



PNEUMATIC TRANSFER FROM STORAGE

by
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FLSmidth Pneumatic Transport
Distribution Systems

Storage Facilities



Methods of Transport from Storage

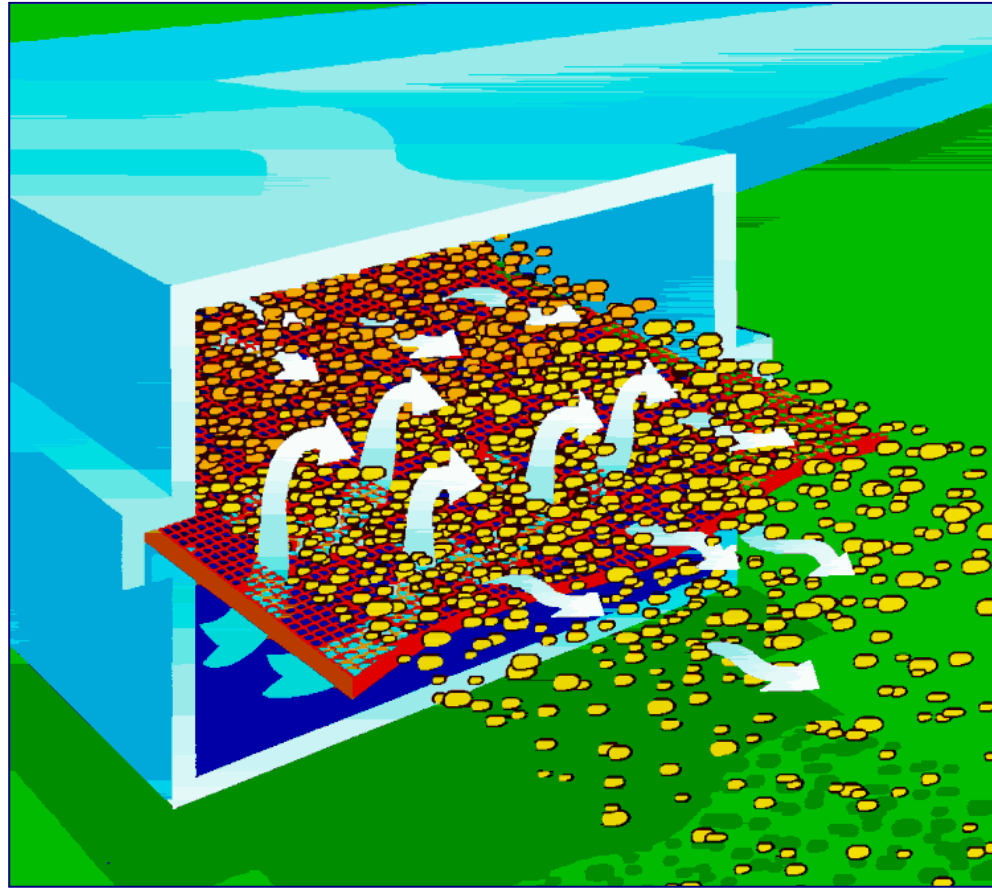
- **Air/Gravity Conveying**
- **Mechanical Line Injection**
- **Pneumatic Line Injection**

The Effect of Fluidization

- Fluidizable product poured onto an Airslide™
- Watch what happens when the air is turned on

