

## **ENGEL and Hack Formenbau together against Covid-19**

# **High-volume production of test swabs to start shortly**

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**The demand for test swabs for nasal and throat swab tests will continue to grow strongly due to Covid-19. Injection moulding machine manufacturer ENGEL AUSTRIA and Hack Formenbau are jointly committed to ensuring the global supply of test swabs. By providing an integrated system solution and process technology consulting, they are helping plastics processors to launch high-volume production of two-component test swabs with a short lead time.**

The test swabs have a stable thermoplastic handle and a head made of a thermoplastic elastomer to make the examination less uncomfortable for the patient. Hack Formenbau developed this two-component design, initially with three different head design proposals. "We adapt the handle length and shape, the design of the swab head and the materials individually to suit customer requirements," says Gunnar Hack, CEO and owner of Hack Formenbau. The development objective is to combine high product quality with high-volume output and great cost-effectiveness. With a 32-cavity mould and a cycle time of 6 to 8 seconds, processors can achieve an output of up to 320 test swabs per minute and 460,000 test swabs per day with a single production unit.

### **Highest precision with the shortest cycle times**

High efficiency is ensured by the integrated production process, which ENGEL specifically adapts to the mould solution developed by Hack. The process is based on a tie-bar-less, hydraulic, two-component ENGEL victory injection moulding machine with an integrated ENGEL viper linear robot for fully automated removal and depositing of the swabs. The victory machine is equipped with iQ weight control for high process consistency. This smart assistance system from ENGEL's inject 4.0 program detects fluctuations in the raw material

and ambient conditions, and automatically compensates for them shot by shot by adapting the quality-relevant process parameters.

### **Sharing many years of experience**

ENGEL and Hack Formenbau collaborate closely on many projects, with a focus on high-precision applications for medical technology. "We have had excellent collaboration for many years. And our customers benefit from this", as Christoph Lhota, Vice President, ENGEL medical emphasises. "Our customers receive a complete system that is precisely tailored to their individual requirements and can get started with series production in the shortest possible time". Covid-19-relevant orders are processed with the highest priority at both Hack Formenbau and the ENGEL plants worldwide.

In the future, the mould and system solution will not be used exclusively for coronavirus test swabs. ENGEL and Hack Formenbau are also jointly developing highly efficient complete systems for the production of swabs for influenza tests or gynaecological examinations, for example.



ENGEL and Hack Formenbau jointly developed and optimised the process for high-volume test swab production. The mould solution, injection moulding machine and automation are precisely tuned for maximum efficiency and quality.

Picture: ENGEL

## **ENGEL AUSTRIA GmbH**

ENGEL is one of the global leaders in the manufacture of plastics processing machines. Today, the ENGEL Group offers a full range of technology modules for plastics processing as a single source supplier: injection moulding machines for thermoplastics and elastomers together with automation, with individual components also being competitive and successful in the market. With nine production plants in Europe, North America and Asia (China and Korea), and subsidiaries and representatives in more than 85 countries, ENGEL offers its customers the excellent global support they need to compete and succeed with new technologies and leading-edge production systems.

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