

# PLE INTERNATIONAL









**DIGITAL AUTO MARSHALL COMPACTOR** 





Digital Thermostatic Water Bath

# **ASPHALT SECTION - 06**











# <u>Automatic</u> Compaction

# ASPHALT - 06

The use of automatic compaction will result in consistent and repeatable laboratory specimens. Testing houses and design consultants who use the Marshall method of Mix design will benefit from automatic compaction apparatus, which releases staff for other work during the compaction process.

# Auto Comp 100-A

BS 598-107; EN 12697-10, -30

Fully automatic, simple to operate

- Built-in safety features
- Uniform Compaction
- Automatic blow counter

This ruggedly constructed automatic compactor provides a consistent and even degree of compaction.

Particular attention has been paid to operator safety by the inclusion of various in-built safety features.

### Information for Order

Product# 06-0400 Manual compaction Apparatus

**Product# 06-0405 Digital Auto Marshall Compactor 4 Inch** For 220 – 240 V AC, 50 Hz, 1 ph.

Product# 06-0406 Digital Auto Marshall Compactor 2 In One 4 & 6 Inch For 220 – 240 V AC, 50 Hz, 1 ph.

#### Accessories

06-0409 Compaction Mould Body 4 Inch06-0410 Base Plate 4 Inch Dia06-0411 Collar 4 Inch Dia

06-0413Compaction Mould Body 4 Inch06-0414Base Plate 4 Inch Dia06-0415Collar 4 Inch Dia

## Information for Order

Product# 06-0618 Manual Sample Ejector 2 In One 4 & 6 Inch



06-0409, 06-0410, 06-0411 Compaction Mould, Base plates, Collar



06-0413, 06-0414, 06-0415 Compaction Mould, Base plates, Collars



06-0418, Sample Ejector



06-0400 Manual Marshall Compactor



**DIGITAL AUTO MARSHALL COMPACTOR** 

06-0405, 06-0406 Digital Auto Marshall Compactor

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# Asphalt Centrifuge Extractors EN 12697-1;ASTM D2172;AASHTO T164

- Continuously variable speed control from 0 to
- 3,600 rpm (1500 g capacity model)
- Brake control for rapid deceleration
- Available in either 1500 g or 3000 g capacity models

The Centrifuge Extractor is used to determine the quantitative amount of bituminous paving mixtures whilst providing high safety to the operator

## **Information for Order**

**06-0424** Asphalt Centrifuge Extractor 1500 g capacity. Meets EN/ASTM For 220 V AC, 50 – 60 Hz, 1ph

**06-0425 Asphalt Centrifuge Extractor 3000 g capacity.** For 220 V AC, 50 – 60 Hz, 1ph

### **Accessories**

06-0428 Filter Papers Spare

#### 06-04230 Replacement Extractor Bowl



BITUMEN EXTRACTION MACHINE 3000 GMS CAP (DIGITAL SPEED)

06-0425 3000g Cap. Asphalt Centrifuge Extractor

# Water Bath Large Size

Used to maintain in water the Marshall specimens to be tested at 60+/-  $1^{\circ}\mathrm{C}$ 

# **Information for Order**

#### 06-0432 Digital Water Bath Large Size

For 220 V AC, 50 - 60 Hz, 1ph

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# **Specific Gravity**

Vacuum Pycnometer (4000 gram)

Large capacity design minimises segregation effect ASTM D2041 (Type F); AASHTO T209, T283 Lightweight polycarbonate construction Transparent top for visual observations

The Vacuum Pyknometer is a large capacity unit used in the Rice Test for determining the maximum specific gravity of bituminous paving mixtures.

The Vacuum Pyknometer Apparatus consist of a 6000 g Pyknometer, vacuum pump with controls valves/gauges, water trap and connection tubing.

## **Information for Order**

06-0435 Vacuum Pycnometer Asphalt (Desicator)

## **Information for Order**

#### 06- 0436 Vacuum Pump



06-435 Vacuum Pycnometer Asphalt (Desicator)



06-0436 Vacuum Pump



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# **Marshall Stability and Flow**

The accurate measurement of stability and flow of specimens tested in a load frame is important if consistent and representative results are to be achieved. The load frames and ancillary items listed have been designed to enable technicians to test specimens quickly and easily with confident recording of results.

