Product information – Discover Range

Fill2Weight Gravimetric Powder Filler	**Powder Filling**	**Fills syringes, vials, cartridges, capsules and custom containers with the world's fastest gravimetric powder micro-dosing technology.** Engineered for pharmaceutical and biotech applications, Fill2Weight meets the demand for low-volume cGMP manufacturing and high flexibility. It excels in handling ultra-low-dose, high-potency APIs and offers precise powder filling for inhalation, parenteral, and OSD applications in sterile environments. Innovative and precise, it ensures smooth powder flow without compaction, preserving drug efficacy for inhalation. Localised low-frequency vibration prevents blend segregation or damage, ensuring consistent, high-quality results. **Reduced lead times** Our system handles even the most challenging powders, eliminating the need for costly, time-consuming formulation development. Customers reach 'first-in-human' (FIH) milestones 2-3 months faster, gaining earlier insights into drug efficacy. This accelerates launches, boosts ROI, and frees up capacity to develop more products. **Dose Sub1 mg** The Gravimetric Filler can dose very small quantities of powder; the need for smaller doses is driven by the development of high-potency drugs and desire to administer drugs in pure API form. **Minimal drug product required and zero waste** In early stages of a new development, very low quantities of API are available as manufacture is carried out with lab-scale methods. The filler works with very small quantities of powder. Just 2-3 grams is sufficient to enable doses to be created for administration to patients or for other development tests. Unused powder can be recovered, meaning zero waste. **Improved product quality and patient safety** The fillers gravimetric system means that every dose is verified and any doses outside limits are rejected. Precision weighing enables tighter tolerances, meaning smaller doses can be dispensed. This is essential for high-potency drugs, where inaccurate dosing poses risks to patient safety. **Enables filling of biologics and engineered particles** The Gravimetric Filler enables dosing of new drugs in a form previously not possible. Delicate, ‘long-chain’ biologics and ‘engineered’ particles made with technologies such as spray-drying are typically unsuitable for volumetric dosing, but can be dosed successfully with Fill2Weight. **Scalable for total-lifecycle support** All of our core technology is scalable, ensuring that your early-stage clinical processes can be scaled up for commercial production. This means you won't need to develop and validate costly new technologies with each scale-up.
Rotary Crimper		**An ultra-compact, and fully configurable, aseptic crimping platform, with capping force measurement, designed to help customers develop and manufacture new drugs and devices at low risk.**

		This technology is ready to use in existing containment isolators, RABS and biosafety cabinets and provides 100% stopper compression force verification, enhancing product quality and regulatory compliance. Recognising the vial and cartridge capping process to be a potentially critical operation during drug product manufacturing, the Rotary Crimper's repeatable high precision process ensures consistent container closure integrity. Benefits include: • Small footprint, fits inside standard biosafety cabinets, RABS and down-flow booths • Low particle generation • 100% in-process stopper compression force feedback enabling a validated stoppering process • Aseptic design and cGMP compliant • Adjustable process parameters to suit all container types • Hydrogen peroxide compatible The compact footprint of the Rotary Crimper, enables the system to be comfortably housed in most standard and small bio-safety cabinets, with room to be used in conjunction with 3P's Liquid Fill-finish Platform.
Liquid Fill-Finish platform	**Liquid filling**	**Designed to be used in research and small scale manufacturing settings, this technology is ideally sized to be used in existing isolators, RABS and bio-safety cabinets, providing 100% fill weight verification - Up to 360 containers/hour.** FLEXIBLE: Our Liquid Fill-Finish Platform is designed with flexibility in mind, allowing for customisation to accommodate various applications. All of our benchtop units can be tailored to support your unique processes, providing solutions to meet your operational goals. ASEPTIC: Adhering to first air principles, with GMP compliance and 21 CFR Part 11 compatibility. COMPACT: Most compact system available on the market, now with an onboard pump. The Liquid Fill-Finish Platform fits inside your biosafety cabinet or isolator, saving critical manufacturing space. ACCURATE: Achieve precise dosing with 100% weight verification. Closed-loop system adjusts for pump drift, ensuring consistent batch accuracy. **Scalable for total-lifecycle support**. All of our core technology is scalable, ensuring that your early-stage clinical processes can be scaled up for commercial production. This means you won't need to develop and validate costly new technologies with each scale-up.
CryoFIL: Cryovial Filling Platform	**Cryovial Filling**	cryoFIL® enhances cell viability and maximises yield through automated cryovial filling and handling. In the rapidly growing Cell & Gene Therapy (CGT) sector, many processes remain manual, raising contamination risks from operator handling. The cryoFIL® system automates your cryovial filling process and uses Controlled Rate Freezer (CRF) compatible racks, providing seamless integration.

