

### DRYING, WEIGHING & GRADING Sample Grading

**SIEVE SHAKER** 

### Product Code

UTG-0311	Sieve Shaker with Time Adjustment
	for Ø200/300 mm (Ø8"/12") Frame Sieves
UTG-0312	Sieve Shaker with Frequency and Time Adjustment,
	for Ø200/300 mm (Ø8"/12") Frame Sieves
UTG-0317	Noise Reduction Box for UTG-0311
	and UTG-0312 Sieve Shakers

Models for 220-240V 50 Hz, 1 ph.	UTG-0311	UTG-0312
Models for 110-120V 60 Hz, 1 ph.	UTG-0311-N	UTG-0312-N

### Standards

EN 932-5; ISO 565, 3310-1, 3310-2; ASTM E11, E 323; BS 410-1, 410-2

### **Technical Specifications**

Sieve	12 pieces of 200 mm (8") sieves + pan and cover
Capacity	8 pieces of 300 mm (12") sieves + pan and cover
Power	250 W



UTG-0311

The UTG-0311 and UTG-0312 Sieve Shakers impart a circular motion to the material being sieved so that it makes a slow progression over the surface of the sieve.

They are equipped with a dynamic power source which ensures the right vibration is imparted to the sieves and sample for fast, accurate and reproducible tests. The vertical movement is fixed to ensure the sample spends maximum time on the sieve surface. The unique vibratory action also helps keep the apertures clear and free from binding.

The UTEST Sieve Shakers are fitted with a very efficient clamping device that ensures sieves are held firmly without over-tightening and allows them to be quickly removed and replaced. The timer can be preset for any duration up to 60 minutes. The UTG-0312 model has the additional frequency adjustment property.

	Dimensions	Weight (approx.)
UTG-0311	680x680x1180 mm (packed)	140 kg (packed)
UTG-0312	680x680x1180 mm (packed)	140 kg (packed)
UTG-0317	650x650x1230 mm (packed)	80 kg



UTG-0312 with UTG-0317



DRYING, WEIGHING & GRADING

Weighing Samples

SPECIFIC GRAVITY

## **SPECIFIC GRAVITY**

### Product Code

UTW-1000	Specific Gravity Frame
UTW-1003	Plastic Water Tank
UTW-1005	Cradle for Hardened Concrete Specimens
UTW-1008	Density Basket, 120 mm dia x 160 mm deep, 3.5 mm mesh
UTW-1010	Density Basket, 200 mm dia x 200 mm deep, 3.5 mm mesh
UTW-1012	Density Basket, 250 mm dia x 250 mm deep, 3.5 mm mesh
UTW-1015	Density Basket, 200 mm dia x 180 mm deep, 2 mm mesh
UTW-1017	Density Basket, 230 mm dia x 260 mm deep, 4 mm mesh

### Standards

EN 1097-6, 12390-7

The UTW-1000 Specific Gravity Frame is used in conjunction with a suitable electronic balance for specific gravity determination of fresh and hardened concrete and aggregates. Consisting of a purpose built robust frame designed to support the electronic balance.

The lower part of the frame incorporates a moving platform, which carries the water tank allowing the test specimens to be weighed in both air and water. Any type of electronic balance fitted with under-bench weighing facility can be used.

Balance, Cradle and Density Basket should be ordered separately.





UTW-1010







UTW-1005

UTW-1003



**Bitumen and Bituminous Binders** 

WATER CONTENT of BITUMINOUS MATERIALS

### **Product Code**

#### UTB-0255 Water in Bituminous Materials Test Set (Dean-Stark Method) 230V 50-60 Hz, 1 ph

### Standards

#### AASHTO T48, T55, T59; EN 1428; ASTM D244

The UTB-0255 test set is used for determining the water content of bituminous emulsions. The test is based on distilling the sample with a volatile solvent.

The material to be tested is heated under reflux with a water immiscible solvent, which distills together with the water in the sample.

Condensed solvent and water are continuously separated in a trap, the water settles in the graduated section of the trap, and the solvent returns to the still.

