

# Mecmesin

testing to perfection

## MultiTest-x

console-controlled  
test frames

Tension and Compression  
Test Solutions



# MultiTest-x Range

Quality managers needing an easy-to-use semi-automated quality testing system for the production floor should look no further than Mecmesin's range of MultiTest-x test frames.

The MultiTest-x is an affordable stand-alone system, ideal for product testing and quality control applications in a production environment. Specifically designed for ease-of-use, the additional power of a new integrated controller/console enables quality managers and supervisors to set up separate test programs, via an alpha-numeric keypad, using basic machine-control parameters.



Spring testing

easy-to-use  
single button operation  
robust, stand-alone system

## KEY FEATURES: Machine Control

- Run to load or displacement or time
- Cycle between load limits or displacement limits
- Hold a load for a period of time
- Zero the value of load or displacement
- Define test speed



MultiTest 1-x



MultiTest 2.5-x



MultiTest 5-x

The MultiTest-x is available in a range of capacities to meet your exact testing requirement... from single-column machines through to advanced twin-column test frames, which have been specifically designed to test large or high-load samples and products.



cost-effective.  
semi-automatic  
programmable

KEY FEATURES: **Data Acquisition**

- Peak load
- Load at pre-defined displacement or time
- Displacement data at pre-defined load or time
- Average load over a displacement range or time range
- User I.D., batch, date and time
- System compensation (N/mm)



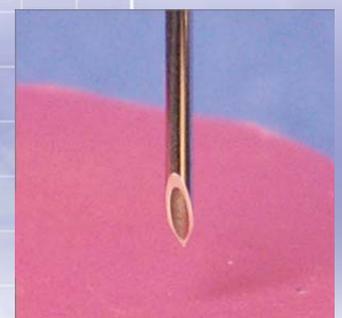
10kN capacity or  
25kN capacity

MultiTest 10-x  
MultiTest 25-x

If you have a tension or compression test, which demands any of these machine control or data acquisition features, one of the easy-to-use MultiTest-x test frames is the ideal cost-effective solution.

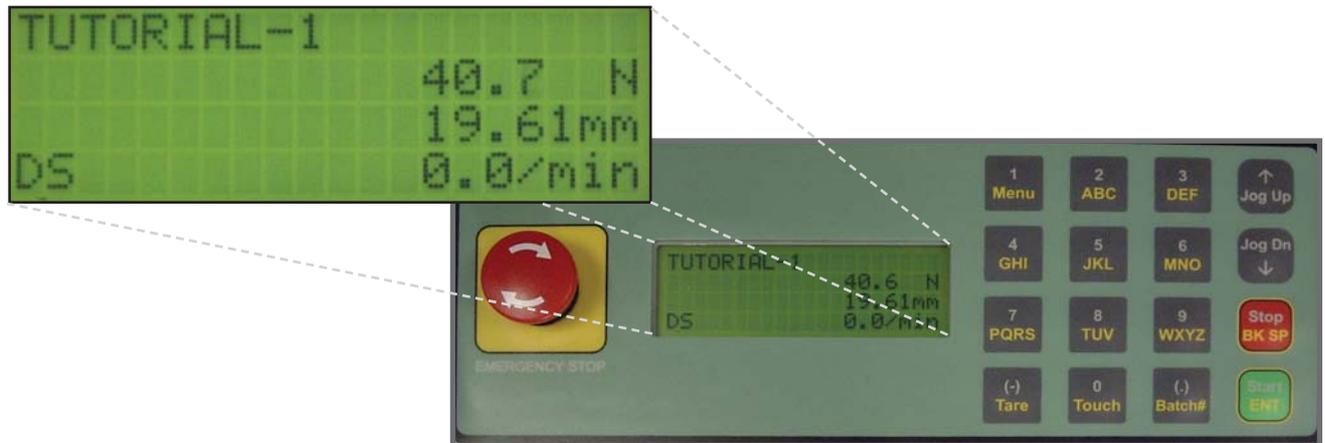


Tensile testing



Cannula penetration testing

# Integrated Controller/Console



## KEY FEATURES: Console unit

- Easy-to-use
- Displays force, displacement and speed
- Single button operation
- Intuitive operator interface
- Membrane multi-function keypad
- Easy-to-read backlit LCD display

