mythentec
PLASTIC SOLUTIONS | SWITZERLAND

Showcase

RAPID OPTIMISATION AND INDUSTRIALISATION

Cultivation of different cells in a fully automated module is made possible through a specially developed and patented closure for cell culture bottles.

INITIAL SITUATION

Mythentec was involved in the development of new functionalities in the closure required for automation and revised the 3D data to ensure its suitability for plastic. Moreover, there was also a demand for industrialisation of all plastic parts and downstream processes in minimum time.

DEVELOPMENT

Re-engineering of all plastic parts in accordance with requirements and in close cooperation with the customer was successfully achieved in only one week. Development and integration of additional functions allowed the pre-assembly of a module and elimination of silicone seals. As a consequence, Mythentec also created the conditions for a simplified and more cost-effective production process. The required injection moulds were obtained from a competent partner in China and were available in only eight weeks for initial sampling.

INJECTION MOULDING

Each part of this project requires a different moulding technique. Methods employed include two-component injection, multi-slider tools with and without conversion options for product variants, a mould with a core puller required for a complex part geometry and a boring tool for creating the required thread.

FURTHER PROCESSING

Mythentec takes care of the sophisticated welding of diaphragms in filter components with subsequent testing of the weld and airflow. The module is then assembled in five steps and sent as a complete set for external sterilisation. Further processing is realised under enhanced hygienic conditions, and Mythentec guarantees consistent batch traceability.

INITIAL SITUATION

DEVELOPMENT

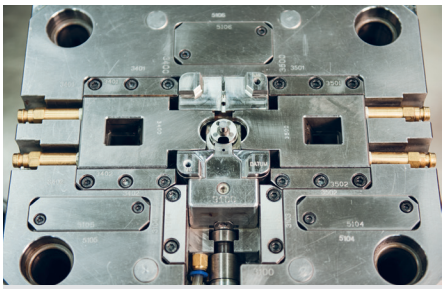
INJECTION MOULDING

FURTHER PROCESSING

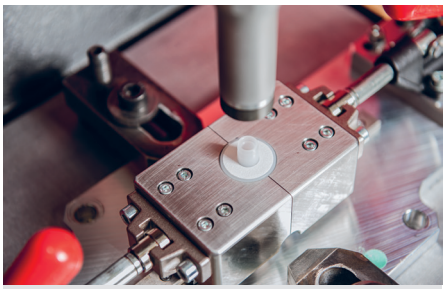
FINAL PRODUCT

KEY FACTORS

- One central contact for the customer
- Procurement and commissioning of tools abroad
- Industrialising of ultrasonic welding and installation
- Further processing under enhanced hygienic conditions
- Complete batch traceability for all articles



Complex moulds from China prove to be successful with close cooperation and support.



The diaphragm responsible for air dispensing and cleaning is welded in place using ultrasonic welding.

The gold-plated magnets are fitted under enhanced hygienic conditions.