



Recirculating Chillers

NESLAB chillers are world-renowned for their quality and reliability. For over 35 years, NESLAB has been the industry leader in innovation and dependability making our equipment the preferred chiller for the majority of companies world-wide. The use of hot gas bypass temperature control in a chiller, today's industry standard, was developed by NESLAB. Forward thinking concepts like this, along with superior performance, make NESLAB chillers the number one choice to cool your valuable equipment, improve your processes, and save on costly tap water usage.

Recirculating *Chillers*

Using a chiller for your water cooled equipment is a wise decision for many reasons. Your valuable equipment needs to operate at its maximum level of performance. Cooling with tap water, tower water, and building chilled water can prove unreliable or cause problems. Fluctuations in temperature, pressure, and flow, as well as minerals and particulates, can produce unreliable results and damage to your equipment. A NESLAB chiller will eliminate all of these problems and save you money. Running tap water through your equipment or process is very expensive. You pay twice for the use of water. Running 4 gallons of water, 24 hours per day, 7 days a week, 52 weeks per year can potentially send 2,000,000 gallons of water down the drain per year. As you can see, by recirculating, a NESLAB chiller can pay for itself in a very short time.



Deciding on which NESLAB chiller to use is simple. Use our easy to read charts on the following pages to determine which model best suits your needs. What is your heat load requirement? What temperature do you need to circulate? What is your flow and pressure need? Do you need a simple workhorse chiller or a highly sophisticated chiller? If you are not sure of your equipment's water cooling requirements or need advice on how to best utilize our chiller, call our Applications Engineers. We have extensive cross reference information on most equipment and the experience to advise you on which NESLAB chiller will meet your needs exactly.

NESLAB is the industry leader in chiller design and innovation. We were the first to use the hot gas bypass method of temperature control in a chiller. It is now considered the industry standard. Hot gas bypass works by routing the hot, uncondensed refrigerant back through the reservoir coil when heating is needed. This eliminates on/off cycling of compressors and the addition of energy-wasting heater. You get better temperature control, greater energy efficiency, and increased compressor life.



NESLAB also introduced the industry's first completely CFC-free portable chiller in our CFT Series. We feel a responsibility to use the most environmentally friendly refrigerants available. Our HX Series uses an HCFC refrigerant which is universally accepted as an environmentally friendly alternative to CFC's.



Which chiller series should you use?

CFT Series

Heat removal capabilities from 580 watts to 11,000 watts. Basic, simple, a dependable performer.

(Pages 33-34)

HX Series

Heat removal capabilities from 2000 watts to 75,000 watts. Many pumps, controllers, and hundreds of options available.

(Pages 35-42)

System Series

Complete, packaged, Water to Water Heat Exchangers with built-in pump and temperature controller.

(Pages 45-48)

Recirculating Chillers - CFT Series

As the original designer of the small portable chiller, NESLAB introduced the CFT Series to cool precise analytical equipment. It now cools virtually every water cooled application including laboratory, medical, semiconductor, industrial, and laser industries. This tried and true design has made the CFT Series the number one choice among equipment manufacturers. The heart of the CFT Series is the CFC-free refrigeration system which provides long life, maintenance free operation. All CFT Series chillers also feature a rugged, sealed PVC reservoir. The sealed design minimizes fluid evaporation and eliminates maintenance allowing you to focus on your work instead of the chiller. The sealed reservoir also allows circulation to an open container; something not possible with an unsealed reservoir, adding to the versatility of your CFT. In addition, the CFT Series incorporates a built-in fluid bypass

system to protect the chiller in the event of an external line blockage. The standard digital microprocessor controller shows the recirculating temperature and the setpoint to a resolution of 1°C, and maintains the recirculating temperature to $\pm 0.5^\circ\text{C}$ of the setpoint. Should you be concerned about protecting your equipment or your CFT, we have included a user adjustable high and low temperature limit safety, displaying the error should the chiller reach one of these limits. If you have special cooling water requirements for your application, chances are we can meet your needs with one of the many options available. High and low temperature ranges, condenser air filter packages, deionized water packages and convenient accessories such as tubing and fluids make the CFT Series the perfect choice for your liquid temperature control needs.



Microprocessor Controller

Provides a readout and setpoint resolution of 1°C and maintains a stability of $\pm 0.5^\circ\text{C}$



Compact Design

Maximizes use of limited floor space

Removable Condenser Vent

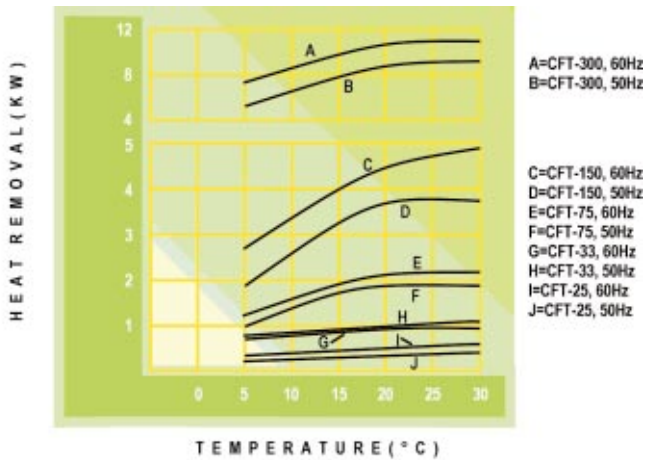
Quick, easy access to the condenser for routine cleaning. Also simplifies installation of our accessory air filter package

