

B031N1 MARSHALL AUTOMATIC EN (IMPACT) COMPACTOR

STANDARDS: EN 12697-10, 12697-30 | comparable to: BS 598:107

This ruggedly constructed apparatus automatically compacts the bituminous sample and stops off the motor after the preset number of blows has been completed on the automatic digital display counter.

The trip mechanism is structured so that the sliding hammer falls at the same height at every blow.

The mould is held in position by a fast clamping device.

The compactor includes a vibrated concrete base where a laminate hardwood block is mounted.

Total weight of the compaction hammer (Rod + Foot + Sliding mass): 7850 ± 50 g

Sliding mass weight: 4535 ± 15 g

Free fall height: 457 ± 5 mm

Blow frequency: 50 blows in 55/60 seconds

The machine is equipped with safety door, conforming to CE Safety Directive.

When opened it stops automatically and cannot operate.

The control panel can be wall fixed or placed on a bench.

All moving parts are quickly/easily accessible for maintenance.

The compactor is supplied complete, **except for the mould** that must be ordered separately.

Power supply:

230V 1ph 50Hz 300W

Dimensions:

500x500x1890 mm

Weight: 220 kg approx.



B031N 1 + B031-01



B031N 1

ACCESSORY

B031-01

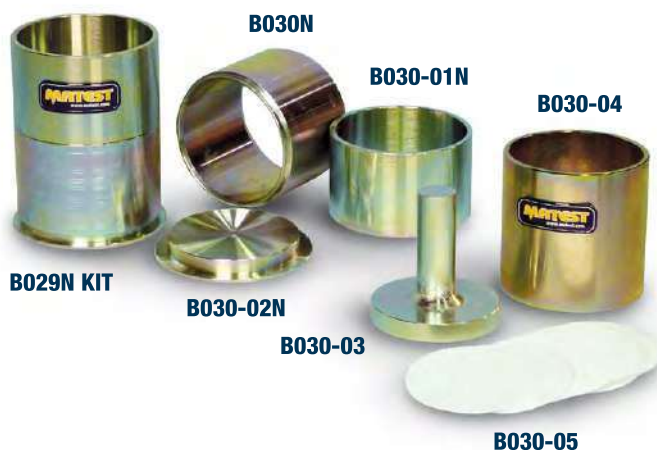
CABINET, lined with sound-proofing material for noise reduction within CE limits.

Dimensions: 800x800x2000 mm approx.

Weight: 100 kg approx.

SPARE

B033-11N Compaction Hammer complete



B029N KIT

B030-02N

B030-03

B030-05

B029N-KIT

MARSHALL COMPACTION MOULD, Ø 4"

STANDARDS: EN 12697-10 | EN 12697-30 | NF P98-251-2

Inside diameter. 101.6 mm (4")

Steel manufactured, plated against corrosion.

Weight: 3.150 g

Consisting of:

B030N MOULD BODY only. Weight: 1300 g

B030-01N FILLING COLLAR only. Weight: 850 g

B030-02N BASE PLATE only. Weight: 1000 g

Note: French NF P98-251-2 Spec. requires the filling collar with a small different dimension, but fitting perfectly the mould body and the baseplate.

ACCESSORIES

B030-01NF FILLING COLLAR only (NF P98-251-2). Weight: 850g

B030-03 EXTRACTION PLATE, to eject specimens from the mould. It is used in conjunction with B030-04 receiver. Weight: 1400 g

B030-04 SPECIMEN RECEIVER, used to receive the specimens ejected by the B030-03 extruder. Weight: 1300 g

B030-05 FILTER DISC Ø 100 mm. Pack of 100

B033N AUTOMATIC MARSHALL ASTM COMPACTOR FOR Ø 4" MOULDS

STANDARDS: ASTM D6926 | Comparable to AASHTO T 245

This ruggedly constructed machine has been designed to eliminate the laborious process of hand compaction. It automatically compacts the specimen and stops off the motor after the preset number of strokes has been completed on the automatic digital display counter. The trip mechanism is structured so that the hammer falls at the same height at every stroke. The unit incorporates a compaction wooden pedestal. The drive mechanism lifts the 4.53 kg. compaction hammer, plated against corrosion, to the height of 457 mm and allows free fall at nominal 55 blows per minute. The control panel can be wall fixed or placed on a bench. This compactor is suitable only for Marshall moulds Ø 4". The compactor is supplied complete **except** for the mould which must be ordered separately. It cannot be sold in CE markets without safety guards (see mod. B033-01N and B033-03)

Power supply: 230V 1ph 50Hz 300W

Dimensions: 540x400x1600 mm

Weight: 95 kg approx.