The flexible, powerful, yet easy-to-use MultiTest-x carries out precise test procedures 'at the push of a button', then automatically displays test results with a pass/fail indicator. The MultiTest-x integrated controller/console displays a series of menus and prompts, which guide the supervisor easily through the creation of test procedures.

powerful  
flexible  
intuitive

Calculations include peak load, minimum load, average load, load at break, load setpoints and displacement setpoints. Up to thirty test procedures can be stored, so that all an operator needs to do is select the relevant program and push the [Start] button. The test is performed automatically and a Pass/Fail indicator is displayed once finished.

For further detailed analyses, test results can be downloaded via serial output to a datalogger, printer or computer.



Actuation testing



Top-load testing

# Specifications

MultiTest		1-x	2.5-x	5-x	10-x	25-x
<b>TEST FRAME</b>						
Rated capacity	N	1000	2500	5000	10,000	25,000
	kgf	100	250	500	1000	2500
	lbf	225	550	1100	2200	5500
Number of ballscrews		One	One	One	Two	Two
Columns spacing		-	-	-	400mm (15.7")	400mm (15.7")
Speed range	mm/min	0.1 - 500	0.1 - 500	0.1 - 500	0.1 - 500	0.1 - 500
	in/min	(0.004 - 20)	(0.004 - 20)	(0.004 - 20)	(0.004 - 20)	(0.004 - 20)
Throat depth		67mm (2.6")	67mm (2.6")	95mm (3.7")	-	-
Vertical daylight*		590mm (23.2")	410mm (16.1")	675mm (26.6")	1180mm (46.5")	1140mm (44.9")
Height		940mm (37")	750mm (29.5")	1082mm (42.6")	1500mm (59.1")	1500mm (59.1")
Width		290mm (11.4")	290mm (11.4")	328mm (12.9")	826mm (32.5")	826mm (32.5")
Depth		414mm (16.3")	414mm (16.3")	526mm (20.7")	512mm (20.2")	542mm (21.3")
Weight		19kg (42lbs)	18kg (40lbs)	38kg (84lbs)	110kg (243lbs)	140kg (309lbs)
Maximum power requirement		60 Watts	125 Watts	150 Watts	400 Watts	450 Watts
Voltage		230V AC 50Hz	230V AC 50Hz	230V AC 50Hz	230V AC 50Hz	230V AC 50Hz
		110V AC 60Hz	110V AC 60Hz	110V AC 60Hz	110V AC 60Hz	110V AC 60Hz
Digital display of load/length/speed		Yes	Yes	Yes	Yes	Yes
<b>LOAD MEASUREMENT</b>						
Available loadcell ranges	N	2 - 1000 (9 models)	2 - 2500 (10 models)	2 - 5000 (11 models)	50 - 10,000 (8 models)	50 - 25,000 (9 models)
	kgf	0.2 - 100 "	0.2 - 250 "	0.2 - 500 "	0.5 - 1000 "	0.5 - 2500 "
	lbf	0.45 - 225 "	0.45 - 563 "	0.45 - 1125 "	11.25 - 2250 "	11.25 - 5625 "
Load measurement accuracy $\pm\%$ fsd		0.2%	0.2%	0.2%	0.2%	0.2%
<b>DISPLACEMENT</b>						
Crosshead travel*		500mm (19.7")	330mm (13")	675mm (26.6")	960mm (37.8")	950mm (37.4")
Positional accuracy		$\pm 0.105/500\text{mm}$ ( $\pm 0.0041/20''$ )	$\pm 0.070/300\text{mm}$ ( $\pm 0.0028/11.8''$ )	$\pm 0.120/600\text{mm}$ ( $0.0047/23.6''$ )	$\pm 0.050/800\text{mm}$ ( $\pm 0.0020/31.2''$ )	$\pm 0.050/800\text{mm}$ ( $\pm 0.0020/31.2''$ )

\* measured without loadcell or grips

(See technical datasheet 431-344 for dimension drawings)

