



CHURCHES

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Churches and other religious organization which maintain a place of assembly generally need hot water. Dinners and banquets will require both general purpose hot water and sanitizing rinse. In a few cases, there will be showers. Where there is a gymnasium, separate hot water load determinations should be made. Hot water needs for the baptistries are covered below.

KITCHENS

Hot water for a kitchen may be estimated on the same basis as for a restaurant, i.e., two gallons per person per meal. Determine the maximum number of persons per meal and the dish washing period, and refer to the food service section B 101.

Hot water needs for the kitchen may also be estimated from the hot water outlets and the dish washing machine used. Refer to section B 101.

BAPTISTRIES

A baptism tank will range in size from 500 to 1200 gallons. The application is similar to that of a swimming pool, except that the warm-up period is shorter and there is no pool filter or filter pump. The tank is usually drained between baptismal services. The desired temperature varies from one church to another, but is usually between 80°F and 100°F.

There are two methods of heating a baptism tank or pool. One is the instantaneous method where water is heated as the tank is being filled. The water flow rate is adjusted to obtain a final discharge temperature about 10°F higher than that desired, so that the water temperature at the time of service will be in the desired range. When a type of heater is selected for the chosen fuel, consideration that is bound to occur with extended periods of operation with cold inlet temperature.

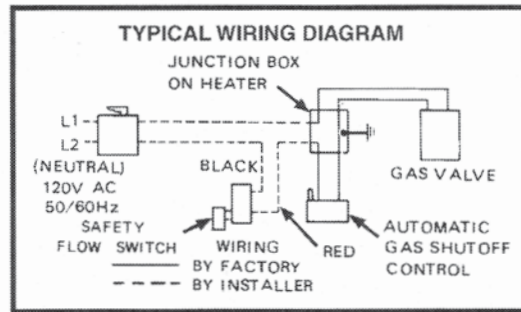
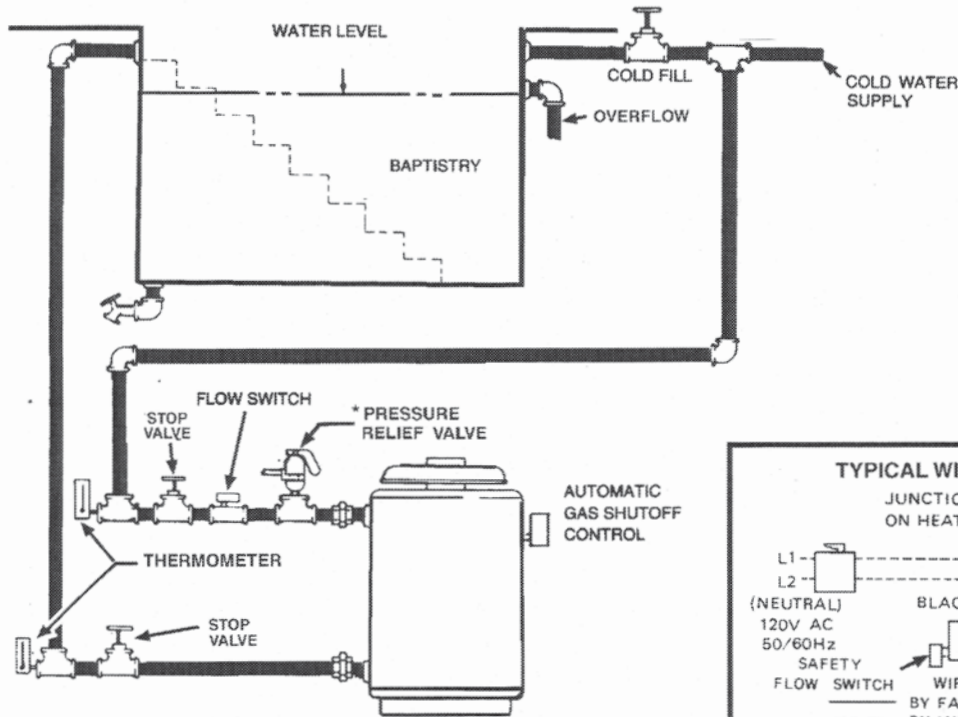
Some churches prefer to fill the baptism pool and generally to permit the water to rise to room temperature before applying heat. This requires a simple recovery system in which the water is pumped from the pool. A temperature control is located in the baptism or in the piping to the heater. Size of heater can be adjusted to minimize condensation. Gas and electric booster type heaters are usually selected for these applications and the self-contained type pool heaters are also applicable.

In order to reduce the noise level within the church caused by running water, it is preferable to fill the baptism tank and heat it to the desired temperature before the service begins.

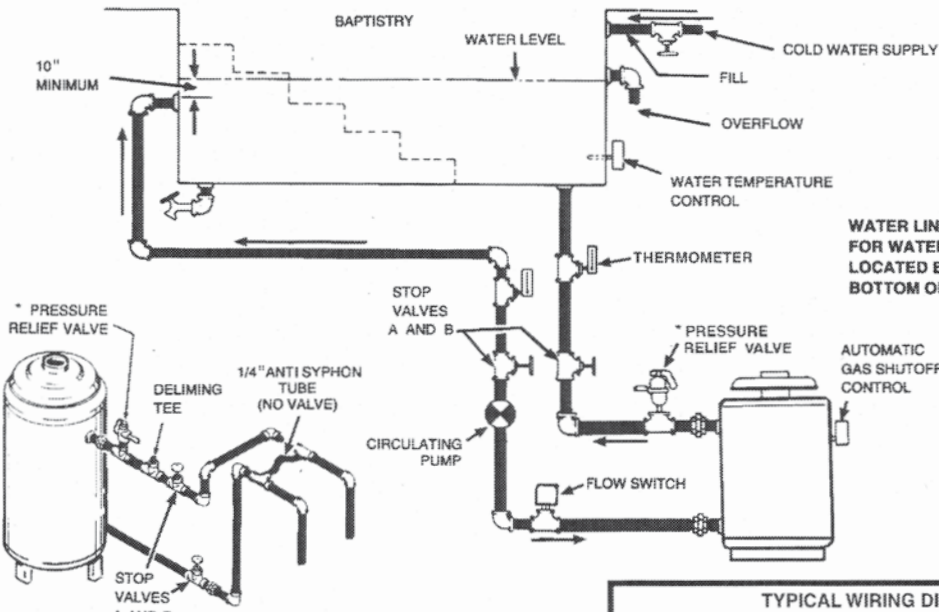
When the water for the tank is drawn from the potable water supply, safeguards should be installed to prevent possible contamination.

BAPTISTRY WATER HEATING SYSTEMS USING COPPER HEAT EXCHANGER HEATERS

INSTANTANEOUS INSTALLATION



RECIRCULATING INSTALLATION



WATER LINE CONNECTIONS FOR WATER HEATER LOCATED BELOW LEVEL OF BOTTOM OF BAPTISTRY

WATER LINE CONNECTIONS FOR WATER HEATER LOCATED ABOVE LEVEL OF BOTTOM OF BAPTISTRY

PIPING BETWEEN GATE VALVES A AND B AND THE HEATER SHOULD BE BRASS OR COPPER.

* PIPE TO OPEN DRAIN.

INSTALL IN ACCORDANCE WITH LOCAL CODES.