Recirculating Chiller Specifications

MODEL	CFT-25	CFT-33	CFT-75	CFT-150	CFT-300
TEMPERATURE RANGE	+5°C to +30°C	+5°C to +30°C	+5°C to +30°C	+5°C to +35°C	+5°C to +35°C
TEMPERATURE STABILITY	±0.5°C	±0.5°C	±0.5°C	±0.5°C	±1.0°C
COOLING CAPACITY					
60 Hz Models	580 Watts at 20°C 1978 BTU/hr at 20°C 499 Kcal/hr at 20°C	950 Watts at 20°C 3240 BTU/hr at 20°C 817 Kcal/hr at 20°C	2100 Watts at 20°C 7161 BTU/hr at 20°C 1806 Kcal/hr at 20°C	4500 Watts at 20°C 15345 BTU/hr at 20°C 3870 Kcal/hr at 20°C	10650 Watts at 20°C 36315 BTU/hr at 20°C 9181 Kcal/hr at 20°C
50 Hz Models	475 Watts at 20°C 1620 BTU/hr at 20°C 408 Kcal/hr at 20°C	1000 Watts at 20°C 3410 BTU/hr at 20°C 860 Kcal/hr at 20°C	1900 Watts at 20°C 6485 BTU/hr at 20°C 1634 Kcal/hr at 20°C	3735 Watts at 20°C 12735 BTU/hr at 20°C 3212 Kcal/hr at 20°C	9000 Watts at 20°C 30690 BTU/hr at 20°C 7759 Kcal/hr at 20°C
PUMP	MD-30*/PD-1	PD-1/PD-2	PD-1/PD-2	PD-2/CP-55	PD-2/CP-55
RESERVOIR VOLUME Gallons/Liters:	.375/1.4	1.1/4.2	1.8/6.8**	5.625/21.29	5.625/21.29
DIMENSIONS (H x W x D) In. Cm.	22 x 12 ^{1/2} x 21 55.9 x 31.8 x 53.34	24 ^{1/2} x 14 ^{3/4} x 22 62.2 x 37.5 x 55.9	26 ^{1/2} x 14 ^{7/8} x 24 ^{1/2} 67.3 x 37.8 x 62.2	36 ^{3/4} x 21 ^{3/8} x 27 ^{3/4} 93.3 x 54.3 x 70.5	43 x 25 ^{1/2} x 27 ^{3/4} 109.2 x 64.8 x 70.5
POWER REQUIREMENTS					
50 Hz Models:	115V, 60 Hz, 10 Amps 220-240V, 50 Hz, 6 Amps	115V, 60 Hz, 13 Amps 220-240V, 50 Hz, 7 Amps	208-230V, 60 Hz, 9 Amps 220-240V, 50 Hz, 10 Amps	208-230V, 60 Hz, 13 Amps 220-240V, 50 Hz, 12 Amps	208-230V, 60 Hz, 3Ø 380V, 50 Hz, 3Ø
SHIPPING WEIGHT	132 Lbs/59.9 Kgs	160 Lbs/72.6 Kgs	215 Lbs/97.5 Kgs	311 Lbs/141.1 Kgs	450 Lbs/204.1 Kgs

Specifications listed for standard units circulating water at 20°C ambient. Performance specifications will be affected by changes in temperature, ambient or coolant. *Standard circulating pump for 50Hz models is PD-1. **1.25 gallons/4.73 liters for 50Hz units. Specifications subject to change.

