

Technobel Custom Process Tubular Forced Air Duct Heaters

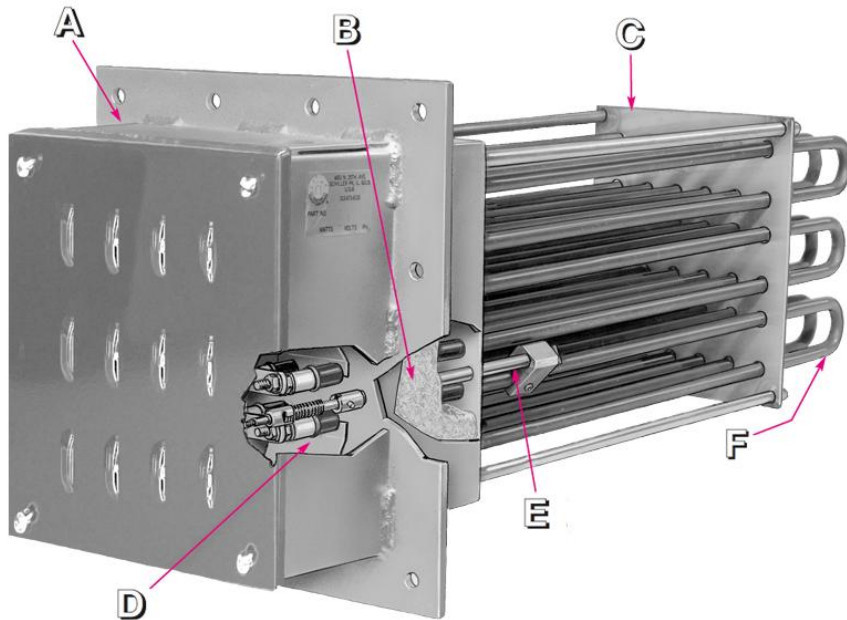
Process air duct heaters are used for tempering forced air in many industrial processes. Heater wattage is dependent on air outlet temperature (up to 1200°F [650°C]) and air velocity. Smaller duct heaters can be tandem mounted in place of one large unit to meet space limitations and simplify installation.

Heavy wall Incoloy® tubular heating elements (field replaceable) provide protection against corrosive air environments and resistance to vibration when compared to open coil elements.

Air duct heaters can be designed specifically for high pressure and/or hazardous locations. Turnkey systems including the duct heater, power and temperature control panel, and the temperature and over-temperature sensors can also be provided.

Our creative team of professionals can design and manufacture your next process forced air duct heating system.

Consult us with Your Requirements



A NEMA 1 terminal box enclosure with vented cover to help keep wiring cooler. Optional enclosures: NEMA 4 (moisture resistant), NEMA 7 (explosion resistant) and NEMA 12 (dust resistant).

D Standard Field replaceable elements are held in place with single-screw quick release "V" clamps. Pressure resistant designs utilizing welded elements, bulkhead fittings or compression fittings to attach elements to the flange are available to limit leakage of ducted air or gases gas into the terminal enclosure. Welded elements are used for gas tight applications

B 3-1/2 inches (89 mm) of mineral insulation in a stainless below the mounting flange, minimizes heat losses while keeping the electrical wiring cooler.

E 9/32 inch (7 mm) inside diameter thermowell accessed through a 1/8" NPT tapped hole in the flange allows installation of an optional Type J or K thermocouple for sensing temperature within the element bundle. It can be clamped directly to an element for use as a high limit providing a faster response. An excellent safeguard for your system.

C The heavy duty frame is composed of a 1/4 inch (6 mm) thick steel mounting flange, stainless steel support plate and corner posts to securely hold the heating elements rigid in any mounting position.

F The .430 inch (11 mm) diameter elements are silicone resin sealed. High temperature tubular duct heaters utilize Incoloy® sheath material for excellent high temperature scaling and corrosion resistance. The medium temperature finned duct heaters have stainless steel fins on a corrosion resistant stainless steel sheath. High temperature Incoloy® elements have all bends repressed in special dies to re-compact the MGO refractory to eliminate any electrical insulation voids and hot spots.

Typical Applications

- Air Drying/Curing Operations
- Annealing
- Autoclaves
- Braking Resistor
- Core Drying
- Dehumidification
- Heat Treating
- Make-Up Air Heating
- Re-Heating

- Booster Air Heater



- Forced Air Comfort Heating

High Temperature Application: The electrical housing is separated from the heater flange to lower the ambient temperature of the electrical wiring.

Electrical Housings: NEMA 4 (moisture resistant), NEMA 7 (explosion resistant) and NEMA 12 (dust resistant) are available.

- Resistor Load Banks

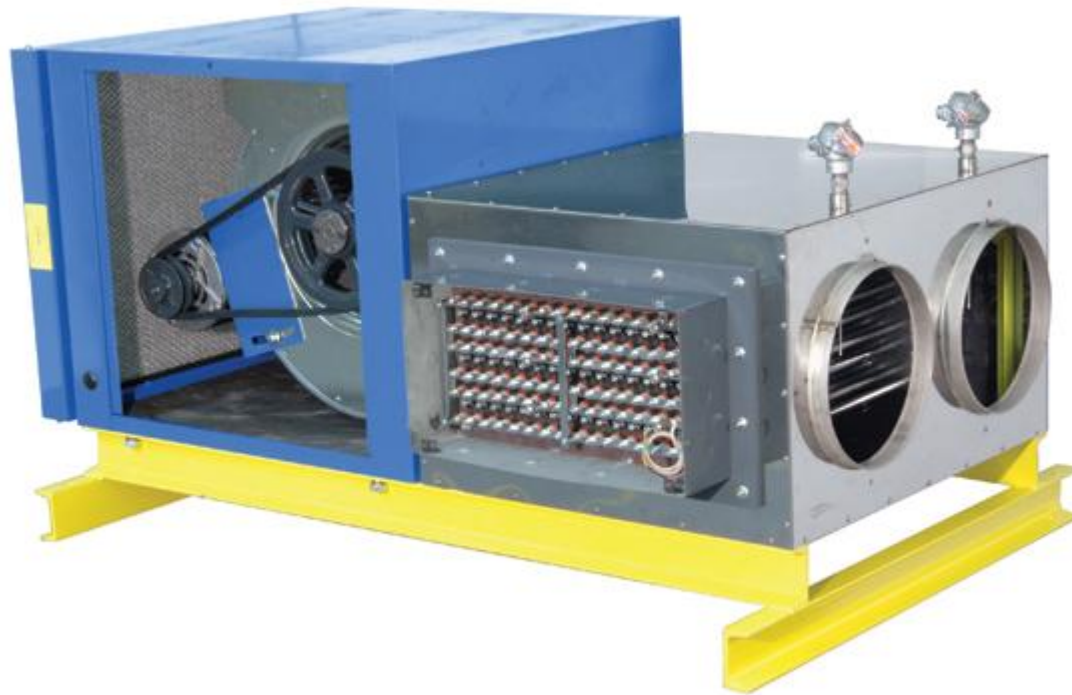




Element Configuration: Elements can be U-bends, W-bends and foldback design depending on the requirements of the application.



Sealed Insulated Housing: An optional totally sealed insulated housing prevents contamination from entering the air stream. Shown is a stainless steel heater for a medical product manufacturing application.



Duct Heater System: Technobel can supply the heater and blower assembled, ready for connection to the application duct work. The pictured 48KW, 480V unit produces 1500 CFM of heated air to dry metal parts after being coated with a rust inhibitor.



Complete Your Thermal Loop System with a Technobel Power/Temperature Control Panel.