

# DENSE PHASE PNEUMATIC CONVEYING



## INTRODUCTION

Dense phase pneumatic conveying is a method for moving difficult, abrasive, mixed batch, or friable materials at a low product velocity. The materials are conveyed within the pipe in slug form using small amounts of gas at a low velocity and high pressure. This type of system is favored for its low operating costs, basic maintenance, and minimal material degradation and system wear.

This method is typically selected for moving material from a single collection point to either single or multiple destination points. Common materials suitable for dense phase conveying include sand, cement, mixed batch, chemicals, limestone, pet food, and others.

## KEY BENEFITS

Our dense phase system offers Air Assist™, Smart Air Assist™, purge and non-purge concepts, and continuous transport options.

- Air Assist™ - strategically placed along the convey line to inject air, decreasing the required motive gas pressure and flow. This increases system reliability and reduces operational costs.
- Non-purge concept - material can be intentionally left in the convey line, further minimizing ill effects from high velocity purges. This helps prevent material attrition and component wear, costly maintenance, and plant downtime.
- Continuous transporting - allows for continuous conveying of materials without a stoppage for de-pressurizing and refilling of the vessel.



**REDUCE SYSTEM WEAR AND PRODUCT DEGRADATION  
WHILE IMPROVING MATERIAL TRANSFER EFFICIENCY**



**TRUSTED TO DELIVER™**

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## DESCRIPTION AND OPTIONS

### Air Assist™ Standard (base model)

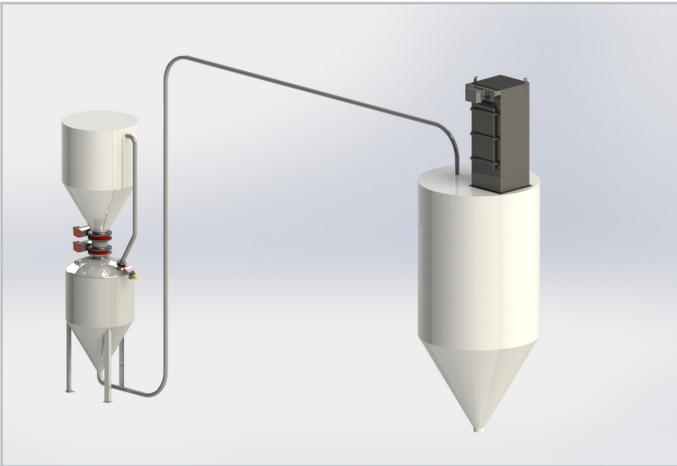
- Strategically placed along the convey line to distribute energy throughout the dense phase system
- Pressure differential design prevents backfeeding which may be experienced with low pressure manifold systems

### Smart Air Assist™

- Smart sensors are added to the original Air Assist™ providing convenient manipulation of volume and pressure remotely from the Human Machine Interface

### Zone Control®

- Adjustable convey pressures at various zones along the convey line



## ADDITIONAL OPTIONS

### USDA Dairy

- All systems are available in USDA Dairy compliant design with sanitary connections for quick disconnect

### Vacuum vs. Pressure

We offer a dense phase vacuum system, an ideal match if you are dealing with:

- Restricted head height
- Multiple pickup points
- Cohesive or hazardous materials

### Modular Testing Facility

- We have a modular testing facility to replicate your process and prove the concept prior to purchase



## ABOUT NOL-TEC

Nol-Tec is recognized as a global leader in the design and manufacture of pneumatic conveying equipment for processing dry bulk materials. We have experience handling hundreds of different products from a wide range of industries enabling us to deliver reliable and cost-effective bulk material handling solutions.

Our in-house test lab provides clients with the confidence they need to make informed decisions about their new system design, upgrade, or retrofit. For nearly four decades we have partnered with clients to bring state-of-the-art products to the marketplace. We are committed to helping you keep your business moving.

