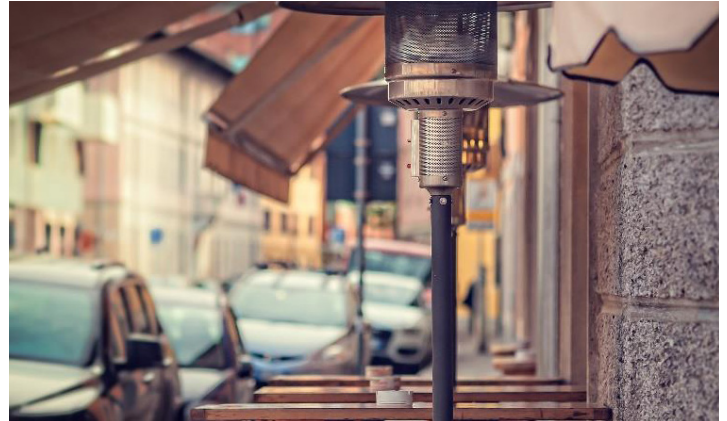


Safety Zone: Working With Propane Heaters

Propane heaters and propane powered fire pits are very a common aspect of outdoor restaurants and bar patios during the fall, winter and even throughout those cooler spring days. While using propane for heating and cooking is a routine operation, it is important to remember that they use an open flame as well as flammable gas. Propane is heavier than air and it accumulates along the floor and low levels, rather than dissipating out higher exits. Before your customers can enjoy the warmth of a propane heater, it is important to approach with extra care and ensure that the user's manual is understood. This way, you can help prevent both customer and employee injuries or a loss that can cost your business serious money.

Getting Started with Propane Heaters

Employees that are tasked with setting up and using heaters must be trained and familiar with the instructions and maintenance procedures. All products come with detailed installation and safety instructions that are designed to reduce losses and injuries. It is important to be familiar with the key components, operations and hazards that are associated with using these type of heaters; especially in an area where customers and patrons are enjoying a meal, a drink or just relaxing on your establishment's patio.



Before every use, inspect the heater and components. Ensure that there are no flammable or combustible materials in close proximity (3 feet from the heat source and 10 feet from combustible building components). Make sure that the area is well-ventilated; all gas heaters produce carbon monoxide and must only be used outside. If used in canopies or covered areas, install Carbon Monoxide alarms. Check that all connections are secure and check hoses for cracks and leaks. If leaks are suspected, a leak test should be conducted and if a leak is found, do not use. If deficiencies are found, do not use until repairs are made by a qualified service person. Annual inspections should be done by a qualified professional.

How to Check for Leaks in Propane Heaters

In regards to checking for leaks in propane heaters, the user's manual provides detailed instructions that must be followed. To check for leaks, a simple solution of soapy water can be used. This mixture should be applied to all connections where the regulator connects to the cylinder and to all hose and valve connections. Ensure the heater and ignitions are off and turn gas on to test. If a leak is detected at the tank connection, turn the valve off, disconnect the hose/regulator and reattach. Apply more leak check solution, and if bubbles continue to appear, the regulator/connection is defective and must be returned to the dealer or place of purchase. If leaks are present on the hose assembly, it needs to be replaced as well.

Storing Propane Heaters

Improper propane tank storage can also lead to property damage or bodily harm for patrons or employees. Before placing in storage, ensure that the main valve is shut off and that it is kept on a flat stable surface, away from excess heat and open flame, and in an area where it won't be tampered with. Never store propane tanks indoors. Additionally, if there is a large quantity of tanks being stored, it might be beneficial to look into an open-air container designed to store propane tanks, similar to what you see used in propane exchanges. Tanks should be stored upright to keep liquid propane from coming in contact with the relief valve.

Preventing Propane Heater Accidents

Reading instruction manuals may seem tedious and it may seem that the use of common sense will suffice, but remember, no one plans on an accident occurring. Following the prescribed maintenance and instructions for each unit will prevent accidents and allow for a safe environment for patrons and employees. The best way to stop accidents is to be proactive.

Key points to remember about propane heaters:

- Never use a propane heater inside or in a non-ventilated area. Propane heaters require oxygen to operate, and if used indoors or in an area that is nonventilated, they can deplete the oxygen and cause increased levels of carbon monoxide.
- Ensure that flammable materials are not in close proximity of the heater. Before starting the heater, read the user's manual to learn the adequate clearance distance. Not all heaters have the same level of power so it is important to know the safe distance for yours.
- Check for leaks. Ensure the propane tank is in good condition as well as hoses. Propane is heavier than air, which can cause the gas to pool up on the floor creating a pocket of flammable gas.

- Never move a lit heater. Make sure that the heater is in the proper position before starting. If it needs to be adjusted, shut it off and make sure the gas is off as well.
- Do not use in windy weather. Heaters should not be operated in windy areas, as this can cause it to be blown over or the flame to be blown out.
- Avoid running faulty propane heaters. Never run a heater that is malfunctioning.
- Provide fire extinguishers. Keep portable fire extinguishers in an easily accessible area that is relative to heaters.
- Inspect heaters regularly. Before each use, check the heaters for obstructions on the burner tube or other openings to prevent gas flow problems. It can be common for small bugs to climb in and cause obstructions.

Preventing Propane Heater Accidents

- Propane should never be stored indoors or in an enclosed area
- Tanks should never be stored in an area of excess heat or near flammable materials
- Do not smoke or have open flame near tank
- Do not tamper with or modify any valves on a tank
- Do not use if tank appears to be in questionable condition

Best Practices

- Use only listed or approved heaters
- Make sure the heater has an anti-tip feature, where the unit automatically shuts off if it falls over
- Contain the flame; use units where the flames are contained within an emitter or tempered glass
- The heater should have thermocouple control, which shuts off the gas if the flame extinguishes (often by high wind) and prevents gas leaks

Placement

- Away from, or secure from, foot traffic
- Provide and maintain proper clearances to combustibles, as specified by manufacturer
- Keep it secure and stable
- Protect from the elements, particularly wind and domed heaters

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