SYSTEM COOLING™ TEST RIG

The System Cooling Test Rig from AST Technology offers a convenient and time saving way for mold builders to test, analyze and certify cooling circuits for their customers' requirements.

Cooling Circuit Optimization

Moldmakers must often supply new molds to the customer complete with a report of operating parameters which includes data relating to the cooling circuits in the mold. Now moldmakers can easily connect the System Cooling Test Rig to the mold as part of the benchmarking process.

Flow and Pressure Test

The flow and pressure can be controlled precisely to simulate the production setup. This allows for benchmarking performance and establishing a baseline for future test comparisons.

The system also provides the ability to pressure leak test the mold to more efficiently detect water leaks before press setup.

Advanced Pump Technology

The System Cooling Test Rig is equipped with a high tech pump, which allows users to control flow volume and pump pressure. Everything is controlled from the touch control screen.

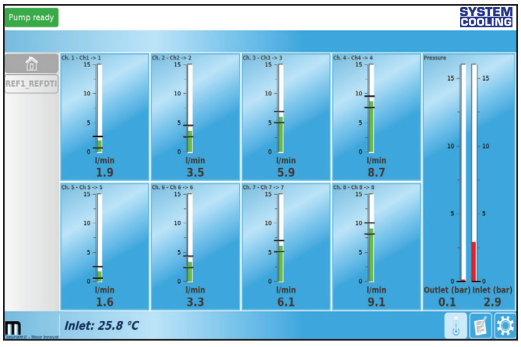
The integrated water tank supplies water for flow and pressure tests.

After testing and certifying the mold, users can conveniently purge the water out of all circuits simply by pressing the 'Empty System' button.

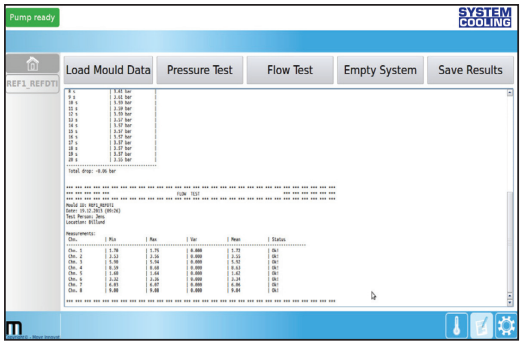
Graphical Interface

The System Cooling software is designed to give a simple and quick overview, enabling the user to monitor all parameters and settings.

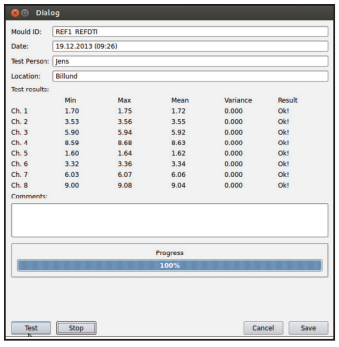
Data collected includes: flow volume/capacity, pressure loss through the mold, and pressure leak tests. All data is compiled into reports that can be saved electronically and printed as needed.



Flow and Pressure Loss



Pressure Leak Test Report



Flow Record

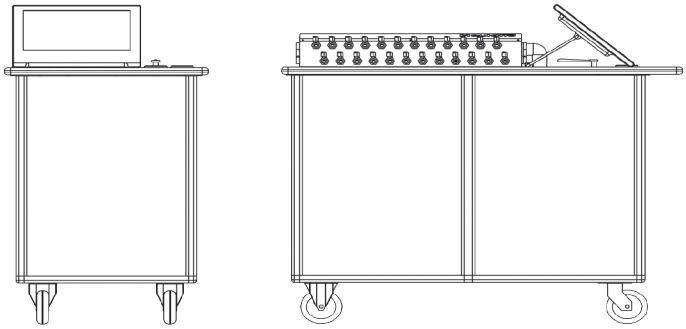
Calibration Unit

The System Cooling Calibration unit makes calibration of the System Cooling sensors a simple task. The unit includes a certified flow sensor that ensures reliable test data.

SYSTEM COOLING

SYSTEM COOLING TEST RIG

TECHNICAL SPECIFICATIONS



MANIFOLD	
Manifold feed	1-1/2" NPT
Manifold ports	1/2" NPT
Number of ports	8 Zones
Regulation	Color coded ball valves per circuit (optional)
Manifold connection	Customer specified
Operating temperature (max)	0 - 90°C / 190°F
Operating pressure (max)	10 bar / 145 PSI
Temperature sensing	Per circuit (return)
Flow sensing	Per circuit (return)
Temperature sensing main inlet	Yes (optional)
Power supply	12 - 24 VDC

FLOW SENSOR	
Sensor type	Vortex
Range (flow)	2 - 40 LPM or 1 - 15 LPM .5 - 10.5 GPM or .25 - 4 GPM
Accuracy (flow)	1.5% fs
Range (temperature)	0 - 90°C / 190°F
Resolution (temperature)	.5°C / .9°F
Accuracy (temperature)	+/- 1,5% fs
Sensor signal	0,35 – 3,5 V
Output signal	Voltage
Response time	< 1 s
Power supply	5 VDC
Seal	EPDM
Burst pressure	18 bar (40°C) / 260 PSI (105°F)
Connection	Quick connect - plug and play

CONTROL	
Display	15.6" touch screen (optional)
Control	Microprocessor based / computer based (optional)
Communication ports	Ethernet / USB
Communication system	ASCII (USB)/HTML/SSH (optional)/VNC (optional)
Protocols	USB Serial / TCP/IP
Storage (log and settings)	Internal (optional) / USB (optional)
Machine control integration	Yes (optional)
Remote Access via internet/network	Yes (optional)
Number of zones (flow and temperature)	Max 12 Zones / manifold (expandable)
Number of manifolds	Multiple (plug and play)
Display units (flow)	Litres / gallons switchable / RAW (optional)
Display units (temperature)	°C / °F switchable / RAW (optional)
Warning limits	10% of alarm limits (optional)
Alarm limits	User definable per zone (optional)
Alarm output	Potential free output warning / alarm
Marker input	Potential free
Idle mode input	Potential free

PUMP AND TANK	
Pump Capacity	Up to 120 LPM / 32 GPM
Pump Pressure	0-6 Bar / 85 PSI
Power Supply	380V., 50Hz, 2500W
Tank Capacity	50 L / 13.2 GAL