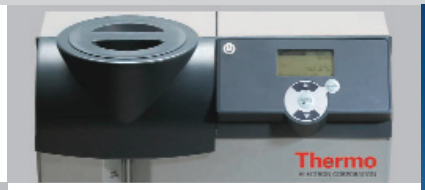
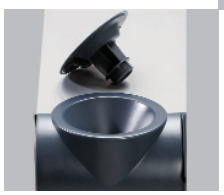
Product Specifications

Reliable, easy-to-use chillers optimized for the most demanding applications

NESLAB ThermoFlex™ 1400 Recirculating Chiller

Delivers continuous cooling capacity up to 1400 watts





Ideal for diverse applications within the following markets:

- **Analytical instrumentation**
- **Laser**
- **Medical equipment**
- **Packaging**
- **Research**
- **Semiconductor**
- **University**

High Reliability

You can expect years of consistent operation from the NESLAB ThermoFlex 1400 recirculating chiller. The unit features a robust refrigeration system designed for continuous use in a variety of installations. The recirculation system incorporates highly reliable plumbing connections to eliminate leaks. Integrated air and fluid filters minimize wear to mechanical parts, which lowers lifetime maintenance costs and improves system reliability.

Superior Performance

ThermoFlex 1400 chillers offer up to 10% greater cooling capacity than comparable units. The breadth of available options allows you to optimize chiller performance based on your application requirements. These chillers also have improved noise quality ensuring a pleasant work environment.

Easy to Use

The quick-start guide enables trouble-free system start up. Snap in-and-out air and fluid filters promote quick and simple maintenance. The innovative recirculation system includes an integrated funnel and visual indicator for operator convenience. An intuitive controller allows customer-defined alarms to be set for various parameters, ensuring your process is always in control.

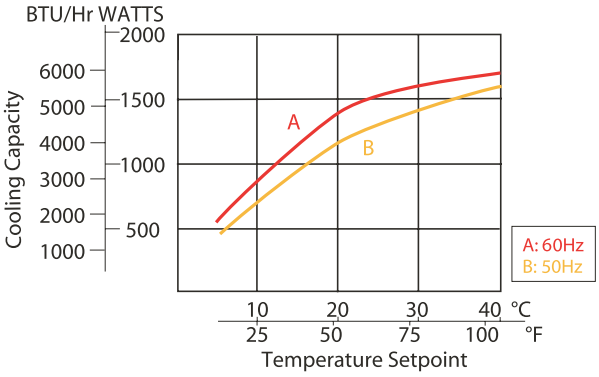
Configurable to Meet Application Needs

The NESLAB ThermoFlex 1400 recirculating chiller can be configured with a variety of plug & play options. The result is a reliable, easy-to-maintain, high performance unit that can be optimized for the most demanding cooling applications.

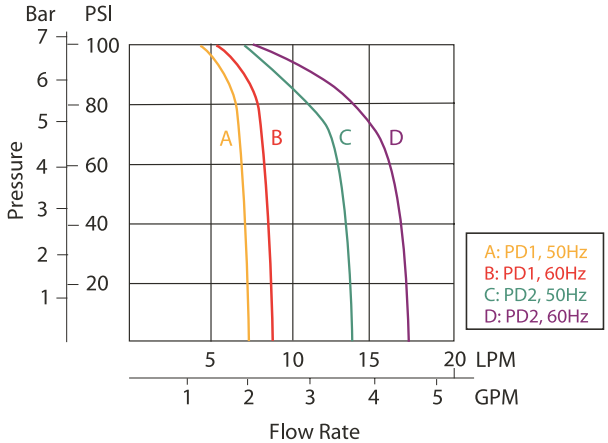
Product Specfications

Setpoint Temperature Range	5°C - 40°C 41°F - 104°F
Ambient Temperature Range	10°C - 40°C 50°F - 104°F
Temperature Stability	+/- 0.1°C
Setpoint Cooling Capacity at 20°C (see graph below for cooling curves)	
60 Hz	1400W (4778 BTU)
50 Hz	1170W (3995 BTU)
Reservoir Volume	
Gallons	1.9
Liters	7.6
Footprint or dimensions (HxWxD)	
Inches	27.4 x 14.2 x 24.7
cm	69.6 x 36.1 x 62.7
Unit Weight	
lb	126
kg	57.2
Pumps (see graph below for performance curves)	
PD 1 - Positive Displacement	
60 Hz	2.1 gpm @ 60 psi
50 Hz	1.7 gpm @ 60 psi
PD 2 - Positive Displacement	
60 Hz	4.1 gpm @ 60 psi
50 Hz	3.3 gpm @ 60 psi
Power options	
Option 1	100V/50Hz/1 Phase 20A Circuit
Option 2	100V/60Hz/1 Phase 20A Circuit
Option 3	115V/60Hz/1 Phase 20A Circuit
Option 4	208-230V/60Hz/1 Phase 15A Circuit
Option 5	230V/50Hz/1 Phase Amp 16A Circuit
Compliance	NRTL Certified to CSA and UL Standards; CE-Marked

