



Ezi-Dock Systems Ltd

Custom Products – Presentation



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- **Finland** - Customised Ezi-Flow Actives
- **France** - Extraction Ring
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- Questions

Hopper, Lifting Frame & Trolley System

Overview:

Production of x30 Hoppers, x30 Trolleys & x7 Lifting frames for a new facility in Switzerland.

Brief:

Transfer Powder from dispensing booth through various grade areas of facility to charge into 5,000L & 12,000L buffer prep reactors via overhead gantry.

Project Duration:

- November 2021 – Ongoing



Hopper, Lifting Frame & Trolley System



Hopper, Lifting Frame & Trolley System

Challenges:

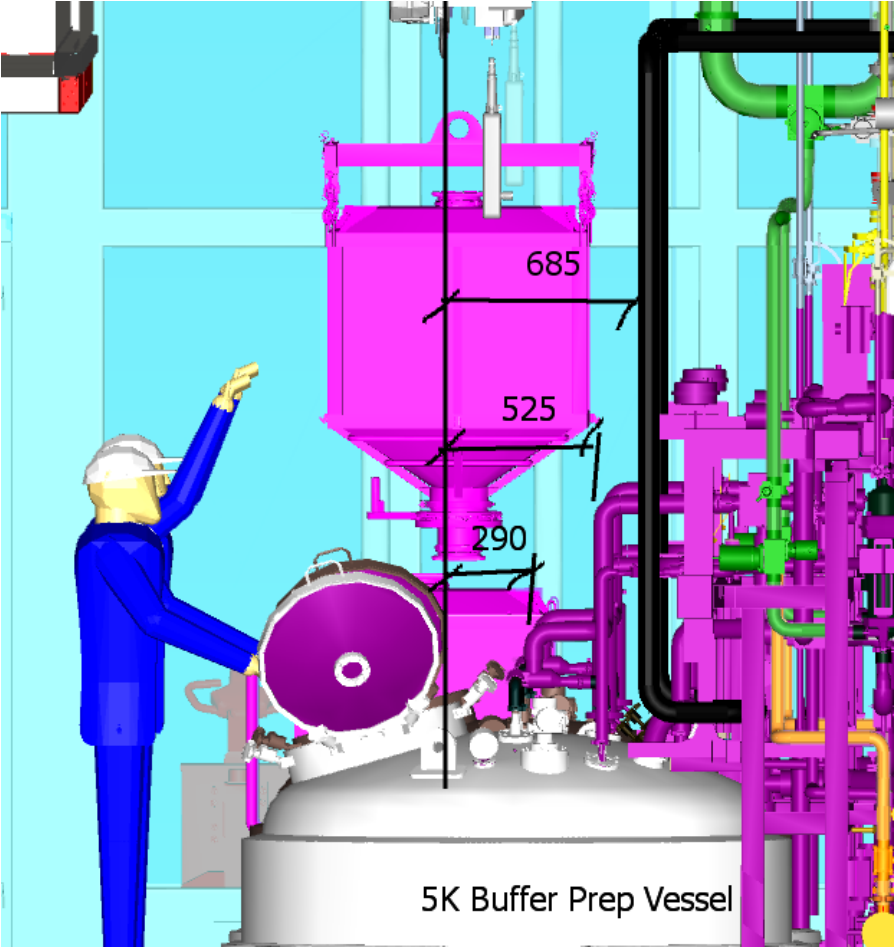
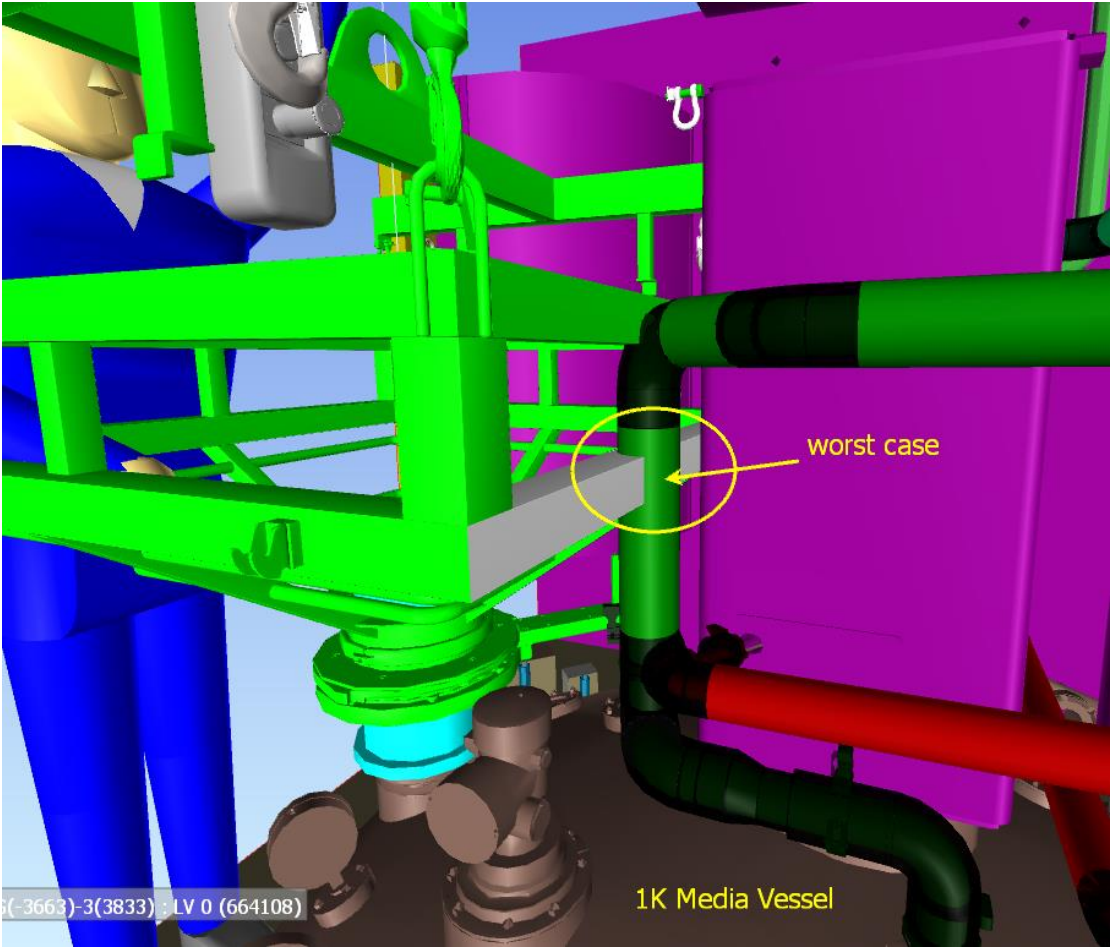
- Changing Project Team
- Pallet Truck compatibility.
- Ensuring chemical compatibility with Spor-Klenz Solvent.
- Orientation of bag in hopper. Different coloured eyelets.
- Injection Molded docking rings being undersized.
- Method of submitting documentation through the engineering consultant portal.



