

Tankless Water Heater Requirements



Installation of a tankless water heater requires obtaining a building permit, and must comply with the current California Plumbing Code (CPC), California Mechanical Code (CMC), California Energy Code (CEC), and any applicable City ordinances. View the [Building Permit Services and Appointments](#) page for information on how to get a permit.

SELECTING A TANKLESS WATER HEATER

Select a code-compliant unit. Select a tankless water heater that meets or exceeds the requirements of CPC sections 301 and 501, including the first hour ratings of Table 5-1 in Chapter 5, shown below. The unit must also meet applicable energy efficiency requirements of the current CEC. The first hour rating is found on the Energy Guide label on the appliance. Each installed tankless water heater must have a delivery capacity as determined by the manufacturer's recommendations.

Table 5-1 of California Plumbing Code

Number of Bathrooms	1 to 1.5			2 to 2.5				3 to 3.5			
	1	2	3	2	3	4	5	3	4	5	6
First Hour Rating, gallons	42	54	54	54	67	67	80	67	80	80	80

LOCATION

Tankless water heaters are often located similarly to traditional water heaters, and additionally units listed for exterior use may be located on an exterior side or back wall. In all cases, the location must provide for access and clearances as specified by codes. Regulations concerning placement include:

- **Attics.** If installation requirements are met for access, clearances to combustibles, switched lighting, and adjacent receptacle, a tankless water heater may be installed in an attic. Access to the attic may not be from a bedroom or bathroom; however, access from a walk-in closet is permissible.
- **Exterior sides, back walls.** Tankless water heaters may be located on the exterior side or back wall *if* listed for exterior use, and if not restricted by any planned development requirements or Covenants, Conditions & Restrictions (CC&Rs) for a community.
- **Consider potential leak consequences when selecting a location.** Do not install tankless water heaters in locations where damage to the supporting structure might occur from an undetected leak UNLESS a water tight pan with a minimum ¾ inch drain line to an approved location is installed below the water heater. CPC 510.7
- **Restrictions on gas-fueled tankless water heaters.** No gas appliance may be located in a room used for sleeping, a bathroom, a clothes closet or in a closet or other confined space opening into, or having access from a bedroom or bathroom unless it is listed for direct-venting and approved for such use. CPC 509

VENTING AND INSTALLATION

Regulations concerning venting and installation of tankless water heaters include:

- **Positive pressure vents.** Most manufacturers use positive pressure (forced) vents. Installation of these vents must comply with the vent manufacturer's instructions. Most vents are stainless steel due to the slightly acidic content of the condensate. Type B venting material is not acceptable for positive pressure vents.

REFERENCE

California Plumbing Code (CPC)
California Mechanical Code (CMS)
California Energy Code (CEC)

Installation of a tankless water heater must conform to these codes.

FOR QUESTIONS

Contact your field coordinator (see below) or reach out by email or phone with your questions about codes, plan reviews, or the inspection process. We strive to respond within 2 business days:

infoinspector@sanjoseca.gov
408-535-7641

FIELD COORDINATOR

If you have an active permit, you can get help from your Field Coordinator. Find their direct phone number on your permit card, inspection notice, or the

[Field Coordinators Areas Map.](#)

San José Permit Center

San José City Hall
200 E. Santa Clara St.
San José, CA 95113
408-535-3555

www.sanjoseca.gov/building

continued >

- **Type B vents.** Type B vents must be installed per CPC and CMC codes when allowed by the manufacturer. Type B vents must be sized for the new tankless water heater plus any other gas-fired appliances which share the same system as allowed by tankless water heater manufacturer.
- **Vent termination.** All tankless water heater vents must terminate at least 4 feet from a property line.
- **Pressure-only relief valves.** Listed pressure-only relief valves must be installed as required. The discharge capacity must meet or exceed the BTU input rating of the tankless water heater.
- **CPVC piping.** CPVC piping used with any tankless water heater shall be installed with restrictions as required by the tankless water heater or CPVC manufacturer, whichever is most restrictive.
- **Condensate drains.** Condensate drains must terminate as required per the CPC or other approved manner when drainage is required by the tankless water heater manufacturer. See the [Condensate Disposal Requirements](#) bulletin for specific requirements.

ELECTRICAL

- Gas-fired tankless water heater units may require a 110/120V receptacle for operation of the thermostatic controls.
- When installed in a garage, the power for these gas-fired units may be provided by an adjacent non-GFCI single receptacle from a general lighting circuit.
- When installed outdoors, the receptacle must be GFCI protected with a weatherproof “bubble cover” or be hard wired.
- Attic or basement installations will require a 110/120V receptacle and switched luminaire at or near the tankless water heater. The switch for the luminaire must be located adjacent to the attic or basement access.
- All new electrical work requires an Electrical Permit; use the [Building Permit Application](#) to secure the permit.

GAS PIPING

- Tankless water heaters generally require a significantly greater quantity of gas than a storage tank heater. Care must be taken to verify that existing house gas piping is adequately (re)sized for the increased load.
- Typically, a dedicated gas line must be installed from the gas meter to the tankless water heater and a larger gas meter may be required.
- All new and altered gas piping systems must be pressure tested as prescribed by Code.
- See our [Gas Line and Piping](#) bulletin or CPC Table 12-3 for more information.

COMBUSTION AIR

- All tankless water heater installations must comply with current CPC and CMC requirements for combustion air.
- Properly sized combustion air vents are to be located within the upper and lower 12 inches of an enclosure.
- A 200,000 BTU input tankless water heater requires an opening or vertical duct at the upper and lower locations with the equivalent area of an 8-inch round duct (50 sq in). Double the area for horizontal ducts.
- Openings to the exterior are typically required for garage installations.

The Manufacturer’s Installation Instructions for the tankless water heater and the Listed Venting System must be available at the job site for all inspections. Provide gas line sizing calculations per our [Gas Line and Piping](#) bulletin at the initial inspection.

Save with Online Permits
A number of simple permits may be obtained online.
Find out more:
www.sjpermits.org

Permits and inspections

- Help keep your property safe
- Help assure the quality of your remodeling investment
- Are required by law

We'll answer your questions about permits.

Contestaremos sus preguntas referente a permisos en Español.

Chúng tôi sẽ trả lời thắc mắc về giấy phép của quý vị bằng tiếng Việt

San José Permit Center
San José City Hall
200 E. Santa Clara St.
San José, CA 95113
408-535-3555

www.sanjoseca.gov/building