



DRY BULK MATERIAL HANDLING



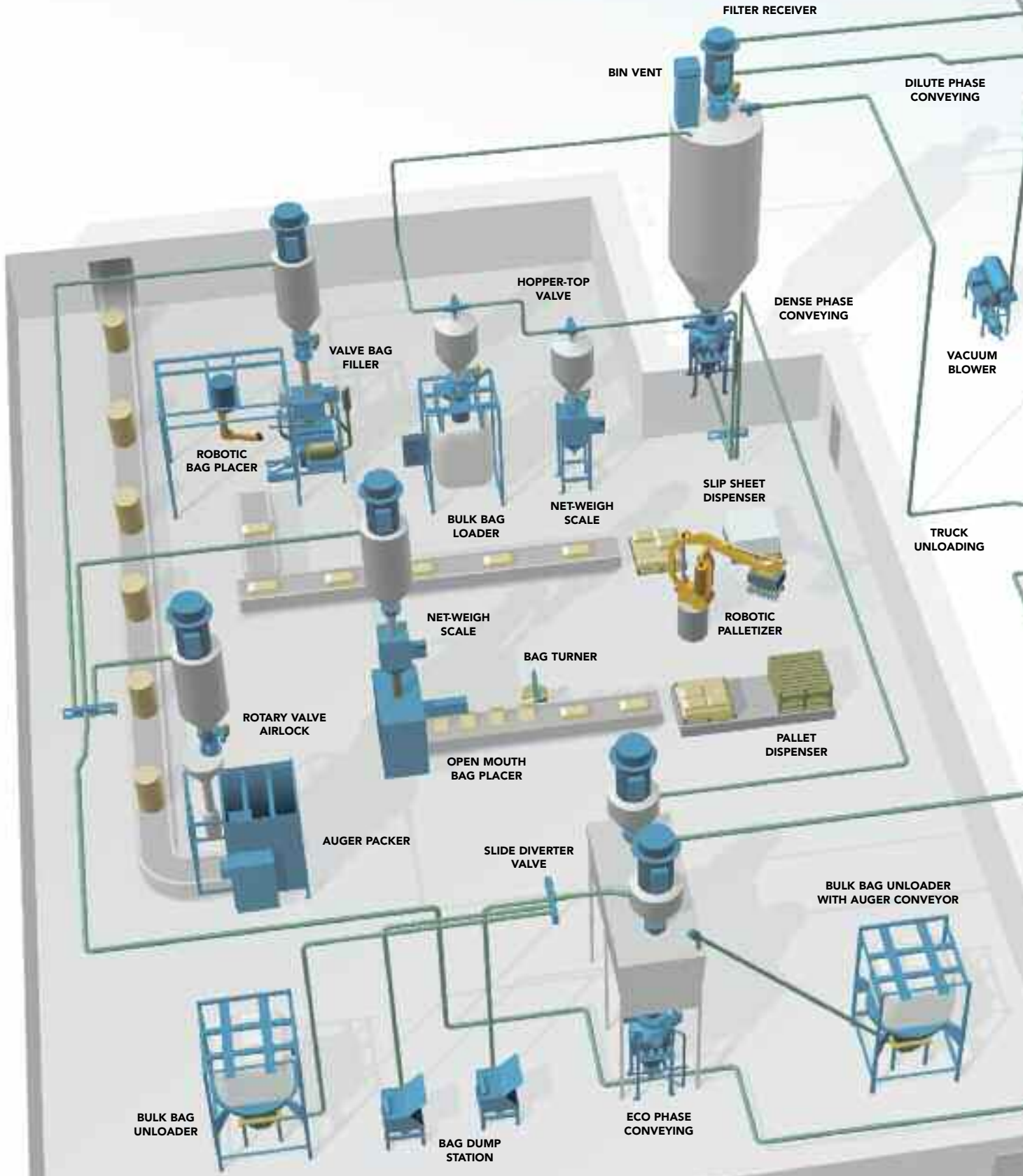
PNEUMATIC CONVEYING SYSTEMS & EQUIPMENT



CONCEPT TO COMPLETION



PNEUMATIC CONVEYING SYSTEMS & EQUIPMENT



INNOVATIVE SOLUTIONS FROM A SINGLE SOURCE

DILUTE PHASE CONVEYING

Dilute Phase Conveying offers an efficient and cost effective means of transferring dry bulk solid materials. Dilute Phase Conveying suspends the material in an air or gas stream. Because of the higher velocities generated in dilute phase systems they are primarily used when product degradation and/or the abrasion of line components is of little or no concern. These pneumatic transfer systems offer a clean and flexible alternative to mechanical conveying. They are also relatively easy to install and generally require fewer inspections while keeping maintenance issues at a minimum.