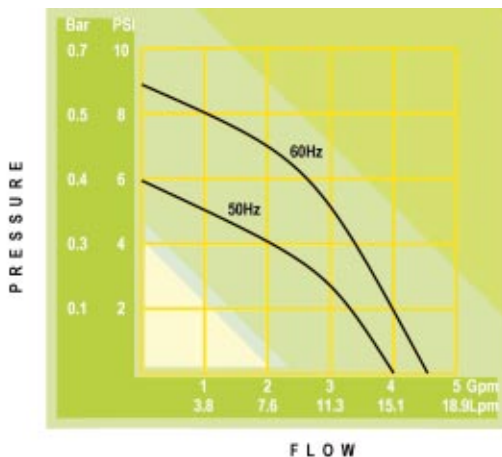
Cooling Capacity



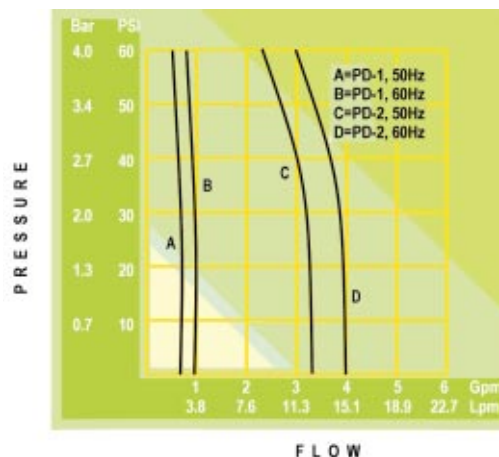
APPLICATIONS

- Condenser Cooling
- Diffusion Pumps
- Turbo-Molecular Pumps
- Vacuum Systems
- GC/MS
- Lasers
- Electron Microscopes
- ICP
- FTIR
- Plasma Etch Equipment
- Sputtering Systems
- AA Graphite Furnace
- Resistance Welders

Magnetic Drive Pump Capacity



Positive Displacement Pump Capacity



Recirculating Chillers - HX Series

The HX Series of chillers are NESLAB's versatile, highly configurable chiller series that can go from a simple workhorse to a highly sophisticated chiller via the many options available. This makes it perfectly suitable for use in laboratory, laser, industrial, semiconductor, or medical applications. Since its introduction in the late sixties, the HX Series has undergone continuous design enhancements and improvements. But, some things haven't changed for over 35 years; dependable performance, use of the highest quality materials, and a design that will be trouble free for many years.

Your HX chiller is a solid investment to protect and maximize the performance of your valuable equipment. The HX Series comes in a variety of standard configurations. To meet your needs exactly, we offer choices of controllers, pumps, temperature ranges, and condenser designs. If you're not sure which version would be the most suitable for your application, contact one of our Applications Engineers. They have the expertise necessary to make the perfect recommendation.

Digital Temperature Controller

An LED readout displays recirculating temperature and setpoint, both with a resolution of 1°C. A low liquid level indicator guards against fluid evaporation or circulating leaks. Idle and Cool lights are essential for diagnostics and operating status.

TC-400 Temperature Controller

A fully programmable, self-diagnostic microprocessor controller featuring:

- Recirculating fluid and setpoint temperature to a 1°C resolution
- Process flow rate readout
- Low level, high temperature, low temperature, and low flow fault with alarm
- User adjustable alarm limits
- Analog interface
- Remote sensor interface (remote sensor purchased separately)

Options include:

- Remote sensor
- Remote controller
- Resistivity display for deionized water applications
- RS-232 or RS-485 serial communications interface
- 0.1°C temperature resolution

Smart Design

Stainless steel reservoir and heat exchanger ensures fluid compatibility

Reservoir drain for quick fluid changes

Easy Access
Hinged top opens for easy access to internal components



Recirculating Chiller Specifications

MODEL	HX-75	HX-150
TEMPERATURE RANGE	+5°C to +35°C	+5°C to +35°C
TEMPERATURE STABILITY	±0.1°C	±0.1°C
COOLING CAPACITY		
60 Hz Models	2000 Watts at 20°C 6820 BTU/hr at 20°C 1720 Kcal/hr at 20°C	4500 Watts at 20°C 15345 BTU/hr at 20°C 3870 Kcal/hr at 20°C
50 Hz Models	1660 Watts at 20°C 5660 BTU/hr at 20°C 1428 Kcal/hr at 20°C	3735 Watts at 20°C 12735 BTU/hr at 20°C 3212 Kcal/hr at 20°C
PUMP	Specify from pump graphs	Specify from pump graphs
RESERVOIR VOLUME		
Gallons/Liters:	5/18.9	8/30.3
DIMENSIONS (H x W x D)		
In.	35 ³ / ₄ x 23 ¹ / ₄ x 18 ³ / ₄	39 ⁵ / ₈ x 26 ¹ / ₄ x 21 ¹ / ₈
Cm.	90.8 x 59.0 x 47.6	100.6 x 66.7 x 53.7
POWER REQUIREMENTS		
50 Hz Models:	208-230V, 60 Hz, 12 Amps 220-240V, 50 Hz, 11 Amps	208-230V, 60 Hz, 17 Amps 220-240V, 50 Hz, 14 Amps
SHIPPING WEIGHT	261 Lbs/118.4 Kgs	320 Lbs/145.2 Kgs

Specifications listed for standard units circulating water at 20°C ambient. Performance specifications will be affected by changes in temperature, ambient or coolant. Cooling capacity and amperage ratings based on units with CP-25 pump, may be affected by optional pumps. Specifications subject to change.