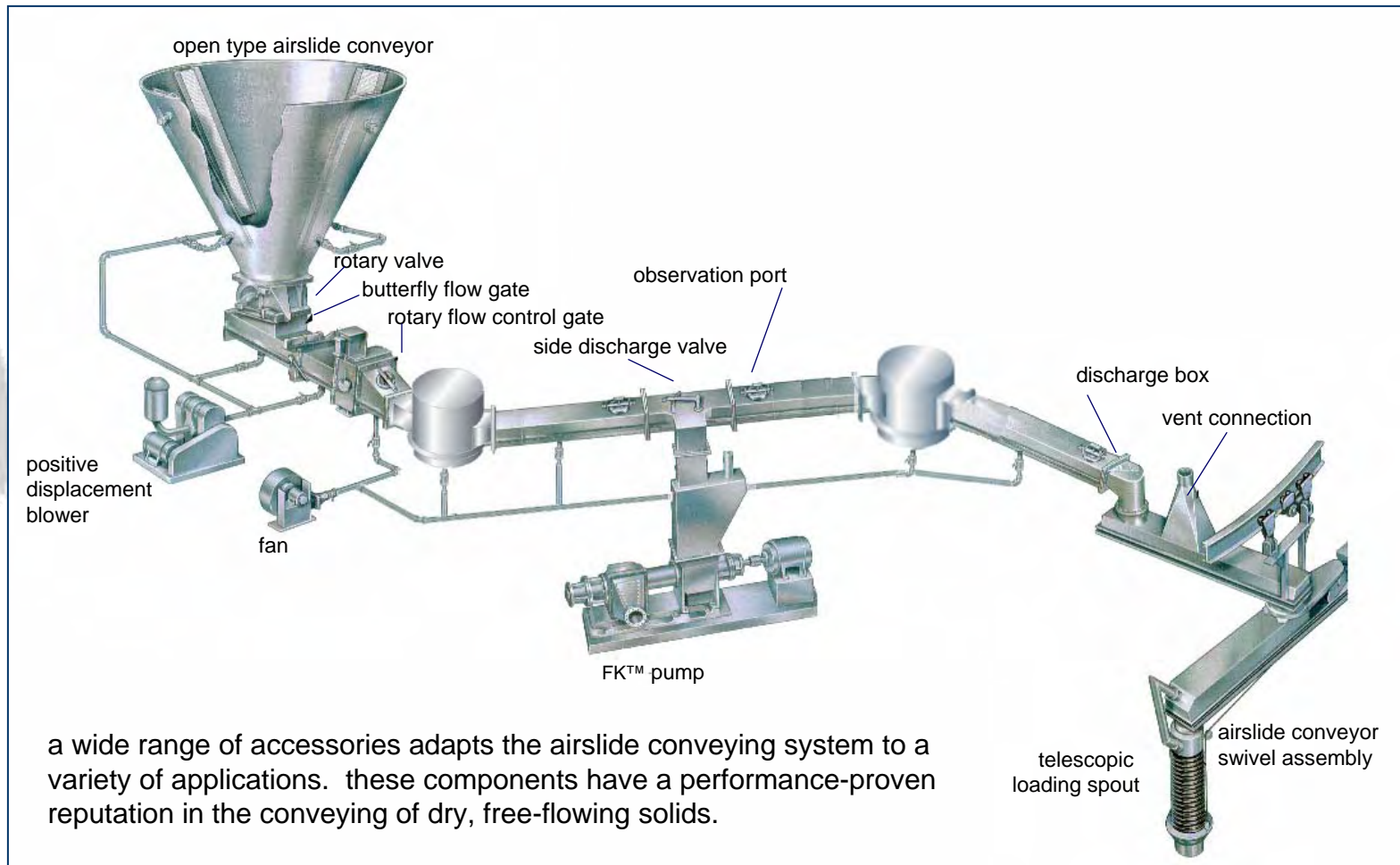


Pneumatic Flow in an Airslide™

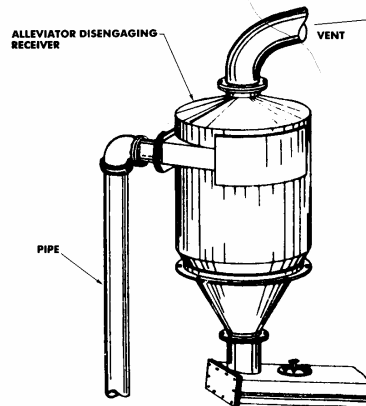


Fluidizing and air assisted gravity conveying

Airslide™ Conveying System



Fuller Airlift®

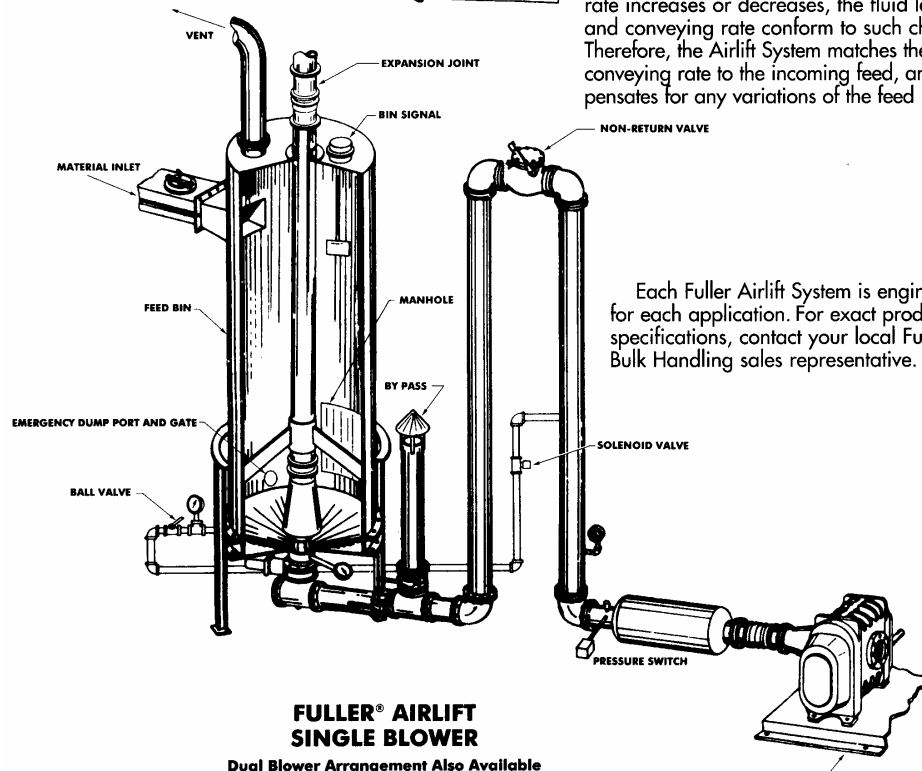


The Fuller Airlift System is characteristically a predominantly maintenance-free, reliable, vertical conveyor.

The only moving parts are the material and air supply. The totally enclosed design provides a completely dust-free operation when connected to a dust collection system.

A Fuller Airlift System consists of a feed bin, pipe, disengaging bin (alleviator) and one or two air supplies. The aeration air aerates the bottom of the feed bin, fluidizing the material within. The primary air conveys the material upward through the Airlift pipe.

