

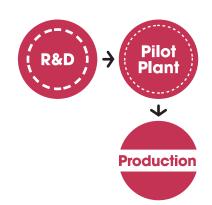


- Ensure industry regulatory compliance.
- Process toxic powders, ensuring the safety of your personnel and a dust free environment.
- Reduce risk of cross contamination with closed transfers that limit manual intervention.
- Meet GMP and product quality requirements.
- Maximize yield transferring poorly flowing and high value product.
- Remove requirement for high air class control areas and cumbersome PPE.

Applications

Contained filling and emptying for all production processes.

Processes		Ingredients	Materials
Dispensing Vessel Charging Filtration / Separation Centrifugation Drying Sampling Mixing Wet/Dry Granulation	Blending / Mixing Milling Sieving Compression Filling Coating	API Reagents Intermediates Excipients Formulated blends Raw materials	Powder Semi-solid Granular Suspension Tablets / Capsules Liquid





THE SMART MONITORING HUB

VERIFi™ is now provided with the ChargePoint® range of valves that ensure the safer and contamination-free handling of API and other formulation ingredients, offering the highest levels of operator protection and product quality.

The wireless monitoring technology communicates vital equipment usage data and provides an audit trail; allowing maintenance, health and safety and compliance teams to make informed decisions to proactively manage their maintenance programmes.



Features & Benefits



Optimised Seal Design

Precision tolerance interchangeable seat design for low wear, easy operation and repeatable performance.



Metal-to-Metal Disc Seal

Simple GMP design without additional disc-to-disc sealing ensure reduced risk of compromise and easier maintenance.



Safety Interlocks

Safety for personnel and process with mechanical interlocks and optional electro/pneumatic control integration.



Process Versatility

In addition to charging and dispensing ChargePoint can accommodate functions such as WIP/CIP, COP, sampling and process inspection (sightglass).

Validated Performance

Independently validated according to ISPE SMEPAC guidelines 4 performance iterations are available to meet product potency down to nanogram Levels.

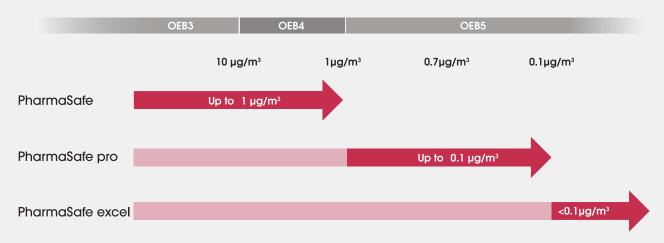
Secure Pressure/Vacuum Rating

A unique method of achieving a seal allows for transfers under pressure/vacuum with additional benefits for powder flow, reduction in seal wear and ease of operation compared to other systems.

Containment Performance

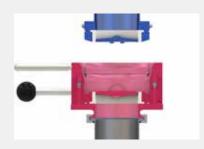


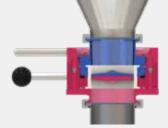
ChargePoint PharmaSafe® valve containment performance has been independently validated by customers and 3rd parties according to the ISPE SMEPAC (Standardised Measurement of Equipment Particulate Airborne Contamination) guideline.

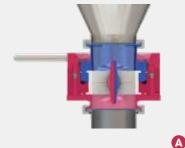


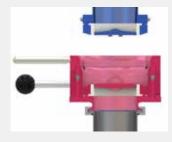
Performance values presented are task based.

Operation Sequence





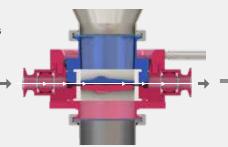




- 1 The Active and Passive units are docked together. Each half of the valve consists of one half of the butterfly valve disc. Each unit is sealed and cannot be opened unless they are docked together.
- Two disc halves are locked in place to form a single sealed unit.
 The previously exposed interfaces are now sealed together to form a single butterfly valve disc.
- 3 The Active unit is the driving half of the valve. Once operated the disc will open to allow the transfer of material through the valve. The active and Passive interface is sealed to ensure no material can penetrate the critical area. Once the transfer has taken place the valve is closed.
- The Active and Passive units are then unlocked and undocked revealing the previously closed interfaces ensuring a dust free transfer.

