

READY-TO-USE (RTU) PRE-FILLED SYRINGES AND CARTRIDGES SYSTEM

We are fully equipped and prepared to handle your pre-filled syringe (PFS) and cartridge filling projects with state-of-the-art equipment and seamless technology transfer. Whether you are looking for small-scale production or full-scale commercial manufacturing, our experienced team provides expert support throughout every stage of your project.



Small-scale aseptic filling

Our highly flexible production system, built around an isolator and modular design, is engineered to handle a wide range of formats efficiently and safely.

Using a “lock-and-key” principle, the system includes interchangeable modules that enable rapid setup for syringes in RTU tubs. An L-shaped flange allows for quick and precise module exchange while maintaining a fully aseptic environment throughout the process.

Our capabilities

- ▶ Syringe formats from 0.5–10 mL (depending on tub size)
- ▶ Maximum total height for tub processing: <100 mm

Filling and stoppering process

- ▶ 2 Syringe filling stations
- ▶ Peristaltic pumps, with the option to switch to rotary piston pumps
- ▶ N2 gassing before and after filling, with upgrade possibilities
- ▶ Vacuum stoppering for optimal sealing
- ▶ Advanced filling system to minimise product loss during the start-up phase

Performance

- ▶ Depending on format, stoppering process, and IPC configuration
- ▶ Syringe filler: up to 4,300 pieces per hour

Commercial scale

Our state-of-the-art and fully automated pre-filled syringes and cartridges lines facilitates efficient aseptic filling of all commercially available RTU syringes and cartridges, glass and plastic, nested in tubs and bags.

Our capabilities

- ▶ Batch size: 10–500 L

High speed system

To achieve your project goals, our state-of-the-art flexible sterile pre-filled syringe filling facility uses a high-speed line that has the ability to provide millions of doses of sterile products, including biologics and vaccines.

- ▶ Syringe size: 0.5–5.0 mL, fill 0.2–50 mL
- ▶ Cartridge size: 1.5–20 mL, fill 0.2–20 mL
- ▶ Filling mechanism: rotation piston, peristaltic pumps
Nest filling: 10 filling needles
- ▶ Filling speed: Example: 1 mL long format with 1% IPC rate achieves up to 12,000 syringes per hour (nest size 160 pieces)

Designed for biologics

We can offer the highest level of cGMP aseptic processing to reliably supply your pre-filled syringe or cartridge to an administrator or patient.

- ▶ Potency product up to OEL 3
- ▶ Nitrogen gassing of objects: before and after filling
- ▶ Air bubble reduction via vacuum stoppering and 2 step-filling process
- ▶ High viscosity products
- ▶ Automatic IPC

Our facilities are designed to handle sensitive products:

- ▶ Cold storage
- ▶ Frozen storage available -20°, -70°C

As a result of investing in a wide range of specialised equipment for complex formulations such as highly viscous, liposomal and nanoparticles, we can meet the unique needs of a range of sterile pre-filled syringe and pharmaceutical cartridge filling project.



About us

Recipharm is a leading Contract Development and Manufacturing Organisation (CDMO) employing over 4,500 employees. Recipharm provides expertise in development and manufacturing across oral dosage sterile, fill & finish, and biologics; clinical trial material development and manufacturing services; and, pharmaceutical product development. Its Biologics segment works with customers to develop and commercialise advanced therapy medicinal products (ATMPs): pre-clinical to clinical and commercial development and manufacture for new biological modalities. The company operates development and manufacturing facilities in France, Germany, India, Italy, Portugal, Spain, Sweden and the US.