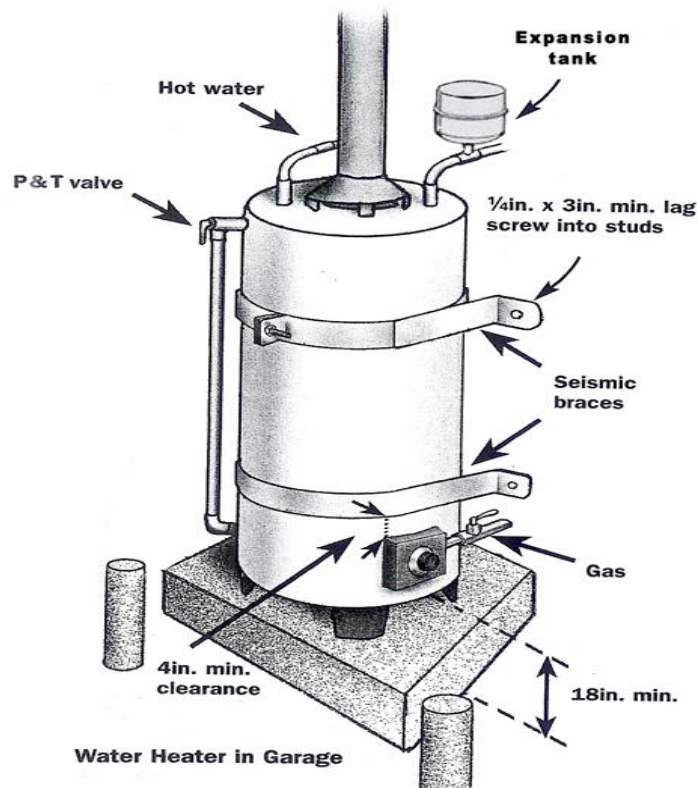


## Gas Fired Residential Water Heaters



All design, construction, and workmanship shall conform to accepted engineering practices, manufacturer's installation instructions and applicable standards of the California Plumbing Code.

### Seismic Bracing (Section 507.2) 2016 CPC

Water heaters require a minimum of two seismic straps to resist horizontal displacement due to earthquake motion; one located within the top 1/3 of the water heater unit and one at the bottom 1/3 of its vertical dimensions. The bottom strap must be located at least 4" above the water heater controls.

### Located in a Garage (Section 507.13) 2016 CPC

Water heaters located in a garage shall have the ignition source, or pilot light, elevated a minimum of 18" to burner/combustion chamber. If water heater is located in an area subject to damage, adequate barriers, or bollards, must be installed.

## **Located in an Attic, Basement or Closet with Wood Framing (Section 508.5) 2016 CPC**

When a water heater is located in an attic or furred space where damage may result from a leaking water heater, a watertight pan of corrosion resistant materials shall be installed beneath the water heater with a minimum ¾" diameter drain to an approved location. The P/T line shall not terminate at drain pan.

The installation of temperature, pressure, and vacuum relief devices or combinations thereof, and automatic gas shutoff devices shall be installed in accordance with their listings and the manufacturer's instructions.

## **(Section 504.6) 2016 CPC**

Water heater installation shall be accessible for inspection, repair, or replacement. The opening shall be large enough to allow the removal of the largest component of the equipment but not less than 22" by 30". The passageway shall be unobstructed and have solid flooring not less than 24" wide from the opening to the appliance. **(Section 508.4) 2016 CPC**

## **Venting (Section 509) 2016 CPC**

Venting systems shall be designed and constructed to develop a positive flow adequate to convey all products of combustion to the outside atmosphere. Every factory built chimney and type B gas vent shall be installed in accordance with the manufacturer's instructions, the terms of its listing and to the applicable requirements of the code.

## **Combustion Air (Section 506) 2016 CPC**

Fuel burning water heaters shall be assured a sufficient supply of air for proper fuel combustion and ventilation per the California Plumbing Code. In buildings of unusually tight construction combustion air shall be obtained from outside. In buildings of ordinary tightness insofar as infiltration is concerned, all or portion of the combustion air for fuel burning water heaters may be obtained from infiltration if the enclosure volume equals at least fifty (50) cubic feet per 1000 Btu/h input of all gas burning appliances within.

## **Pressure/Temperature Valve (Section 608.3 and 608.5) 2016 CPC**

All water heaters shall be provided with an approved, listed, adequately sized combination pressure and temperature relief valve installed in an approved location per the manufacturer's instructions.

The valve shall be drained to the exterior and terminate toward the ground maintaining between 6" and 24" of clearance from the ground pointing downward. The diameter of the valve opening (generally 3/4") must be maintained to the termination of the drain. When approved by the Chief Building Official, such drain may terminate at other locations (i.e. laundry tub, floor sink, or floor drain). No part of such drain shall be trapped and the terminal end of the drain shall not be threaded.

## **Expansion Tank (Section 608.3) 2016 CPC**

An approved, listed expansion tank or other device designed for intermittent operation for thermal expansion control by keeping the system pressure below the relief setting of the P & T valve shall be installed.