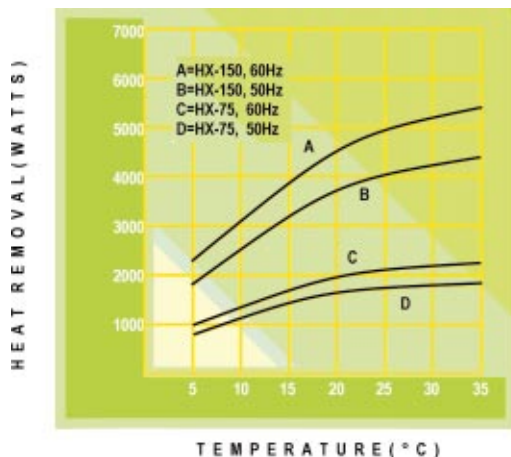
APPLICATIONS

- Lasers
- Process Cooling
- Medical Lasers
- Linear Accelerators
- Diffusion Pumps
- Turbo-Molecular Pumps
- Vacuum Systems
- Plasma Etch Equipment
- Sputtering Systems

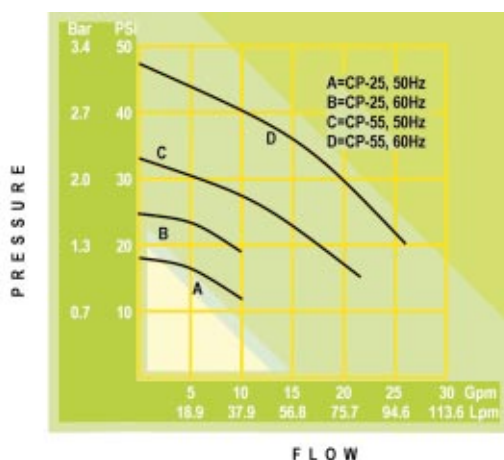
ACCESSORIES

- External Pressure Reducer
- External Temperature Readout
- Plumbing Packages
- Circulating Hose
- Hose Insulation

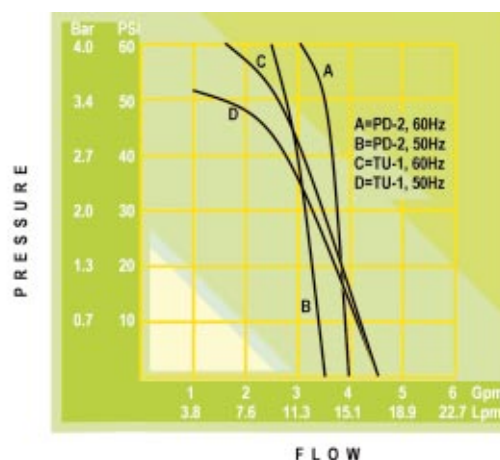
Cooling Capacity



Centrifugal Pump Capacity



Positive Displacement & Turbine Pump Capacity



Recirculating Chiller Specifications

MODEL	HX-300	HX-500
TEMPERATURE RANGE	+5°C to +35°C	+5°C to +35°C
TEMPERATURE STABILITY	±0.1°C	±0.1°C
COOLING CAPACITY		
60 Hz Models	10000 Watts at 20°C 34100 BTU/hr at 20°C 8593 Kcal/hr at 20°C	15700 Watts at 20°C 53500 BTU/hr at 20°C 13502 Kcal/hr at 20°C
50 Hz Models	8300 Watts at 20°C 28303 BTU/hr at 20°C 7132 Kcal/hr at 20°C	13030 Watts at 20°C 44430 BTU/hr at 20°C 11206 Kcal/hr at 20°C
PUMP	Specify from pump graphs	Specify from pump graphs
RESERVOIR VOLUME		
Gallons/Liters:	15/56.8	28/106
DIMENSIONS (H x W x D) In. Cm.	45 ⁷ / ₈ x 33 ³ / ₄ x 25 ¹ / ₄ 116.5 x 85.7 x 64.1	50 ⁵ / ₈ x 46 x 28 ³ / ₄ 128.6 x 116.8 x 73
POWER REQUIREMENTS		
50 Hz Models:	208-230V, 60 Hz, 21 Amps 3Ø 380-420V, 50 Hz, 12 Amps 3Ø	208-230V, 60 Hz, 38 Amps 3Ø 380-420V, 50 Hz, 17 Amps 3Ø
SHIPPING WEIGHT	477 Lbs/216.4 Kgs	746 Lbs/338.4 Kgs

Specifications listed for standard units circulating water at 20°C ambient. Specifications will be affected by changes in temperature, ambient, or coolant. Cooling capacity and amperage ratings based on units with CP-25 pump, may be affected by optional pumps. Specifications subject to change.

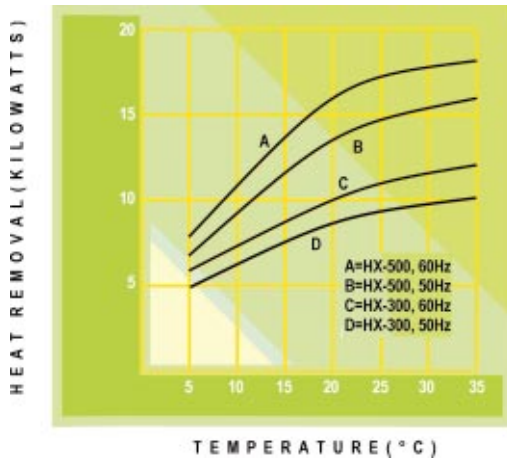
APPLICATIONS

- Lasers
- Process Cooling
- MRI
- Medical Lasers
- Linear Accelerators
- Diffusion Pumps
- Vacuum Systems
- Plasma Etch Equipment

