

PSL ChargePoint



Total Reliability



PSL ChargePoint

The continual development of ever more potent compounds pushes the containment of powders during transfer from process to process to the forefront of attention, providing

a real challenge for both the pharmaceutical and biopharmaceutical industries, as well as the industry's legislative bodies.

The PSL ChargePoint high containment powder transfer split butterfly valve was originally developed in 1996 in conjunction with Glaxo Pharmaceuticals (now GSK).

Since then a continual program of development, led by our customers needs, has extended and enhanced the range of ChargePoint systems available today.

A range of ChargePoint applications which can achieve nanogram levels of containment have been designed by PSL for the specific needs of a variety of pharmaceutical and biopharmaceutical processes.

How PSL ChargePoint Works



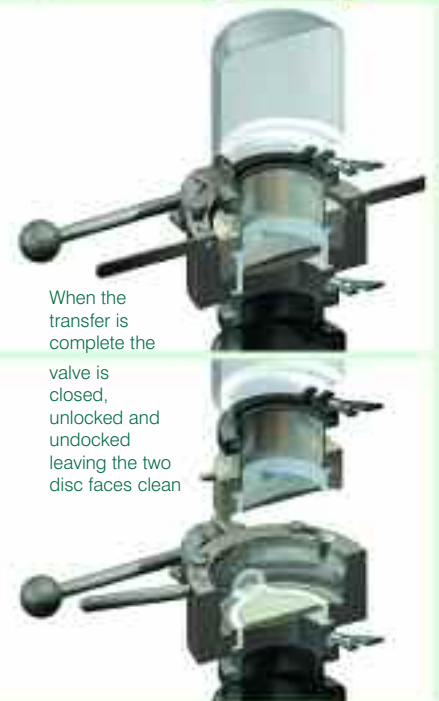
Locking the active and passive in place - the valve becomes a single unit



The valve is opened allowing the contained transfer of powder



When the transfer is complete the valve is closed, unlocked and undocked leaving the two disc faces clean



Nanogram Level Containment

The PSL ChargePoint Vortex

System involves simultaneous extraction and pulsed jet tangential entry of air or gas into a small opening between the active and passive discs before undocking is completed, the extracted air is passed through a safe change HEPA filter.



The Vortex System is a compact design, the ideal containment solution where space is at a premium.

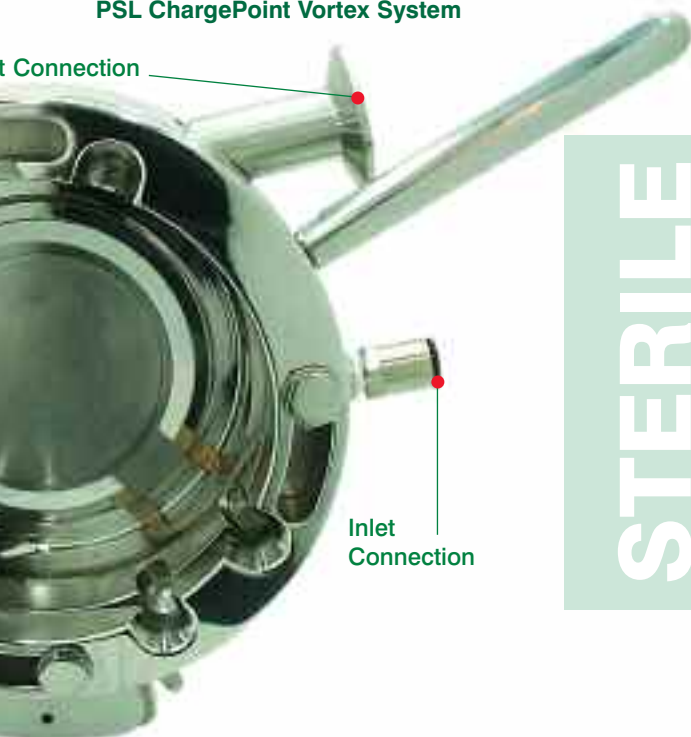
The PSL ChargePoint Extraction

Ring is mounted immediately adjacent to the active locking ring. The 360° perforated plenum extracts any airborne particles to a safe change HEPA filter.

