

# PLASTICS Machinery & Auxiliaries

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## FEATURES

### 22 Blowmolding: packaging segment strong at NPE 2006

The markets for plastics bottles have exploded over the last decade, going from almost nowhere to almost everywhere, including resistant markets such as beer and other alcoholic beverages.



### 24 Compounding growth by leaps and bounds

More choices, higher filler levels, and greater cost pressures combine to change the industry.

### Plus . . .

Size Reduction Equipment Buyer's Guide, Extrusion Downstream Equipment Buyer's Guide, and more than 50 new products, including

### 10 Product Focus: Mold components



### 38 Robot

DA20 dual-arm robot from Motoman.  
①PM&A InfoLink 150



### 38 Polymer tester

Rheometer VTM polymer test instrument from Dynisco.  
①PM&A InfoLink 153



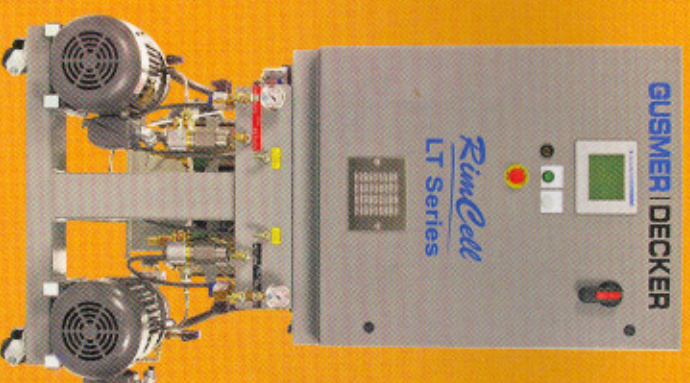
### 36 Machining center

MCC-VG Series horizontal machining centers from Makino.  
①PM&A InfoLink 147

### 39

### RIM metering and dispensing

RimCell LT metering and dispensing unit from Gusmer/Decker.  
①PM&A InfoLink 155



### 10

### Hot runner

Sidagate hot runner nozzle from Manner International.  
①PM&A InfoLink 103



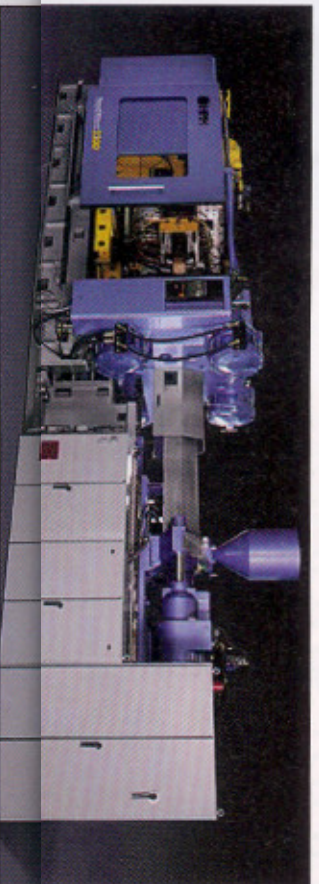
# In Process

## MIX-AND-MATCH MACHINE CONTROLS

Using a modular control system from different vendors, Freedom Series injection molding machines from HPM-Sandretto reportedly improve performance while lowering costs. The open-system design is built off a Profibus high-performance Fieldbus protocol. This structure allows control function to be distributed among several different systems instead of all functions running through a central control.

A Delta Computer Systems RMC100 motion control powers hydraulic motion control while a Siemens industrial PC677 running windows XP with Siemens WinAC PLC software handles system-control functions. Siemens WinCC software is used for human-machine interface.

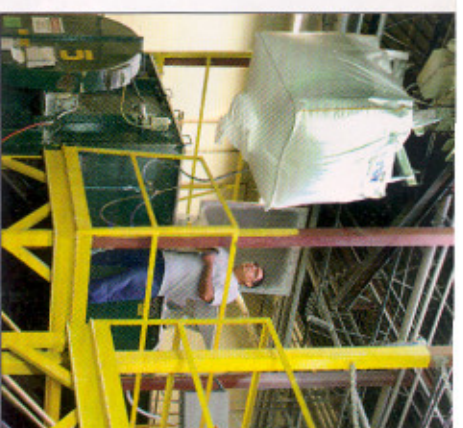
HPM reports that the Delta RMC controls are able to move from hydraulic motion control based on actuator position to control based on machine pressures with relative ease. The machines feature proportional hydraulic servovalves for operating efficiency. The company also reported faster loop-time rates—the amount of time needed for the hydraulic control to close the gap between the desired state and the actual hydraulic performance. For more information on Delta, visit [www.deltamotion.com](http://www.deltamotion.com). To contact HPM, go to [www.taylorvind.com](http://www.taylorvind.com).



## Blenders bring aroma to resin

Two custom-designed paddle blenders from Munson are used to integrate fragrances into cellulose acetate resins, producing clear amber and colored cellulose grades, with a choice of up to 30,000 scents. Custom compounder Rotuba Extruders recently launched the Auracell line of cellulose compounds, and uses the blenders to integrate aromas into the resin. The material reportedly absorbs the smells efficiently and offers a natural breathability, which keeps the products strongly scented for up to five years. Rotuba says that since the scent is integrated throughout the resin, it has a longer service life than competitive scented coatings, which can wear off.

Rotuba uses two customized Munson blenders with a working volumetric capacity of 225 ft<sup>3</sup>, specifying the machines in part because of the ease of cleaning the paddles due to their low surface area. The company con-



pounds cellulose acetate, additives, and other chemicals in each blender at 180°F-200°F. After mixing, a valve at the bottom of the drum empties the compounded materials for extruding and pelletizing, with batches averaging 4000 lb.

To meet the product and plant's unique requirements, the blenders feature a compact footprint, accomplished by designing the gearbox and drive under the machine rather than on its side. This feature saves approximately 12 ft<sup>2</sup>, with the two blenders occupying a combined footprint of 50 ft<sup>2</sup>. The blenders also feature heat jackets, carbon-steel tanks, and stainless steel covers. An air-purge system frees the seals of contaminants since the powder-like cellulose material can damage them. The units run 24/5, and have performed well enough that Rotuba is considering a third Munson paddle blender. To learn more, visit [www.rotuba.com](http://www.rotuba.com) or [www.munsonmachine.com](http://www.munsonmachine.com).

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