DENSE PHASE CONVEYING

Dense Phase Conveying may be an option if your material is abrasive or fragile and can't handle the higher convey velocities. Smoot's dense phase systems transfer material at lower speeds and higher product-to-air ratios. Smoot's exclusive by-pass valve configuration allows systems to operate without the cumbersome and expensive compressed air line boosters.

ECO PHASE CONVEYING

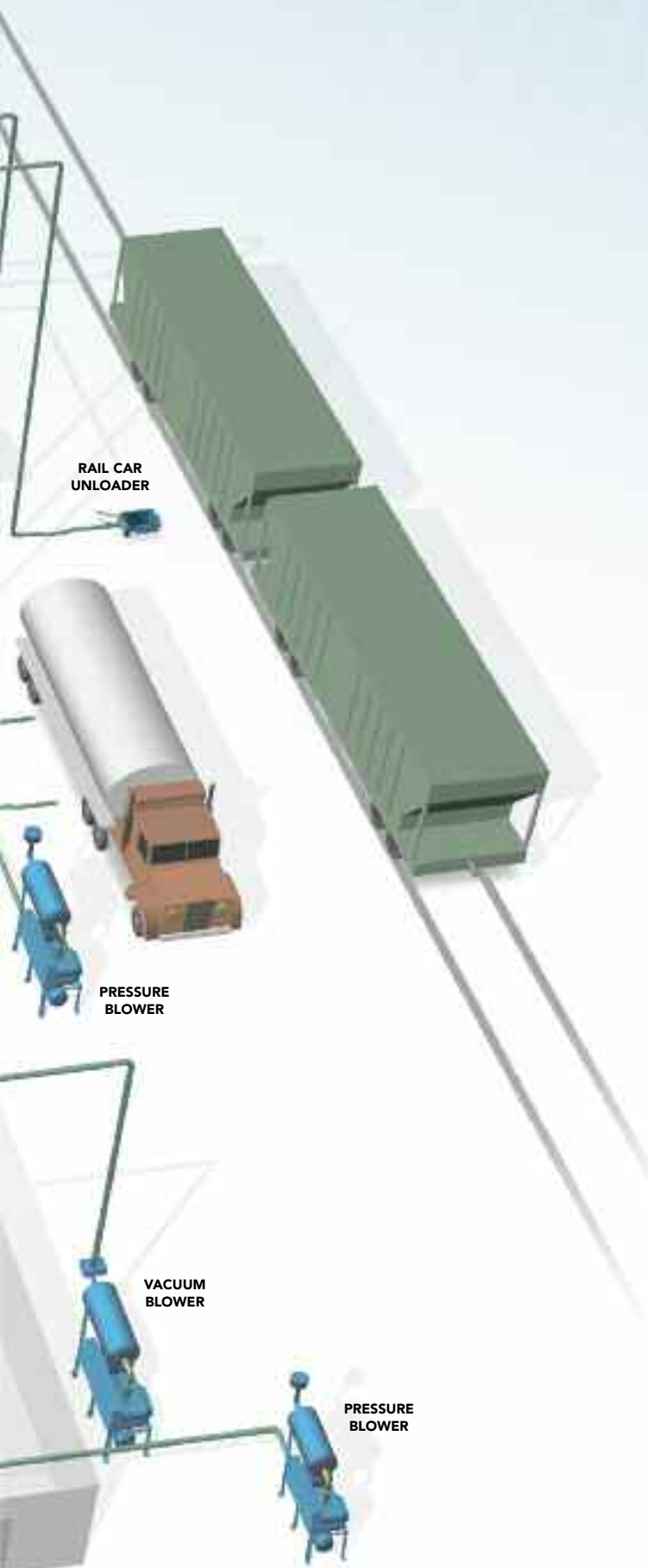
ECO Phase Conveying takes the best attributes of a semi-dense phase system and the continuous feed of a dilute phase system. This hybrid system operates at high solids loadings while operating at lower velocities with lower horsepower requirements and operating cost investment.

SMOOT COMPANY

The Smoot Company has engineered and manufactured pneumatic equipment and systems for over 50 years. The selection of the correct style of transfer system is critical to having regular and reliable plant operations. System design is always engineered to the specific material properties and transfer system requirements. With the extensive experiences and successes of the Smoot Company in pneumatic conveying systems we can assist you in deciding which type will best fulfill your needs at the lowest cost to install, operate and maintain.