Optional Extraction Process

Optional higher performance extraction process on PharmaSafe® pro and excel.



Product Range

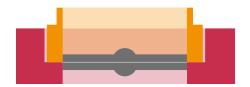
Up to 1μg/m³ / OEB4



ChargePoint PharmaSafe®

High containment performance with no additional seals, vacuum or extraction required.

The entry level ChargePoint PharmaSafe® offers a simple, cost effective upgrade to facilitate the required GMP and containment requirements in manufacturing. The minimum part design is easy to operate, clean and maintain whilst providing outstanding entry level performance.



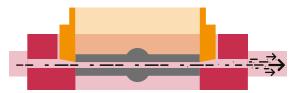
Up to 0.1µg/m³ / OEB5



ChargePoint PharmaSafe® pro

High containment performance with a simple, low volume extraction.

The PharmaSafe® pro utilises an extraction process which is integral to the valve, to minimise the volume of airborne contamination during the valve undocking sequence. The extraction requirement is specified to be compatible with most existing onsite handling systems.



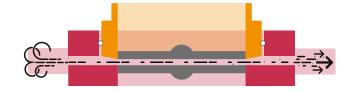
<0.1µg/m³ / OEB5



ChargePoint PharmaSafe® excel

Advanced performance to low nanogram levels in a compact efficient split valve.

The ChargePoint PharmaSafe® excel incorporates purge and extract connections on the Active Unit. During the undocking step a sealed gap is created between the Active and Passive interface. A purge and extraction process is run to remove traces of particles that can potentially become airborne once the valve is fully undocked.



Specifications

			PS50	PS100	PS150	PS200	PS250
ChargePoint PharmaSafe®	Up to 1 µg/m³		•	•	•	•	•
ChargePoint PharmaSafe® pro	Up to 0.1 µg/m³		•	•	•	•	•
ChargePoint PharmaSafe® excel	< 0.1 μς	g/m³		•	•	•	
Size			DN50	DN100	DN150	DN200	DN250
Size		(2")	(4")	(6")	(8")	(10")	
				Up to 6 Bar (87psi)		Up to 3.5	
Pressure Rating*				or 10 Bar	Bar	Bar	None
	(145	psi)	(87psi)	(50 psi)			
Vacuum Rating*				Full vacuum			
	Manual		•	•	•	•	
Operation	Semi Automatic			•	•	•	
	Fully Automatic			•	•	•	•
	Body	316L	•	•	•	•	•
		Alloy 22	•	•	•	•	•
Product Contact Material		POM (Passive only)		•	•	•	
Product Contact Material	Seals	EPDM	•	•	•	•	•
		FKM	•	•	•	•	•
		FFKM	•	•	•	•	•
	Tri-Clamp (BS/ISO/DIN/JIS)		•	•	•	•	•
Connection Interface	PN6/10/16		•	•	•	•	•
Connection interface	ANSI		•	•	•	•	•
	Other		Available to suite process / container				

^{*}Pressure/vacuum Rated only when fitted with a suitable pressure/vacuum rated component or accessory

Compliance & Quality Assurance

- Designed to GMP standards
- FDA compliant materials
- ✓ Conforms to European Hazardous Area directive (ATEX)
- ✓ Conforms to European Pressure Equipment Directive (PED)
- European Machinery Directive

- ✓ Manufactured in ISO9001 accredited facilities
- Full material certification and batch traceability
- ✓ Independently validated according to ISPE containment performance measurement (SMEPAC) guidelines

Air Handling Control Systems

ChargePoint supply a range of dedicated air handling and control systems that provide safe dust particulate extraction in conjunction with the PharmaSafe® plus and excel containment valves.

- HEPA Filtration with simple safe change.
- Mobile units for use across multiple installations.
- Simple pneumatic or advanced PLC based controls with integrated valve controls and sequence timings.





Cleaning & Washing

The ability to effectively clean or wash the product contact and sealing areas of a ChargePoint® valve is assured with the use of our specifically designed Wash In Place (WIP) devices.

