

elcometer®
inspection equipment



Elcometer 5135 & 5155
Rotary Abrasers

Elcometer 5135 & 5155 Taber® 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.

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



STANDARDS:

ANSI INCITS 322, AS/NZS 1580.403.2, AS/NZS 4266.2, ASTM C1353, ASTM C217, ASTM C241, ASTM C501, ASTM D1044, ASTM D3389, ASTM D3884, ASTM D4060, ASTM D6037, ASTM D-7255, ASTM F1478, ASTM F1978, ASTM F362, ASTM F 510, BS 5599, DIN 52347, DIN 53109, DIN 53754, DIN 53799, DIN 68861-2, ECCA T16, EN 13329, EN 13523-16, EN 14323, EN 14327, EN 14354, EN 14431, EN 14688, EN 14864, EN 1504-2, EN 438-2, EN 660-2, EN 13696, FORD BN108-02, GM9515P, ISO 10074, ISO 14656, ISO 24338, ISO 3537, ISO 4586-2, ISO 5470-1, ISO 7784-1, ISO 7784-2, ISO 9352, JIS A 1453, JIS H 8503, JIS K 5600-5-8, JIS K 5600-5-9, JIS K 6404-22, JIS K 6902, JIS K 7205, NEMA LD 3, NF Q03-055, SAE J 1530, SAE J 1847, SAE J 365, SAE J 948, SIS 923509, SS 923509, TAPPI T 476, UNE 135203-1, UNE 48250, UNE 56842, UNE 56843, UNE 56868, UNE 57095

Technical Specification

Part Number	Description	Certificate
UK/EUR 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 x 406 x 279mm (11 x 16 x 11"), 19.50kg (43lb)	
	Elcometer Taber® 5155: 482 x 355 x 279mm (19 x 14 x 11"), 31.75kg (70lb)	
	Vacuum unit: 279 x 279 x 610mm (11 x 11 x 24"), 10.00kg (22lb)	
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, power leads (115V and 230V) and operating instructions	



For the complete range of Accessories, see pages 3 - 5

• Calibration Certificate supplied as standard.

Abrading Wheels

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
- **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

Elcometer 5135 & 5155



Technical Specification

Elcometer 5135 and 5155 Taber® Rotary Abrasers (2 wheel set)

Part Number	Description	Abrasive Action	Composition
ST125319	CS-5 Resilient Wheel (Pack of 2)	None	Wool Felt
ST125321	CS-10F Resilient Wheel (Pack of 2)	Very Mild	Rubber and Abrasive Grain
ST125320	CS-10 Resilient Wheel (Pack of 2)	Mild	Rubber and Abrasive Grain
ST125322	CS-17 Resilient Wheel (Pack of 2)	Harsh	Rubber and Abrasive Grain
ST125345	S-35 Non-resilient Wheel (Pack of 2)	Severe Cutting	Tungsten Carbide
ST125323	H-10 Non-resilient Wheel (Pack of 2)	Coarse	Vitrified Clay
ST125324	H-18 Non-resilient Wheel (Pack of 2)	Medium, Coarse	Vitrified Clay
ST125325	H-22 Non-resilient Wheel (Pack of 2)	Very Coarse	Vitrified Clay
ST125326	H-38 Non-resilient Wheel (Pack of 2)	Very Fine, Hard	Vitrified Clay
ST125344	CS-0, S-32 Resilient Wheel (Pack of 2)	Very Mild	Non-Abrasive Rubber
ST125564	Sand Paper Strips for use with CS-0, S-42	Medium	Sand Paper Strips (pack of 100)
ST121124	Sand Paper Strips for use with CS-0, S-33	Fine	Sand Paper Strips (pack of 100)

For use with the Elcometer 5135 & 5155 Taber® Rotary Abrasers, see page 2



Elcometer 5135 & 5155 Taber® Rotary

Accessories



Multi-Media Attachment

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

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

Part Number: [ST985500](#)



Sample Cutter

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

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

Part Number: [ST985000](#)



Grit Feeder Attachment

Provides a unique method to evaluate 3-body abrasion resistance on a variety of materials. Aluminium oxide grit particles are evenly distributed on to 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:

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

Part Number: [ST980503-1](#) Model 155

Part Number: [ST980503-2](#) Model 255

Taber® Rotary Abrasers

Quiet Cabinet

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 230V/50Hz or 115V/60Hz.

Elcometer 5135 & 5155



Technical Specification

Part Number	Description
ST129497	Complete 230V - both upper and base cabinets
ST128372	Complete 115V - both upper and base cabinets
ST129498	Base unit only 230V - includes vacuum unit
ST128371	Base unit only 115V - includes vacuum unit
ST128370	Upper unit only - work space and viewing window

Calibration Verification Kit

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
- S-30 Weartrac precision wheels (x1 set)

Supplied complete with:

- 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



Technical Specification

Part Number	Description
ST132030	Calibration Verification Kit



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