

CHILLING OPTIONS IN SPRING

I use a counterflow chiller (CFC) -"store bought" via eBay a few years ago...twisted irregularly lined inner core with ID of 1/2" and outer tube about 7/8" which is large and shakes the wort around so that that inner tube doesn't plug up with debris as my previous 3/8" ID tube one did and as inexpensive plate coolers also seem to do based on reports on the Web.

OLD STUFF:

CFCs will lower wort to within a few degrees of coolant temp whereas immersion chillers (everyone's first chiller) can only get within 20 or so degrees of coolant. Also although ICs are easy to clean and will leave a lot of break material in the boil pot, I FEAR contamination since once the wort volume drops below 140, it is OPEN season for infection; hence, its CFC for me.

BUT it can only chill wort based on what difference between wort inner channel and water temp flowing in outer chamber in OPPOSITE direction. Chilling is dependent on removal of heat from wort via contact of wort and water and the longer the contact time the better so either speed up the water flow or slow down the wort flow. Careful reading, which can be tedious due to poorly written incomplete anecdotes, shows the optimal wort flow rate to be about 0.5 -0.33 Gs/minute and Jeff Parish water flow wide open at my house is 5.5 Gs/minute.

NEW STUFF:

1) **slower wort flow-** The usual 3/8" ID tubing flows out 1 G/min and I have valves available but realized that I seek the SAME optimal flow more or less most times so I **decreased the outflow** by a series of progressively narrower tubes to 0.45 G/min.

2) **cooler and faster water-**I can slightly chill the water by *knowing which faucet is the coldest*; remember those that are post flow through house will reflect house temp which in the Spring is as much as 5 degrees warmer than when they came to your house. If in an out building the earth temp between house and

building will often cool it a bit. Run it WIDE OPEN but a minor improvement. Let's step it up.
3) Pumping ice bath chilled water through the CFC works fine but one goes through the ice very quickly at 5Gs/min.

Another approach for some:

Like many CCH members, I have a *swimming pool* and the water there is cooler in the Spring than the faucet choices which often mimic air temps-see pix attached from pool console-temps are ACCURATE.

A deep pond or a lake will also do. An original CCH member has a second home near Picayune and once we brewed on the banks of Hide Away lake-UNLIMITED supply of COOL water until late spring-great experience!

I lower my cheapo Harbor Freight dirty water sump pump into the shady deep and COLD end and it's chill away with heated water back into pool! After use I flush CFC and pump with a 30Gs (5 minute run). My pump pushes 6Gs/min and I don't think the flow can go faster even with a bigger pump due to the constriction in the CFC.

When the pool has heated up, spring is over so this approach isn't practical and it's back to the usual Summer routine-post CFC wort chiller, the same slow flow via my old 3/8" ID coil sitting in an ice bath with a small pump agitating the water bath around the coil.

THNX

Hank