

## NORTHERN BREWER

# COUNTERFLOW CHILLER **CONNECTION KIT - GRAVITY FED**

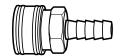
#### INVENTORY



(3) Female Garden Hose Fitting



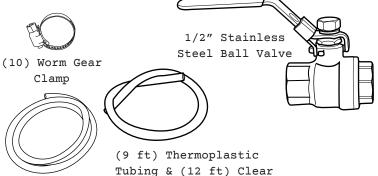
(2) Male Stainless Quick Disconnect x Male 1/2" NPT



(3) Female Stainless Quick Disconnect



(1) Male Stainless Quick Disconnect x Female 1/2" NPT



Tubing & (12 ft) Clear Hi-Temp Tubing

### ASSEMBLY - CHILLER FITTINGS

- 1. Apply teflon thread tape (included) to the threaded wort INPUT and OUTPUT of the chiller, and to the threads of a male quick disconnect x male 1/2" NPT fitting.
- 2. Thread the 1/2" stainless steel ball valve onto the OUTPUT of the chiller and tighten with a wrench. Align the valve in an orientation that allows for easy operation.
- 3. Thread the taped male quick disconnect x male 1/2" NPT fitting into the output of the ball valve and tighten with a wrench.
- 4. Thread a male quick disconnect x female 1/2" NPT fitting onto the INPUT of the chiller and tighten with a wrench.

### ASSEMBLY - KETTLE FITTING

- 1. Apply teflon thread tape to the threads of a male quick disconnect x male 1/2" NPT fitting.
- 2. Thread the male quick disconnect x 1/2" NPT fitting into the ball valve of the kettle and tighten with a wrench.

#### ASSEMBLY - WORT TUBING

- 1. Decide how long you would like your wort tubing and cut the thermoplastic tubing accordingly. You will need 2 total sections of tubing: From the kettle to the chiller, and from the chiller to the fermentor.
- 2. The thermoplastic tubing length running from the kettle to the chiller will need 2 worm gear clamps - slide one on each end of the section of tubing.
- 3. Insert the barbs of the female quick disconnects into each end of the length of tubing.
- 4. Using a screwdriver, firmly tighten the worm gear clamps where the tubing covers the barb to affix the quick disconnects to the tubing.
- 5. Repeat steps 2-4 with the other length of tubing that will run from the chiller to the fermentor. This time only 1 end will get a quick disconnect & clamp, as the other will be used to discharge into your fermenter.

#### **ASSEMBLY - WATER TUBING**

- 1. Decide how long you would like the water tubing and cut the clear tubing accordingly.
- 2. The clear tubing length running from the water source to your chiller will need 2 worm gear clamps - slide one on each end of the section of tubing.
- 3. Insert the barbs of the female garden hose fittings into each end of the length of tubing.
- 4. Using a screwdriver, firmly tighten the worm gear clamps where the tubing covers the barb to affix the garden hose fittings to the tubing.
- 5. Repeat steps 2-4 with the other length of clear tubing. This time only 1 end will get a garden hose fitting & clamp, as the other end will be used to discharge the waste cooling water.

#### USE

- After the boil is complete, attach the tubing assemblies in the correct configuration to the chiller (see diagram). Ensure the wort and water will flow in opposite directions for optimal cooling efficiency.
- 2. Sanitize the chiller by using a prepared sanitizing solution.
- 3. Place the sanitized wort outlet hose into the fermentor, and the cooling waste water hose into a sink or drain.
- 4. Begin the flow of wort and water through the chiller by opening the ball valve on the kettle, and turning on the cooling water source.
- 5. Monitor the temperature of wort exiting the chiller and increase or decrease the flow of water as necessary to maintain your desired wort temperature. You can also use the ball valve on the OUTPUT of the chiller to control flow of wort to achieve even better cooling efficiency.

#### CARE

1. When finished chilling, rinse out the chiller and wort tubing with hot water. Occasionally soak the tubing and chiller in a cleanser solution to ensure a long service life. Drain the chiller and tubing completely prior to storage.

#### **PRO TIPS**

- 1. To attach the quick disconnects to the chiller or kettle, simply pull back the main ring on the body of the female quick disconnect and insert over the male quick disconnect. Release the ring to lock it in place. To detach, pull the ring back and remove the female quick disconnect from the male.
- Maximizing the height between the kettle, chiller and fermentor will increase wort flow rates and allow for more rapid chilling.

