PTS – the swiss original Powder Transfer System

Powder Handling Excellence

www.dec-group.net
The PTS – the swiss + original
The highly reliable and safe pneumatic conveying solution

The PTS is a highly effective method for transferring and dispensing both dry and wet powders and granules in a safe and contained manner.Whilst there are many PTSs on the market DEC’s system has been unrivalled. Its unique filtration concept with a flat filter membrane makes it the only vacuum dense-phase system currently available that functions at optimum levels for each cycle, differentiating it from the run-of-the-mill systems on the market.

The PTS is a pneumatic conveying system using both vacuum and pressure without relying on gravity to move powders thus eliminating the need for multi floor arrangements. The system is ideal for transferring highly explosive powders and for the transfer of toxic and hygroscopic materials. The PTS eliminates oxygen from the powder and forms a physical barrier to the receiving process equipment. One of the major advantages of this technology is that it separates the air from the powder keeping the receiving vessel inert during the charging operation. It is, therefore, possible to safely charge powder into a reactor, which contains solvents or that is pressurized, without risking explosions.

There are currently over 3000 Powder Transfer Systems operational worldwide.

Table: Technical Data

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<th>PTS</th>
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<th>80</th>
<th>100</th>
<th>150</th>
<th>200</th>
<th>250</th>
<th>300</th>
<th>400</th>
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<td>min/max conveying capacity (l/h) depending on the powder characteristics and the transfer distance</td>
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<td>10-200</td>
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<td>60-3500</td>
<td>120-6000</td>
<td>150-9000</td>
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<td>680</td>
<td>810</td>
<td>830</td>
<td>860</td>
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PTS Cleaning Device (CIP/SIP)
The PTS Cleaning Device ensures Cleaning in Place (CIP/SIP) is easily achieved. The system is fitted with a liquid separator component installed in the upper part of the PTS body. The liquid separator sucks liquids into the system and a float in the main cover prevents the liquid from entering the vacuum line. The PTS body and the powder transfer hose are cleaned at the same time, a considerable advantage over using a spray nozzle.

PTS mobile
DEC also offer the Mobile PTS with all the features of the static system with the additional benefit of being portable. The system can easily be dismantled and relocated anywhere in the production unit. The control panel and vacuum pump remain permanently mounted on the trolley while the PTS can easily be installed on the process equipment to be charged.

The PTS system
The PTS can be easily installed in to your current environment and will significantly enhance any process. A substantial reduction in batch times and accelerated production can be achieved. The system is GMP and ATEX compliant.

Application Examples
Full processing flexibility – tailored to your needs.
At the core of DEC’s Powder Handling Excellence, the PTS encompasses a broad range of applications.

- **Standard and high containment filling & discharging**
  In combination with a DCS Drum Containment System the PTS provides a safe solution for filling or emptying big bags and drums (OEB 5).

- **Small quantity dosing**
  Accurate and repetitive volumetric dosing of small quantities of powder ranging from 1 mg to 100 g.

- **Single and multiple reactor charging**
  Safe reliable vessel charging, the oxygen is removed from the powder before entering into the process.

- **Blending**
  PTS Batchmixer for fully contained homogeneous powder blending.

- **Filling and packaging facilities**
  Continuous Liner System for optimized GMP compliant packaging solutions enabling high containment levels (< 1μg/m³).
  In combination with the PTS and the Daisolve this system allows for any equipment discharging and precise dosing into drums/containers.