

MOTORIZED TEST STANDS FOR USE WITH DIGITAL FORCE GAUGES



MTS300 Series



- ✓ LCD Display with UP, DOWN, STOP and Emergency Stop Buttons and Variable Function Keys
- ✓ Selectable Speed Units, in/min and mm/min
- ✓ Password Protection of Test Parameters
- ✓ Removable Fixture Mounting Plate with Matrix of Threaded Holes
- ✓ Stepper Motor Driven, Produces 0% Speed Variation with Load
- ✓ Mounting Holes for Bench Mounting
- ✓ Unique Mechanical Design Significantly Reduces Column Bending

OMEGA's MTS300 Series are motorized test stands for tension and compression testing applications up to 300 lbf (1.5 kN) in laboratory and production environments. They can perform a wide range of tests including break testing, cycling, limit testing to load or distance, load holding, elongation testing, tensile and compression testing and more. An easy to use menu allows the configuration of test speed, force and distance limits, cycling, preload and many other functions. They are compatible with DFG35, DFG55 force gauges.

Three models are available with various features to fit most applications.

MTS301: This basic model can create tension or compression forces up to 300 lbf, and also provides travel indication and adjustable travel speed from 0.5 to 13 in/min.

MTS302: This intermediate model adds additional features such as overload protection, auto return, cycling/dwell time control, independent up and down speeds, and extended speed range of 0.02 to 45 in/min.

MTS303: This advanced model, includes all the features of the MTS302 plus programmable travel limits, break detection, load holding, preload/sample touch and computer control. With the computer control a bi-directional RS232 port is provided to interface with a PC. Users can write a custom program utilizing a library of ASCII commands.

Note: The MTS300 is also compatible with Nexygen TCD software (not available from OMEGA).



Model MTS301 shown with DFG55-10, sold separately. Shown smaller than actual size.



SPECIFICATIONS

Load Capacity: 300 lbf (1.5 kN) up to 24 in/min (610 mm/min)
200 lbf (1 kN) >24 in/min (>610 mm/min)

Speed Range: Standard 0.5 to 13 in/min (13 to 330 mm/min)
Extended 0.02 to 45 in/min (0.5 to 1100 mm/min)

Maximum Travel: 457 mm (18")

Speed Setting Accuracy: ±0.2%

Speed Variation with Load: ±0% (stepper motor controlled)

Limit Switch Repeatability: 0.03 mm (±0.001")

Travel Accuracy: 0.05 mm (±0.002")

Travel Repeatability: 0.03 mm (±0.001")

Travel Resolution: 0.03 mm (±0.001")

Power: Universal input 80 to 240 Vac, 50/60 Hz

Weight: 17.9 kg (39.5 lb)

PARAMETER	MTS301	MTS302	MTS303
Standard speed range (0.5 to 13 in/min)	X		
Extended speed range (0.02 to 45 in/min)		X	X
Speed setting applies to both directions	X		
Independent up and down speeds		X	X
Auto return		X*	X*
Cycling with dwell time		X	X
Travel indication via internal encoder	X	X	X
Programmable travel limits			X
Overload protection		X*	X*
Preload/Sample touch			X*
Load holding			X*
Break detection			X*
Computer control			X*

* These features require the use of an OMEGA DFG55 or DFG-RS5 series force gauge, sold separately.

To Order

MODEL NO.	DESCRIPTION
MTS301	Basic test stand with travel indication
MTS302	Intermediate test stand with travel indication. Also includes 09-1162 interface cable to connect DFG55 force gauge to test stand
MTS303	Advanced test stand with travel indication and RS232 communications. Also includes 09-1162 interface cable, 09-1056 serial cable, and a RS232 to USB adaptor.

ACCESSORIES

MODEL NO.	DESCRIPTION
G1001	Wire terminal grip, for securing wire terminals, cables, connectors and other samples for pull testing up to 200 lbs
G1002	Dual roller grip, for securing the ends of wire, cable and tubing samples for pull testing up to 200 lbs
G1008	Film and paper grip, for gripping film, paper, labels, packaging and other thin materials for tensile and peel testing up to 100 lbs
G1061	Heavy duty wedge grips for a range of tensile testing requirements on a variety of samples. Rated to 1200 lbs with a maximum opening of 6.4 mm (0.25")
G1074	General purpose vice grip for a wide range of tension and compression testing applications. Rated for 500 lbs with maximum opening of 1.5"

All MTS test stands come with extension rod, small hook, medium hook, #10-32 coupler, compression plate, gauge mounting hardware, tool kit and operator's manual.

Ordering Examples: MTS301, basic test stand with DFG35-200, 200 lb capacity force gauge, G1001, wire terminal grip and G1002, dual roller grip.

MTS303, advanced test stand with DFG55-500, 500 lb force gauge, G1061, wedge grip and G1074, vise grip.