

SWELL PRESSURE

BE 15

It sounds like you're describing a **swell pressure test apparatus** used in geotechnical engineering to measure the swelling pressure of expansive soils. This device determines the pressure exerted by a soil specimen when it swells upon water saturation, which is critical for designing foundations on expansive soils. Below is a concise explanation based on your description.

The apparatus is designed to measure the swelling pressure of soil specimens molded to a specific density and moisture content. When the specimen is soaked in water within a soaking tank, it tends to swell. The load required to restrain this swelling is transferred through a perforated swell plate and a load transfer bar to a proving ring, which measures the force. The proving ring is connected to a hand-operated load frame's lead screw, allowing precise application and measurement of the restraining load.

STANDARD FOLLOWING

IS 2720 (Part 41) 1977 and IS 11550 (1985)

DESCRIPTION

BE 15-01	Load Frame, Hand operated	Capacity 50 kN (5,000kgf)
BE 15-02	Mould	100 mm dia x 127.3 mm height (1,000 ml volume) with base plate and collar
BE 15-03	Proving Ring	with integral boss, high sensitivity 2.5 kN (250 kgf) capacity
BE 15-04	Dial Gauge	25 mm travel, 0.01 mm least count
BE 15-05	Perforated Swell Plate	100 mm dia x 16 mm thick
BE 15-06	Spacer	100 mm dia x 12.7 mm thick
BE 15-07	Pair of Porous Stones	100 mm dia x 12.7 mm thick

BE 15-08	Load Transfer Bar	
BE 15-09	Steel Ball	
BE 15-10	Soaking Tank	250 mm dia x 210 mm high



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