Q: What glycol do you use in your chillers?
A: Inhibited propylene glycol 35% glycol to water.

Q: What is the best way to externally modulate the chiller output so it doesn't just run at full speed and then shut off? Are there alternatives to suction pressure setpoint control?
A: In a perfect world we would match the load against the chiller and it would never shut off. The idea is to maximize run time and off time of the chiller. There are multiple ways to modulate the capacity of your chiller depending on the type of compressors used in the system as well as the chillers control circuit/type. On a multi stage system you can stage the setpoints of the compressors so that they stage on at different times based off of load. This is the quickest and easiest way to help combat the cycling of the machine. Variable frequency drives may be an option depending on the compressor type to help modulate the speed of the compressor based off of load. This would be the most complex and expensive option. There are capacity control valves, also called unloader valves, that may be an option depending on the compressor type to help modulate capacity and match load. The setpoint of the chiller should be operated off of glycol temperature. When the compressors are allowed to start and stop is controlled from the pressures in the system. This method of monitoring both high and low pressures in the system and relying on their individual setpoints, is the safest and most reliable way to start and stop the compressors.

Q: What is the best way to keep your heat exchanger clean and sanitized?
A: The chiller heat exchanger never needs to be sanitized and should not ever need to be cleaned if properly installed.

Q: What is your recommended refrigerant with R-22 phased out?
A: R-404A is most popular R448A and 134 A is also an option.

Q: What precautions should I be taking for an outdoor chiller, which in the winter might be exposed to -15 to -20 degrees Fahrenheit temperatures, besides a higher percentage of glycol in the solution?
A: We would include a head master valve on the condenser along with a bypass timer on the control circuit.

Q: Any recommendations on installing Georg Fischer piping for maximum longevity?
A: Georg Fischer is a great solution but all pipe products must be installed properly for max longevity.

Q: Do you have a preferred piping material that G&D recommends?
A: We really don’t get into a preferred product; there are a lot of great options all with minor pros and cons such as Copper, Stainless Steel, Georg Fischer, Aquatherm, Sch80 PVC, PEX,

Q: What temperature (range) do you recommend the glycol to be set to? Ideally in Celsius
A: This will vary depending on the exact application within any specific brewery. What we typically would recommend for a brewery is -3C. Running the chiller below this temperature could potentially freeze product inside the vessel and stall the crash well before the desired setpoint.

Q: It looks like our chiller came with only a standard garden hose bib on the glycol storage tank. Any tips on how to pump in glycol and how to know when its full?
A: Please call us, not sure what brand would have to do some research to properly inform you but happy to try and help.

Q: Two-part question: 1) For distillers, can the glycol be used in a dephlegmator to cool down? 2) If 26-gallon kettles are being used, can the chiller run through more than 5 dephlegmators?
A:

1) Either water or an inhibited propylene glycol solution may be used to cool the dephlegmator and condenser on a still. The main argument I hear against using glycol is that if/when there’s a leak it will contaminate the product; in my mind this can be just as much of a concern when a recirculated water bath with it’s potential bio contamination is used as your cooling fluid. Both are perfectly viable options and are commonly used.

2) Yes, we would recommend a mainline header system just like in a brewery with branch lines to feed each still. If the supply temperature is low you may want to pipe the condenser in series
with the dephlegmator so that the cooling fluid will be a bit warmer before it reaches the dephlegmator. This can make your reflux temperature a bit easier to control.

Q: What are the pros and cons of using a glycol-cooled evaporation fan in our secondary (storage) walk-in cooler?

A: Pros are lost most of the time it will be cheaper to install. Cons are all your eggs in one basket.

Q: About food safety what do you recommend to avoid mixing glycol with water or beer during the process? Do you have an alarm system to avoid this problem?

A: Not sure on the exact question as chiller would not know but the most likely source would be through the wort HX. Closely monitor while knocking out is best along with proper servicing of your wort HX. Most of our chillers have a low glycol alarm that would notify you if glycol is lost.

Q: How much and from what source would you recommend taking a glycol mix sample to take a gravity to ensure it's representative of what's in the entire system?

A: After a system has been running, the easiest place to gain a glycol sample is directly from the reservoir. The mixture should be the same throughout the entire system. A few drops are all that is needed for measuring the mixture. It is important to use a refractometer as a hydrometer will not give an accurate reading.

Q: Where can we get pre-insulated schedule 80 PVC?

A: G&D has a great source for pre insulated Sch 80 please feel free to reach out for a quote.