

# DYNAMIC CONE PENETROMETER TEST (DCPT)



**MODEL: VSLIC-S137 | MAKE: VERTEX**

**Standard: IS 2720 (PART 13), BS1377, ASTM D3080, ASTM D6951, IRC: SP:72**

The Dynamic Cone Penetration Test provides a measure of a material's in-situ resistance to penetration. The test is performed by driving a metal cone into the ground by repeated striking it with a 17.6 lb (8 Kg) weight dropped from a distance of 2.26 feet (575 mm). The penetration of the cone is measured after each blow and is recorded to provide a continuous measure of shearing resistance up to 5 feet below the ground surface. Test results can be correlated to California Bearing Ratios, in-situ density, resilient modulus, and bearing capacity.

## **Features:**

1. Well proven, robust design
2. Portable and easy to operate
3. Tests can be carried out in minutes
4. Results correlate well with conventional CBR readings



5. Detects layer boundaries and thicknesses
6. Ideal in locations where access is difficult (such as coal holes)

#### **Equipment detail:**

The 8 kg free fall hammer is lifted and dropped through a height of 575mm. The distance of penetration of the cone tip is then recorded and the cycle repeated. Continuous measurements can be made down to a depth of approximately 850mm or when extension shafts are fitted to a maximum recommended depth of 2 meters. Where sub-pavement layers have different strengths, the boundaries can be identified and the thickness determined.

1. Power: Manual (Hand Operated)
2. Cone diameter: 20 mm  $\pm$  0.1 mm.
3. Cone angle: 60°
4. Hammer Weight: 8 kg  $\pm$  0.1 kg.
5. Hammer freefall height: 575 mm  $\pm$  1 mm.
6. Upper steel shaft: 16 mm diameter
7. Lower steel shaft: 16 mm diameter
8. Length of lower shaft: 900 - 1200 mm long
9. Graduation of lower shaft: Marked in 5 mm increment
10. Case size approximately: 1100 x 250 x 150mm
11. Weight: 29kg

#### **The equipment comprises of the following parts and accessories:**

1. One dropping weight of 8 kg, top with handle.
2. 1 meter scale mounted on square pipe
3. Penetration rod cone and an anvil.
4. Extension Rod (additional at Extra cost)
5. One Copy of Operating Instruction manual with General Assembly Drawing
6. Aluminium or wooden carrying case.
7. Bar, wrench and spanner accessories

