

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



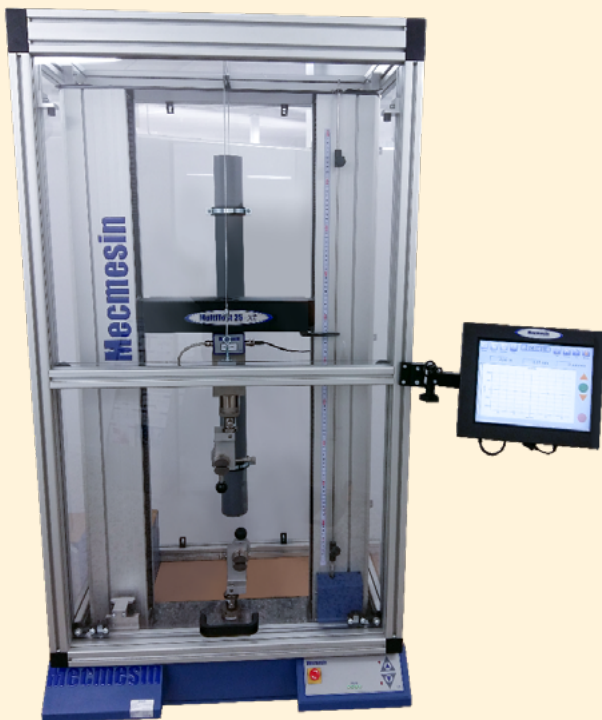
Standard guard - single column test stands ▲



Standard guard - twin-column test stands ▲



Custom guard fitted with wire-mesh protection for door and side-panels ◀

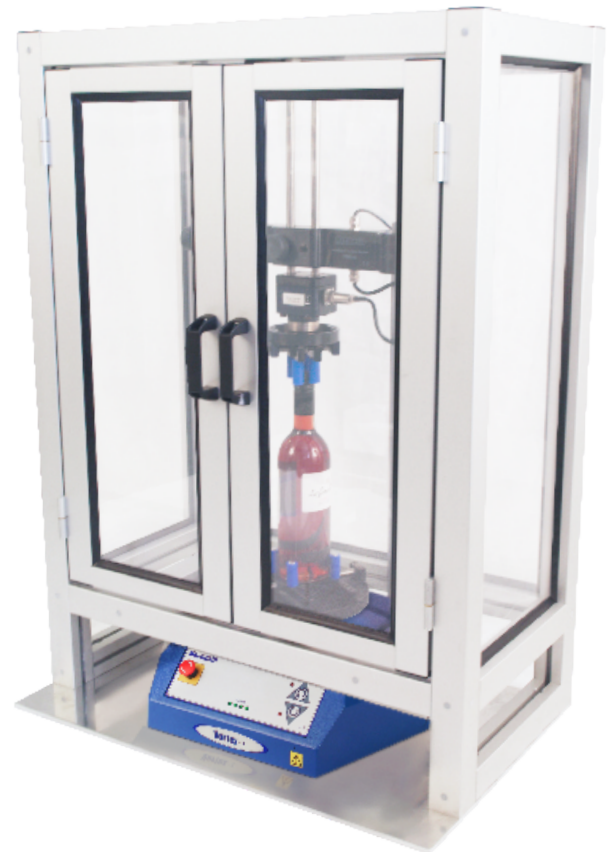


Custom guard with sliding front protective panel and counter-balance for ease of use ▲

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 ▲

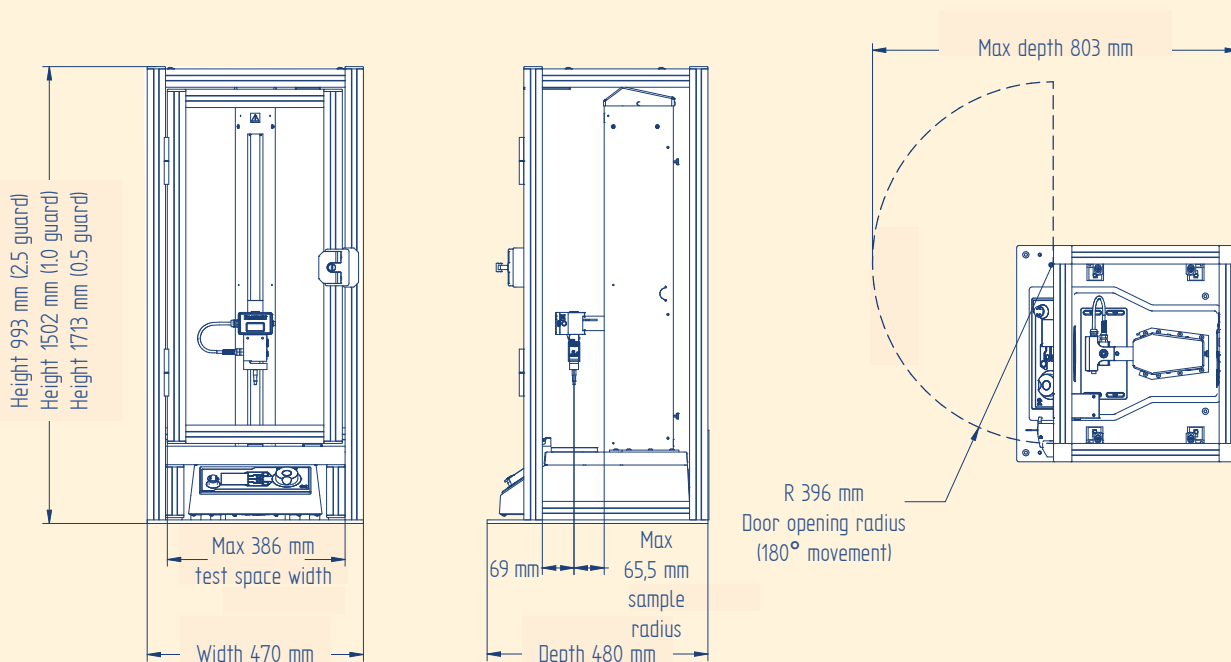
Specification Table - Single Column Systems

