Manual Marshall Compactor

LT-AS0043 | Hammer and wooden pedestal system

Manual free fall • Vertical guide • No electrical supply



4536 ± 9 g

FALLING HAMMER MASS

457 ± 3 mm

FREE-FALL HEIGHT

Asphalt laboratories • Marshall preparation • Hot bituminous mixtures

Photograph and Compaction Components

Falling hammer, guide, mould section and wooden pedestal

The manual system compacts hot asphalt mixture in a Marshall mould by impact. Falling hammer mass is 4536 ± 9 g and free-fall height is 457 ± 3 mm. The operator applies the blow count required by the method.

FALLING HAMMER

The mass is raised along the guide and applies an impact when released.

VERTICAL GUIDE

Directs downward hammer movement. Check free motion before operation.



MOULD SECTION

Supports the Marshall mould and holds it in the compaction position.

WOODEN PEDESTAL

The rigid base supports the mould and impact arrangement in a stable position.



Hammer, guide and mould section

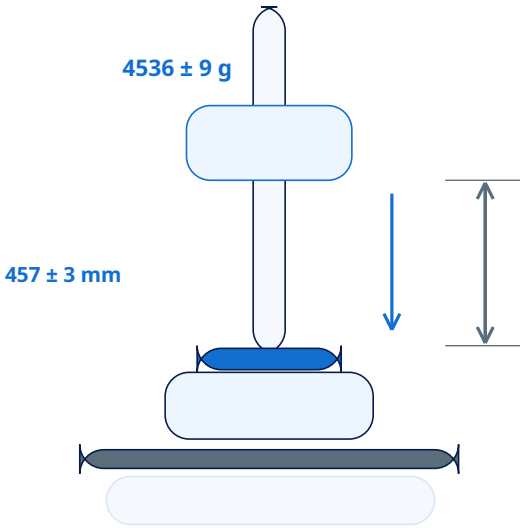


Wooden compaction pedestal

Manual Compaction by Free Fall

Prepare mould • Raise hammer • Release • Count blows

FALLING MASS + GUIDE + MARSHALL MOULD



THE HAMMER FALLS FREELY ALONG THE GUIDE

MASS • DROP HEIGHT • NUMBER OF BLOWS

HOT ASPHALT MIXTURE INSIDE THE MOULD

Select blows per face under the test method

REPRESENTATIVE COMPACTION DIAGRAM • NOT TO SCALE

Prepare and Secure Mould

Load hot mixture into the method-specified mould. Secure the mould on the pedestal.

Raise and Release

Raise the hammer to the specified height. Allow free fall along the vertical guide.

Count and Record

Apply the method-required blow count. Record specimen faces and compaction information.

Impact results from the specified mass falling freely through the specified height. Control hammer mass, drop height, number of blows and mixture temperature together. Follow the selected Marshall specimen-preparation procedure.

Falling Mass and Assembly Weight

4536 ± 9 g is the falling mass that applies the impact. LT-AS0043/1 hammer assembly is listed with a total weight of 8 kg.

LT-AS0043 complete system weighs 50 kg; LT-AS0043/2 wooden pedestal is listed at 42 kg. Evaluate assembly weights separately from falling hammer mass.

Marshall Preparation and Routine Checks

Supports preparation of 101.6 mm diameter Marshall specimens under ASTM D6926. Select blow count and temperature according to the test procedure.

Check free hammer movement, mould clamping and pedestal positioning. Record specimen ID and compaction conditions.

System, Components and Specifications

LT-AS0043 • Hammer assembly • Wooden pedestal • Impact parameters

Product Code	Component / System	Dimensions (cm)	Weight (kg)
LT-AS0043	Complete manual system	35 × 40 × 160	50
LT-AS0043/1	Hammer assembly	10 × 10 × 11	8
LT-AS0043/2	Wooden pedestal	35 × 40 × 160	42

Operating Feature	Value / Description
Falling Hammer Mass	4536 ± 9 g
Free-Fall Height	457 ± 3 mm
Guiding Arrangement	Vertical guide system
Operation	Manual • No electrical connection required
ASTM D6926 Specimen	101.6 mm (4 in) diameter
Related Methods	ASTM D6926 • AASHTO T245

Check Falling Mass and the Applied Blow Count

Falling mass and total assembly weight are different values. Apply the method-specified blow count to each specimen face and record temperature and compaction information.

From Hot Mixture to Marshall Specimen

01
Prepare
Load mixture into the mould at the required temperature.

02
Secure
Check mould clamping and guide arrangement.

03
Compact
Raise, release and count hammer blows.

04
Record
Record specimen and compaction conditions.

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