





Safety Guards



Safety Guards

Introduction

Health and safety are of paramount concern when using machinery with moving parts and motorised test equipment is no exception. Safety guards prevent access by the operator to the testing area whilst the test is in progress, acting as a barrier from moving parts where there exists a risk of hands and arms getting caught.

Standard guards

Mecmesin test systems can be supplied with a standard safety guard. These have a rigid metal frame with integrated polycarbonate panels to allow the operator to view the test area from outside. Hinged doors are fitted with switch-activated interlock mechanisms that prevent system operation when open.

Guards for **single-column test stands** are provided on a solid metal platform, with location holes available for securing to a workbench, to ensure complete stability.

Guards for **twin-column test stands** are supplied with new equipment and are pre-fitted to the tester at our factory, all ready for use when unpacked and installed.

Mecmesin's standard safety guards are supplied with CE marking and a Declaration of Conformity in accordance with the following harmonised standards of the Machinery Directive 2006/42/EC:

- BS EN ISO 12100:2010 Safety of machinery General principles for design — Risk assessment and risk reduction
- BS EN ISO 14120:2015 Safety of Machinery Guards — General requirements for the design and construction of fixed and movable guards
- BS EN ISO 14119:2013 Safety of machinery. Interlocking devices associated with guards. Principles for design and selection
- BS EN ISO 13855:2010 Safety of machinery Positioning of safeguards with respect to the approach speeds of parts of the human body
- BS EN ISO 13857:2008 Safety of Machinery Safety distances to prevent hazard zones being reached by upper and lower limbs
- BS EN ISO 13849-1:2015 Safety of Machinery. Safety related parts of control systems. General principles of design.*
- BS EN ISO 13849-2:2012 Safety of Machinery. Safety related parts of control systems. Validation*

If however, during the risk assessment for your application, you decide that protection from egress is also required, our application engineers can offer a custom design to meet your needs.

* when integrated with the control circuit of the Mecmesin test stands



Standard guard - single column test stands



Standard guard - twin-column test stands 🔺



Custom-design guards

Due to individual requirements for accommodating different-sized grips and test specimens, safety guards are often made to a custom design. Please contact us with your requirements, and tell us the stand model for which it is intended.

Shown below are a selection of custom-built guards designed and manufactured by Mecmesin for customers using our range of force and torque test systems.



Custom guard with double door for use with torque test system $\ \, \blacktriangle$

Custom guard with sliding front protective panel and counter-balance for ease of use

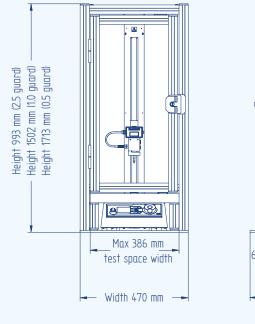
Specification Table - Single Column Systems

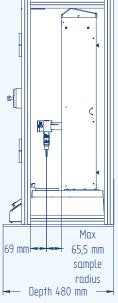
Machine Guarding	0.5	1.0	2.5	5.0
Guard part number	432-680	432-681	432-682	432-684
	MultiTest 0.5-i	MultiTest 1-i	MultiTest 2.5-i	OmniTest 5
Compatible Mecmesin Test Systems	MultiTest 0.5-xt	MultiTest 1-xt	MultiTest 2.5-xt	OmniTest 7.5
	MultiTest 0.5-dV	MultiTest 1-dV	MultiTest 2.5-dV	
Dimensions				
Height+	1713 mm	1502 mm	993 mm	1163 mm
Width	470 mm	470 mm	470 mm	500 mm
Depth (door closed)	480 mm	480 mm	480 mm	652 mm
Max Depth (door open)	803 mm	803 mm	803 mm	1015 mm
Weight (guard only)	42 kg	39 kg	30 kg	40 kg
Sample/ Accessory Space				
Max Width	386 mm	386 mm	387 mm	420 mm
Max Diameter++	131 mm	131 mm	131 mm	180 mm (OmniTest 5)
				134 mm (OmniTest 7.5)
Interlocking Device				
Туре	Tongue-actuated position switch			
Environment specification				
Operating temperature	10 °C to 35 °C			
Operating relative humidity	30% - 80 % (non-condensing)			

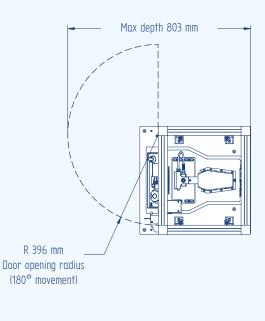
+Excluding guard feet

++ Measured from centre of load cell

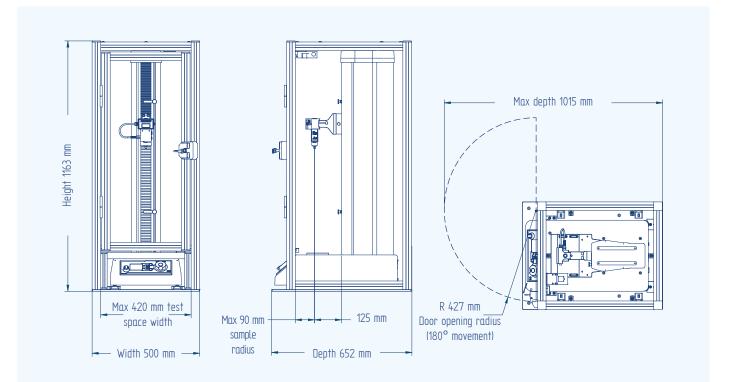
Dimensioned drawings (in millimetres)



