

## Washability, Brushability & Abrasion Testers

Improved mechanical resistance to wear is a key requirement of a wide range of products. From coatings to clothing, leather to upholstery, keypads to plastic toys, a product's ability to resist wear is an important characteristic.

Although it is difficult to correlate test performance with real life wear conditions, mechanical tests can make an accurate comparison.

There are testing methods related to the 'abrasion by friction' concept. Others are based on the projection of abrasive particles on to the test specimen. These techniques provide valuable information about materials and processes.

The three tests available are:

- *Friction:* one part moves relative to the other
- *Scrubbing:* wet or dry brush or sponge is moved over the test piece
- *Blast:* abrasive particles are projected onto the test specimen

### Definitions:

#### **Washability:**

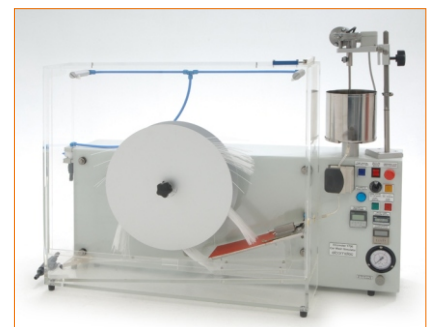
The ability of a coating to withstand being washed using either wet or dry scrubbing action. The effect can be determined in terms of coating weight loss, loss of gloss or loss of thickness after the scrubbing process.

#### **Brushability/Spongeability:**

The degree to which a wall covering resists washing with either a brush or a sponge, usually a sponge using a fixed testing regime, e.g the number of cycles, weight and size of sponge, etc.

#### **Abrasion:**

The ability of a coating to resist damage caused by a defined material rubbing its surface. Abrasive wear is the erosion of material from a solid surface by the action of another solid.



## Elcometer 1720 Abrasion & Washability Testers

These robust, reliable and extremely versatile machines have been designed for testing the abrasion, washability, brushability and resistance of a wide range of materials including paint, lacquers, inks, coatings, leather, wood, plastics, printed material, fabrics etc.

The Elcometer 1720 is available with either 2 or 4 stations, each station separated by a water-tight gasket frame, allowing up to 4 tests at any one time.

Made from anodised aluminium making it durable and robust

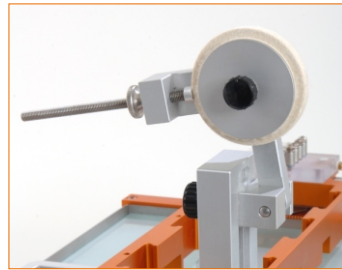
All internal parts are Methyl Ethyl Ketone (MEK) proof, allowing testing to be carried out safely

Test up to 4 samples simultaneously



With a wide range of tools available, the user is able to test both flat and curved samples.

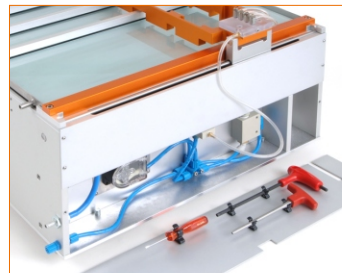
Speed Cycles can be adjusted from 10 to 65 cycles per minute or set to the ISO Standard of 37 cycles/min



### Meeting Standards

- With the wide range of tools, a number of Standards can be tested in one unit
- Adjustable to ASTM, DIN, EN, ISO Standards
- Easily adjustable to customers unique applications using the special tools

The durable and robust design is steady under test allowing repeatable test results, even at the fastest stroke speeds



### Wet and Dry

- All stations can be tested wet or dry
- Versions are available with or without an internal liquid pump
- Samples can be tested under wet and/or dry conditions simultaneously

Rapid tool change



### User Adjustable

- Stroke length can be quickly and easily changed by the user to meet their specific requirements between 10 - 300mm (0.4 - 11.8")
- Speed of carriage can be adjusted between 10 and 65 cycles per minute
- 2 or 4 station testing

Multi-lingual digital display



### Interchangeable Tools

All tools are interchangeable with a rapid tool change system, making the unit ideal for use in accordance with a wide range of Standards.

