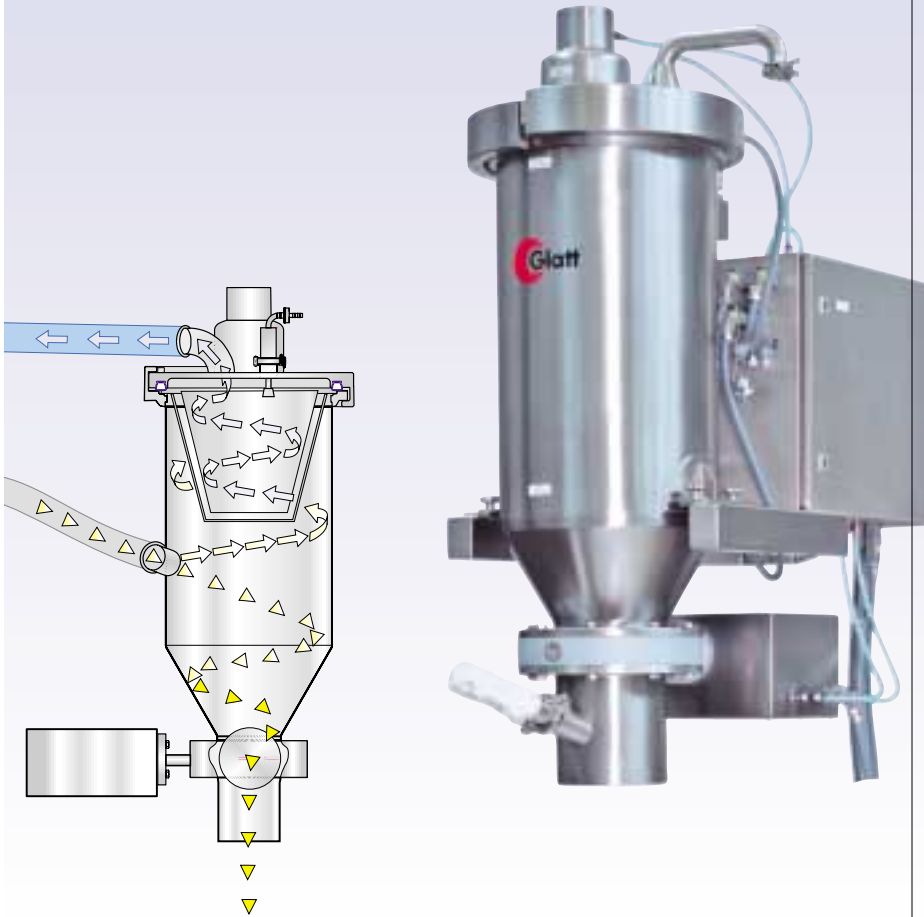


# Pneumatic Conveying System - PCS



- Certified according ATEX regulations
- GMP compliant
- Energy saving
- Reliable
- Reduced maintenance
- Easy to operate



We set the standard



# PCS model versions and sizes

## Model versions and sizes

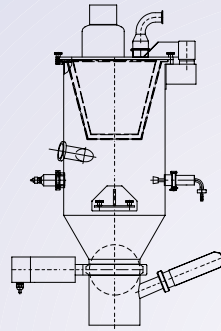
Glatt PCS pneumatic conveying systems are available in 9 different sizes: from the PCS 10 up to the PCS 900 - these sizes refer to the nominal volume of the product separator in  $\text{dm}^3$ . Flush mounted wall indicators ensure smooth interior surfaces inside the separator vessel. In addition to the standard PCS line the pneumatic conveying systems are also available as version PRO (12 bar pressure shock resistant).

The PRO design permits the installation of the PCS in conjunction with PRO fluid bed units or PRO vertical granulators in order to guarantee total containment, as well as providing integrity in an explosive environment. Standardised dimensions ensure connection integration with other systems.

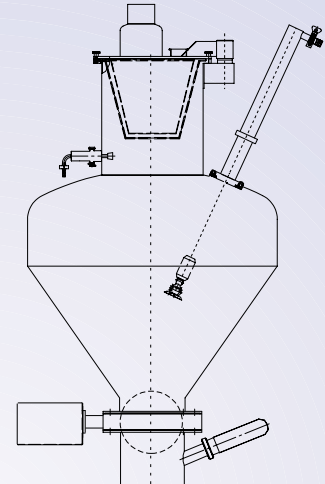
Glatt is offering a modular principle which can be customized if required, commencing with charging to the transportation line, the distribution fittings, the separators up to the air preparation in order to guarantee optimum product processing.