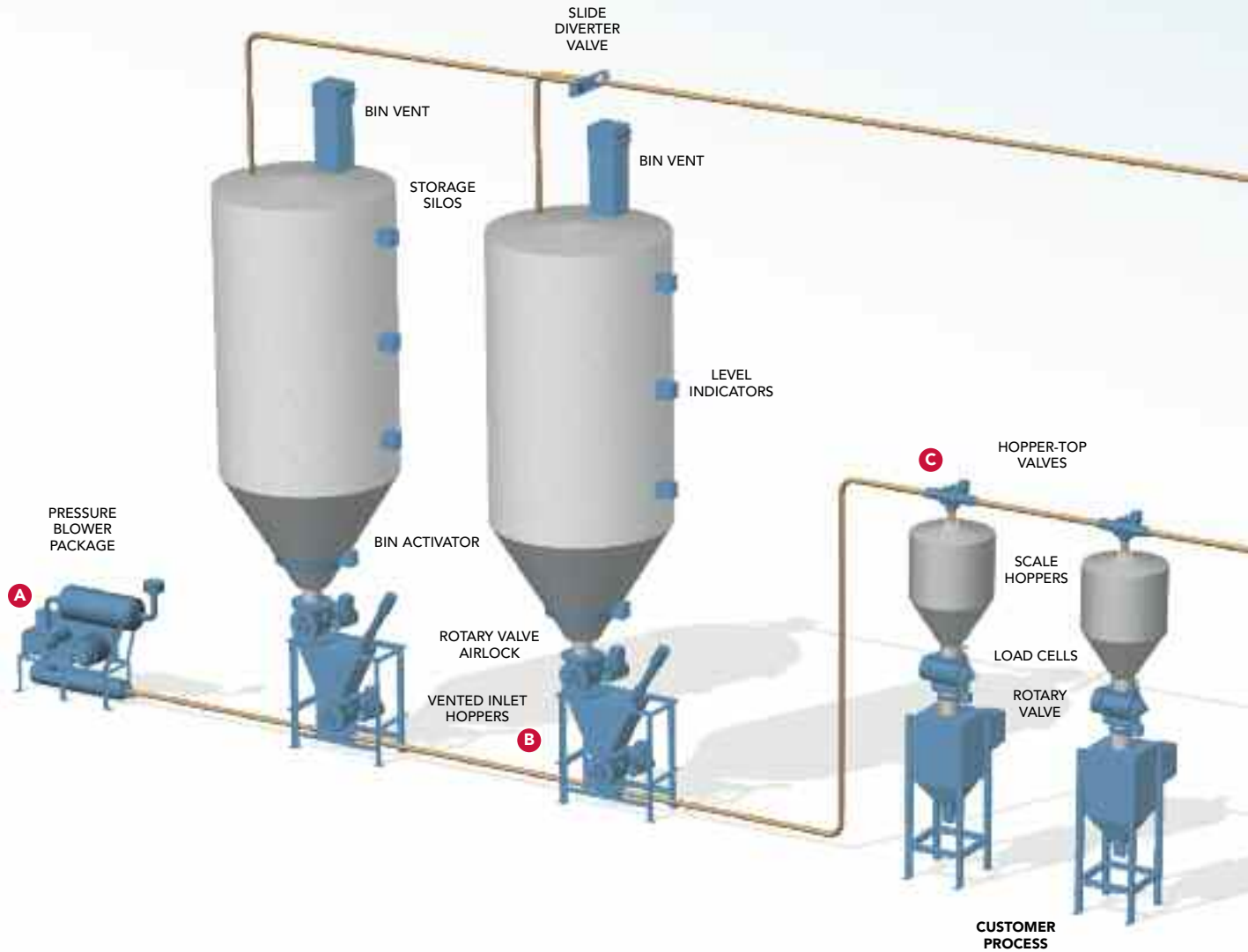
Apart from full pneumatic convey systems, Smoot also offers key replacement components for near immediate delivery. Trained Customer Service Professionals can supply you with replacement rotary valves, slide diverters and many other components for nearly any convey system, and the Smoot engineering and sales departments will help you solve problems with your existing system, regardless of manufacturer.

Talk with your Smoot Company Representative to discuss your system needs, set up a test and then to select the best solution for your application.



