

TECHNICAL DATA SHEET

T. ERNST

PNEUMATIC CONVEYING SYSTEMS



INDUSTRY:

Food, Chemical, Plastics, Pharmaceutical, Mineral Processing

PRODUCT CATEGORY:

Pneumatic Conveying Systems

PRODUCT OVERVIEW

PNEUMATIC CONVEYING SYSTEMS

Pneumatic conveying systems provide reliable transfer of powders, granules, and bulk solids through enclosed pipelines using air pressure or vacuum. These systems ensure dust-free operation, sanitary handling, and consistent flow across industries requiring efficiency and product integrity. Designed for food, chemical, plastics, pharmaceutical, and mineral applications, pneumatic systems minimize spillage, reduce labor, and integrate seamlessly with upstream and downstream processes. Whether dilute or dense phase, they deliver flexible layouts, hygienic construction, and long-term reliability.



#1 DILUTE PHASE (PRESSURE)

Transfers powders and light bulk solids at high velocity with low pressure air.

UNIQUE FEATURES:

- Low-pressure blower system
- Lightweight piping design
- Continuous conveying
- Versatile layout options

BENEFITS

- Gentle product handling
- Long-distance transfer
- Low dust operation
- Flexible installation

SHARED FEATURES

Packaging System Highlights

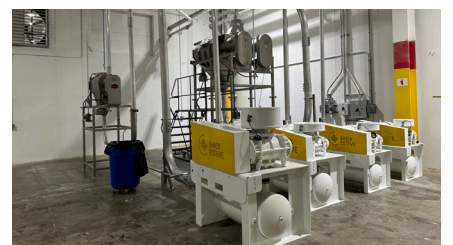
01 Advanced pipeline network



02 Enclosed system with dust control



03 Energy efficient



#2 DILUTE PHASE (VACUUM)

Uses vacuum suction to pull powders and solids through pipelines.

UNIQUE FEATURES:

- Low-velocity, high-pressure flow
- Suited for abrasive products
- Controlled air injection valves
- Pressure-rated feed vessels

- Clean, contained transfer
- Flexible for multiple inlets
- Reduces product spillage

BENEFITS:



#3 DENSE PHASE (PRESSURE)

Modular equipment skids for hygienic processing integration.

UNIQUE FEATURES:

- High-speed robotic handling
- Programmable motion paths
- Multi-axis flexibility
- Compact installation footprint

BENEFITS:

- Reduce manual labor
- Improve packing accuracy
- Enhance production speed
- Lower repetitive strain risk

#4 DILUTE PHASE

Blend liquids or melt solids into liquid form for downstream use.

UNIQUE FEATURES:

- Compact vertical design
- Flexible bag sizing options
- High-speed sealing unit
- Integrated film feeding system

BENEFITS:

- Streamlines bagging process
- Ensures secure product seals
- Reduces packaging downtime
- Supports multiple product formats



ACCESSORIES

- Weigh scales
- Discharge conveyors
- Bag clamps
- Vibratory tables
- Label printers
- Air compressors
- Checkweighers
- Dust collectors
- Hopper feeders
- Stretch wrappers
- Barcode scanners
- Filling nozzles
- Roller conveyors
- Bag sealing units
- Control systems
- Film roll holders
- Safety cages
- Transfer chutes
- Guard rails
- Palletizing arms
- Load cells
- Metal detectors
- Bag flatteners

APPLICATIONS

Food, Agriculture, Chemical, Pharmaceutical, Industrial

[Food] Flour, sugar, starches, grains, powdered dairy, packaged sauces

[Agriculture] Seeds, feed, fertilizers, bulk grains

[Chemical] Detergents, resins, powdered additives, solvents

[Pharmaceutical] Active ingredients, powdered medicines, sterile packaging

[Industrial] Cement, minerals, building materials, specialty powders



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