# **Components**

# **Tubular Heaters** Customer Bending & Accessories

## Brackets, Discs & Clips

**Brackets, Discs and Clips** — Various types of brackets and clips can be fastened to the heaters to facilitate installation. The following are typical.

For other brackets to meet your installation requirements, contact your Local Chromalox Sales office.



#### **Compression Fittings**

Field Installed Compression Fittings — For 0.475, 0.315 and 0.246" diameter elements. Available in both brass and steel, these fittings have been tested to 600 psi hydrostatic pressures and may be used in tank walls for liquid immersion as well as in air ducts and a variety of other applications.

Compression fittings do not require brazing and can be field mounted in minutes. They may be positioned anywhere along the cold section of the heating element. Do not position over heated section. Cannot be installed over terminal Type #26 (Hermetic Seal), and some other terminals wider than sheath diameter.



### **Customer Bending**

Simple element configurations can be made easily in the field from stocked tubulars listed in this catalog. If copper or stainless sheaths are selected, specify "To be fully annealed for bending." Elements can be bent around any round, smooth surface of the right diameter.

Three precuations should be observed to prevent damage to the element:

- 1. Radius of the round object, around which the element is bent, should be no smaller than the minimum radius for the element, as shown in the table below.
- 2. Sharp edges of tools should not be permitted to gouge the element sheath while bending.
- **3.** End of cold section of the element should not fall within the bend nor come within 1/4" of either side of the bend. To locate

end of cold section, see dimensions for the element on its catalog page and determine as follows:

**Example** — To locate end of cold section of TRI-1645 tubular element, refer to the individual product page. Sheath length: 16" Less heated length: 9-1/8" Total cold length: 6-7/8" Cold length of each end  $(6-7/8" \div 2) = 3-7/16"$ 

Terminal end bending can be done with pipe section of slightly larger diameter than sheath. A minimum 1" straight section should be left at the end. **Note** — To protect sheath, copper sheet can be bolted to vise jaws and end of pipe can be filed to remove sharp edge.

Before bending, it is best to lay out and dimension the configuration. Also, it is best to start bending from the center of the heater and work toward the terminal ends.

		Customer Bending — Min. Inside Radius (In.)									
Sheath Material	Degree of Bend	1/2"	0.475"	0.430"	3/8"	0.375"	0.315"	0.26"	0.246"	0.2"	
Copper	90	3-1/2	1-1/2	1-5/16	2-5/16	1-1/8	15/16	7/8	3/4	Not Std.	
	180	3-1/2	1-1/2	1-5/16	2-5/16	1-1/8	15/16	7/8	3/4	Mat.	
Steel	90	2-1/2	1-1/2	1-5/16	1-7/8	1-1/8	15/16	7/8	3/4	in this	
	180	2-1/2	1-1/2	1-5/16	1-7/8	1-1/8	15/16	7/8	3/4	Dia.	
Alloy	90	2-1/2	1-1/2	1-5/16	1-7/8	1-1/8	15/16	7/8	3/4	5/8	
	180	2-1/2	1-1/2	1-5/16	1-7/8	1-1/8	15/16	7/8	3/4	5/8	
1. For radii smaller than shown, special processing is required to achieve good life qualities. Contact your Local Chromalox Sales office.											



		Dimens	ions (In.)	Thread Size					
Material <sup>1</sup>	Elem. Dia.	Mtg. Hole Dia.	Max. Wall Thickness	Assembled Overall Length	F	G	PCN		
Brass Brass Brass	0.246 0.315 0.475	13/32 15/32 21/32	7/32 5/16 5/16	1-7/16 1-1/2 2	3/8-24 7/16-28 5/8-24	1/2-24 1/2-24 3/4-24	144151 144143 144135		
Steel Steel Steel	0.246 0.315 0.475	13/32 15/32 21/32	7/32 5/16 5/16	1-3/4 1-3/4 2-1/8	3/8-24 7/16-28 5/8-24	1/2-24 1/2-24 3/4-24	143474 143466 143458		
<ul> <li>To Order – Specify PCN, material, element diameter and quantity. Available in pairs only.</li> <li>Available only in brass and steel at this time.</li> </ul>									

