

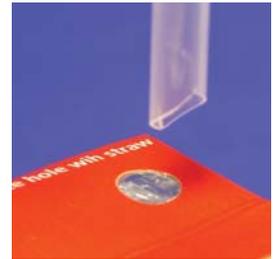
# Mecmesin

testing to perfection

## MultiTest

motorised test stands

Tension and Compression  
Test Solutions



# MultiTest Range

Mecmesin are proud to introduce the MultiTest range of motorised test stands. MultiTest stands provide a versatile and accurate method of applying tensile and compressive forces at an affordable price. Across the globe, quality control and product design centres, as well as research and education laboratories, rely upon MultiTest stands for precision force testing.

Our new generation of potentiometer-controlled test stands are available in 1kN and 2.5kN capacities. Use in conjunction with a Mecmesin digital force gauge, fixturing accessories and software to create a powerful and flexible testing system, tailored to your exact requirements.



Aerosol actuation test



Ringpull force test

## Control Precision Repeatability

The Mecmesin MultiTest stands are fitted with adjustable limit switches, automatic stand reverse/stop capability, a second safety stop and a convenient dovetail mounting system to effortlessly attach your digital force gauge within seconds. Rapid response motor control electronics provide effective breaking of the crosshead to enable precise testing of delicate samples.



Button pull-off test



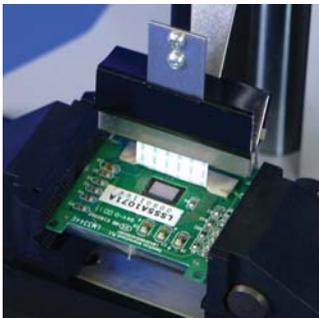
PET bottle top-load test

## Integrity Safety Security

# MultiTest 1

The MultiTest 1 is a 1kN (220lbf) test stand with a sizeable column length to accommodate samples up to 530mm (20.9in) in height and facilitate extensive elongation of smaller samples.

The stand's fully motorised crosshead drive system guarantees components are tested at constant speeds, achieving far greater testing repeatability over manually driven alternatives. The broad speed range of 2.5-1000mm/min is optimised to fulfil the requirements of most industrial tension and compression tests.



PCB component peel test



Fabric tensile test

## Features

- 1000N / 100kgf / 220lbf load capacity
- 500mm (19.7in) crosshead travel
- 2.5 - 1000mm/min (0.1-39.4in/min) speed range
- Adjustable upper and lower limit switches
- 'Manual' or 'single cycle' control mode
- Automatic stand reverse/stop capability
- Small footprint & easy to transport
- Easy-to-use front control panel



MultiTest 1, shown fitted with Advanced Force Gauge (sold separately)

Simplicity  
Durability  
Value

# MultiTest 2.5

The MultiTest 2.5, while retaining all the operational features of the MultiTest 1 is a more compact test stand with a higher load rating of 2.5kN (550lbf).

This higher force capacity makes the MultiTest 2.5 the ideal choice for quality control applications requiring mid-range tension and compression testing on samples with heights up to 350mm (13.8in).

## Features

- 2500N / 250kgf / 550lbf load capacity
- 330mm (13.0in) crosshead travel
- 2.5-750mm/min (0.1-29.5in/min) speed range
- Adjustable upper and lower limit switches
- Automatic stand reverse/stop capability
- Small footprint & easy to transport
- Easy-to-use front control panel

### Single Cycle/Manual Control Switch.

Select Single Cycle to semi-automate the test to run to a limit switch or a stop signal from the force gauge. Select Manual Control to perform test by pressing and holding start/stop switch.

### Speed Control.

Potentiometer controlled speed selection, ranging from 2.5 – 750mm/min.

### Bidirectional Start/Stop Switch

to manually initiate/halt tension or compression test.



**Emergency Stop Button** for immediate test termination.

**LED Power Indication**

**Crosshead LED** to indicate operation and direction.

# Specifications

Mecmesin's range of motorised test stands are manufactured using rigid aluminium base castings and fabricated steel housing. These provide a high degree of rigidity and strength to meet the demanding requirements of a wide range of force measurement applications, be they in the laboratory or on the factory floor.

