

# BURSTING STRENGTH

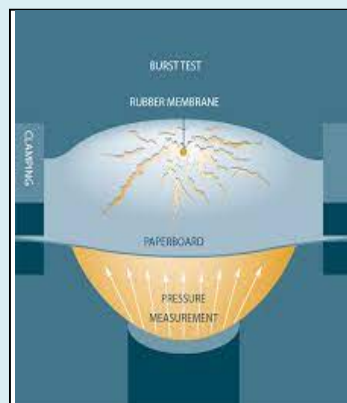
IS 15073 (PART-2): 2008  
(CL. 12.5 OF IS 1060 : 1966)  
MODEL : PS/BURST-01

## PRIORITY SOLUTIONS

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## Technical Data

### 4. Technical Data

Model:	PS/BURST-01
Dimensions (max) overall dimensions (L-H-B):	320X500X310MM
Weight overall	65 kg
Supply Voltage:	240V approx. / 50 Hz
Current consumption:	1.0 Ampere
Tester type:	Hydraulic
Medium:	Glycerin
Diaphragm thickness:	0.35mm to 0.45mm
Rate of pressure:	0.75 Kg/cm sq
Max Capacity:	45 Kg/cm sq
Control voltage:	24V DC $\pm$ 10%
Control method:	Computer Scada Control

## TEST METHOD FOR BURSTING STRENGTH TEST

### IS: 1060 (PART-1)-1966

#### CLAUSE 12.5

**12.5.0 General-** The polarity of bursting strength test depends not only on the ease with which the test is made but also on the combination of strength and toughness which it measures and which it serves as a measure of the serviceability of paper in various applications. It has the disadvantage, however, that it depends in a complicated way on the machine direction, tensile strength, stretch and size of the burst area. Also, it does not give any indication of the cross-direction tensile strength. Bursting strength is measured by the pressure developed behind a circular rubber diaphragm when it is forced through the paper so as to burst it.

**12.5.1 Equipment-** A tester in which testing is done by hydraulic pressure communicated through the medium of glycerine or by compressed air to a pure gum rubber diaphragm in contact with the paper, shall be used. The gauge used shall be so chosen that the individual reading shall not be less than 25 percent or more than 75 percent of the total indicated capacity of the gauge.

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**12.5.1.2 Diaphragm-** The diaphragm used in the equipment shall be such that it does not materially affect the bursting pressure and shall be between 0.35 mm to 0.45 mm thick. The rubber sheet used shall be pure gum vulcanizate containing not less than 95 percent by volume of first quality smoked sheet rubber; the only ingredients in the mix, apart from rubber, shall be those necessary to affect correct vulcanization and resistance to premature ageing at normal temperatures. The pressure required to bulge the diaphragm 5mm above the top plane of the lower clamping surface of the test instrument shall be not more than 0.07 kg/cm sq. The diaphragm shall be clamped with its outside edge under the lower clamping plate and shall have been renewed less than six weeks prior to test.

**12.5.2 Procedure-** Clamp the test piece firmly over the diaphragm without slippage during the test between two annular, plane, unpolished ( matt) surface of 30 mm internal diameter. Run the machine so that the pressure increases at a uniform rate of approximately 0.75 kg/cm sq per second until the test piece bursts. Note from the pressure gauge the pressure in Kg/cm sq at which the test piece bursts. Take Two readings with each sample sheet, one with wire side upper most and the other with the top-side uppermost. Note: A rate of 120 revolutions per minute in the glycerin operated machine is satisfactory

# Composition of Machine

The photograph illustrates the general assembly of the machine.