- Suitable for cleaning within an autoclave.
- GMP design specifically considered for effective cleaning.
- Local WIP of the Active valve product contact and sealing surfaces in place.
- Remote WIP of the Passive valve and connected containers including IBC wash stations.
- ATEX rated designs.







Handling & Automation

Systems to ensure safe operation in hazardous or inaccessible areas or where the production scale does not permit manual handling:

- Manual or automated valve operation and docking.
- Proximity sensors
- Control systems
- Repeatable and safe alignment of equipment in conjunction with lifting hoists and docking systems.
- Reduced weight versions.
- GMP covers to protect the valve while not in use.







ChargeBag®



ChargeBag® PE-S | PE-SBV

- ChargeBag® is a cost effective and convenient single use container for the handling, storage and transfer of bio-pharmaceutical powders.
- Manufactured from HiPure ULP7, a proprietary LLDPE film from ChargePoint Technology, with extremely high levels of integrity with optimised purity.
- The statically dissipative film means ChargeBag® is also suited for use in hazardous areas.
- 100% pressure tested to verify the integrity of each baa.
- Cleanroom manufactured for high levels of quality control.





Charge Bottle*



ChargeBottle® P | P2

- 0.5L to 20L robust powder transfer containers.
- FDA compliant, Polypropylene and HDPE construction options.
- Maximise product flow and yield with optional flush port (10/20L only)

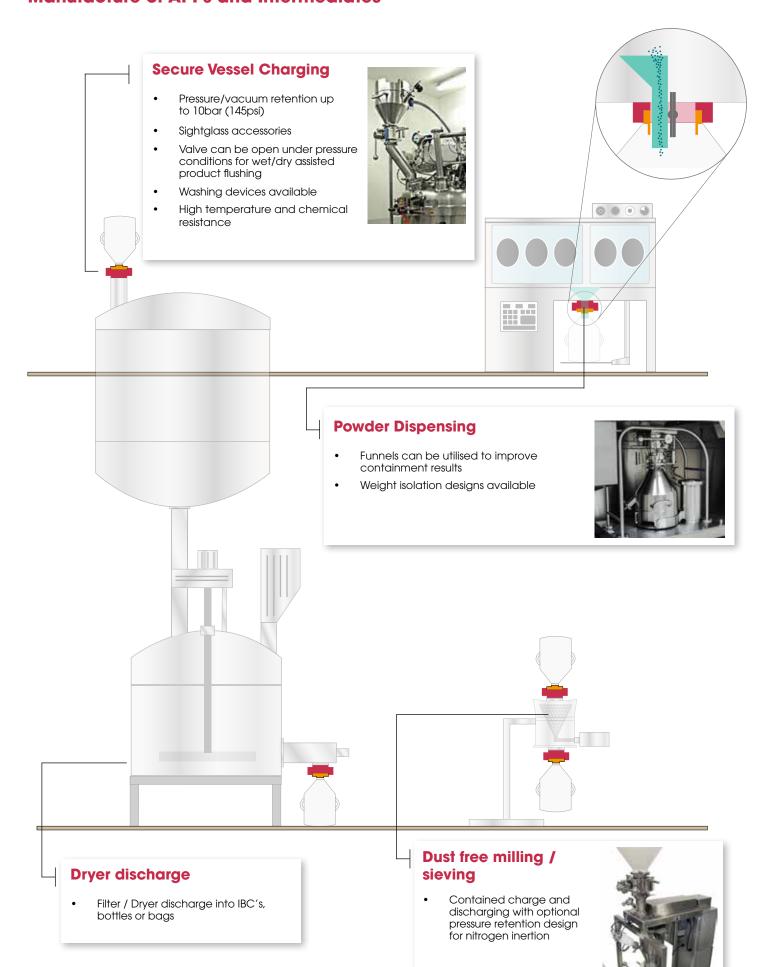
ChargeBottle® M | MX

- 1L to 20L Stainless steel containers with optional pressure rating.
- Maximise flow and yield with optional wet/dry purge port.
- Optional sightglass viewing ports.