Model		MultiTest 1	MultiTest 2.5
<b>TEST FRAME</b>			
Maximum load	N	1000	2500
	kgf	100	250
	lbf	220	550
Number of ballscrews		1	1
Speed range	mm/min	2.5-1000	2.5-750
	in/min	0.1-39.4	0.1-29.5
Speed indicated on stand		By potentiometer/graduated dial	
Throat depth**		70.5mm (2.8")	70.5mm (2.8")
Vertical daylight		590mm (23.2")	410mm (16.1")
Height		940mm (37")	750mm (29.5")
Width		290mm (11.4")	290mm (11.4")
Depth		414mm (16.3")	414mm (16.3")
Weight		19kg (42lbs)	18kg (40lbs)
Maximum power requirement		80 watts (maximum)	160 watts (maximum)
Voltage		230V AC 50Hz	230V AC 50Hz
		110V AC 60Hz	110V AC 60Hz
<b>DISPLACEMENT</b>			
Crosshead travel*		500mm (19.7")	330mm (13.0")
Maximum headroom*		530mm (20.9")	350mm (13.8")
<b>STANDARD LOAD MEASUREMENT OPTIONS</b>			
		Force gauge & dovetail bracket	
		S-Beam loadcell, tension block module & AFTI display	

\* measured with force gauge and short extension rod fitted

\*\* measured to centre line of force gauge

## Common Specifications

Up and down settings	By toggle switch
Direction of travel indicated on stand	By LED
Operating modes	Manual, single cycle
Reverse on alarm point	Yes, with appropriate force gauge
Reverse on sample break	Yes, with appropriate force gauge
Limit switch repeatability***	<0.5mm (0.02in)
Limit switch over-run at top speed	<2mm (0.08in)
Operating temperature	10-35°C / 50-95°F
Humidity range	Normal industry and laboratory conditions
Loadholding	No
Graphical representation	External software
Output of test results to PC/Printer/Datalogger	Yes - includes auto-export to Microsoft Excel™

## Options

Column gaiter (shield at front of column protects in dusty areas)  
 Extended columns  
 Extended throat depth  
 Digital display of speed/displacement  
 Machine guard  
 Horizontal operation

*available upon request*

\*\*\* at given speed (i.e. not necessarily over whole speed range)

Mecmesin reserves the right to alter equipment specifications without prior notice.  
 E&OE

# Overview

## Key features

- Greater testing repeatability compared to manual test systems
- Easy-to-use operation for production, quality control laboratory or R&D departments
- Solid build quality, suitable for use on the production floor
- CE mark -safety approved to European standards



