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## **No. 884 Heat Gradient Tester**



### **APPLICATION**

This tester's wide range of applications include determination of the optimum temperature necessary for the heat sealing treatment for packaging and cloth materials as well as measurement of the heat sensitivity of such products as sensitive paper. Efficiently designed, this instrument readily and accurately evaluates these properties. The temperature gradient set for testing is produced and controlled in five small heating plates. For ease in operation, a constant pressure is applied to the plates, for a fixed period of time, by an air cylinder.

Previously, evaluating specimens at various temperatures involved raising or lowering the tester's temperature. Because temperature stabilization often resulted in time loss, this method was found to be inefficient. The improved Heat Gradient Tester's five plates are of constant area (10 x 25mm) and are controlled by independent temperature controllers. Therefore, the desired temperature gradient is easily produced and testing time is reduced.

### **FEATURES**

1. Temperature settings and temperature gradient are easily and accurately known because temperature of all five points is set at the same time.
2. Easy to use. Conditions are displayed on the display.
3. Computer-controlled PID split control assures high accuracy and fast temperature recovery.
4. Errors have been minimized by applying pressure to the heating plates under the same conditions and for a known time.
5. Equipped with a printer which is convenient for storing data.
6. To assure safety, start switch has to be pressed with both hands.
7. Assures labor-saving testing at reduced cost.

## **SPECIFICATIONS**

|                            |  |
|----------------------------|--|
| Temperature range          | 50-250°C   |
| Temperature accuracy       | Set temperature $\pm 0.3\%$                      |
| Temperature gradient       | 0.1 ~ 49.9°C                                     |
| Heating plate stroke       | Approx. 20mm                                     |
| Seal size                  | 10 x 25mm (5 seals)                              |
| Applied pressure           | 0-0.4MPa (Gauge pressure)                        |
| Pressure applying duration | 0.5-99.9sec. in 0.1sec. steps                    |
| Heater capacity            | 900W (150W x 6)                                  |
| Electrical                 | AC100V, 1-P, 10A ((Other voltages also possible) |
| Compressed air required    | 0.5Pa (5kgf/cm <sup>2</sup> ) or more            |
| Dimensions                 | 50(W) x 38(D) x 50(H)cm                          |
| Net weight                 | Approx. 70kg                                     |