PCS are equipped with metal or textile filters which are exchangeable and can easily be retrofitted because of their identical exterior dimensions. The choice of filters is dependant upon process and cleaning requirements. For WIP and CIP versions metal filter options are recommended.

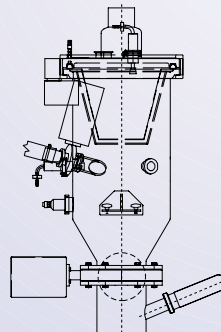
product separators (incl. arrangement of the WIP nozzles)



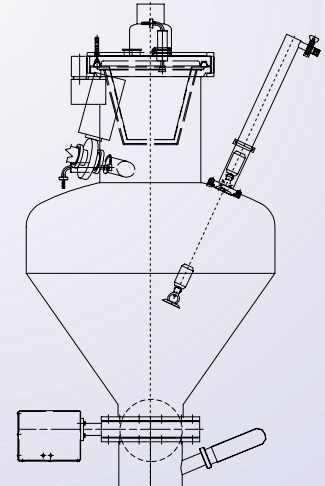
PCS 10 ... PCS 50



PCS 100 ... PCS 900



PCS<sup>PRO</sup> 10 ... PCS<sup>PRO</sup> 50



PCS<sup>PRO</sup> 100 ... PCS<sup>PRO</sup> 900



PCS 400 incl. docked sieve GS 180 integrated in a granulation suite



PCS<sup>PRO</sup> 50 for IBC charging in a total containment process line



# Modular design and cleaning management

Pneumatic conveying systems comprising of a product feeding unit, product line, product separator, filter, vacuum pump and a control system.

## Basic design requirements

The following basic guide lines for the sizing of a pneumatic conveying system are strongly recommended:

- Short conveying distances and a minimum of elbows reduces investment and operating costs
- Avoid crossing product lines
- Avoid narrow elbows in the product line

## The product

can be taken in by means of suction pipes, suction shoes or direct suction from a process unit (e.g. fluid bed).

## The Product lines

should be dimensioned in a way to minimize friction losses in pipes and hoses. For new installations hard piping is recommended giving an improved and gentle product flow as well as reduced operation costs.

## The filter

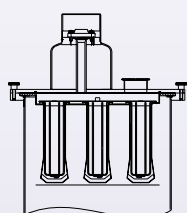
separates product and conveying air flow. The particles taken into the filter by the air are separated so that only product-free air reaches the vacuum pump. The filter cleaning occurs automatically after each discharge process or in adjustable cycles.

## Filter options

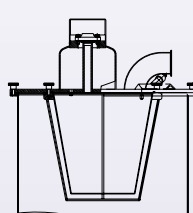


Metal filter insert for PCS (WIP)

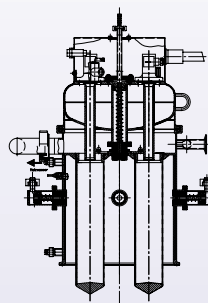
Textile filter (no WIP)



Metal filter insert (WIP)



Clean In Place option with metal filter cartridges



## The vacuum pump

produces the vacuum, necessary for the product transfer. It is usually installed in the technical room giving the possibility for maintenance and repair to the pump at any time.

## All controls

for pneumatic conveying systems are designed in various executions, depending on industry requirements and/or field of application. Control systems are available in pneumatic version (e.g. ex-protected units) or as PLC controls. PCS can work as a stand-alone unit with autark controls or it can be a part of a larger system where sub-ordinate units obtain the signals from the main control system.

## Cleaning

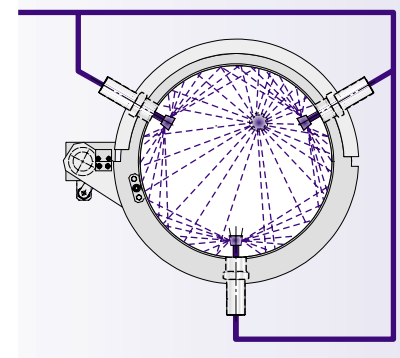
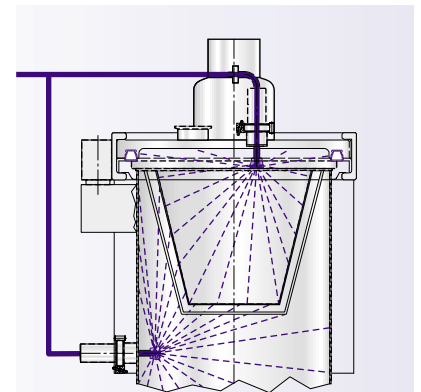
The textile filter can be exchanged and of course can be washed separately.

