

elcometer® 1720 Abrasion, Scrubbing & Washability Tester

Can be used in accordance with: ASTM D 4213-96, ASTM F 1319, ASTM D 4213-92, ASTM D 4828, ASTM D 3450, ASTM D 2486, DIN 53778, ISO 11998, ISO 105X12, EN 60730, Renault / PSA D45 1010



This robust, reliable and extremely flexible machine has been designed for testing the washability, brushability and abrasion resistance of a wide range of materials, including; paint, lacquers, inks, coatings, leather, wood, plastics, printed material, fabrics, etc.

The Elcometer 1720 is available in two versions:

- 2 working stations - undertakes two tests at the same time.
- 4 working stations (as shown in picture) - allows the operator to test up to 4 samples, or 4 different tests at the same time, dramatically increasing your productivity.

A kit is also available - allowing you to upgrade your 2 working station model to a 4 working station model

Simple to use and adaptable, the Elcometer 1720 has a large amount of functionality built in, including:

- **Double Counter** - Double function and independent displays make it easy to repeat and follow test sequences:
 - pre-selection count function - set the number of cycles desired per sequence and leave the machine to automatically stop.
 - total count function - indicates the total number of cycles after one or several sequences.
- **Variable Speeds** - with two interchangeable operating modes, the machine's performance can be optimised according to the type of tests:
 - fixed speed mode - 37 cycles per minute (ASTM, DIN, ISO and EN test methods).
 - variable speed mode - the operator can select a speed from 15 to 65 cycles per minute. (1 cycle = 1 motion back and forth of the carriage).
- **Carriage** - the carriage is designed with multiple functionality:
 - adjustable stroke length - user defined stroke length from 30 to 290mm (1.2 to 11.4").
 - test tool locator - the brushes or abrasive pads are located in the chambers and are guided without superfluous devices or mechanisms, making it easy to install or remove alternative test tools.
- **Individual Dosers** - using this device the flow of test liquids can be regulated for each test location, independently.
- **Rapid Specimen Fastening System** - aluminium frames are held in place by quick release clamps. Each frame is fitted with a gasket which both enclose and divide the test specimen - allowing effective and comparative tests to be carried out simultaneously.
- **Chassis** - made from thick anodised aluminium, the Elcometer 1720 is both self supporting and robust, giving complete confidence in the durability of the machine, no matter how long the test period.

The Elcometer 1720 is equipped with either 2 or 4 working stations, each path separated by a water-tight gasket frame. This design enables up to 2 or 4 simultaneous comparative tests to be carried out. Dimensions are adapted so that 2 strokes of different products can be positioned onto a same specimen, e.g. PVC Leneta test panel. As a result a substantial economy of consumables can be achieved. For this purpose, the optional Elcometer 3508/1 2 Reservoir Film Applicator facilitates the sample preparation.

Equipment Included in the Elcometer 1720

	Number Supplied	
	2 station model	4 station model
Peristaltic pump of test solution	1	1
Individual flow doser	2	4
Brush, sponge or abrasive pad with holder.	2 from a choice of tool numbers 1 – 6	4 from a choice of tool numbers 1 – 6
Stainless steel solution reservoir	1	1
Aluminium Frame with gasket and fastening – dividing the panel into 2 stations	1	2
Quick Release Clamps	2	4
Shim 250µm thick, 12.7mm wide	1	2
Pre-selection counter for automatic stop	1	1

The Elcometer 1720 can undertake tests according to a wide range of different standards or test methods, by simply changing the abrasive tools.

Tool 1: DIN 53778 (replaced by EN ISO DIN 11998 in Dec 2001) Wild boar hair brush and stainless steel brush holder, standardised mass: 250g

Tool 2: ASTM D2486 Nylon bristle brush and stainless steel brush holder, standardised mass: 454g

Tool 3: ASTM D4213-92 / D4828 Sponge and stainless steel brush holder, standardised mass: 500g

Tool 4: ASTM D3450 Sponge and stainless steel brush holder, standardised mass: 750g

Tool 5: ASTM 4213-96 Sponge and stainless steel brush holder, adapted mass: 232g and sponge (with 2 integrated abrasive pads - one on each side)

Tool 6: EN ISO DIN 11998 Aluminium holder, standardised mass: 135g, and abrasive pad

Tool 7: Polyvalent Holder Stainless Steel holder, fitted with a fastening screw to fix abrasive textile or paper, and other similar materials as well. mass: 454g

Tool 8: Renault D45 1010, ISO 105X12, ASTM F1319, EN 233 Also known as the "Crockmeter", specially designed for testing colour fastness of fabrics. Assembly including adapter, removable stainless steel cylindrical rod (200g), test felt or textile fixing ring and a set of additional weights: 2 x 100g; 1 x 100g; 1 x 500g

Tool 9: GME 60269 Tool for testing the resistance to abrasion of automotive components - similar to the "Crockmeter" but holding a felt disc of 10mm (0.4") diameter and 10mm (0.4") thick, working under a mass of 400g

Tool 10: EN 60730 (resistance to markings) Assembly for testing the quality of markings or similar coatings. A felt rubs the test surface over a length of 30mm (1.2"), under standardised time, speed and load conditions. The assembly is screwed into the carriage. Comes complete with a height adjustable arm fastening the felt disc, a rod for holding the weights, and thanks to the combination of weights supplied, the test load can be varied between 150 - 1700g in 50g steps.

Part Numbers

Model	Description	Part Number
Elcometer 1720/3	Abrasion / Scrub & Washability Tester - 2 station	K0001720M003
Elcometer 1720/4	Abrasion / Scrub & Washability Tester - 4 station	K0001720M004
Accessories	Washability Upgrade Kit of 2 stations (1720/3 model only)	KT001720N001
	Tool No 1: DIN 53778 – Wild Boar Brush & Holder	KT001720P003
	Tool No 2: ASTM D2486 - Nylon Brush, Holder & Mass	KT001720P030
	Tool No 3: ASTM D 4213-92/4828 – Sponge, Holder & Mass	KT001720P005
	Tool No 4: ASTM D3450 – Sponge, Holder & Mass	KT001720P073
	Tool No 5: ASTM D4213-96 – Sponge/Abrasive, Holder & Integrated Mass	KT001720P029
	Tool No 6: ISO 11998 – 5 x Abrasive Pad & Holder	KT001720P036
	Tool No 7: Polyvalent Holder with fastening screw	KT001720P007
	Tool No 8: "Crockmeter" Renault D45 1010, ISO 105X12, ASTM F1319	KT001720P074
	Tool No 9: GME 60269 – Abrasion for automotive components kit	KT001720P075
	Tool No 10: EN 60730 Resistance to Markings Accessories kit	KT001720N003
	See the accessories link for further accessories	

Accessories

Wild Boar Brush - DIN 53778	KT001720P004
5 x Sponges - ASTM D4213-92	KT001720P006
10 x Abrasive Pad - ISO 11998	KT001720P037
Felt disks for EN60730 std device 2pcs	KT001720P062
Complete stainless steel pad with abrasive sheet	KT001720P007
Abrasive sheet 25m roll – for K1720P007	KT001720P008
4 x Abrasive sheet - Grit 120	KT001720P051
Nylon Brush - ASTM D 2486	KT001720P009
Scrub medium SC2 abrasive type	KT001720N002
Self adhesive gasket for frame - 10m length	KT001720P013
Glass plates 6pcs - Face matt	KT001720P014
Check Weight - 227g, ½ lb	KT001720P031
Check Weight - 500g, 17.6oz	KT001720P019
Leneta Scrub Test Panels	Leneta Scrub Test Panels