



Building Division · 555 Santa Clara Street · Vallejo · CA · 94590 · 707.648.4374

Water Heater Installation

LOCATION: Fuel burning water heaters shall not be installed in a bedroom, bathroom, or room opening into either a bedroom or bathroom unless....

- The water heater is stored in a closet exclusive to the water heater with a listed, gasketed door assembly and a listed self-closing device is installed. All combustion air shall be obtained from the outdoors.

Or...

- The water heater is the direct vent type.

Water heaters located in areas where damage to the building may occur from leaking water require a water tight pan underneath with a minimum $\frac{3}{4}$ inch drain terminating to an approved location. The drain from the watertight pan and the PTR valve shall be separately plumbed to an approved location.

Water heaters installed in a garage and located in the path of vehicles shall be protected by a barrier post. The post shall be of steel 4 inches in diameter and concrete filled, set not less than 3ft deep in a concrete footing at least 15 inches in diameter, set with the top of the post at least 3ft above the ground, and located not less than 3ft from the water heater. Also, fuel burning water heaters located in the garage shall have a platform to elevate the burner/ igniter 18 inches above the floor.

COMBUSTION AIR: Combustion air is required for fuel combustion and ventilation of fuel burning water heaters. Combustion air vent types and sizes depend on the BTU's and location of the water heater. The BTU information can be found on the label affixed to the water heater. For more information on combustion air contact the Building Inspection Division or reference the 2013 California Plumbing Code Chapter 5.

VENT TERMINATION: Water heater vents shall terminate a minimum of 5ft above the vent collar. For roofs with pitches of 6/12 or less; type B vents may terminate not less than 1ft above the roof provided the vent cap is 8ft away from any wall or similar obstruction. Vents which are less than 8ft. away from walls or obstructions must terminate 2ft above any wall within 10ft. If the building has a roof pitch greater than 6/12, contact Building Inspection Division for more information.

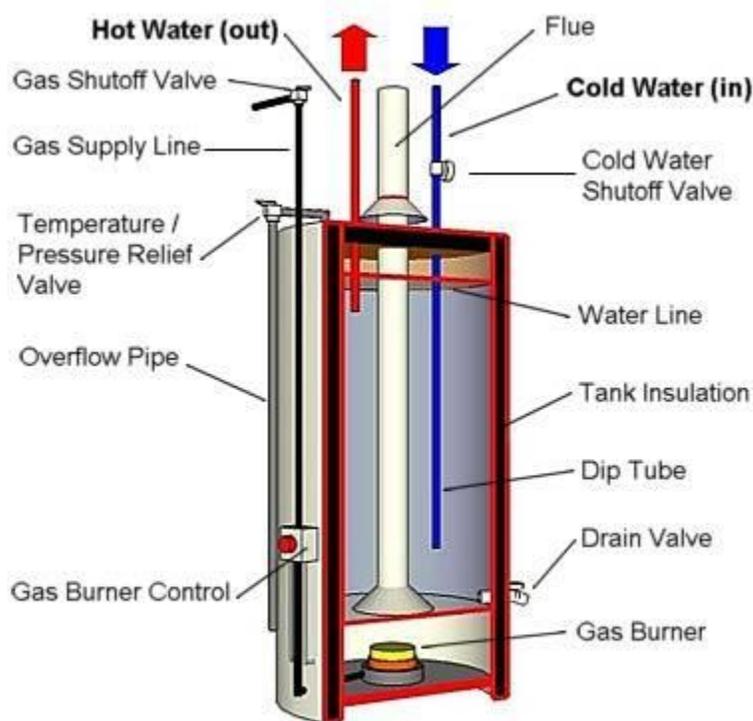
SEISMIC STRAPS: Water heaters require two seismic straps; one located within the top and bottom 1/3 of the water heater. The bottom strap must be located at least 4” from the water heater controls.

PRESSURE TEMPERATURE RELIEF VALVE (PTR VALVE): The PTR valve shall be installed and terminated per the valves listing and manufactures installation instructions.

WATER LINE INSULATION: Insulate the first 5ft of the hot and cold water lines from the water heater with 1 inch of R-4 insulation.

TANKLESS WATER HEATERS: Tankless water heaters shall be listed by an approved testing agency (UL etc....) and be installed in accordance with the manufactures installation instructions.

INSPECTIONS REQUIRED: One final inspection is required after all work has been completed.



Gas Hot Water Heater Components

How Does a Tankless Water Heater Work?

The Process:

1. A hot water tap is turned on.
2. Water enters the heater.
3. The water flow sensor detects the water flow.
4. The computer automatically ignites the burner.
5. Water circulates through the heat exchanger.
6. The heat exchanger heats the water to the designated temperature.
7. When the tap is turned off, the unit shuts down.

