



# FLOTEC CENTRIFUGAL PUMP OPERATION MANUAL

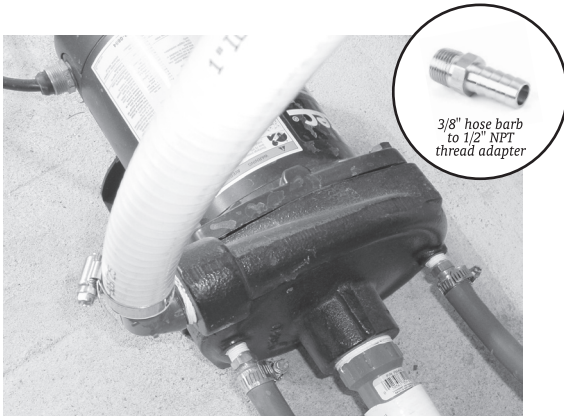
**IMPORTANT SAFETY INFORMATION • DO NOT DISCARD**

**IF YOU REQUIRE ADDITIONAL ASSISTANCE PLEASE CONTACT US:**

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## Installation instructions for Flotec centrifugal pumps using CHILLKING® products and Hydro Innovations products.

### Set the pump:

Find a secure, level area to set the pump (keep in mind pump weight is 30 lbs). Bolt down if possible. Always keep area underneath and around pump clear and free of debris. The pump can be used outdoors but protect the pump from rain. If used in below freezing temperatures make sure that propylene glycol is added to the reservoir water or make sure the pump is left running constantly. Keep in mind that the pumps get very warm and should be located outside the grow room if possible.

### Connect the inlet:

The water inlet (see figure A), located on the front of the pump, is 1 1/4" NPT which is a standard plumbing size. We highly recommend using 1 1/4" for your suction line for most efficient pump performance. Connect the pump to the reservoir with reinforced flexible tubing or by using typical PVC pipe and fittings or a combination of both. If using flexible tubing and it isn't reinforced the hose can be flattened by the suction.

### Connect the outlet:

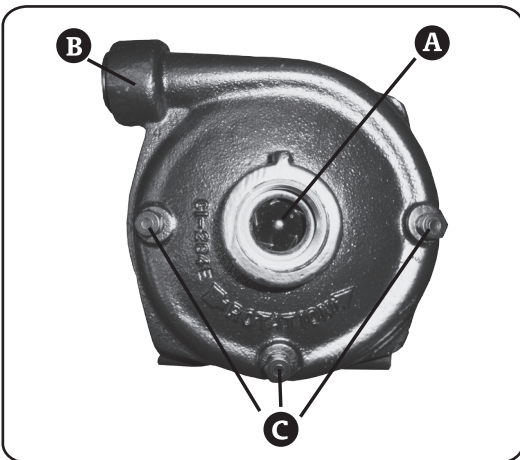
The main water outlet of the pump is 1" (see figure B) and is located at the top of the pump. It is recommended that 1" pipe is used but should not be reduced less than 3/4". Plumb the 1" outlet of the pump to the supply manifold or air handler using either 1" flexible tubing or typical PVC pipe and fittings.

### Adding a chiller:

To add a chiller to the cooling system use one of the three 1/4" outlets (see figure C) located on the face of the pump head. Remove the pre-installed 1/4" plug and install the supplied 1/4" thread to 1/2" hose barb adapter in its place using teflon tape. Then install high quality 1/2" ID tubing to the hose barb adapter and run to the chiller inlet. The return line from the chiller should empty directly back in to the reservoir, do not install chiller return to the return manifold of the water-cooled equipment.

### Adding a water cooled CO2 generator:

To add a HydroGEN, HydroGEN PRO, or CoolFlame water-cooled CO2 generator to the cooling system you would use one of the three 1/4" outlets located on the face of the pump head. Remove the pre-installed 1/4" plug and install the supplied 1/4" thread to 1/2" hose barb adapter in its place using teflon tape. Run 1/2" hose from the pump to the inlet of the water-cooled CO2 generator and then from the outlet of the CO2 unit back to the reservoir. Do not install the CO2 generator's outlet to the return manifold. Since the water-cooled units need extra flow and pressure, this is the only way that we recommend they be installed. Keep in mind that the returning water from the units can be 125° degrees F and will usually deform typical PVC, so we do not recommend the use of PVC on the hot water return.



## IMPORTANT NOTES:

- For wiring information and additional instructions, see supplied Flotec instruction manual.
- Use hose clamps on all tubing and teflon tape on all threads when installing your new pump.
- Flotec centrifugal pumps are very powerful so all precautions should be taken.
- Do not use car antifreeze with a Flotec pump, it will leak at the seals and is not covered under warranty. Propylene glycol however, is an acceptable antifreeze.
- If using the 1/4" ports on the pump face the return lines from the supplied equipment must go back to the reservoir and not to the return manifold of your water cooled equipment.