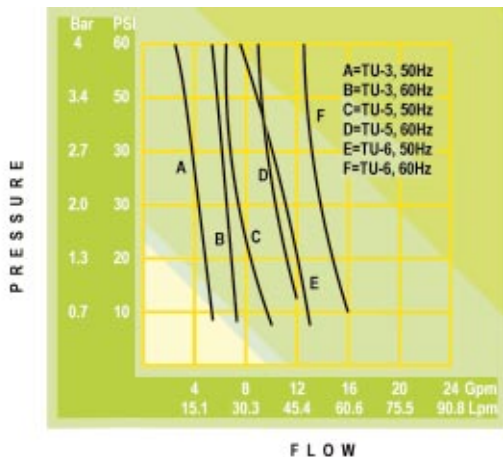
ACCESSORIES

- External Pressure Reducer
- External Temp. Readout
- Plumbing Packages
- Circulating Hose
- Hose Insulation
- Algicide

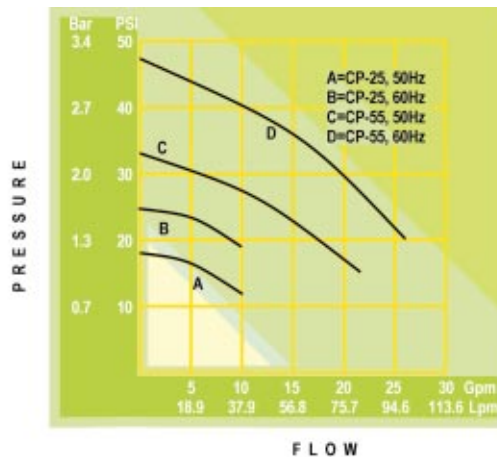
Cooling Capacity



Turbine Pump Capacity



Centrifugal Pump Capacity



Recirculating Chiller Specifications

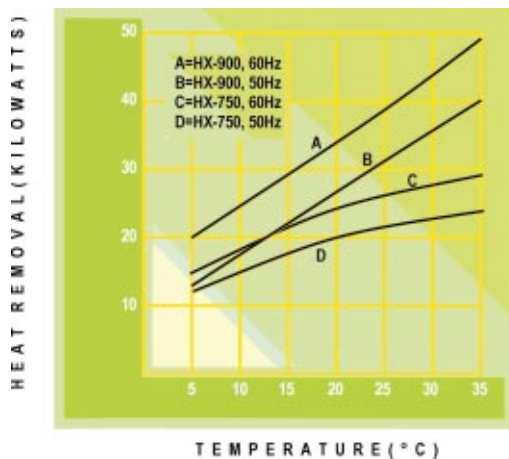
MODEL	HX-750	HX-900
TEMPERATURE RANGE	+5°C to +35°C	+5°C to +35°C
TEMPERATURE STABILITY	±0.1°C	±1.0°C
COOLING CAPACITY		
60 Hz Models	24000 Watts at 20°C 81840 BTU/hr at 20°C 20640 Kcal/hr at 20°C	38000 Watts at 25°C 129580 BTU/hr at 25°C 32760 Kcal/hr at 25°C
50 Hz Models	19920 Watts at 20°C 67925 BTU/hr at 20°C 17131 Kcal/hr at 20°C	31500 Watts at 25°C 107415 BTU/hr at 25°C 27155 Kcal/hr at 25°C
PUMP	Specify from pump graphs	CP-100 38 gpm @ 40 psi 60Hz CP-100 28 gpm @ 30 psi 50Hz
RESERVOIR VOLUME		
Gallons/Liters:	40/151.4	15/56.8
DIMENSIONS (H x W x D) In. Cm.	63 ^{3/4} x 46 x 29* 161.9 x 116.8 x 73.7*	63 ^{3/4} x 46 x 29 161.9 x 116.8 x 73.7
POWER REQUIREMENTS	208-230V, 60 Hz, 40 Amps 3Ø 50 Hz Models: 380-420V, 50 Hz, 21 Amps 3Ø	208-230V, 60 Hz, 56 Amps 3Ø 380-420V, 50 Hz, 32 Amps 3Ø
SHIPPING WEIGHT	971 Lbs/440.4 Kgs	1250 Lbs/567 Kgs

Specifications listed for standard units circulating water at 20°C ambient. Specifications will be affected by changes in temperature, ambient, or coolant. Cooling capacity and amperage ratings based on units with CP-25 pump, may be affected by optional pumps. *Water cooled dimensions same as HX-500. Specifications subject to change.

