



3P innovation is a dynamic, successful engineering and automation company with a strong reputation for helping multi-national customers to develop, produce and commercialise new products quickly and cost effectively.

**OUR EXPERTISE IS SPLIT ACROSS TWO DIVISIONS:**

Our **3P pharma equipment** portfolio, has been designed to support customers through the different phases of their product's lifecycle - from initial drug development activities, through clinical stage manufacturing and onto commercial scale production.

Focused on quality and production efficiency, each one of our ranges and their equipment have been developed to meet our core values of 'process understanding' and scalable methodology.



**3P custom automation** is our traditional area of business, working collaboratively with our customers to support product and process innovation and development.

Our specialisms include design and development of equipment for assembly and test automation, web-based material handling and converting, powder and liquid filling, device filling and finishing and also specialist aseptic processing.

DISCOVER RANGE

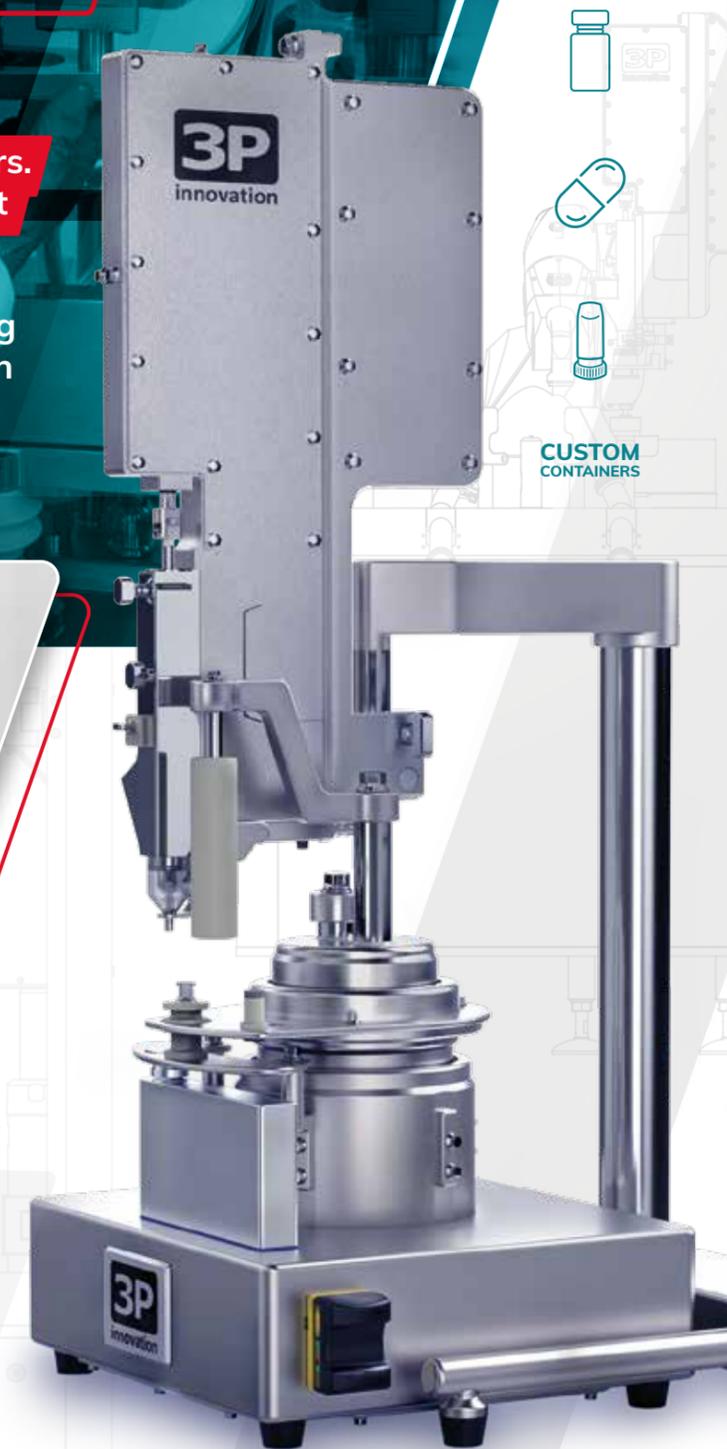
# FILL2WEIGHT GRAVIMETRIC FILLER

A flexible powder dosing system designed to handle challenging powders. Ideal for early formulation development and inhalation applications.

Algorithm-controlled closed loop dosing that enables high accuracy filling, down to sub 1mg dose weights.



Fill vials, capsules, syringes, cartridges and custom containers on the same machine.



CONTACT US

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## BENEFITS AND TECHNICAL DETAILS

### POWDER TYPES

Fills challenging powders, such as:

- Spray-dried and engineered particles < 5 microns
- Pure API
- Blends
- Lyophilised / Freeze-dried
- Delicate biologics
- Micro-spheres
- Solid dispersions / 'drug-in-polymer'
- Other custom powder types



