

DIY Water & Beer Chiller

If you live in the Southwest or in Southern California you will probably find that the tap water temperature in Spring and Summer is much warmer than the processing temperature you want to use, certainly way above 68° F (20° C).

Here is a DIY water chiller that should provide you with some cooled water, for far less than the cost of a commercial chiller. Using this I am able to get 78° F tap water down to 55° F at a slow flow, which easily tempers in my CPP Jobo to 68° F.

Since the Jobo only tops off with chilled water when the temperature of the water bath rises above the process temperature, a slow flow is fast enough, and ice cubes from the auto ice maker in my refrigerator is enough. You can add improvements, such as 1/2" copper tubing, 50' coils, insulated tubs, and bag ice from the store, as needed.

First acquire a copper wort chiller coil. These are easy to find at home brewing outlets, or on eBay, or even Amazon. Just search for "wort chiller" and you should find plenty. A 25' coil of 3/8" tubing may be around \$50. You can actually make this part yourself (see YouTube), but I bet you will spend more on the copper coil given the current cost of copper.



Pay some attention to the fittings you intend to use. The variation between wort chillers will primarily be in the type of fittings that come with it. You can save yourself time and money looking for fittings by getting the right coil. For example, this example uses water from a garden hose, and runs to a Jobo solenoid inlet.



First, a short primer on thread fittings. There are three kinds of pipe thread: garden hose (“GHT”), tapered pipe thread (“NPT”) and straight pipe thread (also “NPT”). All GHT is $\frac{3}{4}$ ” while the NPT comes in various fractional sizes. At the hardware store you will find GHT fittings at the outdoor department, and NPT fittings near the pipe department. You probably won’t be using tapered fittings here. GHT fittings will need a garden hose washer (likely 10 for \$1) and straight NPT uses Teflon tape or possibly a garden hose washer depending upon the fitting. You might be using a fitting to get water from a faucet; just plan ahead.



You probably will use vinyl tubing to connect the wort chiller, so you will need to match the vinyl tubing to the fittings and the wort chiller. Vinyl tubing comes in many sizes; just keep in mind that you will need to be sure that the inside diameter (I.D.) will fit your fittings, and that your clamps will fit the tubing's outside diameter (O.D.). To get the fitting into the tube let the end stand in some boiling water for a few minutes then push it on.



Spend a few extra dollars and get a garden hose shut-off valve (shown in the photo). You will be happy you did. There is a short video of the shut-off valve in operation at my website www.robertrose.photos

You need a bucket to hold the wort chiller coil. A 5 gallon bucket should be the right diameter. I got mine for \$3 at Lowes; a lid is another \$1.40. Put the wort chiller coil into the bucket, add a bag of ice and some water, and any water you pass through the coil will be chilled. Add some beer cans to the ice and enjoy!

Add ice, enough water to cover the coils, and experiment.

