

Control Panel: The Essential Factor

There are a lot of discussion about the heating elements, the style of heaters, and the objective therein when considering the electric heaters. The importance of examining the control panel is somehow overlooked and/or taken for granted. Even so, what makes WATTCO™ heaters extraordinary above other industrial heaters is the fact that the control panel they designed stands out for the maximum safety.



It is generally considered that electric heaters are much safer than the conventional gas heaters in terms of fire hazard and explosion. Nonetheless, the electric heaters are not exactly free of concern for the incidental hazards. A simply faulty circuit or an overload could easily contribute to a disastrous accident. When installing electric heaters, all safety precautions must be considered and the standards of equipment must exceed those required for the safe operation of heating elements. There is a variety of safety standards by which the commercial electric products are measured (i.e. NEMA). NEMA stands for National Electrical Manufacturers Association, which sets the electrical standards for North America and other countries including US, Canada and Mexico.

The primary purpose of control panel is to provide stability to the heating operation and at the same time to prevent overheating or chemical disintegration of the medium in the process. The control panel is generally customizable depending on the safety requirements of the particular application. It regulates the temperature and provide the mechanism to interrupt the power if the overload occurs in order to prevent overheating of the medium and to protect the heating elements. The control panel typically resides in a terminal box to provide several types of protection such as dustproof, waterproof or explosion-proof boxes for installation in hazardous areas.

WATTCO™ control panel features several characteristics. According to their specifications, the basic controls include: Type 4 weather resistant enclosure with hinged door; fused magnetic contactor; fused control circuit transformer; and On/Off switch pilot light. The advanced controls also include disconnect switch with door interlock, temperature control based on digital configurable processor, and electronic high limit. Additionally, there are multi-stage controls for advanced functions such as

modulating temperature control with step control and SCR solid state power control. The control panels are designed to safeguard the heaters from operating under the unsafe environment along with the thermocouples or RTD sensors.

The WATTCO™ control panels are reliable and cost-effective providing a maximum safety standards without requiring an expensive setup. They are available in a ready-to-connect format and compatible with various different materials such as dust, oil, water, as well as other corrosive and dangerous materials. The control panel is designed to withstand the current characteristically up to 4,000 amps with the voltage soaring as high as 600 volts. Despite that NEMA 1 enclosure is the typical terminal box for a general purpose, NEMA 4 enclosure is recommended for the outside environment on account of its moisture proof, and NEMA 7 is required for the environment susceptible to hazardous materials. Over and above, WATTCO™ is fully committed to ensure that the control panels provide safety measures for the electric heaters to operate out of harm's way. More information can be found at : <http://www.wattco.com/control-panels.html>