In operation, the Airlift System is a self-compensating system. As the product feed rate increases or decreases, the fluid level and conveying rate conform to such changes. Therefore, the Airlift System matches the conveying rate to the incoming feed, and compensates for any variations of the feed rate.



Each Fuller Airlift System is engineered for each application. For exact product specifications, contact your local Fuller Bulk Handling sales representative.

FULLER® AIRLIFT SINGLE BLOWER

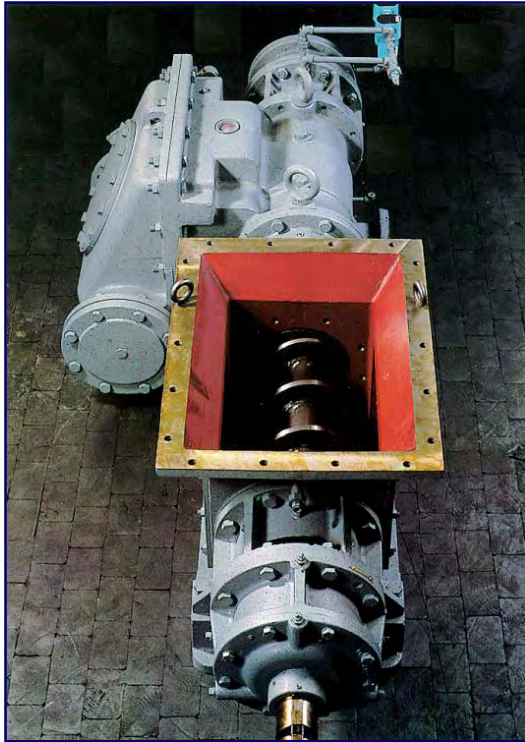
Dual Blower Arrangement Also Available

Airslide™ Conveyors

- No moving parts
- Material is contained/enclosed in Closed Type
- Rate of flow can be easily controlled and re-directed
- Low power consumption



