

New  
Generation

# Sequential Valve Gating Systems



IS'TECH



IS'2000

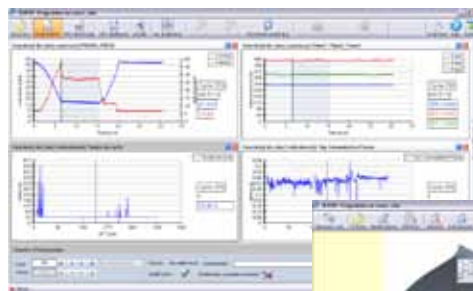
IS'BASIC

*SISE has been a pioneer in the development of sequential molding. Beginning with the automotive industry (bumpers, dashboards, ...), we have now extended our expertise to technical parts and consumer packaging*

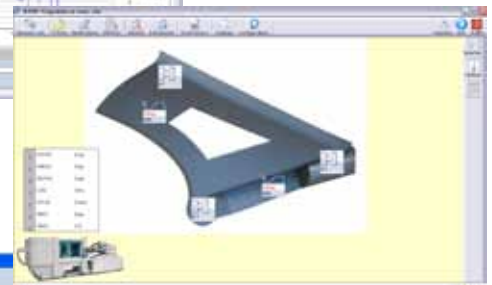
*SISE has a complete product line that can handle between 2 and 20 valve gates, from the entry-level IS'BASIC to the high-end IS'TECH which provides standard mold sensor-driven control.*



Auxiliary Equipment



Win IS'TECH  
Software



## VALVE GATE CONTROLS

# IS'BASIC

*SISE has recently developed and sells a new valve gating system, which is independent of the molding machine process and fulfills the needs generated by the development of the sequential molding market.*

*Our compact system controls between 2 and 12 valve gates and provides the following features : injection start, injection hold & screw stroke position signals, multilingual interface, 24-file Memory, safety alarm, actual pin position monitoring (optional).*

### PROGRAMMING :

- Integrated multilingual user interface (keyboard, LED screen), for the following functions :
  - Programmable motion of valve gates
  - Load / Save 24 sequence files
  - Manual Valve Gate operation
  - Cycle Time Display
- Option :
  - Control of actual pin position (limit switches)

### CONTROL :

- Available versions from 2 to 12 valve gates
- Controls up to 2 openings & closings per valve gate and per injection cycle
- Each movement can be individually triggered by one of the following signals:
  - On time as a delay from injection start or hold start.
  - Screw position in %, in mm, or in cm3.

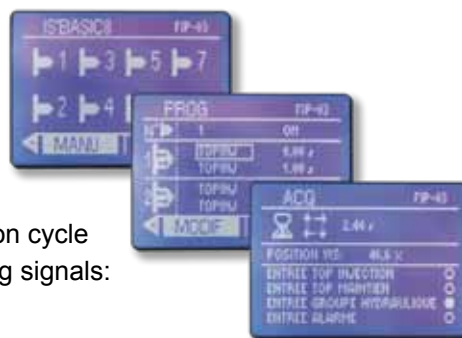
### ALARMS / SAFETY :

- Alarm output on potential free contact, activated in case of:
  - Hydraulic Pressure Failure (not used if no external power pack)
  - Injection Safety : at least one gate must be open on cycle start and during cycle
  - Control Card Failure
- Alarm input from the press and/or from the hydraulic power pack.

### CONNECTIONS :

- Valve Gate Output Command  
Power 24V=, maximum intensity 1.5A by channel
  - Control of needle position - limit switches (option)
  - Input signals
  - Alarms
  - Power supply by connection cable 4,5 m long
- Harting, 32 pins 10A female  
Harting, 32 pins 10A male  
Harting, 16 pins 10A female  
Harting, 10 pins 10A female  
240V - 50/60Hz

Up to  
12 channels !



IS Basic cabinet

(with Control of needle position - limit switches)

## VALVE GATE CONTROLS

# IS'TECH

**The IS'TECH works well not only with standard applications requiring a high number of valve gates (up to 20), but also with new developments involving mold sensors. Our system manages automatic mold recognition for fast, seamless mold changes.**

**Thanks to its safety and programming capabilities, our system is the benchmark solution for many automotive applications.**

### PROGRAMMING :

- The user interface (keyboard + function keys + blue LCD screen) is embedded in the system and offers the ability to :
  - Program the opening & closing of valve gates as well as their manual control
  - Load / Save 48 sequence files
  - Display in real-time of both cycle time and parts counting
  - Multilingual (9 standard languages)



### CONTROL :

- From 4 to 20 valve gates
- Allows 5 openings & 5 closings per injection cycle and per valve gate. Each movement can be triggered individually by any of the following signals :
  - Injection start signal (1/100 sec. accuracy)
  - Injection hold signal (1/100 sec. accuracy)
  - Dosing signal
  - Screw stroke position (programming in %, mm or cm3)
  - Injection pressure (in bars)
  - Programming with 6 mold sensors (programming in Bars)
- Screw stroke position signals (in mm and cm3), the injection pressure as well as the sensors are calibrated specifically for each injection molding machine.
- Machine's switchover point with events (pressure sensors in the mold)
- Automatic mold recognition (up to 128 molds)
- Optional : connection to bi-material machines (management of both screws)

