

Prefilled Syringes and Cartridges

Patheon gives you access to the latest technology and nearly unlimited options.

Patheon is fully committed to the development, optimization, and scale-up of prefilled syringes and cartridges. Our experience spans a large number of projects for a wide variety of large and small molecules. In addition to our deep expertise, we also offer the expansive resources, technologies, and a broad range of forms and sizes to deliver exactly the right solution for your project.

- Syringe and cartridge sizes: 0.5 ml to 20 ml in glass and polymer
- Batch sizes: 40 L to 1,000 L or up to 150,000 units
- High potency compounds: Category 3B
- High viscosity products: up to 350,000 centipoise
- Vacuum filling and stoppering
- Air bubble reduction and nitrogen blanket available
- Automated labeling and finishing
- Single-use equipment components available
- Cold storage (2°-8°C) and inventory management available

Patheon
Performance the World Over

These premeasured dose forms are popular with patients for their ease of use, which makes them popular within the healthcare industry because they enable self-administering of drugs that used to require a clinician visit. For pharmaceutical companies, they present lifecycle management opportunities with minimal or no reformulation. What's more, precision dosing means minimal overfilling for minimal waste of costly product.

New state-of-the-art commercial-scale GMP manufacturing suite



- Right now in Monza, Italy, Patheon is building a world-class GMP commercial manufacturing suite exclusively for prefilled syringes and cartridges. Occupying over 1,000 m², this €11.8M facility will integrate sterilization, compounding, automated fill-finish, primary packaging and cold storage. When fully operational in early 2014, it will have an annual capacity of 37 million units based on batches of 150,000 1 ml syringes.

For more information, email us at
doingbusiness@patheon.com

Prefilled Syringes and Cartridges

Now is the time to start planning your project for Patheon's new manufacturing suite

Preparation

- API storage: available dedicated freezers
- API thawing: 2°C - 8°C in segregated area
- Solution prep: SS cooled vessels with CIP/SIP or disposable plastic bag system
- Single-use components: available for solution prep tanks and tubing to needle

Filling

- Automated debagger: outer packaging
- Automated decontamination: electronic beam via tub introduction
- Automated de-lid/de-liner, sealing foil and Tyvek® liner removal
- Filling line speed: up to 600/min
- Temperature control during filling via small intermediate holding tank
- Dosing: peristaltic pumps with disposable technology or rotary piston pumps with CIP/SIP
- Automated vacuum filling and stoppering: air bubble reduction for high viscosity products
- Automated plunger placement
- Nitrogen flushing: available for filling and closing
- Automatic IPC: up to 100%

Inspection

- Automated visual inspection: with auto-denester, speed 400 units per minute

Packaging

- Automated labeling and finishing
- Secondary packaging in bulk
- Cold storage: 2°-8°C, dedicated inventory management available
- Terminal sterilization: counter pressure autoclave

Integrated Development Services

- Analytical development
- Formulation development
- Biopharmaceutical development
- Process design and clinical trial material manufacturing

For more information on our Prefilled Syringes and Cartridges, contact your Patheon representative or email us at doingbusiness@patheon.com

US Headquarters

Patheon Inc.
4721 Emperor Blvd, Suite 200
Durham, NC 27703-8580
USA
P: +1 919 226 3200
F: +1 919 474 2269
www.patheon.com

European Headquarters

Patheon UK Ltd.
Kingfisher Drive
Covingham, Swindon
Wiltshire SN3 5BZ
UK
P: +44 1793 524411
F: +44 1793 487053
www.patheon.com



PatheonTM
Performance the World Over