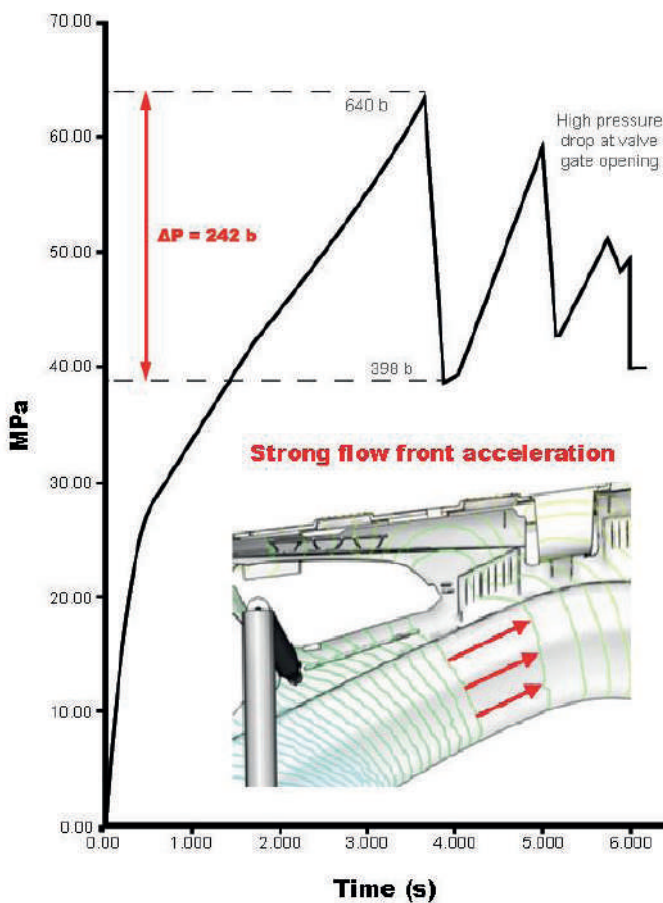


PRODUCT HIGHLIGHTS

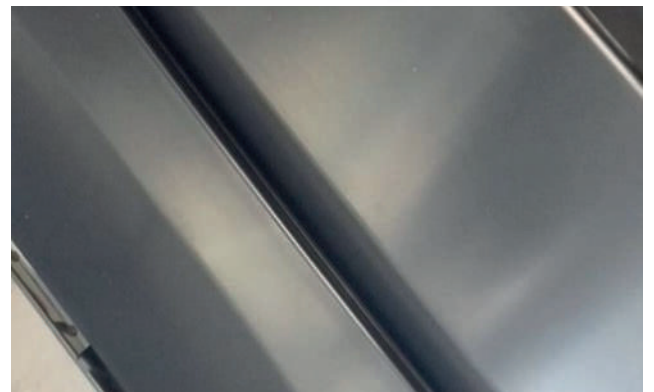
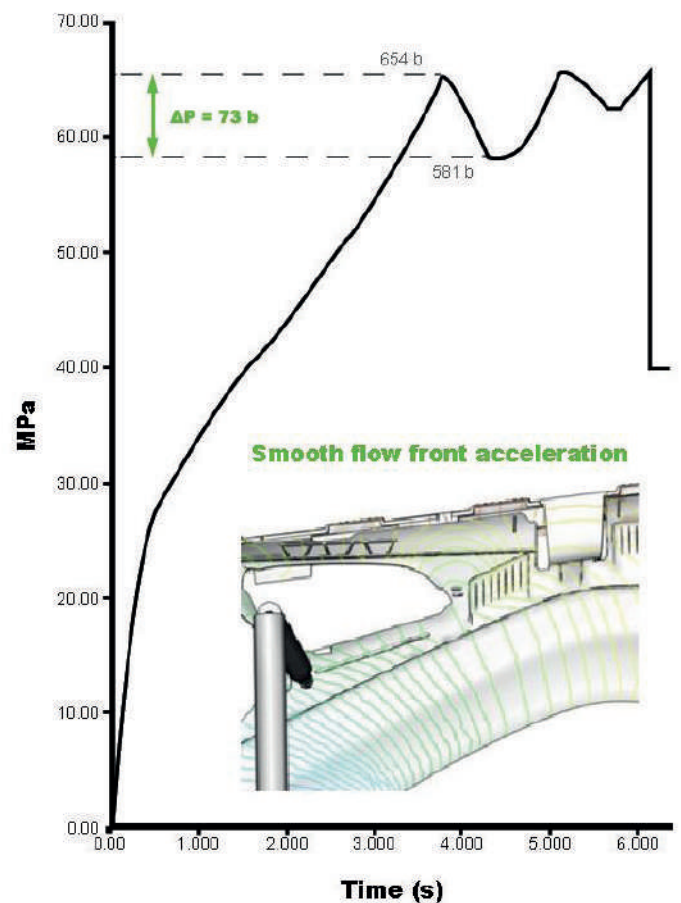
- Does not require any complex and expensive external device/option (available on valve gated product ranges)
- Allows efficient control over flow marks
- Progressive gate opening is available only for easytip for PP based applications (diam: 4 mm only)
- Cost effective hydraulic solution
- 100% embedded on the hot runner system

