H&T PRESSPART

Impacting Tomorrow. Together.

Inhalation Drug Delivery Solutions

At H&T Presspart we are committed to long-term partnerships with both our customers and suppliers. We have been supporting the growth of global pharmaceutical companies across different markets for 50 years. We partner with our customers to provide dedicated single-source supply and contingency concepts.

We deliver long-term value through continuous improvement and nurture partnerships through dedicated customer care.

Working Together

1.4bn
MDI cans, actuators, assembled devices and plastic components produced

60+
Injection molding machines with up to 64 cavities and 25+ automatic assembly lines

50+
Years experience in manufacturing components and devices for the healthcare market

750+
Employees across our 4 sites and global functions

7000
Sqm of ISO 7, ISO 8 and ISO 8 equivalent cleanroom space

We are a world leader and specialist in manufacturing drug delivery devices and pharmaceutical components. Our extensive skills and experience cover drug delivery device development and industrialisation. We have developed a strong reputation for precision and reliability – critically important when patients' quality of life depends on our products.

From concept idea to the market place

Partnering with you at every step of the development process, we tailor our services to meet the individual requirements of each project.

Starting from the idea generation stage onto product design and manufacturing process definition all the way through to validation, we develop your drug delivery device ideas or concepts onwards to commercial supply manufacturing.

Whether it's enabling low volume manual or semi-automatic solutions for concept devices or clinical batches, through to automated commercial production, we can support you.

Accelerate your inhalation programmes

With years of experience in bringing inhalation drug delivery devices and our standard dose counter platform to market, our experience and expertise also enables a quicker development path for in-vitro equivalent metered-dose inhalers with dose counters.

We understand the highly complex nature of metered-dose inhalers and interactions between formulations and the device. We combine in-house analytical services, proprietary components, bespoke tooling and labelling solutions to fast-track your programs, for even the most complex formulations in highly regulated markets.

Supporting sustainable Inhalation solutions

With H&T Presspart's low global warming potential (GWP) propellant laboratory facilities, we support development programmes of next generation low GWP metered-dose inhalers with both HFA 152a and HFO1234ze propellants.

Discover how we can bring your product to market

www.presspart.com

Your partner at every stage of the development process

Whether you are looking for standard inhalation components or a bespoke device, H&T Presspart offers a wide range of services to support your developments. From the idea generation stage, to product design and manufacturing process definition onward to validation, we take your drug delivery device ideas or concepts to commercial reality and supply.

30+

Engineers and scientists to support device developments

Concept and Feasibility

Realising user-friendly and sustainable drug delivery devices and solutions from your ideas and concepts

Optimisation of your design assuring the functionality and manufacturability of the device

Support in the material selection, assessing the product requirements and their processability

Design for Manufacturing

Development of robust and manufacturable designs to avoid costly development loops

Design for Manufacturing (DFM) and Design for Assembly (DFA) will be a particular focus in all our programs

Industrialization

High-cavitation injection mold tooling and automation concepts

Value Stream Designs to ensure the most lean and efficient processes

Business continuity plans

Quality & Regulatory Support

Full regulatory service for dossiers in all major global markets

Drug Master Files (DMFs) for our standard product portfolio

ISO 9001, ISO 15378, ISO 13485, ISO 14001 certified and follow EU/FDA Good Manufacturing Practices (cGMP)

Prototyping and Testing

Samples throughout all project phases deliver valuable information for concept evaluation

Tests to ensure desired functionality for a data-driven Design Freeze

Design Verification Testing to demonstrate compliance with the Design Input Requirements and applicable regulatory standards

Small Series and Pilot Phase

Development of low cavitation tooling, semi-automatic assembly concepts and metrology plans

Delivery of low volumes for samples or clinical trials

Smart Solutions

Development of integrated connected technologies to track adherence to therapies and correct use of the device in clinical or commercial setting

Analytical Services

Component Screening & Selection:
Internal expertise to select suitable components and devices from a large portfolio

