GRAVITY PROCESS SYSTEM

GRAVITY IS A SIMPLE FLOW THRU DEVICE WITH ONLY ONE MOVING PART

It is designed for minimum residence time and minimal frictional energy input to the product. It may be configured for declumping of cohesive materials and also is an excellent high volume grinder for friable materials. It’s also a ultra high capacity power sifter for powders and granular materials.

APPLICATIONS

For use on clumpy, cohesive materials, friable materials, dry powders, flours and granular materials in the food, chemical, plastics, consumer products, and allied industries. Process operations include:

- Gentle De-Clumping of Cohesive Materials
- High Volume Grinding of Friable Materials
- Bag Dumping
- Power Sifting/DeClumping of Agglomerated Powders
- Scalping of Foreign Material

WORKING PRINCIPLE

Material is loaded into the feed hopper which may be customized to suit incoming product size. A spinning feed plate is used to precondition the material before entering the vertical sieve unit or vertical bar basket. A rotating impeller throws the material tangentially through the basket with centrifugal action. The material then drops down the inner sifter body wall and flows out the bottom of the tub, framework/support of device custom designed to suit your process requirements.

FEATURES AND BENEFITS

- Minimum Residence Time and Heat Generated
- Gently Separate Fragile and Sticky Dried Goods.
- Eliminates expensive and labor intensive hand massaging
- Separates into individual pieces while leaving skin and shape intact of fragile or delicate items
- Effective for re-work or salvage of sticky or syrup-based granolas, baked goods, confectons, and nutritional bars
- Efficient, gentle, thorough, and quiet
- Throughput of up to 200-300 lb/min. possible
- Pay back/Return on investment of three months possible
- Improves finished product quality
- The Ultimate High Volume Grinder for Cookies, Crackers, Snacks, Expanded Products, Cereals, etc. Handles high fat and filled products. Rates of 200lb/min. approx.
- Power Sifts granular materials/powders and captures tramp and packaging materials
- Ultra Efficient drive size of only 5 HP reduces energy costs
- Compact Footprint saves floor space
- Simple Design and Maintenance/Easy Clean Out
- Low Cost/Quiet Operation
DESIGN ENHANCEMENTS

Stainless Steel Washduty Gearbox and Motor
Quick Disassembly
Wash Down Design
Made in U.S.A.

TESTING

Product samples may be submitted for testing at the Whirlwind Technical Center in Grand Rapids, MI. Demonstration and rental equipment is also available for field testing.

MATERIAL OF CONSTRUCTION

Loading hopper, sifter body, internal components, and frame fabricated from stainless steel. Sieve mesh available in woven or perforated stainless steel.

STANDARD SERVICES

(Other options available)

- Electrical Supply: 208, 204, 480, 575 V, 3ph, 60 Hz
- Main Drive: 5 HP (5 kW), 1740 rpm, T.E.F.C., Wash Duty, AC motor
- Gross Weight: Approx. 400 lbs. (181 kg)

ELECTRICAL CONTROLS

(Other options available)


GUARDS AND SAFETY FEATURES

(Other options available)

Loading hopper safety grate. Proximity switches to ensure loading hopper and discharge extension in place.

OPTIONS

- **Sieve Unit** – Basket and impeller used for most applications. Offers maximum versatility and throughput. Mesh sized to meet application.
- **De-Clumper Basket and Impeller** – Used for gently de-clumping cohesive blocked materials.
- **Tailing Unit** – Spinning conical perforated screen used to control feed rate and prevent large contaminants from entering sieve unit. Protects against accidental downtime and ensures maximum screen life.
- **Feed Control Plate** – Spinning plate used to control feed rate and distribute product evenly to sieve unit.

Specifications subject to change without notice.