Mechanical Line Injection



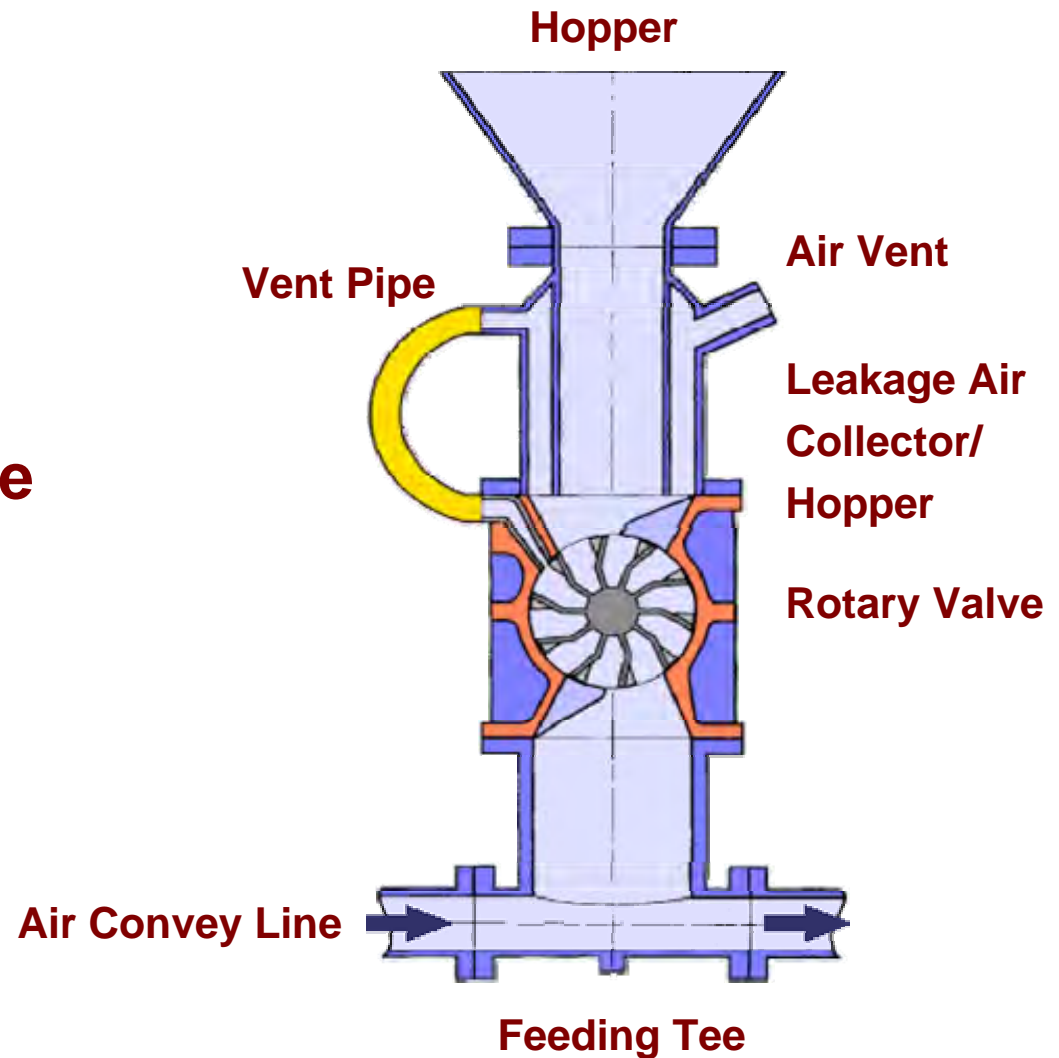
FK Pump



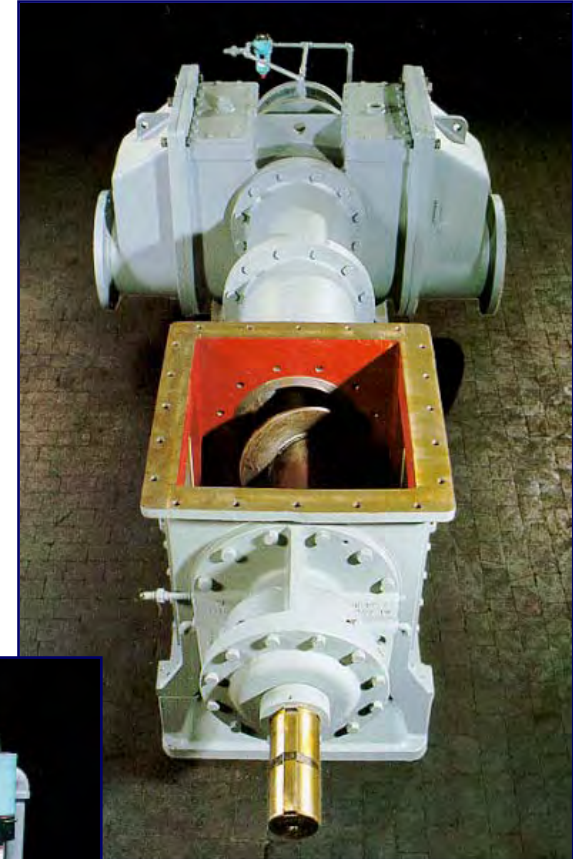
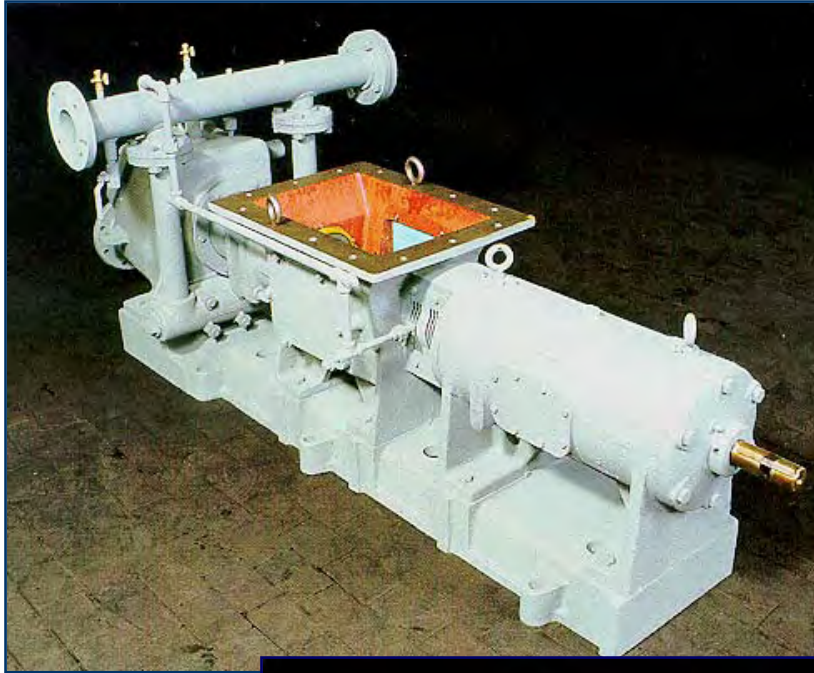
Ceramic Feeder

Rotary Valve

- **Low Cost**
- **Low Headroom**
- **Easy to install**
- **Low maintenance**
- **Medium power consumption**