Analytical Development:
Full method development, transfer and optimisation of customer methods

In-vitro Characterisation:

- Delivered dose (DDU)
- Aerodynamic particle size distribution (APSD)
- Spray pattern and plume geometry
- Additional developmental testing such as drug adhesion testing, leakage testing, force profile testing for actuators and dose counters, degradation studies, accelerated shelf-life studies, device robustness testing
- MDI crimping and filling with conventional and low GWP sustainable propellants

Metered-Dose Inhalers

From our standard range of actuators and dose counting solutions, to canisters with novel surface treatment technologies, we advise on component selection, in-vitro characterization and offer tailored solutions for complex formulations. In addition, we support you whererever you are, be it locally or globally, we are always just around the corner for consultation and resolution.

Suitable for all propellants including low GWP propellants

MDI components suitable for solution or suspension formulations

Standard or customised actuator geometries designed to meet customer specifications

Actuators manufactured in an IOS 8 standard clean room environment

Pharmaceutical grade polymers and master batch colours to meet your market needs

Actuators with lower carbon footprint polymers available

Full portfolio of actuators, cans and dose counters available

MDI components designed to be compatible with all standard MDI Valves

Actuator labelling options available

4, 17, 19ml and bespoke can sizes. Available in a variety of aluminium and stainless steel substrates

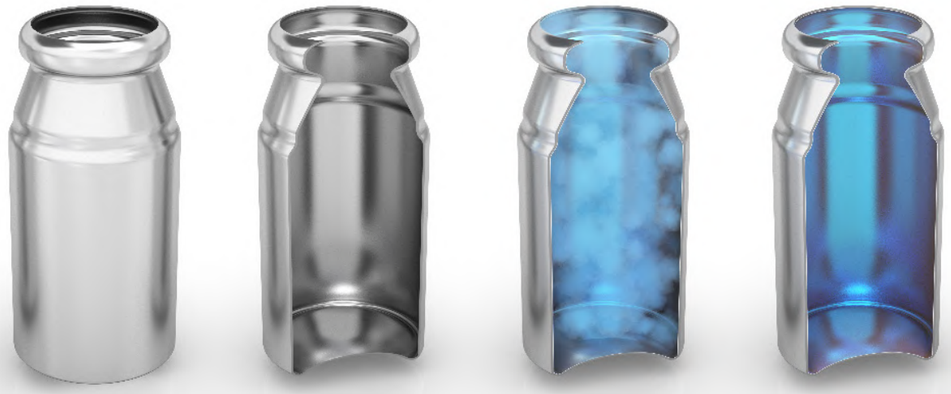
Can-in-can technology available allowing the same external canister size to be used for lower dosing requirements

Dose counters can be incorporated into our standard range of actuators or any customised actuator configuration

Dose counters available for 120 or 200 shot (dose by dose counter) with flexible pre-count

Plasma Surface Treatment

Our patented Plasma technology process for treating the internal surface of metered-dose inhaler canisters improves the surface energy properties of an MDI canister, helping to prevent drug degradation and drug adhesion inside the canister, ensuring the patient receives the prescribed dose.



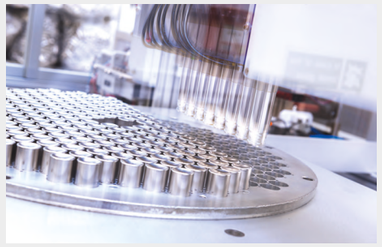
H&T Presspart's plasma process is a patent protected future proof technology

