



DIRECTIONS

All new and retrofit tankless water heater permit applications must contain the following information:

- 3 copies of site plans are required and plans must be legible.
- 2 sets of specification sheets are required.
- Supply gas pipe sizing calculations, BTUs and pipe distances (see the isometric diagram on page 2 for a sample).
- The manufacturer, model number and BTUs required for the unit to be installed (specification sheets).
- An electrical source must also be provided (See Electrical Section Below). (Note: receptacles for tankless water heaters installed in a garage or outdoors must be GFCI protected)

GENERAL REQUIREMENTS

- Water heaters located in garages must be protected from mechanical damage. This means placing them out of the path of vehicular traffic or providing a protective post or partition. (CPC 507.13.1)
- Provide a temperature and pressure relief valve as required by the manufacturer. Hard pipe plumb to the outside and directed to the ground and terminate a minimum of 6" and a maximum of 24" above grade. When replacing an existing tank type water heater, the T & P must be re-installed to drain to the outside. Relief valve may not discharge into a secondary drain pan. (CPC 608.4 & 608.5)
- All lines shall be insulated if using a recirculation pump system.
- A water heater located above habitable space, where damage may occur if a leak developed, a secondary pan with a ¾" minimum drain line to the outside is required. (CPC 507.5)

ELECTRICAL REQUIREMENTS

- The California Electrical Code requires that the manufactures installation instructions be followed for listed equipment (CEC 110.3).
 - If the manufactures installation instructions require a dedicated circuit, then a new dedicated circuit must be provided. Provide all required specifications for the new electrical circuit, including wire type and size and overcurrent protection.
- The use of an existing circuit, if allowed by the manufacture, would exclude circuits of Laundry rooms, kitchens, bathrooms or dedicated appliance circuits.
- Receptacles for tankless water heaters must be GFCI protected as specified by the manufacture or if located in a garage, exterior location or other location required to be GFCI protected.
- Tankless water heater ampacity shall not exceed 50% of the branch circuit rating where lighting units, cord-and-plug connected equipment not fastened in place, or both are also supplied.

PROHIBITED LOCATIONS

- Gas tankless water heaters must not be installed in a room used or designed to be used for sleeping purposes. They must not be installed in clothes closets or in a closet or other confined space opening into a bath or bedroom. The exception to these rules is a direct vent type tankless water heater which is listed for installation in these types of spaces or an electric tankless water heater.

Tankless Water Heaters

- Water heaters located in a bedroom or bathroom are required to:
 - Be installed in a dedicated closet with a listed, gasketed door assembly and a self-closing device (CPC 504.1 & 504.1.1)
 - All combustion air shall be obtained from the outside. (CPC 506.1. & 506.4)

FUEL GAS

- Fuel gas piping must be sized for the demand upon it. (CPC 507.18)

COMBUSTION AIR

- Tankless water heaters shall be provided with combustion air per the manufacturer's installation instructions.
- Tankless water heaters located within habitable space will require submittal of the manufacturer's specifications for combustion air supply and venting.

VENTING

- Tankless water heaters shall be provided with proper venting per the manufacturer's installation instructions.

CLEARANCES

- Clearances for most water heaters are found on the appliance label.
- Please note the front and top clearance is usually greater than the side and rear.
- Access and working space must be provided.
- The opening must be at least 24" wide and large enough to remove the tankless water heater.
- Tankless water heaters installed in a garage must be elevated 18" above the floor unless it is listed as having a sealed combustion chamber (CPC 507.13) Note that electric water heaters with a switch and/or heating element located less than 18" above the base must also be elevated.

SAMPLE ISOMETRIC DIAGRAM

