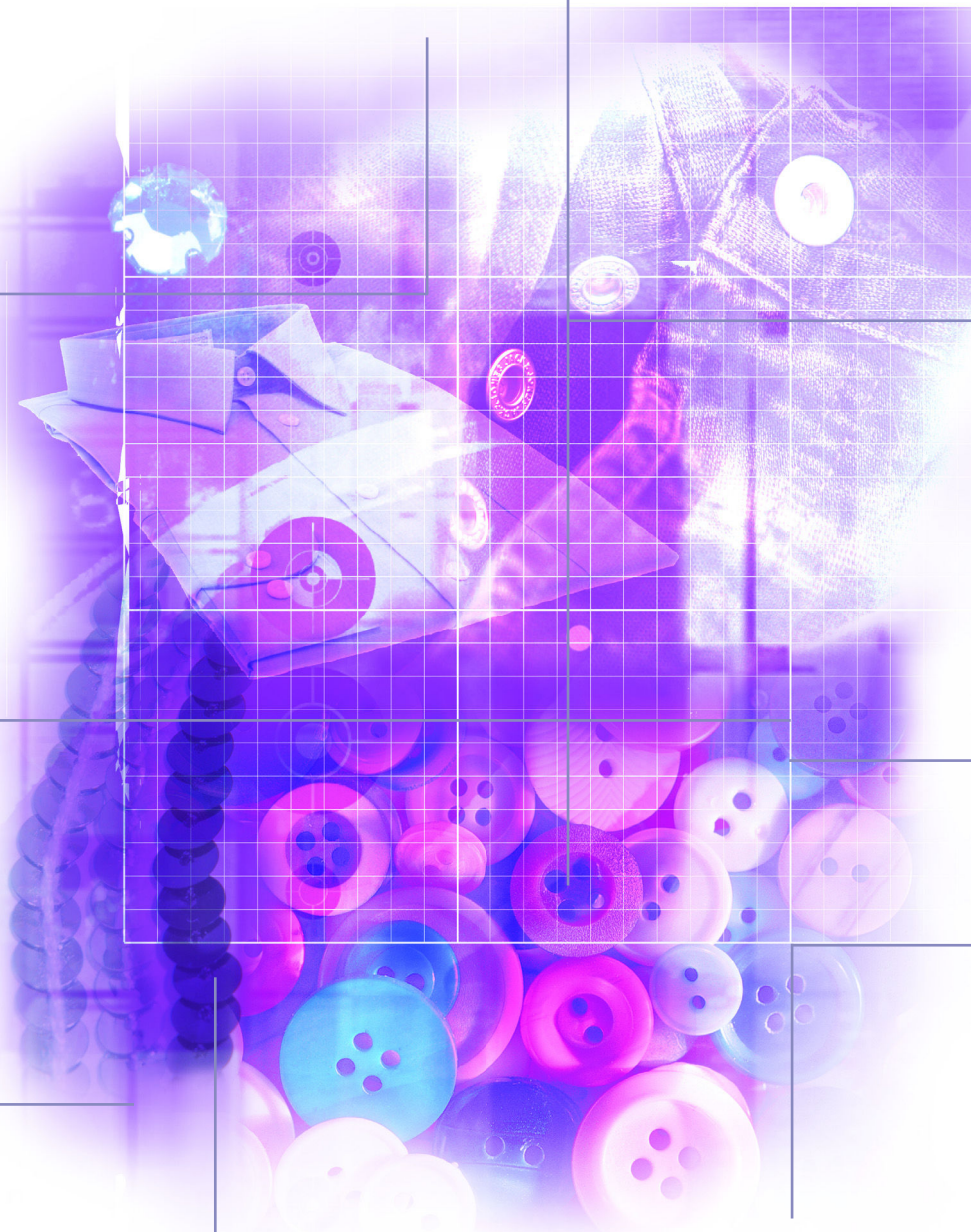


Mecmesin

testing to perfection



Force & Torque
Test Solutions for

textile attachments

What is TTF...

...to Clothing Retailers?

TTF is a way to guarantee that your ever-increasing network of global suppliers provide you with the high quality clothing that your brand is famous for.

...to Clothing Manufacturers?

