

CRYOVIAL FILLING PLATFORM

The world's first GMP cryovial filling platform

A new gold standard for aseptic cryovial filling -
intelligently minimising hold up volume, improving yield
and providing robust in-process monitoring.



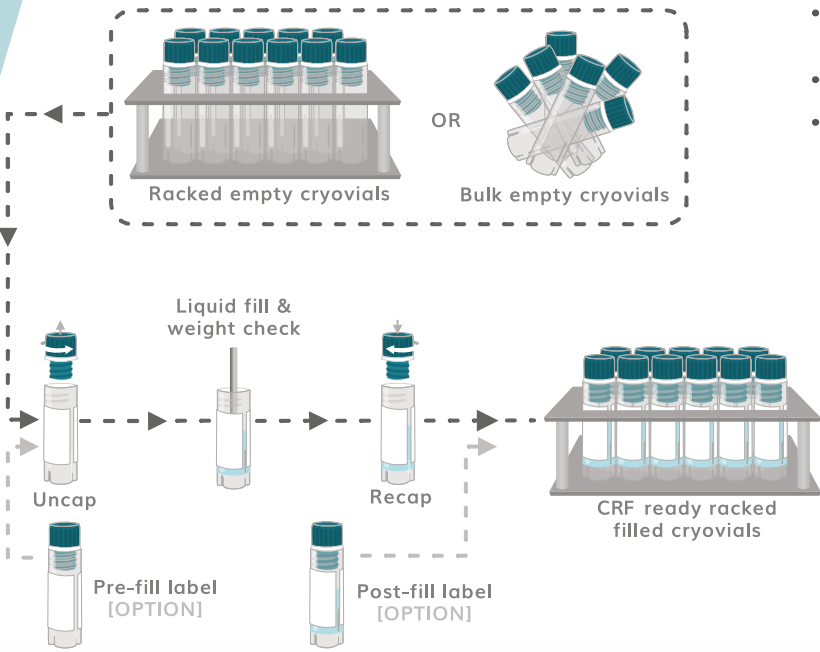
High throughput -
Up to 600 cryovials
per hour

CELL & GENE APPLICATIONS

In the rapidly expanding sector of Cell & Gene Therapies (CGT), many processes are still very manual which increases the risk of contamination from operators.

Whether your batch size is 10 or 1000 vials, 3P innovation complies with current regulatory standards and offers a scalable route for your cell therapy.

PROCESS FLOW

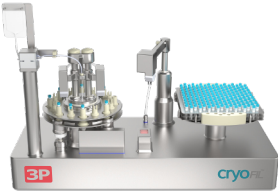
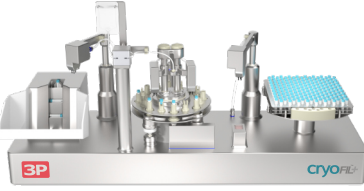
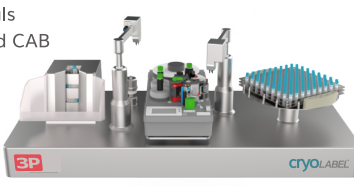



KEY BENEFITS

- Maximise cell yield through minimised hold-up volume, intelligent closed loop filling with 100% weight verification and zero-loss priming sequence.
- Avoids cell damage from your preservation agent by filling your batch well within the operating time window, using a low shear pump.
- Automated cryovial placement into racks for fast transfer to your existing controlled rate freezer (CRF).
- Accurate and repeatable filling with a high precision peristaltic pump.
- Ensure security of your samples with precision control of cap tightening torque.
- Highest standards of hygienic design, including 'first air' principles and minimised vial open time.
- Compact footprint, fits in standard BSCs or Isolators.
- cGMP 21CFR11 compliant software, including recipe manager.

