

# Quartz Heat lamps





#### Overview

Quartz heat lamps are widely used in commercial food displays because they provide instant, intense infrared heat that keeps food at safe serving temperatures without drying it out excessively. They are a highly efficient and hygienic solution for buffets, carvery, and kitchen pass areas.

### **Key Features and Benefits**

**Infrared Technology:** These lamps primarily use short-wave infrared radiation, which heats objects (the food) directly rather than the surrounding air. This method is highly efficient and minimizes heat loss to the environment. Unlike traditional heating methods that warm the air (convection), infrared rays from a quartz lamp travel through the air in straight lines and are absorbed by the objects they hit, such as the food and serving pans.

Instant Heat: Quartz heat lamps warm up instantly, reducing waiting times and maximizing energy efficiency.

**Food Quality:** By directing heat to the food itself, they maintain temperature while helping to preserve the food's texture, flavour, and visual appeal, preventing sauces from congealing and dishes from getting cold.

**Hygiene & Safety:** The jacketed design provides an extra layer of protection, containing glass fragments if the bulb were to break and protecting against oil splatters. They also don't contribute significantly to air circulation, reducing the risk of airborne contamination.

**Durability:** Quartz glass is durable and resistant to thermal shock, offering a long lifespan (often 5,000 to 7,000 hours), which reduces the frequency and cost of replacements. This refers to the expected usage time, not calendar time. The actual time until replacement depends on how often the unit is turned on.

**Versatility:** Available in various formats, including single or multi-lamp gantries, counter-top units, and hanging styles, many of which can accommodate standard gastronorm pans. Many units feature a heated base in addition to the overhead lamps for consistent, all-around warming

**Halogen Cycle:** Many professional-grade lamps use a tungsten filament within a quartz tube that also contains a small amount of halogen gas. This "halogen cycle" helps prevent the filament from degrading quickly, contributing to a long lifespan





## Factors that affect lifespan

**Maintenance:** To achieve the maximum lifespan, it is important to keep the lamp clean and avoid getting grease or fingerprints on the glass, which can create hot spots and cause damage.

**Operating environment:** Exposure to contaminants like grease build-up, dust, and high humidity can reduce efficiency and potentially cause hot spots if the lamp surface is not kept clean.

**Handling:** Avoid touching glass bulbs with bare hands, as oils from the skin can cause premature failure.

**Food Safety:** Moffat use quartz lamps designed for food display they are "jacketed" with an outer layer of quartz glass. This design increases food safety by containing any broken glass debris if the inner bulb shatters.

**Bulb compatibility:** Ensure the bulb wattage is appropriate for the appliance. (Moffat standard lamps are 220w)

**Frequency of use:** While continuous operation can be ideal for longevity, frequent starting and stopping (on/off cycling) can cause thermal stress and shorten the lamp's lifespan.

**Dimming:** using non-compatible dimmer controls can drastically shorten bulb lifespan.

Quality: Cheaper bulbs may not last as long as higher-quality ones.

## Replacement

Bulbs have a common R7 fitting, a "push-in" style, making replacement straightforward.



- Isolate appliance from power supply and allow cooling down before commencing lamp replacement.
- Carefully slide mesh guard to one side until it clears the bulb area.
- Remove faulty lamp by pushing to one side then pull down. Hold the insulated end of the new lamp (Any end).
- Fit replacement by slotting the end of the new lamp into one end of the housing. Do not touch bulb with bare hands,remove finger marks with alcohol.
- Push against the sprung contact & hold it there.
- Raise the opposite end of the lamp into the other end of the Lamp.



#### Warning!

- Prolonged looking at the illuminated lamp may damage eyes.
- Protect the lamp from shocks and vibrations even when cold.



