PD 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 of 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 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.

**PD Pump**
The Schenck Process Dense Phase system is a simple, effective and highly reliable method of conveying material from a single collection point to either single or multiple reception hoppers.

The Dense Phase PD Pump is a batch transfer vessel, similar in concept to the Standard Dense Phase Pump, with additional capabilities. Developed for maximum economy, the system utilises small bore pipelines operating at low conveying pressures, with reduced air flow and power consumption. Highly efficient conveying allows rates of up to 100 t/hr over conveying distances of 500 meters or more, making this system particularly suitable for transfer of dry, fluidisable materials.

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

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Typical applications for PD Dense Phase Pump include:

- Gypsum industry for the transfer of pre-calcined materials, plaster, finished product and the re-cycling of dusts
- Iron and Steel industry for the transfer of raw coal, moulding flux, foundry sand and carbon materials
- Cement industry for the transfer of raw meal, fly ash, pulverised coal, gypsum and lime materials
- Non-ferrous industries for the transfer of raw and pulverised coal, pet coke, soda ash, metal concentrates and lime materials
- Aluminium industry for the transfer of cryolite, pet coke, pulverised coal and recycled materials
Standard Fabrication

Dense Phase vessel assemblies supplied complete with Dome Valve®, electro-pneumatic controls and air supply piping, strainer, pressure regulation and control equipment pre-piped and pre-wired ready for connection to isolated air and electric supplies.

- Vessels can be manufactured to most international pressure vessel codes and for a working pressure of 7 barg standard. Specific details are available on request.
- Vessels are free standing, special foundations are not required.
- Optional isolating valve and adapter are shown for reference only.
- Final working dimensions to be confirmed by certified drawings.
### Product Range

**PD Pumps**

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Custom applications available on request