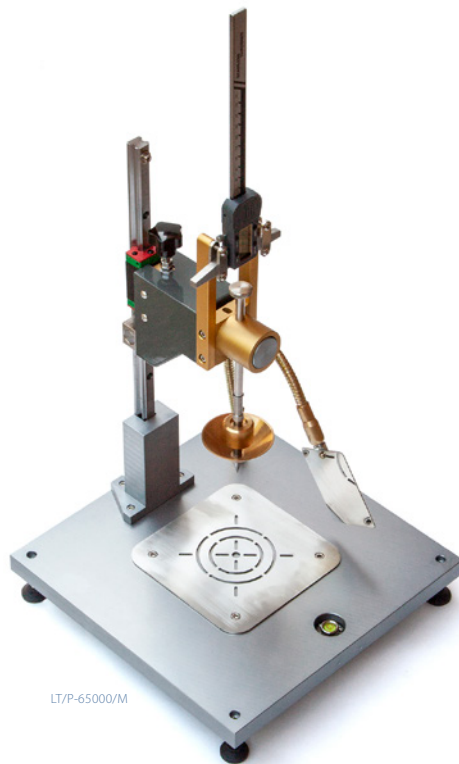




## Penetration of Bituminous Material, Grease, Petrolatum, Waxes, Gel



LT/P-65000/M

ASTM D5  
ASTM D217  
ASTM D937  
ASTM D1321  
ASTM D1403  
ASTM D1831  
ASTM D2884  
DIN 51579  
DIN 51580  
DIN 51804  
DIN 52010  
IP 49  
IP 50  
IP 179  
IP 310  
IP 376  
ISO 2137  
NF T60-119  
NF T60-132  
NF T60-140

ASTM D5, IP 49, DIN 52010

Penetration of bituminous material.  
For determination of the penetration of semi-solid and solid bituminous materials.

ASTM D217, ASTM D1403, IP 50, IP 310, DIN 51804, ISO 2137, NF T60-132, NF T60-140  
Cone penetration of lubricating grease.

Cover four procedures for measuring the consistency of lubricating greases by the penetration of a cone of specified dimensions, mass and finish.

ASTM D937, IP 179, DIN 51580, ISO 2137, NF T60-119

Cone penetration of petrolatum.  
Covers measuring with a penetrometer the penetration of petrolatum as an empirical measure of consistency.

ASTM D1321, IP 376, DIN 51579

Needle penetration of petroleum waxes.  
Covers the empirical estimation of the consistency of waxes derived from petroleum by measurement of the extent of penetration of a standard needle.  
This test method is applicable to waxes having a penetration of not greater than 250.

ASTM D1831

Roll stability of lubricating grease.  
Covers determination of the changes in the consistency, as measurably cone penetration, of lubricating greases when worked in the roll stability test apparatus.

ASTM D2884 - Yield stress of heterogeneous propellants by cone penetration method.  
Covers determination of the yield stress of heterogeneous propellants, both of the gel and emulsion types, containing from 0 to 70% solid additives.

### LT/P-65000/M

#### Manual Apparatus for Penetration

- Aluminium base with spirit level and adjustable feet.
- Sliding bar made in steel for head movement equipped with security brake.
- Analytical head equipped with digital calibre for millimetre measurement.
- Lever system for manual release of penetration weight.
- Adjustable viewing mirror.
- 47,5 g plunger/slider included.
- Stainless steel containers centring device.

