

Versatile, dependable chillers provide years of cooling capability for critical applications that require large process cooling. Cooling capacities up to 24000 watts.

Thermo Scientific NESLAB HX Recirculating Chillers



Ideal for diverse applications within the following markets

- Laser
- Industrial
- Semiconductor
- Medical
- Printing

Tight Stability for Process Control

Thermo Scientific NESLAB HX chillers offer the configurability and temperature stability necessary to keep critical processes running at constant temperatures.

Flexible Configurations

- Air-cooled and water-cooled condensers
- Multiple pumping options
- Extended temperature ranges from -15°C to +90°C
- Easy to use controller
- Broad range of available options and accessories

Smart Design

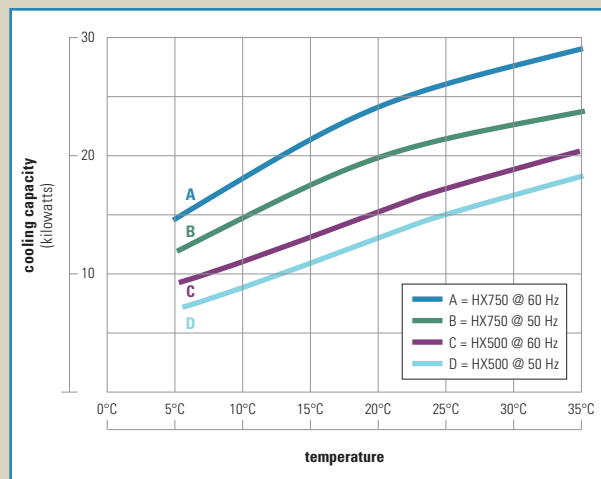
- Stainless steel reservoir and evaporator coils ensure durability
- Hot gas by-pass allows for tight temperature stability and longer compressor life
- Integrated fluid pressure gauge and flow control to optimize your process needs

Feature	Benefit
Auto Refill	Allows for automatic refilling from a customer-supplied water source to ensure the proper fluid level is maintained.
High/Low Temperature Alarms	Allows the user to configure as a warning, or to shut the unit down to keep application safe.
Auto Restart	In the event of a power failure, the unit will restart automatically once power has been restored ensuring productivity.
Low Level Alarm	Alerts user when reservoir level is too low.
Analog I/O	15-pin analog port allows for remote status of alarms and remote on/off capabilities

Options include:

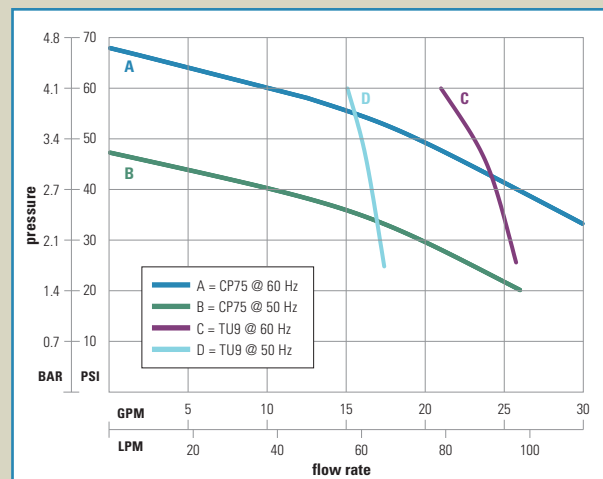
Feature	Benefit
Extended Fluid Temperature Range	Allows heating as well as cooling and high temperature operation up to +90°C.
TC-400 Temperature Controller <ul style="list-style-type: none"> • LED status indicators • Alarm status • Low flow • RS232/RS485 	A fully programmable, self diagnostic microprocessor controller allows for more sophisticated monitoring and control. Provides digital communication for remote operation, monitoring, and data logging.
Remote Temperature Sensor	Allows for remote temperature control at your application.
DI Water Package	Partial flow cartridge provides fluid resistivity between 1 MΩ/cm ² and 3 MΩ/cm ² .
Plumbing Package	Provides tubing, insulation, and plumbing connections for easy application installation.
Condenser Filters	Removable filter allows for easy maintenance.
Fluid Filtration 5, 25, 40 micron (full flow or partial flow)	Reduces fluid particulates down to the selected micron level.
Ethylene Glycol	Allows circulation at temperatures below +8°C.
Air-Cooled Condenser	Uses ambient-temperature room air to remove application heat.
Water-Cooled Condenser	Uses facility water to remove application heat.

Cooling Capacity for NESLAB HX Recirculating Chillers



Cooling capacity based on units with CP75 pumps with no backpressure. Other pumps will affect cooling capacity performance.



Pumping Capacity for NESLAB HX Recirculating Chillers



Pressure values for centrifugal pumps are differential pressures between the inlet and the outlet of the unit.

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	NESLAB HX 500	NESLAB HX 750
Setpoint Temperature Range	+5°C to +35°C (+41°F to +95°F)	+5°C to +35°C (+41°F to +95°F)
Ambient Temperature Range	+13°C to +35°C (+55°F to +95°F)	+13°C to +35°C (+55°F to +95°F)
Temperature Stability	±0.1°C	±0.1°C
Setpoint Cooling Capacity		
60 Hz at +20°C	15700 W / 53500 BTU	24000 W / 81840 BTU
50 Hz at +20°C	13030 W / 44430 BTU	19920 W / 67925 BTU
Reservoir Volume	28 gallons (106 liters)	40 gallons (151 liters)
Refrigerant		
60 Hz	R22	R-404A
50 Hz	HFC	HFC
Physical Dimensions (H x W x D)	51.6 x 46.0 x 28.8 in (131.1 x 116.8 x 73 cm)	64.8 x 46.0 x 29.0 in (164.5 x 116.8 x 73.7 cm)
CP75 Pump		
60 Hz	19 gpm @ 50 psig (71.9 lpm @ 3.4 bar)	19 gpm @ 50 psig (71.9 lpm @ 3.4 bar)
50 Hz	10 gpm @ 40 psig (37.9 lpm @ 2.8 bar)	10 gpm @ 40 psig (37.9 lpm @ 2.8 bar)
TU9 Pump		
60 Hz	23 gpm @ 50 psig (87.1 lpm @ 3.4 bar)	23 gpm @ 50 psig (87.1 lpm @ 3.4 bar)
50 Hz	16 gpm @ 50 psig (60.1 lpm @ 3.4 bar)	16 gpm @ 50 psig (60.1 lpm @ 3.4 bar)
Unit Weight	746 lb (338.4 kg)	971 lb (440.4 kg)
Voltage Options		
208-230 V/60 Hz/3 phase	Available	Available
460 V/60 Hz/3 phase	Available	Available
380-415 V/50 Hz/3 phase	Available	Available
Compliance (50 Hz units)		

Specifications obtained at sea level using water as the recirculating fluid at a +20°C process setpoint, +20°C ambient condition, and at nominal operating voltage. Other fluids, process temperatures, ambient temperatures, altitudes, or operating voltages will affect performance. Cooling capacity and amperage ratings based on units with CP75 pumps with no backpressure. Other pumps will affect cooling capacity performance. Specifications subject to change.