#### Test Set Consists Of;

- Electric Heater with Thermo Regulator
- Glass Condenser
- Glass Receiver
- Glass Still, 10 ml

Dimensions	200x200x450 mm
Weight (approx.)	4 kg
Power	250 W





**Bitumen and Bituminous Binders** 

### EFFECT of HEAT and AIR on MOVING FILM of BITUMEN

### Product Code

### UTB-0340A Rolling Thin-Film Oven Test (RTFOT), ASTM UTB-0340E-T Rolling Thin-Film Oven Test (RTFOT), EN 220-240 V 50 Hz, 1ph

UTB-0342 Spare Glass Container for UTB-0340A and UTB

Models for 220-240V 50 Hz, 1 ph.	UTB-0340A-T
Models for 110-120V 60 Hz, 1 ph.	UTB-0340A-N
Models for 220-240V 60 Hz, 1 ph.	UTB-0340A-N

### Standards

#### EN 12607-1; ASTM D2872

Rolling Thin-Film Ovens are used for determination of the resistance to hardening of semisolid asphaltic materials/ bitumen or bituminous binders under the combined effects of heat and air with the rolling thin-film oven test (RTFOT) method.

The Internal chamber of UTB-0340A and UTB-0340E are manufactured from stainless steel, insulated with fiberglass or similar, the door has a symmetrically located window.

The ovens have a programmable temperature controller which works in PID mode and digital display system. Grade A platinium resistance thermometer is used for measuring and controiling the temperature of the oven. The temperature can be read from the digital unit placed on the oven. Over tempereture controlled by a mechanical switch. Conforming to the CE Directives.

Air Compressor should be ordered separately. Maximum pressure should not exceed 2 bar when an air compressor is used.

The Rolling Thin-Film Ovens are supplied complete with

- Glass Comtainers, 8 pcs.
- Air-Drying Unit ( UTGE-3572 )
- Transparent Hose, 8/5,5mm(0D/ID), 3m

Dimensions	800x700x750 mm
Weight (approx.)	62 kg







UTGE-3572



**Bitumen and Bituminous Binders** 

### FLASH POINT and FIRE POINT

### **Product Code**

UTB-1350 Cleveland Flash Tester, 220-240 V 50-60 Hz UTGT-2040 Thermometer IP28C, -6 +400°C

### Standards

#### EN 22592; ASTM D92

The UTB-1350 Cleveland Flash Tester is used for determining the flash and fire point of petroleum products.

It consists of a brass cup mounted on an electric heater with a temperature controller and a thermometer (-6 C to +400 C).

Conforming to the CE European Directive.



Dimensions	250x300x250 mm
Weight (approx.)	5 kg
Power	600 W





**Bitumen and Bituminous Binders** 

**VOLATILE CONSTITUENTS in CUTBACK ASPHALTIC PRODUCTS** 

### Product Code

### UTB-1500 Apparatus for Distillation of Cutback Asphalt UTGT-2025 High Distillation Thermometer, Range-2 +400°C, ASTM 8C

Models for 220-240V 50-60 Hz, 1 ph.	UTB-1500
Models for 110-120V 60 Hz, 1 ph.	UTB-1500-N

### Standards

#### ASTM D402; AASHTO T78

The UTB-1500is used for the examination of cut-back asphaltic materials by the distillation test. The apparatus consists of a distillation flask, condenser, adapter, shield, electric heater with thermoregulator, cylinder receiver, thermometer (ASTM 8C), shield and flask support.

Dimensions	300x300x600 mm
Weight (approx.)	6 kg





### DRYING, WEIGHING & GRADING

Weighing Samples

### **ELECTRONIC ANALYTICAL BALANCES**

### **Product Code**

UTW-0622	Electronic Analytical Balance, LCD Screen
	210 g x 0.0001 g
UTW-0625	Electronic Analytical Balance 200 g x 0.001 g
UTW-0628	Electronic Analytical Balance 300 g x 0.001 g
UTW-0630	Electronic Analytical Balance 520 g x 0.001 g
UTW-0631	Electronic Analytical Balance 820 g x 0.001 g
UTW-0632	Electronic Analytical Balance 1020 g x 0.001 g

The UTW Series Electronic Analytical Balances set the standard in terms of reliable measurements, user-friendly and long service life. The balances can be used for routine tasks and/or complicated weighing procedures.

