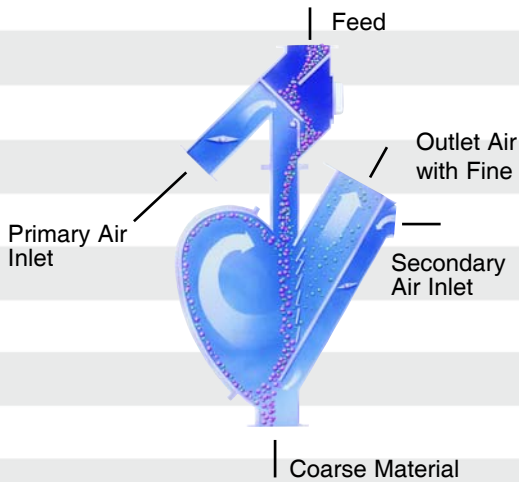


INDUSTRIAL CLASSIFIERS



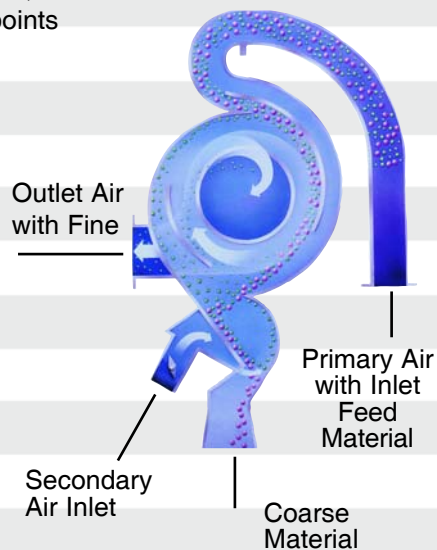
Gravitational Inertial Industrial Classifiers

These Buell units effectively combine gravitational, inertial, centrifugal and aerodynamic forces to classify materials at cut points ranging from 5 to 200 mesh (300 to 75 microns). The feed material and primary air enter the top of the classifier in a downward direction. The air makes a 120° change in direction and exits through the vanes, carrying fine particles with it. The coarse particles, too heavy to make the turn, fall to

the bottom where they are discharged by a valve. Secondary air, injected below the vanes, passes through the curtain of falling particles. Those particles near cut point in size are diverted by the secondary air stream into an eddy current within the heart-shaped chamber. Fines captured as they enter the unit as well as others drawn from the eddy are carried by existing air to a fabric filter for final recovery.

Centrifugal Industrial Classifiers

These Buell units employ centrifugal forces, similar to cyclones, to separate particles at cut points between 20 and 100 microns. A series of internal baffles apply drag forces to the coarse particles while allowing air to pass through them, resulting in separation of the fines. The heaviest particles drop to the bottom of the classifier where they are discharged through a valve. Prior to the discharge, secondary air is injected and passes through the material, and particles near the cut point in size are returned to the circulating chamber. The fine particles travel a spiral path into the outlets located on each side of the unit. The two air streams combine and enter a cyclone for final recovery of fine particles.



Featuring:

- No moving parts within material flow stream
- Low cost alternative to rotary classifiers

Rock Solid Guarantee

Buell[®]
CLASSIFIER

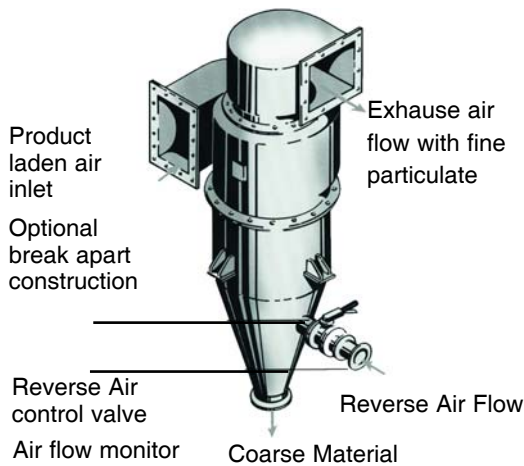
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INDUSTRIAL CLASSIFIERS

In Line Classifiers

How they work: The EX Series Aerodynamic Classifier takes advantage of the principle that particles of different sizes, shapes or specific gravities can be separated through the use of an upward flow of air, sometimes referred to as elutriation. The powder to be classified is pneumatically conveyed into the classifier where it is collected and transferred into a



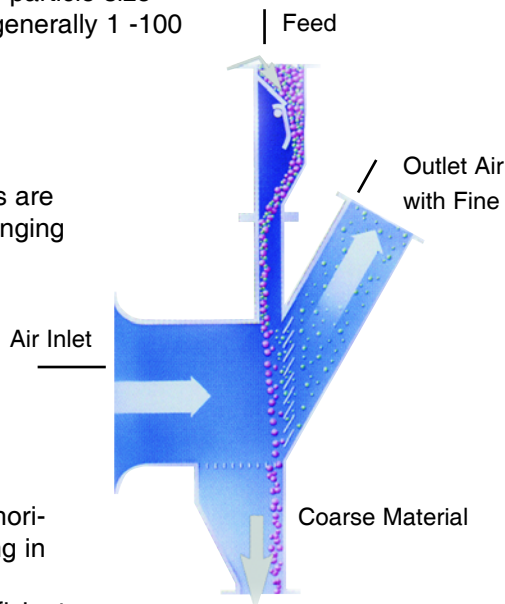
fluidizing air stream is introduced into the lower portion of the classifier and the upward flow carries the fine fraction of the powder out of the top of the classifier and into a final collector. The coarse fraction of the powder is discharged out the bottom of the classifier through an optional airlock device or into a sealed container. The degree of classification is determined by the amount of reverse flow, inlet air volume, collector type and size and the specific characteristics of the materials to be separated.

EX series Classifiers are available in two basic models

- Type L for large 2-300 microns particle size
- Type S for small particulates, generally 1 -100 microns particle size.

Gravitational Industrial Classifiers

These intelligently engineered units are ideal for classifying coarser cuts ranging from 10 to 100 mesh. The feed material is dropped into the top of the classifier. It falls into a continuous feed curtain in front of the vanes, passing through low-velocity air entering the side of the unit. The air flow direction is changed by the vanes from the horizontal to angularly upward, resulting in separation and classification of the particulate. Coarse particles are efficiently discharged through a valve beneath the unit. The fines are conveyed by air to a fabric filter for final recovery.



Typical Classified Materials:

- Alumina • Basalt
- Calcium Carbonate • Catalyst
- Cement • Coal
- Diatomaceous Earth
- Dicalcium Phosphate
- Fertilizer • Fly Ash
- Granite • Granular Chemicals
- Lime • Limestone
- Metal Powders
- Phosphate Rock • Pearlite
- Plastic Pellets • Potash
- Salt • Silica Fumes
- Soda Ash • Zinc Powder

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