



Available Variants

- Standard Penetrometer for Grease - Automatic Digital Timer - with Geared Height Adjustment & Dial Gauge - ASTM D217
- Standard Penetrometer for Grease - Manual Control - with Geared Height Adjustment & Dial Gauge - ASTM D217

Compliance with following International Standards

IP 376, ASTM D217, IS 1448 (P-60), IP 50

Significance & Use

Cone penetration tests not only evaluates the consistency of Lubricating Grease over the full range of NLGI Numbers from 000 to 6, but also evaluates the consistency of stiff greases having penetration number less than 85.

Salient Features

1. Compact design and rugged construction ensures long service life and facilitates transport for field applications.
2. Powder coated body parts for aesthetical outer appearance.
3. Sturdy cast iron base provides excellent support.
4. Built-in spirit level and leveling screws ensure proper alignment during testing.
5. Supplied with Cone, container and Digital time controller.
6. Geared arrangement for moving the arm with geared unit.

Brief Construction Details

1. The apparatus consists of a cast aluminum base with an iron stand on which moves an aluminum arm.
2. A 6" dial is fixed on this arm and a brass chromium plated rod slide through the lower portion of the arm.
3. A Brass cone with plunger is fitted to this rod.
4. The dial is graduated from 0-400 in one tenth millimeter sub division.
5. Rack, pinion and pointer assembly is provided for fine adjustment of Penetration Arm / Head.
6. Weight of the Cone and plunger match the criteria of IS/ASTM requirements.
7. The base of the instrument is also user-adjustable.
8. It can be lifted up or down with the jack provided at the bottom.
9. The penetration time is controlled and indicated on Digital Timer Panel with least count of 0.1 second.

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Calibration Laboratory:

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GST TIN No. : 24AABCE4018L1ZU
I.T. PAN No. : AABCE 4018L
IEC No. : 0813026598 Dt. 04/03/2014
CIN No. : U29199GJ2004PTC045078
TAN No. : AHME00572F



10. The automatic digital timer and electrical arrangement, on push of a button, allows the plunger rod to fall freely for 5 seconds and clamps it automatically after 5 seconds.
11. The penetration value is measured and indicated on dial gauge.
12. Dial Gauge measures the penetration distance in 1/10th mm accuracy.
13. Operates on 230 Volt, 50 Hz, Single Phase, AC Supply.

Technical Specification

Parameter	Specification
Overall Dimensions in Inches (L × W × H)	10 × 12 × 22.5
Weight [kg]	8

Supplied Complete with Following Accessories

Automatic Model

1. Digital time controller with auto magnetic clutch release mechanism on push of a button. Having timing range 0-99 minutes (No need of stop watch) – 1 No.
2. Sample container of 76.2 mm dia × 63.5 mm height – 1 No.
3. Penetrometer Hollow 90° brass cone, Highly polished stainless steel tip – 1 No.
4. Magnetic coil for automatic controller – 1 No.
5. S.S. weight - 50 gm – 1 No.

Manual Model

1. Sample container of 76.2 mm dia × 63.5 mm height – 1 No.
2. Brass cone and weight of 50 gm.

Optional Accessories At Extra Cost

1. Bath for Penetration test with heating only – Price On Request.
2. Bath for Penetration test with heating and cooling system – Price On Request.
3. Const temp. air bath.
4. Grease Worker Hand operated – Price On Request.
5. Grease Worker Hand operated with big Handle (for mechanical advantage) – Price On Request.
6. Grease Worker Electrically operated with single worker with electronic digital counter – Price On Request.
7. Grease Worker Electrically operated with Double worker with electronic digital counter – Price On Request.
8. Grease Cutter as per IP-50, ASTM D 217 – Price On Request.
9. Quarter scale cone with shaft as per IP-310/75 & ASTM D 1403 – Price On Request.

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10. Half scale cone with shaft as per IP-310/75 & ASTM D 1403 – Price On Request.
11. Half Scale Grease Worker as per ASTM D 1403 – Price On Request.
12. Penetration solid aluminum cone as per ASTM D 217 – Price On Request.
13. Digital Penetration indicator instead of analog dial gauge. The penetration value is measured and indicated in digital format. Linear scale Measures the penetration distance with 0.01 mm accuracy and displays it on the digital read-out unit – Price On Request.

Note

IS 1448 (P-60) / ASTM D217 specifies that for unworked penetration, the grease sample and the test equipment are brought to $25 \pm 0.5^{\circ}\text{C}$ using a temperature bath. Testing proceeds when the specimen has reached a uniform $25 \pm 0.5^{\circ}\text{C}$. Hence Low Temp. bath or Constant Temp. Air bath is required.

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