Hopper, Lifting Frame & Trolley System

Challenges:

- Hopper size changes to avoid clashing pipework.



Hopper, Lifting Frame & Trolley System

Iris Valve:

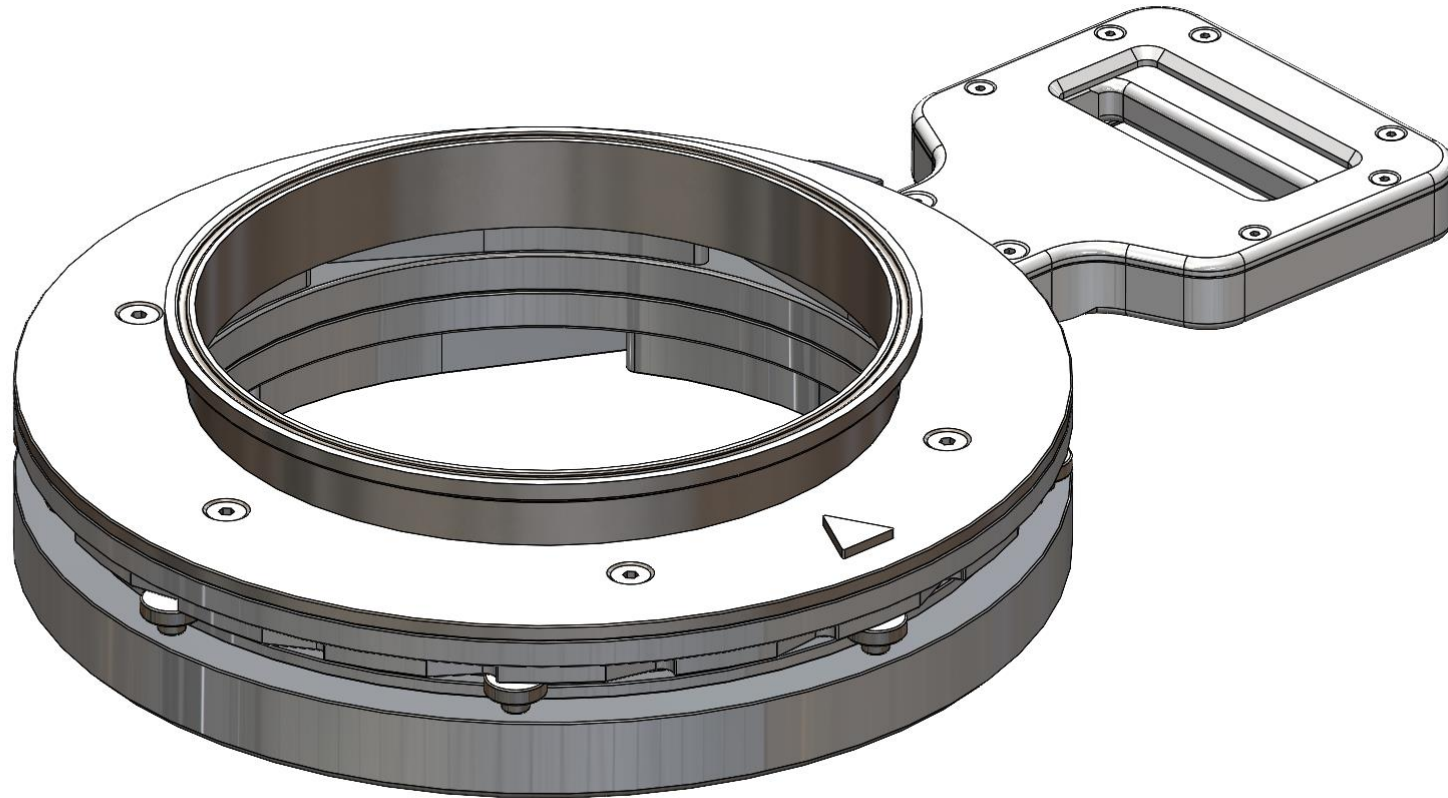
x30 Iris Valves designed by our engineering team and produced by our in-house machining experts.



Hopper, Lifting Frame & Trolley System

Iris Valve Handle Modification:

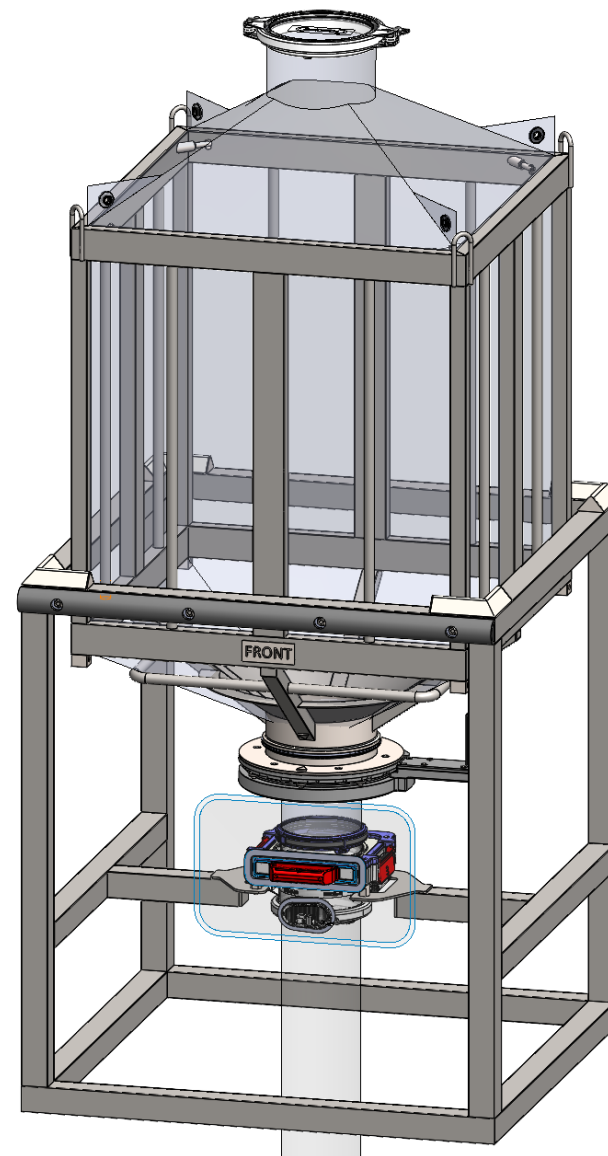
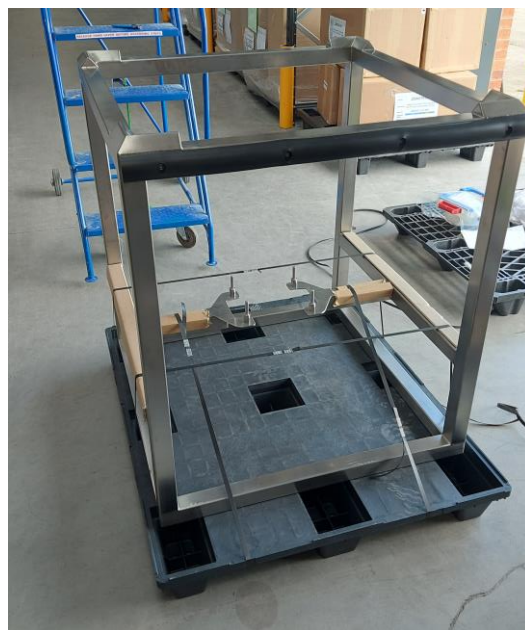
An alternative Iris Valve handle was required that needed to be low profiled to avoid clashing on ServoLift drum lifter during use.