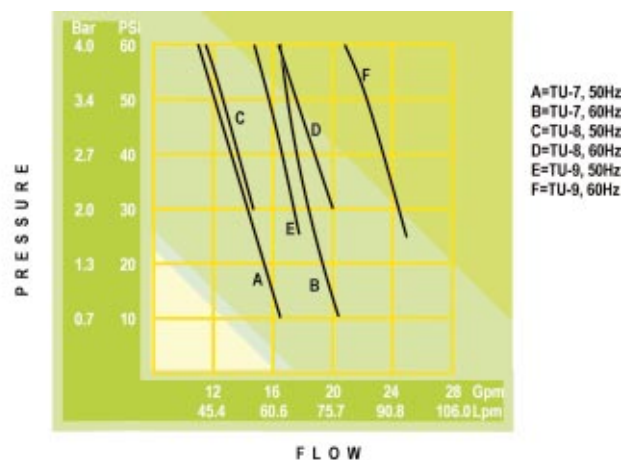
APPLICATIONS

- Lasers
- Process Cooling
- MRI
- NMR Magnet
- Vacuum Systems
- Plasma Etch Equipment
- Sputtering Systems
- Power Supplies

Cooling Capacity



Turbine Pump Capacity



TC-400 Temperature Controller

A fully programmable, self-diagnostic microprocessor controller featuring:

- Recirculating fluid and setpoint temperature to a 1°C resolution
- Process flow rate readout
- Low level, high temperature, low temperature, and low flow fault with alarm
- User adjustable alarm limits
- Analog interface
- Remote sensor interface (remote sensor purchased separately)

Recirculating Chillers

HX Series - Indoor/Outdoor

NESLAB's HX-1000 and HX-2000 are high capacity chillers designed for indoor or outdoor installation. The largest of our recirculating chiller family, these heavy duty, industrial units are ideal for replacing building water cooling of multiple systems, or for handling the heavy heat loads of high capacity lasers, medical imaging equipment, and industrial processing equipment. In addition to these applications, the HX-1000 and HX-2000 are ideal for laboratory or hospital/clinic settings when it is necessary to discharge heat outside.

Air Cooled Refrigeration

Two large condensing fans are mounted at the top of the units. They draw air through the system and discharge it at the top, and are completely self-contained and designed to withstand rain and harsh weather

A large industrial grade pump provides strong pressure for circulating at distances, and excellent fluid agitation for temperature uniformity. A digital control box remotes by cable to a convenient internal location. It provides all of the features of our TC-400 including high temperature, low temperature, low flow, and low level safeties. The refrigeration system is controlled by our hot gas bypass, which eliminates compressor cycling on and off and greatly enhances compressor life.

Electrical Enclosure

The electrical components are designed to NEMA 4 Code for operational safety. All electronics are encased in a durable, locking enclosure for protection from tampering and outdoor conditions



Recirculating Chiller Specifications

Indoor/Outdoor

MODEL	HX-1000	HX-2000
TEMPERATURE RANGE	+10°C to +25°C	+10°C to +25°C
TEMPERATURE STABILITY	±1.0°C	±1.0°C
COOLING CAPACITY		
60 Hz Models	53000 Watts at 25°C 18730 BTU/hr at 25°C 45544 Kcal/hr at 25°C	75000 Watts at 25°C 255750 BTU/hr at 25°C 64450 Kcal/hr at 25°C
50 Hz Models	43990 Watts at 25°C 150005 BTU/hr at 25°C 37800 Kcal/hr at 25°C	62250 Watts at 25°C 212270 BTU/hr at 25°C 53490 Kcal/hr at 25°C
PUMP	CP-100	CP-100
RESERVOIR VOLUME		
Gallons/Liters:	14/53	14/53
DIMENSIONS (H x W x D) In. Cm.	73 ^{1/2} x 58 x 30 186.7 X 147.3 X 76.2	76 x 67 ^{1/4} x 34 193 X 170.8 X 86.4
POWER REQUIREMENTS		
50 Hz Models:	440-480V, 60 Hz, 33 Amps 3Ø 380-420V, 50 Hz, 30 Amps 3Ø	440-480V, 60 Hz, 58 Amps 3Ø 380-420V, 50 Hz, 40 Amps 3Ø
SHIPPING WEIGHT	1612 Lbs/731.2 Kgs	2061 Lbs/934.9 Kgs

Specifications listed for HX-1000 and HX-2000 circulating at 25°C, ambient 21°C, with 50% Ethylene Glycol as coolant. Specifications will be affected by changes in temperature, ambient, or fluids. Specifications subject to change.