The UTW-0622, UTW-0625 and UTW-0628 models have an automatic internal calibration feature, the other models in the range require external calibration.

The UTW Series Analytical Balances provide fast and easy installation and cleaning with their ergonomic designs and brilliant displays. They can also be connected to printers or PC's through RS 232 outputs to give excellent monitoring and reporting performance.

	Capacity	Readability	Pan Size (mm)	Additional Power Supply
UTW-0622	220 g	0.1 mg	Ø 90	DC 12V (1,2A) Adapter
UTW-0625	210 g	1 mg	Ø 115	DC 12V (1,2A) Adapter
UTW-0628	300 g	1 mg	Ø 115	DC 12V (1,2A) Adapter
UTW-0630	520 g	1 mg	Ø 115	DC 12V (1,2A) Adapter
UTW-0631	820 g	1 mg	Ø 115	DC 12V (1,2A) Adapter
UTW-0632	1020 g	1 mg	Ø 115	DC 12V (1,2A) Adapter

	Under-Bench Weighing Facility	Dimensions	Weight (approx.)
UTW-0622	No	215x345x350 mm	6.5 kg
UTW-0625	No	185x290x90 mm	1.3 kg
UTW-0628	Yes	210x335x160 mm	1.5 kg
UTW-0630	Yes	185x290x90 mm	2.1 kg
UTW-0631	Yes	215x345x90 mm	4 kg
UTW-0632	Yes	215x345x90 mm	4.5 kg



UTW-0622



# Asphalt and Road Quality Testing

### SAMPLING by CORING

ASPHALT

### Product Code

UTAS-2105Core Drilling Machine on TrailerUTGD-0330Coring Bit for Asphalt 50 mm dia. x 400 mm lengthUTGD-0332Coring Bit for Asphalt 75 mm dia. x 400 mm lengthUTGD-0334Coring Bit for Asphalt 100 mm dia. x 400 mm lengthUTGD-0336Coring Bit for Asphalt 150 mm dia. x 400 mm length

#### Standards

#### EN 12697-27, ASTM D 5361

Portable UTAS-2105Core Drilling Machine is designed to cut cores up to 150 mm diameter from concrete, asphalt and similar hard construction materials.

The machine comprises a vertical support column which carries the drill head/ motor assembly. The motor assembly comprises a 6.5 hp petrol engine.

A ball screw mechanism enables close control of the drilling pressure and rapid return when drilling is completed. A water spraying assembly is mounted on the machine.

The drilling machine is installed in a trailer for fast and precise sampling on-site. 100 litre water tank provides continuous lubrication during drilling to save time.

The two-wheeler taut liner trailer is fully equipped with brake lamps/hazard lashers/retro reflectors conforming to road traffic regulations.

The trailer is designed with a space to be used for storing the core samples. The two fixing legs are robustly designed for improved stabilization.

Coring Bits should be ordered separately.

Dimensions	1600x2600x2000 mm
Weight (approx.)	300 kg
Power	6.5 hp









**Design and Testing of Bituminious Mixtures** 

### LABORATORY MIXING

### Product Code

UTG-0130	Laboratory Mixer 10 L
UTAS-0187	Heating Mantle for UTG-0130
UTG-0131	Spare Bowl for UTG-0130
UTG-0132	Spare Whisk for UTG-0130

Models for 220-240V 50-60 Hz, 1 ph.	UTG-0130	UTAS-0187
Models for 110-120V 60 Hz, 1 ph.	UTG-0130-N	UTAS-0187-N

### Standards

#### EN 12697-35



UTG-0130 with UTAS-0187



UTG-0130

The UTG-0130 10 litre capacity Laboratory Mixer is designed for mixing of soil and asphalt samples to be used for mechanical tests such as compaction, indirect tensile, Marshall etc. The mixing head rotates at speeds of 10 to 240 r.p.m. and the whisk from 20 to 480 r.p.m. The user can adjust rotation speed between given values easily by using a control knob fitted to the front panel.