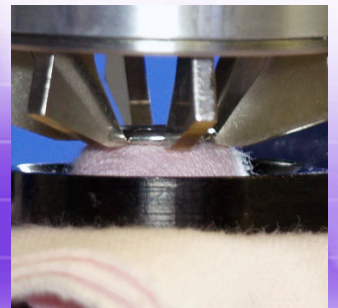
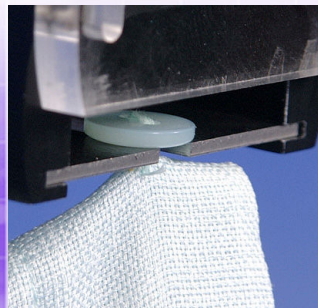
TTF is a way to demonstrate superior standards of quality assurance in production to put you head and shoulders above your competitors when it comes to winning and maintaining contracts with large international retailers.

...Technically?

TTF stands for 'test to failure', and describes the pull-off to destruction of clothing adornments such as buttons, poppers, sequins, bows and diamante decorations. Similar tests have been performed in the past in accordance with the EN 71 toys standard, but only to predetermined forces. Today the interest of suppliers, retailers and international standards authorities alike is focussed on testing to failure in order to gain irrefutable evidence of the garment's quality...or lack thereof.

...Practically?

TTF minimises the risk of infants and young children choking on textile adornments that have become detached, by ensuring sequins are secure, buttons don't budge and poppers won't pop off!



At the Heart of the Matter

Mecmesin are at the very forefront of this issue, working alongside major international retailers and manufacturers to develop a unique customised testing solution, including Marks & Spencer and Next.

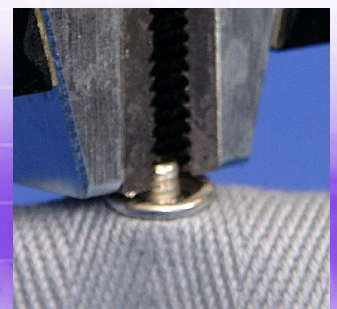
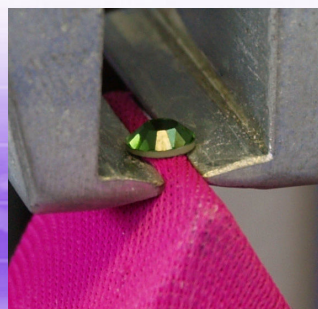
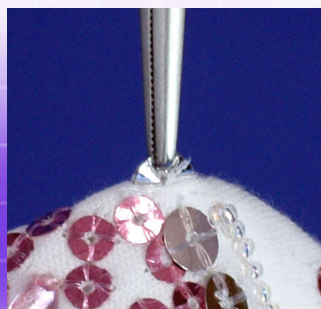
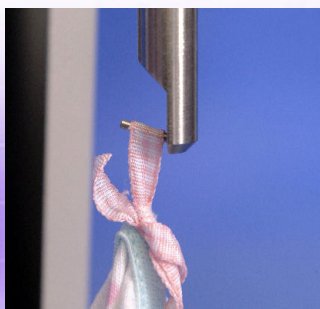
A revision of standard BS 7907 is due for release in 2007/08 that will specify 'test to failure' of textile attachments with a **motorised** testing system and associated specialised grips, all of which are immediately available from Mecmesin.

Affordable, Portable & Easy-to-Use

Whether you are testing in accordance with 'in-house' company methods or international standards, the Mecmesin TTF testing system offers a simple yet powerful solution at a price that will not blow the budget.

Globally Local

With a global distribution and support network, Mecmesin are able to offer internationally standardised high quality products and truly local sales and technical service, wherever you are in the world.



"Mecmesin provide our suppliers with test-to-failure equipment for testing the security of attachments for children's wear. They're professional and support our quality assurance and safety processes at our manufacturers by supplying simple to use total test-to-failure solutions, which fully meet the requirements of Marks and Spencer specifications."

Marks and Spencer

TTF System

Fully motorised crosshead drive system guarantees testing at constant speeds for far greater testing repeatability over manually driven alternatives.

Adjustable upper and lower limit switches.

RS232, Digimatic & analogue data output & on-board memory of up to 100 readings.

Large column length to accommodate samples up to 530mm (20.9") in height.

