



# SSI TECHNOLOGY, INC.

Specialists In The Application Of Process and Packaging Equipment



## Smoot Company: Excellence in pneumatic conveying.

Volume 1: Issue 3

August 2009

**Smoot Company, established in 1960**, is a leader in the design and supply of both dilute phase and dense phase systems. From initial concept to testing, final design, equipment supply and installation, a Smoot professional will be on hand to assure the customer of a trouble free operation. We welcome your inquiry.

**Dilute Phase Systems**  
Our dilute phase systems have proven their ability to provide a long lasting, trouble-free operation. They successfully handle a large number of materials, from granola, green coffee beans, and potato flakes to carbon black, bone fragments, and wood chips.

**Dense Phase Systems**  
If your material is highly abrasive or very fragile, a dense phase system may be your conveying answer. Smoot's dense phase systems transfer material at lower speeds and higher product-to-air ratios. At Smoot we design dense phase with a difference...it works without cumbersome and expensive compressed air line boosters.

**Smoot Company also furnishes components** designed to solve challenges that have arisen over the years in pneumatic systems that are outside standard applications.

### Blower Packages

**Pressure Blower Assemblies:** Positive blower assemblies are normally driven by an electric motor ranging in size from 5HP to 400 HP depending on the application with V-belt drive and guard. A complete package will include an inlet filter, inlet silencer, pressure relief valve, pressure gauge high pressure switch, discharge flexible connection, discharge silencer, and check valve mounted on a common structural steel base.

**Vacuum Exhauster Assemblies:** Vacuum exhauster assemblies are normally driven by an electric motor ranging in size from 5 HP to 250 HP depending on the application with V-belt drive and guard. A complete package will include an inlet flexible connection, inlet silencer, vacuum relief valve, vacuum gauge, high vacuum switch, discharge silencer mounted on a common structural steel base.

### Rotary Airlocks

**Type 1 Construction:** This design is normally used in non-abrasive low differential pressure applications: Cast iron housing and end plates; Carbon steel open end rotor with a minimum of eight vanes; Outboard anti-friction bear-

ings, lifetime lubricated; Three rows of double lip seal shaft packing rings on each end; End plates machined for optional compressed air purge; Assembled with gear-motor, chain drive, guard, and mounting bracket.

**Type 2 Construction:** This design is normally used in mildly abrasive applications with moderate differential pressure applications. Cast iron housing and end plates with hard chrome plating on housing interior machined surfaces; Carbon steel closed end rotor with adjustable, replaceable abrasion resistant steel tips. Tip hardness is at 400 Bhn and rotor has a minimum of eight vanes; Outboard anti-friction bearings, lifetime lubricated; Three rows of double lip seal shaft packing rings on each end; High pressure shaft air purge, assembled to feeder, with machined lantern ring, air line filter, solenoid valve and regulator and complete with gear-motor, chain drive, guard and mounting bracket.

**Type 4 Construction:** This feeder is similar in construction to type 1 feeders as outlined above except furnished with complete 304 or 316 Stainless steel construction.



Website: [www.smootco.com](http://www.smootco.com)



### **Type 6 Construction:**

This design is normally used in moderate to highly abrasive applications with moderate differential pressure applications. Cast NiHard housing with cast iron endplates, housing hardness to a minimum of 400Bhn; Carbon steel closed end rotor with a minimum of 1/8 inch weld applied and machined stellite on blade tips and rotor shroud edges; stellite hardness should be a minimum of 400 Bhn, rotor to have a minimum of eight vanes; Outboard anti-friction bearings, lifetime lubricated; Three rows of double lip sealed shaft packing on each end; High pressure shaft air purge or Patented low pressure cavity air purge assembly dependent on system differential pressure; assembled with rear-motor, chain drive, guard and mounting bracket.

### **Slide diverter valves**

Hose style diverters are the most direct descendent of the manual approach of switching hoses. An automated slide plate moves the hose from one position to another creating the correct path. These valves typically provide a lower angle of divert (10 to 15 degrees) than other valves (22.5 to 45 degrees) allow-

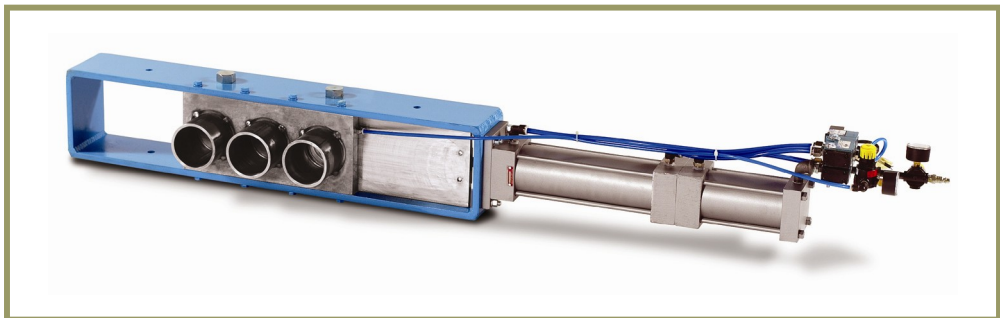
ing less material impact on the diverting mechanism, improving overall life. They are very low capital and maintenance cost when compared to a plug or tunnel style valve. Also the seal plate and material-handling hose allow for conveying pressures up to nearly 100 PSIG with virtually no air loss to the system. Slide diverter valves are available in 2-position and 3-position arrangements.

### **Filters**

Filters are supplied as an integral component of all types of pneumatic conveying systems. There are three basic styles of filters used in these applications. Square or rectangular filter receivers for pressure systems, round filter receivers for vacuum systems and bin vent filters for railcar or truck unloading systems.

### **Control Panels**

Panels are designed according to customer's specifications. Panels feature graphic displays of system layout shown on touch screen panels. Operator controls are arranged in a common area for quick user reference. Operator interface and system status are all controlled through the touch screen display. All panels are designed using UL listed components. The latest innovations in PLC controls and Ethernet system communication are supplied. Before shipping, control panels are factory tested. The test simulates the entire control sequencing and alarm system.



Our staff of Sales Engineers average over 20 years of process and packaging equipment application experience. We welcome the opportunity to discuss your requirements.

From components to turnkey systems, put SSI Technology's experience to work for you.

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