APPLICATION

Pressure drop responsible for flow marks

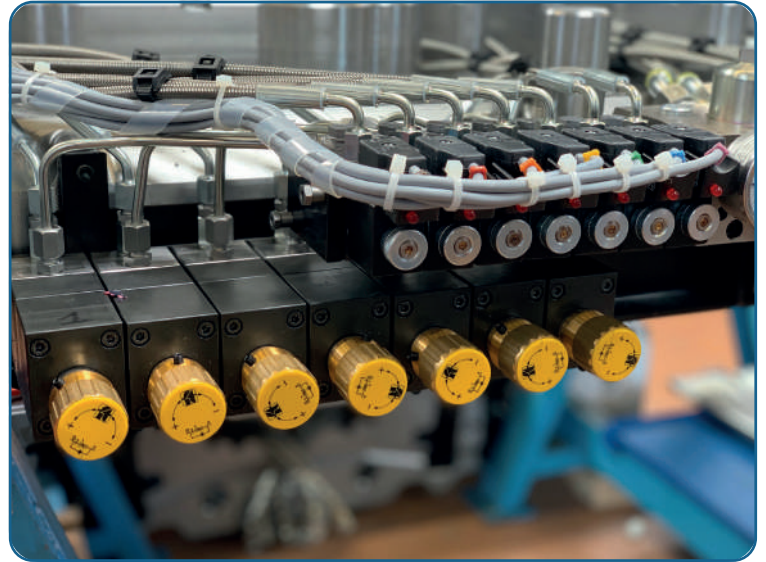
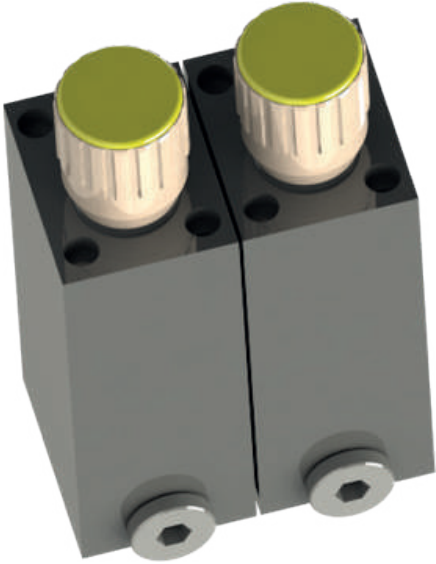


With Flow Control :
Elimination of the flow marks



OPTION 1

Individual gate speed opening control by high precision hydraulic Flow Control device.



OPTION 2

Progressive gate tip technology (not available for color change).



OPENING START:
Slow flow



MIDDLE STROKE:
Medium flow



FULL STROKE:
Full flow



CYLINDRICAL GATE CLOSING:
Long life, perfect gate quality and guided needle

Advanced technology for aesthetical parts.

