Melting Point Apparatus:

Precision Melting Point Apparatus (Model: PMB-2)

We have specially designed this new type - of Precision Melting Point-cum-Boiling Point Apparatus which can be used for finding out the melting point & boiling point of the substances with high degree of accuracy ambient to 320°C.

The characteristic feature of the instrument is a small U-shaped glass container made from corning glass, its two tubes which are open at top have a lateral connection.

The 'Teflon' plug also carries the electric heating coil. The U-Tube is filled with inner liquid (Silicon Oil) so that good circulation is ensured and that both the capillaries and thermometer are well immersed.

An electrically driven stirrer dips into the rear portion of the U-shaped tube. The front tube is fitted with a 'Teflon' plug which serves as:

- Entry for a thermometer
- Entry for three melting point capillary tubes of 1 mm dia.
- Entry for Boiling Point Capillary.
- Entry for a base plate on which rests the thermometer and the 3 capillary tubes, which ensures that the test material is on the same level as the bulb of the thermometer.

The U-Tube and motor are clamped to a support rod. The based on the apparatus is made from steel and incorporates the following parts:

- A variable transformer 0 to 260 volts to the mains supply which allows stepless regulation of heating current. On the left of Rotary knob is main 'ON' and 'OFF' switch and a pilot lamp and on the right are two switches one for heating coil with illumination and the other for stirrer.
- The base also supports an adjustable magnifying glass which permits excellent observation of the test material in the capillary tubes, which in turn, are illuminated by two-6 volt lamps.
- The magnifier is easily adjustable for the most favourable observation and the two light bulbs are screened to prevent glare.
- Below the U-Tube there are holes on a tube which can be connected to a compressor, in order to allow rapid cooling of the heating medium, readiness for the next test.

The rate of temperature rise can be exactly adjusted within wide limits. The heat transfer to heater material and to the thermometer is intense and constant. The test sample and the thermometer are kept exactly at the same temperature. The instrument is very useful for determination of the so called 'Momentaneous' melting point, because the temperature can be maintained constant at any level. The Precision Melting Point Apparatus can also be used as a Boiling Point Apparatus for determination of boiling point of liquids by using Boiling Point capillary supplied with equipment. The equipment is suitable for 230 Volts single phase. 50 c/s Hz only.

Technical Specification

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<th>Power</th>
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<td>230 V 50 Hz</td>
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<td>110 V 50/60 Hz (Optional)</td>
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