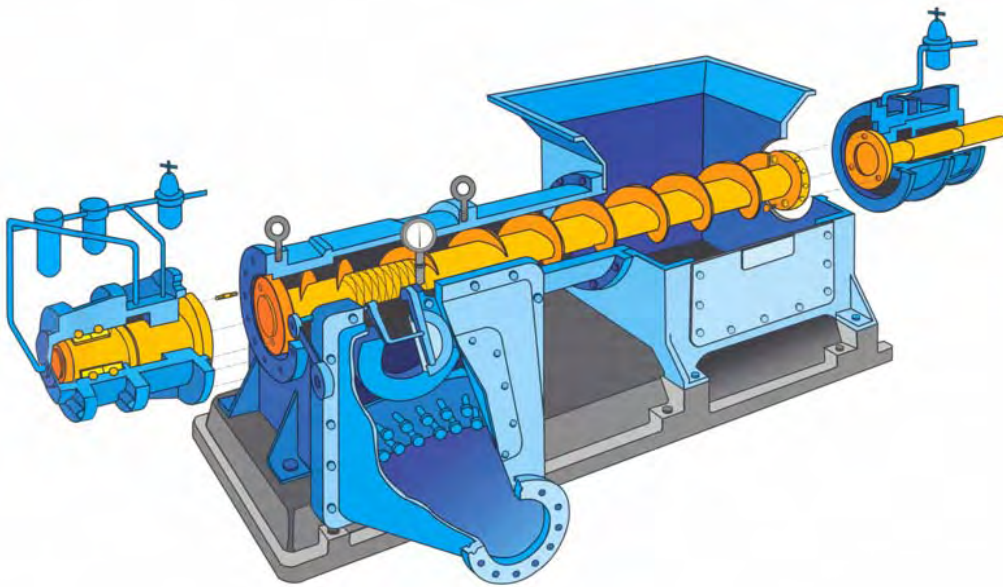


Fuller-Kinyon™ Pumps

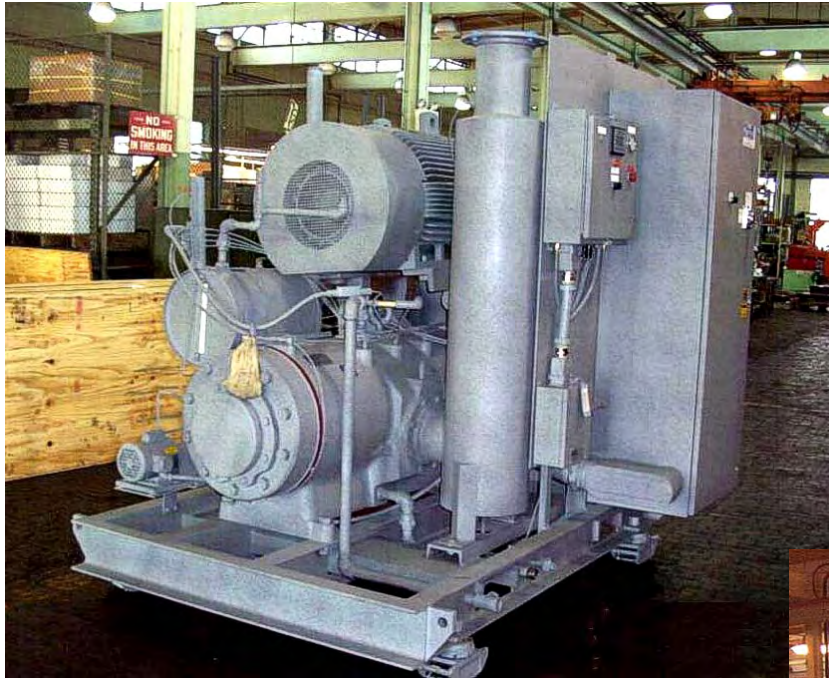


What is a Fuller-Kinyon Pump?

- Screw type volumetric line charger
- Compression pitch screw for material seal
- Minimal blowback at <32 psi
- Continuous/semi-continuous operation



