INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS FOR INDEECO ELECTRIC PLENUM HEATERS

GENERAL

This document outlines the application, installation and maintenance for the 962 and 963 series electric plenum heaters.

APPLICATION

The 962 and 963 series Plenum Heaters may be used as a *horizontal* (ONLY) furnace or blower heater. When used with ductwork, the discharge is inserted into the low pressure duct work down stream of the primary air damper.

MECHANICAL INSTALLATION

1. Before installation, remove packing and all foreign material from unit.
2. Suspend unit from building structure in a horizontal plane with access panel on the sides. Do not obstruct access panels with support channels, straps, T-bar supports or building structure.
3. Inspect inlet/outlet screens for proper installation. Remove any foreign material from the ductwork prior to assembly.
4. Inspect blower wheel for any alignment issues that may have occured during shipment. Blower wheel should rotate freely and align properly in the housing. Make sure blower wheel set screw is tight.
5. Slip flexible or hard duct over inlet collar. Secure and seal connections to prevent leakage. Close coupling of the inlet to main supply duct is not recommended. For optimum control, allow at least 1-1/2 duct diameters upstream of the inlet to be straight and unrestricted.
6. Connect outlet end of the assembly using low pressure insulated duct. Secure and seal the connection.
7. Filters must be installed properly and without obstruction.

ELECTRICAL INSTALLATION

1. Provide a safety disconnect per NEC 424-19, 20 & 21. The 962 and 963 series plenum heaters are provided with an integral cover interlock disconnect switch.
2. Make sure power is **OFF** prior to power connection and checkout.
3. All field wiring must be in accordance with NEC and local requirements. All units with electric heat should have copper wire sized at least 125% of nameplate amperage.
4. Observe wiring diagram and instructions provided on the unit.
5. All units must be grounded as required by NEC 424-14 and article 250.
6. Inspect all electrical connections to confirm that vibration during shipment has not loosened connections.
7. Confirm correct voltage is connected to motor and heater. See Data Plate.
8. Apply power to unit and verify correct operation. Observe the operation and be tenative for (1) Excessive vibration, (2) Unusual noise, (3) Proper shutdown. If any problems occur, discontinue use until the cause has been identified.

OPERATION & MAINTENANCE

NOTICE: ALL SOURCES OF SUPPLY MUST BE DISCONNECTED BEFORE WORKING ON THIS EQUIPMENT

To operate this unit, make sure all associated control equipment is on. Energize the the main supply and set controlling thermostat above ambient temperature. When the desired temperature of the area is acheived, turn thermostat down until the unit turns off.
This unit is equipped with automatic and one time limit controls, if the unit fails to operate verify the

the continuity of the one time limit controls. If they show an open position, the one time limits must be replaced to continue operation.

The only routine maintenance required is to check all electrical connections, including field and factory made connections, for tightness at least once each year or operating season.

In addition, any air filters in the airstream must be kept clean so that adequate airflow is maintained.

These units are supplied with a PSC motor. Motors are permanently lubricated for normal lifetime use.

TROUBLE SHOOTING

Problem	Possible solution
A. Fan motor does not run.	* Fan disconnect circuit breaker is open-*energize circuit*. * Thermostat is not calling for heat-*raise temperature setting* and or *recalibrate.* * Fan P.E. switch is open-*verify switch setting verify switch action (open or close on pressure rise).* * Verify supply voltage and wiring diagram. * Bearing or motor wheel jammed - *free wheel* * Fan motor damaged - *replace motor.*
B. Unit blows insufficient air.	* Check for dirty filters, or other restrictions *clean or replace dirty filters (if applicable)* * Re-adjust fan speed control (SCR) for additional (CFM).
C. Unit blows cold air only No Heat	* Verify operation of all heating equipment. * Disconnect, fuses or circuit breaker may be open. *Energize circuit* and *verify fan operation.* * Air flow switch may not prove air flow. *Verify air flow, check sensing probe and tube for obstruction.* * Thermal cutouts are tripped. *Reset* or *replace cut-out; check for air flow obstruction.* * Low voltage. *Verify supply voltage against nameplate data.* * Heating element or contactor defective. *Replace with original factory replacement parts.* * Broken wire in control circuit or control circuit improperly wired. *Check wiring diagram in unit.*

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