

GAS WATER HEATERS

21.1. Vocabulary

Ex. 1. Match the words with their definitions.

1. Baffle tube	A. A device that controls the flow of gas to the burner.
2. BTU	B. A small flame that ignites the gas burner.
3. Burner assembly	C. A component that directs the flow of water inside the heater.
4. Dip tube	D. The unit of measure for heat energy.
5. Exhaust	E. A type of gas used as fuel in heaters.
6. Flue pipe	F. The main component that burns gas to heat water.
7. Gas regulator	G. A tube that carries combustion gases outside.
8. Gas water heater	H. A safety device that detects the pilot light.
9. Natural gas	I. A common fuel source for gas appliances.
10. Pilot light	J. A tube used to direct cold water to the bottom of the tank.
11. Propane	K. An appliance that heats water using gas as a fuel source.
12. Thermocouple	L. The system that removes combustion gases from the heater.

Ex. 2. Complete the sentences with the words in Ex. 1.

1. The _____ directs cold water to the bottom of the tank.
2. _____ is a common fuel source for many water heaters.
3. The _____ ensures that the gas supply is cut off if the pilot light goes out.
4. Proper _____ is essential for safe operation of the heater.
5. The _____ carries combustion gases outside the home.
6. A _____ is an efficient way to heat water for household use.
7. The _____ rating of this heater determines how much heat it can produce.
8. The _____ controls the flow of natural gas to the heater.
9. _____ is an alternative fuel for gas water heaters in rural areas.
10. The _____ helps improve the efficiency of the gas water heater.
11. The _____ must be lit for the burner to ignite.
12. The _____ is crucial for heating the water effectively.

21.2. Reading

Ex. 1. Read the text.

Gas Water Heaters: An Overview

Gas water heaters are essential appliances in many homes, providing a reliable and efficient way to heat water. They operate using either natural gas or propane, making them a popular choice in areas with access to these fuels.

The main components of a gas water heater include the burner assembly, which heats the water, and the dip tube, which directs cold water to the bottom of the tank. The baffle tube enhances efficiency by directing the flow of hot gases. The gas regulator controls the flow of fuel, ensuring the heater operates safely and effectively.

A key safety feature is the thermocouple, which monitors the pilot light. If the pilot light goes out, the thermocouple shuts off the gas supply to prevent leaks. The flue pipe is another critical component, channeling exhaust gases safely out of the home.

Gas water heaters are measured by their BTU rating, indicating the amount of heat they can produce. Higher BTU ratings generally mean faster water heating. Proper installation and maintenance are crucial, as issues like a blocked exhaust or faulty gas regulator can lead to dangerous situations.

For plumbers, understanding these components and their functions is vital. Regular maintenance, such as checking the pilot light and ensuring the flue pipe is clear, can extend the life of the heater and ensure safe operation. By mastering these skills, plumbers can provide valuable service to their clients, ensuring efficient and safe water heating solutions.

Ex. 2. *Answer the questions.*

1. What are the main fuel sources for gas water heaters?
2. How does the dip tube contribute to the operation of a gas water heater?
3. Why is the thermocouple an important safety feature?
4. What is the role of the gas regulator in a gas water heater?
5. How does the baffle tube improve the efficiency of a gas water heater?
6. Why is it important for plumbers to understand the components of a gas water heater?
7. What maintenance tasks can help extend the life of a gas water heater?

21.3. Communication

Ex. 1. *Make sentences using the following words.*

1. appliances/energy-efficient/money
2. quickly/provide/hot
3. commonly/used/homes
4. require/regular/maintenance
5. heat/faster/electric
6. installed/indoors/outdoors
7. longer/lifespan/compared
8. operate/burner/tank
9. reliable/sources/water