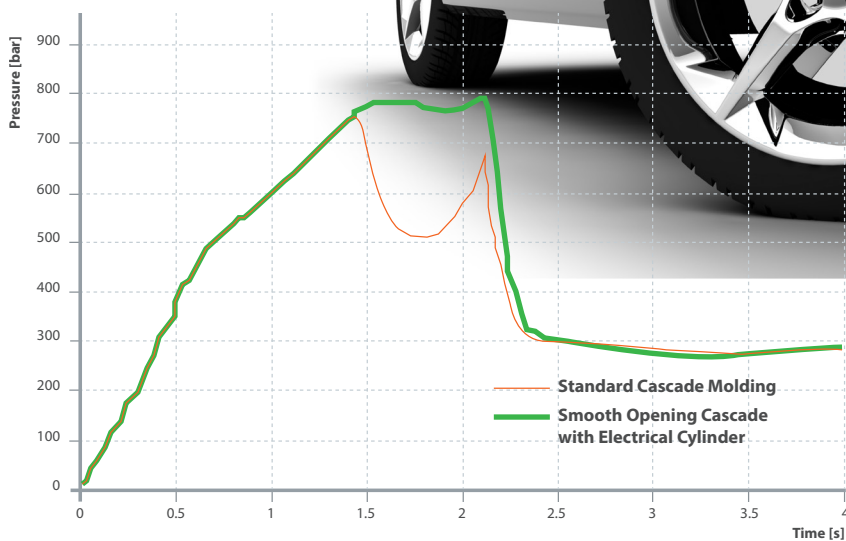


WHAT YOU HAVE  
ALWAYS DREAMED OF.  
**ONLY BETTER.**



Total control of the process for **class 'A'**  
**large surfaces and optical parts.**

**The new FLEXflow.**  
Accurate, stable and easy-to-use  
**Electrical Cylinder** for top quality.



# The new FLEXflow.

## The turn key solution for your top quality applications.

The new FLEXflow is an electrically-driven system to adjust valve pins for any application that requires sequential molding with peak quality, accurately and with total control.

Power is not transmitted by means of air or oil, but generated using an electrical engine. This ensures complete independent management of each pin opening and closing stage by precisely controlling each valve pin position, acceleration, velocity and stroke.

This results in optimal gate quality and part filling with the consequent removal of flow marks and welding lines. Optimal control of both filling and packing time also ensures direct benefits on part warpage.

The new FLEXflow electrical cylinder is available for M, G and A series (5, 7, 10 mm pin diameter) and can work up to a maximum pressure of 2000 bar.

### MAIN APPLICATIONS

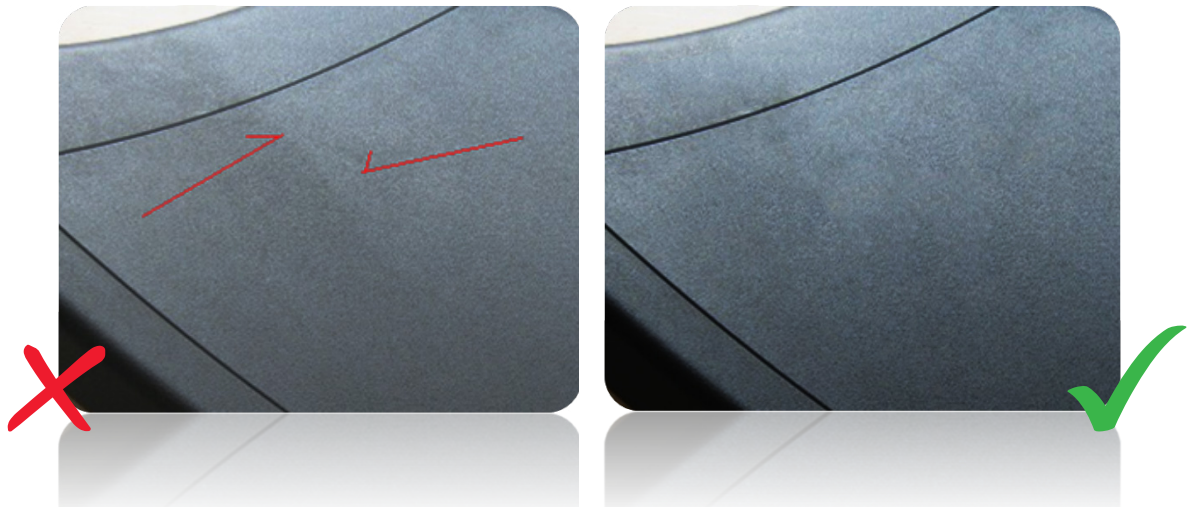
The new FLEXflow is the ideal solution for:

- Automotive large surface applications
- Peak quality for optical parts (A surface gating)
- Clean environment applications (no oil)
- Advanced engineered material
- Maximum flexibility in multicavity / family tools
- Applications with narrow molding window
- Suitable where fine tuning of weld lines locations and complex filling pattern balance is required, even involving GF material where structural issues could arise



## MAIN ADVANTAGES

- Class 'A' large injected plastic components
- Stable process repeatability
- Improved part-to-part consistency
- Optimized balancing, reducing over-packing and clamping force
- Hydraulic connections removed (no more oil leakage)
- Accurate Process Control
- Easy to use and easy maintenance
- Reduced energy consumption

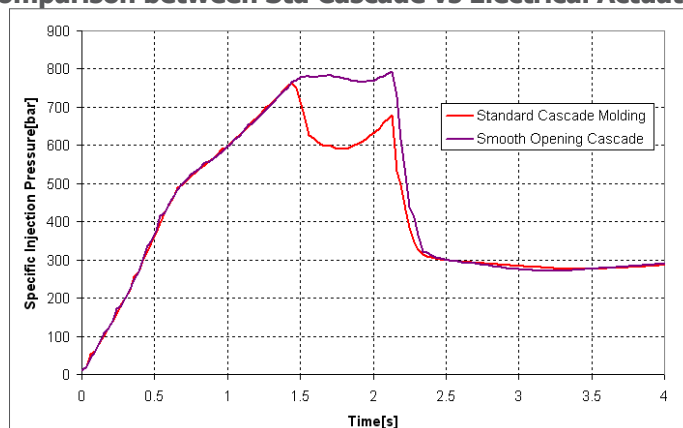


**Aesthetic result before and after use of the electrical drive cylinder**

## OPERATING PRINCIPLES

Total pin control allows operators to adjust filling pressure to reduce pressure jump. The graph shows that by controlling the opening pin speed profile and stroke, the pressure jump can be eliminated. This reduces the risk of flow marks in the part and flash at injection points.

**Comparison between Std Cascade vs Electrical Actuators**





## TECHNICAL FEATURES

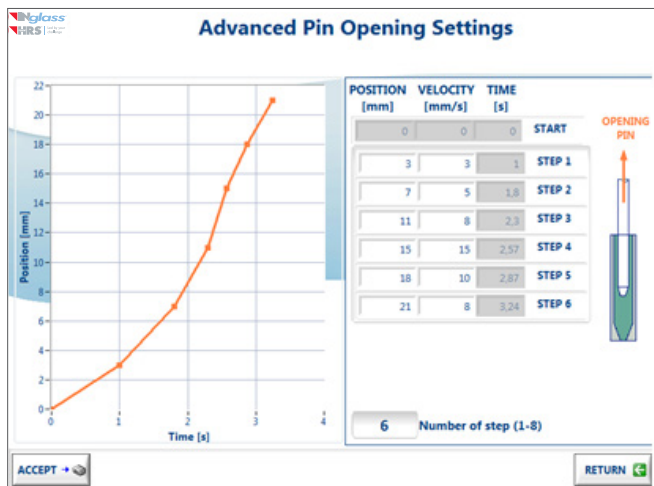
<b>Pin Diameter/Max pressure during cycle</b>	5 mm / 2500 bar 7 mm / 2000 bar 10 mm / 1000 bar
<b>Available series</b>	M – G – A series
<b>Maximum stroke</b>	18 mm
<b>Maximum pin velocity</b>	36 mm / s
<b>Minimum closing time (18mm stroke)</b>	0.5 s
<b>Power</b>	400 W
<b>Minimum adjusting step</b>	0.01 mm
<b>Gate types</b>	both conical and cylindrical valve gate
<b>Polymer types</b>	all TYPES

FLEXflow technical chart

## THE CONTROL UNIT

The new FLEXflow is set, controlled and monitored by the FLEXflow advanced controller that can set the valve pin position within an accuracy up to 0.01mm. Full process monitoring enables users to adjust all the parameters to achieve the required result.

Controllers are available in 3 different configuration: 8, 12 and 16 zones.



Independent adjustment of each pin opening and closing



WI-FI monitoring by tablet



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