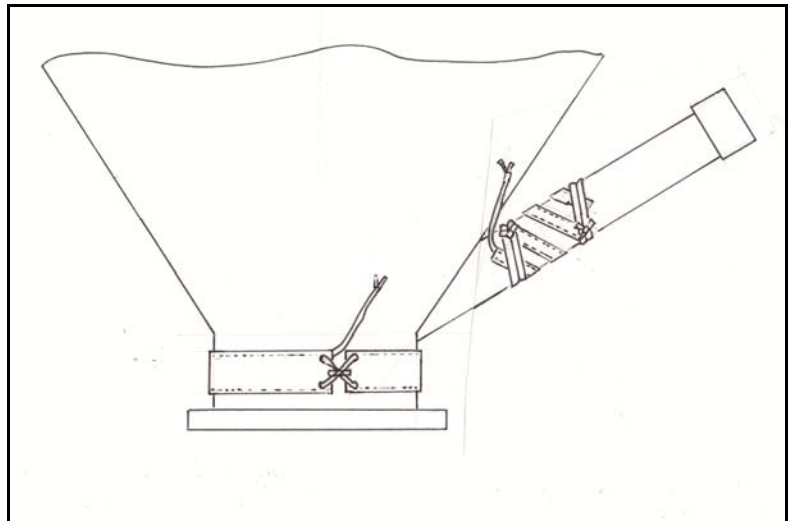




HB HEATING MODULE SYSTEMS

INSTALLATION INSTRUCTIONS

FLEXIBLE HEATERS



FLYASH HOPPER HEATING APPLICATIONS

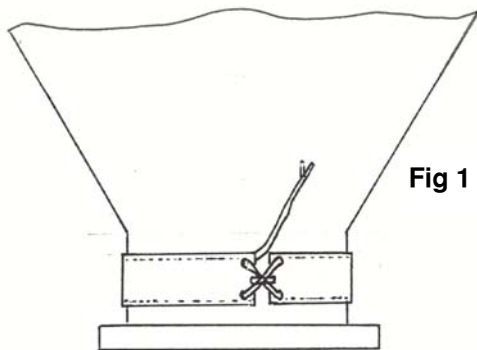
SUPPLEMENTAL FLEXIBLE HEATERS.

Flyash hopper throats and poke tubes are significant heat sinks and, due to their physical location on the hopper, they are also critical areas that must be kept free from condensation. Condensation in these narrow sections of the hopper will promote the rapid build up of Flyash which can quickly lead to total pluggage of the hopper

Cylindrical hopper throat outlets and poke tubes cannot be effectively heated with heating modules. These areas can only be heated effectively with a "wraparound" type heater and HTD offers custom sized Flexible Heaters to provide the all important supplemental heat required at these critical locations.

Flexible Heaters are designed to be an integral part of the overall hopper heating system. Custom length cold lead cables are included such that all Flexible Heaters and HB Heating Modules connect to the power supply within the same Power Junction Box.

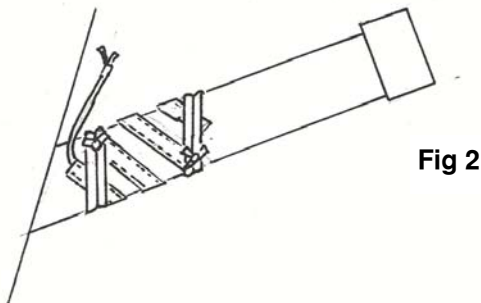
THROAT HEATERS.



Wipe the throat area of the hopper to remove any water, moisture, rust or foreign material that may impede the installation of the Throat Heater. Wrap the Throat Heater around the hopper throat. Smooth out any wrinkles and creases. Thread 2 feet of fiberglass tying tape in a criss-cross pattern using the eyelits at each end of the Throat Heater. Pull on both ends of the tying tape to tension the the Throat Heater and hold it firmly in contact with the hopper throat. Tie both ends of the tying tape in a double knot to maintain permanent tension on the Throat Heater (Fig 1). Overwrap the Throat Heater with several wraps of tying tape until it is completely covered. Tie off the tying tape to complete the installation.

Do not overlap the Throat Heater upon itself and ensure that all wrinkles and creases are smoothed out before insulating the hopper.

POKE TUBE HEATERS.



Wipe the poke tube to remove any water, moisture, dust, rust or foreign material that may impede the installation of the Poke Tube Heater. Spiral the Poke Tube Heater into position with 1 inch spacings between wraps. **Do not overlap the heater.** Smooth out any wrinkles and creases. Use one wrap of fiberglass tying tape to hold each end of the Poke Tube Heater in position. Tie the ends of the tying tape using double knots (Fig 2).

Overwrap the PokeTube Heater with tying tape until it is completely covered and tie off the tying tape to complete the installation.

Meter test all Flexible Heaters as shown in the HB Heating Module Installation Guide.