

VENTILATION DUCT HEATER

SECTION 1/Valad Construction

FRAME: (FIG. 1)

All Valad Vent Duct Heaters are 16 GA 302/304 stainless steel or galvanized steel construction. Frames are spot welded and heliarc welded for maximum strength and air-tightness.

Reinforced bends and support channels provide superior strength (an exclusive) feature of Valad's. All frames and terminal boxes are acid etched and sandblasted.

MOUNTING: (FIG. 1)

All Valad Flanged Duct Heaters are supplied with .406" mounting holes. All holes are 3 inches on center; except center holes which the space between the center line and the adjacent holes exceed 2 inches, there shall be a hole on the center line.

HEATING ELEMENTS: (FIG. 2)

Stainless steel, finned, flat, oval tubular elements are made from the highest grade of resistance wire (80% nickel, 20% chromium). All elements are then packed with high grade magnesium oxide, and hermetically sealed against moisture. Valad finned tube elements are furnace brazed to insure good thermal conductivity between sheath and fins for longer element life. Valad manufactures only totally enclosed finned tube duct heaters.

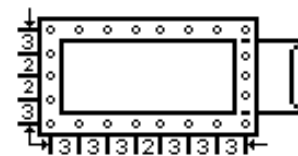
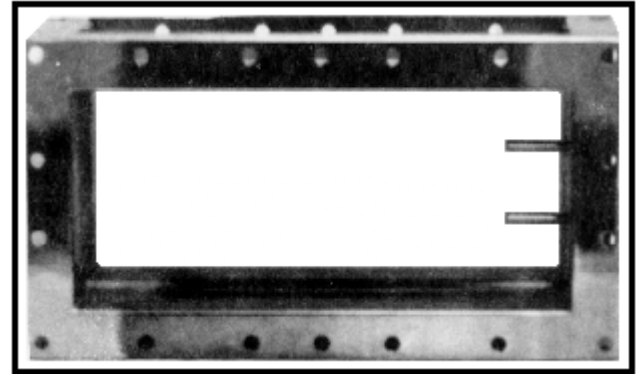
Round heating elements (Fig.3) are constructed the same as flat oval elements, except using round tubing and are available in monel.

TERMINALS: Flat Oval

8/32 threaded stainless steel terminals embedded in a glazed ceramic end cap hermetically sealed against moisture. The studs protrude into the element to provide a cold spot to keep the section nearest the terminal box from becoming over heated.

TERMINALS: Round Tubing

1/4-28 threaded stainless steel terminals embedded in a glazed ceramic end cap hermetically sealed against moisture. The studs protrude into the element to provide a cold spot to keep the section nearest the terminal box from becoming over heated.



(EXAMPLE)

FIG.1

Glazed Ceramic End Caps
Hermetically Sealed

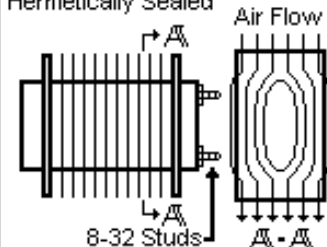


FIG.2 Heating Element(Flat Oval)

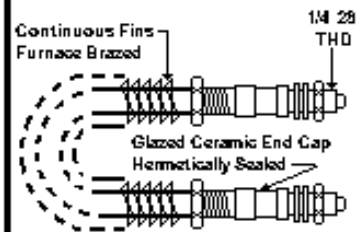


FIG.3 Round Element



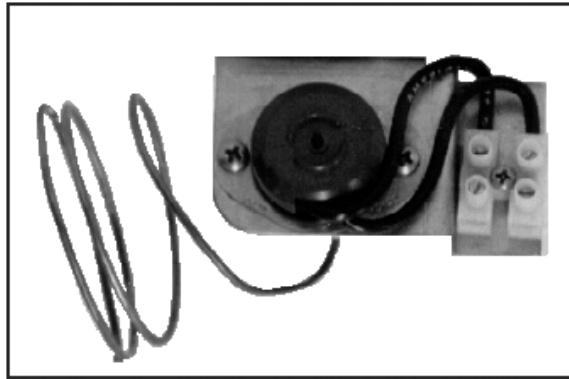
ELECTRIC HEATING CORP.

160 WILDEY STREET
TARRYTOWN, N.Y. 10591 U.S.A.
(914) 631-4927 FAX: (914) 631-4395

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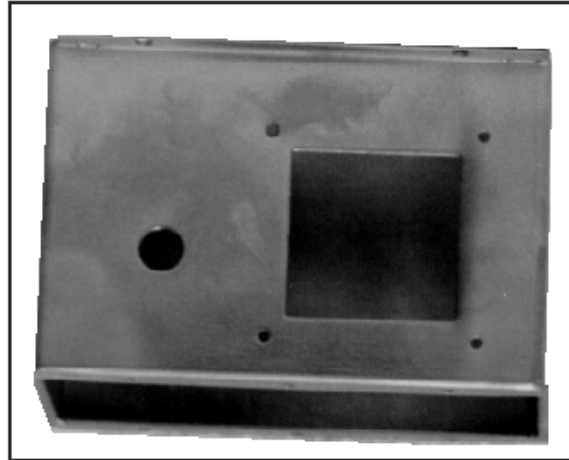
THERMAL CUT-OUT:

Vent Duct Heaters are equipped with a manual Hi-Limit thermostat (capillary type set to open at 350 deg F) to meet safety requirements. An automatic is also available upon request.



TERMINAL BOX:

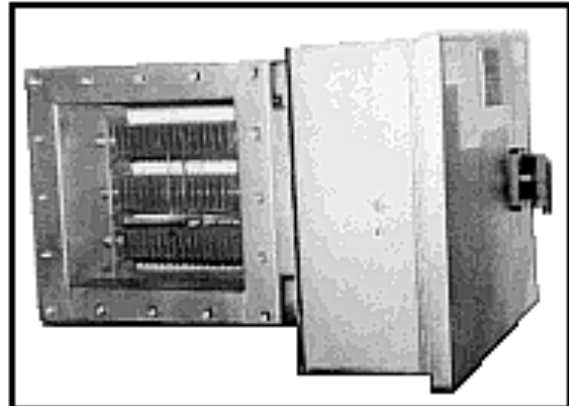
Valad Duct Heaters are equipped with terminal boxes. All boxes are gasketed with neoprene to seal against moisture. A drain plug and a cable entrance plate are provided for customer wiring.



CONTROL PANELS:

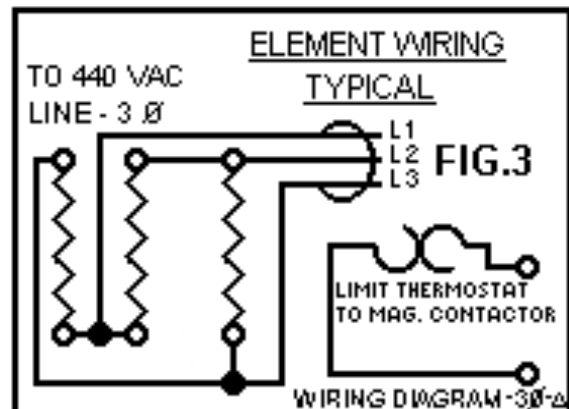
Valad Control Panels are manufactured in two ways:

- 1) The control box may be mounted on top of the terminal box.
 - 2) The control box can be mounted remotely.
- (See Section 8 for complete details.)



STAGING:

3 Phase Stage – 3 elements minimum per stage
1 Phase Stage – 1 element minimum per stage
(Consult factory on staging.)



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