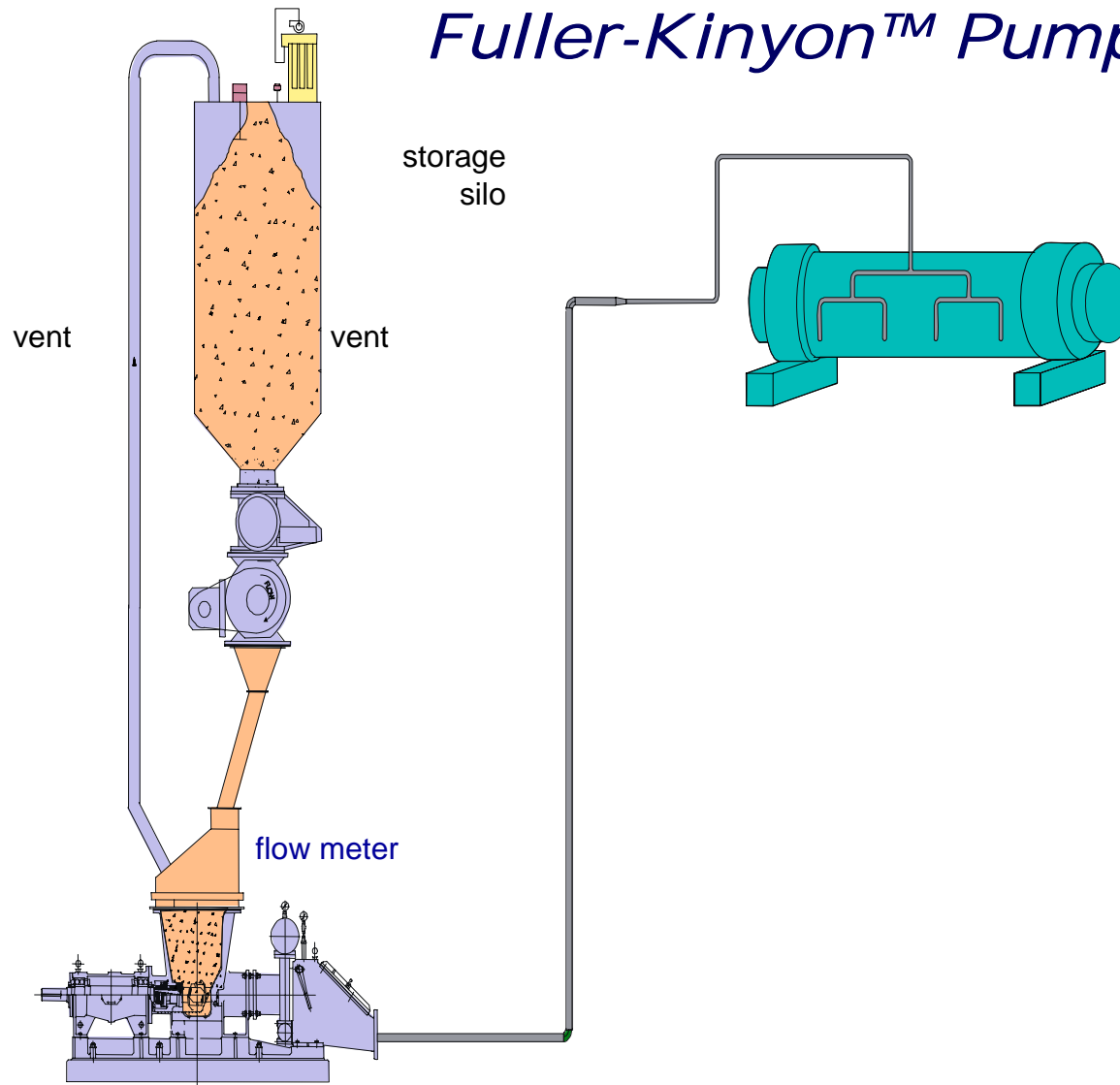
Vane Compressor



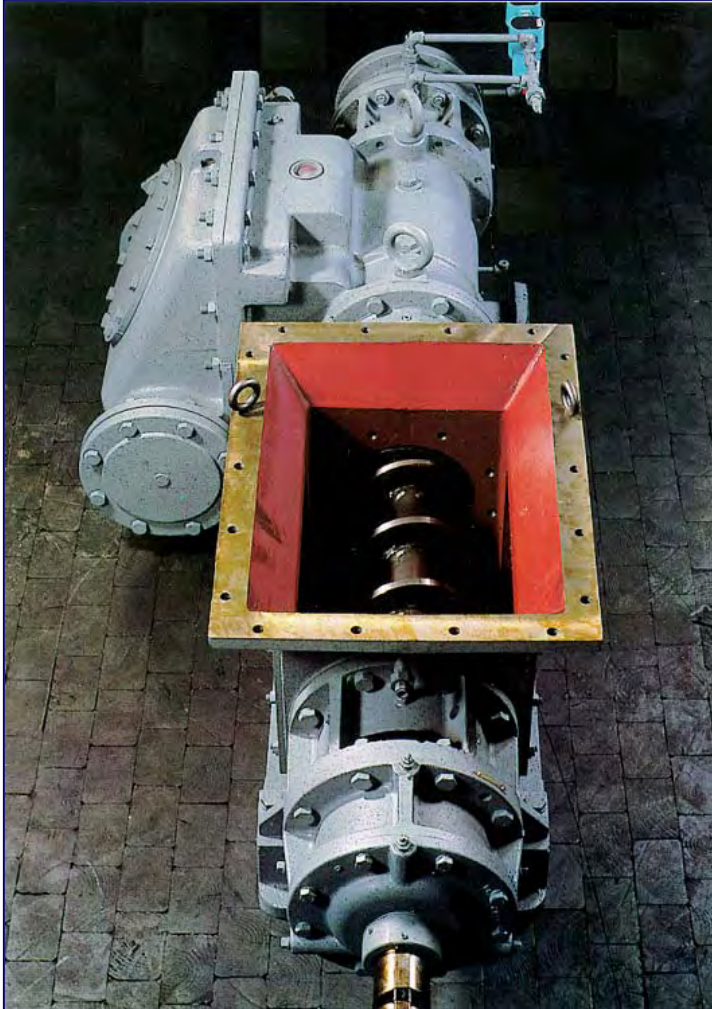
Ful-Pak Rotary Vane Compressor



Fuller-Kinyon™ Pumps



Fuller-Kinyon™ Pump



- Low capital cost
- High reliability / availability
- Simple operation & commissioning
- High tolerance to changes in material characteristics
- Relatively low headroom requirement
- Continuous conveying
- Line splitters to feed multiple points
- Medium to high power consumption