Available with or without an integrated liquid dosing pump

For the complete range of tools, see pages 73 - 74

Adjustable stroke length from 10 to 300mm (0.4 to 11.8")



### Economic

With the ability to test up to 4 different characteristics simultaneously, significant time can be saved



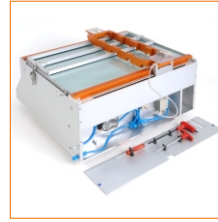
Available in 2 versions:  
2 station - undertakes two tests at a time,  
4 station - tests up to four samples with 4 different tests.  
2 station models can be easily upgraded at a later date



Stroke speed can be varied between 10 and 65 cycles/min or set to 37 cycles/min to meet ISO Standards



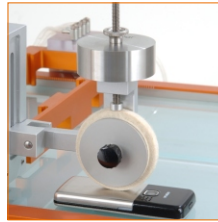
Stroke length can be adjusted by the user to meet specific requirements, from 10 to 300mm (0.4 to 11.8")



Available with or without liquid dosers, allowing test liquids to be regulated automatically or independently



Digital display allows easy, accurate speed variation and simple reporting



The rapid tool change system allows the user to test the samples in accordance with a wide range of National and International Standards on both flat and curved samples simultaneously

## Technical Specification

<b>K1720M202</b>	Elcometer 1720 Abrasion Tester, 2 Station (110 - 240V)
<b>K1720M204</b>	Elcometer 1720 Abrasion Tester, 4 Station (110 - 240V)
<b>K1720M302</b>	Elcometer 1720 Abrasion & Washability Tester, 2 Station (110 - 240V)
<b>K1720M304</b>	Elcometer 1720 Abrasion & Washability Tester, 4 Station (110 - 240V)
Dimensions	550 x 460 x 320mm (21.7 x 18.1 x 12.6")
Weight	2 Station: 31.5kg (70lb), 4 Station: 33kg (73lb)
Packing List	Elcometer 1720, 250µm (10mil) metal strip for ASTM D2486 Standard, sample drip tray, 1x glass sheet (2 station), 2x glass sheet (4 station), 1x specimen holding frame (2 station), 2x specimen holding frame (4 station), set of 3 tools for instrument set up, 3 x mains leads (UK, EUR and US) and operating instructions. Elcometer 1720 part numbers K1720M302 and K1720M304 also include a liquid dosing bottle, liquid delivery pipe and 2 liquid drain pipes. All tools are supplied separately.

Can be used in accordance with:

ASTM D2486, ASTM D4213-92, ASTM D4213-96, ASTM D4213-98, ASTM D3450, ASTM D4828, ASTM F 1319, DIN 53778, ECCAT11, EN 233, EN 13523-11, EN 60730, GME 60269, ISO 105X12, ISO 11998, Renault/PSA D45 1010



**Elcometer 1720 Tools and Accessories**

The Elcometer 1720 can undertake tests according to a wide range of different Standards and test methods by simply changing the abrasive tools. Please select the required tools from the list on the following two pages. Samples can be tested in a combination of both wet and dry methods.



**Tool 1.** Wild Boar Brush  
(250g/8.82oz)

Can be used in accordance with:  
**DIN 53778**

Wild boar hair brush and stainless steel brush holder

Part Number: **KT001720P003**



**Tool 5:** Sponge/Abrasive  
(232g/8.12oz)

Can be used in accordance with:  
**ASTM D4213-96**

Sponge and stainless steel brush holder with 2 integrated abrasive pads - top and bottom, 76g (2.7oz) mass to bring gross weight to 232g

Part Number: **KT001720P029**



**Tool 2:** Nylon Brush  
(454g/16.01oz)

Can be used in accordance with:  
**ASTM D2486**

Nylon bristle brush and stainless steel brush holder, 177g (6.2oz) mass to bring gross weight to 454g