Small Footprint to occupy minimum bench space.

Potentiometer control of crosshead speed (range 2.5-1000mm/min)



Large, clear force display in units of N, kN, kgf, ozf, or lbf, with audible pass/fail alarms.

500N (50kgf, 110lbf) capacity force gauge resolution to 0.1N (0.01kgf, 0.02lbf), with integrated overload warning.

5000Hz internal sampling rate to guarantee accurate peak load capture.

Solid build quality, hard-wearing housing ideally suited to factory conditions.

'Manual' or 'single cycle' control mode & clear direction selection.

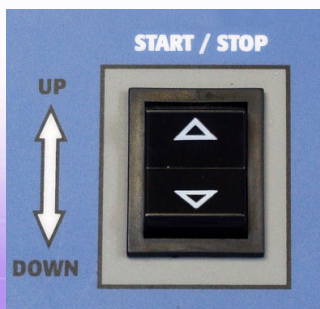


Key Benefits

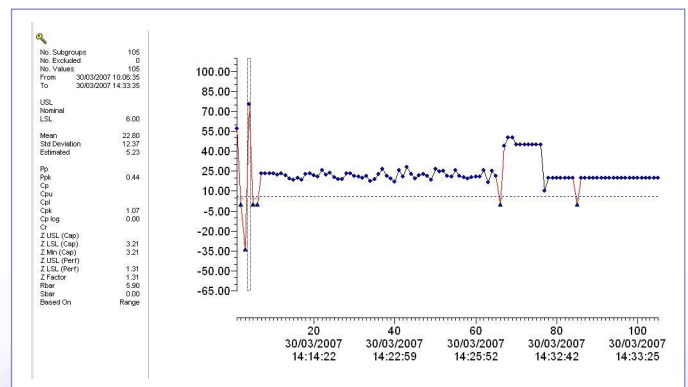
- Motorised Crosshead Travel
- Easy-to-Use
- Affordable
- Small Footprint
- Lightweight & Portable

DataStat™

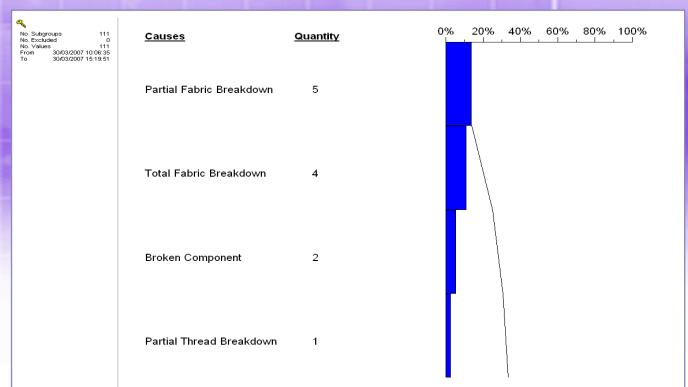
DataStat™ is the powerful and versatile, yet intuitive statistical analysis software offered by Mecmesin. At the click of a mouse the program will **automatically calculate the z-value** of your results, for simple quality compliance reporting. Additional features include a histogram and \bar{X} -bar range chart, plus the facility to record the cause of the failure of the attachment, and corrective actions.



200mm/min = TTF speed
according to M&S
method P115B



Sample screen of DataStat software showing z-value calculation



Sample screen of DataStat software showing failure cause recording

Buttons

To perform a pull-off test on a stitched button, the sample fabric is held in a Toggle Clamp mounted to the anvil plate of the TTF System.

The button is then slid into Mecmesin's specialised Button Pull Fixture, that features interchangeable location plates (with differing slot widths), and a shatter protection guard. A tensile test to destruction is performed at a constant speed to reliably capture the peak load.