PRESSURE SYSTEMS

DILUTE PHASE CONVEYING



A PRESSURE BLOWER PACKAGE

- Positive displacement blower
- Pressures to 15 psig



B VENTED INLET HOPPER

- Vents blow-by air
- Prevents material bridging



C HOPPER-TOP DIVERTER VALVE

- Allows materials to divert or bypass destination without leakage
- Minimal stack-up height
- Cost effective



- SINGLE PICK-UP AREA
- MULTIPLE DESTINATIONS
- MOST EFFICIENT CONVEYING OPTION
- LOW CAPITAL COST

SLIDE
DIVERTER
VALVE **D**

FILTER RECEIVER

E

BULK BAG FILLER

SYSTEM
CONTROLS

E BULK BAG FILLING

- 100 lb to 3000 lb capacity
- Bags, drums or boxes

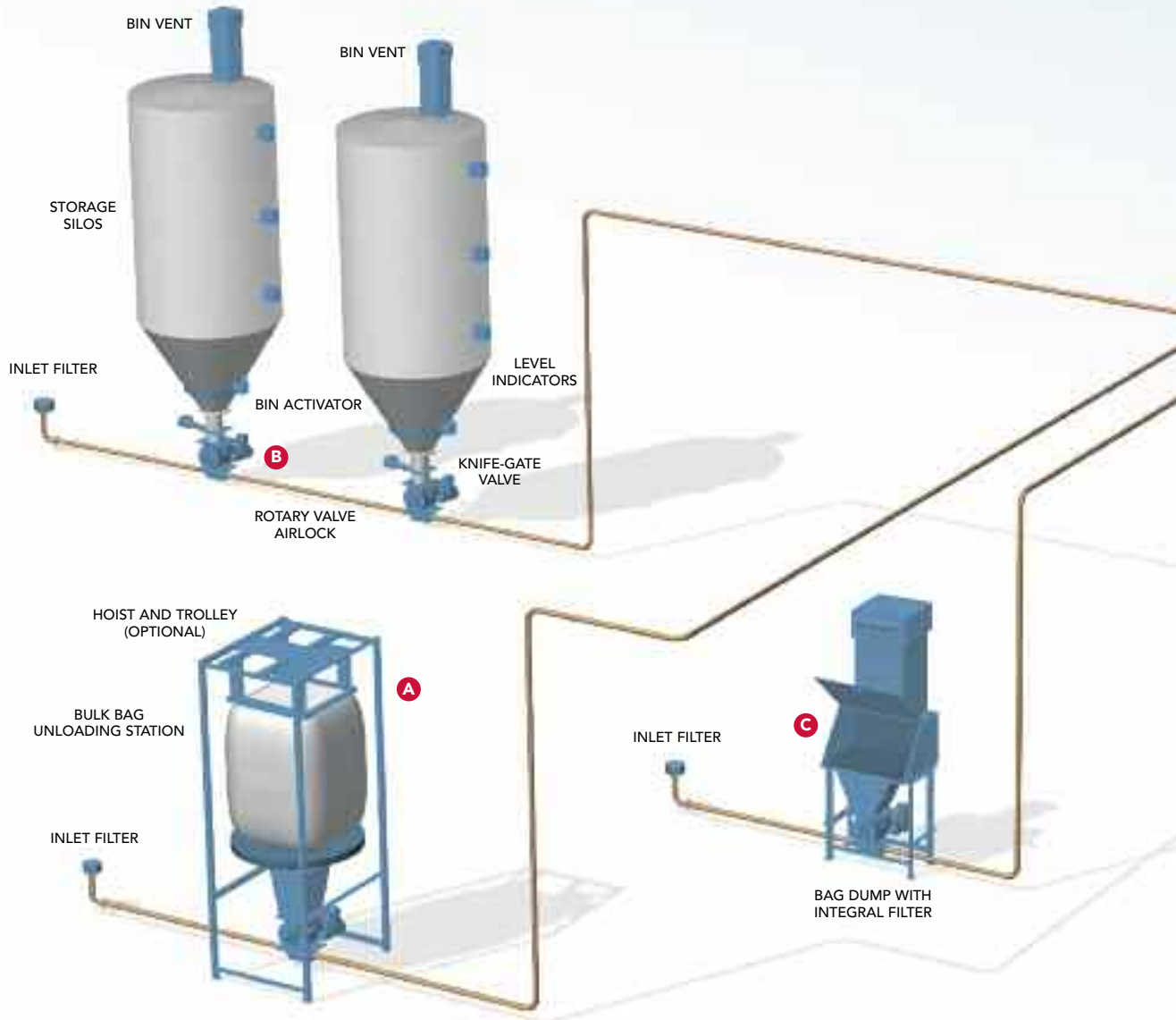
D SLIDE DIVERTER VALVE

- Divert or converge material
- Airtight seal between inlet and outlet
- Reduced material damage



VACUUM SYSTEMS

DILUTE PHASE CONVEYING



A BULK BAG UNLOADING

- 100 lb to 4000 lb capacity
- Compact footprint



B ROTARY VALVE AIRLOCK

- Available in various sizes and materials
- Controls material feed into convey line
- Manages pressure differential between convey line and feed source

