



AT-HTZ Cylinder Heater System

The AT-HTZ Heater System is an electric heating system to be used with liquefied gas cylinders. A typical heating system consists of a controller assembly, silicone rubber heater and insulation blanket.

The silicone rubber heater utilizes electrical resistance heating elements that are wound within a silicone rubber blanket. The silicone rubber prevents the cylinder from being in direct contact with the electrically charged heating elements while allowing the necessary heat to be delivered to the gas. This heat energy is necessary to maintain gas flows since the exiting gas carries with it a significant amount of internal energy. Without replenishing this energy the cylinder temperature will drop as will the cylinder pressure.



System Specifications and Features

- The insulation and heater materials are silicone rubber, a durable and chemically resistant material
- Size, wattage and voltage of panel determined by specific application
- Integrated Type "K" thermocouples
- Spring Closures
(other types available upon request)
- All components utilized in the controller and heat panels are UL listed or recognized.
- All Heating panels feature a Ground Screen and meet NEC Article 427-23
- Panels are mandrel formed to conform to cylinders easily

Design and Safety Features

The system is designed to supply heat to sustain gas flow, not to raise the temperature and thereby, pressure, of the cylinder above unsafe operating conditions. Safety features have been added to the system to prevent such misuse of the equipment. Each heater has two thermocouples integrated into the silicon panel. One thermocouple measures the part (cylinder) temperature and the other thermocouple monitors the heater element temperature.

Two controllers are integrated into the AT-NEALT control system. The primary process controller controls the desired cylinder temperature. The secondary controller is a fixed temperature limit controller. This controller prevents the heater from exceeding 125°F in the event of a controller runaway. An additional safety precaution is restricting power densities to less than 2.5W per square inch for typical cylinder heaters and designing heater according to the requirement.

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