Part Number: **KT001720P030**



**Tool 6:** Abrasive  
(135g/4.76oz)

Can be used in accordance with:  
**ISO 11998**

Aluminium holder, abrasive pads (x5)

Part Number: **KT001720P036**



**Tool 3:** Sponge  
(508g/17.92oz)

Can be used in accordance with:  
**ASTM D4213-92, ASTM D4828**

Sponge and stainless steel brush holder, 337g (11.9oz) mass to bring gross weight to 508g

Part Number: **KT001720P005**



**Tool 7:** Universal Material Clamp

Stainless steel holder which allows the user to fix their own test sample or abrasive material. Ideal for abrasion and wear of labels, textiles, ink etc.

Part Number: **KT001720P207**



**Tool 4:** Sponge  
(750g/26.45oz)

Can be used in accordance with:  
**ASTM D3450**

Sponge and stainless steel brush holder, 337g (11.9oz) and 250g (8.8oz) mass to bring gross weight to 750g

Part Number: **KT001720P073**



**Tool 8:** Linear Abrader "Crockmeter"  
(200g/7.05oz)

Can be used in accordance with:  
**ASTM F1319, ISO 105X12, Renault D45 1010**

Originally designed for testing colour fastness of fabrics, this tool is ideal for testing abrasion on both curved and flat surfaces and is supplied with a removable stainless steel cylindrical rod (200g/7oz), test felt, textile fixing ring and set of additional masses - 2x100g (3.5oz), 1x200g (7oz), 1x500g (17.6oz)

Part Number: **KT001720P074**



**Tool 9:** Linear Abrader  
(400g/14.11oz)

Can be used in accordance with:  
**GME 60269**

For testing the resistance to abrasion of automotive components, includes a felt disc of 10mm (0.4") diameter and 10mm (0.4") thick working under a mass of 400g (14.1oz)

Part Number: **KT001720P075**



**Tool 9B:** Linear Abrader  
(900g/31.74oz)

Can be used in accordance with:  
**EN 13523-11**

Felt holder for 16mm (0.63") diameter felt wool disc working under a mass of 900g (31.7oz)

Part Number: **KT001720P075-2**



**Tool 9A:** Linear Abrader  
(820g/28.92oz)

Can be used in accordance with:  
**ECCAT11**

As Tool 9 but with 16mm (0.63") diameter felt wool disc working under a mass of 820g (28.9oz)

Part Number: **KT001720P075-1**



**Tool 10:** Curved Sample Tool

Can be used in accordance with:  
**EN 60730-1**

Height adjustable with an elbow joint for curved samples, this tool is ideal for testing abrasion resistance of both coatings and inks. Supplied with felt disc, rod for masses, 1x50g (1.75oz), 1x100g (3.5oz), 2x200g (7oz) and 2x500g (17.5oz) mass

Part Number: **KT001720N003**

## Accessories

<b>KT001720P004</b>	Wild Boar Brush for Tool 1
<b>KT001720P009</b>	Nylon Brush for Tool 2
<b>KT001720P006</b>	Sponge (5) for Tools 3 & 4
<b>KT001720P037</b>	Abrasive Pads (10) for Tool 6
<b>KT001720P064</b>	Abrasive Pads (100) for Tool 6
<b>KT001720P051</b>	Abrasive G 120 Sheets (4), for Tools 1 & 2
<b>KT001720P008</b>	25m Abrasive Roll for Tool 7
<b>KT001720P062</b>	Felt Disks (2) for Tool 10
<b>KT001720N002</b>	Abrasive Scrub Medium - SC2
<b>KT001720P016</b>	50g Mass (To fit tools 1 - 8, 10)
<b>KT001720P017</b>	100g Mass (To fit tools 1 - 8, 10)
<b>KT001720P018</b>	200g Mass (To fit tools 1 - 8, 10)
<b>KT001720P031</b>	227g Mass (To fit tools 1 - 8, 10)
<b>KT001720P019</b>	500g Mass (To fit tools 1 - 8, 10)
<b>KT001720P014</b>	Glass Plate (2 Channel)
<b>KT001720P012</b>	ASTM Test Foil 250um (10mils)
<b>KT001720P013</b>	10m Replacement Channel Gasket
<b>KT001720N011</b>	Station Upgrade Kit - <i>upgrade your 2 station unit to 4 stations</i>

## Elcometer 1720 Spongeability and Washability Tester

This version of the Elcometer 1720 is adapted for testing the spongeability and washability of paper wall coverings in accordance with the EN 233 Standard.