#### Weight

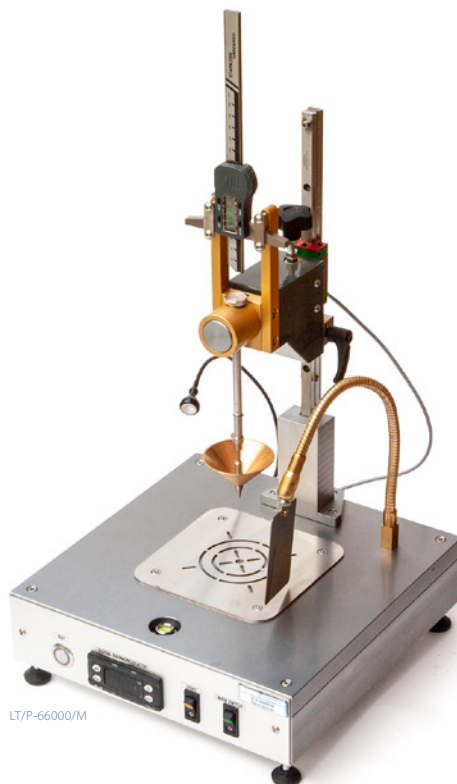
- 9 kg

#### Dimensions

- Length 35 cm
- Width 30 cm
- Height 70 cm



## Penetration of Bituminous Material, Grease, Petrolatum, Waxes, Gel



LT/P-66000/M

### LT/P-66000/M

#### Semi-automatic Apparatus for Penetration

- Aluminium base with spirit level and adjustable feet.
- Sliding bar made in steel for head movement equipped with security brake.
- Analytical head equipped with digital calibre for millimeter measurement.
- Lever system for manual release of penetration weight and automatic programmable release function.
- Integrated timer for setting the automatic release/hooksing timer.
- Adjustable viewing mirror and check light.
- 47,5 plunger/slider included.
- Stainless steel containers centring device.

#### Weight

- 12 kg

#### Dimensions

- Length 35 cm
- Width 30 cm
- Height 80 cm

#### Power supply

- 220 Vac 50/60Hz
- 115 Vac 50/60Hz

#### Max. consumption

- 50 Watt

#### General Accessories

- 6033: 50 g plunger weight
- 6034: 100 g plunger weight

#### Spare Parts

- 5783: Plunger 47.5 g

#### Accessories ASTM D217, IP50

- 5306: optional penetration cone ASTM D217, 65 mm diameter, brass body and stainless-steel tip
- 5310: optional penetration cone ASTM D217, 65 mm diameter, body and tip of stainless steel, for European Pharmacopoeia
- 5308: standard penetration cone ASTM D217, 69 mm diameter, aluminium body and stainless-steel tip
- 5312: sample container 76.5 × 63.5 mm, made in brass, pack of 3 pcs.
- 5313: external ring for grease restraint/recovery, 203 mm diameter

#### Accessories ASTM D5, IP 49, EN 1426

- 5053: penetration needle ASTM D5, IP 49, 2.5 g, pack of 3 pcs.
- 5480: long penetration needle ASTM D 5, IP 49, 2.5 g, pack of 3 pcs.
- 5481: reduction ring for reduce sample volume, 53 mm external diameter, 36 mm internal diameter, 20 mm height, for EN 1426 method
- 5482: reduction ring for reduce sample volume, 53 mm external diameter, 36 mm internal diameter, 30 mm height, for EN 1426 method
- 5483: sample container, 55 × 35mm, made in brass, pack of 5 pcs.
- 5407: sample container, 55 × 45mm, made in brass, pack of 5 pcs.
- 5484: sample container, 70 × 45mm, for bitumen, penetrations between 200 and 350, made in brass, pack of 5 pcs.
- 5409: sample container, 70 × 60 mm, for bitumen, penetrations between 350 and 500, made in brass, pack of 5 pcs.

#### Accessories ASTM D1403

- 5485: penetration cone, ½ ASTM D1403 IP 310, 22.5 g, body and tip in stainless steel
- 5486: slider ½, 15 g
- 5403: sample container ½ 38 × 32 mm, pack of 3 pcs.
- 5488: penetration cone ¼ ASTM D1403, IP 310, 1.20 gr, body Plexiglas®, stainless steel tip
- 5571: slider ¼ 8.18 g
- 5490: sample container ¼ 19 × 11.5 mm, pack of 3 pcs.

#### Accessories ASTM D937

- 5306: optional penetration cone ASTM D217, 65 mm diameter, body of brass, stainless steel tip
- 5479: sample container 100 × 65 mm, made in steel with cover, pack of 3 pcs.

#### Accessories ASTM D1321, DIN 51579, IP 376

- 5591: needle ASTM D1321, 2.5 g SS
- 16095: sample container wax test cylinder 25 × 32 mm, pack of 2 pcs.
- 5592: base plate in brass 63.5 × 38, pack of 2 pcs.

#### Accessories Penetrometer

- 5492: Klein micro-cone, weight 7 g, total height 71 mm, tip 25° with height 9.8 mm
- 5493: sample container for Klein micro-cone 28.5 × 63.5
- 5494: plunger 16.8 g, stem diameter 10 mm, for Klein micro-cone