Accessories Required

- 1 x 50mm Toggle Clamp
Part no. 432-176
- 1 x Button Pull Fixture
Part no. 432-175

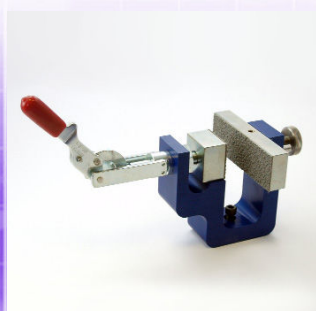
Dimensions

50mm Toggle Clamp

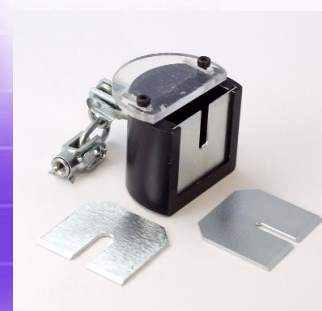
- Grip face width 25mm
- Max. material thickness 6.5mm
- Height 74mm

Button Pull Fixture

- Slot width of interchangeable location plates 3, 5 & 7mm
- Chamber depth 35mm
- Chamber width 35mm
- Height 112mm



50mm Toggle Clamp

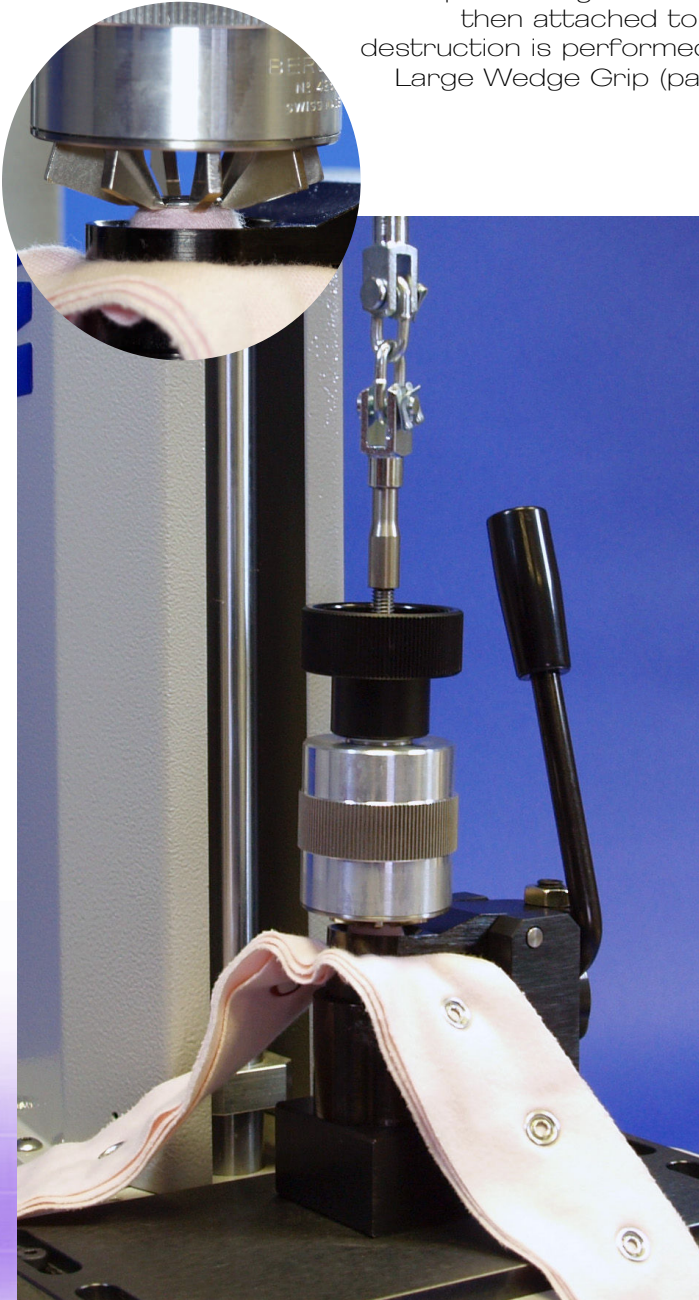


Button Pull Fixture

quality
accuracy
consistency

Poppers

To perform a pull-off test on a popper fastener, the sample is placed within the location ring on the Popper Cam Base. The Base's quick release lever is then engaged, which raises the popper proud of the fabric, presenting it to the upper fixture. The Multi-Jaw Popper Grip is then attached to the sample from above, and a tensile test to destruction is performed. In the case of S-spring poppers a Modified Large Wedge Grip (part no. 432-212) may be used as an alternative upper fixture.



