

The latest innovations for the medical and packaging industries

ENGEL Technology Symposium 2017

York / PA – April 2017

The manufacturing landscape is filled with continuously changing demands. At the upcoming Technology Symposium being held in York, Pennsylvania, ENGEL, along with an array of experts, will present the latest innovations to help injection molders succeed in this marketplace.

ENGEL North America, member of the ENGEL group, a world leader in the design and manufacture of injection molding machines and parts-handling automation, is hosting a complementary Technology Symposium in their newly renovated Technology and Training Center in York, PA. The two day event, being held April 26th and 27th, 2017, will devote one day to medical technology and the second day to technology for the packaging industry. The event offers presentations from industry and ENGEL experts discussing the latest innovations in technology, as well as a variety of molding technology in action.

The latest innovations delivered by industry experts

Each day of the Symposium will begin with technical presentations on a wide range of topics, focused on the industry of the day, delivered by experts in their field:

Day 1:

- Innovations for value-added performance – ENGEL medical, Jeff Hershey, ENGEL North America
- Incorporating regulatory affairs into the medical device value chain, Robert Schwenker, Saint-Gobain Performance Plastics
- Pushing the boundaries of machine intelligence, Joachim Kragl, ENGEL North America

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- Automation: A key to an efficient production, Jan Nietsch, Hekuma
- The changing market landscape of the healthcare industry, Perry De Fazio, Covington Associates

Day 2:

- High performance with high energy efficiency – ENGEL packaging, Michael Traxler, ENGEL North America
- High performance packaging mold technology, Jordan Robertson, Stackteck Systems
- Smart solutions for effective production, Michael Fink, z-moulds
- Pushing the boundaries of machine intelligence, Joachim Kragl, ENGEL North America
- Mission control meets space walk - building the future of manufacturing at ALPLA, Jodok Schaeffler, ALPLA

Technology in action

Each day, after breaking for a catered luncheon, the event will continue with time to examine a variety of integrated production cells in action, network with peers, converse with industry and ENGEL experts, and meet with event partners at the Partner Fair. The following equipment will be on display during the event:

Three components now molded in a single-component process

“scrub!” – is the name of a new interdental brush developed by pheneo (Bremen, Germany) that will soon be introduced to the market. Its manufacturing process was exclusively previewed in the ENGEL booth at the recent K 2016 show in Duesseldorf, as a world first. Until now, interdental brushes have consisted of three components which are usually produced in separate processes: the grip, a wire mesh and the filaments. Utilizing new technology from system partners ENGEL, Hack and Hekuma, up to 500 bristles can now be molded directly in single-component injection molding, together with the core and the grip.

Up to 96 cavities with integrated injection blow molding process

Injection blow molding makes it possible to achieve economical production of ready-to-use small containers in a single step. Until now, the number of cavities possible was limited. Together with its system partners Foboha (Haslach, Germany) and Alpla Werke Alwin Lehner (Hard, Austria), ENGEL has succeeded in developing an integrated process for use with multi-cavity molds, significantly reducing cycle time. Based on cube technology, up to 96 cavities are possible without compromising cycle time and accuracy. This significantly reduces unit costs for high production output.

Prevent rejects with a “smart machine”

The “smart machine” compensates for any fluctuations before rejects are produced. But how do you create a “smart machine”? At ENGEL, it is through use of iQ software products which continually analyze critical process parameters in order to identify and immediately compensate for deviations before defective parts are made. iQ weight control keeps the injected melt volume and the viscosity constant, and iQ clamp control determines the mold breathing to continually readjust the clamping force. ENGEL e-flomo monitors and documents all cooling and temperature control circuits of injection molds and independently regulates either the flow volume or differences in temperature. The fully integrated ENGEL viper 12 robot comes standard with iQ vibration control which not only detects oscillation in the robot’s movements, but also actively compensates for vibration caused by external influences.

Fully automatic processing of Liquid Silicone Rubber

Fully automatic molding of liquid silicone rubber in a high precision, high performance machine cell: all-electric drive technology, highly dynamic servo motors, an innovative energy recovery system and linear guidance of the moving platen provide the foundation. With unprecedented acceleration rates, the machine provides impressive process stability with fast cycle times. A four cavity duck bill mold, supplied by M.R. Mold & Engineering Corp., features fully automatic processing and in-mold slitting by a vertical axis demolding system which provides a renewable surface for every slit. The Silcomix liquid silicone dispensing

system provided by Dopag is designed to process all common liquid silicone rubbers from a variety of container sizes, and is balanced so as to use all but 1% of raw materials.