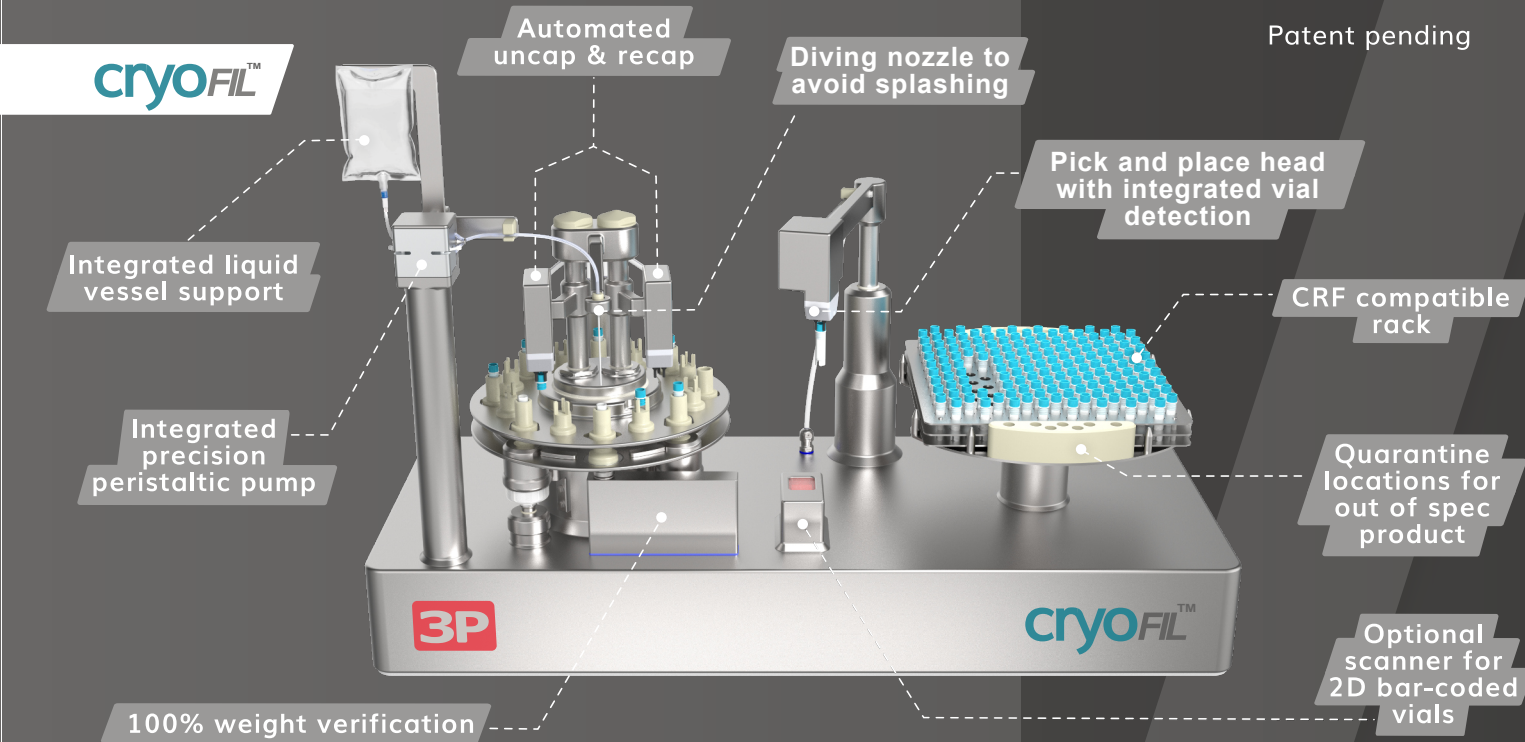


TECHNICAL DETAILS

KEY FEATURES					CONTAINMENT OPTIONS			SYSTEM DESCRIPTION
Model	Batch size	Feed	Fill	Label	Clean room	Class II BSC	Isolator	
cryoFIL™	Smaller batches (Autologous & Allogeneic)	Manual rack loading	●			●	●	<ul style="list-style-type: none">• Manually loaded CRF rack with empty vials• Fully automated uncap, fill and recap• Can be integrated into a 4-6ft Class II BSC or SKAN pure isolator• Automatic transfer to CRF rack 
cryoFIL+™	Larger batches (typically Allogeneic)	Automatic feed from loose vials	●			●	●	<ul style="list-style-type: none">• Step feeder for bulk handling of loose vials• Fully automated uncap, fill and recap• Can be integrated into a 6ft Class II BSC or SKAN pure isolator• Rack-to-rack option available on request 
cryoLABEL™				●	●	●		<ul style="list-style-type: none">• Step feeder for bulk handling of loose vials• Label application using industry standard CAB systems labeller.• Automatic transfer to CRF rack• Ideal for using alongside the cryoFIL™ 
cryoFILPro™			●	●			●	<ul style="list-style-type: none">• Includes bulk feed, uncap, fill, recap, label and CRF rack.• Fill before labelling to maximise cleanliness at fill stage• Integrated with a 3P innovation isolator• More detail available on request 

TECHNICAL DETAILS

THROUGHPUT	Up to 600 vials per hour per unit.
VIALS	Compatible with 0.5-5mL cryovials from all major brands incl. Nunc, Nalgene, Matrix, Corning, Azena.
FILL ACCURACY	Up to 5mL fills with accuracy of ±1% or better.