Machine Guarding	0.5	1.0	2.5	5.0
Guard part number	432-680	432-681	432-682	432-684
Compatible Mecmesin Test Systems	MultiTest 0.5-i	MultiTest 1-i	MultiTest 2.5-i	OmniTest 5
	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				
Type	Tongue-actuated position switch			
Environment specification				
Operating temperature	10 °C to 35 °C			
Operating relative humidity	30% - 80 % (non-condensing)			

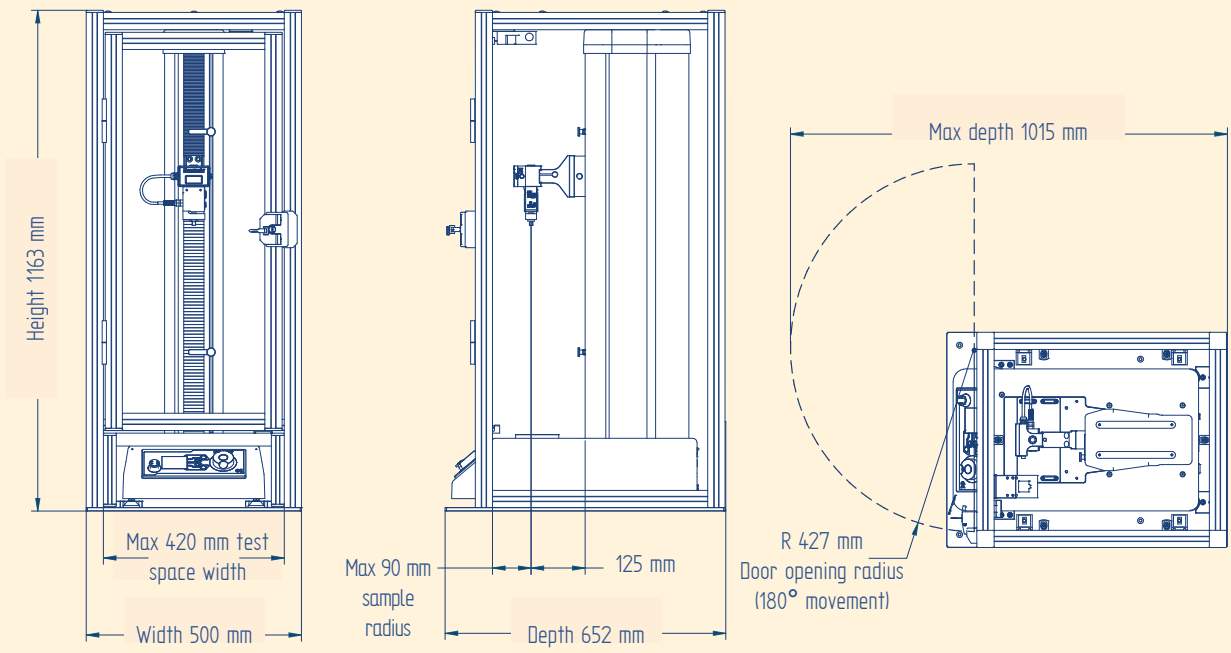
+Excluding guard feet

++ Measured from centre of load cell

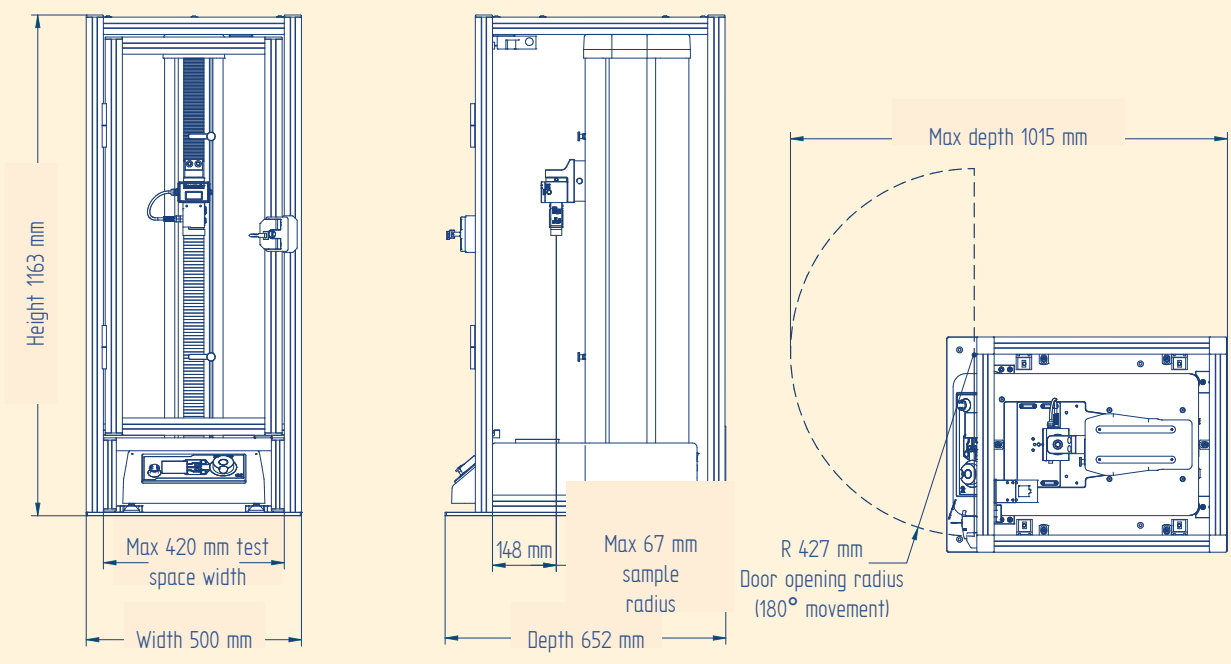
Dimensioned drawings (in millimetres)



