

PNEUMATIC CONVEYING FOR BULK FOOD MATERIALS



Pneumatic conveying in the food industry is a material handling process characterized by the use of controlled airflow within enclosed pipelines or ducts to transport bulk food materials, such as powders, granules, and grains, from one location to another.

- It is a precise material transport method that relies on compressed air.
- Compressed air is then injected at the hopper's base, creating a fluidized bed that suspends the food material in the airflow. This mixture is conveyed through a sealed pipeline system, designed to maintain hygiene and prevent contamination.
- These systems prioritize hygiene, ease of cleaning, and compliance with food safety standards.



Advantages



1. HYGIENE AND CLEANLINESS

Pneumatic conveying systems are closed systems, which minimizes the risk of contamination and maintains the hygiene of the food materials being transported.

2. FLEXIBILITY

Designed to fit into existing layouts and adapt to various production processes. They can transport materials horizontally, vertically, or at different angles, allowing for efficient material flow within a facility.

3. EFFICIENCY

It can transport materials over long distances and through complex routes with minimal energy consumption, especially when compared to mechanical conveying methods.

4. AUTOMATION

Easily automated, allowing for precise control over material flow rates, routing, and delivery points.

5. SPACE SAVINGS

Require less floor space compared to other conveying methods, making them suitable for facilities with limited space.

6. DUST CONTROL

Materials are transported within a closed pipeline, the risk of dust emissions is reduced, creating a safer and cleaner working environment.