Ash taken from the cyclones heat the final reheat and superheat steam then returns to the combustor. This is the steam that powers the turbine which spins the generator to produce electricity.

## 6. FABRIC - FILTERS

After giving up most of its heat, the exhaust gas from the convective pass is routed through ducts to fabric - filter baghouses. These act as huge vacuum cleaners and collect almost all the fine particulate for ash disposal.

## 7. TURBINE GENERATOR

A single shaft, 3600 rpm, condensing turbine. Main steam to turbine is 1,345,000 lb/HR at 1,890 psig, 1005°F, and reheat to 1005°F.

## 8. ASH DISPOSAL

Ash is currently sent to a mine site via fully contained rail cars or trucks, where it is beneficially used to reclaim these sites.

**OUR PRODUCTS ARE USED BY MORE THAN HALF OF S&P 500 COMPANIES**

*Contact us for a custom engineered solution*

**CONTACT US**

# WARRANTIES

Control Concepts, Inc. provides a warranty on the following product units.

 	 	 
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# TESTIMONIALS

AirSweep installation was easy, and the units have saved the company a lot of man hours. My experience totally exceeded my expectations – a 10 out of 10!

**STANLEY RHEA**

**HEAD OF MAINTENANCE DEPARTMENT, FLAX4LIFE**

The AirSweep installation was pretty straightforward and I would absolutely recommend it. In fact, we are looking into expanding to use the system in other parts of our plant.

**JOHN PAPPENHEIM**

**MAINTENANCE MANAGER, BUNGE MILLING**

# WE WORK WITH THESE MATERIALS & INDUSTRIES



## FOOD/AGRICULTURE

Animal feeds  
Brewers grain  
Cocoa  
Coffee  
Corn  
Flour  
Grains  
Hops  
Salt  
Soybeans  
Spices  
Starches  
Sugar  
and more...



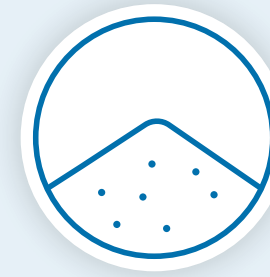
## MINING

Aluminum  
Bentonite  
Coal  
Copper  
Diatomaceous Earth  
Gypsum  
Iron ore  
Limestone  
Magnetite  
Phosphate  
Shale  
Soda Ash  
and more...



## CHEMICALS

Activated carbon  
Adipic acid  
Aluminum  
chloride  
Boric acid  
Chlorine  
Herbicide  
Hydrated lime  
Iron Oxide  
Polyacrylamide  
Titanium dioxide  
Zinc  
and more...







## OTHER

Acetate  
Cement  
Chalk  
Cork  
Detergent  
Fertilizer  
Fly ash  
Pharmaceuticals  
Plastics  
Polymers  
Resins sludge  
Wax flakes  
Wood chips  
and more...

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