



[www.IetLtd.com](http://www.IetLtd.com) Proudly serving laboratories worldwide since 1979

CALL +1.847.913.0777 for Refurbished & Certified Lab Equipment

## ***NESLAB HX 75, HX 150 and HX 300 Series Process Chillers***

### **Tight Stability for Process Control**

NESLAB HX 75, HX 150 and HX 300 chillers offer the tight stability ( $\pm 0.1^{\circ}\text{C}$ ) necessary to keep critical processes running at constant temperatures. Better process control keeps your equipment running at optimal levels, giving you the results you need.

### **Versatile, Flexible Configurations**

Depending on your facility requirements, you can select air or water-cooled condensers. Choose the TC 400 controller for advanced safety and communication features. Various pump types are available to suit a wide range of flow and pressure requirements.

### **Worry-free Operation**

NESLAB HX 75, HX 150 and HX 300 process chillers are easy to install and offer years of reliable cooling. These robust units are designed for trouble-free operation to maximize uptime. Panels are easy to remove for quick access to components.

### **Choice of Options and Accessories**

While each Thermo unit comes with many standard features, a full range of options and accessories are available to meet your specific application needs.

### **Typical applications:**

- Test equipment
- Military applications
- Lasers
- NMR
- X-ray
- Mass spectrometers
- Diffusion and cryopumps
- Blister packaging
- Semiconductors
- Reactor vessels
- MRI
- CT

## Specifications

| NESLAB                            | HX 75                           | HX 150                            | HX 300                            |
|-----------------------------------|---------------------------------|-----------------------------------|-----------------------------------|
| <b>Standard temperature range</b> |                                 |                                   |                                   |
| C                                 | 5° to 35°                       | 5° to 35°                         | 5° to 35°                         |
| F                                 | 41° to 95°                      | 41° to 95°                        | 41° to 95°                        |
| <b>Optional temperature range</b> |                                 |                                   |                                   |
|                                   | 5° to 90° (1Kw heater @ 208VAC) | 5° to 90° (2.5Kw heater @ 208VAC) | 5° to 90° (5 Kw heater at 208VAC) |
| <b>Ambient temperature range</b>  |                                 |                                   |                                   |
| C                                 | 13° to 35°                      | 13° to 35°                        | 13° to 35°                        |
| F                                 | 55° to 95°                      | 55° to 95°                        | 55° to 95°                        |
| <b>Stability</b>                  |                                 |                                   |                                   |
| C                                 | +/- 0.1°                        | +/- 0.1°                          | +/- 0.1°                          |
| F                                 | +/- 0.2°                        | +/- 0.2°                          | +/- 0.2°                          |
| <b>Condenser</b>                  |                                 |                                   |                                   |
|                                   | air or water cooled             | air or water cooled               | air or water cooled               |
| <b>Reservoir size</b>             |                                 |                                   |                                   |
|                                   | 5 Gallons/18.9 Liters           | 8 Gallons/ 30.3 Liters            | 15 Gallons/ 56.8 Liters           |
| <b>Cooling capacity</b>           |                                 |                                   |                                   |
| 60 Hz at 20°C                     | 2,000 W                         | 4,500 W                           | 10,000 W                          |
| 50 Hz at 20°C                     | 1,660 W                         | 3,735 W                           | 8,300 W                           |
| <b>Pump performance</b>           |                                 |                                   |                                   |
| 60 Hz Pump 1                      | 3.3 gpm @ 50 psig (PD2)         | 3.3 gpm @ 50 psig (PD2)           | 3.3 gpm at 50 psig (PD2)          |
| 60 Hz Pump 2                      | -2.6 gpm @ 42 psig (TU1)        | 10 gpm @ 40 psig (CP55)           | 9 gpm at 50 psig (TU5)            |
| 60 Hz Pump 3                      | N/A                             | N/A                               | 19 gpm at 50 psig (CP 75)         |
| 50 Hz Pump 1                      | 2.75 gpm @ 50 psig (PD2)        | 2.75 gpm @ 50 psig (PD2)          | 2.75 gpm at 50 psig (PD2)         |
| 50 Hz Pump 2                      | 2.5 gpm @ 40 psig (TU1)         | 10 gpm @ 27 psig (CP55)           | 8 gpm at 25 psig (TU5)            |
| 50 Hz Pump 3                      | N/A                             | N/A                               | 10 gpm at 40 psig (CP 75)         |
| <b>Power requirements</b>         |                                 |                                   |                                   |
| 60 Hz                             | 208-230V1ø                      | 208-230V1ø                        | 208-230 V3ø                       |
| 50 Hz                             | 220-240V1ø                      | 220-240V1ø                        | 380-415 V3ø                       |
| <b>Unit dimensions</b>            |                                 |                                   |                                   |
| in (H x W x D)                    | 36.75 x 23.25 x 18.75           | 40.625 x 26.25 x 21.125           | 46.875 x 33.75 x 25.25            |
| cm (H x W x D)                    | 93.3 x 59 x 47.6                | 103.2 x 66.7 x 53.7               | 118.9 x 85.7 x 64.1               |
| <b>Plumbing connections</b>       |                                 |                                   |                                   |
| inlet/outlet process              | 3/4" FNPT                       | 3/4" FNPT                         | 3/4" FNPT(CP-75 1" FNPT)          |
| inlet/outlet facility (W/C only)  | 1/2" FNPT                       | 1/2" FNPT                         | 1/2" FNPT                         |
| <b>Plumbing connection</b>        |                                 |                                   |                                   |
| drain                             | 1/2" FNPT                       | 1/2" FNPT                         | 1/2" FNPT                         |
| auto refill                       | 3/8" OD SS barb                 | 3/8" OD SS barb                   | 3/8" OD SS barb                   |
| <b>Refrigerant</b>                |                                 |                                   |                                   |
| 60 Hz                             | R22                             | R22                               | R22                               |
| 50 Hz                             | R134A                           | R134A                             | R134A                             |
| <b>Compliance</b>                 |                                 |                                   |                                   |
| 50 Hz units                       | CE                              | CE                                | CE                                |
| <b>Unit weight</b>                |                                 |                                   |                                   |
| lb                                | 261                             | 320                               | 477                               |
| kg                                | 118.4                           | 145.2                             | 216                               |