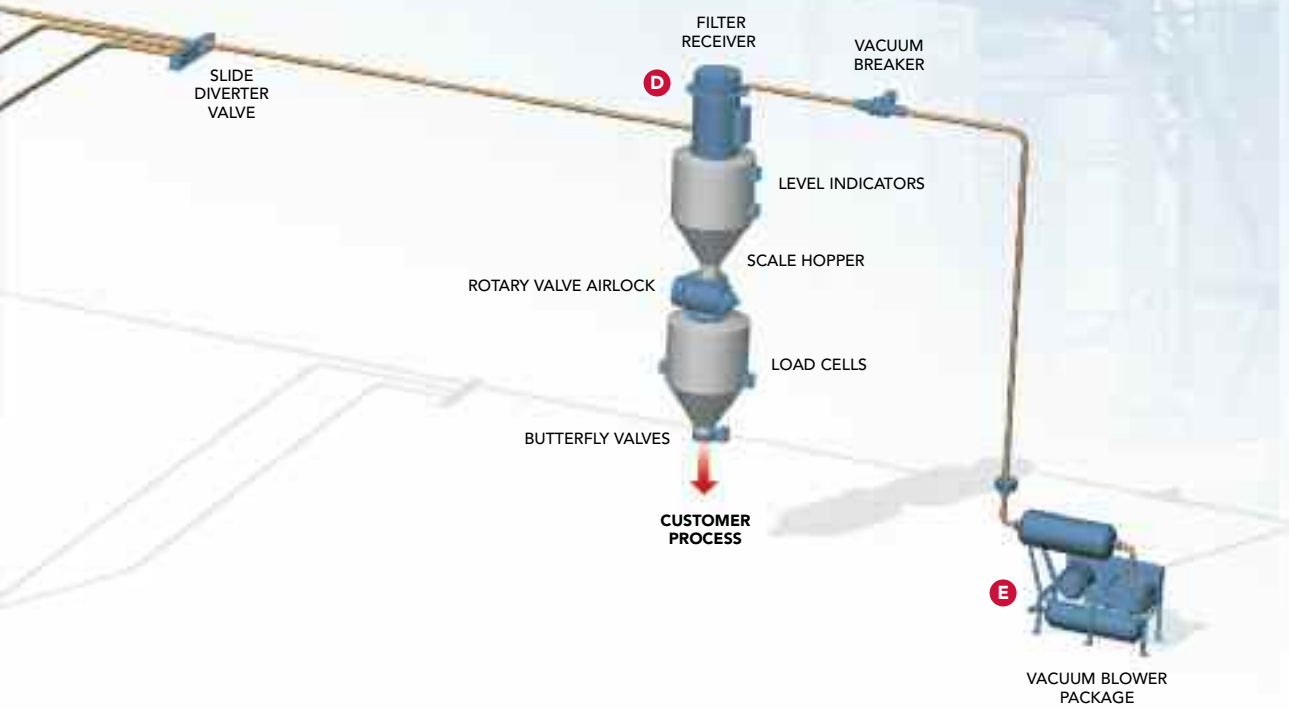


C BAG DUMP HOPPER

- Allows manual introduction of material to system



- MULTIPLE PICK-UP POINTS
- COMMON DESTINATION
- INHERENT DUST CONTROL
- GOOD FOR TOXIC OR HAZARDOUS MATERIAL APPLICATIONS



D FILTER RECEIVER

- Material-Air Separator
- Filter bags or cartridges
- Designed for up to 17 inches Hg



