

CAB & CABB

Low Temperature Air Duct Heaters

- Side Terminals (type CAB)
- Bottom Terminals (type CABB)
- 6 - 100 kW
- 120, 208, 240 and 480 Volt
- 1 or 3 Phase
- Rust-Resisting Iron or Chrome Steel Sheath Elements
- 440°F Max. Outlet Air Temp.

Applications

- Sole Heat Source
- Booster Heater in Process and Comfort Heating Ducts
- Convert existing Forced Air Dryers and Ovens
- With Blower and Duct, can be used to Fabricate simple Forced Air Drying Unit

Features

Simple Duct Transition Sections may be used to adapt standard heater sizes to various duct sizes to increase air velocities for better heat transfer, lower sheath temperature and longer element life.

Field Wiring Terminals — Heavy duty 3/8" diameter bolts of either brass (iron sheath units) or Stainless Steel (chrome steel sheath units) with necessary hardware are provided for field wiring connections. Terminals are located on the side for CAB units and on the bottom for CABB units, and should be on the outside of ducting.

Fins of aluminized steel are provided to improve heat transfer to the air.

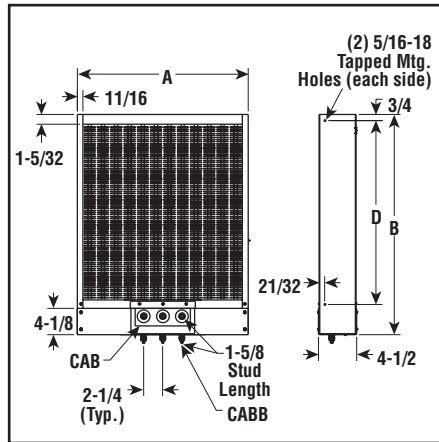
Elements are individually replaceable.

Terminal Cover Option is available to prevent accidental contact with live electrical terminals (PCN 269720), one (1) required per circuit.

MONEL® Sheath and MONEL® Fins are available for humid conditions. Model TDH heaters, using Fintube® elements are also available. Contact your Local Chromalox Sales office.



Dimensions (Inches)



Construction

Rugged Finstrip® Elements are mounted in a sturdy steel frame with narrow side of elements and fins facing the air flow.

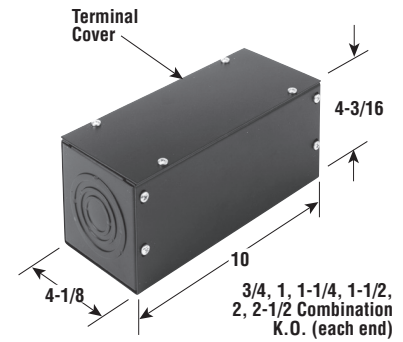
Finstrip® Elements, Exclusive Construction — High-quality, coiled resistor wire is uniformly spaced over the width and length of the Finstrip® element, then embedded in high-grade refractory material which insulates the wire and transfers heat rapidly. Refractory is then compressed to rock hardness and maximum density under tremendous hydraulic pressure to improve heat transfer from coil to sheath. Elements are oven baked at high temperatures to semi-vitrify and mature the refractory. Sheath material is either rust-resisting iron or chrome steel.

Sturdy Steel Frame — 14 gauge cold rolled steel painted with high heat resisting black enamel paint.

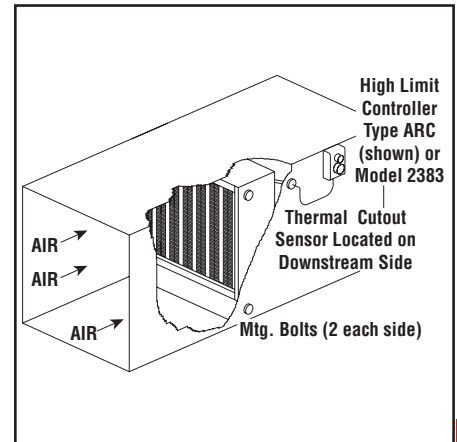
Internal Electrical Connections are made using a combination of buss bars and jumper straps consisting of either Manganese-Nickel or MONEL®.

Mounting

Always install heaters in duct work with terminal box on bottom of heater. Type CAB units should have field wiring terminals facing upstream to provide maximum cooling affect. Secure to duct work using mounting holes on both vertical sides of heater.



Overtemperature Protection



Application & Selection Guidelines

Selection Heater Size — Refer to Technical section for examples on determining kW requirements. For quick estimating purposes, the following formula may be used for air at standard conditions:

$$kW = \frac{SCFM \times \text{Temp. Rise } (^\circ F)}{3000}$$

Maximum Work Temperatures — Type CAB and CABB heaters can generally be used at the following maximum temperatures, provided the minimum air velocity is maintained uniformly through the heater.

Air Velocity (Ft./Sec.)	Max. Outlet Air Temp. (°F)	
	Iron Sheath	Chrome Steel Sheath
4	—	200
9	90	330
16	220	440

Note — Maximum temperatures are based on 26 W/In². If elements have a lower watt density, work temperatures may be increased; if watt density is higher, work temperatures should be lower.

Note — See Allowable Watt Density & Heater Selection Graphs and Pressure Drop Curve G-112S1 under Air & Gas Heating Data in the Technical section of this catalog.