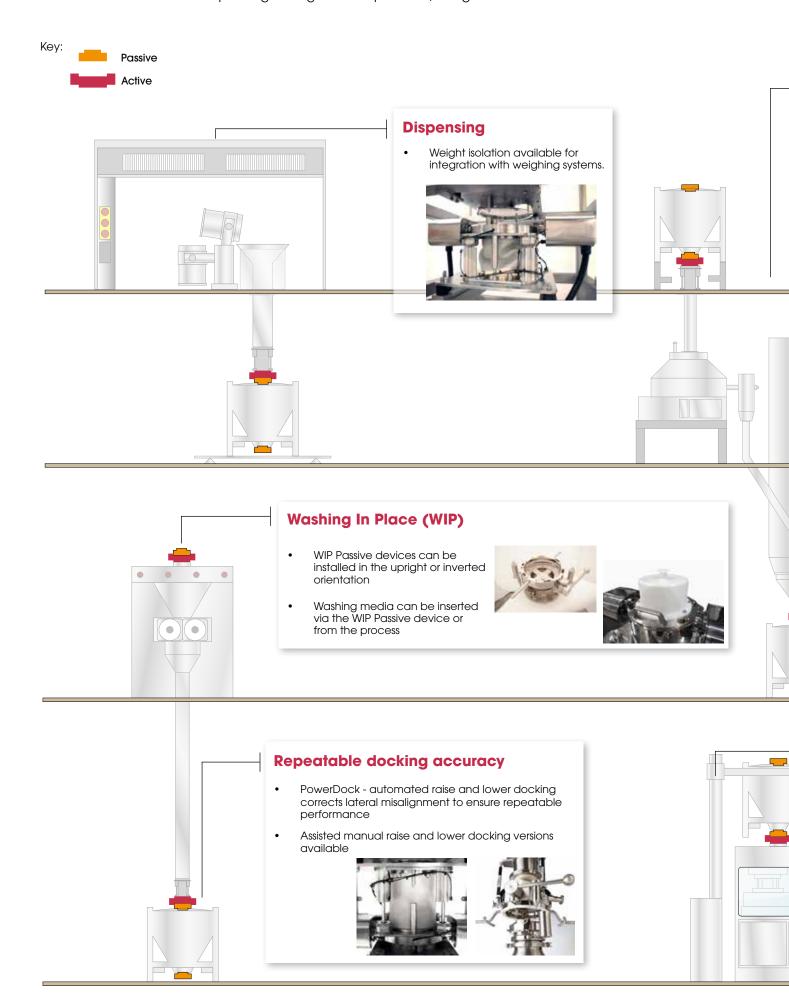


Manufacture of API's and Intermediates



High containment secondary pharmaceutical manufacturing

Common interface from dispensing through to compression / filling



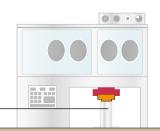
Manual or Automatic Versions

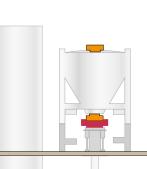
- Even larger PharmaSafe® valves can be operated manually.
- Maintain simple and easy handling processes.

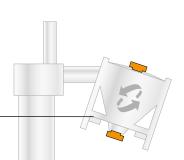


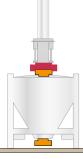
Powder Dispensing

 Higher containment performance systems can be utilised prior to ingredient dilution without need for different Passive designs.





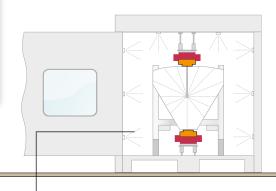




Safe IBC Blending / Mixing

- Passive valve safety interlock
- Additional Passive cover provides assurance
- Pressure rated versions available





Trouble free docking with hoist systems

Smooth integration with hoist systems can be assured with the use of a compensator device to accommodate and absorb the forces generated during docking processes.



Effective IBC Washing

- Wash Active valve can be integrated into IBC wash stations
- Specifically designed to optimise results.
- This valve can be used in high temperature and ATEX rated environments.







Assisting you throughout the warranty period and continuing to offer our responsive support to ensure continuity of production with Onsite Service Packages, Spare Parts, Consumables and Training delivered via our dedicated support centres in Europe, North America and Asia.

Europe, Middle East, Africa & Asia

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