Accessories Required

- 1 x Popper Cam Base
Part no. 432-179
- 1 x Multi-Jaw Popper Grip
Part no. 432-178

Dimensions

Popper Cam Base

- Location ring ID 16mm
- Height 70mm

Multi-Jaw Popper Grip

- Jaw Span 6.5-14.5mm
- Length 195mm



Popper Cam Base



Multi-Jaw Popper Grip

Bows

To perform a pull-off test on a bow decoration, the sample fabric is held in a Toggle Clamp mounted to the anvil plate of the TTF System. Both loops of the bow are then fed onto an Extended Peg Hook. Alternatively the bow and tails may be clamped into the jaws of a Cam Operated Pin Vice (part no. 432-182). A tensile test to destruction is then performed at a constant speed.



Accessories Required

- 1 x 50mm Toggle Clamp
Part no. 432-176
- 1 x Extended Peg Hook
Part no. 432-181

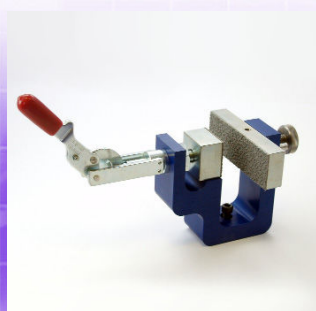
Dimensions

50mm Toggle Clamp

- Grip face width 25mm
- Max. material thickness 6.5mm
- Height 74mm

Extended Peg Hook

- Length 115mm
- Peg length 10.5mm



50mm Toggle Clamp



Extended Peg Hook



Cam Operated Pin Vice

Sequins

To perform a pull-off test on a sequin, the sample fabric is held in a Toggle Clamp mounted to the anvil plate of the TTF System. The sequin is then held in the serrated jaw of a pair of clamping forceps hooked over a stainless steel Test Hook, which together comprise the Sequin Pull-off Fixture. A tensile test to destruction is then performed at a constant speed to reliably capture the peak load.



Accessories Required

- 1 x 50mm Toggle Clamp
Part no. 432-176
- 1 x Sequin Pull-off Fixture
Part no. PV5999

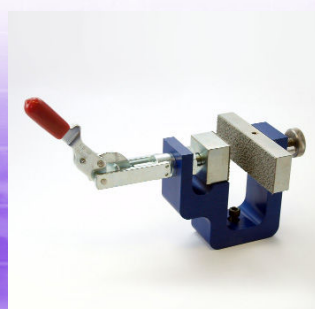
Dimensions

50mm Toggle Clamp

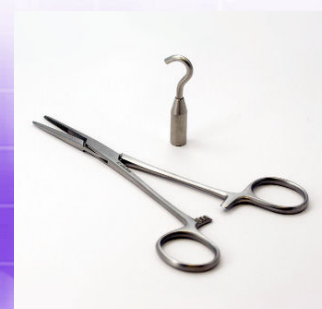
- Grip face width 25mm
- Max. material thickness 6.5mm
- Height 74mm