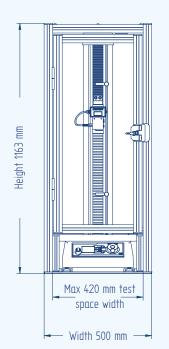


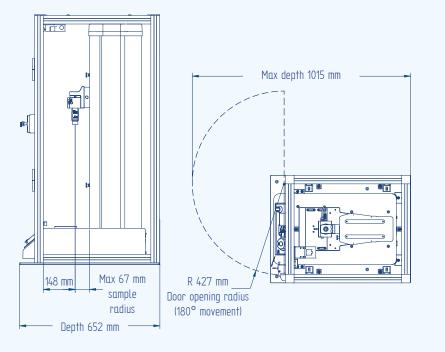


MultiTest 0.5, 1 and 2.5



OmniTest 5



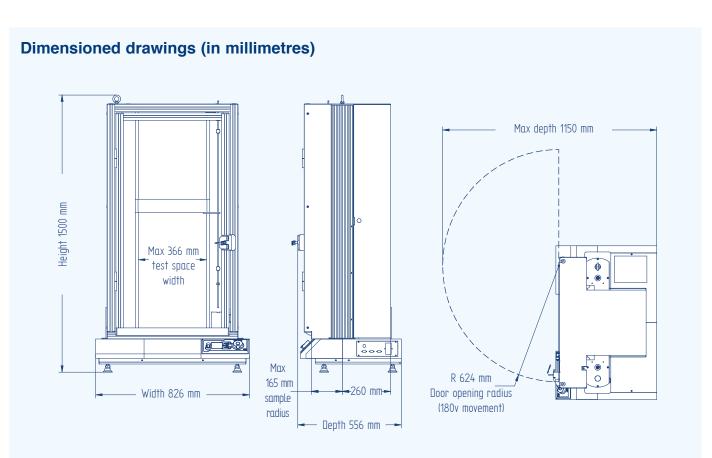


OmniTest 7.5

Specification Table - Twin Column Systems

Machine Guarding	10	25	50
Compatible Mecmesin Test Systems - guards supplied fitted to tester. Part number of complete test system shown in brackets	MultiTest 10-i	MultiTest 25-i	MultiTest 50-i
	(805-017+G)	(805-016+G)	(805-023+G)
	MultiTest 10-xt	MultiTest 25-xt	MultiTest 50-xt
	(815-004+G)	(815-005+G)	(815-006+G)
	OmniTest 10	OmniTest 25	OmniTest 50
	(820-010+G)	(820-025+G)	(820-050+G)
Dimensions			
Height	1500 mm	1500 mm	1931 mm
Width (excl key)	826 mm	826 mm	864 mm
Depth (door closed)	556 mm	556 mm	613 mm
Max Depth (door open)	1150 mm	1150 mm	1215 mm
Weight (system)*	192 kg	192 kg	354 kg
Sample/ Accessory Space			
Max Width	366 mm	366 mm	420 mm
Max Diameter++	330 mm	330 mm	322 mm
Interlocking Device			
Туре	Tongue-actuated position switch		
Environment specification			
Operating temperature	10 °C to 35 ° C		
Operating relative humidity	30% - 80 % (non-condensing)		

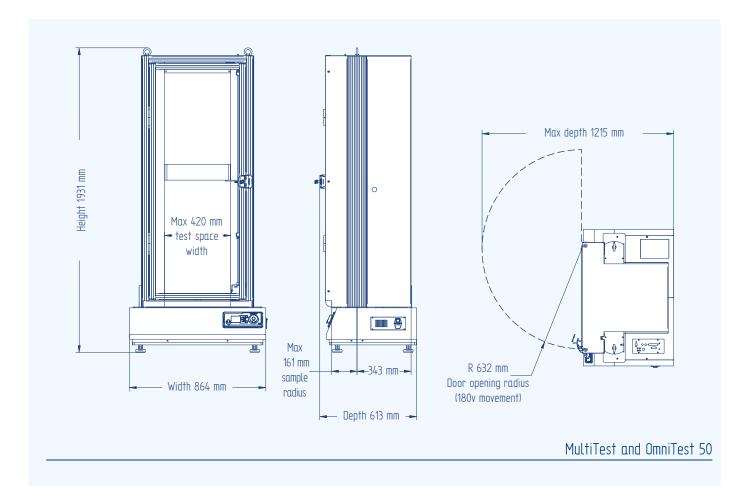
*Excluding accessories such as attached consoles ++ Measured from centre of load cell



MultiTest and OmniTest 10 and 25

Mecmesin

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CE marking and certification

All Mecmesin <u>standard</u> guards are supplied with a CE mark and declaration of conformity together with fitting instructions where appropriate.

