



Low-temperature, Air-cooled, Process Chillers

FluidChill™ process chillers are a family of high-reliability, portable temperature control systems for low and ultra-low process cooling. FluidChill systems provide high capacity cooling for demanding applications in industries such as automotive, energy, chemical processing, industrial, and semiconductor.

In-house design capabilities including thermodynamic, mechanical, electrical, and software, and on-site manufacturing ensure that your total chiller package will perform to specifications.

Chillers provide a touch screen controller, remote communications, real-time graphing, system diagnostics, and a variety of heat transfer fluids.

FluidChill Model Performance

Model	Temperature Range (°C)	Stability (°C)	Cooling Capacity (kW @ 25°C Ambient)								Pump Capacity (GPM/LPM)	Fluid Pressure (psig)
			25	0	-20	-40	-45	-60	-70	-80		
A-40-1100	-40 to +50	±0.5	6.6	6.6	4.0	1.1	0.5				4 (15)	50 or less
A-40-1900	-40 to +50	±0.5	9.5	9.5	5.4	1.9	0.7				6 (23)	50 or less
A-40-2700	-40 to +50	±0.5	14.5	14.5	9.6	2.7	1.2				10 (38)	50 or less
A-60-2700	-60 to +50	±0.5	3.9	3.9	3.6	3.1	3.0	2.7			2.8 (11)	50 or less
A-60-3000	-60 to +50	±0.5	4.6	4.6	3.7	3.5	3.4	3.0			6 (23)	50 or less
A-60-4600	-60 to +50	±0.5	6.7	6.7	6.1	5.3	5.1	4.6			8 (30)	50 or less
A-80-500	-85 to +50	±0.5	2.3	2.3	2.2	2.1	2.0	1.8	1.5	0.5	2.8 (11)	50 or less
A-80-1700	-85 to +50	±0.5	3.4	3.4	3.1	2.8	2.7	2.3	2.1	1.7	6 (23)	50 or less
A-80-2400	-85 to +50	±0.5	5.0	5.0	4.5	3.9	3.8	3.3	3.1	2.4	8 (30)	50 or less

Note: -40 and -60°C performance achieved with Syltherm XLT fluid. -80°C performance achieved with HFE-7100 fluid. Consult factory for applications using other heat transfer fluids and flow rates.

Chiller Controller

The chiller controller provides precision temperature control with touch-screen operation, easy-to-read information, remote operation, and data logging.

Developed by our in-house engineering team, this controller provides flexible setup and customization not readily achievable with PLCs.

Controller Specifications

Temperature Measurement	Range: -210 to +680°C Resolution: 0.1°C full scale
User Interface	5.7" color touch-screen with temperature graphing and charting
Control Safety	High and low temperature limits, Independent fail-safe modules (IFM, optional)
Diagnostics	Runtime hours (controller, chiller, compressor, pump), system performance log, valve activation counts, enclosure temperature
Operating Environment	Temperature: 10 to 50°C Humidity: 0 to 50%
Temperature Sensors	Remote RTD (500 Ohm), thermocouple (type K)
Control Algorithms	Primary loop PID, Dual loop multiple RTD control mode
Communication Interfaces	Ethernet 10/100, Telnet, HTML web server, USB 2.0, RS232 (optional)
Alarms	Low flow, low pressure, low fluid reservoir, over temperature
Compliance	CE / RoHS / UL61010



Controller Features

- ▶ Displays critical parameters such as fluid supply and return temperature and pressure (based on chiller options selected)
- ▶ Alarms for out-of-temperature range, low process flow, low reservoir level, and more
- ▶ Built-in diagnostics – valve counts, ambient temp, equipment runtimes
- ▶ Displays temperature graphs
- ▶ Communicates via Ethernet, USB, HTML Web server, RS-232 (optional)
- ▶ Logs system data and performance
- ▶ CE and RoHs compliant

The inTEST Thermal family includes three temperature-related corporations: Temptronic, Sigma Systems, and Thermonics.