Sequin Pull-off Fixture

- Height 157mm
- Note, clamping force controlled by 3-position lock



50mm Toggle Clamp

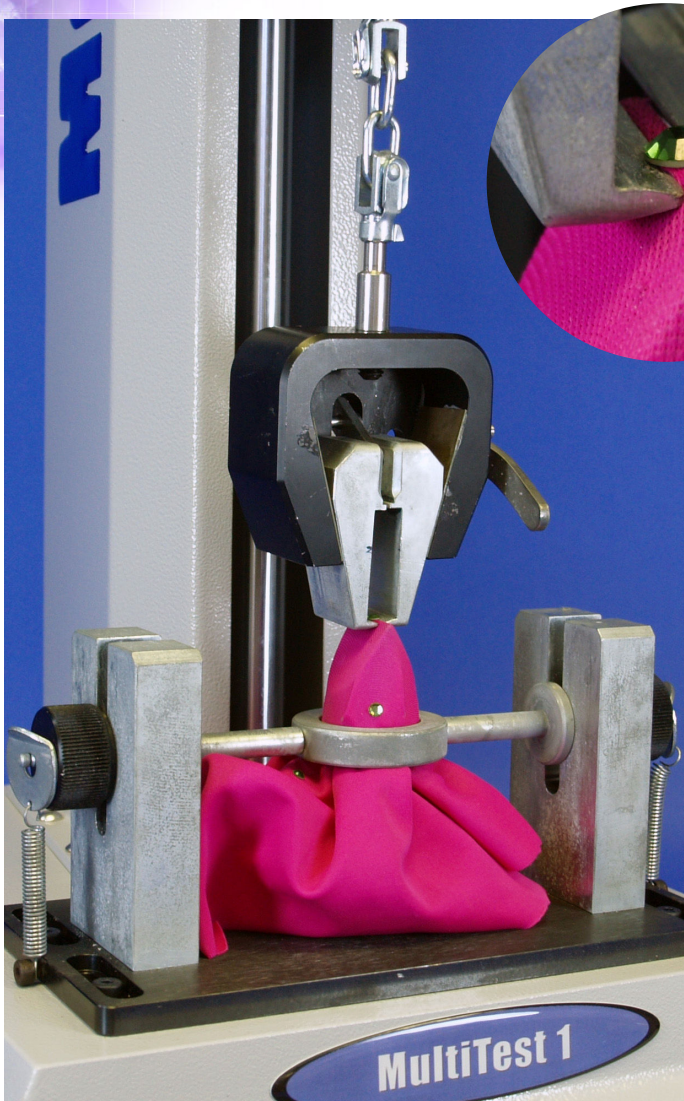


Sequin Pull-off Fixture

motorised control
affordable
portable

Diamante

To perform a pull-off test, the individual diamante is placed directly over the pointed anvil edge on the lower part of the fixture, which features a lock ring to hold the fabric in place. The upper part comprises a self-closing claw which is brought down quickly over the anvil, and then retracted at a constant test speed until it engages with the diamante and pulls it away from the material.



Accessories Required

- 1 x Diamante Fixture
Part no. PV 4067

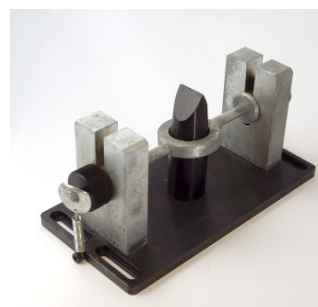
Dimensions

Lower Part

- Anvil edge width 20mm
- Effective anvil height 50mm

Upper Part

- Claw span 0-10mm
- Total height 85mm



Diamante Fixture (lower)



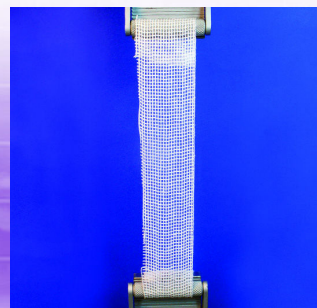
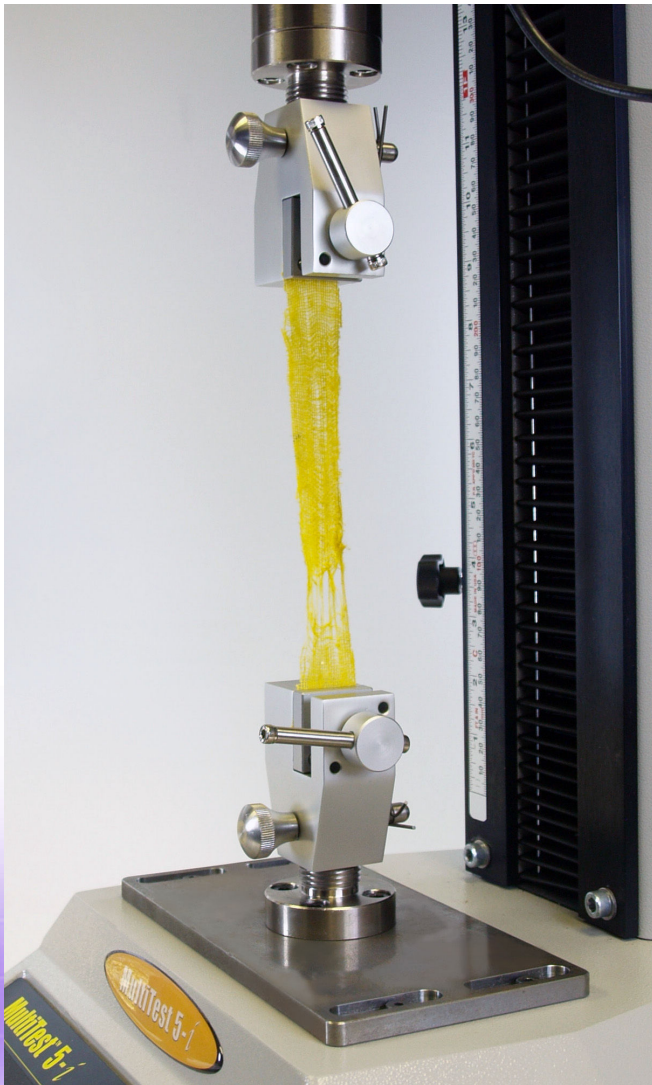
Diamante Fixture (upper)

