

## PRESS RELEASE

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### Sumitomo (SHI) Demag Demonstrates Innovative In-Mold Labeling Technique on the New SE-EV-HD All-Electric

- **The new SE-EV-HD high-duty all-electric will mold soup/beverage cups employing a unique in-mold labeling technology**

**[ORLANDO, FL, NPE BOOTH W623 – March 23, 2015]**...Focused on bringing innovative molding solutions to the market, Sumitomo (SHI) Demag is molding “Safe Handling” cups on its new SE-EV-HD high-duty all-electric at NPE 2015.

The patented SH (Safe Handling) Cup from K·M Planning Ltd. is designed with ribs that protect the hands from the heat of the hot soup or beverages in the cup. Two sizes of ribbed cups and the in-mold labeling process are completed in a single injection cycle. The process fits the label between the ribs and the surface of the cups. This in-mold labeling technique allows decoration and thermal insulation of the cup and contributes to high productivity of the finished product.



*The two-cavity, hot-runner, valve-gated mold, which runs on a 20-second cycle, produces two PP cups weighing 26 and 22 grams. The close-up shows the label between the ribs and the cup's surface.*

The new SE-EV-HD high-duty all-electric is designed for thicker-walled parts and parts with a combination of thick and thin walls. Ideally suited for parts with cycle times 15 seconds and up, the high-duty series provides longer and higher pack and hold pressures — including full pressure for up to 40% of the molding cycle —

**[MORE]**

## Sumitomo (SHI) Demag Demonstrates Innovative In-Mold Labeling...continued

while maintaining exceptional molding stability.



*The high-duty SE-EV-HD all-electric is available in three model sizes from 112 to 202 U.S. tons.*

The SE-EV-HD combines the high-pressure capabilities of a hybrid/hydraulic with all the advantages of an all-electric: energy efficiency, clean/quiet operation, less maintenance and operating costs, and improved precision and repeatability. The high-power, injection servo system enables longer hold times and prevents sink marks and cosmetic issues with thick-walled parts. The machine series is also flexible enough to handle thin-wall molding as is being shown by the SH Cup molding demonstration.

Other advanced features of the SE-EV-HD include:

- High-contact nozzle force with selectable settings
- Toggle linkage lock-up mechanism that uses no electricity to hold clamp closed
- Wider tie bar spacing and improved platen support system (linear guidance) for large, complex and heavier molds
- Standard 4x16 in. ejector pattern (SE180EV-HD)
- Z-Molding's Flow Front Control (FFC) System takes advantage of the energy in the flow front of the resin to complete filling in an even fashion as opposed to forcing material into open areas and thus flashing or over-packing the areas that were already filled.
- Z-Molding's MCM System works together with the machine's Clamp Force Correcting System to compensate for the thermal expansion of the mold. Using a high precision rotary encoder and tie-bar-mounted strain gauge sensor, this feedback system keeps clamping force constantly stable, even at low clamp force settings.
- Z-Molding's Simple Process Setting (SPS) System allows easy setup and operation while helping the operator avoid oversights and mistakes.

**[MORE]**

## Sumitomo (SHI) Demag Demonstrates Innovative In-Mold Labeling...continued

Contributors to the molding demonstration include:

- Mold: K·M Planning Ltd.
- Labels: Nihon Cellonpack Co., Ltd.
- Robot and conveyor: Yushin America, Inc.
- Resin: LioChem, Inc.
- Chiller and mold temperature controller: Advantage Engineering, Inc.
- Loader: Comet Plastic Equipment, LLC

Specifications for the SE180EV-HD demonstration machine:

202 U.S. tons clamping force

C430HD injection unit with 40 mm screw

Maximum shot wt. (PS): 192 grams (6.8 oz)

Maximum injection pressure: 31,618 psi (2223 kg/cm<sup>2</sup>)

Injection rate: 15.3 in<sup>3</sup>/s (251 cm<sup>3</sup>/s)

Maximum injection capacity: 12.3 in<sup>3</sup> (201 cm<sup>3</sup>)

Sumitomo (SHI) Demag's worldwide group of companies is dedicated to helping plastics processors compete more effectively in the global market. The company manufactures a wide range of high-precision IM machines for diverse applications. Its all-electric platform (SE and CL series) spans from 8 to 935 U.S. tons, including micro to mid-sized, high-speed, packaging, high-duty, vertical, insert and high-speed multi-shot machine series. Ultra-high-speed hybrid machines (EI-Exis SP and Systec SP series) are offered in models from 165 to 825 U.S. tons for packaging and other thin-wall applications. Configurable, high-performance hydraulic and toggle machines (Systec Series), including multi-component models, are also provided for applications from 39 to 2248 U.S. tons. Equally important, Sumitomo (SHI) Demag has an extensive worldwide network, ensuring customers of sales, parts, training, service and processing support when and where it is needed.

Information on the North American operations of Sumitomo (SHI) Demag can be found at: [www.sumitomo-shi-demag.us](http://www.sumitomo-shi-demag.us)

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