

# Tank Water Heater Installations

**NOTE:** It is the plumber's responsibility to have the water heater permitted and inspected immediately before or after installation.

## Replacing Existing Water Heater

1. **Combustion Air** - If the existing water heater did not have combustion air and the structure was built prior to 1980, you will not be required to provide combustion air (if the water heater is gas fired). If the structure was built after 1980 or there has been a history of water heater combustion issues, combustion air must be provided in the upper twelve inches (12") and the lower twelve inches (12") of the closet (if the water heater is gas fired). Each vent must be a minimum of one-hundred square inches (100).
2. **Drain Pan** - Drain pans (1½" deep) will be required for any replaced water heater. If the pan can be drained to the outside of a building or an approved indirect drain. A min. 3/4" pan drain is required. Exception: If water heater did not have a pan prior to replacement and is not in a location where leakage could cause damage to the home, it is not required.

If there is no way to drain the pan to an approved location, you may install a boiler drain with hose bib threads in the pan. This will allow the occupant to connect a water hose and drain any water accumulating in the pan if a leak occurs. In addition to the hose bib drain, you can also install: 1) a WAGS valve, 2) a flood stop valve, or 3) an electronic water sensing device that will sound an audible alarm when wet. Drain lines may discharge into a garage if the garage utilizes concrete stem walls that will prevent the water from damaging structural wood or drywall members.

**T&P Line** - A T&P line that discharges outside of the building must be between six inches (6") and twenty-four inches (24") above the ground with a ninety degree (90°) on the end of the pipe with the outlet facing the ground. Use other approved discharge method approved by the code. T&P lines must have positive drainage and fall from the T&P valve to the outlet of the pipe.

3. **Flue Vent** - Flue vents must have Minimum 1 Inch clearance from any combustible material. Double wall (Type B) vents must be used for any vents that extend through an attic. Single wall vents may only be used in spaces that are not concealed and to a point six inches (6") below the ceiling that divides the room (or closet) from the concealed space or attic.
4. **Flex Line** - New gas flex line required. The maximum length of a gas flex line is thirty-six inches (36") and the minimum diameter is one-half inch (½"). An approved gas valve must be installed immediately prior to the flex line.
5. **Sediment Trap** - Sediment trap for gas line is required.
6. **Location**- Any location allowed by code. Attic installations must have structural support that supports the weight of the heater, in addition to the water.

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## New Construction or Remodels

1. **Combustion Air** - Combustion air must be provided in the upper twelve inches (12") and the lower twelve inches (12") of the closet (if the water heater is gas fired). Each vent must be a minimum of one cubic inch for every 4,000 BTU of the appliance rating. (A 40,000 BTU water heater will require a ten (10) square inch vent in the bottom twelve (12) inches of the closet and a ten (10) square inch vent in the upper twelve (12) inches of the closet.
2. **Drain Pan** - Drain pans (1½" deep) are required to be installed. A minimum ¾" drain line must be installed that allows the pan to drain to an approved location. On remodels only, you may install a boiler drain with hose bib threads in the pan, if there are no other means to provide an approved drain. This will allow the occupant to connect a water hose and drain any water accumulating in the pan if a leak occurs.
3. **T&P Line** - see above requirements for water heater replacements.
4. **Flue Vent** - see above requirements for water heater replacements.
5. **Flex Line** - see above requirements for water heater replacements.
6. **Location**- Any location allowed by the code
7. **Sediment Trap** -Sediment trap for gas line is required.