

## TM 445 CIRCULAR DIAPHRAGM

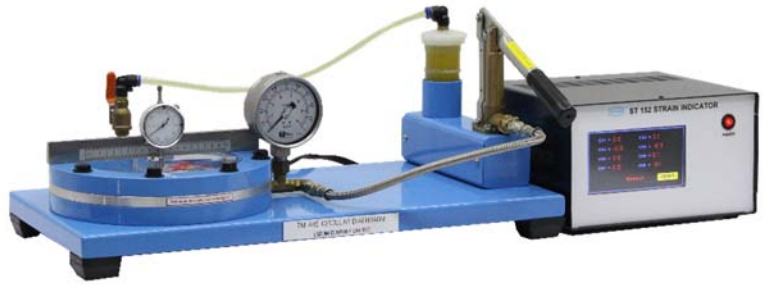
### GENERAL DESCRIPTION

The equipment is used for studying the stress and deflection of a thin diaphragm.

The circular aluminum alloy diaphragm is clamped around its edge by two heavy steel flanges. Internal pressure is applied to the diaphragm by a hydraulic hand pump. Pressure in the diaphragm is indicated on a pressure gauge. A dial gauge is fitted onto a cross bar to measure the diaphragm surface profile. Scale on the cross bar indicates the dial gauge position.

Strain gauges are of the same gauge factor and the gauges are fitted onto the diaphragm at different angles and radii. Each strain gauge is wired to form a full bridge with temperature compensation gauge and zero adjustment in a bridge box with strain gauge indicator.

Instruction manual is also included.



### EXPERIMENT CAPABILITIES

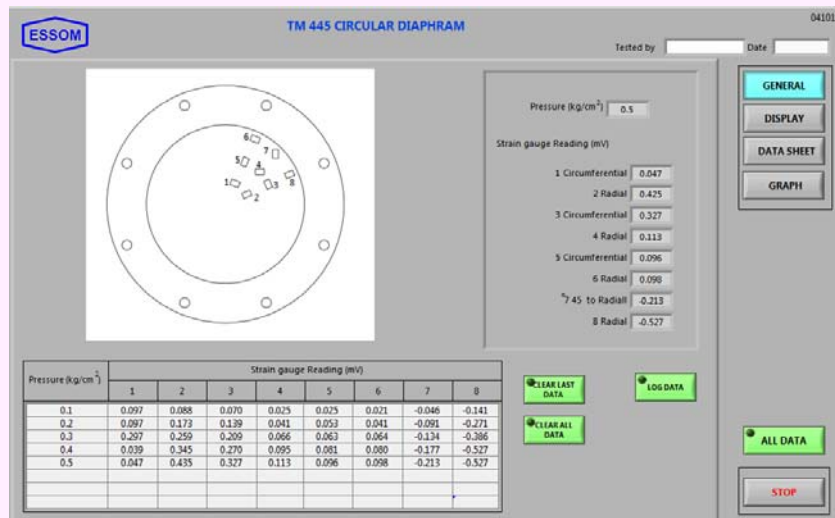
- Deflection of circular diaphragm under pressure
- Strains on the diaphragm surface under pressure

### TECHNICAL DATA

- Diaphragm :
  - Effective diameter : 200 mm
  - Maximum internal pressure : 60 kN/m<sup>2</sup>
- Pressure gauge : 1 kg/cm<sup>2</sup>.
- Number of strain gauges : 8 ea.
- Dial gauge : 0-20 mm x 0.01 mm graduation
- Strain indicator : 8 channels
- Software for data display and analysis by computer (separately supplied).
- Power supply : 220V, 1 Ph, 50Hz. Other power supply is available on request.

### OPTIONAL EQUIPMENT

- TM 445-050 Computer Interface  
This includes pressure sensor and computer interface unit.
- Other optional equipment, please contact manufacturer (essom@essom.com)



Net (unpacked) shipping dimensions WxLxH : 60 x 65 x 41 cm  
 Net weight : Approx. 31 kg