The test consists of scrubbing the sample with a tool under defined conditions.

Features:

- Variable speed mode - the operator can select a speed from 10 to 120 cycles per minute. (1 cycle = 1 motion back and forth of the carriage)
- 1 or 2 specimen fastening frames are supplied for the 2 and 4 station models respectively



Please note that each tool is available as a separate item and should be ordered as required from the list below.

### Technical Specification

<b>K1720M402</b>	Elcometer 1720 Spongeability/Washability Tester, 2 Station (110 - 240V)
<b>K1720M404</b>	Elcometer 1720 Spongeability/Washability Tester, 4 Station (110 - 240V)
Dimensions	550 x 460 x 320mm (21.7 x 18.1 x 12.6")
Weight	2 Station: 31.5kg (70lb), 4 Station: 33kg (73lb)
Packing List	Elcometer 1720, 250um (10mil) metal strip for ASTM D2486 Standard, sample drip tray; 1x glass sheet;(2 station), 2x glass sheet (4 station), 1x specimen holding frame (2 station), 2x specimen holding frame (4 station), set of 3 tools for instrument set up, liquid dosing bottle, liquid delivery pipe, 2 x liquid drain pipe, 3 x mains leads (UK, EUR and US) and operating instructions

Can be used in accordance with:

**EN 233, EN 233/C3.2-A, EN 233/C3.2-B, EN 233/C3.2-C, EN12956**

### Tools and Accessories

<b>KT001720N006</b>	Tool ST1: Sponge with Aluminium Head and 100g (3.5oz) mass - EN233/C3.2-A
<b>KT001720N007</b>	Tool ST2: Felt with Stainless Steel Head and 550g (19.4oz) mass - EN233/C3.2-B
<b>KT001720N008</b>	Tool ST3: Brush with Stainless Steel Head and 600g (21.2oz) mass - EN233/C3.2-C
<b>KT001720P067</b>	2m Sponge Roll for Tool ST1
<b>KT001720P068</b>	2m Felt Roll for Tool ST2
<b>KT001720P069</b>	Brush for Tool ST3

## Elcometer Taber® 5750 Linear Abraser

Whatever your product, be it curved, round, big or small, the Linear Abraser from Taber® can test it all. Using a free floating head to follow the contours of the sample, the Taber® 5750 is the ideal abrasion tester for flat or curved surfaces. It may also be used as a scratch tool, using the scratch kit accessory.

Abrasion media, length of stroke, load and speed of stroke can all be user defined to meet specific requirements.

The Linear Abraser was a range of Wearasers™. The size and shape of a pencil eraser, the Wearaser™ uses the same high quality Taber® abrasive media as used on the Taber® Rotary Abrasers.

Choose from a wide selection of Wearasers™ to simulate real-life wear conditions. Please see page 78 for the range.

### Features:

- Stroke lengths of 0.5, 1.0, 3.0 and 4.0" ( 12.7, 25, 76 and 102mm)
- Variable stroke speed from 2 - 75 cycles per minute
- Preset stroke speed buttons for 2, 15, 25, 30, 40 and 60 cycles per minute
- Variable load from 350 - 2100g (12.4 - 74.1oz) with optional weights
- Stainless steel Wearaser™ holder (Collet) for use with vitrified or resilient Wearasers™
- Laser alignment guide



### Technical Specification

Part Number	Description
<b>ST985750</b>	Elcometer Taber® 5750 Linear Abraser (115V/230V, 60/50Hz)
Dimensions	208 x 228.6 x 279.4mm (20 x 9 x 11")
Weight	10kg (22lb)
Packing List	Elcometer Taber® 5750 Linear Abraser, Wearaser™ Collet and Spine Shaft, 3 x 250g (8.82oz) discs, 10 x CS-10 Wearasers™, 5 x H-18 Wearasers™, power cords (115V and 230V), allen key, Wearaser™ depth tool gauge, 50 x S-14 refacing strips, hand brush and operating instructions.