## Standard Features

**Auto-refill** Allows for self-filling of the chiller to ensure that the proper level in the reservoir is maintained

**Stainless steel reservoir** Convenient easy cleaning. Compatible with a wide range of fluids

**Temperature stability of +/- 0.1°C** Keeps your process stable giving you consistent, reliable results

**High and low temperature safeties** Can be configured as warnings or, will shut the unit down to keep your application safe

**Auto-restart** In the event of power failure, the unit will automatically restart, upon power restoration which ensures productivity

**Low level safety** Alarms you if the reservoir level is too low

**Hot gas by-pass** Refrigeration design that allows for tight temperature stability and longer compressor life

**Compact footprint** Efficient design keeping your valuable floor space to a minimum

**15-Pin analog control port** Allows for remote status of alarms and remote on/off capabilities

**Integrated fluid pressure gauge and flow control** Provides integral pressure and flow control to adjust to your process needs

## OPTIONS

**Pump selection** Various pumps available to meet the flow and pressure requirements of your application

**Air-cooled or water-cooled condenser** Configurable to your facilities needs

**High temperature range** Allows heating as well as cooling and high temperature operation up to +90°C

**Powerful TC 400 Controller**, User-friendly interface that allows more sophisticated monitoring and control of HX operation

- **LED status indicators**

- **Alarm Status**

- **Low flow**

- **RS-232**

**Communication RS-232** Allows for control of your chiller from your PC or laptop

## Optional Accessories

**Remote temperature probe** Allows for remote temperature control at your application

**Fluid filtration 5, 25, 40, micron full flow** Maintains particulate-free operating fluid

**Fluid filtration 5, 25, 40, micron partial flow** Maintains particulate-free operating fluid

**DI filtration** Maintains a water resistivity level between 1 and 3 megohm/cm for cooling applications

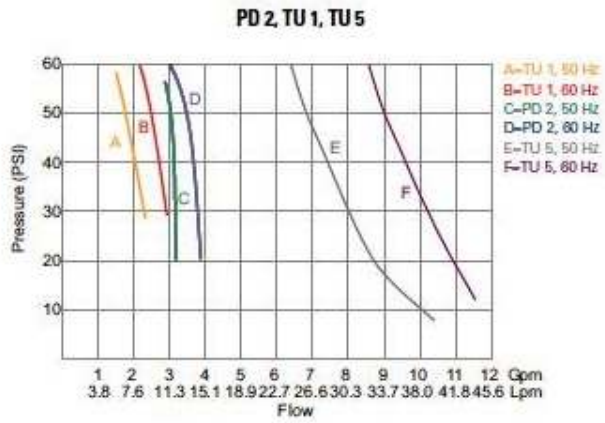
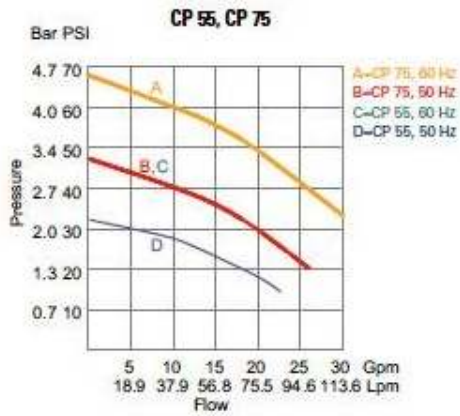
requiring ultrapure water or electrical isolation of the application

**Plumbing package** Provides tubing, insulation and plumbing connections for easy installation

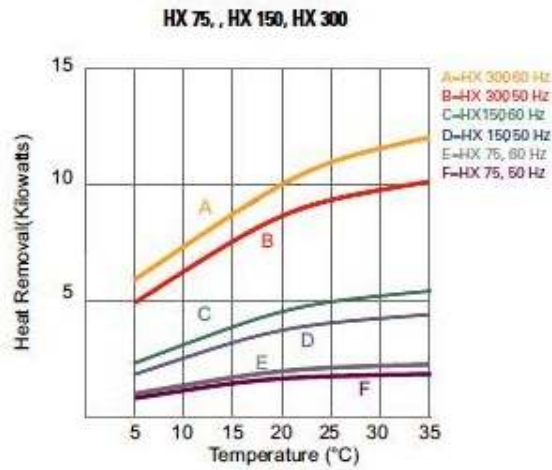
**Condenser filters** Keeps the condenser clean and your unit performance optimal

**Ethylene glycol** Allows circulation to temperatures below 8°C

**Pumping Capacity**



**Cooling Capacity**



Proudly serving laboratories worldwide since 1979

**CALL +1.847.913.0777 for Refurbished & Certified Lab Equipment**