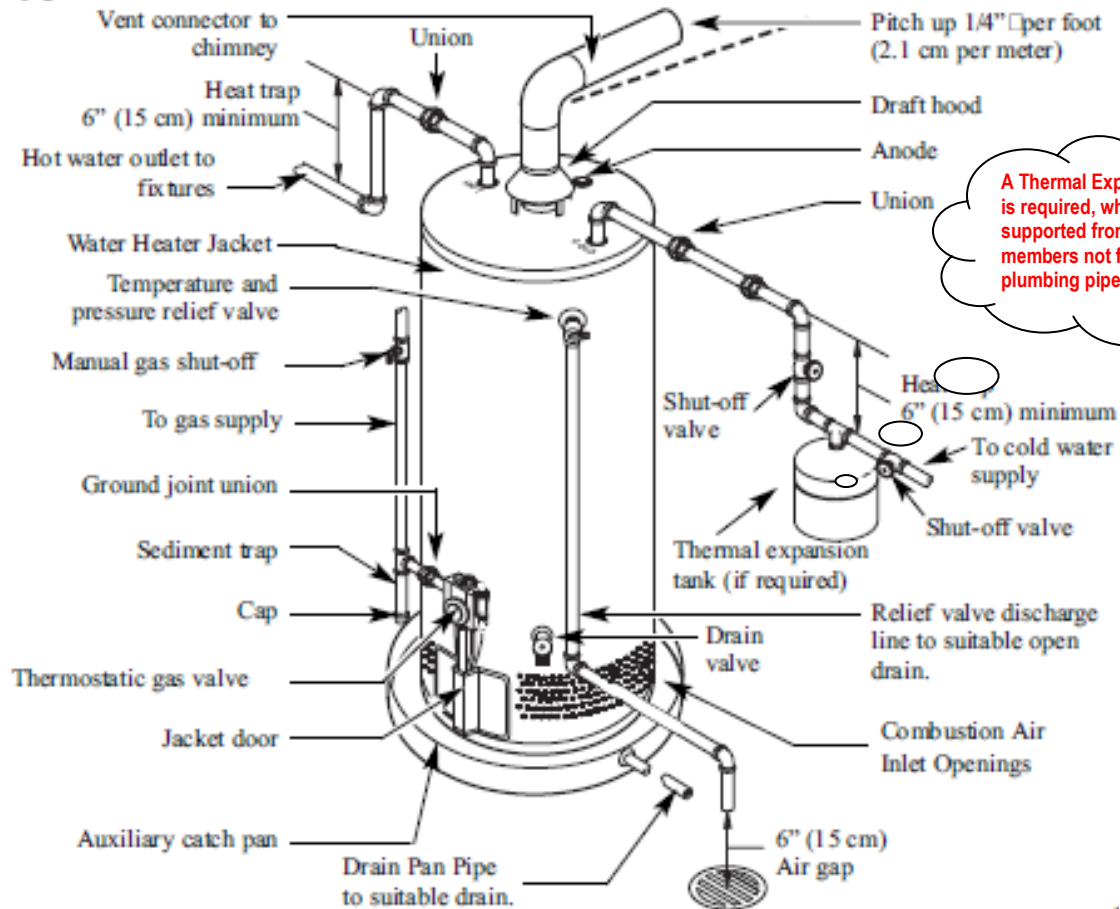


HOT WATER TANK TYPICAL INSTALLATION REQUIREMENTS

Typical Installation



- **Permits are required** for new and replacement water heaters. Contact the Building and Housing Department.
- **General** Water heaters shall be installed in accordance with the manufacturer's installation instructions. Gas-fired water heaters shall conform to the requirements of the International Fuel Gas Code, Residential Code of Ohio, Ohio Mechanical Code, International fuel gas code, and the Ohio Plumbing Code. Electric water heaters will conform to the requirements of this code and provisions of 2008 Edition of the NEC Electrical Code.
- **The City of Richmond Heights requires a pressure regulator in every home due to high pressures throughout the entire city; therefore an expansion tank is required with the installation of any hot water tank.**

