



# MEDICAL INJECTION MOULDING

Production and assembly  
in an ISO class 7  
CLEANROOM



Medical products and applications require a pure and clean working environment. Promolding has a new, fully operational cleanroom.

Clean injection moulding and assembly process guaranteed under ISO 14644 regulated conditions.



## Injection moulding for the medical sector

Plastics offer enormous freedom of shape and unlimited possibilities. Injection moulding is ideal for production of medical instruments and disposables.

Promolding has a lot of experience in developing, engineering and producing of medical products. Both complete high-tech instruments and practical related polymer components.



### Product development

The in-house product development department consists of a very extensive team of Industrial Designers, Medical Technologists, Polymer Chemists, Production Technologies and Injection molding specialists. By bundling the strong knowledge and expertise Promolding is also capable of developing functional, producible and problem solving precision product (parts) for our customers.

### Cleanroom injection moulding & assembly

Medical products require a pure and clean production environment. To prevent contamination Promolding has an ISO class 7 cleanroom. In this cleanroom, Promolding can guarantee a clean injection moulding and assembly process under ISO 14644 standardized conditions. This classification maximized the concentration of 352,000 particles of 0.5 µm per cubic meter; this air quality is more than 100 times cleaner than a clean factory environment.

There are 2 injection molding machines connected to the cleanroom:

- Full electric with 80 ton capacity
- 2K hybrid with 300 ton capacity



Using special oils and antistatic paint, both injection moulding machines are specifically designed for cleanroom production.

The new class 7 cleanroom is equipped with various assembly machines, laser welding equipment and a completely autonomous storage & handling system.

By using access gates, products can also be packed in the cleanroom, under which can be guaranteed that no more contamination takes place once the products leave the cleanroom.



### Control production process

Promolding has various laboratories and a fully equipped measuring room. Advanced computer animations, pressure measurements, flow behavior, thermal behavior and glued joints are tested, validated and verified. By a 3D micro meter (GOM), Promolding scans products and performs digital measurement and sampling checks.

It is about controlling the manufacturing process. The process is therefore pre-tested and fully balanced. Whether small or large series are produced, the quality of the products is monitored.

A new design requires various gradations of validation. Regular production requires frequent verification and validation are selected by customer need.

### Added value

Promolding provides customers with development and injection moulding of (technical high-quality) plastic products. In any phase of the process, we can support customers with knowledge and expertise. From complex issues up to injection molding of practical product components.