MultiTest 0.5, 1 and 2.5



OmniTest 5.0



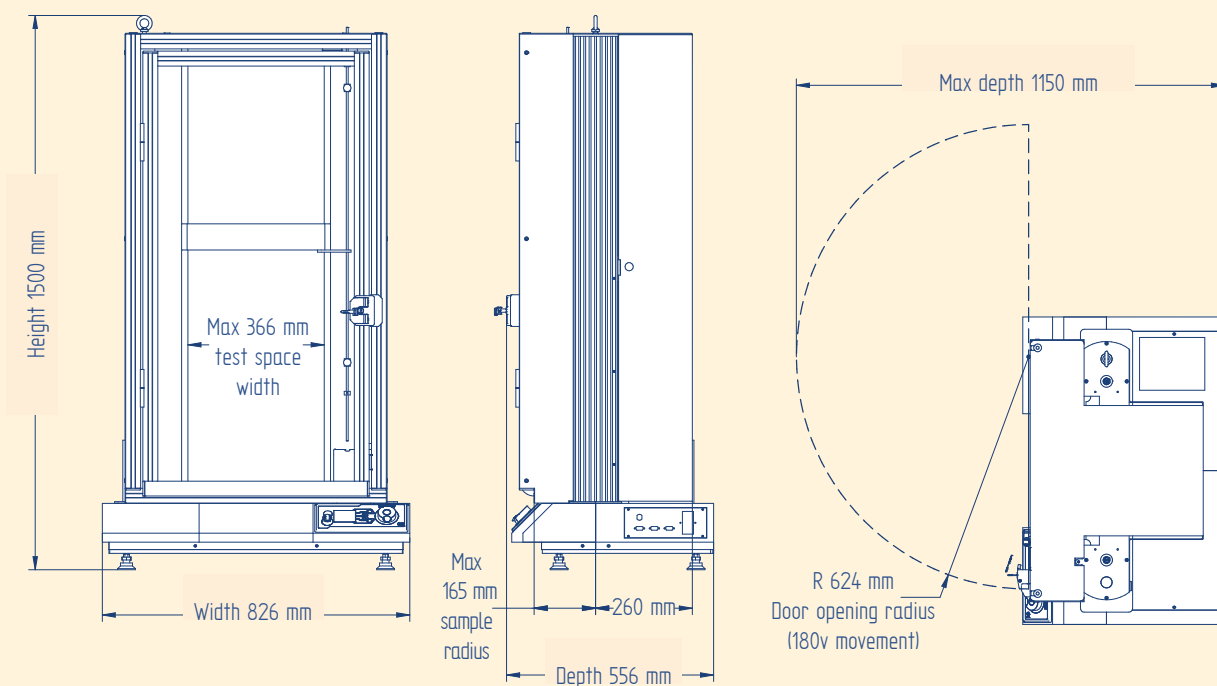
OmniTest 7.5

Specification Table - Twin Column Systems

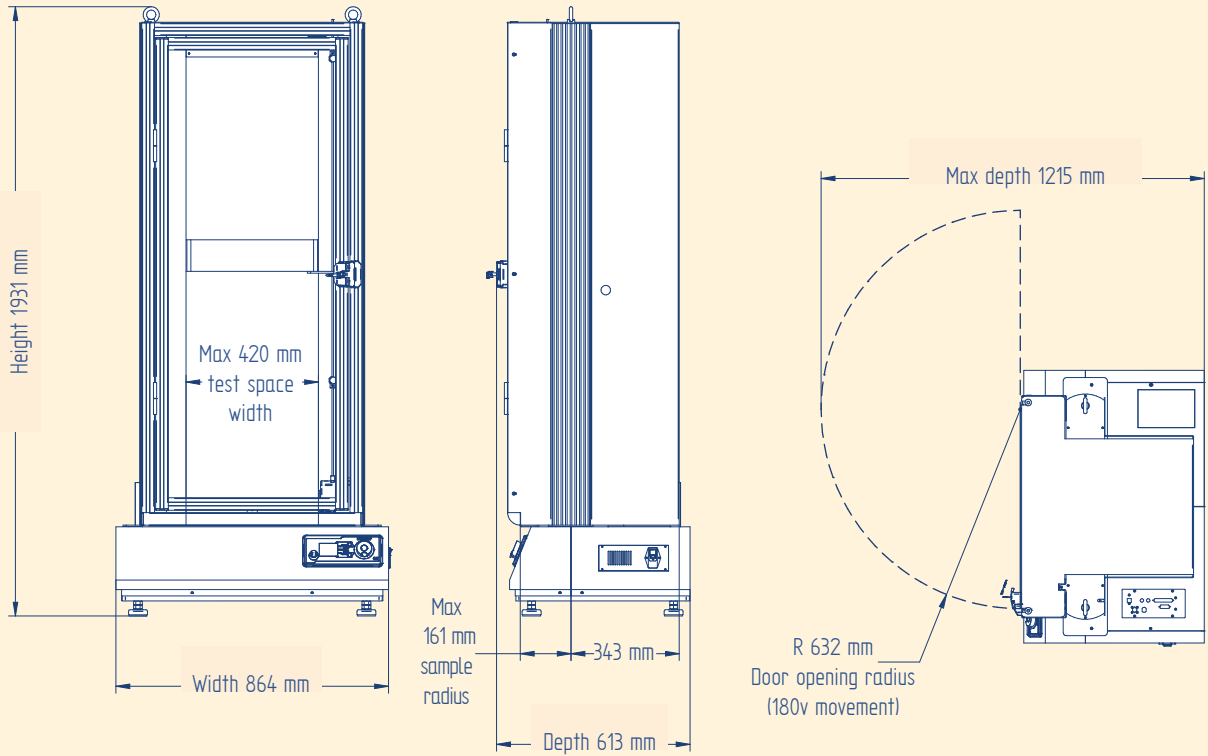
Machine Guarding	10	25	50
Compatible Mecmesin Test Systems - guards supplied fitted to tester. Part number of complete test system shown in brackets	MultiTest 10-i (805-017+G)	MultiTest 25-i (805-016+G)	MultiTest 50-i (805-023+G)
	MultiTest 10-xt (815-004+G)	MultiTest 25-xt (815-005+G)	MultiTest 50-xt (815-006+G)
	OmniTest 10 (820-010+G)	OmniTest 25 (820-025+G)	OmniTest 50 (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			
Type	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

Dimensioned drawings (in millimetres)



MultiTest and OmniTest 10 and 25



MultiTest and OmniTest 50

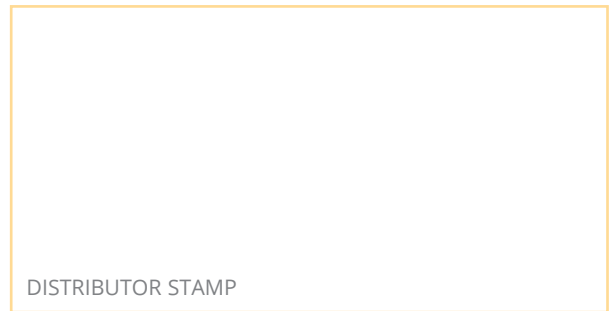
CE marking and certification

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





FS 58553



DISTRIBUTOR STAMP

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