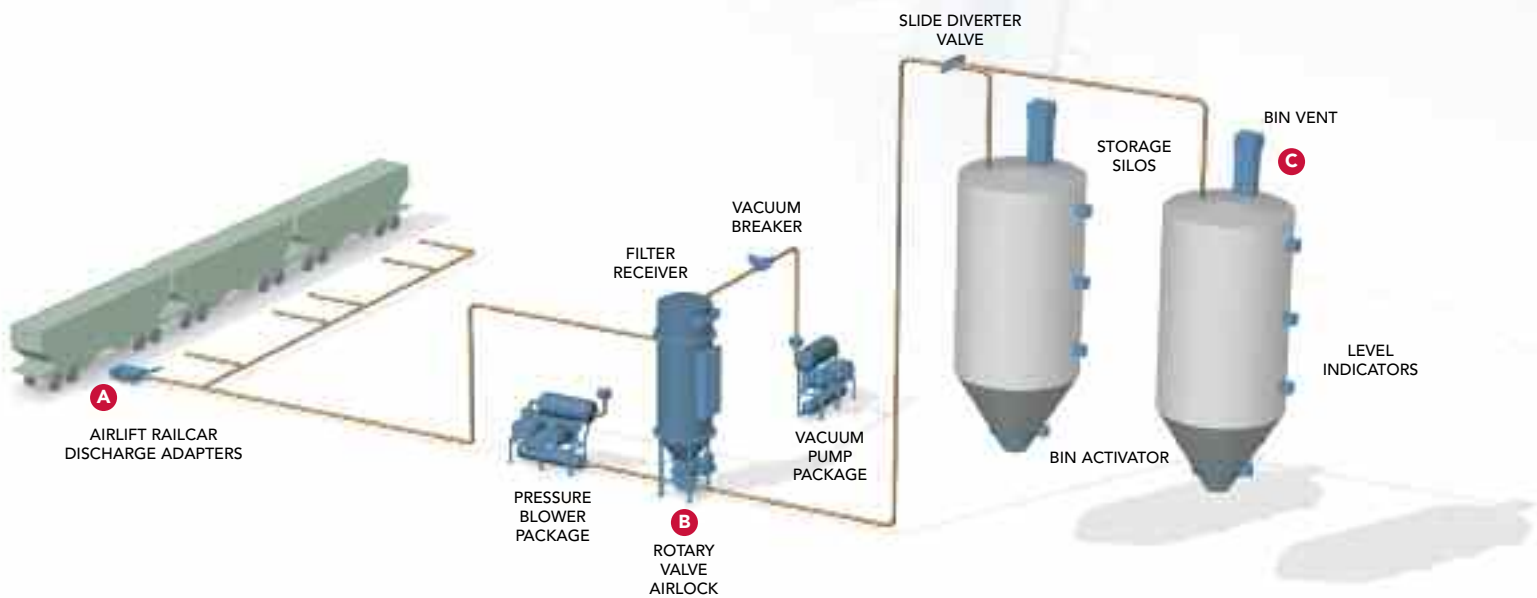
E VACUUM BLOWER PACKAGE

- Positive displacement blower
- Vacuum levels to 17 inches Hg



VACUUM/PRESSURE SYSTEMS COMBINATION DILUTE PHASE

- MULTIPLE PICK-UP POINTS TO MULTIPLE DESTINATIONS
- INSTALLED FOR UNLOADING RAIL CARS AND HOPPER TRUCKS



A RAIL CAR UNLOADING

- For use with vacuum unload systems
- Portable, easily handled by one person



B ROTARY VALVE AIRLOCK WITH CAVITY AIR PURGE

- Reduces abrasion on rotor, cylinder and end plates
- Purges material from between end shroud and end plates
- Smoot patented design



