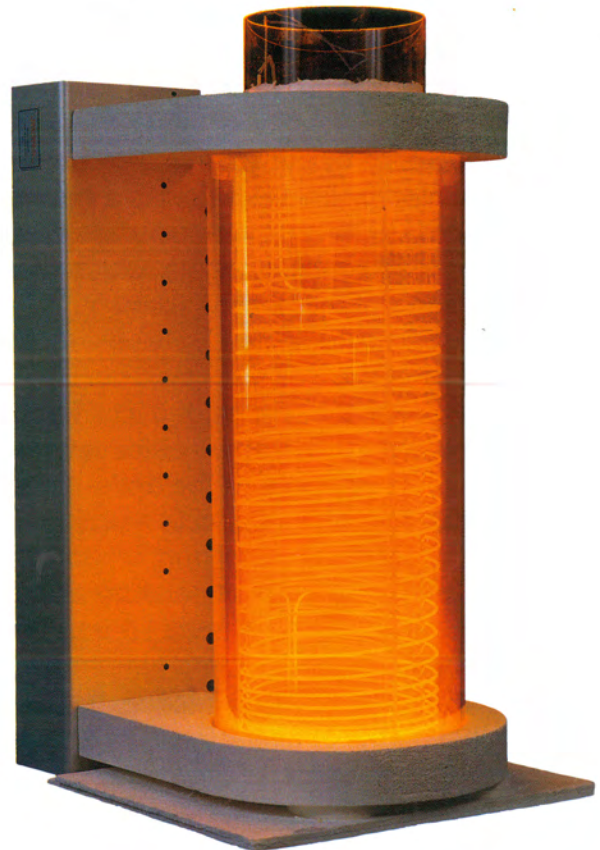




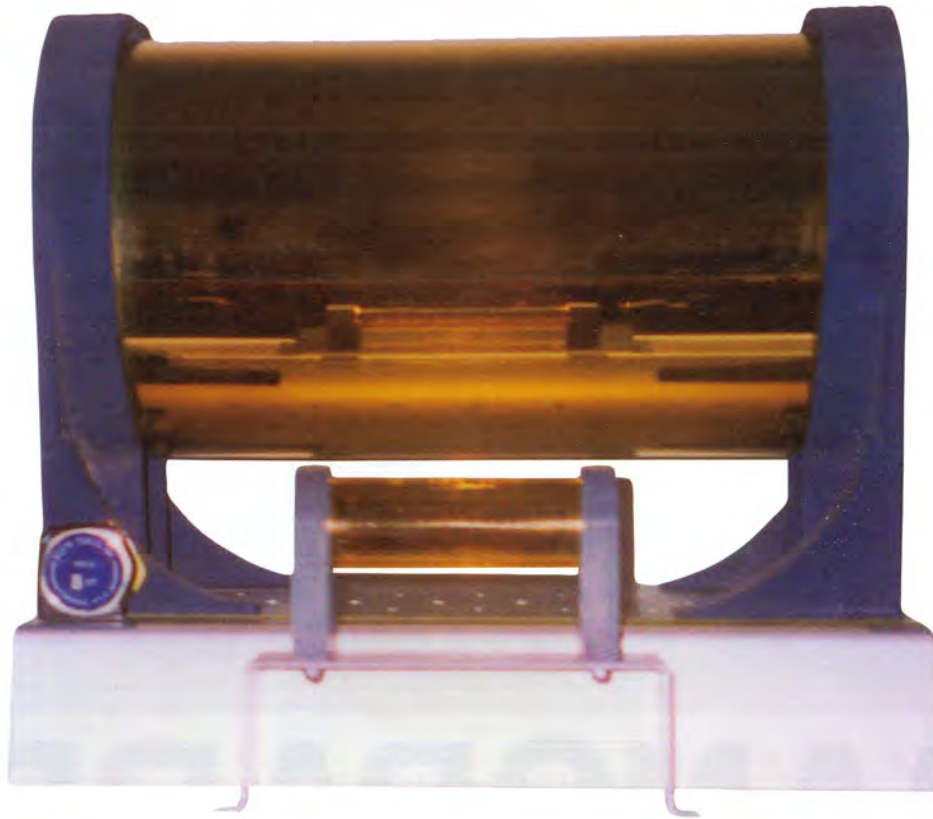
Thermcraft
incorporated

TRANS TEMP

TRANSPARENT Tube Furnaces



YOUR SOURCE FOR HIGH TEMPERATURE PERFORMANCE



Unlike conventional furnaces it is transparent, making it possible to see the object that is inside the furnace. The **Trans Temp** Tube Furnace, by **Thermcraft**, uses a gold mirror for the insulation. With a maximum operating temperature of 1,100°C being able to see the heated sample can develop much more information. But transparency of the furnace is only part of the story. The use of only a gold mirror for the insulation makes the furnace very responsive to heat up and cool down.

Furnace Construction

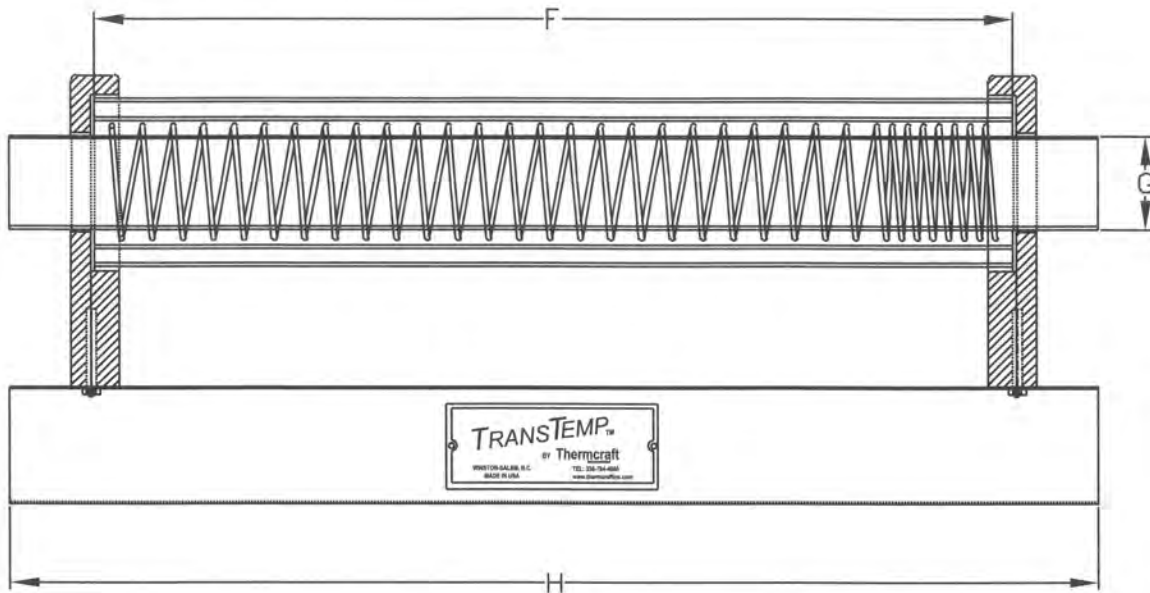