The bituminous mixture must be prepared at the prescribed temperature according to the EN standard. For this reason the mixer can be equipped with thermostatically controlled heater.

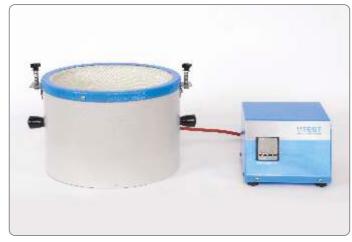
The Heating Mantle (Isomantle heater) is fitted with a digital thermostatic controller and can easily be fitted to the UTG-0131 Mixing Bowl. The Isomantle heater is supplied complete with PT100 temperature sensor.

Heating Mantle should be ordered separately.

The Laboratory Mixer is supplied complete with

- Bowl,10 lt Capacity Stainless Steel
- Mixing Whisk

	UTG-0130	UTAS-0187
Dimensions	700×750×800 mm	300x300x350 mm
Weight (approx.)	75 kg	7 kg
Power	550 W	600 W



UTAS-0187



UTG-0132



UTG-0131

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### DRYING, WEIGHING & GRADING

Weighing Samples

**DIGITAL BALANCES** 

### **Product Code**

UTW-0633	Digital Balance 600 g x 0.01 g
UTW-0635	Digital Balance 6 kg x 0.1 g
UTW-0637	Digital Balance 30 kg x 5 g
UTW-0638	Digital Balance 30 kg x 0.5 g
UTW-0642	Digital Balance 3000 g x 0.01 g
UTW-0643	Digital Balance 4500 g x 0.01 g
UTW-0644	Digital Balance 6200 g x 0.01 g
UTW-0645	Digital Balance 15 kg x 0.2 g
UTW-0648	Digital Balance 30 kg x 0.1 g
UTW-0654	Digital Balance 60 kg x 1 g

The UTW Series Digital Balances provide a wide range of maximum capacity and readability characteristics which make them economical and easy to use, they are ideal for central and site laboratories who require a range of balances for various applications.

The UTW Series Digital Balances are fitted with strain gauge load cells and are designed with large backlit LCD displays that give precise measurements within the 0°C to 40°C temperature range. All models can be connected to printers or PC's through their RS 232 outputs.

	Capacity	Readability	Pan Size (mm)	Additional Power Supply
UTW-0633	600 g	0.01 g	Ø122	DC 6V (300mA) Batt. (AA)
UTW-0635	6 kg	0.1 g	322x212	220-240V
UTW-0637	30 kg	5 g	226x187	Pb Batt. and Adapter
UTW-0638	30 kg	0.5 g	322x212	220-240V
UTW-0642	3000 g	0.01 g	Ø150	DC 12V and Battary (AA)
UTW-0644	6200 g	0.01 g	195x195	DC 12V (1,2A)
UTW-0645	15 kg	0.2 g	306x222	Pb Batt. and Adapter
UTW-0648	30 kg	0.1 g	322x212	220-240V
UTW-0654	60 kg	10 g	500x600	Pb Batt. and Adapter

	Under-Bench Weighing Facility	Dimensions	Weight (approx.)
UTW-0633	No	285x198x67 mm	1.1 kg
UTW-0635	Yes	335x336x103 mm	3.5 kg
UTW-0637	No	250x281x110 mm	1.8 kg
UTW-0638	Yes	335x336x103 mm	3.5 kg
UTW-0642	Yes	185x290x90 mm	1.5 kg
UTW-0644	Yes	235x345x90 mm	6 kg
UTW-0645	No	335x336x103 mm	4.5 kg
UTW-0648	Yes	335x336x103 mm	3.5 kg
UTW-0654	No	580x870x200 mm	25 kg



UTW-0635