- **Prohibited Locations** Do not install water heaters which depend on the combustion of fuel in rooms used for sleeping purposes, bathroom, closet or other confined space opening into a bedroom, bathroom, or under a stairway landing.
- **Combustion Air Vents** are required within 12" of the top and bottom of enclosure, where the enclosure has a volume less than 50C.F. per 1000 B.T.U. / H of all appliances within enclosure. Minimum area per opening shall be based on 1 square inch per 4000 B.T.U. / H of input capacity, with a minimum screen mesh of a 1/4".
- **Venting System** shall be constructed, sized appropriately and installed to code and per manufacturer's installation instructions; in no case shall vent piping be smaller than required for water heater's draft diverter or venting outlet. The **MAXIMUM AREA OF THE MASONRY FLUE** venting, a single appliance such as (Hot Water Tank) with a 3 inch vent connector shall not exceed 50 sq. in. If the area of the FLUE exceeds 50 sq. in. a power vent, chimney liner or a 90 percent efficiency hot water tank or other approved venting system is required.
- **Vent Pipe Termination** shall not terminate less than 2' above roof, additional height required if roof pitch is greater than, 6:12 slope, nor shall a vent terminate less than 8 feet from any second story exterior wall. Vent termination in all other cases not to terminate any less than 2 feet above any structure within 10 feet.
- **Flexible Gas Appliance Connectors** shall not exceed 3 feet in length; old or existing connectors shall not be reused per manufacture's installation instructions. Gas connectors shall be attached to a hand shut-off type gas valve and be properly sized to B.T.U. rating of water heater.
- **Sediment Trap** shall be installed to gas supply at water heater control valve with a T fitting and a minimum 3-inch nipple in length with cap for sediment trap.
- **Metallic Piping to be Bonded** continuously with a #4 copper bonding wire and bonding clamps, to cold, hot, and gas lines to electrically bond systems together at water heater.
- **Dissimilar Materials** Dielectric Fittings are used to connect two different metals. Dielectric Fittings normally connect a copper pipe with an iron one, and normally in water supply systems.
- **Water heaters installed in attics** containing a water heater shall be provided with an opening and unobstructed passageway large enough to allow removal of the water heater. The passageway shall not be less than 30 inches (762 mm) high and 22 inches (559 mm) wide and not more than 20 feet (6096) mm in length when measured along the centerline of the passageway from the opening to the water heater.
- **Relief valves required.** Appliances and equipment used for heating water or storing hot water shall be protected by:
 1. A separate pressure-relief valve and a separate temperature-relief valve; or
 2. A combination pressure –and temperature-relief valve.
- **Requirements of Discharge Pipe.** The outlet of a pressure relief valve, temperature relief valve or combination thereof, shall not be directly connected to the drainage system. The discharge from the relief valve shall be piped full size separately to the floor, to the outside of the building, or to an indirect waste receptor located inside the building. In areas subject to freezing, the relief valve shall discharge through an air gap into an indirect waste receptor located within a heated space, or by other approved means. The discharge shall be installed in a manner that does not cause personal injury or property damage and that is readily observable by the building occupants. The discharge from a relief valve shall not be trapped. The diameter of the discharge piping shall not be less than the diameter of the relief valve outlet. Discharge pipe materials must be constructed of ridged copper, steel or CPVC or those materials listed in Section 605.4 or materials tested, rated and approved for such use in accordance with ASME A112.4.1. The discharge pipe shall be installed so as to drain by gravity flow and shall terminate atmospherically not more than 6 inches (152 mm) above the floor. The outlet end of the discharge pipe shall not have a valve installed.
- **Auxiliary Drain Pan** shall be required when a water heater and/or tank is installed in a location where leakage could cause damage; in case of failure/leak to floor, sub-floor, drywall, or platform. Drain pan shall be installed with a minimum 3/4" drain outlet and discharge that drain to the exterior of the building or approved location.