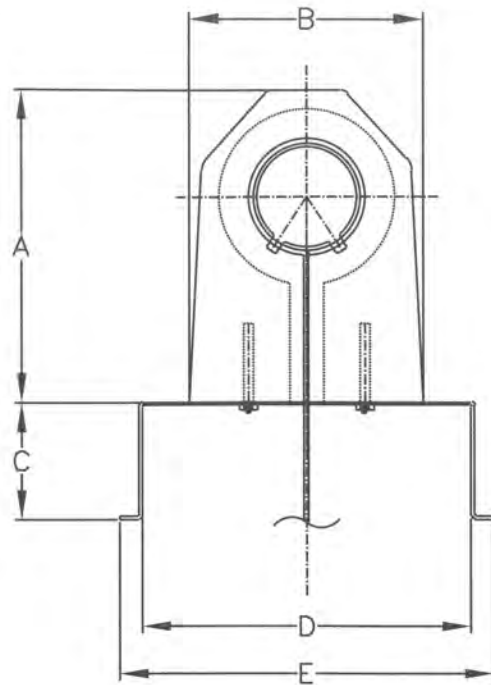
Trans Temp Tube Furnaces, by **Thermcraft**, are made with three coaxially mounted glass tubes. The outermost tube has a gold mirror on its inner surface. Gold is an effective insulator because it is highly reflective of infrared energy. It is also ideal for a transparent furnace because it is a poor reflector of visible energy. The second tube is a quartz shield which protects the mirror. Coaxially mounted inside the shield is a resistance element. The element is made up of a series of fixed brazed coils. The exact temperature profile will depend on the design of the element. The third tube is a quartz tube or muffle, which extends beyond the ends of the furnace and passes through the center of the heating element.

