



## Integrated Solutions For Medical Molding

**YORK, Pa. – June 23, 2009 – ENGEL’s exhibit at NPE2009 includes a fully integrated and automated molding cell for the manufacturing of PP pipette tips.**

ENGEL, a world leader in the design and manufacture of injection molding machines and part-handling automation systems, presents a fully integrated system for the manufacturing of PP pipette tips on a 110 ton ENGEL e-max all-electric machine. In a cycle time of just 6 seconds, parts are molded in a 32-cavity precision mold, extracted by a side entry robot, inspected by a vision system and deposited on racks sorted by cavity. The pipette tips with extremely long and thin mold cores require high speed injection for excellent product quality. Pipette tips are used in medical laboratories in automatic analysis systems.

“The all-electric ENGEL e-max offers several benefits for this highly demanding medical molding application, such as the high-performance injection unit which is essential for the reliable molding of long, thin cores,” said Steve Braig, president and CEO of ENGEL North America. “Additionally, the e-max has a state-of-the-art dynamic mold protection system which is essential for this type of tool. The e-max is well suited for clean, medical molding due to lubrication free tiebars and enclosed belt drives.”

For additional energy savings, ENGEL has installed Xaloy’s nXheat™ induction barrel heating, which provides additional energy savings for barrel heating, and improves temperature control for better quality and less scrap, compared with conventional heater bands.

-more-



## The machine

The ENGEL e-max offers the highest levels of performance, precision and flexibility in a cost-effective package that fits a small industrial footprint.

“The e-max is the all-electric solution for many medical molders looking to reduce their plant energy costs while maintaining superior injection performance,” explained Braig. “The e-max provides oil free tiebars and encapsulated belt drives, making it extremely suitable for use in cleanroom operations.”

The ENGEL e-max was engineered to offer superior technology in a compact package:

- A compact design for a small footprint of only 13 x 4 feet for the 110 Ton machine
- 1.4 second dry cycle time for increased productivity
- High-performance injection units with peak pressures of up to 40,600 psi and injection speeds up to 17.7 in / sec, with exceptional repeatability and shot-to-shot consistency
- Low friction platen movement for reduced energy consumption

In addition, the e-max features highly-integrated control and parallel drive technology for increased performance, and is constructed with large tiebar spacing that allows a large versatility in mold selection.

The ENGEL e-max, in sizes from 55 to 200 US Tons, is particularly suited for such applications as medical, consumer and electronic components. It is designed and manufactured to ENGEL’s stringent quality and reliability standards.

“The e-max offers high injection speed while maintaining high injection pressure – a performance usually not seen in economically-priced all-electric machines,” said Braig.

-more-



Xaloy's nXheat system uses a high-frequency power supply and helical induction coils to generate heat directly within the barrel wall. A thermal insulating layer is interposed between the coils and barrel to combat heat loss, increase efficiency and improve control response.

-30-

#### **ENGEL North America**

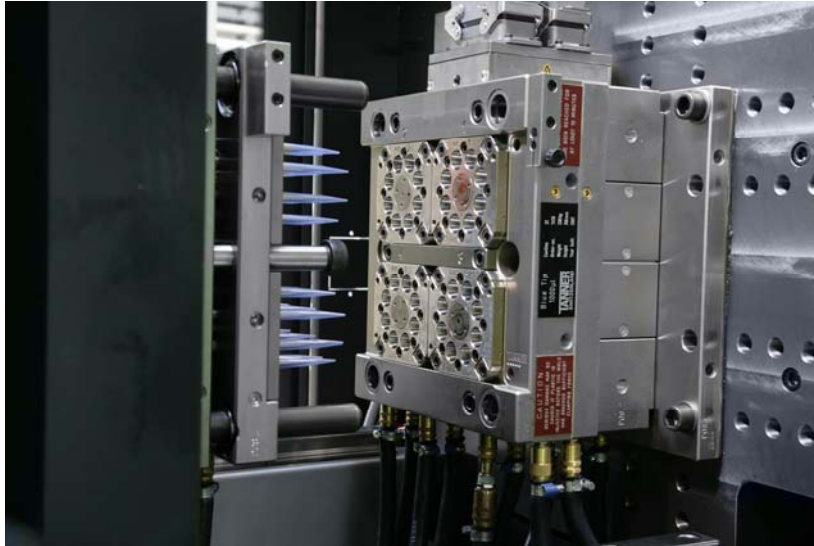
From facilities in the United States, Canada and Mexico, ENGEL North America provides its customers a single source for design and manufacture of injection molding machines for thermoplastics and elastomers, a full range of plastics processing technology modules and a full scope of automation solutions. With eight production plants in Europe, North America and Asia (China, Korea), subsidiaries in 17 countries and representatives in over 70 countries, ENGEL North America provides its customers the global support they need to compete and succeed with new technologies and leading-edge production systems. For more information, visit [www.engelglobal.com/na](http://www.engelglobal.com/na).

#### Contacts:

Joann Cathcart, Marketing Communications Coordinator, ENGEL North America  
545 Elmira Road, Guelph, Ontario, Canada, N1K 1C2, Tel.: 519-836-0220,  
fax: 519-836-7116 Email: [joann.cathcart@engelglobal.com](mailto:joann.cathcart@engelglobal.com)

Gerd Liebig, Group Marketing Director, ENGEL AUSTRIA GmbH  
Ludwig-Engel-Strasse 1, A-4311 Schwertberg/Austria, Tel.: 011 43 50 6200,  
Fax: 011 43 50 620 3009  
Email: [gerd.liebig@engel.at](mailto:gerd.liebig@engel.at)

Julie Pompa, APR, The Lauerer Markin Group  
1700 Woodlands Dr., Maumee, Ohio 43537 USA Tel.: 1.419.887.6827, Fax: 1.419.893.1050  
Email: [juliep@LMGnet.com](mailto:juliep@LMGnet.com)



ENGEL emax 110 medical\_mold.jpg



ENGEL emax 110 medical\_pipette.jpg