Rigorous testing shows that no extractables have been detected

The plasma process uses readily available industrial gases

The plasma process has a low carbon footprint

The process uses no solvents and produces no harmful waste products



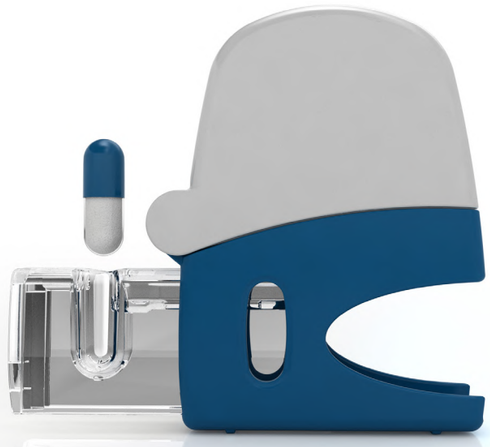
Dry Powder Inhalers

Dry Powder Inhalers are widely used to locally deliver medicines to treat patients with conditions such as Asthma and COPD. The most common types of devices are blister, reservoir and capsule-based devices, such as H&T Presspart's PowdAir Plus.

PowdAir Plus

Our PowdAir Plus capsule DPI device brings simplicity to patients in delivering any dry powder medicine. Neat and compact with only four components and no metal parts. Affordable inhalation drug delivery designed to make patients' lives easier.

- Designed for medium airflow resistance to be suitable for most Asthma and COPD patients
- Automatic capsule activation as the tray is closed
- The transparent capsule chamber of the inhaler allows for visual feedback on dose
- HPMC Capsule Size 3 compatibility



Sunriser Technology

H&T Presspart has developed a highly efficient technology that delivers dry powder formulations with fine particle fractions higher than current marketed devices. The technology is suitable for different types of formulations such as classic carrier-based formulations or spray-dried particles alone.

Discovery more about our Sunriser technology on our website

Cutting Edge Technologies

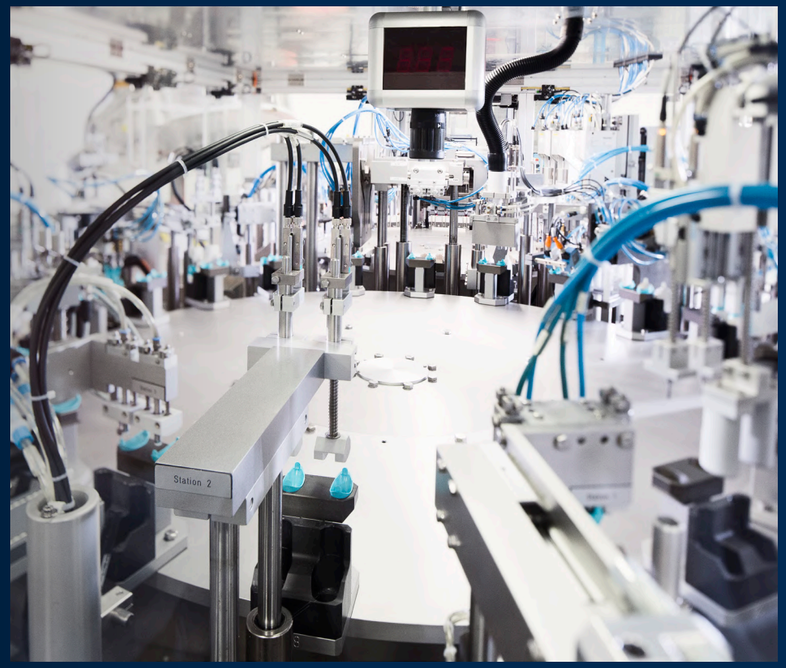
Cutting edge devices require cutting edge technologies. Our state-of-the-art manufacturing technologies ensure that we have the unique capability to manufacture some of the most innovative & reliable drug delivery devices on the market.

From low volume manual or semi-automatic solutions for concept devices or clinical batches, through to automated commercial production, we can offer a wide range of innovative and flexible manufacturing technologies to meet your needs.

Injection Molding

"Our state-of-the-art manufacturing technologies ensure that we are able to manufacture some of the most innovative & reliable drug delivery devices on the market."

Multi-component Assembly



60+

Injection molding machines with up to 64 cavities and 25+ automatic assembly lines

Deep Drawing

Surface Treatments

Tool Design

H&T PRESSPART

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Let's work together

Manufacturing

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