

Taber® 5135 & 5155 Rotary Abrasers



Taber® 5135 & 5155 Rotary Abrasers



At a glance

- Available with either single or dual heads.
- Wide range of abrading media.
- Conforms to a wide range of standards

Can be used in accordance with:	
ASTM	C217; C241; C501; C1353; D1044; D3389; D3884; D4060; D4158; D5342; D5650; F362; F510; F1478
DIN	52347; 53109; 53754; 53799; 68861 T2
EN	438-2, 13523-16
FEDERAL	TT-C-542; TT-E-487A; TT-P-85C; TT-P-87B; TT-P-91B; TT-P-95A; TT-P-141B
FTMS	CCC-T-191 (Methods 5306 & 5309); GG-P-455B
ISO	5470; 9352
ISO/DIS	3537; 4586-2; 7784-2
JIS	A1453; K7204; L-P-406(Method 1091); P8125
MILITARY	MIL-A-8625; MIL-C-13495A; MIL-I-43553A; MIL-M-13231C; MIL-P-18493; MIL-T-28800C
NF	B51-282
SAE	J365; J948; J1530
SIS	923509

Taber® 5135 & 5155 Rotary Abrasers

The Taber® Abraser is an industry standard used in the wear and durability testing of ceramics, plastics, textiles, metals, leather, rubber and painted, lacquered and electroplated surfaces.

Accelerated wear test procedures using the Taber® Abraser have 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 available with either a single test head or dual testing heads, which allow the user to test two different or identical materials simultaneously, for comparison and contrast - doubling the productivity of the operator. A linear abramer is also available - the Taber® 5750 for testing small items and curved items.

Choose from a wide variety of abrading wheels and abramer accessories to simulate real-life wear conditions.

Each instrument comes complete with:

- Auxiliary Weight - 500g load
- Auxiliary Weight - 1000g load
- Specimen Holder, 4.3" OD (E-100-125)
- Hold Down Ring (E-100-101)
- Refacing Discs, 100pcs (S-11)
- Calibrade® Wheel Set (CS-10)
- Calibrade® Wheel Set (H-18)
- Vacuum unit with suction hose and round brush

Standard features include:

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

Washability, Brushability and Abrasion Testers

Improved mechanical resistance is part of today's quality requirements. One important criteria for assessing this feature is abrasion resistance. Depending on the nature and purpose of the product, various testing methods are available.

There are testing methods are 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.

To meet industry's growing needs for research and control, Elcometer develops, manufactures and supplies a range of instruments designed for wear resistance tests. Standardised or conventional, these tests are widely used for numerous applications.

Model	Description	Part Number
Elcometer 5135	Single Head Rotary Abraser, 115V	ST985135-1
	Single Head Rotary Abraser, 230V	ST985135-2
Elcometer 5155	Dual Head Rotary Abraser, 115V	ST985155-1
	Dual Head Rotary Abraser, 230V	ST985155-2
Elcometer 5535	Single Head Multi-Media Abraser, 115V (assembled as Multi-Media Abraser – Rotary Abraser arms and weights not included).	ST985535-1
	Single Head Multi-Media Abraser, 230V (assembled as Multi-Media Abraser – Rotary Abraser arms and weights not included).	ST985535-2
Elcometer 5555	Dual Head Multi-Media Rotary Abraser, 115V (One head assembled as Multi-Media Abraser, the other as a Rotary Abraser).	ST985555-1
	Dual Head Multi-Media Rotary Abraser (230V) (One head assembled as Multi-Media Abraser, the other as a Rotary Abraser).	ST985555-2
Elcometer 5556	Dual Head Multi-Media Abraser, 115V (Both heads assembled as Multi-Media Abraser – Rotary Abraser arms and weights not included).	ST985556-1
	Dual Head Multi-Media Abraser, 230V (Both heads assembled as Multi-Media Abraser – Rotary Abraser arms and weights not included).	ST985556-2

Taber® Abrading Wheels & Wearasers™



Taber® Abrading Wheels & Wearasers™

Taber® Abrading Wheels & 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 the abrasiveness of materials such as dental powders. Wheels which feature abrasive particles in a resilient matrix of rubber or a hard matrix of vitrified clay are suitable for stiffer materials.