PRODUCT HIGHLIGHTS

- ✔ The solution : a flexible and cost effective approach to demanding cosmetic applications
- ✔ Apply technology only on needed nozzles
- ✔ Moving back to standard sequential is possible and easy
- ✔ Symbioz S controller drives Flow Driver technology
- ✔ Upgrade existing or future hydraulic sequential hot runners system only if necessary (after first trials for instance)
- ✔ Adjust pin speed and pin position of the opening and closing

COMPONENT

HYDRAULICS



MULTISPEED MODULE



REMOTE SERVO

MECHANICS



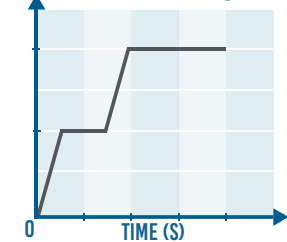
LINEAR SENSOR



PROGRESSIVE GATE

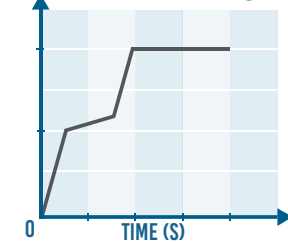
EXAMPLES OF SERIES

▶ S1L



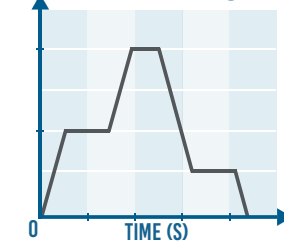
▶ 1 Adjustable Speed + Lock

▶ S2

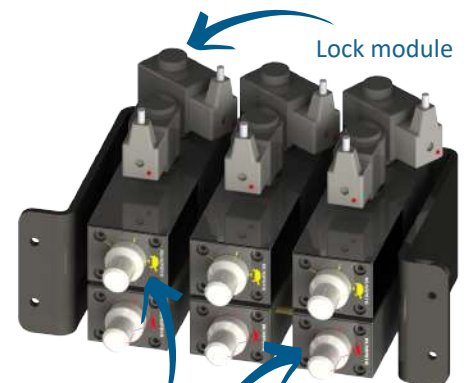


▶ 2 Adjustable Speeds (Fast, Slow)

▶ S1X



▶ 1 Adjustable Speed + 2 Locks
falling edge & rising edge
(Fast, Lock, Fast)



Slow speed module

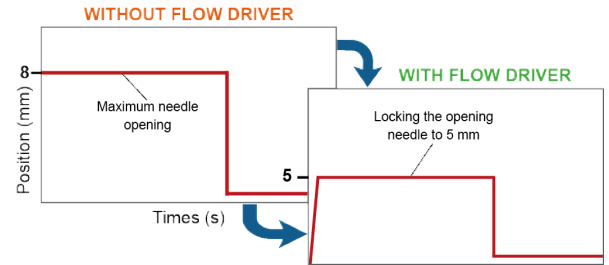
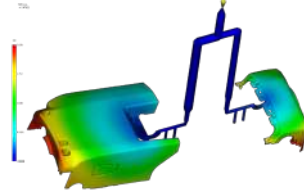
Fast speed module

APPLICATIONS

OPTIMIZE FLOW BALANCE:

Fine tune the flow rate to smaller cavities in a family tool and balance the filling of the cavities by locking the valve pin partially open until the packing phase.

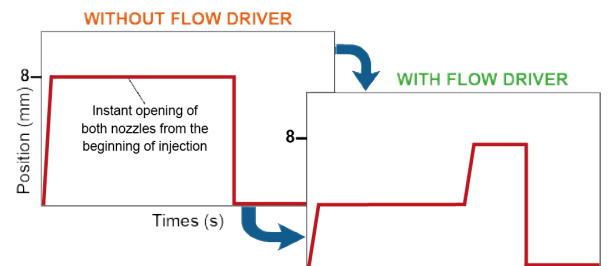
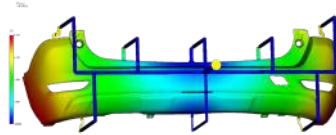
Case study : S1L



RELOCATED WELD LINES:

Slow the flow fronts of intersecting gates to relocate the weld line by locking the valve pin partially open.

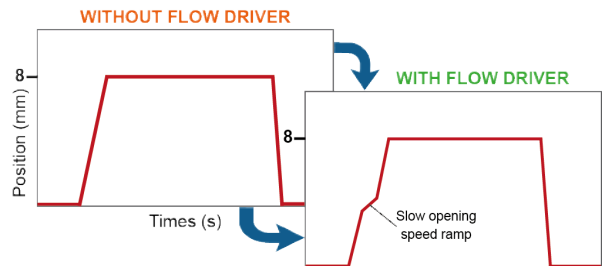
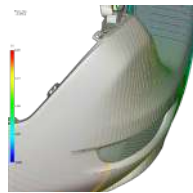
Case study : S1L



ELIMINATE ACCELERATION LINES:

Eliminate the sudden acceleration of the flow front in sequential systems by briefly slowing the opening of the valve pin.