Hopper, Lifting Frame & Trolley System

Hopper Positioning Table

Customer required a Positioning Table to be developed. This is to guide the hopper as it is lowered down to dock onto the Ezi-Flow CSV6 Connector Chute to feed a ground floor reactor and also to prevent the hopper from swinging in the event of an Earthquake.

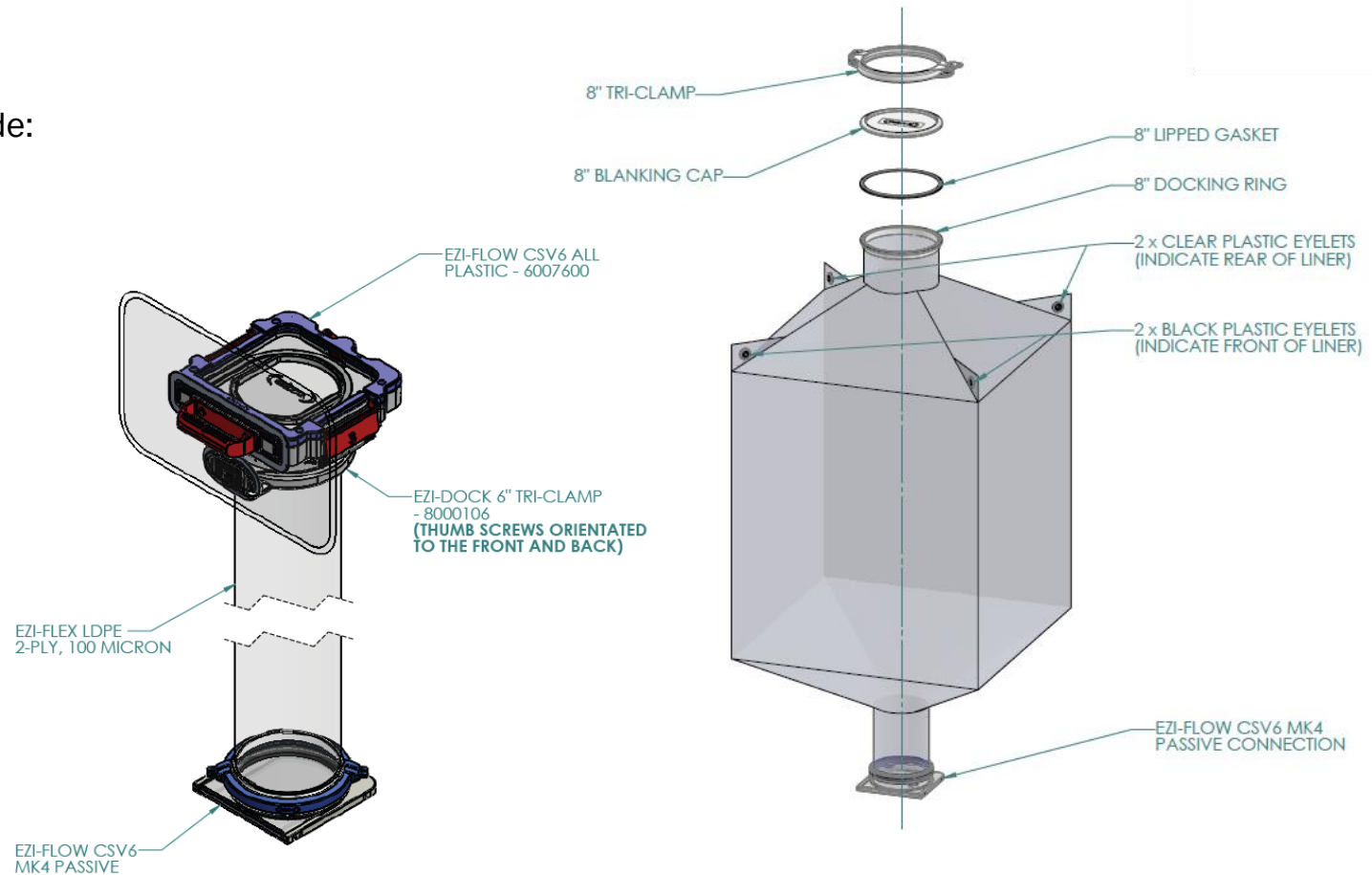
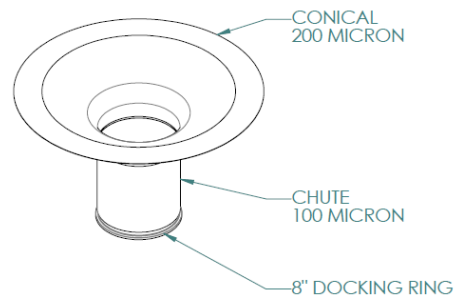


Hopper, Lifting Frame & Trolley System

Consumables

Consumables from the Swiss project include:

