PLASTICS TECHNOLOGY UNDER CONTROL

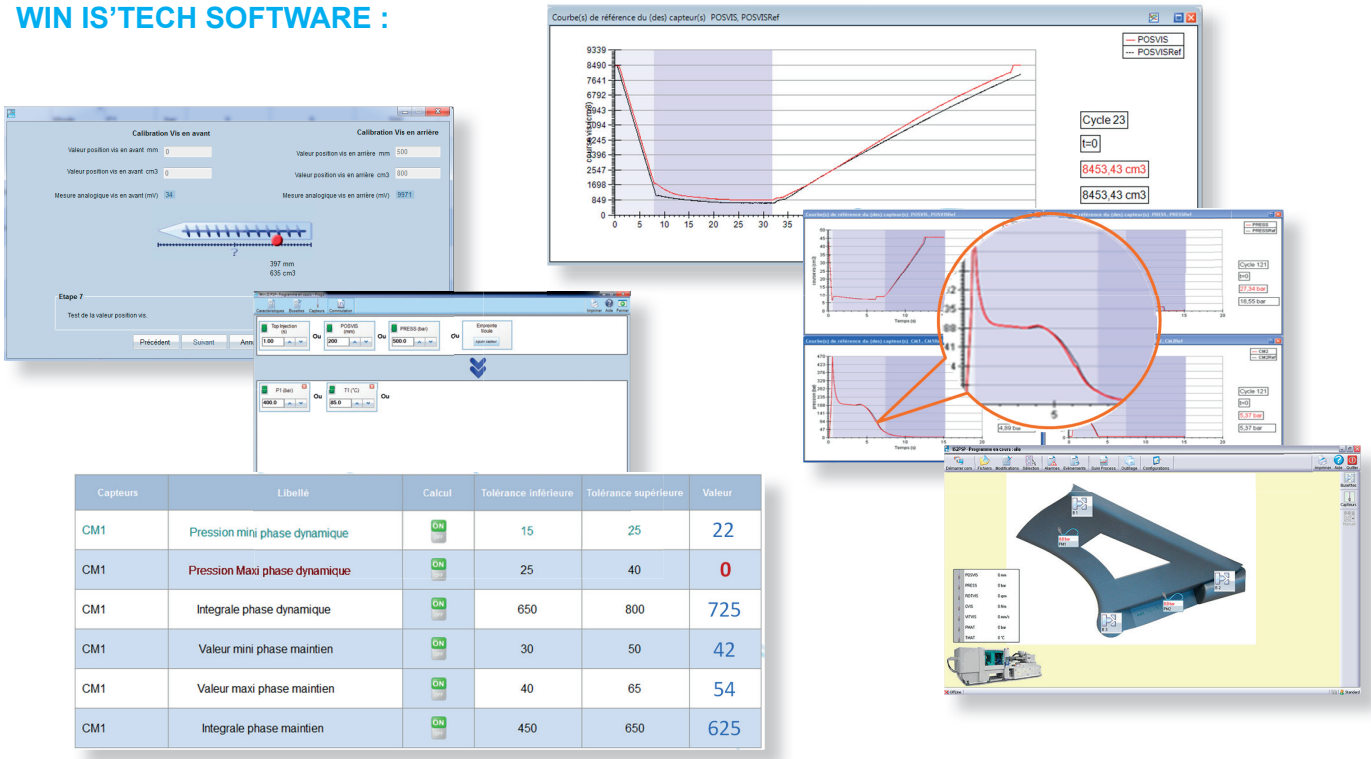
Sequential Valve Gating Systems

IS'TIMER **IS'TECH** **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 compact IS'TIMER and simple IS'BASIC to the evolved IS'TECH which provides standard mold sensor-driven control.