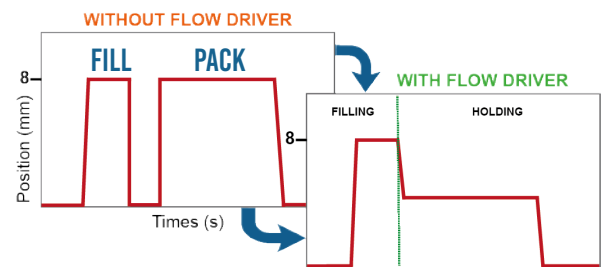
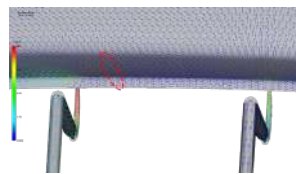
Case study : S2



ELIMINATE PRESSURE LINES:

Reduce the gate to gate material interaction to eliminate pressure lines by locking the valve pin partially closed during the packing phase.

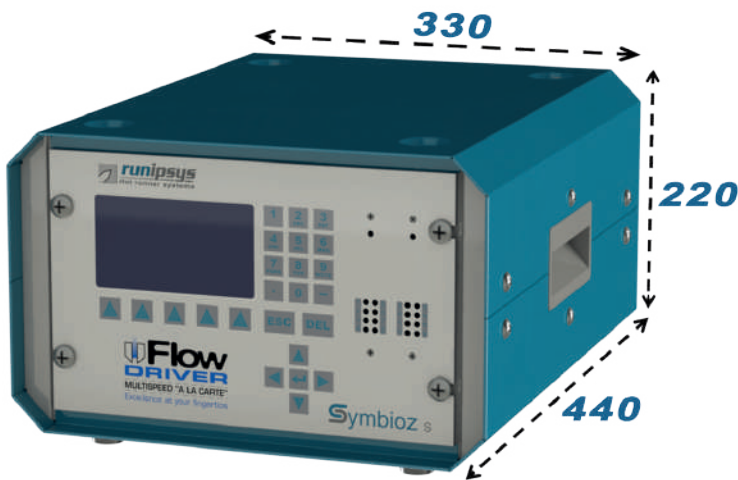
Case study : S1X



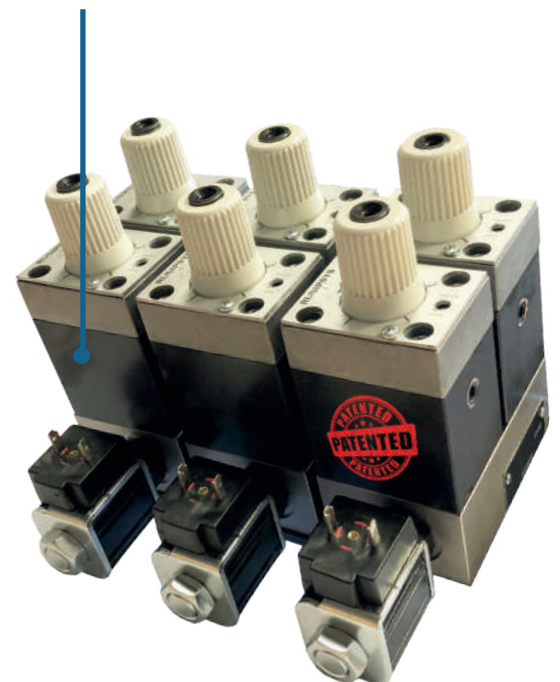
Flow Driver sequential controller.

