

2020 GSK supplier awards winner case study

Winner of the small-medium-sized company category



H&T PRESSPART
Marsberg



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H&T Presspart overview

- H&T Presspart are specialists in manufacturing drug-delivery systems and pharmaceutical components with over 450 employees across three manufacturing sites in the UK, Germany and Spain.
- Produce metered-dose inhaler (MDI) components such as coated and uncoated MDI canisters, actuators, dust caps

Plasma surface treatment overview

Together with their technology partner, Portal Medical Ltd., they have developed and industrialised a revolutionary submicron plasma technology process for treating the internal surface of MDI canisters.

This plasma treatment process produces a fluorocarbon nanolayer on the internal surface of the MDI canister. This low surface energy barrier between the canister and API prevents chemical interactions and drug adhesion in suspension formulations, which ensures the patient gets the correct dose. It also enhances drug stability in formulations where interactions with the aluminium substrate can lead to product degradation and reduced shelf-life.

The plasma treatment technology is licensed exclusively to H&T Presspart from Portal Medical and H&T Group supplies customers around the world with these canisters. Exact results have not been shared for confidentiality reasons.

Environmental benefits of the plasma surface treatment

- **Reduced energy consumption in production.** The plasma treatment significantly reduces the carbon footprint of the canister, with reduced energy consumption throughout the production process. The IP protected technology also utilises widely available industrial gases that are not threatened by environmental regulations.
- **Reduced raw materials as a result of a change in the canister design.** The plasma treatment means the canister can be designed differently, with reduced raw materials used in its design. This means reduced aluminum demand, reduced power required for deep drawing and reduced exhaust and noise pollution for manufacturing workers and the environment.
- **Emissions reductions beyond the sites.** This treatment would not only have advantages for the production sites but also for the community and environment as there would be less exhaust and CO₂ emissions from energy consumption. Potential changes in the air filtering system could also lead to a reduction in energy and water consumption.