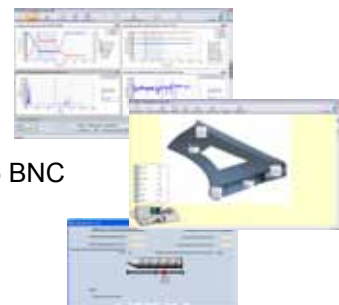
### ALARMS / SAFETY :

- PDM Page : Process Drifting Monitoring (Quality Management, Reference Cycle Backup)
- 1 NC input for power pack failure (bridged input if no external group is available)
- 1 NO input for external failure (from the molding machine for example)

The system also handles the injection safety by making sure that at least one valve gate remains open at the beginning of the cycle and that at least one valve gate remains open during the entire cycle.

### CONNECTIONS :

- |                            |                                    |
|----------------------------|------------------------------------|
| ● Manifold Control         | HARTING 32 pins 10A Female         |
| ● Mold Recognition Signals | HARTING 25 pins 10A Female         |
| ● Alarms                   | HARTING 10 pins 10A Female         |
| ● Input Signals            | HARTING 16 pins 10A Female + 5 BNC |
| ● Computer Communication   | USB                                |
| ● Additional Power Supply  | 230V                               |



### PC CONNECTION :

- Connecting to a computer is very simple thanks to the USB terminal and the optional Win'IS TECH software that offers the following:
  - "Offline" programming of an injection sequence
  - External transfer and file backup
  - Recorded data processing (pressure curves, screw stroke position, input signals...)

# VALVE GATE CONTROLS

## TECHNICAL CHARACTERISTICS OF SISE SEQUENTIAL VALVE GATING SYSTEMS

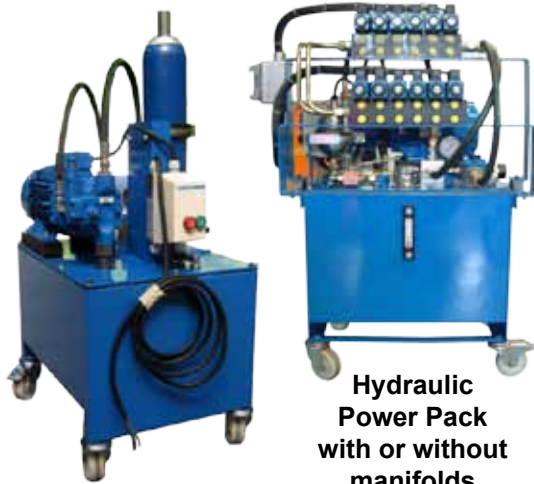
	IS'BASIC	IS'2000*	IS'TECH **		IS'BASIC	IS'2000	IS'TECH
Dimensions W / H / D	431 x 216 x 470	534 x 216 x 470	330 x 445 x 470	Injection Start	Yes	Yes	Yes
Screen Size & Type	128x64 White, Blue	128x240 White, Blue	128x240 White, Blue	Injection Hold / or other	Yes	Yes	Yes
Min. # Gates	2	4	4	Dosing Start	No	Yes	Yes
Max. # Gates	12	20	20	Screw Stroke Position	Yes	Yes	Yes
# Openings & Closings	2	5	5	Injection Pressure	No	Yes	Yes
Multilingual	Yes	Yes	Yes	BI-Material	No	Option	Option
# Mold Files	24	24	48	Switching Pt. Monitoring	No	No	Yes
Mold Recognition (#)	No	No	Yes (128)	Mold Signals	No	Option	Option
"Quality" Page	No	Yes	Yes	Data Acquisition	No	Yes, 1 cycle	Yes, Multi-cycle
# Machine Signals	3	4	5				

\* Manufacturing expected to end on 12/2010

\*\* New

## Auxiliary Equipment : Hydraulic Power Packs, Hydraulic or Pneumatic Manifolds, Connecting Cables

**"To make your life easier, SISE can provide a turnkey package  
(sequential valve gating system + auxiliaries + training) all over the world."**



**Hydraulic  
Power Pack  
with or without  
manifolds**



**2-8 station pre-wired  
hydraulic manifold systems  
(single- or double-solenoid)**



**2-8 station pre-wired  
pneumatic manifold systems  
(simple- or double-solenoid)**

SISE is the only company whose hydraulic power pack uses a variable displacement pump.  
Thanks to this pump, no oil-cooling system is needed and the noise level is greatly reduced

# S.I.S.E.

Hot Runner Controls  
Mold Temperature Control  
**Valve gate Controls**  
Production Monitoring

Parc Industriel Sud - Groissiat  
F - 01100 OYONNAX  
Tel (33) 04.74.77.34.53  
Fax (33) 04.74.73.90.18  
e-mail [sise@sise.fr](mailto:sise@sise.fr)  
web: [www.sise.fr](http://www.sise.fr)