

Heat Panel Installation and Operation Manual **AT-HTZ / AT-NEA**

Introduction

The AT-HTZ heat panel is an effective solution to energy losses to the chemical/container system. Energy losses due to the exiting gas are replaced with thermal energy delivered via wire wound silicon rubber heaters. Since every application is different, the heat panels come in a variety of sizes and heating capabilities, however this document covers typical heat panel design and usage.

Installation

Install the heater panel such that it wraps around the cylinder and it is located in the bottommost section of the cylinder. *Note: THE PANEL MUST NOT OVERLAP. This is done so that the heat is being driven into the liquid portion of the chemical. Once it is wrapped around the bottle use pliers to stretch the extension springs and attach them to the boot clips on the opposing side of the heater panel.

For panels equipped with two thermocouples

If the heater panel is equipped with two thermocouples, then this system *must* be used with a temperature control system with a fixed limit-controlling device.

Warning: *Control system has exposure to high voltage. Shock hazard exists and may result in severe injury or death. Extreme caution required.*

All wiring is to be in accordance with applicable NEC, and local codes.

Power to the control system should be removed prior to wiring the heater panel to the controller. The two thermocouples on the heater panels are labeled "LIMIT CONTROLLER TYPE 'K'" and "P.I.D. CONTROLLER TYPE 'K'". Intuitively, the limit controller, located in the AT-NEA controller, is to be connected to the t/c labeled "LIMIT CONTROLLER TYPE 'K'" and the P.I.D controller, located in the AT-NEA controller, is connected to the t/c labeled "P.I.D. CONTROLLER TYPE 'K'".

Connect the power leads to the neutral and hot leads inside the AT-NEA controller, labeled TB2 and TB1, respectively.

For panels equipped with an integrated thermostat

Warning: *Control system has exposure to high voltage. Shock hazard exists and may result in severe injury or death. Extreme caution required.*

Heater panels equipped with an integrated thermostat are equipped with one thermocouple, which is to be wired directly to the P.I.D. controller located within the AT-NEA controller assembly.

Connect the power leads to the neutral and hot leads inside the AT-NEA controller, labeled TB2 and TB1, respectively.

If an insulation blanket is provided

The insulation blanket is designed to insure the heat from the heater panel is driven into the cylinder as desired. The insulation blanket fits around the heater panel and cylinder.

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Wrap the insulation blanket around the cylinder and heater panel and fasten it with the Velcro™ strips provided.

Operation

The AT-HTZ system is operated through the AT-NEA, At-NEALT or AT-MODEA controller assembly. Reference *AT-MODEA/AT-NEMA Controller Assembly Specifications and Installation Instructions* for information regarding the use of these controllers. All settings, excepting temperature setpoint, are factory preset and will appropriately control the AT-HTZ heater panels. Since the HTZ systems come equipped with a type "K" thermocouple it is important that the controller parameters are set to receive this control input. Check parameter 16 on the controller and be sure the setting is on "2".