Can be used in accordance with:

AATCC Method 8, ASTM D-2197, ASTM D-5178, ASTM D-6279, ASTM F1319, EN 2267-010, EN 3745-503, ISO Method 165, ISO 105-X12

### Accessories

<b>ST131852</b>	Wearaser holder (collet) kit - aluminium
<b>ST131852-1</b>	Wearaser holder (collet) kit - plastic
<b>ST130575</b>	Scratch kit - stainless steel (includes conical diamond tool - 3mil and x7 measuring magnifier)
<b>ST131604</b>	ISO Scratch kit - aluminium (includes conical diamond tool - 3.5mil and x7 measuring magnifier)
<b>ST121006</b>	Conical diamond tool with 90°, 76.2µm (3 mils) radius point (for use with Scratch kit)
<b>ST121006-1</b>	Conical diamond tool with 90°, 88.9µm (3.5 mils) radius point (for use with Scratch kit)
<b>ST131716-1</b>	Coin holder attachment 45° (for use with Scratch kit)
<b>ST131716-2</b>	Coin holder attachment 60° (for use with Scratch kit)
<b>ST131716-3</b>	Coin holder attachment 75° (for use with Scratch kit)
<b>ST130570</b>	Crockmeter kit (includes finger, clamp ring and cloths)



## Elcometer Taber® 5135 & 5155 Rotary Abrasers

Used primarily in the testing of ceramics, plastics, textiles, metals, leather, rubber and painted, lacquered and electroplated surfaces, accelerated wear test procedures have also been written into many test specifications including ASTM, ISO, TAPPI and DIN - as well as automotive manufacturing procedures around the world.

The Taber® Rotary Abraser is an industry standard used in the wear and durability testing and is available with either a single test head or dual testing heads, which allows the user to test two different or identical materials simultaneously.

Choose from a wide variety of abrading wheels and abraser accessories to simulate real-life wear conditions - See Page 78.

### Features :

- Platform speeds 60 and 72rpm
- Balanced, calibrated arms and wheel mounts
- Vacuum system with precision height adjustment
- Sealed aluminium housing with membrane control panel and digital display



### Technical Specification

Part Number	Description
EUR/UK 230V US 115V	
ST985135-2 ST985135-1	Elcometer Taber® 5135 Single Head Abraser
ST985155-2 ST985155-1	Elcometer Taber® 5155 Dual Head Abraser
Dimensions & Weights	Elcometer Taber® 5135: 279.4 x 406.4 x 279.4mm (11 x 16 x 11") 19.5kg (43lbs)
	Elcometer Taber® 5155: 482.6 x 355.6 x 279.4mm (19 x 14 x 11") 31.75kg (70lbs)
	Vacuum unit: 279.4 x 279.4 x 609.6mm (11 x 11 x 24") 10kg (22lbs)
Packing List	Elcometer Taber® Abraser, auxiliary weights - 1 x 500g (17.64oz) load and 1 x 1000g (35.27oz) load, specimen holder 109.2mm (4.3") O/D (E-100-125), holding down ring (E-100-101), 100 x refacing discs (S-11), Calibrase® Wheel set (CS-10), Calibrade® Wheel set (H-18), vacuum unit with suction hose, round brush and operating instructions