- 420L Bag
- 200L Bag
- Connection Chute
- Drum Cone Liner

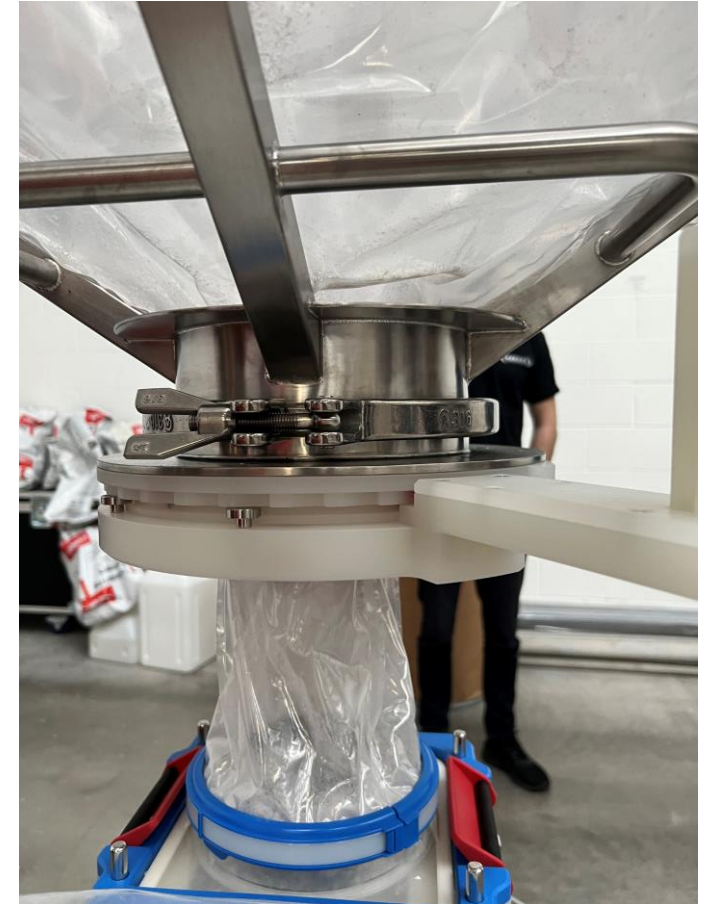


The 2.7m long connection chute required a 3rd party ATEX study

Hopper, Lifting Frame & Trolley System

FAT testing:

- Customer project team travelled over from Switzerland for the first ever onsite FAT test.



Hopper, Lifting Frame & Trolley System

Completed Order:

- x20 - 420L Hoppers
- x10 - 200L Hoppers
- x30 - Trolleys
- x7 - Lifting Frames
- x30 - Iris Valves
- x1 - Positioning Table
- Ongoing - Consumables





60L Stackable Trolley

Overview:

Originally designed and ordered x6 in 2020.
Reorder x6 Stackable Trolleys with Filling support arm and liner inlet holder with integrated clamp in 2024.

Brief:

Enable filling and emptying of custom 60L bag.
Customer required the hopper to be stackable with forklift pockets and bag locating features



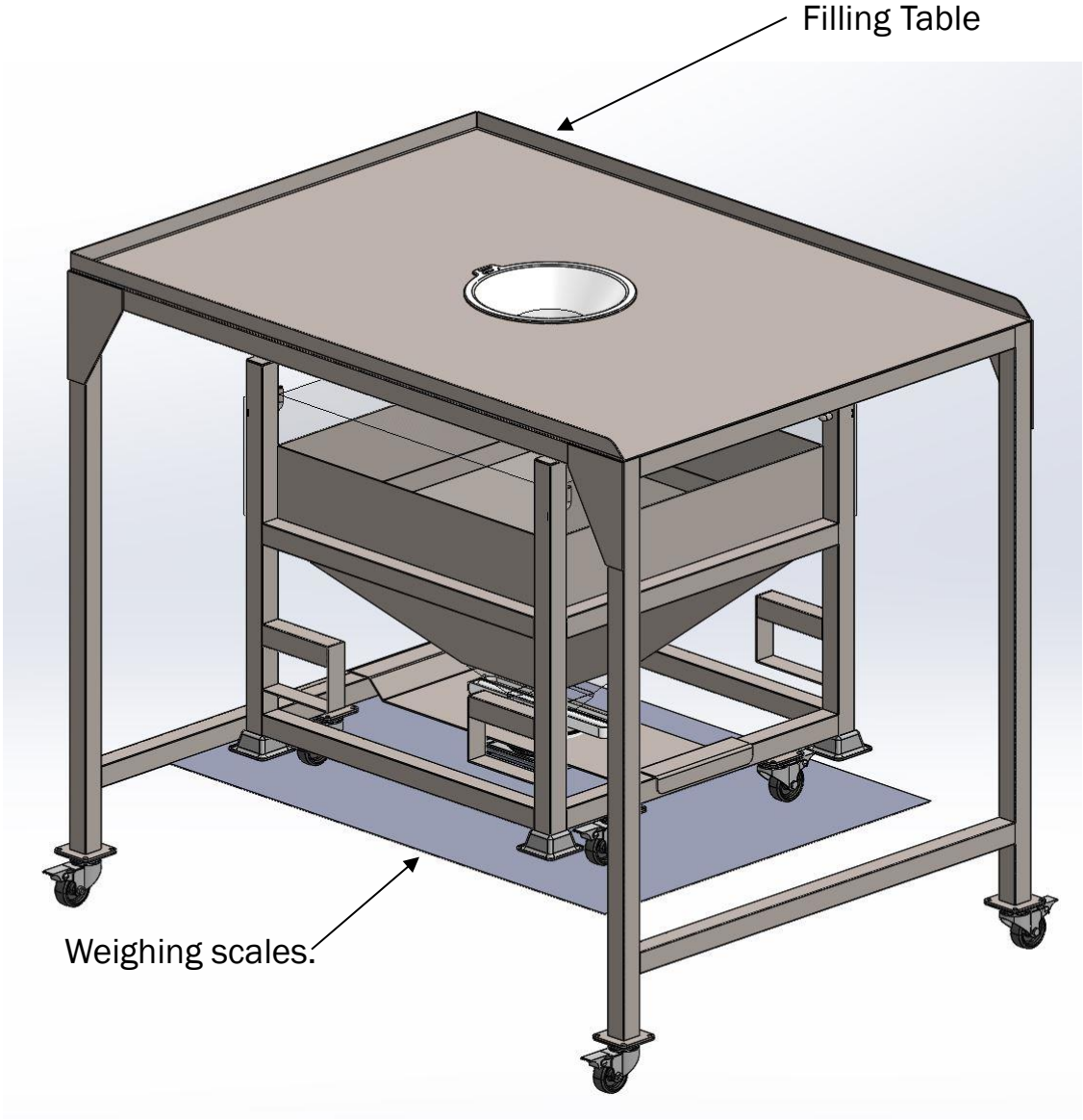
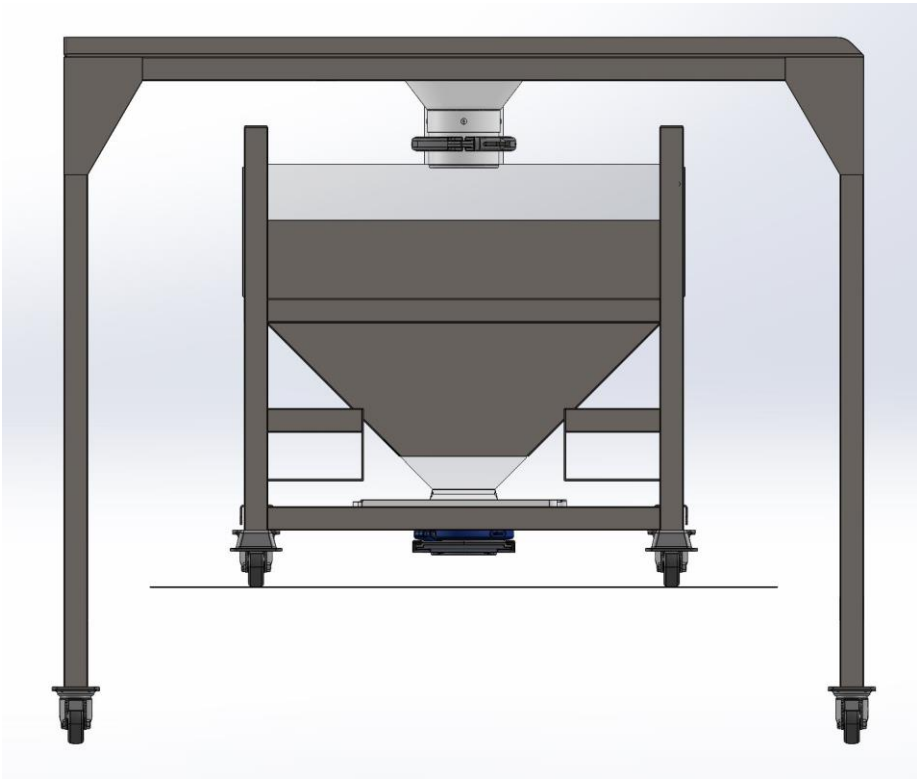
60L Stackable Trolley



