

ESM1500 MOTORIZED TEST STAND W/PC CONTROL

With a tension and compression measurement range of up to 1,500 lbF (6.7 kN), the Mark-10 ESM1500 motorized test stand is a useful tool in any measurement laboratory or production setting. Pair it with an indicator/load cell combination, or with a force gauge. Its single-column construction and easy set-up and positioning make it a strong choice for break testing, cycling, limit testing to a load or distance, load-holding, elongation testing, tensile and compression testing, and more. Its generous travel, clearance, and depth dimensions allow it to perform a wide range of tests, and its easy-to-use controller menu makes it a breeze to configure such parameters as test speed, force and distance limits, cycling and preload. It connects to your PC by USB, allowing quick analysis and graphing of your data with its built-in MESUR software. And because of the ESM1500's unique, modular controller function platform, you can easily add optional features as the need arises – a valuable feature for the budget-conscious operation.

SPECIFICATIONS

LOAD CAPACITY:	1,500 lbF (6.7 kN)
MAXIMUM TRAVEL DISTANCE:	Speed Range: 32 inches (813 mm)
SPEED RANGE:	0.001 - 90 inches/minute (0.02 - 2,300 mm/minute)
SPEED SETTING ACCURACY:	+/- 0.2%
WEIGHT:	198 lbs
POWER:	80-240 VAC, 50/60 Hz
WARRANTY:	Three years

ORDERING INFORMATION

Model	Description
ESM1500LC	Motorized test stand; force sensor/load cell mount
ESM1500FG	Motorized test stand; force gauge mount

*Numerous force sensor, mounting plate and controller options available.
Call for detailing information.*

STANDARD FEATURES

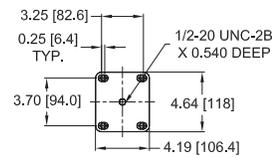
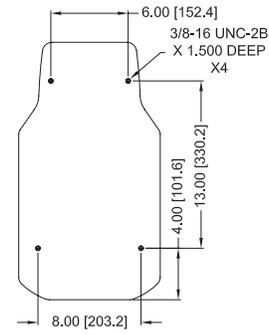
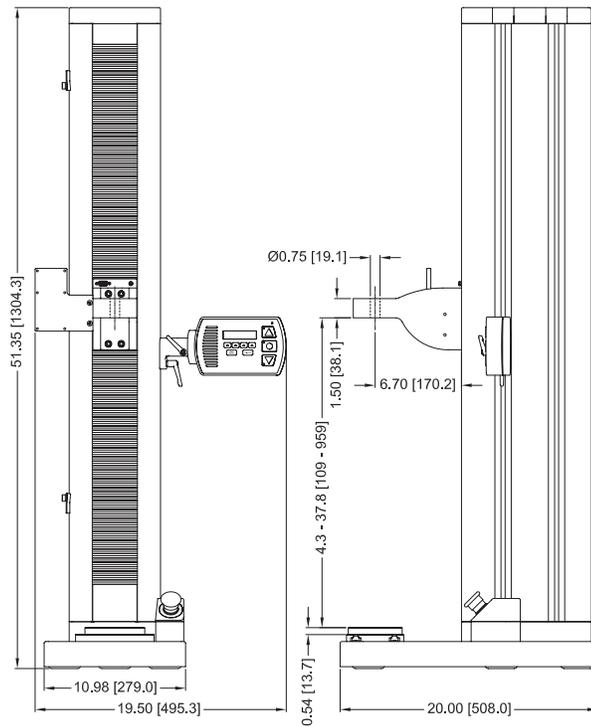
- Generous travel distance, clearance and depth
- Easy hand-guided positioning
- Simple controller interface with intuitive menu navigation
- Compatible with indicators and load cells, as well as force gauges
- Stepper motor-driven for steady speed under load
- USB connectible; comes with MESUR gauge data collection software
- Compact footprint, suitable for crowded workbenches
- Modular design allows addition of numerous optional features



Feature	Part No.	Description	Requirements
FollowMe™	SF008	Crosshead movement responds to manually pushing or pulling on the force gauge shaft or load cell. Increasing force produces greater speeds. Ideal for setups and quick positioning.	- Series 7 or 5 gauge or indicator
Travel indication	SF009	Travel is indicated on the control unit display, with output via USB. An internal scale utilizing Renishaw technology produces significantly higher accuracy than with conventional rotary encoderbased designs. Backlash and nonlinearity are virtually eliminated.	-
Computer control	SF010	The ESM1500 may be fully controlled by a PC through a customwritten program in any language supporting ASCII communications. Also responds to the legacy Chatillon TCD command set and legacy Nexygen TCD software (not available from Mark-10).	- Series 7 or 5 gauge or indicator - SF009 travel indication - SF011 programmable travel set points
Programmable travel limits	SF011	The stand stops at or cycles between programmable upper and lower travel distances.	- SF009 travel indication option
Overload protection	SF012	Protects a force gauge or force sensor against overload. Program the desired percentage of full scale of the gauge. Adjustable analog output voltage setting allows the stand to interface with virtually any gauge with analog output.	- Series 7 or 5 gauge or indicator
Auto return	SF013	The crosshead moves to a limit switch, force set point, travel position, or break, then stops and reverses direction at full speed to the opposite limit.	- Reversing at force set point: Series 7 or 5 gauge or indicator - Reversing at travel limit: SF011 programmable travel limits option - Reversing at break: SF019 break detection option
Cycling / dwell time	SF014	Same as auto-return, but with the ability to program up to 100,000 cycles. Programmable dwell time for upper and lower limits (set independently) can be set up for up to 10,000 seconds.	- Same as auto-return, at the same speed in each direction. Add SF016 for independent up and down speeds.
Independent up and down Speeds	SF016	Individually configure speeds for the up and down directions.	-
Low speed range extension	SF017	Extends the standard speed range down to 0.001 in/min (0.02 mm/min).	-
High speed range extension	SF018	Extends the standard speed range up to 90 in/min (2,300 mm/min).	-
Break detection	SF019	Crosshead stops at a sudden drop in force. Programmable percentage of peak force.	- Series 7 or 5 gauge or indicator
Loadholding	SF020	Dynamically adjusts the crosshead position to maintain a programmed load for an indefinite or specified period of time.	- Series 7 or 5 gauge or indicator - If a specified time is required, order SF014 cycling / dwell time option
Preload / sample touch	SF021	Stops the crosshead and/or zeroes the travel display at an initial preload - useful in tensile, compression, spring, elongation, and other applications. Preload is programmable as a percentage of force gauge/load cell full scale. Three modes: (1) stop, (2) stop and zero, and (3) zero without stopping.	- SF009 travel indication - Series 7 or 5 gauge or indicator
Complete Options Package	SFCOMP	Includes all functions listed above. Requires a Series 7 or 5 gauge or indicator.	

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ESM1500LC (for use with an indicator and load cell)



ESM1500FG (for use with a force gauge)