### Can be used in accordance with:

AATCC Method 8, ASTM C217, ASTM C241, ASTM C501, ASTM C1353, ASTM D1044, ASTM D-2197, ASTM D3389, ASTM D3384, ASTM D4060, ASTM D4158, ASTM D-5178, ASTM D5342, ASTM D5650, ASTM D-6279, ASTM F1319, ASTM F362, ASTM F510, ASTM F1478, DIN 52347, DIN 53109, DIN 53754, DIN 53799, DIN 68861T2, EN 2267-010, EN 3745-503, EN 438-2, FEDERAL TT-C-542, FEDERAL TT-E-487A, FEDERAL TT-P-85C, FEDERAL TT-P-87B, FEDERAL TT-P-918B, FEDERAL TT-P-95A, FEDERAL TT-P-141B, FTMS CCC-T-191 (Methods 5306 & 5309), FTMS GG-P-455B; ISO 5470, ISO 9352; ISO/DIS 3537, ISO/DIS 4586-2, ISO/DIS 7784-2, ISO Method 165, JIS A1453, JIS K7204, JIS L-P-406 (Method 1091), JIS L-P-406 (Method 1091), JIS P8125, MILITARY MIL-A-8625, MILITARY MIL-C-13495A, MILITARY MIL-I-43553A, MILITARY MIL-M-13231C, MILITARY MIL-P-18493, MILITARY MIL-T-28800C, NFB51-282, SAE J365, SAE J948, SAE J1530, SIS 923509

## Taber® Abrading Wheels and Wearasers™

Taber® Abrading Wheels are available in five levels of abrasiveness to suit a wide range of material testing applications.

Wool, felt or plain rubber wheels test delicate materials or abrasiveness of materials such as dental powders.

Wheels featuring abrasive particles in a resilient matrix of rubber or a hard matrix of vitrified clay are suitable for stiffer materials.

- **Calibrase®:** resilient abrasive wheel - rubber and aluminium oxide
- **Calibrade®:** a non-resilient abrasive wheel - vitrified clay and silicon carbide
- **Wool Felt:** contains no abrasive particles
- **Plain Rubber:** contains no abrasive particles unless used with sandpaper strips
- **Tungsten Carbide:** severe cutting and tearing action with helical teeth for use on resilient materials such as rubber, leather and floor coverings



### Technical Specification

Part Number	Description	Abrasive Action	Composition
	Elcometer Taber™ 5135 and 5155 Rotary Abrasers (2 wheels)		
ST125321	CS-10F Resilient Wheel Set	Very Mild	Rubber and Abrasive Grain
ST125320	CS-10 Resilient Wheel Set	Mild	Rubber and Abrasive Grain
ST125322	CS-17 Resilient Wheel Set	Harsh	Rubber and Abrasive Grain
ST125323	H-10 Non-resilient Wheel Set	Coarse	Vitrified Clay
ST125324	H-18 Non-resilient Wheel Set	Medium, Coarse	Vitrified Clay
ST125325	H-22 Non-resilient Wheel Set	Very Coarse	Vitrified Clay
ST125326	H-38 Non-resilient Wheel Set	Very Fine, Hard	Vitrified Clay
ST125344	CS-0, S-32 Resilient Wheel Set	Very Mild	Non-Abrasive Rubber
ST125564	S-42 Resilient Wheel Set	Medium	Sand Paper Strips
ST121124	S-33 Resilient Wheel Set	Fine	Sand Paper Strips
ST125319	CS-5 Resilient Wheel Set	None	Wool Felt
ST125345	S-35 Non-resilient Wheel Set	Severe Cutting	Tungsten Carbide
	Elcometer Taber™ 5750 Linear Abrader Wearaser™		
ST130684	CS-10F Resilient Abrader (pack of 10)	Very Mild	Rubber and Abrasive Grain
ST130685	CS-10 Resilient Abrader (pack of 10)	Mild	Rubber and Abrasive Grain
ST130686	CS-17 Resilient Abrader (pack of 10)	Harsh	Rubber and Abrasive Grain
ST130681	H-18 Non-resilient Abrader (pack of 5)	Medium, Coarse	Vitrified Clay
ST130682	H-22 Non-resilient Abrader (pack of 5)	Very Coarse	Vitrified Clay

**Elcometer Taber® 5135 & 5155 Accessories**



**Multi-Media Attachment**

Part Number: **ST985500**

This attachment is used to recreate contact surface wear caused by liquids, fluids and powders. Measure the abrasivity of materials including paints, pigments, adhesives, sealants, pastes, additives etc.