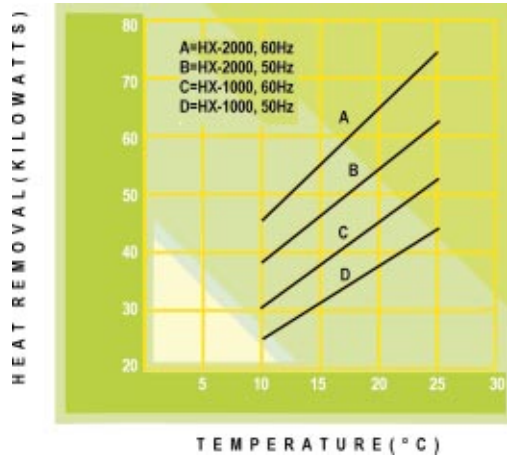
FEATURES

- All weather design
- High capacity circulating pump
- NEMA 4 electrical enclosure
- Hot gas bypass system

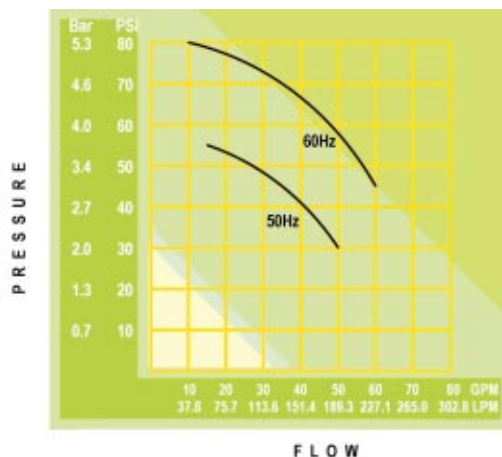
APPLICATIONS

- Multiple Instruments Cooling
- Heat Exchangers
- Laser Cooling
- Semiconductor Equipment
- Plastic Molding & Extrusion

Cooling Capacity



Pumping Capacity



Recirculating Chillers

HX Series - Low Temperature

The HX -540 low temperature chiller is ideal for applications requiring high heat removal at low temperatures. Typically, a low temperature/high heat removal chiller would require a large case to accommodate the special components needed. NESLAB's years of experience in chiller technology has enabled us to offer this chiller in an extremely compact size. Feel free to compare to the competition. Standard features include a stainless steel reservoir, plate style heat exchanger, NEMA 4 electrical enclosure, and hot gas bypass temperature control. The sophisticated TC400 micro-

processor controller monitors all chiller functions as well as providing fluid safeties such as low reservoir liquid level, high and low temperature overshoot, and low flow. The TC400 even provides a recirculating flow readout in gallons or liter per minute, you choose. The HX-540 is perfect for use in a variety of applications. Reaction vessels in the chemical and pharmaceutical industries, quenching of cables in the fiber optics industry, and many chip manufacturing and testing processes in the semiconductor industry are just a few of the many applications where the HX-540 has become useful.

Compact Design
Maximizes use of
limited floor space



Safety Certifications
NEMA 4 electrical
enclosure for safety and
reliability

Recirculating Chiller Specifications

Low Temp

MODEL	HX-540
TEMPERATURE RANGE	-40°C to +25°C
TEMPERATURE STABILITY	±0.5°C
COOLING CAPACITY	
60 Hz Models	7500 Watts at -20°C 25575 BTU/hr at -20°C
50 Hz Models	6000 Watts at -20°C 20460 BTU/hr at -20°C
PUMP	TU-3/6 gpm, 65 psi
50Hz Models	18.8 Lpm, 3.1 bar
RESERVOIR VOLUME	
Gallons/Liters:	5/18.4
DIMENSIONS (H x W x D) In.	44 x 34 x 25 ^{1/2}
Cm.	111.8 x 86.4 x 64.8
	add 9in (22.8 cm) to depth for electrical enclosure
POWER REQUIREMENTS	440-480V, 60 Hz, 15 Amps 3Ø
50 Hz Models:	380-420V, 50 Hz, 17 Amps 3Ø
SHIPPING WEIGHT	915 Lbs/415 Kgs

Specifications listed for units circulating 60% Ethylene Glycol, 20% water, and fluid with specific heat of .6. Specifications will be affected by changes in temperature, ambient or fluids. Specifications subject to change.

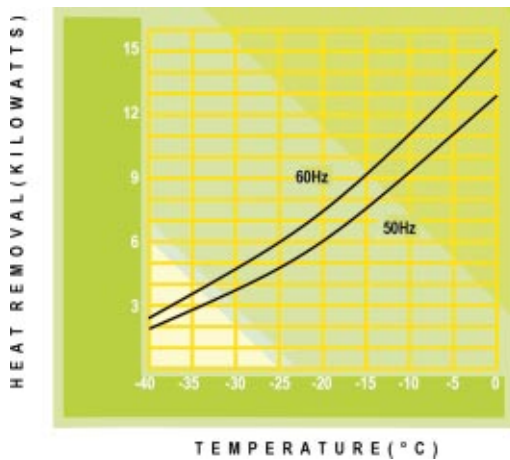
FEATURES

- High cooling capacity at low temperatures
- Semi-hermetic compressor
- High pressure circulating pump
- Designed for 24 hour, continuous duty
- Hot gas bypass system
- Water cooled condenser

