Specification

BTU Meter

Thermal Energy Metering System. The system shall consist of the following components.

1.   Flow Meter
2.   Temp. Sensors (2 Nos.)
3.   Energy Meter

1.   Flow Meter

It shall be multi-jet, dry dial, direct reading type. The flow measurement accuracy shall be within $\pm$ 2% in the normal flow range. The meter shall have mechanical indicator to indicate the totalized flow and a pulse emitter with selectable pulse value.

Choose a location along the pipe where 10 pipe diameters upstream and 5 pipe diameters downstream of the sensor provide no flow disturbance. Pipe bonds, valves, other fittings, pipe enlargements and reductions should not be present in this length of pipe.

2.   Temperature Sensor

It shall be NTC Thermistor with interchangeable accuracy of better than 0.2 Deg. C. The Sensor shall be housed in brass sleeves suitable for mounting in thermowells.

3.   Energy Meter

It shall be microprocessor based with power fail back up for retention of stored data and programme. The meter shall receive signals from Flow Meter and Temperature Sensors; and shall calculate the thermal energy usage. The meter shall display this

-    Flow Rate
-    Energy Rate
-    Flow Total
-    Energy Total
-    Supply & Return Temperature and Temperature difference.

The Display shall be 8 characters by 2 lines, alphanumeric, dotmatrix STN LCD display with backlight.

The password protection shall be provided to prevent unauthorized tampering of stored parameters and data.

The meter shall have provision to

-    Offset the temp. difference between the sensors
-    Pulse Rate selection of flow meter
-    Password change
-    Clear the totalized values