If you require either the Elcometer 5135 or 5155 ready assembled with the Multi-Media Attachment, please contact Elcometer.



**Grit Feeder Attachment**

Part Number: Model 155 **ST980503-1** Model 255 **ST980503-2**

Provides a unique method to evaluate 3-body abrasion resistance on a variety of materials. Aluminium oxide grit particles are evenly distributed onto the specimen wear path and pass under a pair of leather wheels. This loose grit acts as an abradant aiding the action that contributes to the physical breakdown of materials.

The Abraser Vacuum is attached to the grit feeder and continuously removes both abraded material and used grit.

The Grit distributor and vacuum removal nozzle heights are adjusted using a thumbscrew.

Two versions are available, Model 155 and Model 255. The Model 155 uses an alignment guide screw to set the position of the instrument. An alignment block is incorporated into the base of Model 255, to ensure the correct location of the grit feeder in relation to the Abraser.

Both models are supplied complete with:

- Leather wheel set (S-39)
- #240 Aluminium oxide (S-41)
- Standardisation Plates (S-38)
- Alignment guide and mounting hardware



**Sample Cutter**

Part Number: **ST985000**

The Model 5000 Sample Cutter will cut precise 106mm (4.2") circular sample with a 6.35mm (0.25") centre hole to prepare your specimens for use with the Taber Abrasers.

An easy counter-clockwise cutting motion allows you to cut a variety of materials. Optional pads allow cutting thicknesses of 0.03mm (0.001") to 6.35mm (0.25") are available.

## Elcometer Taber® 5135 & 5155 Accessories



### Quiet Cabinet

Part Number:

**ST128372**

Complete 115V - both upper and base cabinets

**ST129497**

Complete 230V- both upper and base cabinets

**ST128371**

Base unit only 115V - includes vacuum unit

**ST129498**

Base unit only 230V - includes vacuum unit

**ST128370**

Upper unit only - work space and viewing window

Comprising an upper and lower unit, this solid wood cabinet is suitable for use in a laboratory environment and achieves an approximate 20% reduction in operating sound level.

The top cabinet provides a convenient, dust-free work space for the Abraser and features a Plexiglas® viewing window to monitor testing and removable front for easy transfer of the Abraser in and out of the cabinet.

The base cabinet holds the Abraser Vacuum Unit and includes an inbuilt exhaust system for effective air circulation.

Both cabinets offer ample room to store test specimens, supplies and accessories.

The Quiet Cabinet can be purchased as a complete unit or the top and base separately. The lower cabinet exhaust system is available for 115V/60Hz or 230V/50Hz.



### Calibration Verification Kit

Part Number:

**ST132030**

A cost effective method that enables users to verify that an instrument is in calibration, or requires attention. Each kit is individually calibrated providing a reliable check system.

Kit allows you to verify:

- Longitudinal alignment of abraser arm
- Transverse alignment of abraser arm
- Wheel tracking and wear pattern
- Bearing integrity (tracking pattern compliance)
- Vacuum nozzle orifice size
- Minimum vacuum nozzle suction force

Supplied complete with:

- S-30 Weartrac precision wheels (x1 set)
- S-45 Wheel tracking cards (x15)
- Vacuum nozzle suction and orifice gauge
- Vacuum nozzle O-ring
- Dual unit vacuum plug
- Taber® Abraser clean-up hose



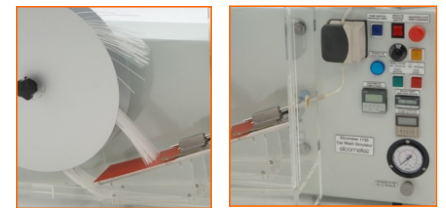
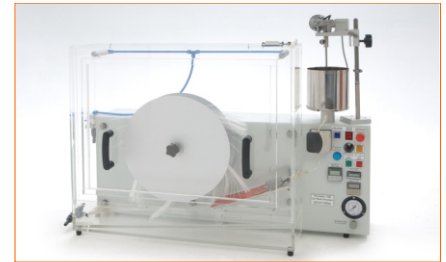
## Elcometer 1730 Car Wash Simulator

This unique, affordable abraser is designed to simulate the accelerated abrasion caused by automatic car washers around the world.

