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## MH-INS15

### Mica Band Heaters

All Bucan mica **band heaters** incorporate a conservative design approach, use premium quality raw materials and are made by a highly skilled staff. You can expect top performance and by following these instructions you will benefit from many years of trouble-free service.

#### Installation:

1. Only qualified personnel are to install **industrial electric heating equipment** and must meet all national and local codes.
2. Ensure the power connections match the **voltage, phase and wattage** data on the nameplate.
3. The cylinder on which the mica **band heater** is to be installed should be clean from any contaminants and foreign materials.
4. The **band heater** should be tightened firmly on the cylinder. The rims should be gently tapped with a plastic mallet and the heater re-tightened.
5. Energize the mica **band heater** for a short period of time and then re-tighten the fasteners. To compensate for thermal expansion, large diameter heaters should have spring-loaded fasteners.
6. One-piece construction heaters should be opened only slightly, and made to slide on the cylinder. Two-piece construction or flexible heaters should be used when a heater has to be fully opened.

#### Watt Density Selection:

The durability and performance of a **band heater** depends on selecting the appropriate wattage. Exceeding the maximum allowable watt density for the specified heater size will result in premature heater failure. While calculating watt densities, the area of the cold section should be removed from the overall calculated surface area of the heater. The following are some pointers to consider when selecting watt density for a **mica band heater**.

1. Select narrower **band heaters** when possible, since their heat transfer is superior to wide heaters. 1"-2.5" wide heaters are ideal.
2. The watt density should be selected in accordance with the operating temperature.
3. To avoid short-cycling and inefficient operation, select a wattage as close to the needed capacity as possible.
4. The wattage should be in accordance with the voltage and current rating of the controls.
5. The safe heating pattern of the material heated, thermal conductivity and coefficient of expansion of the cylinder are other factors that should be taken into consideration while deciding the wattage.