Uniform Temperature Zone

In conventional furnaces of packed or porous insulation, the temperature is generally uniform over only the central third of the heated length. Outside this region, the temperature decreases significantly due to heat loss at the ends. In the **Trans Temp** Tube Furnace, by **Thermcraft**, repeated reflection of the infrared by the gold mirror distributes the heat throughout the entire length of the tube. Because the mirror is uniform, it has a uniform radial heat loss. With the ends plugged, the furnace will provide uniform temperature along 60% of its length.

Rapid Cycle Time

The **Trans Temp** Tube Furnace, by **Thermcraft**, has a very low thermal mass, which enables it to quickly heat up to temperature. The standard 500mm model with a 57mm inside diameter muffle will reach 1000°C in about 15 minutes and cool to 600°C in about 10 minutes.



	A	B	C	D	E	F	G	H	WATTS	VOLTS
TTL-1.5-0-12-1B	6.0" 152mm	5.625" 142mm	3.0" 76mm	8.375" 213mm	9.625" 246mm	12.0" 304mm	1.5" 37mm	16.0" 406mm	1575	110
TTL-1.5-0-20-1B	6.0" 152mm	5.625" 142mm	3.0" 76mm	8.375" 213mm	9.625" 246mm	20.0" 508mm	1.5" 37mm	24.0" 609mm	2449	110
TTL-2.25-0-20-1B	8.0" 202mm	5.825" 149mm	3.0" 76mm	8.375" 213mm	9.625" 246mm	20.0" 508mm	2.5" 57mm	24.0" 609mm	3419	220

As with all systems manufactured by THERMOCRAFT any and all standard equipment can be sized to meet the requirements of the customer's application. Complete control systems can be provided from the simplest to the complex remote computer controlled system. Please call our experienced staff of sales engineers to assist in the application of the heating equipment to fit your needs.

Other Thermcraft products:

Box Furnaces
Ceramic Heating Elements
Ceramic Fiber Insulation & Insulation Packages
Control Systems
Custom Furnaces
Custom Ovens
Diffusion Heating Elements
Fibercraft® Vacuum Formed Heating Elements
LAB-TEMP
Marshall™ Furnaces
Thermal Knife^{PAT}
Thermocouples
Standard Tube Furnaces (10 day shipment)
Vestibule Blocks

Ask for information on:

- Platinum or molybdenum ceramic heaters to 1600°C
- High temperature ceramic heaters
- Ceramic band heaters
- Rod and strip overbend heaters
- Metallic sheath heaters
- Silicon carbide heaters
- Moly-disilicide heating elements
- Box furnaces
- Tube furnaces
- Used ovens & furnaces
- Ball and socket beads
- Ceramic tubes
- Insulation materials - brick, fiber, blanket, etc.
- Temperature control components
- Temperature control consoles - ready to use, made to your specifications
- Thermocouples
- Marshall® Furnaces
- Recirculating ovens

•For additional information on furnaces, ovens, or any other heating needs, call or write:

Thermcraft has a wide range of standard products which includes: ceramic heaters, vacuum formed ceramic fiber heaters, diffusion heaters, control systems, as well as industrial ovens and furnaces. A standard line of split tube furnaces, solid tube furnaces, and controls are available for shipment in (10) working days. Thermcraft is also a recognized leader in **CUSTOM** heat-treating, industrial, and laboratory ovens and furnaces.

Call your local representative or our staff of trained sales engineers at the Winston-Salem plant with any of your heating problems.

Accepted for your convenience



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