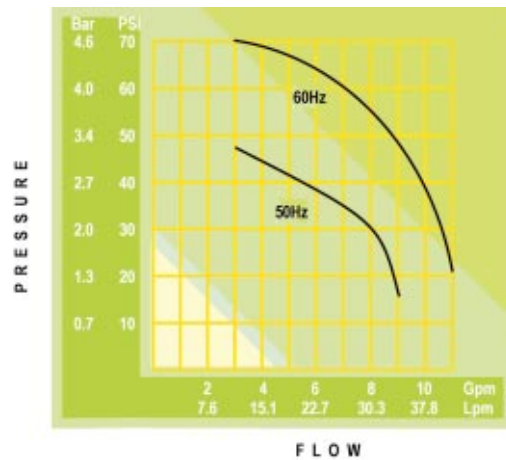
APPLICATIONS

- Plasma Etch Chamber
- Quenching Fiber Optics Cables
- Chemical and Organic Reactions
- Gallium Arsenide Crystal Growth
- Molecular Beam Epitaxy

Cooling Capacity



Pumping Capacity



Recirculating Chillers

Custom Configurations

Many customization options are available on the HX and CFT Series Chillers. Below are just a few. If you do not see what you need, contact one of our Applications Engineers. Chances are we have the option available to suit your application.



Extended Temperature Range

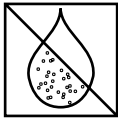
Feature will allow you to set a circulating temperature outside of the range of the standard model.

Stainless Steel/Plastic Unit

Recirculating Chiller features stainless steel and plastic components to provide fluid compatibility for your sensitive circulating applications.



Deionization Package



We will install a purification system for standard ultra pure circulating requirements.

Custom Electrical

Recirculating Chiller can be wired for a variety of AC power sources.



Safety Interlocks



Recirculating Chiller warns of situations outside of your set specifications. Monitor flow, liquid level or low/high temperature.

Safety Certifications

Units can be customized with certified components and electrical designs to meet the safety requirements set by the following internationally recognized standards.

CSA

We have been granted the Category Certification Program for the Canadian Standards Association, complying to CSA 1010.1 for all products.

CE

All units destined for Europe are tested for compliance to the EMC and LVD directives. NESLAB's in-house EMC lab is assessed by Interference Technologies International, Ltd., as a supplier of EMC testing services.

IEC

Many of our Recirculating Chiller designs meet the rigorous European safety standards of IEC 1010 or IEC 10601, and are certified through the TUV Testing Agency.

UL

NESLAB has been granted the Client Test Data Program for the Underwriters Laboratories, and is certified to provide UL testing in-house for Commercial Processing Chiller UL 471, Medical Electrical Equipment Component UL 2601-1, and Laboratory Electrical Equipment UL 3101-1.

IBM Safety Specification

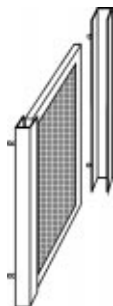
NESLAB has been designing units which conform to the IBM safety spec on recirculating chillers since 1972. This option includes NEMA 12 enclosure and emergency off.

Semi S2-93

Our semiconductor chillers are designed and tested to comply with Semi S2-93 safety guidelines for semiconductor manufacturing equipment. These guidelines apply to equipment used in the manufacturing, metrology, assembly, and testing of semiconductor products.

Recirculating Chillers

Accessories



Air Filter Package

Snap on air filter protects chillers with air cooled condensers from damage and prevents loss of performance in dusty or unclean environments.

For Models

All CFT Series chillers and HX-75 through HX-750 Series chillers with air cooled condensers



Tubing Package

Tygon and silicon tubing available for air or water lines, fluids handling, and drainage procedures. Tygon tubing is a durable choice for applications requiring near ambient temperature ranges. Silicon tubing is available for dependable circulation at very low temperature ranges.

For Models

All CFT and HX Series chillers System Series water to water heat exchangers
All Bath/Circulators

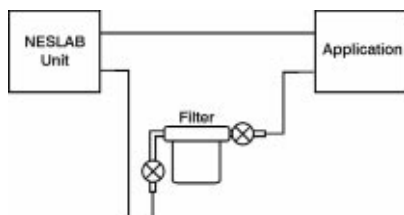


Algicide

Chloramin-T Algicide eliminates the growth of algae in water baths, circulators, chillers, and other laboratory apparatus. The 250 gram bottle contains enough algicide to treat 1000 liters of water.

For Models

All CFT and HX Series chillers System Series water to water heat exchangers
All Bath/Circulators

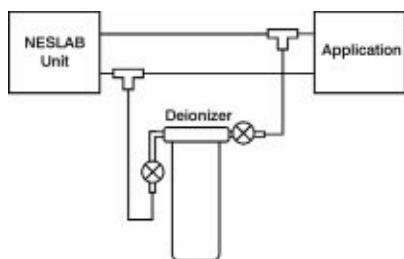


Particulate Filter Package

Can be used on the process side or on the facility side in our water cooled condenser models to protect your equipment and chiller from harmful particulates. Available in 5, 10, 25, or 40 micron sizes, partial or full flow

For Models

All CFT and HX Series chillers System Series water to water heat exchangers



Deionized Water Package

Partial flow system maintains resistivity levels between 1 and 3 meg-ohm/cm. Available with a cartridge change indicator light. Also compatible with NESLAB's optional resistivity readout.

For Models

All CFT and HX Series chillers System Series water to water heat exchangers