**Marshall Test 50** 

BS 598-107. EN 12697-34

Geared screw jack and motor drive **Precise speed** Internal limit switch for both direction of travel Easy to use controls

This bench mounting mechanical load frame is ruggedly constructed to encompass the strain and loads involved with the test. The unit is compact in size and can be quickly installed on a bench top, requiring only a power point. It has been designed for simple operation and is easy to clean requiring minimum maintenance.

### Information for Order

06-0440 Marshall Stability Machine Digital Speed Load frame 50 kN capacity. For 220 – 240 V AC, 60 Hz, 1 ph.

#### Accessories

#### 06-0442 Flow Meter BS/EN.

Dial Gauge Graduated 0.01 mm with 10 mm Travel. 06-0444 (Dial Gauge with Flowmeter Stand) 06-0446 Breaking Head 4 Inch 06-0448 Breaking Head 6 Inch 06-0450 Load Measuring Ring 28 kN





04-2218 Breaking Head (Marshall) 06-0448 Breaking Head (Marshall) 6 Inch

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06-0440 Marshall Stability Machine



06-0450 28kN Load Measuring Ring

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# **Bitumen Penetration Test**

BS 2000-49 EN 1426, 13179-2; ASTM D5 AASHTO T49; IP49

# **Information for Order**

### 06-0455

Standard Dial Bitumen Penetrometer. Penetration readings are quickly taken using this sample to operate apparatus. The 150 mm diameter dial is graduated in 400 division of 0.1 mm. The indicating pointer is fitted with a friction/geared knob which can be rotated freely to any position on the dial.

# **Information for Order**

### 06-0458

Digital Standard Bitumen Penetrometer. Penetration readings are quickly taken using this sample to operate apparatus.

# **Information for Order**

### 06-0460

Digital Semi Automatic Bitumen Penetrometer. Penetration readings are quickly taken using this sample to operate apparatus.

### Accessories

06-0462 Penetration Needle, 2.5 +/- 0.05 g

06-0464 Weight 50 g

06-0466 Penetration Tin.

06-0470 Transfer Dish

06-0472 Water Bath Small

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### 06-0455 Standard Penetrometer



06-0462 Penetration Needle

DIGITAL STANDARD PENETROMETER

06-0458 Digital Standard Bitumen Penetrometer



0-0460 Digital Semi Automatic Penetrometer

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## Flash and Fire Points And Softening Point

There are a number of test method using different equipment with closed or open cups. The Cleveland Flash Cup Apparatus is used to test cutback bitumen and may sometimes also be used to test penetration grade bitumen. The apparatus utilises the open cup test method. Note that results from different methods cannot be correlated.

Cleveland Flash Cup Apparatus Cleveland Open Cup Method BS 2000-36, EN ISO 2592; ASTM D92;IP36

The Cleveland Flash Cup Apparatus is used to determine the Flash and Fire points of mineral oils and bitumen above 80C. Gas supply is conventional main gas source.

## **Information for Order**

06-0475 Digital Motorized Flam Moveable Cleveland Flash Point Cup Apparatus. For 220 - 240 V AC, 50 Hz, 1 ph

## **Information for Order**

06-0478 Digital Softening Point Apparatus. For 220 - 240 V AC, 50 Hz, 1 ph

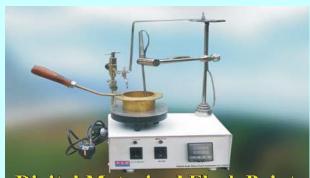
# Core Drill Machine Information for Order

06-0485 Core Drill Machine 2 in 1 (Operates with both 4" and 6" dia bits) With vertical USA Engine.

### **Accessories**

06-0486 Core Bit 4" Dia 06-0487 Core Bit 6" Dia

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Digital Motorized Flash Point

06-0475 Digital Flash Point Motorized Moveable Flame



06-0478 Digital Softening Point



06-0485 Core Drill Machine