

Metso Air Classifiers





Dry classifying uses no water, providing a very environmentally friendly and economical classifying solution. Metso air classifiers provide a full system solution with an alternative to wet classifying.



Metso has acquired multiple patents in cyclone classifier separation technology through 75 years of application engineering and practical experience.

Dry processing of manufactured asphalt and concrete sands...

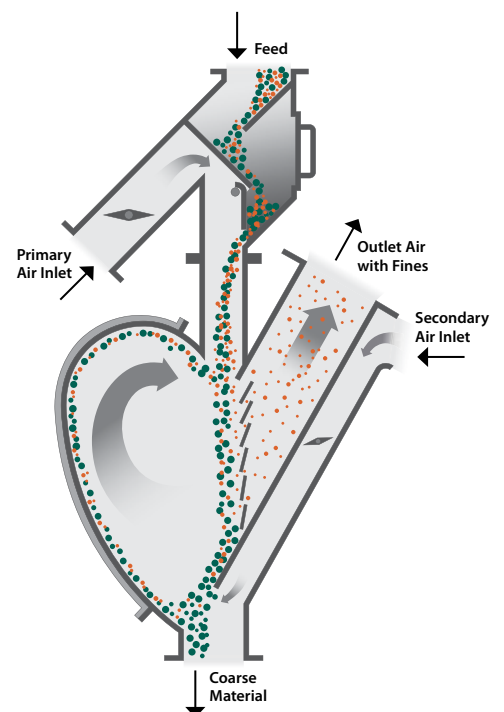
Metso Classifiers

Gravitational Inertial

The design of the Metso gravitational inertial classifier uses air flow, gravity, and directional changes to achieve material cut points from 50 to 200 mesh.

The Metso Aggregate Classifiers combine gravitational, inertial, centrifugal and aerodynamic forces to efficiently classify materials at cut points ranging from 50 to 200 mesh (300 to 75 microns). The feed material and primary air enter the top of the unit and travel downward. The air makes a 120° change in direction. It then exits through the vanes carrying fine particles with it. The coarse particles that are too heavy to make the turn fall to the bottom where they pass through the secondary air before they are discharged through a valve. Secondary air, entering below the vanes, passes through the curtain of falling particles. Those particles that are near cut point in size are diverted by the secondary air stream into an eddy current within the heart-shaped chamber. Some fines are captured as they enter the unit while others are drawn from the eddy. These are carried by the exiting air to a fabric filter for final recovery.

- No moving parts within material flow stream
- Internal lining - AR plate or ceramic
- Reduce loading or eliminate settling ponds
- Lower maintenance and operation costs (pumps, dredging, belt presses, flocculants)
- Reduce moisture and minimize asphalt costs
- Develop additional market opportunities for minus 200 mesh material



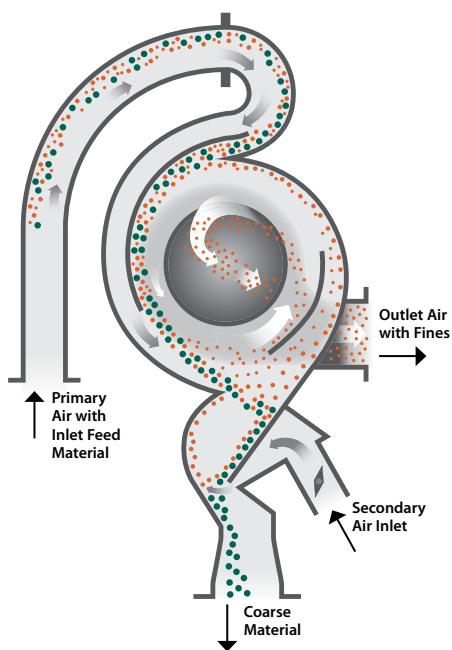


Centrifugal unit in series with gravitational inertial unit. 75 tph mobile unit, transportable to job sites, incorporates quick set up hydraulics and ceramic liners for wear protection.

Centrifugal Classifiers

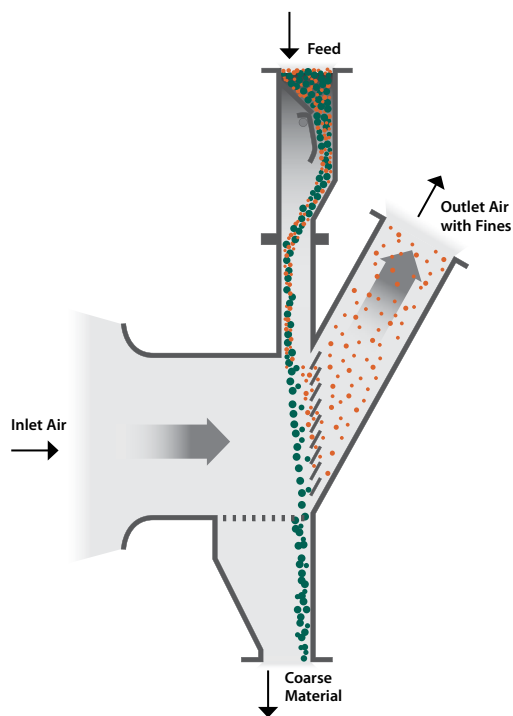
These Metso units employ centrifugal forces, similar to cyclones, to separate particles at cut points between 20 and 100 microns. A series of internal baffles apply drag forces to the coarse particles while allowing air to pass through them, resulting in separation of the fines. The heaviest particles 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.



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 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
PLASTIC PELLETS
POTASH
SALT
SILICA FUMES
SODA ASH
ZINC POWDER

Expect results

It is our promise
to our customers and
the essence of our strategy.

It is the attitude
we share globally;
our business is to deliver
results to our customers,
to help them reach
their goals.

