Help Center

Checking Water Pressure

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INTRODUCTION

High water pressure can cause the water heater and other appliances to fail prematurely.

A water pressure gauge is available at hardware stores and home centers for a few dollars.

Since water pressures vary throughout the day and are higher at night, get the type of water pressure gauge with a recording hand so you can see what the highest pressure is over a 24-hour period.

The information on this web site is supplemental to the printed instructions that came with your water heater. To reduce the risk of property damage, serious injury or death, read and follow all labels on the water heater and the safety instructions in the printed owner's manual.

TOOLS:

- Water pressure gauge with a lazy hand (1)

PARTS:

- Pressure reducing valve (1)
- Thermal expansion tank (1)

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Step 1 — Tools and Supplies





- Water pressure gauge with a lazy hand
- Pressure reducing valve
- Thermal expansion tank

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Step 2 — Check Your Home's Water Pressure





High water pressure is one of the main reasons water heaters leak prematurely.

Plumbing codes require that your home's water pressure be 80 pounds per square inch (psi) or less. Most experts recommend 50-60 psi.

- If your old water heater leaked prematurely, check your home's water pressure with a pressure gauge with a lazy hand (available at hardware stores and home centers for a few dollars). Measure the water pressure over a 24-hour period. (Water pressures are highest at night.)

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Step 3 — Protect Appliances by Installing a Pressure Reducing Valve



- Plumbing codes require that your home's water pressure be no higher than 80 psi. If your water pressure exceeds 80 psi, install a Pressure Reducing Valve.

Pressure Reducing Valve are usually set to 50 psi at the factory. If necessary you can use the adjustment screw to set your home's water pressure to 50 psi.

- Controlling high water pressure helps protect your water heater, toilet valves, washing machine hoses, and the electronic valves on washing machines, dishwashers, ice makers and other appliances.

Step 4 — Thermal Expansion Tank Needed?



- Water meters and Pressure Reducing Valves usually have built-in check valves that create a "closed" plumbing system.
- Closed plumbing systems require a Thermal Expansion Tank.

A dripping T&P Relief Valve is a strong indicator that your plumbing system is "closed" and you need a Thermal Expansion Tank.

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Step 5 — Check Thermal Pressure



- After installing a Pressure Reducing Valve, leave the water pressure gauge in place for a second test.
- Heating water can increase the home's water pressure dramatically. But you can use a water pressure gauge to tell if you need a Thermal Expansion Tank.

Step 6 — Monitor Pressure During a Heating Cycle



- Measure your home's water pressure.
- Run the hot water from a faucet for 2-3 minutes to force the water heater into operation.
- Monitor the water pressure while the water heater is in a heating cycle.

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Step 7 — Install a Thermal Expansion Tank



- If the water pressure increases when the water heater is heating, your plumbing system is "closed" and your home needs a Thermal Expansion Tank.

If you already have a Thermal Expansion Tank, this test will determine if the expansion tank is working properly.

- If you have an expansion tank and the pressure increases when the water heater is heating water, the expansion tank's rubber bladder may have failed, the tank may have the wrong air pressure, or it may be too small for your home.
- See **Thermal Expansion Tanks** for more information.

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