

TECHNICAL BULLETIN

BULLETIN 52

LEAKING TEMPERATURE AND PRESSURE RELIEF VALVE

SYMPTOMS

- Water seeping around the relief valve tank connection
- Leakage at the threaded portion of the relief valve connection
- Intermittent weeping and/or dribbling from the relief valve
- Large volume of hot water sporadically discharged from the relief valve

GENERAL

The temperature and pressure relief valve (T & P) is a safety device limiting temperature and pressure levels in a water heater. Each T & P has both a temperature and pressure rating.

Normally, the temperature and pressure relief valve will have a temperature rating for 210°F. A probe (part of the relief valve) extends into the tank measuring the stored water temperature. This probe must be within the top six inches of the water heater. However, if the water heater's thermostat malfunctions, higher than normal water temperatures could be produced. Once the probe senses a temperature exceeding its temperature rating, the relief valve will open to full capacity releasing "very hot" water until the temperature is below its reset temperature.

The pressure rating on the relief valve should be the same or less than the certified working pressure of the tank (generally 150 psi) and be below the lowest pressure rating of any system components. It is not acceptable to install a relief valve that exceeds the maximum working pressure of the water heater. Once the pressure in the tank reaches the valve's pressure rating, it will slightly open relieving the pressure. Relieving of pressure can be noted as "dribbling" or "weeping" water from the relief valve.

If an incorrectly sized temperature and pressure relief valve is installed, the warranty will be void.

THE FIX

- Seeping at the spud of the water heater - Spuds are welded to the tank and are not repairable. The heater should be replaced.
- Leakage at the threaded relief valve connection - Remove relief valve and reseal connection.
- Intermittent weeping and/or dribbling at the relief valve - The relief valve relieves water slowly when actuating on pressure. A closed system can cause pressure to increase in the system. This condition is called thermal expansion. For additional information regarding thermal expansion please see Bulletin 45.
- Large volume of hot water sporadically discharged from the relief valve - The relief valve relieves water quickly when actuating on temperature. The only cause of this problem is a malfunctioning thermostat.