B033-01N AUTOMATIC MARSHALL ASTM COMPACTOR FOR Ø 4" MOULDS

Same as mod. B033N, but equipped with safety guard, conforming to CE Safety Directive.

When opening the guard during Compactor working, a microswitch automatically stops the unit.

B036T PORTABLE PEDESTAL **NEW**

Without doubt the "handiest" system for the compaction of Marshall specimens in situ.

The equipment consists of:

- wooden pedestal
- steel base (compaction anvil)
- mould clamping system with quick couplings.

Dimensions: 420x310x520 (h) mm

Weight: 28 kg approx.

Note: the instrument has to be completed with the compaction hammer B032-05 (for 6" diameter mould) or B034N (for 4" diameter mould)



B036T + B034N



B033N

B033-01N

B033N + B033-03

B032-KIT MARSHALL COMPACTOR HAND OPERATED FOR Ø 4" MOULDS

STANDARD: ASTM D6926

Similar to mod. B033N, but the hammer is and released manually.

Dimensions: 320x320x1600 mm

Weight: 60 kg approx.

The assembly consists of:

B034N

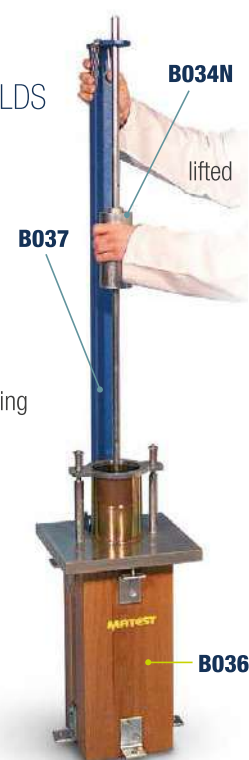
COMPACTION HAMMER, with 4.53 kg sliding weight, guided on a shaft. Plated against corrosion. Weight: 10 kg approx.

B036

COMPACTION PEDESTAL, consisting of a wooden block, capped with a steel plate. Complete with mould clamp device. Plated against corrosion. Weight: 42 kg approx.

B037

SUPPORT and hammer guide.



B034N

lifted

B037

B036

B032 KIT

B035-01N AUTOMATIC MARSHALL COMPACTOR FOR 6" AND 4" Ø MOULDS

STANDARDS: ASTM D6926 | ASTM D5581
 comparable to AASHTO T245

This ruggedly constructed apparatus automatically compacts the Marshall specimens 6" and 4" diameter, and stops after the preset number of blows has been completed on the separate automatic digital display counter.

The trip mechanism is structured so that the sliding hammer falls at the same height at every blow. The mould is stationary and the hammer has flat-foot.

The mould is held in position by a fast clamping device.

The unit incorporates a compaction wooden pedestal.

The drive mechanism lifts the 22.5 lbs. compaction hammer (Ø 6"), plated against corrosion, to the height of 18" and allows a free fall at 64 blows per minute.

Sliding mass for the Ø 6" specimen: 22.5 lbs. ± 0.01 lb (10.205 kg)

Sliding mass for the Ø 4" specimen: 4.53 kg

Free fall height: 18" ± 0.1" (457.2 mm)

Blow frequency: 64 per minute ± 4

The unit is equipped by an inverter, allowing to adjust the blow's frequency.

All moving parts are quickly/easily accessible for maintenance.

The control panel can be wall fixed or placed on a bench.

The compactor is supplied complete with collar to fix the mould 6" diameter, but **without the compaction hammer 6" diameter** (mod. B035-11N) **and 4" diameter** (mod. B035-12N), and the moulds, which must be ordered separately (see accessories).

The compactor cannot be sold in CE markets without security guards (see mod. B033-03)

Power supply:

230 V 1ph 50-60 Hz 500 W

Dimensions: 460x570x1700 mm

Weight: 180 kg approx.

B035-01N + B033-03
 with mould and hammer



ACCESSORIES

B035-11N COMPACTION HAMMER 6" diameter, complete, for the B035-01N Compactor.

B035-12N COMPACTION HAMMER 4" diameter, complete, for the B035-01N Compactor.

B035-13 REDUCTION COLLAR to fix the mould B029NKIT+B030KIT (4" Ø) to the Marshall Compactor B035-01N

B033-03 SOUNDPROOF SECURITY CABINET, steel made, lined with sound-proofing material, complying to CE Safety Directive

B032-01 MARSHALL COMPACTOR, HAND OPERATED, FOR 6" AND 4" Ø MOULDS

STANDARDS: ASTM D6926, D5581

Supplied complete with compaction hammer 6" diameter, wooden pedestal capped with steel plate and mould clamp device, support/hammer guide.

