ENGINEERING PHARMACEUTICAL INNOVATION

GEA Transfer Systems Rigid and Disposable

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Learning Objectives

- At the conclusion of this session, participants will be able to:
  - Understand the basics of Split Valves, Rigid and Disposable
  - How to reduce the contamination zone and protect the operators with repeatable equipment that is less reliant on S.O.P.s
  - Identify Equipment Advantages in today's demanding production environments

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Split Valve Invention

Split Valve Technology was invented to reduce the potential of product inefficiencies from previous open transfer and/or shutter systems.

Two complementary half valves were designed to mate together to allow for uniform opening and closing during product transfer, significantly reducing product migration from the closed system and creating a barrier from the environment.

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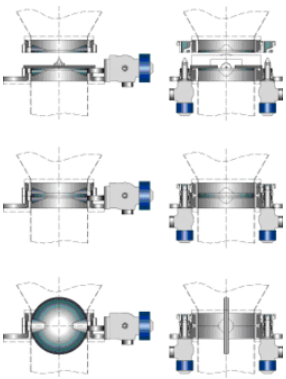
Split Valve Docking



- Split Valves Dock together sealing off the areas that are exposed to the environment when not docked.
- Their design, whether manual or automated, reduces the area that product can migrate creating an Engineered Solution at the point of transfer.
- Split Valves, whether manual or automated, reduce the S.O.P requirement of the operator helping to create a repeatable, efficient system.

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Split Valve Docking - Disposables

Split Valves are also available in Disposables.

This type of technology offers the advantages of Split Valves with a lower capital cost. Cleaning and Cross Contamination concerns are eliminated with the disposable concept. Over the road transport with a low cost integral containment closure is also an advantage.

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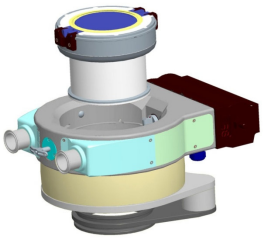
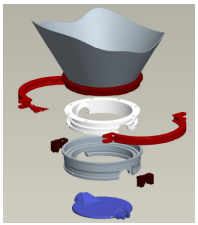
Valve Turnover





- Valve Turnover is a function of the time required to switch from a contaminated valve interface to a clean one for further process with either a new batch or a new product.

- Things to evaluate are simplicity of valve components, time and effort to turn-over valve for next process, and the ease of cleaning and maintenance.

Valve assembly can be removed from static actuator assembly, for quick turnover of products

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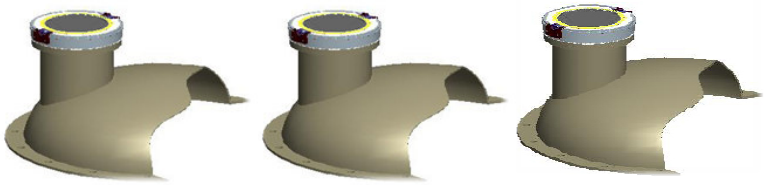
Reducing Capital Costs

•Using Components that are Modular can save on Capital Costs and allow for a more flexible system

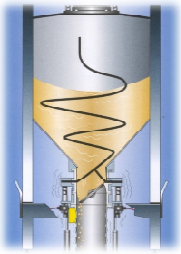
•One Time Use Equipment that still has an engineered solution creates a lower cost, process costs that does not lead into other expensive equipment to integrate.



Buck Vibroflow Flow Aid

Closed Material Transfer

- Discharging poor flowing materials
- Suitable for Blending
- Prevents segregation
- Prevents vacuum during discharge
- Suitable for CIP
- Available for containment solutions
- Can promote 'Dribble' feed for loss/gain in weight metering



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Summary

- Split Valves can come in rigid and disposable systems. Both offer Engineered Solutions that are less S.O.P. dependent and reduce the risk of product accumulation at the transfer point.
- Reducing the area of the contamination zone with an easy to use interface promotes a more hygienic system that is more efficiently repeatable.
- Simplistic Systems for Quick Change from one product or batch to another is key to modern day success.

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Thank You!

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