Bevcan top-load test



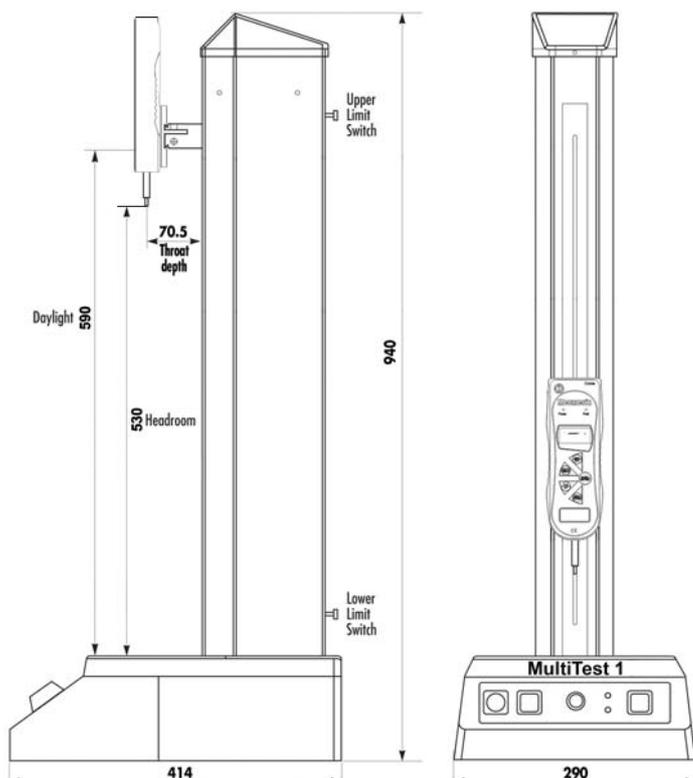
Crimp terminal test

- Single ballscrew drive for precision linear motion
- Stop and reverse of moving crosshead at sample break or alarm point
- Dynamic braking for enhanced stopping control
- Adjustable travel limit switches

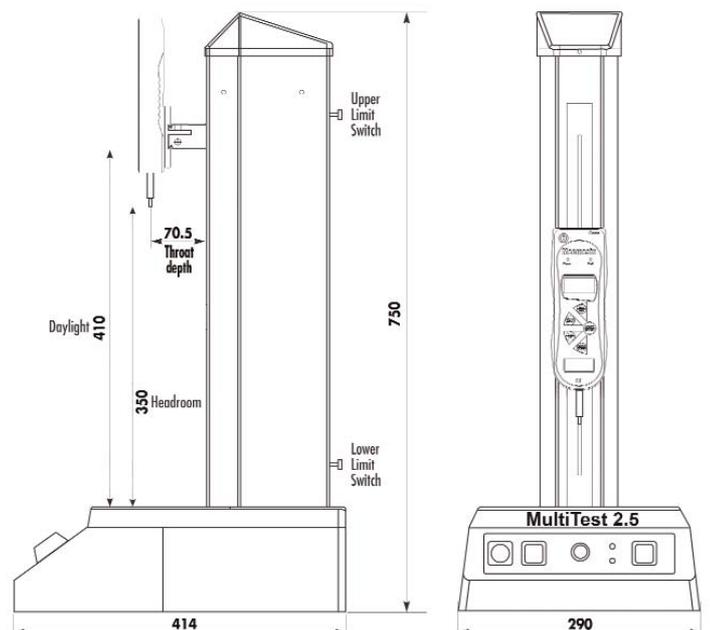
## Dimensions

Accuracy  
Consistency  
Versatility

### MultiTest 1



### MultiTest 2.5



Stand shown with force gauge fitted. All dimensions in millimetres.

# Applications

The MultiTest range of motorised test stands can be used in a multitude of applications across many industry sectors;



Watch control push test

- Compressive testing
- Connector insertion & withdrawal
- Crimp joint testing
- Crush testing
- Fastener testing
- Operation forces of pedals & levers

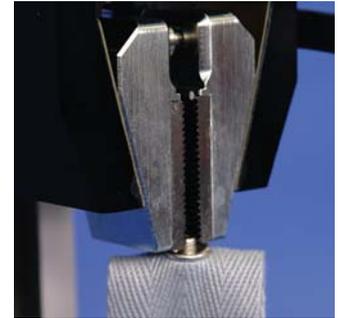
Peel & adhesion •

Shear testing •

Tear testing •

Tensile testing •

Textile fastener fixing •



Popper pull-off test



Plastic film tensile test

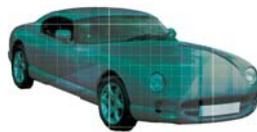
## Support Services

- User manual
- Calibration, service & repair centre
- On-site installation and training
- Digital force gauges, grips and accessories

Mecmesin's range of testing equipment has been successfully used in a number of different industry sectors including;



aerospace



automotive



electrical



medical



packaging



pharmaceutical



plastics



safety



textiles

For further information and case studies regarding applications or products please visit our website, [www.mecmesin.com](http://www.mecmesin.com) or call, +44 (0) 1403 799979

# Mecmesin

testing to perfection

## Over 25 Years Experience in Force & Torque Technology

Formed in 1977, Mecmesin Limited 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.



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

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