

MANUAL CONE PENETRATION FOR PETROLEUM PRODUCTS



Manual Cone Penetration for Petroleum Products TT-217

Manual Cone Penetration for Petroleum Products TT-217 adheres to the ASTM D217 Standard Test Methods for Cone Penetration of Lubricating Grease.

Manual Cone Penetration for Petroleum Products TT-217 is utilized to assess the consistency of lubricating greases across the entire range of NLGI numbers, spanning from 000 to 6. Moreover, it evaluates the consistency of firm greases with penetration numbers below 85, as well as tests waxes with a penetration not exceeding 250 units (where the unit represents 10-1mm).

APPLICATIONS

The Torontech TT-217 provides a fundamental measure of the consistency of lubricating greases and waxes in accordance with ASTM D217. This manual penetration test is a primary method for determining a grease's NLGI grade, a critical parameter that dictates its suitability for various applications and dispensing methods. It serves as a foundational quality control tool for both manufacturers and end-users.

This consistency measurement is essential for quality assurance across numerous sectors:

- **Lubricant Manufacturing:** Performing essential batch-to-batch quality control to classify greases and ensure they meet their specified NLGI grade before packaging and distribution.
- **Industrial Maintenance & MRO:** Verifying incoming shipments of grease to confirm the correct consistency is used for specific applications, from centralized lubrication systems to manual greasing points.
- **Food & Beverage Processing:** Ensuring food-grade greases have the correct consistency for processing equipment, preventing lubricant migration and ensuring effective application via automated systems.
- **Cosmetics & Pharmaceuticals:** Controlling the consistency of waxes, petrolatum, and semi-solid bases to guarantee the desired texture, stability, and application properties of final products like ointments and creams.

FEATURES

- Both the needle and cone penetration values can be directly read on the LCD screen, providing visual and accurate measurements.
- The apparatus features both a flexible and speedy move model and a micro move model for cone adjustment, ensuring easy and quick adjustments.
- It features a reasonable structure with an attractive design, facilitating easy operation.
- It comes equipped with a manual grease worker for added convenience.

TECHNICAL SPECIFICATIONS

1. Rated voltage: AC220V $\pm$ 10%, 50Hz (110V also available)
2. Timer controller: Automatic timing from 0 to 60 seconds
3. Measuring accuracy: 0.01mm
4. Standard slider weight: 47.5g $\pm$ 0.05g
5. Standard cone weight: 2.5g $\pm$ 0.05g
6. Ambient requirements: Temperature: 10°C to 40°C; Humidity: $\leq$ 85%
7. Applicable Standards: ASTM D217, D5, D1403, & D1321



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