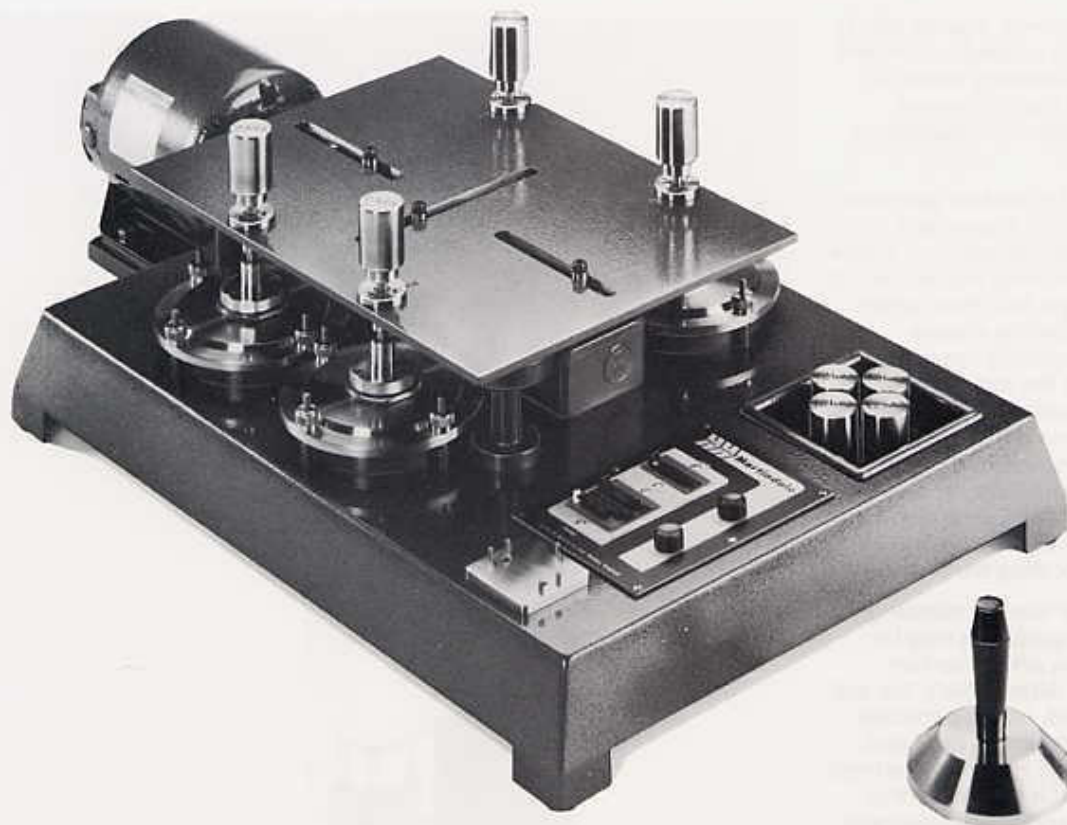


# Martindale

## wear and abrasion tester

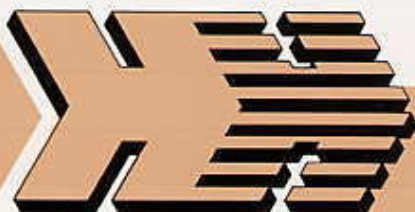


Circular specimens of fabric are rubbed against a standard abradant, under a known pressure, and the resistance to abrasion is determined by the number of rubs to breakdown or by the loss in mass of the specimens.

Four specimens are tested simultaneously. Each one is prepared and mounted separately in a sample holder. To promote even wear, specimens lighter than 500 g/m<sup>2</sup> are backed with a standard foam.

*continued overleaf*

<b>Standards</b>	B.S. 5690 : 1988 J.I.S. L 1096-1979 Marks and Spencer IWS
<b>Scope</b>	Flat woven, knitted and certain non-woven fabrics
<b>No. of Specimens</b>	4
<b>Pressures</b>	9 kPa (apparel) 12 kPa (upholstery)
<b>Exposed Area of Specimens</b>	6.45 cm <sup>2</sup>



*The right is reserved to alter the specification or modify the appearance without notice.*

# James H. Heal & Co. Ltd.

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# Martindale wear and abrasion tester

The abradant material, against which the specimens are rubbed, is clamped tightly over the abrading tables. To prevent possible metal-to-metal contact the abradant is mounted on felt backing pads.

The path traced by the test specimens over the abradant is known as a Lissajous figure. It changes from a circle to gradually narrowing ellipses, until it becomes a straight line, from which progressively widening ellipses develop, in a diagonally opposite direction, before the pattern is repeated. This continuously changing movement ensures that the surface fibres of the specimens are flexed in every direction. However, by a simple interchange of driving pegs, the Lissajous figure may be converted into a regular reciprocating motion.

There are several ways of assessing the test results. The specimens may be compared visually after a certain number of rubs. Alternatively, the test may be continued, until a particular end point is reached, e.g. until two threads are broken. However, the most objective method is to remove the specimens at intervals, condition and weigh them, so as to determine the rate of weight loss.

To ensure adequate performance of a very critical test, the instrument is well and accurately engineered. It is mounted on a rigid, steel base. The motor is set in a flexible cradle to minimize vibration and the drive is transmitted through three individual, maintenance-free gearboxes. On the control panel, there is a pre-settable counter, which stops the machine automatically after a pre-selected number of rubs, and a totaliser.

The rapid and above all accurate preparation of specimens is of the greatest importance, and for this purpose a hand-operated lever press with a 38 mm diameter cutter is supplied.

The Martindale Wear and Abrasion Tester has established itself throughout the world as the most reliable and consistent means of determining the resistance to abrasion of apparel, upholstery and certain non-woven fabrics. There are approximately 2000 machines in use.



## How to Order?

103	Martindale Wear and Abrasion Tester
05-5487	Parts to convert standard Lissajous figure into straight line motion
03-3040	Hand-operated Lever Press
03-3096	Pack (5 m) Abrasive Cloth SM25
03-3098	Pack (5 sets) Felt Pads
03-3100	Pack (50 sheets) Foam
	Specify single phase voltage and frequency