60L Stackable Trolley

Filling Procedure:

Bag filled via filling table whilst sitting on weighing scales.



150kg & 300kg Hopper & Trolley System

Overview:

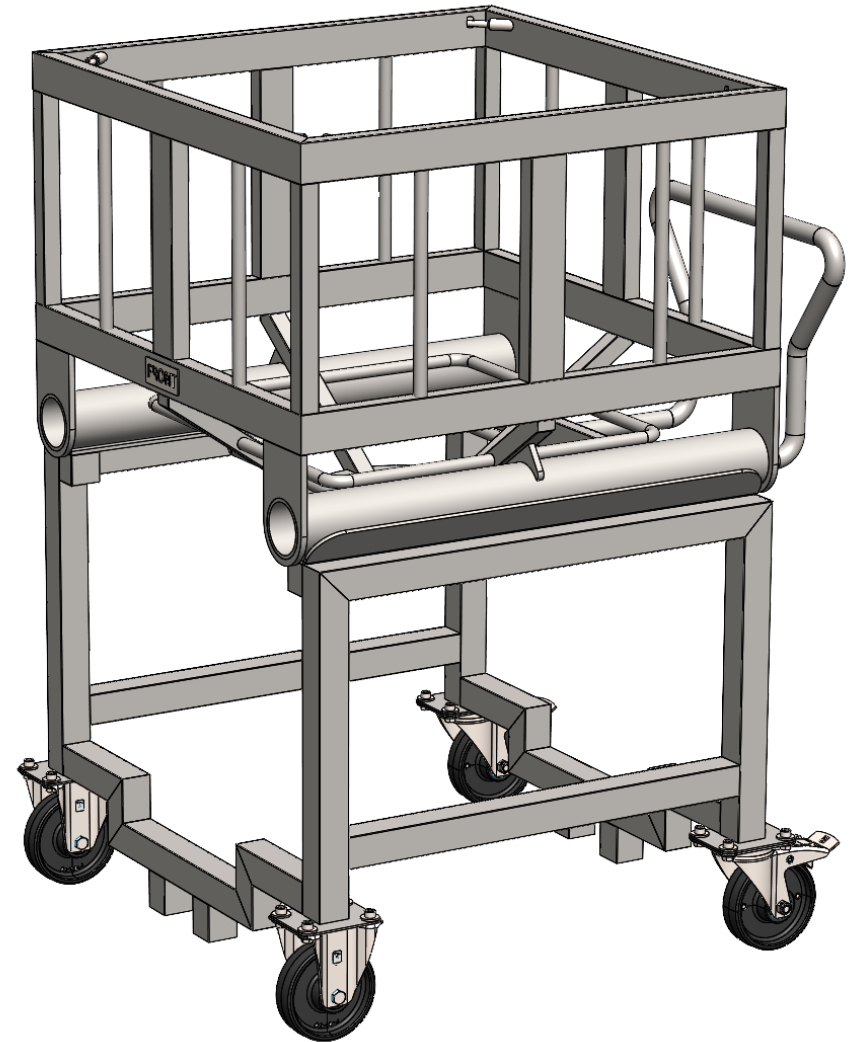
Production of x1 150kg hopper x1 300kg hopper and x2 Trolleys for Australian Customer.

Brief:

Design a system to empty 25kg sacks into a powder hopper in dispensing area and transport powder to fill reactor with product. Method of lifting must utilize a pillar lift.

Project Duration:

- February 2023 – October -2023
- Consumables – Ongoing



150kg & 300kg Hopper & Trolley System



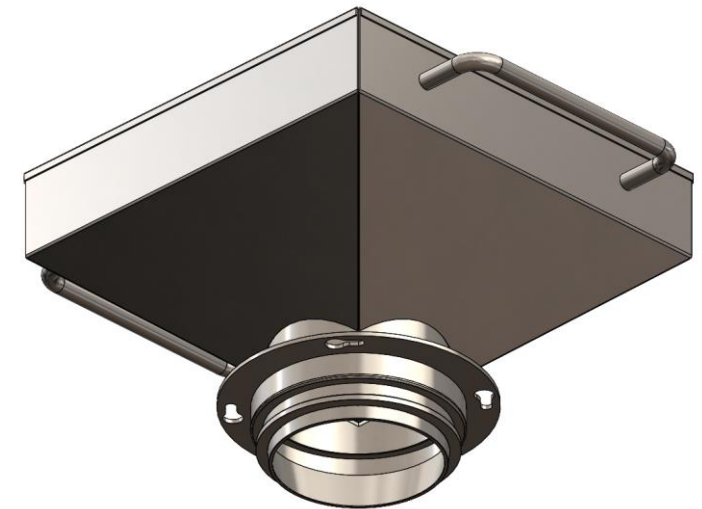
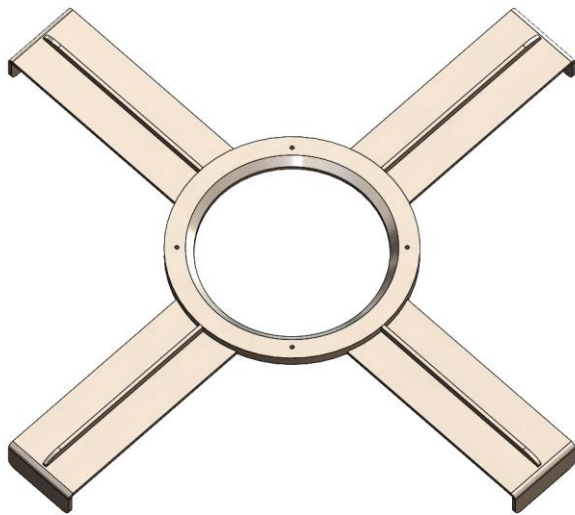
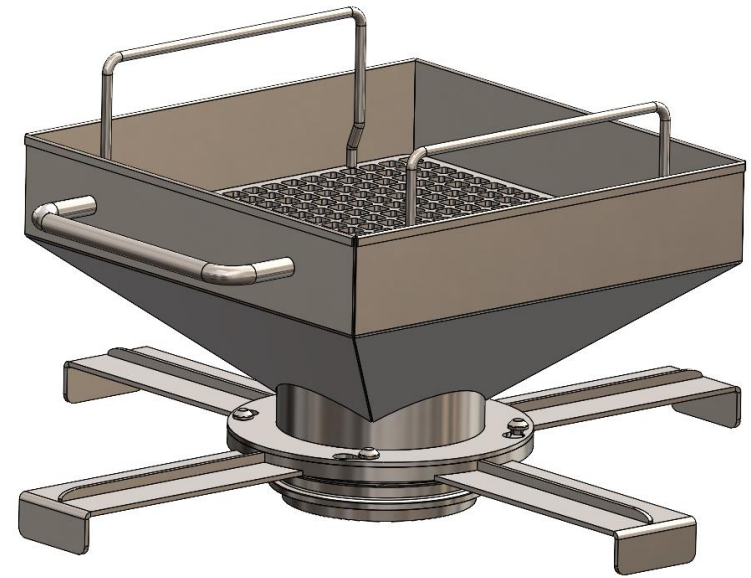
Funnel Sieve Attachment

Overview:

Two funnels were designed to fit over both the 150kg & 300kg hoppers.

Brief:

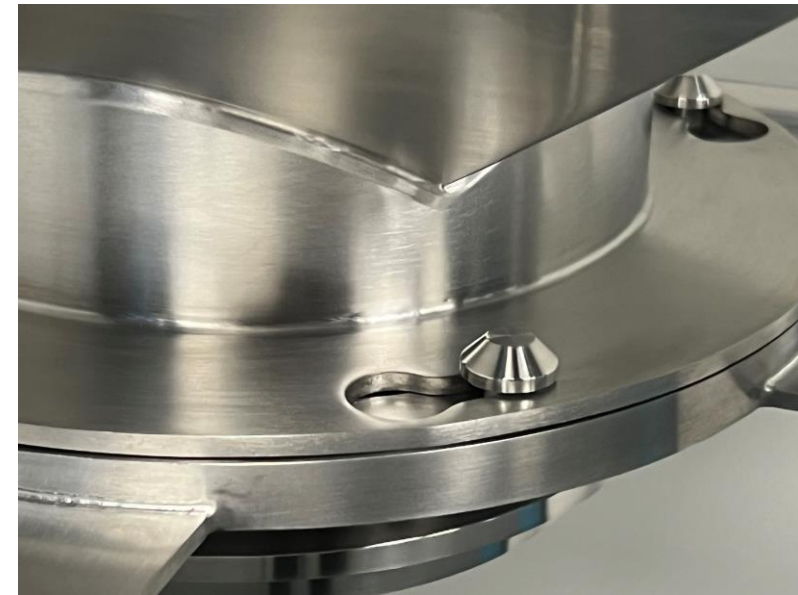
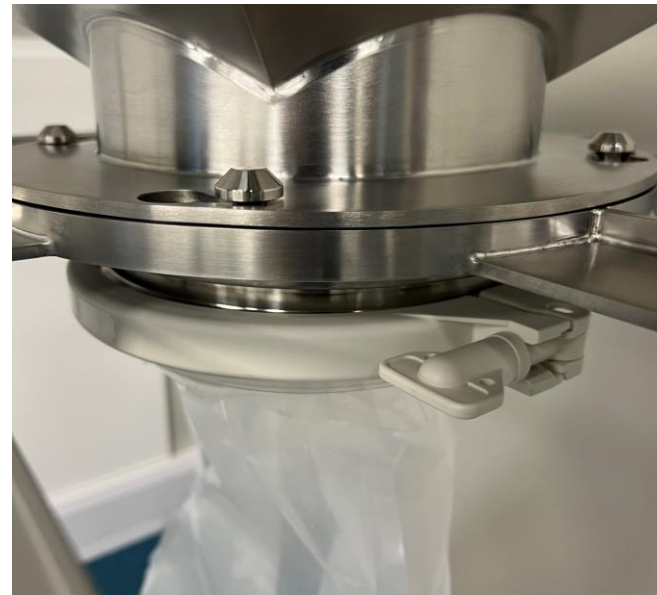
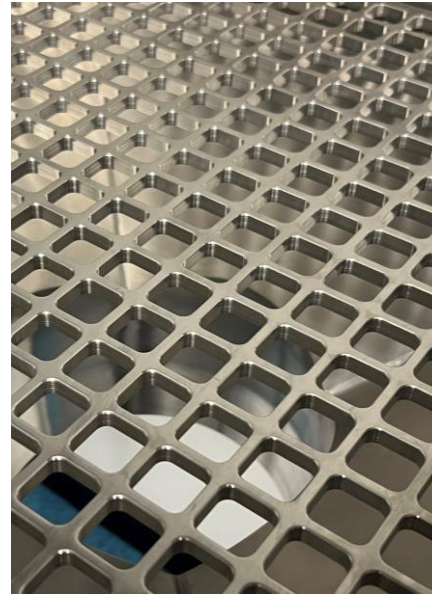
Funnel attachment with a method to break down powder was required to fit over the two 150kg & 300kg hoppers.



Funnel Sieve Attachment

Challenges:

- Funnels must fit over both sizes of Hopper.
- Funnel legs and sieve removeable for manual handling and to fit in parts washer.



Rigid Bottle Assemblies

UK customer was exploring alternatives to existing ChargePoint bottle system. Project won.