## Common Specifications

Crosshead speed accuracy	$\pm 1\%$ of indicated speed
Load measurement resolution	1:5000 or better
Operating temperature	10-35 degrees Centigrade
Position control resolution	$\pm 0.01\text{mm}$ ( $\pm 0.0004''$ )
Humidity range	Normal industry and laboratory conditions
Compensation for system movement	Yes
Loadholding	Yes
Graphical representation	External software
Output of test results to PC/Printer/Datalogger	Yes

## Options

Alternative speed ranges	
Column gaiter	
Extended columns	
Extended throat depth	
	<i>available upon request</i>

# Mecmesin Motorised Test Frames Overview

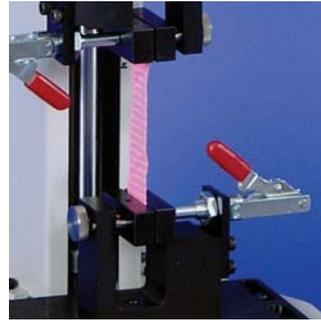
Load Rating	Potentiometer-Controlled 	Console-Controlled 	Computer-Controlled 
1kN	Speed Range: 2.5-1000mm/min Throat Depth: 70.5mm Travel: 500mm	Speed Range: 0.1-500mm/min Throat Depth: 67mm Travel: 500mm	Speed Range: 1-500mm/min Throat Depth: 67mm Travel: 500mm
2.5kN	Speed Range: 2.5-750mm/min Throat Depth: 70.5mm Travel: 330mm	Speed Range: 0.1-500mm/min Throat Depth: 67mm Travel: 330mm	Speed Range: 1-500mm/min Throat Depth: 67mm Travel: 330mm
5kN	—	Speed Range: 0.1-500mm/min Throat Depth: 95mm Travel: 675mm	Speed Range: 1-500mm/min Throat Depth: 95mm Travel: 675mm
10kN	—	Speed Range: 0.1-500mm/min Columns Spacing: 400mm Travel: 960mm	Speed Range: 1-1000mm/min Columns Spacing: 400mm Travel: 960mm
25kN	—	Speed Range: 0.1-500mm/min Columns Spacing: 400mm Travel: 950mm	Speed Range: 1-1000mm/min (10kN) 1- 500mm/min (25kN) Columns Spacing: 400mm Travel: 950mm

E&OE

# Applications

The MultiTest-x range of motorised test stands can be used for a number of applications:

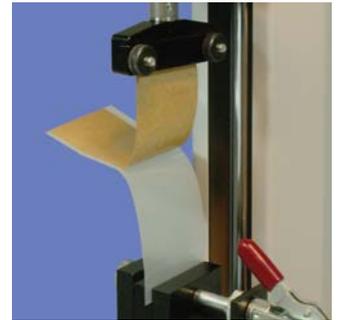
- Compressive testing
- Deformation testing
- Extension testing
- Materials testing
- Medical Device testing
- Packaging testing
- Spring testing
- Tensile testing
- Textile testing
- Top-load testing



Fabric testing



Keypad testing

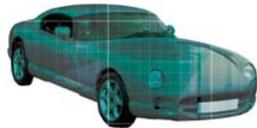


Peel testing

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

## Support Services

- Comprehensive network of international distributors
- 24 month warranty
- Website support
- Calibration, service & repair centre
- On-site installation and training
- Accessories
- Application support

# 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.



Argentina	India	Saudi Arabia
Australia	Indonesia	Singapore
Austria	Iran	South Africa
Bangladesh	Ireland	Slovenia
Belgium	Israel	Slovakia
Brazil	Italy	Spain
Canada	Japan	Sri Lanka
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.

### FREDRICK-SHELTON & ASSOCIATES, INC.

5044 B.U. Bowman Drive, Suite 103  
Buford, GA 30518-5869  
Phone: 770-945-6262  
Fax: 770-945-8585  
Toll-Free Phone: 888-928-3758  
<http://dillonga.com/>



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

4  
S  
V  
e  
t  
f

**Mecmesin Asia Co. Ltd**  
91/1 Chaiyo Building, 11th Floor,  
Room 1103, Rama 9 Road, Huaykwang,  
Bangkok, 10310, Thailand  
e. [sales@mecmesinasia.com](mailto:sales@mecmesinasia.com)  
t. +66 2 247 4681  
f. +66 2 247 4682