



FAQ

1. How does the Liquid Chiller LC3220E-H work?

A liquid chiller is a product that secures cooling by using liquid circulation or convection. The liquid serves as a heat conductor and removes the heat from devices and components. That is how it manages to cool them down and keep them cool.

The Liquid Chiller LC3220E-H keeps your device cool and focused in extreme temperatures by pumping liquid (like distilled water, propylene glycol or coolant formula) through device and equipment.

Powered by a rotary micro-compressor, NO Ice! NO chemical cold pad!

2. What applications Liquid Chiller LC3220E-H apply to?

- Laser devices
- Battery packs
- Medical equipment
- Photonics effective cooling
- Small chilled water systems
- Electronics cooling systems
- Electric vehicle charging stations
- Semiconductor test industry application

Besides, you also can combined RIGID **Liquid Chiller LC3220E-H** with a cooling shirt or vest, that is a compact chiller for human body cooling.

Chiller **LC3220E-H** circulates water flowing through the suit, helps to take away the heat released by the human body. **LC3220E-H** works as a liquid chiller to cool the circulating water and provide continuous cooling water for the human body cooling.

3. How is Chiller LC3220E-H able to generate marvellous power for its size?

The **Chiller LC3220E-H** has one of the highest power to weight ratio rotary micro-compressor in the world. Capable of producing as much cooling power as a compressor 5x its size - this is the heartbeat of our cooling system.



4. How is the Liquid Chiller LC3220E-H different from other cooling systems?

It is dual functions of **Heating** and **Cooling**. Easy & Swift.

The **Chiller LC3220E-H** requires no ice! It adopts world's smallest variable speed refrigerated compressor to operate. Small body, Power engine.

Driven by dc power supply (24V), it runs on a continuous cooling cycle, therefore will cool as long as the system is turned on.

It's extremely lightweight, compact, and has a fluid flow rate of 5 liters per minute at 16 psi. The rotary micro-compressor inside is as strong as other systems 5 times its size.

It requires zero maintenance and allows you to set and change your temperature to your needs.

5. What does the Coolant Formula consist of?

Usually, distilled water is good if your target liquid temperature above 4C degree.

If you want much lower liquid temperature, you have to consider Coolant Formula to avoid frosting, like propylene glycol or water mixtures.

6. What's the temperature range of Liquid Chiller LC3220E-H?

Factory setting is 4°C ~45°C (39°F ~113°F).

We can customized according to customer's special demand

7. What's the best temperature for racing driver body cooling?

The recommended temperature setting is 13°C (55° F).

We recommend this mid-range temperature because studies show that temperatures below 55° can shock the capillaries just below the surface of the skin and cause them to close, actually causing your body to hold heat. 55° - 60° around the torso and vital regions of the body is most effective, cooling your body from the core.



8. How long does the Chiller LC3220E-H operate before needing to be refilled?

The **Chiller LC3220E-H** functions on a continuous cycle. Your device operating frequency and how often you use the system effects how often you need to refill the reservoir. Chiller **LC3220E-H** only requires one to one coolant formula to distilled water mixture, so we recommend topping off before every use to prevent the system from running dry.

9. What are the dimensions and weight of Liquid Chiller LC3220E-H?

External dimension: 339x208x235 mm (13x8.2x9.2 inch)

Net weighs: 5kgs/11lbs.

10. How can I control the temperature of Liquid Chiller LC3220E-H?

A digital display in front of the chiller communicates the current temperature.

11. Can the Liquid Chiller LC3220E-H cool more than one device?

Depending on the ambient temperature at the time, your system and install. RIGID also provides customized service and design.

12. What are the power requirements to power a Chiller LC3220E-H?

While power draw can spike to 12 amps max, depending on your surrounding temperature, average draw is 4-5 amps. The system runs on 24 volts AC adapter.

Tested in maximum compressor speed at 6000rpm, our system uses around 550 watts at maximum.

We highly recommend adding an inline fuse within 6 inches from the power supply, in line with fans and ducting to prevent from heat soak and high amp draw. Forcing ambient air intake to the chiller can significantly affect the draw rate.



INSTALLATION AND MAINTENANCE

1. How do I install the Chiller LC3220E-H?

The RIGID Compact Cooler requires a 24V 10 amp or greater power supply. We recommend you install to accessory and add an inline fuse within 6 inches from the power supply. Note* the red wire is positive, the black is ground.

Mount the base plate. Mounting location should be in the coolest, most ventilated portion of the system. Cooler air will boost efficiency and reduce current draw, therefore, mount system where intake is facing away from transmission tunnel and exhaust. Do not mount system over transmission tunnel or exhaust.

We recommend you use 1"-1.5" spacers between the cooler and the floor pan to allow cooler air to circulate under the system to prevent overheating. In some device, a duct and blower may be necessary to source cooler air.

Operating temperatures should not exceed 60° C / 140° F without additional fans or blower. If temperature exceeds 140° F, system will shut off to prevent overheating.

Consider the shorter the length of the cooling hose, the more efficient the hose will be. Hoses can be cut to fit and shrink wrapped for a clean, finished look.

Visit our website for more videos and tips. **WWW.RIGIDHVAC.COM**

2. What are the maintenance requirements for the Liquid Chiller LC3220E-H?

There are zero maintenance requirements for Chiller LC3220E-H.

We only suggest that you top the Coolant Formula off before every use to prevent from ever running the system dry.

3. Do you offer replacement or spare installation parts?

RIGID Cooling Systems offer replacement and spare installation parts. If you have additional questions about which parts you might need, please reach out to us.

www.rigidhvac.com * info@rigidhvac.com * +86-579-8837 9768

4. Are there additional accessories needed?



Liquid Chiller LC3220E-H is a completed cooling system. It is fully charged of refrigerant gas and oil before shipping. Just plug and play!

Optional accessories:

- AC Adaptor
- Cooling hose

5. Can I use standard freon in my Chiller LC3220E-H?

You should not put freon inside of the **Chiller LC3220E-H** except distilled water and glycol-water mixture for this type of compressor. Any other fluids including freon could cause the system to freeze up or congeal, evidently breaking the system.

PURCHASING/ORDERING

1. Can I purchase a Chiller LC3220E-H direct, or through a vendor?

RIGID Compact Cooling Systems is selling direct to consumer. Retails feel free to our online store: <https://www.rigidhvac.com/online-order>

Production order or cooperation, reach out to ann@rigidhvac.com Any comments will receive our prompt reply in 12hrs.

2. What is the warranty for Chiller LC3220E-H?

The warranty of **Chiller LC3220E-H** is 18 months.

3. What is the Liquid Chiller return policy?

Return policy is 30 days, excluding the shipping.

4. Does the Liquid Chiller ship internationally?

All RIGID cooling systems ship internationally, DHL door to door shipping.