The sample to be tested is held at a predetermined angle and subjected to the rotating action of the abrasive fibres. Once the cycle speed and number of rotations has been set, the instrument simulates the effect of abrasion by the fibres in either wet or dry conditions.

A reservoir, complete with integrated stirring paddles, provides a means to test the abrasive effect of solutions, detergents and contaminants. The peristaltic pump and compressed air feed ensures a controlled flow of liquid is distributed uniformly across the test sample.

The effect of the abrasion can be quantified by measuring the change in gloss using a glossmeter. For information on glossmeters see page 108 - 112.



Complying with the relevant standards and test methods of Peugeot-Citroën (PSA), Renault-Nissan, Fiat, Lancia and Alfa-Romeo, the Elcometer 1730 Car Wash Simulator can be used to test coatings, plastics, glass, rubber and all other external vehicle body components.

- Self-contained, desktop unit with door open safety cut-off
- Test sample is visible at all times during the test cycle with integrated cabinet-cleaning water jets
- Fully adaptable for a wide range of carwash fibres and other materials
- The effect of a wide range of solvents and abrasive mixtures simulating real life conditions
- Automatic stop upon completion of predetermined cycle count
- Rapid sample replacement fixture
- Clear and easy to use control system

### Technical Specification

Part Number	Description
UK240V / EUR220V US 110V	
<b>K0001730M002</b>	<b>K0US1730M002</b> Elcometer 1730 Car Wash Simulator
Dimensions	1100 x 800 x 500mm (43 x 31.5 x 20")
Weight	80kg (176lb)
Packing List	Elcometer 1730, abrasive solution tank, flexible tube for peristaltic pump, one set of fibres, fibre cutting tube with cutter, mains lead and operating instructions

### Accessories

<b>KT001730P307A</b>	Slide support for fibres	<b>KT001730P601A</b>	Calibrated tube for cutting fibres to length
<b>KT001730P602</b>	Fibre fixing collar	<b>KT001730P016</b>	Bunch of 900mm (35.4") PSA fibres - approx 3000 fibres

## Elcometer 1700 Falling Sand Tester

The Falling Sand tester is a rugged and sturdy instrument, used to measure the resistance to abrasion of paints and lacquers.

Standardised sand is contained in a hopper which is connected to a guide tube. Test pieces are fixed at a 45° angle, 25mm (0.98") from the base of the tube, where the wear can be observed.

The sand is allowed to fall, at a controlled rate, onto the test piece which must have a known coating thickness.

The resistance to abrasion is measured when the substrate is revealed and measured by the amount of sand required to wear through the coating.



### Technical Specification

Part Number	Description
<b>K0001700M001</b>	Elcometer 1700 Falling Sand Tester
Dimensions	179 x 33 x 40cm (70 x 12.9 x 15.7")
Weight	20kg (44lb)
Packing List	Elcometer 1700 Falling Sand Tester and operating instructions

*Can be used in accordance with:*

**ASTM D 333, ASTM D 968, ASTM D 2205, Federal 141A, Federal 6191, JIS H 8503, JIS H 8682-3**

### Accessories

<b>KT001700N001</b>	Ottawa ASTN Standardised Sand - 23kg (50.7lb)
<b>KT001700N002</b>	CEN DIN EN 196-1 Standardised Sand - 50kg (110lb)
<b>KT001700N003</b>	Artificial Corundum - NF Standard Bag - 5kg (11lb)
<b>KT001700P001</b>	Glass Tube for Falling Sand Tester