



GRAHAM ENGINEERING

Press Release

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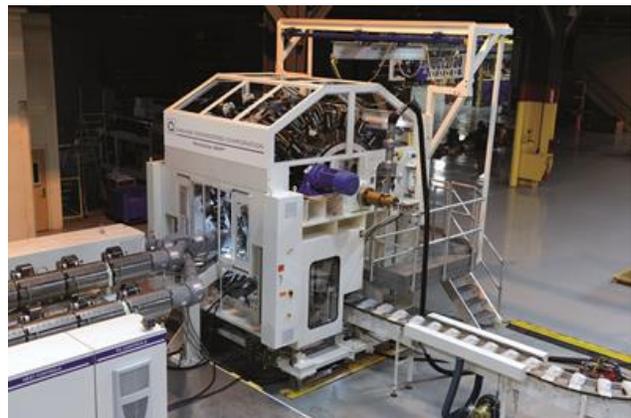
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**INNOVATIVE BLOW MOLDER FROM GRAHAM ENGINEERING OFFERS THE PRECISION AND OUTPUT OF A GRAHAM WHEEL WITH THE FLEXIBILITY OF A SHUTTLE**

***Proprietary Modular Clamp and Variable Pitch Make New Revolution MVP® System Configurable between 12 and 24 Stations and Up to 100 Positions on the Same Platform, Producing Bottles up to 16 in. (40cm) Tall at Up to 8 rpm***

The Revolution MVP® system, the latest addition to Graham Engineering Corporation's flagship Graham wheel blow molding machine portfolio, comprises two proprietary innovations: a self-contained, modular clamp design, and a variable pitch feature.

Combined with the Quick-Change™ mold system, this radically new design offers the precision and output of a Graham wheel with the versatility of a shuttle. [View a video](#) of the Revolution MVP system in production.



Key features of the system include:

- Reconfigurability between 12 and 24 stations
- Ability to produce bottles up to 16 in. (40cm) tall
- Capability of varying bottle height up to 28% within a configuration
- Quick-Change™ molds at about 5 minutes per station
- Capability of up to 8 rpm, with bottles per hour capacities of 11,520 for single-parison operation and 46,080 for dual-parison, neck-to-neck operation

The Revolution MVP system offers unprecedented flexibility from a simple change of molds, to a change of height within a configuration for running a different bottle, to completely changing the wheel to a new configuration with a different number of stations.

**Innovation: Modular clamp station**

A key Graham Engineering innovation at the heart of the Revolution MVP is the modular clamp station. Each clamp station is independent of the others and all forces are self-contained within the clamp. Water manifolds through the platens to facilitate a mold change, and individual clamps can be removed for offline maintenance to reduce downtime. This modularity enables the user to vary the number of clamp stations from 12 to 24 on the same platform and configure the wheel based on the application and bottle height.



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### **Innovation: Variable Pitch**

Variable pitch creates a multiplier effect, enabling up to 100 possible positions on the same platform. This allows a range of bottle sizes to be run on a single platform and also provides flash optimization at each bottle height, particularly important for multilayer applications. Each clamp station is adjustable from 39 to 47 inches (in 1-inch increments). It takes about five minutes per clamp station to vary the pitch with a simple mechanical adjustment.

The Revolution MVP offers unprecedented flexibility and can be custom configured for a range of applications. The system can comprise up to ten extruders in sizes from 40 to 175mm for monolayer, trilayer, multilayer coex, or view stripe applications. Easy to start up, the Revolution MVP produces good bottles in 4 or 5 revolutions, with a stabilized process in 10 or 15 minutes. In-mold labeling (IML) is available at rates up to 120 bottles per minute, and bottle takeout options include rotary or star wheel. The system features the award-winning Graham Engineering XBM Navigator® control system with a 15 inch touchscreen operator panel.

“Globally known for innovation and our flagship wheel systems, we think of Revolution MVP as ‘the wheel reinvented’,” said Rob Schroeder, Graham Engineering business development director – blowmolding systems. “Our goal with this innovation is to extend the precision and output of our wheel platform into multi-bottle or higher changeover environments for leading brand owners and the converters who serve them.”

The first Revolution MVP is in production with a leading global CPG producing HDPE handle-ware with IML. [Learn more](#) about this innovative new system.

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