Pneumatic Line Injection

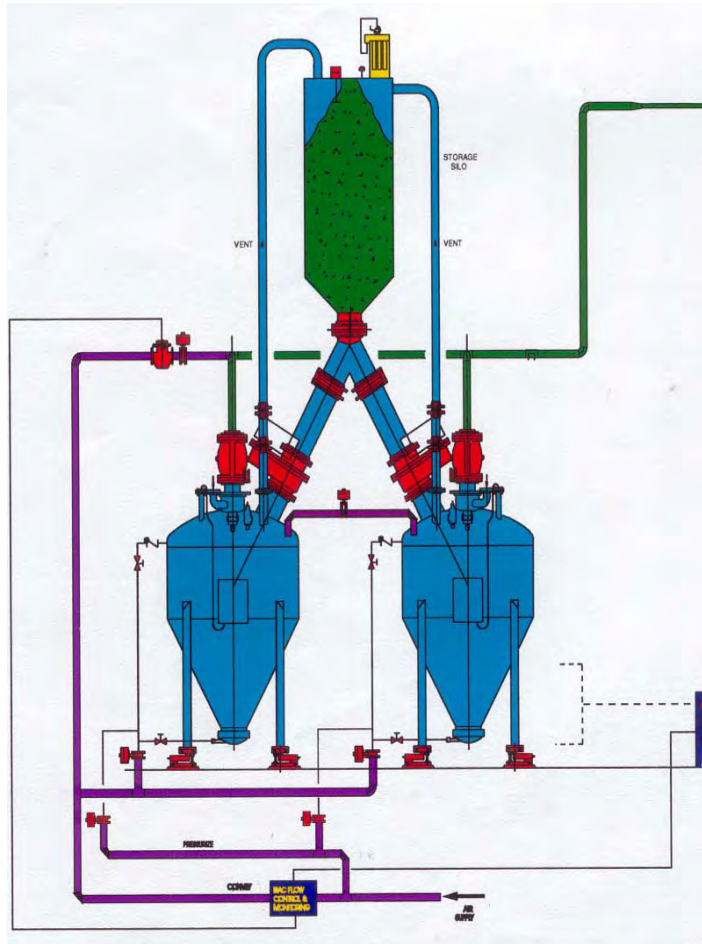


Single Tank
Batch Feed



Dual Tank
Continuous Feed

Process Line Injection



- Batch or continuous
- Volumetric or gravimetric
- Controlled feed
- Line splitters to feed multiple points
- High convey line pressures
- Can handle process back-pressures without back-flow



Or

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Pneumatic Line Injection

- No moving parts
- Material is contained/enclosed
- Flow can easily be re-directed within the pipeline
- Long convey distances can be achieved
- Medium to high power consumption





System Comparisons

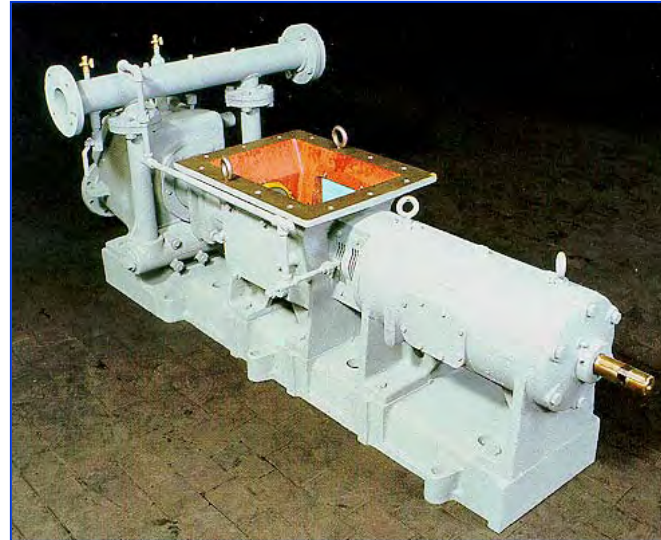
System Comparison

	Airslide	Mechanical	Pneumatic
Capital Cost	Low	Medium	High
Installation Cost	Low	Medium	High
Power Consumption	Low	High/Medium	High
Maintenance	Low	High	Medium
Capacity	Medium	Medium	High
Convey Distance	Low/Medium	Medium	High
Controlled Flow	High	Medium	Low



FLSMIDTH

World Leaders in Pneumatic Transfer Systems



FLSMIDTH

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