



# Hot runner innovations

New design trends and increasing demands for advanced hot runner systems can be addressed with a broad range of new and upgraded products on the market. **APN** reports



The SMHT/DMHT multi nozzle line is available from 2 up to 4 tips and a pitch circle diameter from 16mm (2 tips) up to 40mm can be realised

**S**ynventive Molding Solutions has introduced a new interactive hot runner system design tool that allows fast, easy download of 3-dimensional CAD models of the company's hot runner system manifolds and nozzles. Available online at ([www.synventive.com](http://www.synventive.com)), these 3D models are available in numerous electronic formats.

This interactive tool is one of the highlights of the redesigned Synventive website, which also features product details, new technologies, and market-specific hot runner system solutions. The site was recently launched and is available in English, German and Mandarin Chinese.

"This new service greatly simplifies the mould or hot runner design process," says Mark Moss, Synventive's executive vice president - Market and Product Strategy. "Mould designers can now access 3D models of the entire Synventive hot runner product line in just a few clicks of the mouse."

This new service makes it easier for a mould designer anywhere in the world to download and 'drop-in' the Synventive hot runner manifold and nozzle drawings into their mould design drawing. It allows for fast conceptual designs, which speeds up the hot runner/mould design and build process and in turn speeds end product time to market.

Customers have requested this type of service, says Moss, to make their job easier and to increase accuracy during the critical design stage of any hot runner project. "It's not unusual for us to work with customers on a single project where the key players in the mould design, mould build and moulding process are on different continents," he says. "Anything we can do to enhance communication and accuracy is a win-win situation for all involved."

## A new line of nozzle

Likewise, with the SMHT/ DMHT multi nozzle line Günther Hot-Runner Technology ([www.guenther-hotrunner.com](http://www.guenther-hotrunner.com)) has launched a

new line of nozzle, which gives the customers the ideal scope in designing their hot runner systems. Carsten Brethauer, general manager of Günther Shanghai, claims: "At the Chinese market, we recognise a trend toward technically high grade thermoplastic resins containing fillers and flame retardants in connection with the demand for small nozzle pitches and shot weights." This new series is developed in order to meet these raising demands.

According to Günther, the nozzle series is perfect for the vertical multi-tip gating of small parts and that with close cavity spacing. "No matter how high the requirements are in terms of gate position, tear-off quality and shot weight, the SMHT/DMHT nozzle line proves to be flexible and extremely adaptable to complex demands," says Carsten.

Another advantage for applications is that the temperature of each tip on the SMHT/DMHT nozzles can be regulated separately. The injection is direct and is also suitable for the internal injection of moulded parts. The nozzles allow a gentle flow of melt and permit the use of compact multi-cavity moulds with close cavity spacing.

Furthermore, the SMHT multiple-nozzle types also provide excellent thermal separation and the patented two-component shaft. This allows exceptional insulation in the front shaft area and keeps the heat loss between the hot-runner nozzle and cavity extremely low.

## Advanced performance

DME Company ([www.dme.net](http://www.dme.net)) is pleased to bring moulders and mould makers its inclusive upgrade to the popular Stellar 4000 micromoulding product line. The 5000 series now offers customers enhancements to the standard format for commodity material applications, and a high performance format for engineering and filled material applications.

The Standard 5000 series features a solid titanium point gate retainer for improved

heat isolation, and a shielded mini-coil heater that quickens heat transfer for commodity grade materials. For harder-to-process applications and materials, the High-Performance 5000 Series includes an embedded brass heater for optimized heat transfer with engineering grade materials, and a thru-hole tip sub-assembly that offers superior wear resistance.

"At DME, our time is invested in developing superior, quality products for our customers' evolving moulding needs," says Craig Kovacic, global manager of Hot Runner Systems. "And to ensure customer satisfaction, we are continually finding new ways to enhance existing product lines to give our customers that extra advantage over complex moulding projects."

All Stellar 5000 round and rectangular multi-threaded nozzle assemblies feature high-performance gate detail geometry for application flexibility. Compression nozzles are also available for customised pitch designs.

The DME line of Stellar Micromoulding hot runner systems features highly conductive tip designs and precise heat profiling for hard-to-process materials like PET, PBT and PA. This and other high-performance features of the Stellar 5000 contribute to superior performance, exacting precision and flexibility for modular construction ranging from very small part moulding to high-cavitation moulding.