Dense Phase Pump for pneumatic conveying systems

Pneumatic Conveying
The pneumatic conveying process, enclosed and dust free, ensures material transfer complies with health and safety and other international regulations for industry and is less harmful to the environment than traditional mechanical methods.

The original Dome Valve®
Central to the operating efficiency to all Schenck Process pneumatic conveying systems, or as a stand alone valve is the original Dome Valve® which incorporates a unique and highly reliable inflatable sealing arrangement. The original Dome Valve® was developed by Schenck company Clyde Materials Handling in 1974 for use with pneumatic conveying systems and as a stand alone product.

Dense Phase Conveying Technology
The Schenck Process Dense Phase system capitalises on all the assets of pneumatic conveying: simplicity, reliability and flexibility. Ensuring minimal breakage of friable products, the extensive range of Dense Phase machines shares standard components, individually tailored to handle specific requirements of a wide range of materials.

D Pump for Pressure Controlled Systems
The D Pump is Schenck Process’s unique, self-adaptive Dense Phase Pneumatic Conveying solution. The D pump was developed to overcome the challenges when conveying problematical materials that have an inconsistent material density due to variations in the source of supply.

The Schenck Process Dome Valve®, which forms an integral part of all of Schenck Process’s pneumatic conveying and injection systems partially closes when required - the control system then measures and controls the flow of material to generate a smooth conveying line pressure. This solution is adaptive to the material in the pipeline and works with the control system to cope with any changes in conveying pressure.

The D-Pump works in conjunction with a unique Schenck Process pipeline system that is self-regulating and provides a closed feedback loop to the controller of the pump and valves.

Configuration of the D Pump and pipeline system is specific to the clients’ requirements.

Typical applications for D Dense Phase Pump include:
- For conveying problematical materials that have an inconsistent material density
- Dust and fines handling where there is a variation in the source of supply

*Clyde Materials Handling Ltd was purchased by Schenck Process in 2011 and the original Dome Valve® is part of Schenck Process technologies