Meenesin tid Newton House Spring Copie Business Park Slinfold West Susses, RH13 052 United Kingdom	FORCE & TORGEL TEST GOLUTIONS	Mecmesin Parts a traded text documents	Mecmesia Parts Farts
Date of Issue 14 th June 2019 EC DECLARATION OF CONFORN We confirm that the Technical Construction Files for the p confiltance comply with the essential safety requirements :	roduct(s) identified on this of the following EU Council	FORMITY the first for the product(s) identified on this certificate where of the following (1) Council directives. Technical from the above address.	8 92 Jane 2013 ATION OF CONFORMITY Ins Technical Continuction Files for the product(s) Meetified on this certificate resents after requerement of the following (1) Council directions. Technical respects this imatilities from the above advices.
directives. Technical documentation to support this is ava Machinery Directive 2006/42/EU	lable from the above address.	us and other normative documents:	ness Directive 2006/42/I/U conve 2014/J0/I/U to the following standards and other normative documents:
They were tested to the following standards and other nor BS EN ISO 12100-2010 Safety of machinery - Generic assessment and risk reduction		entry (INK) Generic (canducti- ent) comparison (SVG). Tracing and measurement techniques, energy Electrical equipment of machines. General requirements electrical equipment. For measurement, control, and laboratory use.	1007 Environmented compartiality (EMC) General translated (2004 eA2.2010 Decisionagentic compartiality (EMC). Taxing and measurement incliniques (or eA2.2000 Stating of machine), Exclusional applications of machines. General requirements (3) Safety requirements for electrical equipment for measurement, control, and laboratory use, environ.
BS EN ISO 14120:2015 Safety of machinery - Guard design and construction of fixed and movable guar BS EN ISO 14119:2013 Safety of machinery - Interlo	is .	revealing: requirement. Serving: General requirements: guarding: the following additional standards apply: . General projections for design: - Rick assessment and rick induction . Guards - General requirements for the design and construction of fixed	Se 442,2013 Information theron-lage equipment. Lafer, General regularents reason supplied machine guarding, the following additional standards apply: 0.2020 Safer, imachinery - General requirements for the design and construction of fixed mathematical standards and construction of fixed mathematical standards.
guards - Principles for design and selection • BS EN ISO 13855:2010 Safety of machinery - Positio to the approach speeds of parts of the human body		 interlocking devices associated with guards - Principles for derign and -Paultioning of sufeguards with respect to the approach speeds of parts - Safety distances to prevent hazard zones being reached by usper and 	8.2003 Safety of nuclinery - Interfocting devices associated with guards - Principles for design and 5.2010 Safety of nuclinery - Positianing of safeguards with respect to the approach speeds of parts or *20206 Safety of nuclinery - Safety distances to provent hassed some being resched by opper and
 BS EN ISO 13857:2008 Safety of machinery - Safety zones being reached by upper and lower limbs 	distances to prevent hazard	 Safety related parts of control systems - Part 1: General principles of y - Safety related parts of control systems - Part 2: Validation 	III-3 2015 Subity of machinery - Sahity related parts of control systems - Part 1: General principles of III-2 2012 Subity of machinery - Sahity related parts of control systems - Part 2: Validation
Primary Product Name(s): 2.5 Standard Machine Guard Derivative Product(s): 0.5 Standard Machine Guard Signed on behalf of Mecmetin Ltd	1.0 Standard Machine Guard	15, MultiTest-1-DR, MultiTest-2-SI, MultiTest-SI Sut, MultiTest-1-DR, MultiTest-2-SK, R, FFT-RIJ, FFT-H1st SI + 0-5 Standard Guard, MultiTest-1.0 + 1.0 Standard Guard, SI + 2-3 Standard Guard	Hold Teel JD, Malifica JD, Malifica JD, Malifica JD, Malifica JD, Malifica JD, Malifica JD, Malifica JD, Hold Teel JD, Malifica JD, Hold Teel JD, Malifica JD + 50 Spender Guard Malifica JD + 50 Standard Guard Malifica JD + 50 ZJ Standard Guard Malifica JD + 50 ZJ Standard Guard Malifica JD + 50 ZJ Standard Guard
Technical Director: Perick Collins Place: Sinfold, GB	C€	lite (+ 2.5 Standard Gard, MAITes): Lite + 1.9 Standard Gard, lite + 2.5 Standard Gard	Northernan CE
Registered in England No. 1302639	431-DeC32-01 L00	431-0x022-42_100	nd No. 1302639 431-DoC23-02_L00



Mecmesin - a world leader in affordable force and torque testing solutions

Since 1977, Mecmesin has assisted thousands of companies achieve enhanced quality control in design and production. The Mecmesin brand represents excellence in accuracy, build, service, and value. In production centres and research labs worldwide, designers, engineers, operators, and quality managers endorse Mecmesin force and torque testing systems for their high performance across countless applications.

www.mecmesin.com

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The Mecmesin global distribution network guarantees your testing solution is rapidly delivered and efficiently serviced, wherever you are.

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