

Heated Tube Assemblies

HET — Electrically Heated Tubing Assemblies

Tempco's electrically heat-traced tubing assemblies are designed for optimum transfer of non-explosive liquids or gases. Tempco's high purity PTFE Teflon® provides maximum flexibility for low pressure applications. Choose copper, aluminum or stainless steel tubing for high pressure applications.

We offer machine-wrapped heat tracing from 1/4" O.D. to 1-3/4" O.D., as well as hand-wrapped tracing of unusually small or large outer diameter tubing to meet a wide range of applications.

The key to Tempco's flexible, energy efficient, heat-traced tubing is the powerful low-profile heat tape spirally wrapped around your choice of tubing. The heat tape is manufactured with a top reflective layer to direct heat into the tube. This reflective layer, combined with the heat tape applied directly to the surface of the tube, results in a highly efficient thermal transfer. The simplicity of the heater design allows for the heated assembly to be extremely lightweight and flexible for use in portable and stationary applications. Each tube is then insulated with one or two layers of Nomex felt, depending on the temperature to be maintained.



Typical Applications

- ✦ **Aerospace** * * * * *Satellites, Vacuum Chambers, Testing, Laboratory*
- ✦ **Automotive** * * * * *Fuel Cell Development, Cold Chamber Testing*
- ✦ **Composites** * * * * *Adhesives, Epoxy Transfer, 2-Part Spray*
- ✦ **Environmental** * * * * *EPA-Required Testing, Diesel Emissions*
- ✦ **Food Industry** * * * * *Viscosity Control, Production Technology*
- ✦ **Gas Samples** * * * * *Stack Samples, Analyzer Components*
- ✦ **Government** * * * * *Meteorological Analysis*
- ✦ **Industrial** * * * * *Machinery, Systems Engineering, Semiconductors*
- ✦ **Laboratory** * * * * *Thermal Testing, Instrumentation*
- ✦ **Medical** * * * * *Flow Control, Instrumentation, Scientific Research*
- ✦ **Pharmaceutical** * * * * *Production Machinery, R&D, Testing*
- ✦ **Transportation** * * * * *Aviation Freeze Protection, Heated Lines*
- ✦ **Universities** * * * * *Mechanical, Chemical, Electrical Engineering*

Design Features

- * *Base tubing can be Teflon®, Nylon®, Stainless Steel, Copper or Aluminum*
- * *Machine-wrapped low-profile flexible heat-tape with multiple heat conductors provides efficient thermal transfer, resulting in even heating from end to end.*
- * *Spirally wrapped Nomex® felt insulation bound in place with nylon braid.*
- * *Outer layer from simple heat shrink to moisture/contaminant resistant durable outer silicone sleeve.*
- * *Temperature range to 400°F / 200°C.*
- * *Heated Length to 100 ft. available in 1ft. increments. 1ft. unheated section at each end, shipped bare or with fittings.*
- * *Assembly can be designed with a replaceable inner tubing.*
- * *Temperature sensors include Type J, K or T thermocouples and RTDs.*
- * *Thermostats can be built in, eliminating the need for separate control.*
- * *Standard power leads include flying leads, 6 ft. cordset with standard plug or industrial Hubbell Twist-Lock® plug.*
- * *Up to 5 total Heated / Unheated tubes in the same bundle.*
- * *Built-in indicator lamps for Power On, Heat On or Over Temperature.*
- * *Voltage from 12VDC - 240 VAC.*



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Ordering Information

Heated Tubing Assemblies are very application specific; Tempco will design and manufacture a Heated Tubing Assembly to meet your process requirements.

To receive a quote send a completed copy of the following Quote Request Form to Tempco.



⚠ WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

Electrically Heated Tubing Assembly Quote Request

Application Information

Desired Operating Temperature _____
Ambient Condition (indoor, outdoor?) _____
Worst Case Ambient Temperature _____
Expected Pressure _____
Material in the Tubing _____
Comments _____

Lead Information

Style: ___ Teflon® ___ Industrial Cordage
 ___ 120VAC cordset w/ standard 5-15 plug
 ___ 240VAC cordset w/ standard 6-15 plug
 ___ High Temp Fiberglass
Length _____ Optional Plug _____
Comments _____

Tubing Information

Tubing Material _____
(PTFE Teflon®, Copper, 304 SS, Aluminum)
Outside Diameter _____
Wall Thickness if Known _____
Heated Length _____
Overall Length _____
of tubes _____
 How many heated _____
 How many unheated _____
If replaceable inner tube required: ___ Yes ___ No
 Replaceable inner tube OD _____
Comments _____

Sensor & Control Information

Built-in Temperature Sensor: ___ Yes ___ No
Thermocouple Type (J, K, T) _____
RTD (PT100) ___ Yes ___ No
Lead Length _____
Lead Type _____
Built-In Thermostat ___ Yes ___ No
 Setpoint _____ (Choices limited to (°F): 40°, 77°,
86°, 98°, 104°, 120°, 140°, 176°, 212°, 248°, 302°, 356°)
Indicator Lamps: ___ Green, type _____
 ___ Red, type _____
Comments _____

Fitting Hardware Information

Bare ___ Compression + NPT: Male ___ Female ___
Comments _____

Electrical Information

Watts (total if Multi-Tube) _____
Volts _____ Phase: ___ Single ___ Three
If Multi-Tube: Watts per Tube _____
Comments _____

External Covering Information

___ Bare Heat Trace Only ___ Heat Shrink
___ Insulated Polyester Braid
___ Insulated Industrial Scuff Coat
Comments _____
