



Low-temperature, Water-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 @ 20°C Water Supply)								Pump Capacity (GPM/LPM)	Fluid Pressure (psig)
			25	0	-20	-40	-45	-60	-70	-80		
W-40-1100	-40 to +50	±0.5	8.0	8.0	4.6	1.1	0.6				4 (15)	50 or less
W-40-2000	-40 to +50	±0.5	10.0	10.0	6.0	2.0	1.0				6 (23)	50 or less
W-40-3100	-40 to +50	±0.5	15.5	15.5	10.0	3.1	1.4				10 (38)	50 or less
W-60-2800	-60 to +50	±0.5	4.0	4.0	3.7	3.2	3.1	2.8			2.8 (11)	50 or less
W-60-3100	-60 to +50	±0.5	4.7	4.7	4.3	3.7	3.6	3.1	1.1		6 (23)	50 or less
W-60-4700	-60 to +50	±0.5	6.8	6.8	6.2	5.4	5.2	4.7	4.0		8 (30)	50 or less
W-80-600	-85 to +50	±0.5	2.5	2.5	2.3	2.1	2.0	1.8	1.6	0.6	2.8 (11)	50 or less
W- 80-1800	-85 to +50	±0.5	3.5	3.5	3.2	2.9	2.8	2.4	2.2	1.8	6 (23)	50 or less
W-80-2500	-85 to +50	±0.5	5.1	5.1	4.5	4.0	3.9	3.4	3.2	2.5	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.