30 years of global support
of experience

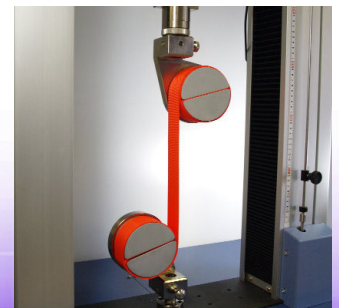
Other Applications

Aside from 'test to failure' of textile attachments, Mecmesin offers a broad range of additional solutions to quality testing applications within the textiles industry, including:

- Tensile testing
- Material strength
- Seam/stitching strength
- Belt strength
- Zip strength
- Dissociation strength of fasteners, including poppers, clasps, zips and 'hook and loop' patches
- Elongation of elastic materials



Tensile Strength Test



Belt Test



Yarn Strength Test

Mecmesin

testing to perfection

Over 30 years experience in force & torque technology

Formed in 1977, Mecmesin Ltd is today widely regarded as a leader in force and torque technology for quality control testing in design and production. The Mecmesin brand stands for excellent levels of performance and reliability, guaranteeing high quality results. Quality control managers, designers and engineers working on production lines and in research laboratories worldwide rely upon Mecmesin force & torque measurement systems for a range of quality control testing applications, which is almost limitless.

Visit us on the web at
www.mecmesin.com



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Chile	Korea	Syria
China	Malaysia	Sweden
Colombia	Mexico	Switzerland
Czech Republic	Netherlands	Taiwan
Denmark	New Zealand	Tunisia
Finland	Norway	Thailand
France	Philippines	Turkey
Germany	Poland	USA
Greece	Portugal	Venezuela
Hong Kong	Romania	Vietnam
Hungary	Russia	

Wherever you are in the world Mecmesin can help you through its global distribution network.

covering a number of sectors including



safety



aerospace



electrical



automotive



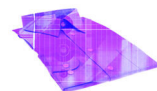
plastics



medical



packaging



textiles



pharmaceutical



ISO 9001 CERTIFICATE NUMBER FS 58553

S.I. Instruments

256 South Rd. Hilton
South Australia 5033
Ph (08) 8352 5511

info@si-instruments.com
www.si-instruments.com

DISTRIBUTOR STAMP

Head Office

Mecmesin Limited
Newton House, Spring
Copse Business Park,
Slinfold, West Sussex,
RH13 0SZ, United Kingdom,
e. sales@mecmesin.com
t. +44 (0) 1403 799979
f. +44 (0) 1403 799975

North America

Mecmesin Corporation
45921 Maries Road,
Suite 120, Sterling
Virginia 20166, U.S.A.
e. info@mecmesincorp.com
t. +1 703 433 9247
f. +1 703 444 9860

Asia

Mecmesin Asia Co. Ltd
91/1 Chaicho Building, 11th Floor,
Room 1103, Rama 9 Road, Huaykwang,
Bangkok, 10310, Thailand
e. sales@mecmesinasia.com
t. +66 2 247 46 81
f. +66 2 247 46 82

China

Mecmesin (Shanghai) Pte Ltd
Unit 18D, SiChuang Building No3,
No 600, Tian Shan Road,
Changning District,
Shanghai, People's Republic of China
e. sales@mecmesin-china.com
t. +86 21 6233 3459
f. +86 21 6233 3479