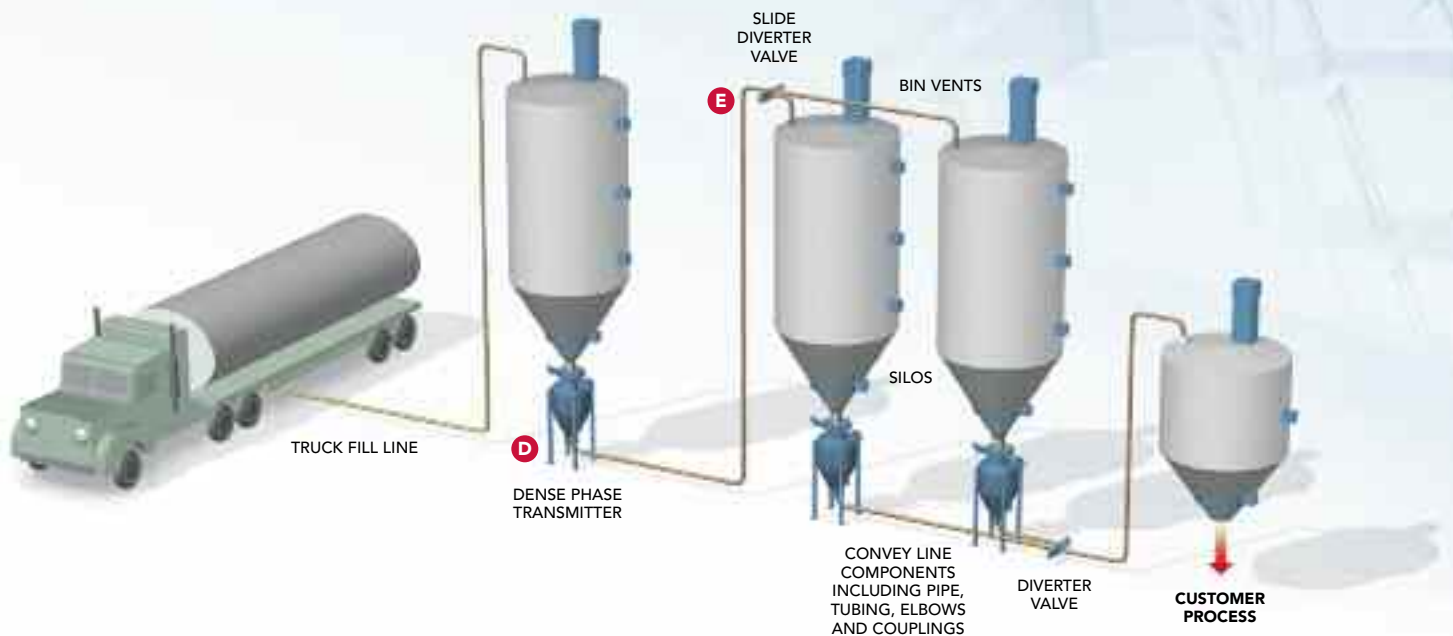
C BIN VENT

- Material-air separator
- Pulse jet filter



> DENSE PHASE SYSTEMS

- GOOD FOR ABRASIVE PRODUCTS OR PRODUCTS THAT DEGRADE
- CONVEYS IN BATCH MODE
- USES COMPRESSED AIR AND ASME CODE EQUIPMENT
- NO ROTARY VALVE AIRLOCK REQUIRED



D DENSE PHASE TRANSMITTER

- High pressure capabilities
- Exclusive air management system
- Boosters or air trace lines not required



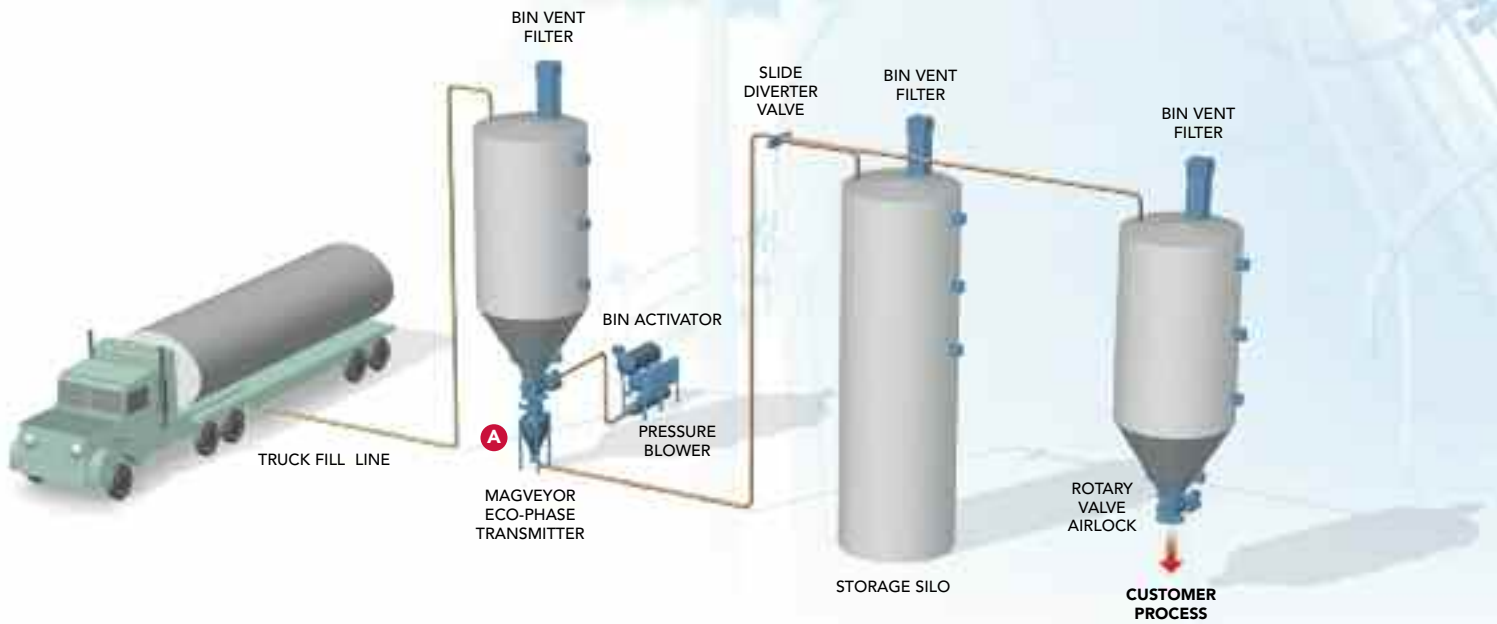
E HIGH PRESSURE SLIDE DIVERTER VALVE

- Up to 100 PSI
- 14-degree diversion angle for minimal pressure loss
- Two-way, bi-directional flow