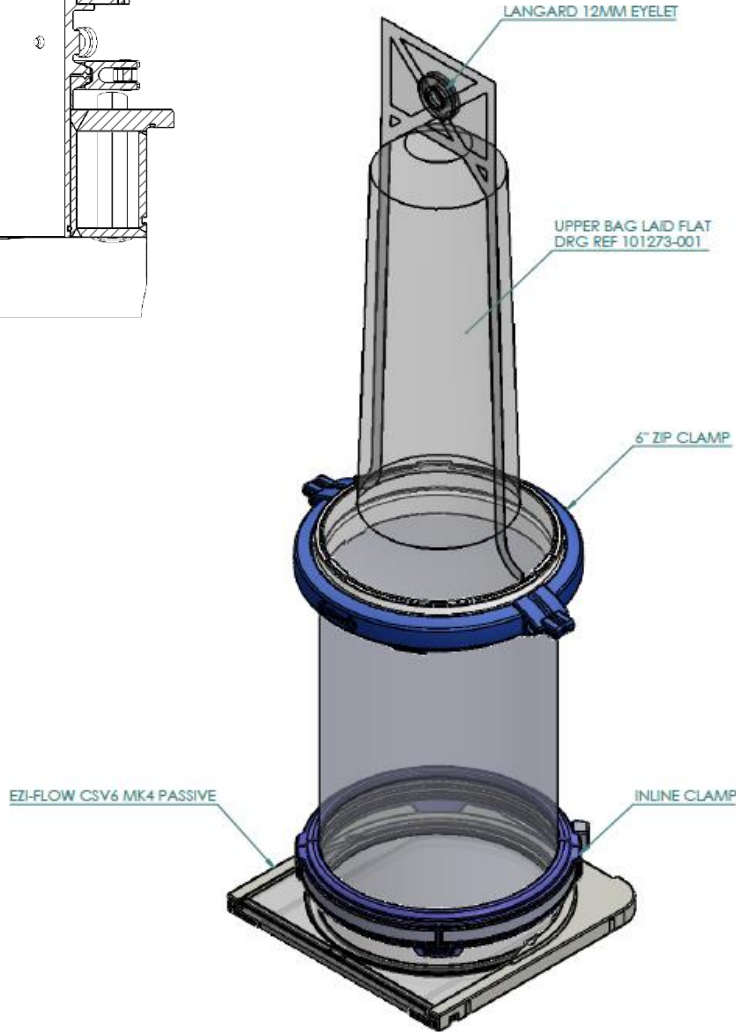
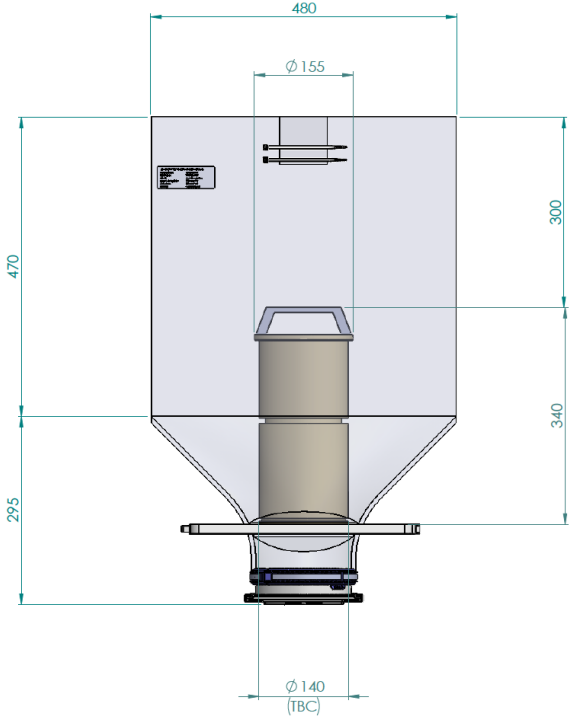
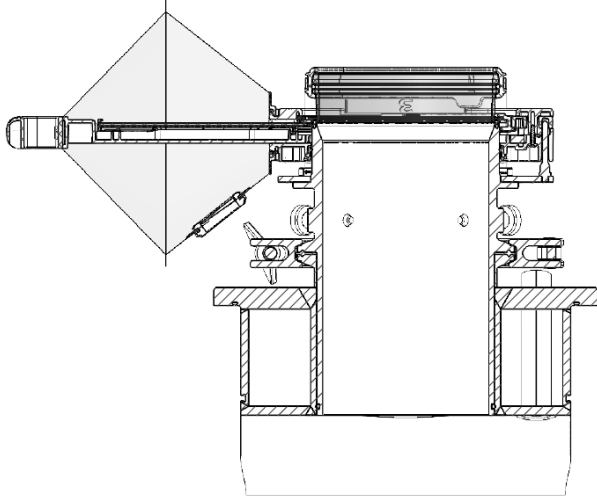
Multiple use fine metal powder application (r/h image).



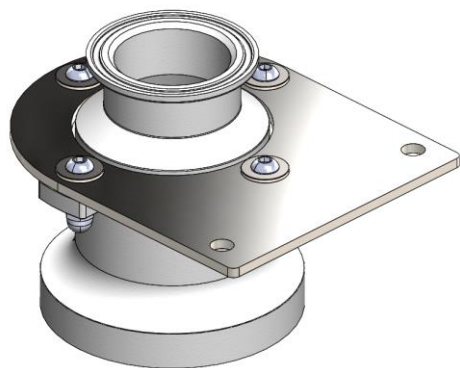
Customised Ezi-Flow Actives

Elastomer Application

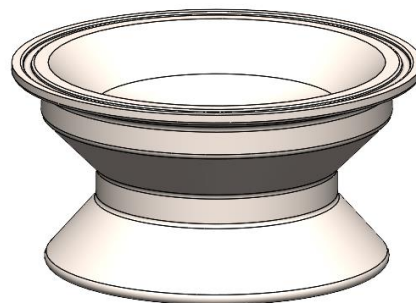
- Elastomer loaded into narrow section of bag.
- Inserted through CSV6 without contact on surfaces.
- Plug then inserted to create ceiling in kneading machine and prevent elastomer being forced back up the custom spigot.



