

- 2,500 BTU/Hr @ 28°F
- 1 Year Product Warranty
- Proudly made in the USA



Description

1/2 HP Glycol Chiller

- 2 Gallon Reservoir
- 2,500 BTU/hr @ 28°F
- 56 dBA
- 6' Power Cord
- 110 – 120V / 3.9A / 450W
- 16.25"W x 20.75"D x 13"H

- **47 Pounds**
- **1 Year Product Warranty**
- **Proudly made in the USA**

Our glycol chillers are most commonly used for brewing applications, most of the information presented below is curtailed to brewing applications. However any application needing cold temperatures can utilize our glycol chillers. The chiller has a built-in controller to monitor and maintain the glycol reservoir at your desired set temperature. The cold glycol can then be pumped out (pumps not included) to cool a piece of equipment, or the reservoir can be used as a bath for laboratory type of applications. We provide 8qty double sided 3/8" barbed fitting to allow tubing to run through the lid, this accounts for 4 outlets and 4 inlets. There are an additional 4 openings in the lid to pass the power cord of our submersible glycol pumps through.

While our chillers are perfect for maintaining fermentation temperatures and crash cooling, they should not be used to attempt to directly drop wort from boiling temperatures. There are a few ways to have a chiller assist in the knockout process, it typically involves a 2 stage cooling process. NOTE: the glycol returning to the chiller should never be allowed to reach more than 100° Fahrenheit.

Chiller Comparison Chart – Standard Glycol Chiller line

H P	Reser voir	BTU/ hr@28F	Max Numb er of	Max size of any	Elect rical	Dimensi ons	Wei ght
1/ 3 H P	1.25 Gal.	2,000 BTU/hr	4	15gal* (Non- jacketed	110 – 120V / 3.9A /	16.25"W x 18"D x 12.5"H	41lb s

1/ 2 H P	2 Gal.	2,500 BTU/hr	4	1BBL (Non- iacketed	110 – 120V / 3.9A /	16.25"W x 20.75"D x 13"H	47lb s
1 H P	3 Gal.	5,000 BTU/hr	8	1 BBL (Non- iacketed	110 – 120V / 7.2A /	19.25"W x 28.25"D x 16"H	69lb s

*If any tank is 1BBL, we recommend at least a 1/2HP

**For tanks with a glycol jacket we recommend a chiller from our [XL Glycol Chiller line](#)

Sizing a Glycol Chiller for Brewing:

To size a chiller you need to determine what's the worst case scenario when it comes to how much cooling you'll need. While you could size a chiller to be able to cold crash all of your tanks at the same time, that's not how a typical brewery operates. 95%+ of our customers would be covered using our general rule of thumb for sizing (below the chart). The suggestions in the chart assume the fermenter is insulated with a neoprene jacket or better and ambient conditions are roughly 80F. If you will be operating in hotter or conditions or without an insulated tank use the suggestion from the next sized up tank

Note: For the purposes of the chart "cold crashing" is only referring to the +/- 18hr period of active temperature drop. Once at a cold temperature use the "maintain cold" column for holding at cold temps to carbonate/clarify/etc. It's common for the industry to refer to any part of the cold process as the cold crash, but for chiller sizing there is a significant difference between dropping the temperature and holding cold temperatures.

Size	BTU needed for Cold crash	BTU needed to Maintain Cold	BTU needed for Fermentation
5 gal	350	100	50
10 gal	600	175	70
15 gal	850	250	100
1 BBL	1500	450	175

For tanks over 1BBL we recommend an appropriately sized chiller from our [XL Glycol Chiller line](#)

We typically break down a setup into a block of 4 tanks. Tank #1 is cold crashing, Tank #2 is maintaining cold, Tanks #3 are fermenting. If there are a mix of tank sizes, the biggest is the tank is the one cold crashing, and the next biggest is the one maintaining cold.

If you have more than 4 tanks, the cycle repeats. Tank #5 is cold crashing, Tank #6 is maintaining cold, tanks #7 are fermenting. If there are a mix of tank sizes you first fill “cold crashing” spots from both blocks with the biggest and 2nd biggest tanks, then fill the “maintaining cold” spots with the next biggest tanks.

Tank#1 – Cold crash

Tank#2 – Maintaining Cold

Tank#3 – Fermenting

Tank#4 – Fermenting

Tank#5 – Cold Crash

Tank#6 – Maintaining Cold

Tank#7 – Fermenting

Tank#8 – Fermenting

Example: 1x 1BBL, 1x 15gal, 2x10gal tanks:

Tank#1 – 1BBL Cold crash = 1,500 BTU/hr

Tank#2 – 15gal Maintaining Cold = 850 BTU/hr

Tank#3 – 10gal Fermenting = 70 BTU/hr

Tank#4 – 10gal Fermenting = 70 BTU/hr

In this scenario the BTU/hr adds up to 2,490 BTU/hr, you can then use this number to select an appropriately sized chiller that provides at least this many BTU/hr.

Recommended Glycol Mix

We recommend using a 35-40% glycol to 60-65% water mix for our brewing customers operating at approximately 28F. Other application may require a different mix depending on desired operating temperature.

Easy mix suggestions:

1 Gallon of Glycol + 1.5 Gallon of Water = 40% Glycol Mix

1 Gallon of Glycol + 1.75 Gallon of Water = 36.3% Glycol Mix

Setup for Brewing Applications

With the controller on the the chiller set to 28F, you need a way to regulate the flow of cold glycol out of the chiller to each fermenter so that a variety of temperatures can be maintained across multiple fermenters. There are 2 main ways to accomplish this, our chillers can be used with either method.

- **One pump per fermenter:** A submersible glycol pump is put into the reservoir, tubing is run out to a single fermenter and back to the chiller. The pump is plugged into a controller that monitors fermenter temperature. The flow of cold glycol is regulated via the pump turning on/off as needed for that fermenter. We sell this style of pump/tubing/controller – see our glycol chiller accessory package.
- **Glycol Loop:** A single external continuous duty pump runs 24/7 to provide flow through a network of pipe in the brewery. There are solenoid valves on the supply line that are wired into a centralized control panel for the entire operation. The flow of glycol is regulated via opening/closing of the solenoids to provide glycol to a particular fermenter as needed. While our chiller will work for this type of install, we do not carry any of the products needed to setup a glycol loop.