Dimensions: 320x320x1700 mm

Weight: 70 kg approx.

ACCESSORIES

B034N

COMPACTION HAMMER 4" diameter, complete, for B032-01 Compactor.

B032-11

REDUCTION COLLAR to fix the mould B029N KIT+B030 KIT(Ø 4") to the Marshall Compactor mod B032-01

B032-11



SPARE

B032-05 Compaction Hammer 6" diameter, complete, for B032-01 Compactor



B032-01



B035-11N

B035-12N

B035-01N
 with mould and hammer

B030 KIT MARSHALL COMPACTION MOULD, Ø 4"

STANDARDS: ASTM D6926 / Comparable to AASHTO T245

Inside diameter 101.6 mm (4")

Steel manufactured, plated against corrosion.

Weight: 3100 g

Consisting of:

B030N Mould body only. Weight: 1300 g

B030-01N Filling collar only. Weight: 850 g

B030-08 Base plate only. Weight: 950 g

ACCESSORIES

B030-03 EXTRACTION PLATE, to eject specimens from the mould. It is used in conjunction with B030-04 receiver. Weight: 1400 g

B030-04 SPECIMEN RECEIVER, used to receive specimens ejected by the B030-03 extruder. Weight: 1300 g

B030-05 PAPER DISC Ø 100 mm. Pack of 100.

B030-06 BASE PLATE with handles (alternative to mod. B030-08)

B029-01KIT MARSHALL COMPACTION MOULD, Ø 6"

STANDARD: ASTM D5581-96

Consisting of:

B029-02 Mould body

B029-03 Filling collar

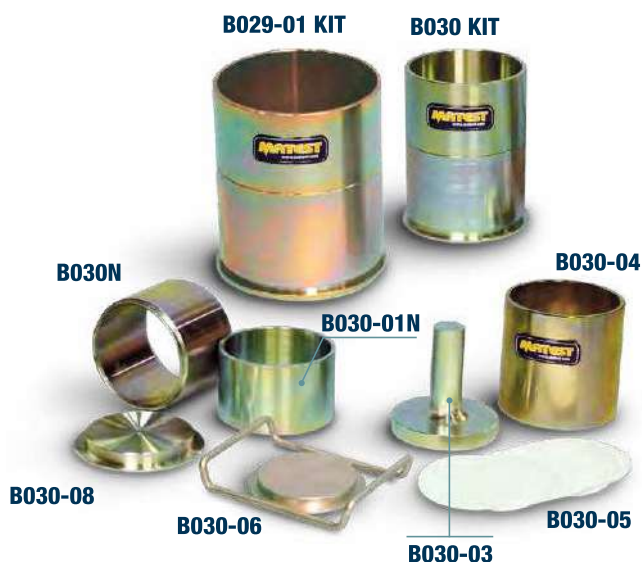
B029-04 Base plate

Steel manufactured, plated against corrosion.

Weight: 5 kg approx.

ACCESSORY

S200-14 Paper disc Ø 150 mm (pack of 100).



S114 UNIVERSAL EXTRUDER

Hand operated, actuated by a 5 tons hydraulic jack, it is designed to extrude samples having Ø 4" and 6". It can therefore extrude Marshall, CBR, Standard and Modified Proctor specimens.

Dimensions:

Ø 300x500 mm

Weight: 32 kg approx.



VIBRATORY COMPACTION METHOD

PREPARATION OF BITUMINOUS TEST SPECIMENS

Applicable to loose mixtures and cores to determine a density ratio for a bituminous mixture.

STANDARDS: EN 12697-9, 12697-10, 12697-32, 13266-4
BS 1377:4, 1924:2

The equipment consist of:

B097

P. R. D. MOULD

Vertically split on one side, foreseen of clamp attachment to the base plate, plated against corrosion, is utilized for determining the degree of compaction of bituminous pavements, for quality control purpose.

Weight: 12 kg



S197N1 VIBRATING HAMMER

Double insulated motor, trigger handle, for asphalt compaction in the percentage refusal density test. It can be used also for the compaction of Proctor and CBR specimens.

Technical details: see Section "S" p. 490

ACCESSORIES

B097-11N SMALL TAMPING FOOT, Ø 102 mm
Complete with shank.

B097-12N LARGE TAMPING FOOT, Ø 146 mm
Complete with shank.

S197-01N SUPPORTING FRAME
for vibrating hammer (see p. 490).
Weight: 75 kg approx.