The Extraction Ring provides a cost effective solution as it can be added to existing ChargePoints to enhance containment without the need to replace the whole system.

PSL ChargePoint Vortex System

Outlet Connection



Inlet Connection

STERILE

The Aseptic Vortex System

purges the disc faces with steam or other suitable gas to enable the sterile transfer without compromising containment integrity.

Systems are supplied with a skid mounted Safe Change HEPA Filter Housing and Pneumatic Control Panel.





Vessel Charging



Mobile Milling Station



Tablet Coater

PSL ChargePoint Systems

PSL work with all major IBC manufacturers to deliver a custom solution to your bulk handling requirements

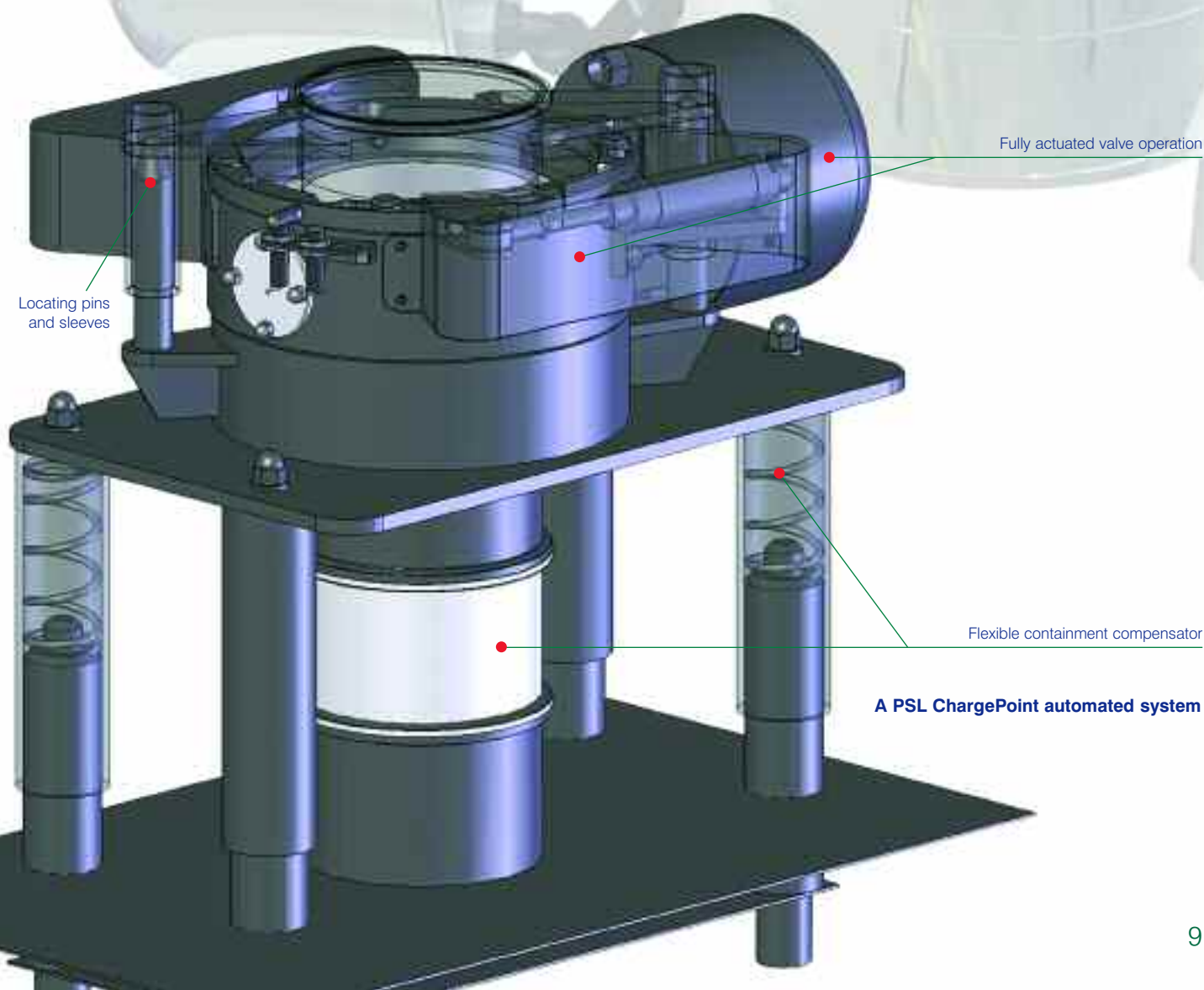
The ever increasing potency of new compounds has meant that the higher OEL and containment levels required for API production are now also necessary for final formulation.

