

# Compounding, Extrusion, Resin Production Maximized.



Process Automation Solutions for the Plastics Industry.

# Maximizing Compounding, Resin Production & Extrusion Performance. Guaranteed.

The Plastics Industry demands equipment that will handle bulk powders with maximized focus on continuous throughput, machine uptime, safety, productivity, and end-product quality — while minimizing downtime, dusting, & degradation.

## DUST-FREE MATERIAL TRANSFER

- Material is drawn directly from drums, super-sacks, storage containers, totes, or other process vessels — without manual lifting, stair-climbing or messy dumping.
- Automated systems can be completely sealed minimizing fugitive and combustible dust.
- Any potential leakage will be inward — no materials or combustible dust discharged into the work area.
- Filtration based on application requirements — Unifilter, Multi filter (sock), Multifilter (pleated bag), or cartridge filter
- All systems are available with secondary HEPA filtration located ahead of the vacuum producer.

## WHY VACUUM CONVEYING?

- Eliminate hand scooping & messy dumping
- Any potential air leaks are inward, not outward
- Powders/Granular materials delivered in a closed process
- Material easily & safely delivered from point A to point B
- Material is discharged into the process with control
- Ideal for large containers, reduces frequent container changes
- Long service life and lower cleaning costs
- Minimal maintenance due to few moving parts
- Reduced downtime, reduces operating costs
- Vacuum conveying lines can be routed between floors, through partitions, around machinery — and can be easily re-routed to accommodate process modifications.

- Ideal for Toll Processors - adaptable, easily integrated, automated, and reused.
- Allows floor-level loading, no manual lifting, ladder or stair climbing, trip/fall hazards, heavy lifting, or messy dumping.
- Mobility brings vacuum conveying to the extruder

## DILUTE PHASE MAXIMIZED

- Material entrained in the air stream
- Handfuls to 25,000 lbs/hr (11,000 kg/hr)
- Less than 300 ft (90m) convey distance
- Up to 6" (150mm) convey line

## SAFETY & CERTIFICATION

- Explosion protection available based on the application
- Rupture Discs, Flame-less Venting, Chemical Suppression, Pressure Containment, Inlet & Outlet Isolation Valves
- Conveying with inert gas
- In-House Passivation & Dye-Penetrant Testing
- For Medical Extrusion, FDA Documentation, Passivation Certificates of Compliance and Mill Certifications
- Bag-in-Bag-Out Filtration
- Factory Acceptance Testing (FAT) available at VAC-U-MAX's 6,000 sq/ft customer test lab in Belleville, NJ.

## CONTROLS

- UL and C-UL certified control panel designer and builder for General Purpose, Class 1, and Class 2 environments
- VAC-U-MAX controls with local PLC or remote plant system including Allen-Bradley, Siemens, RTU, Modbus +, Modbus/TCP, Allen Bradley DF1, Device Net, Ethernet/IP & Profibus DP.

## OTHER CONVEYING TECHNOLOGIES

- AeroFlex Flexible Screw Conveying Solutions
- AeroCon Aero-Mechanical Conveying Solutions

## PUT US TO THE TEST!

VAC-U-MAX welcomes the challenge to handle difficult non-free-flowing materials under difficult conditions.

Visit [www.vac-u-max.com](http://www.vac-u-max.com) and fill out RFO.



## TYPICAL MATERIALS CONVEYED

- Pellets / Base Resins
- Calcium Stearate
- TiO<sub>2</sub>
- Paraffin Wax
- Calcium Carbonate
- Fibers / Glass Fibers / LFT
- Pigments / Colorants
- Anti-Microbials
- Stabilizers
- Metallic Oxide Blends
- Carbon Black
- Wood Flour
- Graphite / Graphene
- Regrind
- Light-Density Flake
- Rubber Products
- Dispersion Aid
- Foaming Agent
- Emulsifiers
- Fillers / Polymers
- Elastomers
- Flame Retardants

## VAC-U-MAX APPLICATION EXPERTISE:



Conveying Multiple Ingredients to Extruders



Screw, Belt, Vibratory Tray Feeder Refill



Multiple Ingredient Handling / Batch Weighing



Mobile Vacuum Conveying Systems



Bulk Bag Loading and Unloading Systems



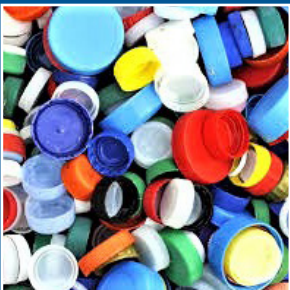
ColumnLift™ Vacuum Conveying Systems



Aero-Mechanical Conveying Systems



Sanitary Bag Dump Station with LoadLifter™



Conveying Plastic Caps, Corks and Closures



Direct Charge Blender Loading



AERO-FLEX Flexible Screw Conveying



Combustible Dust Vacuum Cleaners

Concerned about combustible dust? Learn more about VAC-U-MAX's full line of Portable, Continuous-Duty, and Central Vacuum Cleaning Systems!!

Call (800) VAC-U-MAX or visit [vac-u-max.com](http://vac-u-max.com) and fill out RFQ!



## OVER 65 YEARS OF GETTING IT RIGHT.

In material handling solutions, every detail is critical. So when you do business with VAC-U-MAX, you're guaranteed a lot more than a high-performing product: Pioneering materials handling technology. Custom engineering expertise. Rapid turnaround and responsive support. And of course, our 100% satisfaction guarantee.

For more than six decades, we've made a name as a single-source, dedicated provider, handling more types of materials, serving more markets, and offering the highest possible degree of customization—so your systems are maximized to fit your needs.

### VAC-U-MAX CAPABILITIES

- Direct charge loading of blenders, mixers, reactors and other vacuum tolerant vessels
- Automatic weighing & batching of multiple ingredients
- In-line check sieving while conveying product
- Dust-free transfer to Extruders
- Convey wide range of powders & difficult to convey materials
- Integration & automation of material transfer & controls
- Maximize regulatory compliance
- Sanitary designs, "No edges, no ledges" for Medical Extrusion
- CIP-able designs
- Many finishes available from hand polishing to mirror finish
- In-House Passivations and Dye-Penetrant Testing
- In-House Engineering for Approval Drawing Submittal

### FULL SERVICE TEST LAB

- 6000 ft<sup>2</sup> (560 m<sup>2</sup>) Test Lab
- 400 ft (120m) tube runs
- Full scale testing with customer supplied ingredients
- Expert Consulting and Design Engineering
- Convey Handfuls to 25,000 lbs/hr (11,400 kg/hr)
- Line size availability up to 4" (100mm) OD
- Material tests for Vacuum Conveying applications
- Material tests for Aero-Mechanical Conveying
- Material tests for Flexible Screw Conveying
- Material tests for Bulk Bag Loading/Unloading
- Material tests for Bag Dump Stations & more!
- Witnessed or Virtual Testing
- High Vacuum Pump Capabilities up to 29" Hg (982 Mbar)
- Industrial Vacuum Cleaner Testing
- Equipped with VAC-U-MAX Central Vacuum System

### THE VAC-U-MAX DISTINCTION:

- Faster processing time
- FDA-approved materials of construction for Medical Extrusion
- Easy, quick-clean & take-apart features
- Minimal footprint
- Made in the USA
- Local product support
- Performance guarantee
- Maximize regulatory compliance including (FSMA) sanitation and OSHA (Walking/Working Surfaces)

