Revolution MVP® rotary wheel blow molding system

The wheel, reinvented™

The Graham Engineering Revolution MVP® rotary wheel blow molding system provides the precision & output of a Graham wheel with the flexibility of a shuttle.

Key features of the Revolution MVP system:
• Reconfigurable between 12-24 stations
• Able to produce bottles up to 16" (41cm) tall
• Capable of varying bottle height up to 28% within a configuration
• Quick-Change™ molds ~5 minutes per station
• Capable of up to 8 RPM & 11,520 BPH (single parison) — 46,080 BPH (dual parison, neck-to-neck)

Unprecedented flexibility
If you want to simply change out molds and/or height within a configuration to run a different bottle, the Revolution MVP readily enables. Or if you need to change the wheel to a new configuration with a different number of stations, the system likewise enables. From 12 to 24 stations, the choice is yours. And with the Variable Pitch feature, there are 100 possible positions, all on the same platform.

Innovation #1: the 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 & all forces are self-contained within the clamp. Water manifolds through the platens & individual clamps can be removed for offline maintenance to reduce downtime. This modularity enables the number of clamp stations to vary from 12 to 24. This in turn enables the configuration of the wheel to vary based on application & bottle height.

Our Revolutionary new Modular clamp design combined with the new Variable Pitch feature form the basis for the Revolution MVP. Combined with our Quick-Change mold system, this radical, new design offers the precision & output you expect of a Graham wheel along with the flexibility & ability to reconfigure of a shuttle.

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Innovation #2: Variable Pitch

While the modular clamp design enables the number of stations to vary from 12 to 24 on the same platform, the variable pitch innovation creates a multiplier effect enabling 100 possible positions. This not only enables a range of bottle sizes up to 16” in height to be run on a single platform, but also provides flash optimization at each bottle height, particularly important for multi-layer applications. Each clamp station is adjustable from 39” to 47” in 1” increments. It takes ~5 minutes per clamp station to vary the pitch in a simple process whereby bolts are loosened on each side of the clamp, the radius is adjusted inward or outward, the pin reset & the bolts retightened.

Though the Revolution MVP offers unprecedented flexibility, it can be custom configured for your range of applications. The system can comprise up to ten extruders in sizes from 40mm up to 175mm for monolayer, trilayer, multilayer coex, or view stripe applications.

Easy to start up, the Revolution MVP produces good bottles in 4-5 revolutions with a stabilized process in 10-15 minutes. Single- or dual-sided IML is an available option at rates up to 120 BPM. Takeout options include rotary or star wheel.

Integration with downstream components is carefully engineered to maximize the throughput & quality of the desired end product.

The system features the award-winning Graham Engineering XBM Navigator® control system with a 15” touchscreen operator panel.
  - Intuitive navigation
  - Integrated screen map & help pages
  - 2 keystrokes maximum to any screen
  - Closed-loop extruder control
  - Operator-adjusted speeds
  - Set value change recording by operator
  - Alarm history reports
  - Integrated trending package
  - Internet connection for remote support & trouble-shooting
  - Security control via password
  - Integrated recipe manager
  - Detailed machine manual accessible via HMI