- *Calibrase®* - a resilient wheel composed of rubber and aluminium oxide abrasive particles
- *Calibrade®* - a non-resilient wheel composed of vitrified clay and silicon carbide abrasive particles
- *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 or floor coverings.

Model	Type	Composition	Abrasive Action	Rotary Abraser Wheel Set Part Number	Linear Abraser Wearaser™ Part Number
CS-10F	Resilient	Rubber and Abrasive Grain	Very Mild	ST125321	ST130684
CS -10	Resilient	Rubber and Abrasive Grain	Mild	ST125320	ST130685
CS -17	Resilient	Rubber and Abrasive Grain	Harsh	ST125322	ST130686
H -10	Non-Resilient	Vitrified Clay	Coarse	ST125323	-
H - 18	Non-Resilient	Vitrified Clay	Medium Coarse	ST125324	ST130681
H - 22	Non-Resilient	Vitrified Clay	Very Coarse	ST125325	ST130682
H - 38	Non-Resilient	Vitrified Clay	Very Fine, Hard	ST125326	-
CS - 0, S - 32	Resilient	Non-Abrasive Rubber	Very Mild	ST125344	-
S - 42	Resilient	Sand Paper Strips	Medium	ST125564	-
S - 33	Resilient	Sand Paper Strips	Fine	ST121124	-
CS - 5	Resilient	Wool Felt	None	ST125319	-
S - 35	Non- Resilient	Tungsten Carbide	Severe Cutting or Tearing Action	ST125345	-

Elcometer Taber® 5135 & 5155 Rotary Abrasers - Accessories



Multi-Media Attachment

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.

Part Number: ST985500



Grit Feeder Attachments

Provide a unique method to evaluate 3-body abrasion resistance on a variety of materials. Aluminum 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 and aids in the rolling 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.

Two versions are available, the Model 155 (shown) and the Model 255. The Model 155 uses an alignment guide screw to set the position of the instrument. Grit distributor and vacuum removal nozzle heights are adjusted using a thumbscrew. Whereas, 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)
- Standardization Plates (S-38)
- #240 Aluminum Oxide (S-41)
- Alignment Guide and Mounting Hardware

Part Numbers:

ST980503-1: Model 155

ST980503-2: Model 255

Sample Cutter

The Model 5000 Sample Cutter will cut precise, 4.2" circular samples with a ¼" center 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 you to cut materials in thickness of 0.001" to 0.25".

With a recessed cutting blade, shielded punch drive shaft, and ergonomic handle, this rugged instrument was designed for safety and can be used in any production or laboratory environment.

Supplied complete with:

- Rear support
- Five (5) heavy-duty cutting blades
- 0.187" (4.75mm) Upper pad assembly

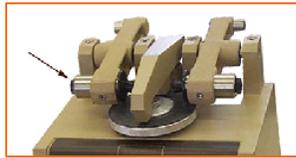
Part Number: ST985000



Diamond-Wheel Refacer

Recommended to refresh the contact surfaces of Calibrade® wheels to ensure accurate test results. It can also be used to true out of round wheels and correct 'crowning' conditions on both Calibrase® and Calibrade® wheels.

Part Number: ST980250



Quick Release Wheel Hub

An expandable collet hub design permits quick wheel mounting. Activated by a push button, a spring-loaded, beveled retaining nut provides a positive locking force on the hub retaining lip making certain that wheels remain securely fastened until disengaged. By eliminating the left and right hand locking nuts, the viewing area of the test specimen is increased and interference with the vacuum pick-up nozzle is eliminated.