ECO PHASE SYSTEMS

- REDUCED ENERGY CONSUMPTION
- MAXIMIZES THE BEST ATTRIBUTES OF DILUTE AND DENSE PHASE CONVEYING
- CONSTANT DELIVERY OF MATERIAL



A MAGVEYOR

- Unique Smoot technology
- Patented
- Continuous Feed
- No ASME Code vessel required
- High Solids loadings
- Lower Velocities
- Minimal material degradation



ECOPHASE
PNEUMATIC CONVEYING

SMOOT COMPANY SERVICES

CUSTOMER FRIENDLY TEST LAB

Critical to a systems success is the knowledge of how your material will perform when pneumatically conveyed. The best way to properly insure that a system design is engineered and sized for the most cost-effective method of conveying your materials is by testing for flow characteristics, convey design parameters and degradation in a real-time operational system.

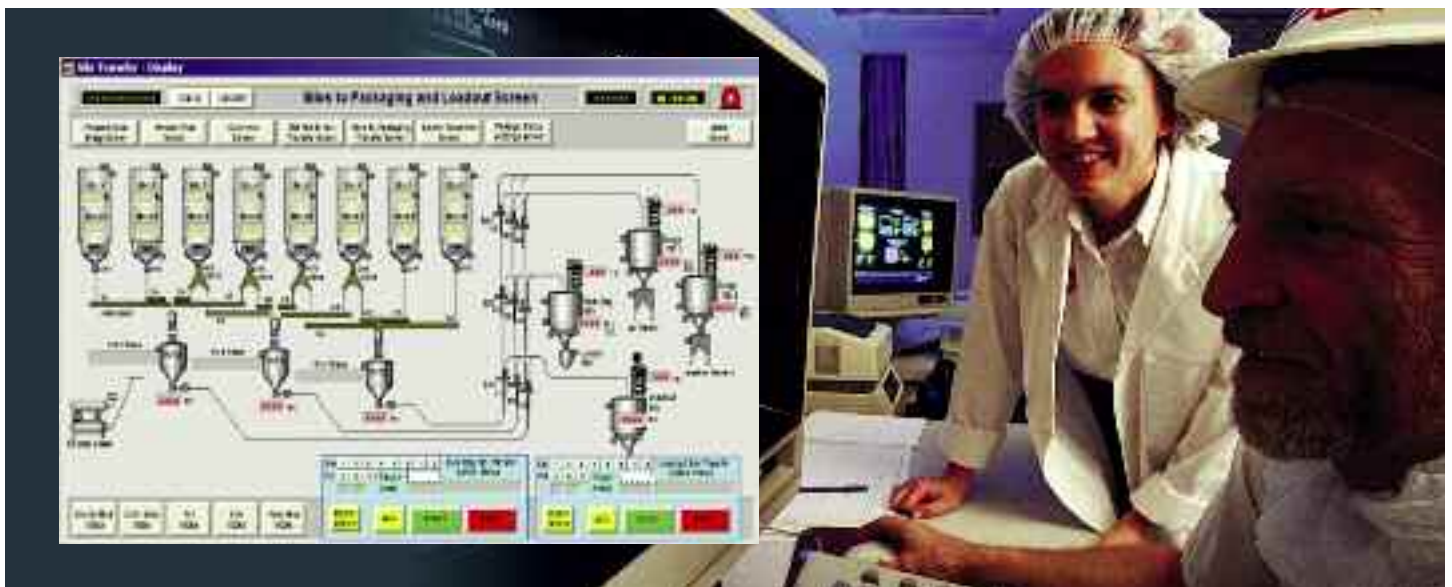
- State-of-the-art testing facility
- 85-ft, 160-ft or 270-ft 3-inch tube and pipe convey loops
- Independent scale hoppers to eliminate cross contamination
- Vacuum and Pressure Dilute System
- Dense Phase
- Eco-Phase System
- Bulk Bag Unloading and Filling Test Available



SINGLE SOURCE PROCESS CONTROLS

The Smoot advantage is 50 years of experience in material management and plant processes. All controls are designed, built and programmed by Smoot based on standard interfaces.

- Integrated control with plant systems for improved efficiency
- Latest in networking and communication capabilities
- User-friendly operator interfaces
- Process control from simple transfer to complex batching systems
- Standard designs use Allen-Bradley controllers and HMI interfaces
- Designed around your specifications using our experience.



> CONCEPT TO COMPLETION

Every pneumatic process is unique, so Smoot customizes every solution to meet your needs.

Pneumatic conveying systems and components are what we know. Tell us what you intend to accomplish and we'll make sure the pieces fit.

Dependable, versatile systems. Solutions that fit. It's the foundation of our business.



LEARN
MORE



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MADE IN THE USA



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