

Water Heater Installations

NOTE: It is the plumber's responsibility to have the water heater inspected immediately after installation. Failure to receive inspection approval of the water heater immediately after installation could result in the filing of a complaint with the Texas State Board of Plumbing Examiners and the issuance of citations.

Replacing Existing Water Heater

1. **Combustion Air** – Properly installed and maintained high and low c air. The same duct or opening shall not serve both c air openings. Low c air shall be within 1' from the bottom of the closet and high c air shall be within 1' from the top of the closet. Both shall be properly sized and free and clear.
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, a ¾" drain line must be installed that drains to the outside of the building.
If there is no way to drain the pan to the outside of the building, you can 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 boiler 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 members.
3. **T&P Line** – the T&P line must discharge outside of the building between within 6" of the ground with a ninety degree (90°) on the end of the pipe with the outlet facing the ground. T&P lines must have positive drainage and fall from the T&P valve to the outlet of the pipe.
4. **Flue Vent** – Flue vents must have Minimum 1" 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.
5. **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 onehalf inch (½"). An approved gas valve must be installed immediately prior to the flex line.
6. **Sediment Trap** – Sediment trap for gas line is required.
7. **Water supply valves**- must be accessible; note half up half down water heaters – those above laundry machines
8. **Tankless** – a total footage and BTU load chart with all openings included are required to be submitted and approved prior to requesting an inspection.

Water Heater Installations

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 ¾” drain line must be installed that allows the pan to drain to the outside of the building. As an exception, you may install a boiler drain with hose bibb 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 boiler drain, you must install: 1) a WAGS valve, or 2) a Flood stop valve.
3. **T&P Line** – see above regulations for water heater replacements.
4. **Flue Vent** – see above requirements for water heater replacements.
5. **Flex Line** – The maximum length of a gas flex line is thirty-six inches (36”) and the minimum diameter is one-half inch (½”) – unless the plumber can provide documentation that the flex line used will support the BTU rating of the water heater. An approved gas valve must be installed immediately prior to the flex line.
6. **Location**– City ordinance prohibits the installation of a water heater in an attic. There is an exception that allows water heaters accessible from a full-size door, from the second floor of the building, to be located in an attic or tankless water heaters.
7. **Sediment Trap** –Sediment trap for gas line is required.