WIN IS'TECH SOFTWARE :



Capteurs	Libellé	Calcul	Tolérance inférieure	Tolérance supérieure	Valeur
CM1	Pression mini phase dynamique	ON	15	25	22
CM1	Pression Maxi phase dynamique	ON	25	40	0
CM1	Integrale phase dynamique	ON	650	800	725
CM1	Valeur mini phase maintien	ON	30	50	42
CM1	Valeur maxi phase maintien	ON	40	65	54
CM1	Integrale phase maintien	ON	450	650	625

www.sise-plastics.com

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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 screw position monitoring (optional).

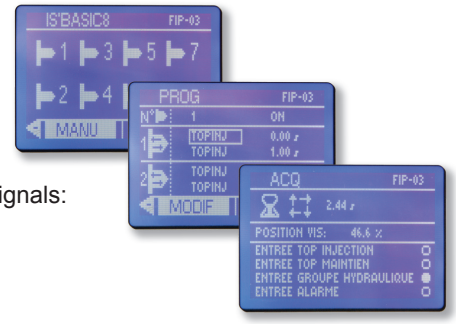
PROGRAMMING :

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

Up to 12 channels !

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 dry 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	Harting, 32 pins 10A femal
Control by limit switch (option)	Harting, 32 pins 10A male
Input signals	Harting, 16 pins 10A female
Alarms	Harting, 10 pins 10A female
Power supply by connection cable 4,5 m long	240V - 50/60Hz

IS'BASIC

PLASTICS TECHNOLOGY UNDER CONTROL

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 part count
  - ✔ Multilingual (9 standard languages)

Up to 20 channels !

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 (programing in %, mm or cm3)
  - ✔ Injection pressure (in bars)
  - ✔ Programming with 6 mold sensors (programming in Bars) - **Option**
- 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) - **Option**
- Connection to bi-material machines (management of both screws) - **Option**
- Control by limit switch - **Option**

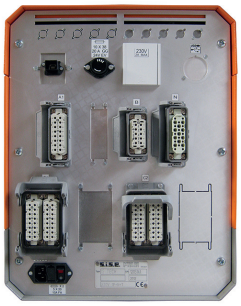
ALARMS / SAFETY :

- ✔ 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
✔ Computer Power Supply	230V



IS'TECH

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 position, input signals…)

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TECHNICAL CHARACTERISTICS OF SISE SEQUENTIAL VALVE GATING SYSTEMS

	IS'TIMER	IS'BASIC	IS'TECH		IS'TIMER	IS'BASIC	IS'TECH
Dimensions W / H / D	208 x 216 x 310	431 x 216 x 470	330 x 445 x 470	**Injection Start**	Yes	Yes	Yes
Screen Size & Type	128x64 White, Blue	128x64 White, Blue	128x240 White, Blue	**Injection Hold / or other**	Yes	Yes	Yes
Min. # Gates	8	2	4*	**Dosing Start**	No	No	Yes
Max. # Gates	8 or 16	12	20	**Screw Stroke Position**	No	Yes	Yes
# Openings & Closings	2	2	5	**Injection Pressure**	No	No	Yes
Multilingual	Yes	Yes	Yes	**Switching Pt. Monitoring**	No	No	Yes
# Mold Files	24	24	48	**Data Acquisition**	No	No	Yes, Multi-cycle
Mold Recognition (#)	No	No	Yes (128)	**BI-Material**	No	No	Option
"Quality" Page	No	No	Yes	**Mold Signals**	No	No	Option
# Machine Signals	2	3	5	**Win'ISTECH Software**	No	No	Option

** Expandable by 4 gate modules

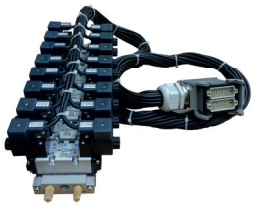
Auxiliary Equipment : Hydraulic Power Packs, Hydraulic or Pneumatic Manifolds, Connecting Cables

"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
3L accumulators standard

Consultation and training available !

2-12 station pre-wired
hydraulic manifold systems
(single- or double-solenoid)



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