

## **BOLT INSERTION HEATERS**



### **Typical Heating Applications:**

- *Power Plants*
- *Turbines*
- *Compressors*
- *Large Cylinders*
- *Heavy Construction*
- *Presses*

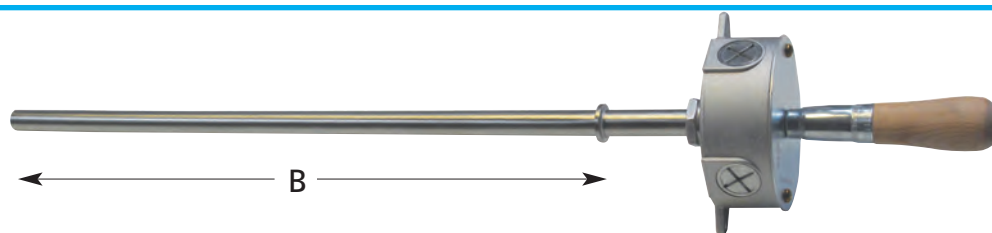
Utilizing the principles of thermal expansion and contraction, bolt insertion heaters are used to tighten bolts in the process of assembling heavy equipment. Bucan has extensive experience in manufacturing bolt insertion heaters; our heating cells are used in many major projects in North America.

### **Construction**

Bucan bolt insertion heaters utilize an Incoloy-sheathed tubular heater formed into a hairpin and inserted into an exterior protective shield. A compacted MgO medium separates the tubular heater from the outside shell. This construction allows Bucan bolt insertion heaters to operate at temperatures above conventional Incoloy-sheathed tubular heaters.

Bucan bolt insertion heaters can be manufactured in various diameters, lengths, and wattages for different requirements.

# BUKAN BOLT INSERTION HEATERS



Hole Diameter		Heater Dia. (App.)		"B" Heated Length		Standard Voltages	Wattage	Catalog No.
In	mm	in	mm	in	mm			
0.5	12.7	0.488	12.4	12	305	120, 208, 240	875	BH500-305-875
				24	610		1650	BH500-610-1650
				36	914		2400	BH500-914-2400
0.563	14.3	0.5	12.7	12	305	120, 208, 240	900	BH563-305-900
				24	610		1700	BH563-610-1700
				36	914		2500	BH563-914-2500
0.625	15.9	0.563	14.3	12	305	120, 208, 240, 480, 600	1500	BH625-305-1500
				24	610		3250	BH625-610-3250
				36	914	208, 240, 480, 600	4000	BH625-914-4000
0.688	17.5	0.63	16.0	12	305	120, 208, 240, 480, 600	1700	BH688-305-1700
				24	610		3500	BH688-610-3500
				36	914	208, 240, 480, 600	4150	BH688-914-4150.
0.75	19.1	0.687	17.4	24	610	120, 208, 240, 480, 600	3500	BH750-610-3500
				36	914	208, 240, 480, 600	4200	BH750-914-4200
				48	1219		6000	BH750-1219-6000
0.875	22.2	0.787	20.0	24	610	120, 208, 240, 480, 600	3500	BH875-610-3500
				36	914	208, 240, 480, 600	4750	BH875-914-4750
				48	1219		6250	BH875-1219-6250
1	25.4	0.965	24.5	24	610	120, 208, 240, 480, 600	3500	BH1000-610-3500
				36	914	208, 240, 480, 600	5000	BH1000-914-5000
				48	1219		6500	BH1000-1219-6500

Tubular heating elements may absorb moisture if they sit idle for a long period of time or get exposed to a humid environment. This might lower the dielectric characteristics of the MgO insulation and cause electrical shorting and premature failure. In order to prove the electrical integrity of a tubular heater, the insulation resistance of each circuit to ground should be checked using a 500 VDC megger. An initial reading of 0.5 Meg-Ohms or more is acceptable in the field. If heaters do not pass the Meg-Ohms test they should be dried out. An ideal drying procedure is oven-drying at 375°F after removing the terminal hardware. An alternate procedure is to apply a lower voltage (please consult factory for instructions). The target is to attain at least 20 Meg-Ohms.