		From small to large batch sizes - whether 10 or 1000 vials - we comply with current regulatory standards to offer a scalable solution for your cell therapy needs. How does cryoFIL® work? Cryovials are transferred from the rack to the filling module. Each vial is individually uncapped, filled and recapped before being returned to its original position in the rack. The rack can then be placed directly into the freezer, eliminating the need for further handling of the vials. This process maintains the integrity of your samples and reduces the risk of contamination. Sterility assurance: Our advanced aseptic design ensures that vials are opened for the shortest possible duration, and only exposed to 'first air', significantly reducing the risk of contamination. Multi-format flexibility: Process multiple cryovial types seamlessly on the same platform, thanks to a modular design with quick swap change parts. Onboard recipe settings allow for rapid format adjustments, reducing downtime and enhancing operational efficiency. This versatility makes it easy to scale production while accommodating evolving process requirements. Maximises cell yield: Maximise the number of in-spec fills with intelligent closed-loop filling, minimised hold-up volume, and a zero-loss priming sequence. Real-time 100% weight verification ensures precise dosing, helping to preserve valuable cell therapies. Touch screen interface: A user-friendly, password-protected touchscreen interface provides intuitive control with multi-level user access. The system generates 21 CFR part 11 compliant batch reports. Technical details: • Compatible with 0.5-5ml cryovials from all major brands. • Up to 5ml fills with typical accuracy of +/-1%. • Integration into BSC as standard, isolator options available • Up to 600 cycles/hour.
Partial Compaction blister filler	**Blister Filling**	**Forming part of 3P innovation's Discover Range, this early-stage development unit uses two sets of die punches to compress pellets and seal them within a blister strip. Used predominantly for dry powder inhalers (DPIs), the ultra-compact filler fits on your lab benchtop.** Key benefits: • The fundamental process has been designed with scalability in mind; and is scalable from lab-scale to high-speed commercial production (up to 7200 doses/min). • Accurate, precision-adjusted dose weights minimise product usage and de-risk your clinical process • Optimised compression of pellets to enhance aerosolization and maximise emitted dose • Gain confidence that your process can produce products which comply with the device CQAs (Critical quality attributes)

		• Clean filling and ejection process which prevents contamination of web (avoiding downstream issues with sealing/peel force) • Proven performance with Magnesium stearate based powders **Scalable for total-lifecycle support** All of our core technology is scalable, ensuring that your early-stage clinical processes can be scaled up for commercial production. This means you won't need to develop and validate costly new technologies with each scale-up. Our Low-compaction Blister Filler is part of our Discover Range, used predominantly for R&D applications, although it can be scaled up for clinical and commercial applications. For example, our Blister Strip Development Platform is designed to form blister strips from laminate web material, dose powders into pre-formed blister pockets and ensure precision sealing for reliable product protection. This unit is more suitable for clinical trials, this system is designed to produce up to 3 strips/minute. Alternatively, our Blister Strip Commercial Platform (Evolve Range) is ideal for commercial scale production, and is capable of producing 40 strips/minute.
Vacuum Drum	**Blister Filling**	**Part of 3P innovation's Discover Range, our Vacuum Drum Filler offers flexible lab-scale powder filling for inhalation powders and devices, designed to fit on your benchtop.** Capable of dosing into blister strips, DPIs, vials, cartridges, syringes, devices, capsules; this system uses a vacuum to pull powder into the drum cavity and then uses compressed air to blow it into the desired product. This is the ideal product to support early-stage product development and assess your critical quality attributes (CQAs). Benefits • Customisable stirrer designs can cater for different powder properties • Cost-competitive solution handles up to 20 doses per minute • Self contained unit: which only requires compressed air and electricity to run • Scalability: the Vacuum Drum Filler can be scaled to support manufacture from clinical supply through to commercial production.