PRODUCT HIGHLIGHTS

- ✔ Symbioz S multispeed valve pin controller for Runipsys patented Flow Driver technology
- ✔ Controls the latest Flow Driver functions:
 - ✔ Lock/unlock during opening & closing
 - ✔ Fast/slow
- ✔ Designed to be used in parallel with existing valve gate controllers and only control Flow Driver functions
- ✔ Up to 16 valve gate control signals available
- ✔ Intuitive Flow Driver specific programming through pc software: win is'tech (Refer to the back)
- ✔ Pc is not required for operation and can be removed after process parameters are set
- ✔ Internal memory can store up to 48 different mold process settings
- ✔ Process data monitoring and shot data storage is possible through permanent PC connection
- ✔ Remote access and control through pc connection (from outside the plant)
- ✔ No injection molding machine connection needed

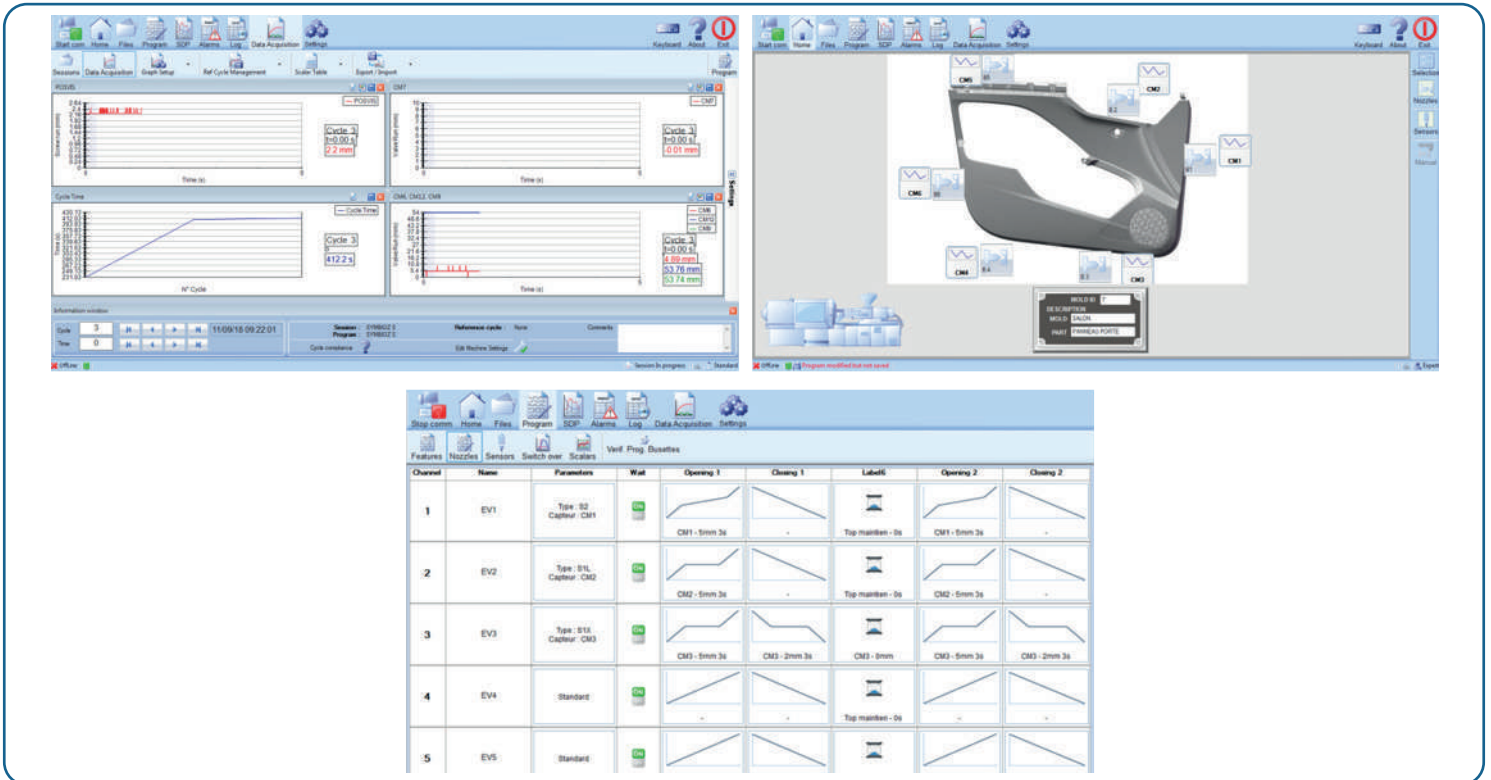


SYMBIOZ S CONTROLLER DRIVES FLOW DRIVER TECHNOLOGY



PROGRAM

Intuitive WIN IS'TECH for Flow Driver PC programming software.



Symbioz S controller drives Flow Driver technology.