Quality and precision with an optimal price/performance ratio

The ENGEL victory hy-spex machine has an optimal price/performance ratio, while providing the quality and precision you expect from ENGEL. The tried-and-tested tie-bar-less design provides ample unobstructed space for the ENGEL easix KR-6 articulating robot to perform its required functions. The energy efficiencies of the design – bearing mounted precision guide rails, absence of tie-bar friction, and clamping force lock-in -- are increased by the ENGEL ecodrive system, which is standard equipment on the hy-spex. During the Symposium, an ENGEL victory 330/85 hy-spex, equipped with an easix articulating robot with 3D printed end-of-arm tooling, will run an 8-cavity hot runner connector mold.

Investing in the future

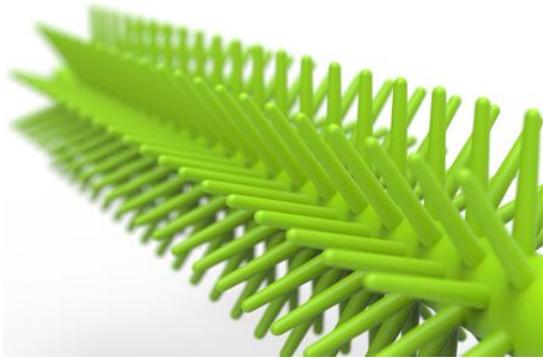
Providing education and information to customers – through technical symposiums and other events – is only one way that ENGEL invests in the future. The York / PA facility recently underwent a 2.5 million USD modernization to reflect the requirements of the organization. This included refurbishment to the offices, technical and training centers and showroom.

“The new technical and training centers represent ENGEL’s commitment to servicing our customers,” states Wolfgang Degwerth, Vice President of ENGEL North America. “We offer technology and machine demonstrations, mold tryouts, and an extensive customer training program.”

“ENGEL is also investing in the strengthening of its sales and aftersales support team,” adds Mark Sankovitch, President of ENGEL North America. “We are expanding our coverage to better support our customers across the U.S.A. and Canada, as well as adding specific market expertise.”

For more information on the ENGEL Technology Symposium and to register:

<https://event.engelglobal.com/event/york2017>



Up to 500 bristles can be molded with the single-component process. (Pictures: ENGEL)



At the Symposium, an all-electric ENGEL e-motion 170/110 T injection molding machine is being used to produce interdentary brushes. The presentation showcases a highly integrated, automated production cell in Hekuma's modularized HEKUflex design. (Picture: ENGEL)



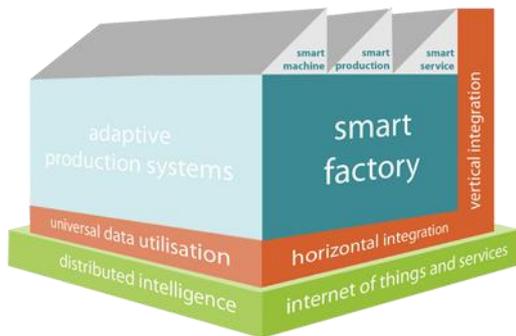
The newly redesigned ENGEL e-speed 500/90 now achieves even greater dynamics, precision and energy efficiency. (Picture: ENGEL)

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ENGEL demonstrates how smart machine's potential can be utilized in practice with the manufacture of the inject 4.0 logo on an all-electric, tie-bar-less ENGEL e-motion 170/85 TL US injection molding machine.



Smart factory means the systematic use of process and production data, the networking and integration of production cells, machines and components and decentralized use of adaptive assistance systems results in higher productivity, machine availability, quality and flexibility.

ENGEL North America

From facilities in the United States, Canada and Mexico, ENGEL North America offers its customers a single source for design and manufacture of injection molding machines for thermoplastics and elastomers, a full range of technology modules for plastics processing and a full scope of automation solutions. With nine production plants in Europe, North America and Asia (China and Korea), and subsidiaries and representatives in more than 85 countries, ENGEL with headquarters in Schwertberg, Austria, provides its customers the global support they need to compete and succeed with new technologies and leading-edge production systems.

For more information, visit <http://www.engelglobal.com>

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