## Wash In Place (WIP)

The product separator in connection with a metal filter is cleaned automatically inside through retractable cleaning nozzles with rotary spray jets and rapidly dried by a vacuum air flow. The polished product contact surfaces free from crevices maximise cleaning potential.



Product separator PCS<sup>PRO</sup> 50 incl. lifting device EL 300



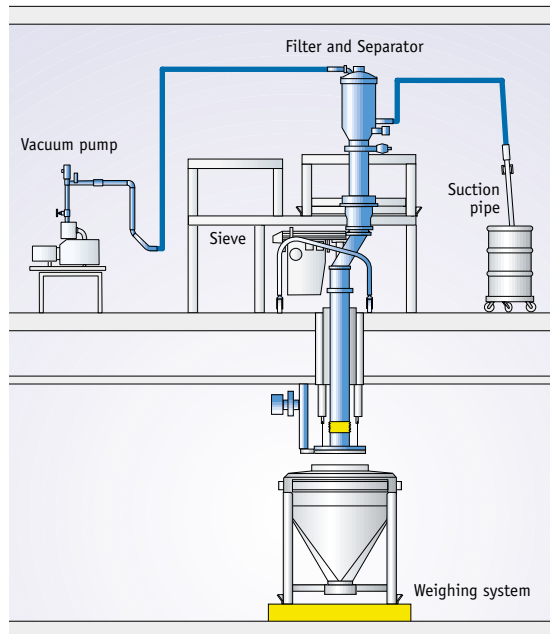
WIP cleaning of the metal filter and product separator (PCS<sup>PRO</sup>)

# Long-standing and worldwide competence

## Decisive advantages

- Ease of operation
- Robust design
- High safety standards: ATEX 100a compliant
- Emission-free, documented production
- GMP compliant / achievable validated processes

Market expectations are demanding and diverse. Glatt can provide the optimised solutions for product dispensing, reactor charging or for the handling of finished product.



Dispensing of raw materials via pneumatic conveying system



Packing and final wrapping by means of pneumatic conveying system



Suction shoe incl. secondary air filter built in an IBC discharge station

## Comprehensive customer services

An integral part of the Glatt philosophy is to deliver a comprehensive customer service throughout the World. Glatt customers benefit from a complete turn key service including initial consultancy and project planning, on time delivery, installation and start up.

Furthermore, we offer full onsite training courses at the customer site or in one of our technology centres and we also guarantee a fast maintenance and spare part service.



Product separator with buffer vessel and attached rotor sieve GS 180



Movable product separator, CIP able

# Addresses



**Glatt  
customer service  
worldwide.**



**Glatt GmbH Process Technology**  
Werner-Glatt-Straße 1  
79589 Binzen/Germany  
Phone: +49 7621 6 64 0  
Fax: +49 7621 6 47 23  
eMail: info@glatt.com



**Glatt Ingenieurtechnik GmbH**  
Nordstraße 12  
99427 Weimar/Germany  
Phone: +49 3643 47 0  
Fax: +49 3643 47 12 31  
eMail: info@glatt-weimar.de

**Glatt Systemtechnik GmbH**

Grunaer Weg 26  
01277 Dresden/Germany  
Phone: +49 351 25 84 0  
Fax: +49 351 25 84 328  
eMail: info@glatt-dresden.de



**Glatt Maschinen- & Apparatebau AG**

Kraftwerkstrasse 6  
4133 Pratteln 1/Switzerland  
Phone: +41 61 8 26 47 47  
Fax: +41 61 8 26 48 48  
eMail: info@glatt.com



**Glatt Air Techniques Inc.**

20 Spear Road  
Ramsey, NJ 07446 USA  
Phone: +1 201 8 25 87 00  
Fax: +1 201 8 25 03 89  
eMail: info@glattair.com

**Glatt Norden ApS.**

Skøjtevej 27-31  
2770 Kastrup/Denmark  
Phone: +45 48 14 22 44  
Fax: +45 48 14 22 55  
eMail: info@glattnorden.dk

**Glatt Pharmatech SASU**

Parc Technologique  
6, rue Louis Neel  
21000 Dijon/France  
Phone: +33 3 80 74 32 64  
Fax: +33 3 80 74 43 95  
eMail: info@glatt-pharmatech.fr

**Glatt Protech Ltd.**

Swannington Rd.  
Cottage Lane Ind. Est.  
Broughton Astley  
Leicester LE9 6TU/Great Britain  
Phone: +44 1455 28 58 58  
Fax: +44 1455 28 55 10  
eMail: info@glatt-protech.co.uk

[www.glatt.com](http://www.glatt.com)



We set the standard