Complete automated materials handling

- Docking
- Locking
- Raise and lower
- Custom built for your application
- Health and Safety compliant

The PSL 250mm (10")

ChargePoint facilitates the bulk handling of potent formulation materials, setting new standards for the robustness and operability required for handling bulk production.



PSL ChargePoint Range

Standard
PSL ChargePoint
Range <10 µg/m³

PSL Vortex and
Extraction Ring
Systems <1 µg/m³

PSL Vortex and
Extraction Ring
Systems Combined
<250ng/m³

	ChargePoint Active Units					ChargePoint Passive Units				
	50mm (2")	100mm (4")	150mm (6")	200mm (8")	250mm (10")	50mm (2")	100mm (4")	150mm (6")	200mm (8")	250mm (10")
Type										
Standard	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pressure Rated	✓	✓	✓	✓	N/A	✓	✓	✓	✓	N/A
Vortex	N/A	✓	✓	✓	N/A	N/A	✓	✓	✓	N/A
Aseptic	N/A	✓	✓	✓	N/A	N/A	✓	✓	✓	N/A
Extraction Ring	✓	✓	✓	✓	N/A	✓	✓	✓	✓	N/A
Material (Body & Disc)										
316L Stainless Steel	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Alloy 22	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
POM (Polyoxymethylene Copolymer)	N/A	N/A	N/A	N/A	N/A	N/A	✓	✓	✓	N/A
Actuation (Open/Close)										
Manual	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A
Pneumatic	N/A	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
Connection*										
PN6	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	✓
PN10	N/A	✓	✓	✓	✓	N/A	N/A	N/A	N/A	✓
ANSI #150	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	✓
Tri Clamp	✓	✓	✓	✓	N/A	✓	✓	✓	✓	N/A
Seat Material										
EPDM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PERFLUROELASTOMER	✓	✓	✓	✓	N/A	✓	✓	✓	✓	N/A
'O' Ring Seal Material (Non Pressure Rated)										
EPDM	✓	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A
PERFLUROELASTOMER	✓	✓	✓	✓	N/A	N/A	N/A	N/A	N/A	N/A
'O' Ring Seal Material (Vortex or Pressure Rated Type)										
EPDM	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
PERFLUROELASTOMER	✓	✓	✓	✓	N/A	✓	✓	✓	✓	N/A

*Special bodies to suit specific connection type available upon request

PSL ChargePoint



"In consultation with PSL, we developed the ChargePoint to have in-built flexibility, meeting our current and future needs."

Willie J McKenzie
Project Manager, GSK

"The PSL ChargePoint is a unique containment solution that satisfies our rigorous personnel protection and quality standards."

Jules Hulsmans
Senior Supervisor,
Pilot Plant, Eli Lilly

"The PSL ChargePoint makes a significant and high quality contribution to the protection of operators."

Martin Usher
Consultant Process Engineer,
Molescroft Management Ltd

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