



## TECH TIP #24

### SWIMMING POOL HEATING

Heating a swimming pool can be an ongoing maintenance headache, unless a few rules are followed closely. We have recapped a few of the rules that we have determined over the years.

1. Make sure that the chlorine is added to the system on the downstream side of the heating source (either a pool boiler or heat exchanger), sand filters, and pumping equipment. The chemicals are injected into the line at high concentrations and this heavily concentrated solution must have a chance to dilute before it goes into the equipment. Typically this insertion takes place just before reentry into the pool.
2. Since most pools are held a temperature about 82° F, it is very important that a procedure be in place to make sure that the inlet water temperature to any gas fired pool heater never falls below 105° F. 105° F is the condensing temperature for a typical copper finned tube type of pool heater. Failure to keep the inlet water temperature above the condensing temperature will cause the flue gases to condense and the subsequent water will drip onto the heat exchanger causing corrosion. This corrosive acid can eat through a heat exchanger in a matter of a few weeks...and will most likely void the pool heater warranty. Consult with our boiler experts for how to prevent the problem.
3. When using a steam source in a heat exchanger to heat the pool heater, a few very important construction details need to be followed in the materials used in the heat exchanger. The tubesheet needs to be either a solid brass or alternative material to combat the common problem of galvanic corrosion between the typical steel tubesheet and copper tubing.

**ADVANCED TECHTIP...**Contact our office for further information and possibly a jobsite visit if needed. Pool heaters can be very troublesome...let us help you get off to a good start on your next pool job, or help you correct deficiencies in a current system.



## TECH TIP #25

### HOW TO ORDER PARTS FOR VALVES, PUMPS, ETC.

More valuable time is wasted on both ends of the phone by not having complete and correct information when calling to check on repair parts. Here're a few pointers on what is normally required to get the correct parts and where to typically find the information.

**CONTROL VALVES...**Most HVAC valves will have a brass tag on the neck of the valve. Sometimes it is under valve insulation. Remember to get the information off the actuator. Many of us have experience in "backtracking" into the control valve, but all the information you can collect will help us figure out what that tagless valve is.

**PUMPS...**Most pumps will have a nameplate mounted on the pump itself, usually near the top of the pump volute. Write down all the information off the tag, because we sometimes have to read between the lines. Frequently we are given the info off the motor on the pump. Nine times out of ten the motor info will not be of any help in identifying pump parts. The exception to the motor information is to make sure you have the Hp, voltage, rpm, phase and enclosure. If the tag is missing, measure the pump suction and discharge sizes and with the above motor info we can often figure a new pump.