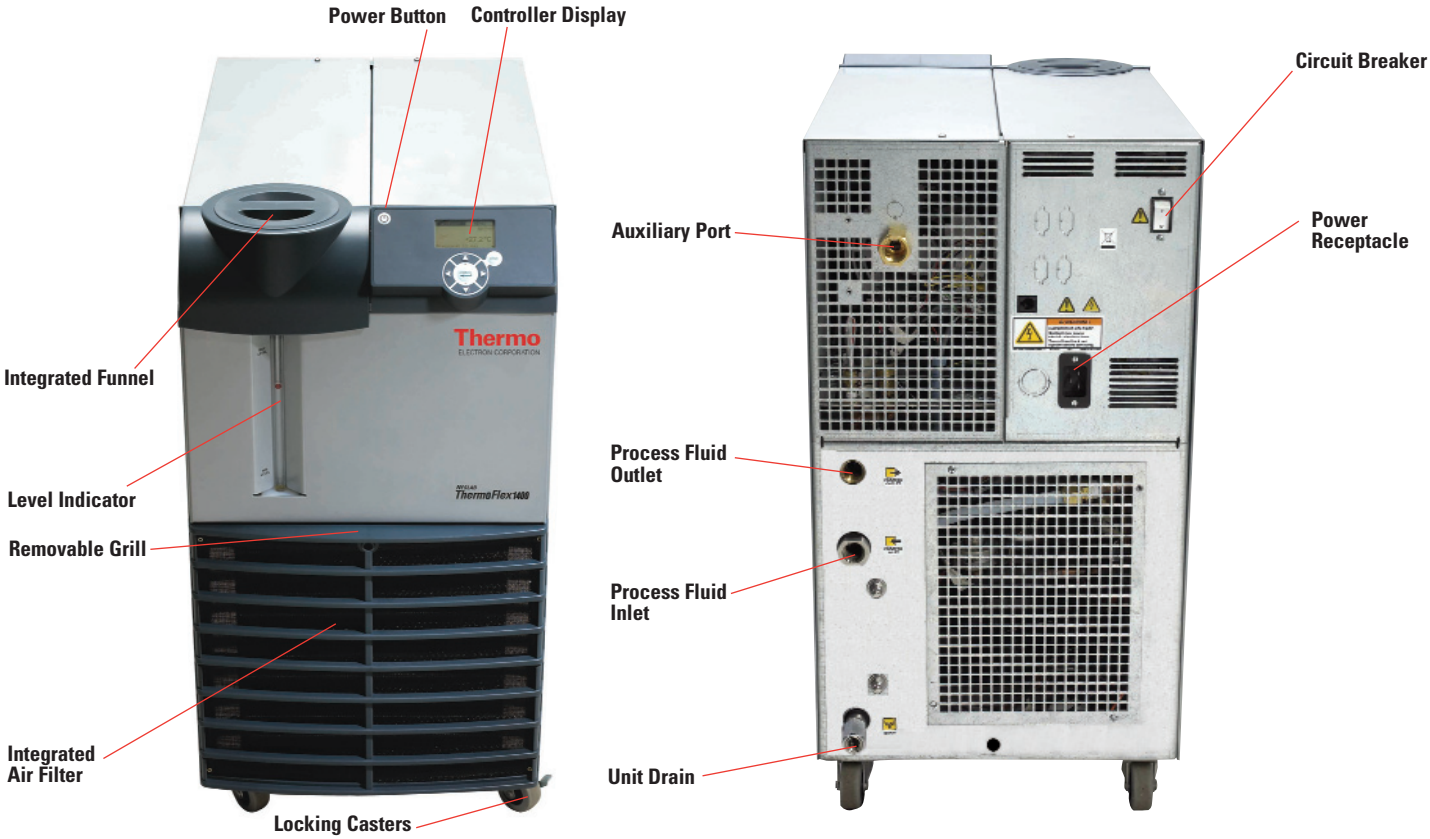
Cooling Capacity



Pumping Capacity



Specifications obtained at sea level using water as the recirculating fluid, at a 20°C process setpoint, 25°C ambient condition, at nominal operating voltage. Other fluids, fluid temperatures, ambient temperatures, altitude or operating voltages will affect performance. Thermo Electron reserves the right to change specifications without notice. Pump performance results obtained with no restrictions on return to the system.



Options

Feature	Benefit
Auto refill	Allows for self-filling of the chiller to ensure that the proper level in reservoir is maintained, saving valuable time.
Anti-drainback	Ensures reservoir does not overflow when chiller is shut down. This allows the chiller to be installed more than 24 ft. below the application.
DI resistivity internal	DI filtration internal to the chiller is used to maintain the resistivity level below 3 Mohm, with an alarm at 1 Mohm. This minimizes footprint and eliminates downtime needed to change the filter, while ensuring constant quality of DI water to your application.
Pressure relief	Easily adjustable pressure relief valve allows for control of the outlet pressure from the chiller to be regulated, ensuring your process performance requirements are met.
Flow Control	Utilizes a 3-way valve that allows you to control the amount of flow to the application. The process flow is measured on the return to the unit, ensuring the appropriate amount of flow is provided to the application.
Pressure/Flow Control	Allows you to control the pressure as well as the flow in your application. Utilizes a pressure relief valve and monitors the flow through the process return and displays the reading on the controller.
Water-Cooled	Uses facility water to cool the system, minimizing heat dissipation into the environment.

Accessories

Feature	Details
Installation Kit	Supply and return plumbing available in 25 and 50 ft lengths, suitable for temperatures up to +80°C.
Fluid Quality Kit	Complete fluid quality system includes algaecide and corrosion inhibitor to ensure your process has optimal fluid quality.
Ethylene Glycol	Laboratory-grade ethylene glycol allows circulation to temperatures down to -20°C in a 50/50 mixture with water. Available in a 5 gallon container.
Propylene Glycol	Laboratory-grade propylene glycol allows circulation to temperatures down to -20°C in a 50/50 mixture with water. Available in a 5 gallon container.
Maintenance Kit	Includes condenser air filters and in-line fluid filters for ease of maintenance.

About Thermo

Thermo Electron Corporation has a well-established reputation in temperature control through its NESLAB and HAAKE product lines. Formerly independent companies, NESLAB and HAAKE have joined forces within Thermo to provide proven temperature control technology along with global service and support. With over 75 years of extensive industry experience, we have the technical expertise and resources to support your specific application.

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