An activeGate® Control Technology

eGate®

For Large Part Applications

Electric Actuation for Superior Part Quality
Synventive is the world’s leading manufacturer of hot runner systems and patented activeGate® control technologies. Our latest electric actuated system, eGate 2.0 is now available for large part applications. Synventive’s expanding portfolio ranges from simple monitoring systems, to fully closed loop pressure control and comes with over 20 years of experience, ensuring the optimal technology for your application.
Synventive first introduced eGate for smaller part molding in 2010. Synventive is now introducing the next generation eGate 2.0, for large part applications.

Precise all electric control of each valve pins position, speed, velocity and stroke, capable of delivering:

- Optimal cosmetics for class A surfaces
- Superior molding flexibility
- Warpage reduction
- Clamp force reduction
- Part weight reduction
- Greater application flexibility

**eGate® benefits**

**Now available for Large Part Applications**

- Complete pin position control
- Responsive, precise, repeatable
- Clean, quiet, energy efficient

**Injection Molding Process Control**

- Control Flow Front Velocity
- Manipulate Packing Pressure
- Manipulate Flow Rate
- Ability to Trigger off Priamus Pressure or Temperature sensors in the Cavity
- Shot to Shot Consistency
- Gate to Gate Consistency
- Faster Mold Start-Up
- Reduced Scrap Rate
- Improved Process Efficiency

**Part Benefit**

- Improved Part Cosmetics
- Control Knit Lines
- Improve Dimensional Control
- Feasibility of Challenging Family Tools
- High Precision Multi Cavity Suitability
- Enabled Filling of Complex Part Geometry
Independent pin movements control allows user to easily define individual valve pins: Position - Speed - Acceleration - Stroke

**Conventional Open | Close**
Pins open at full speed for the entire stroke and close at full speed.

**Flow Front Speed Stabilization**
Pin initially opens at reduced speed for a set distance after which it returns to full speed for the remainder of the opening stroke in order to control initial release of pressurized material behind delayed pin.

**Balance Control**
Pin opens at full speed to an intermediate position and stays in that position until transfer to restrict filling out of that nozzle. Pin then opens to full stroke for unrestricted packing.

**Pack Control**
At transfer pin moves to an intermediate position for differential packing.

**Complex Movements**
A combination of multiple types of moves can be made in a single cycle.
eGate® components

**eGate Hot Runner System**
- Bolt onto the manifold for easy install
- Compact footprint maximizes tool integrity
- Small stack height
- Individual cooling
- Individually cooled motors with thermal switch
- Compatible with magnetic clamping
- Maintenance free motor

**eGate User Interface**
- New easy to use intuitive interface
- Simple recipe recall and run
- Sequence Plot overview
- Mold Map feature
- Simple Drag and Drop editor
- Multiple varying levels of control permissions

**eGate Controller**
- 220V Single Phase eGate controller available in 8 or 16 zone configurations
- Accepts digital input signals via the Ether CAT communication protocol
- Cavity sensor triggering compatibility
Determined... driven... totally focused on our customers.

Through ongoing collaboration with customers, we’re focused on one objective: to develop the most effective hot runner solution for the specific application, giving customers precision-control over injection molding and ensuring reliable, trouble-free operation. Partner with us and your business can rely on 45+ years of experience, industry-leading technology, backed by unprecedented support for your projects.

Synventive has manufacturing operations in North America, Europe and Asia, each with its own manufacturing, design, and research and development departments.

Global Solutions - Delivered Locally
www.synventive.com

The Americas
Synventive Molding Solutions Inc.
10 Centennial Drive
Peabody, MA 01960, USA
Tel.: +1 978 750 8065
E-Mail: info@synventive.com

Europe
Synventive Molding Solutions GmbH
Heimrodstr. 10
64625 Bensheim, Germany
Tel.: +49 (0)6251/9332-0
E-Mail: infohrde@synventive.com

Asia
Synventive Molding Solutions (Suzhou) Co.Ltd.
12B Gang Tian Industrial Square
Suzhou Industrial Park, China 215021
Tel.: +86 5126283 8870
E-Mail: infohrcn@synventive.com

BARNES MOLDING SOLUTIONS

Molding Solutions, a strategic business unit within Barnes Group, includes highly respected brands in plastic injection molding tooling, hot runners and controls. Molding Solutions offers a comprehensive portfolio of advanced technologies and value-added services, delivering premium tool-based solutions across a broad spectrum of applications.