FREEZING	Customised racking designed to suit your Controlled Rate Freezer incl. Thermofisher Cryomed, Cytiva ViaFreeze. Can accommodate racks up to 305 x 305 mm.
CELL YIELD	As low as 0.4mL hold-up volume. Closed loop filling with 100% inspection. Zero loss priming sequence.
LIQUID VESSELS	Customised to suit your existing bulk liquid supply vessels, e.g. Bags, Pouches, Erlenmeyer or Spinner Flasks. Agitation and cooling options available.
CONTAINMENT	Open bench configuration, integration into Class II BSC , integration into SKAN Pure isolator or a 3P innovation isolator.
LABELLING	Integration of industry standard CAB labeling system. Label printing with variable data.
SOFTWARE	HMI touchscreen with 21CFR11 compliant software, Batch Management, Audit Trail, Recipe Management, Multi level user credentials. Options to link to local network and SCADA systems.
OPTIONAL EXTRAS	Bar-code scanning, liquid vessel agitation/cooling.

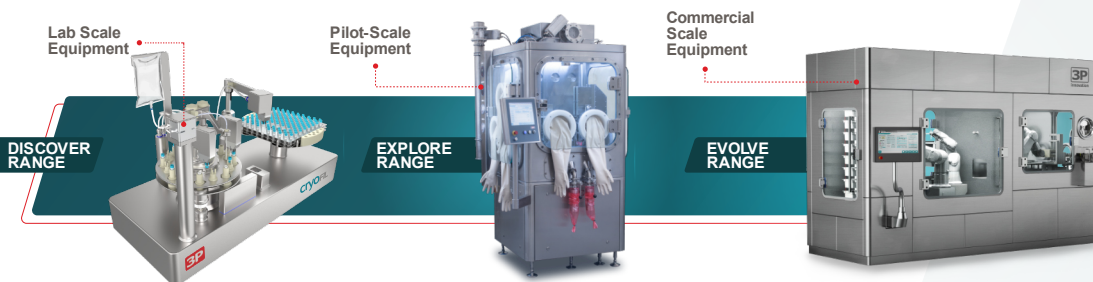


3P innovation is a dynamic, successful engineering and automation company with a reputation for helping multi-national customers to develop, produce and commercialise new products quickly and cost effectively.

OUR EXPERTISE IS SPLIT ACROSS TWO DIVISIONS:

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

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



SCAN ME

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 & development of equipment for assembly & test automation, web-based material handling & converting, powder & liquid filling, device fill-finish, and also specialist aseptic processing.