### KEY BENEFITS INCLUDE

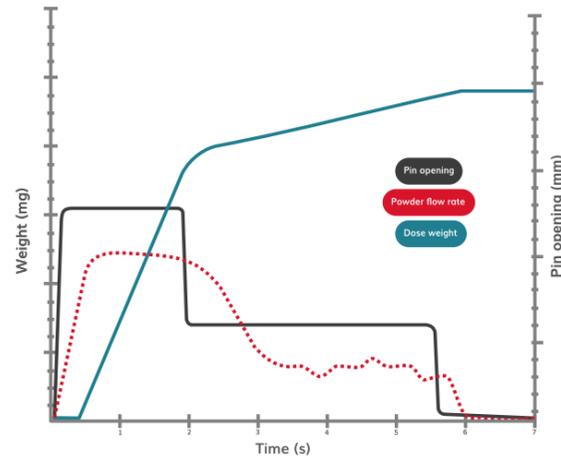
- Multi-parameter dosing technology, including piezo vibration, handles the most challenging powders
- Gentle powder handling avoids compaction and shear, ensuring the powder characteristics remain unchanged
- 21CFR part 11 compliant with batch recipe management
- No minimum batch size, reduces API waste and enables you to start filling with minimal product
- Large dose range maximizes your ability to manufacture different drug products using the same equipment

### DOSE CONTROL ALGORITHM

The Fill2Weight technology utilises smart dual phase control to reduce dose cycle times, while achieving highly accurate results.

A high flow rate is utilised to dose approximately 80% of the target dose weight in a short time frame. The powder flow rate is then slowed to ensure the dose target is reached within tolerance.

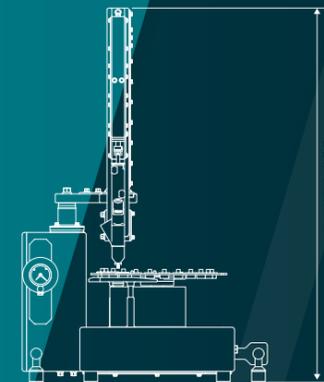
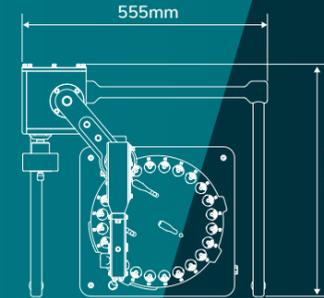
Powder in flight is calculated between the vessel and nozzle to ensure no overdosing occurs.



## GRAVIMETRIC POWDER FILLING

### SCALABLE DESIGN

- Suitable for lab/R&D filling
- Specific narrow design enables close positioning for multiple head-up filling in scaled up solutions
- Forms part of our Robotic Capsule filler range
- Integrated in large scale custom automation fill/finish lines



### CLASS LEADING TECHNOLOGY

- Highly accurate filling controlled by a proprietary algorithm that auto-adjusts dosing parameters throughout the batch to account for any changes in the powder bed such as density, humidity or temperature
- Ionising can be applied to the powder hopper and filling position to reduce the effects of static on dosing under challenging conditions
- Can accommodate rotary drum and rotary disc dosing heads for microspheres and mini-tabs
- Can be integrated into aseptic and containment isolators or biosafety cabinets to handle sterile and/or highly potent APIs.
- Suitable for VHP sterilization cycles



### TECHNICAL DETAILS

SIZE	H 900mm x W 450mm x D 450mm
WEIGHT	55kg
PROCESSING RANGE: CAPSULES VIALS SYRINGES CARTRIDGES	Size 00 - Size 5 2R to 30R 6.85mm Ø to 30mm Ø 8.65mm Ø to 22.05mm Ø
PRECISION FILLING	Sub 1mg - 5g typical fill range Dose accuracy: < 3% RSD typical Typical dosing cycle time: 2 to 7 secs
POWER SUPPLY	230V AC @ 50Hz 13Amp or 110V AC @ 60Hz 15Amp

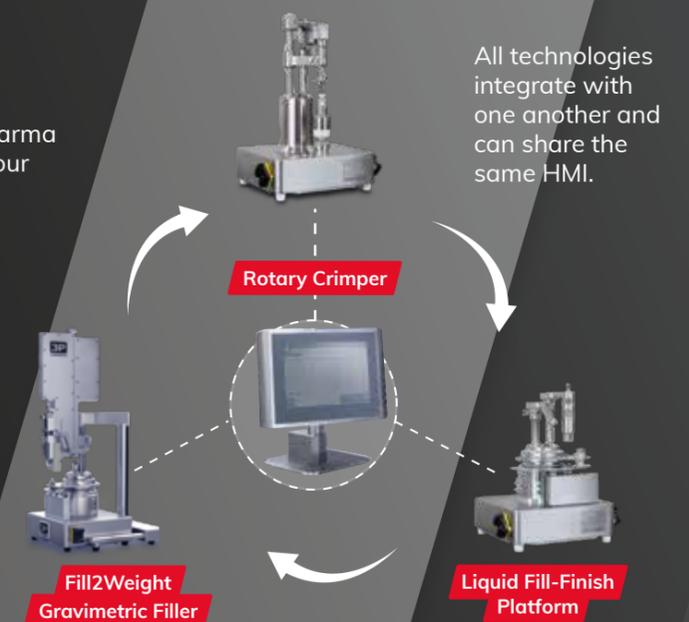
### THE DISCOVER ECOSYSTEM

This Fill2Weight Gravimetric Filler is part of 3P pharma equipment's Discover Ecosystem, which includes our Rotary Crimper and Liquid Fill-Finish Platform.

### BENEFITS OF THE DISCOVER ECOSYSTEM

The use of our aseptic Fill-Finish ecosystem accentuates the benefits of an integrated quality and control system.

- An integrated end-to-end fill-finish and crimping system for liquids and powders
- Quick and easy set up via a single HMI
- Centralised data storage - single batch report



All technologies integrate with one another and can share the same HMI.