Part Number: ST132950

Quiet Cabinet

Allows you to reduce the sound level of operating your Taber Abraser, by approximately 20%.



Comprised of an upper and lower unit, this solid wood cabinet is suitable for use within any laboratory environment. The upper cabinet provides a convenient, dust-free work space for your Abraser and features a Plexiglas viewing window to monitor testing, and removable front for easy transfer of Abraser into or out of the cabinet. The lower cabinet holds the Abraser Vacuum Unit and includes a built-in exhaust system to provide the proper 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 half or bottom half only. The lower cabinet exhaust system is available for 115V, 60Hz or 230V, 50Hz.

Part Numbers:

ST128372: Quiet Cabinet - complete 115V/60Hz

ST129497: Quiet Cabinet - complete 230V/50Hz

ST128370: Quiet Cabinet – Top Only

ST128371: Quiet Cabinet - Bottom Only 115V/60Hz

ST129498: Quiet Cabinet - Bottom Only 230V/50Hz

Calibration Verification Kit

A cost-effective method that enables users to verify if an instrument is in calibration or determine if the instrument should be recalibrated or repaired. Each kit is individually calibrated and provides a fast, reliable system check.

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 (1 set)
- S-45 Wheel Tracking Cards (pkg. 15)
- Vacuum Nozzle Suction and Orifice Gauge
- Vacuum Nozzle Suction O-Ring
- Dual Unit Vacuum Plug
- Taber Abraser Clean-up Hose

Part Number: ST132030



Taber Abrasers



Related Products



Elcometer 1720

This robust and easy to use Abrasion Tester is extremely flexible and is designed to test the washability, brushability and abrasion resistance of a wide range of materials, including paint, laquers, inks, coatings and much much more. Unlike most washability testers, this unit is easy to set up and is available as either a 2 or 4 station model and can measure on flat or curved surfaces.



Elcometer Taber 5750

This linear abraser uses a free floating head to follow the contours of the sample under test - making it an ideal choice for abrasion testing of any curved surface.

ENGLAND

Elcometer Ltd
Edge Lane
Manchester M43 6BU

Tel: +44 (0)161 371 6000
Fax: +44 (0)161 371 6010
e-mail: sales@elcometer.com
www.elcometer.com

USA

Elcometer Inc
1893 Rochester Industrial Drive
Rochester Hills Michigan 48309

Tel: +1 248 650 0500
Toll Free: 800 521 0635
Fax: +1 248 650 0501
e-mail: inc@elcometer.com
www.elcometer.com

CANADA

Elcometer Ltd
PO Box 622, 401 Ouelette Avenue
Windsor, Ontario N9A 6N4

Tel: +1 248 650 0500
Toll Free: 800 521 0635
Fax: +1 248 650 0501
e-mail: ca_info@elcometer.com
www.elcometer.com

ASIA & THE FAR EAST

Elcometer (Asia) Pte Ltd
896 Dunearn Rd
Sime Darby Centre #3-09
Singapore 589472,
Republic of Singapore

Tel: +65 6462 2822
Fax: +65 6462 2860
e-mail: asia@elcometer.com
www.elcometer.com

BELGIUM

Elcometer SA
Rue Vallée 13
B-4681 Hermalle /s Argenteau

Tel: +32 (0)4 379 96 10
Fax: +32 (0)4 374 06 03
e-mail: be_info@elcometer.be
www.elcometer.be

FRANCE

Elcometer Sarl
97 Route de Chécy
45430 BOU

Tel: +33 (0)2 38 86 33 44
Fax: +33 (0)2 38 91 37 66
e-mail: fr_info@elcometer.fr
www.elcometer.fr

GERMANY

Elcometer Instruments GmbH
Ulmer Strasse 68
D-73431 Aalen

Tel: +49 (0)7361 52806 0
Fax: +49 (0)7361 52806 77
e-mail: de_info@elcometer.de
www.elcometer.de