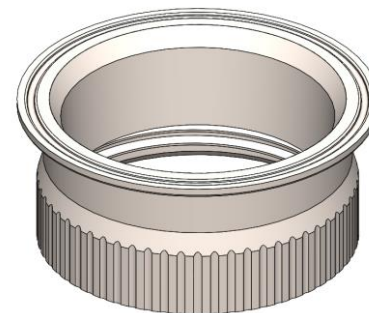
Custom Adaptors



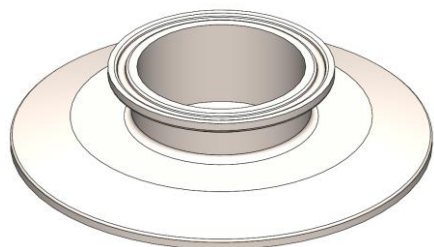
2000424 - Custom Flange to
2inch BS4825-3 TC PTFE
Adaptor



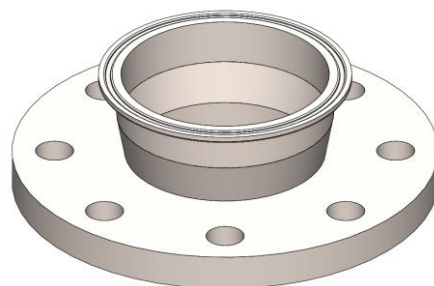
2000334 - DN60 to 4inch
BS4825-3 TC Adaptor



2000041 - 2L widemouth
bottle to 4inch TC



2000459 - Low profile 4inch
to 2inch adaptor



2000265 - Ezi-Dock Adaptor
Flange EN 1092.1 DN80
PN10 to 4 TC in PP

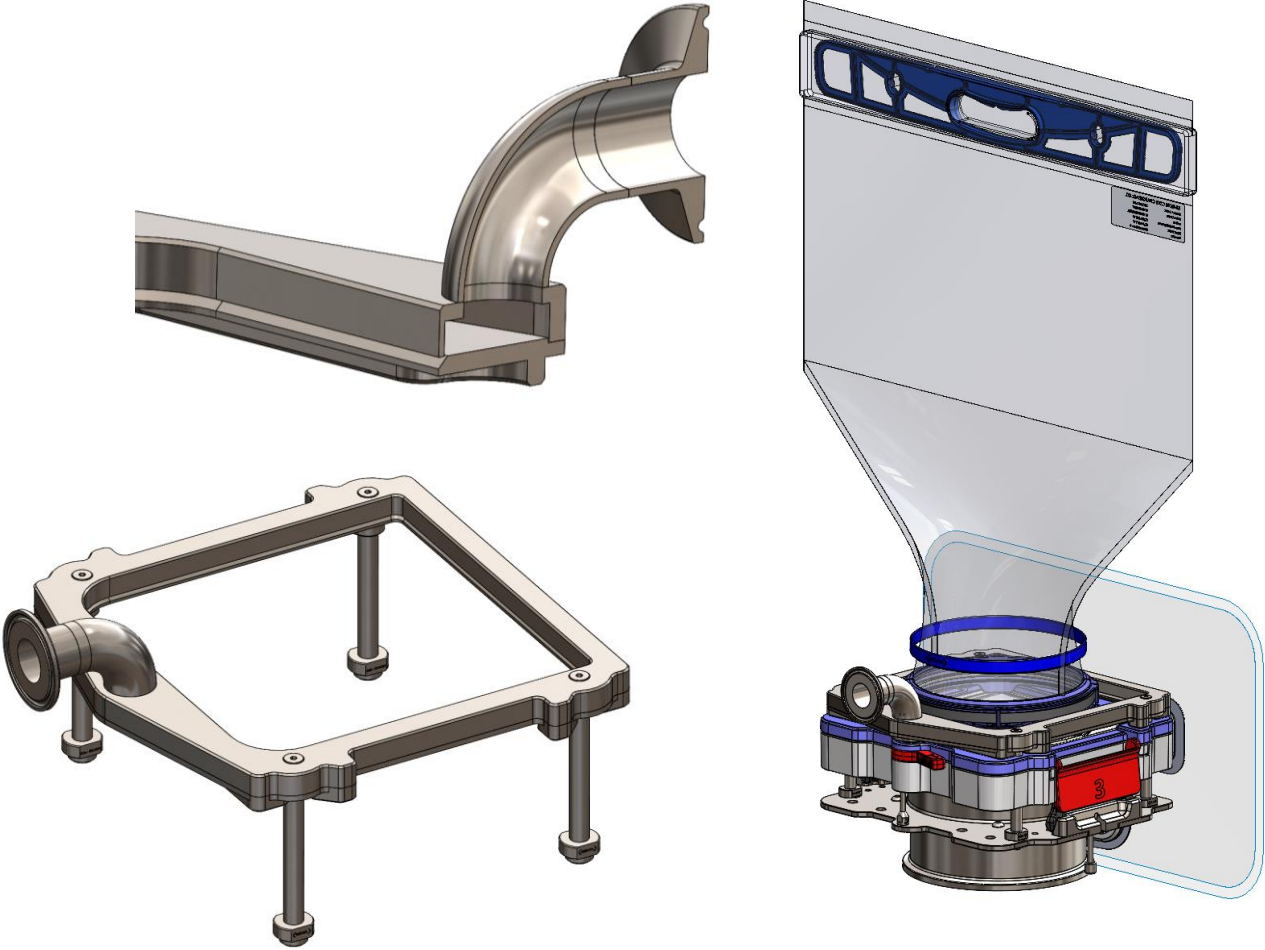
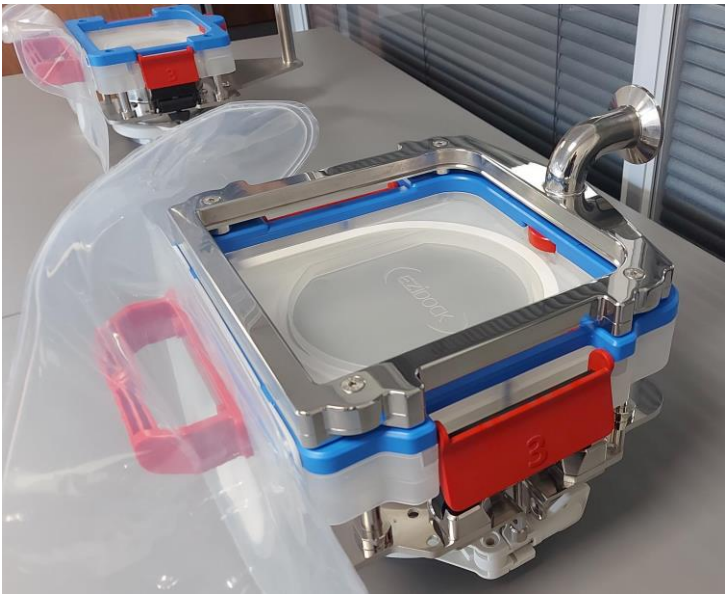


2000377 - Reducing Adapter
PTFE - 4INCH TC (BS4825-3)
to Buchi Flange I.D. 71mm

Extraction Ring

Brief:

Requested by a French customers H&S team as an additional containment level.







Questions?