

TruForce

EM Univeral Testing Machine | TF-ETM-D | 50kN ~600kN

TruForce TF-ETM-D Series addresses the needs of standardized and routine testing, providing the user high quality at the most affordable price. The dual column testing systems with rugged structure are suited for tension and/or compression applications with load range requirements from 50kN to 600kN. They are typically used for quality control and production testing.

Typical specimens: Metals, building components, large fasteners, composites, wood products

Environmental simulation: Environmental chamber and high temperature furnace

New Features:

- Robust guidance columns increase lateral stiffness and ensure linear crosshead travel. This results in accurate crosshead alignment thus reducing variability in measurement data and producing better overall accuracy
- Non-clutched drives, rated for full speed at maximum force
- Compact design saves lab space
- Wider test width

High Quality at affordable price

- Pre-loaded ball screws and heavy duty bearings assure long life with zero backlash as well as linear low force and through zero performance. The result is accurate and repeatable measurements that truly represent the specimen characteristics rather than load frame deficiencies
- Fully-protected lead screw covers provide longer life and greater operator protection
- Easy-to-clean aluminum column covers with chamfered corners to facilitate access to the test area. T-slots are built in for simple, convenient attachment and positioning of testing accessories
- High-speed, low vibration, world-class, maintenance-free, Japanese made AC servo motor and servo controller
- Photoelectrical encoder built in servo motor system is for position measurement of crosshead
- Built-in bidirectional load cell is assembled in the middle crosshead to prevent any collisions and simple to perform compression or tension tests
- Dual action over-travel limits on all frames provide the highest level of safety and meet all international standards



- Remote control keypad facilitates test operation
- DTC-500 controller provides high speed data acquisition with 8-CH A/D converting
- Full one-year warranty on parts and labor

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Various frames to satisfy your test needs from low force to high force



200/300kN

500/600kN

Heavy duty load frame 200/300kN is available with single and dual test space, saving time and labor to change fixtures when frequently performing tension and compression/flexure tests.

Standard equipped with wedge action tensile grip, and optional hydraulic tensile grip is available.

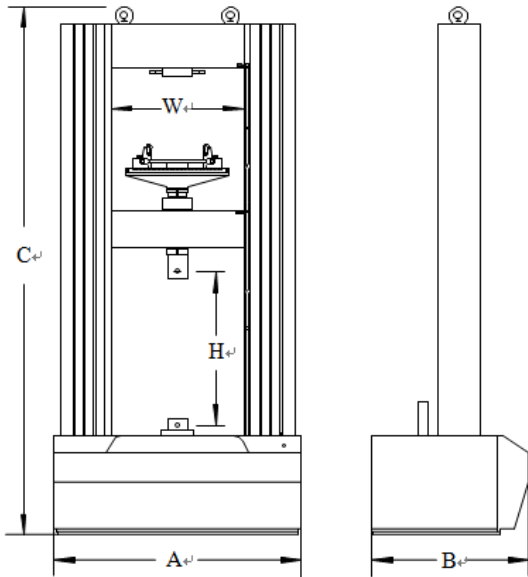
Heavy duty load frame 500/600kN is dual test space equipped with hydraulic tensile grip for large and high strength specimen

Full complement of test accessories

Extensive range of accessories to meet test requirements in almost any application or industry: plastics, metals, biomedical, composites, elastomers, components, automotive, aerospace, textiles, and more.

- Tension grip
- Peel/tear fixture
- Compression fixture
- Flexure fixture
- Film COF test fixture
- S type load cells: 10N~50kN
- Long travel extensometer
- Clip-on extensometer
- Auto-extensometer
- Environmental chamber
- Furnace
- T-slot table
- Others





Machine frame	Grip Adapter	Pin
AC2012-ETM504D AC2012-ETM105D	Φ40mm	Φ18mm
AC2012-ETM205D AC2012-ETM305D	Φ60mm	Φ28mm
AC2012-ETM505D AC2012-ETM605D	M64 x 4 screw connection	

Machine dimension: AC2012-ETM504D / AC2012-ETM105D

Test space	Frame type	Width x Depth x Height A x B x C (mm)	Crosshead travel H (mm)	Test width W (mm)
Single	Standard	1145x765x2340	1150	600
	Extended frame	1145x765x2640	1450	600
Dual space Upper compression lower tension	Standard	1145x765x2340	1050	600
	Extended frame	1145x765x2640	1350	600
Dual space Upper tension lower compression	Standard	1145x765x2340	1150	600
	Extended frame	1145x765x2640	1450	600

Machine dimension: AC2012-ETM205D / AC2012-ETM305D

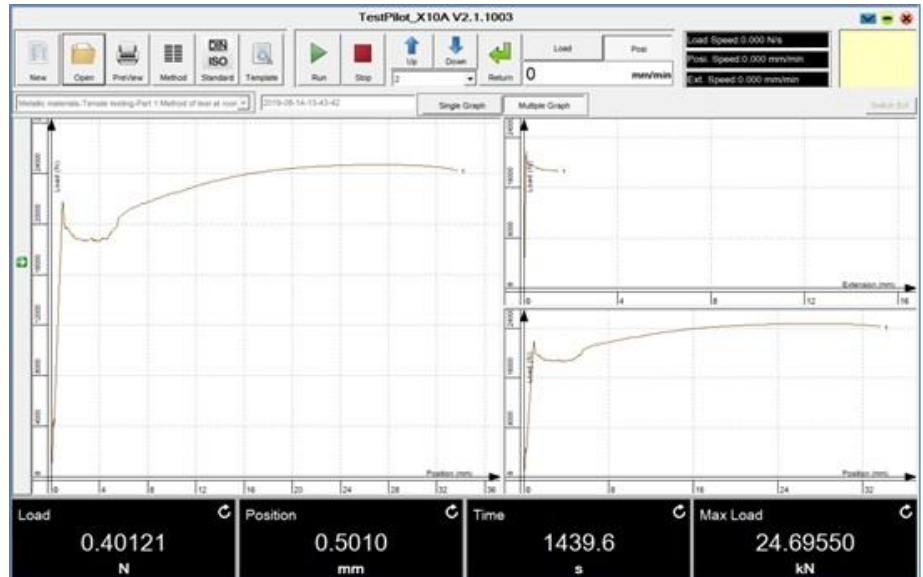
Test space	Frame type	Width x Depth x Height A x B x C (mm)	Crosshead travel H (mm)	Test width W (mm)
Single	Standard	1210x770x2600	1200	650
	Extended frame	1210x770x2900	1500	650
Dual space Upper compression lower tension	Standard	1210x770x2600	1150	650
	Extended frame	1210x770x2900	1450	650
Dual space Upper tension lower compression	Standard	1210x770x2600	1150	650
	Extended frame	1210x770x2900	1450	650

Machine dimension: AC2012-ETM505D / AC2012-ETM605D

Test space	Frame type	Width x Depth x Height A x B x C (mm)	Crosshead travel H (mm)	Test width W (mm)
Dual space Upper compression lower tension	Standard	1535x1175x3000	1400	700
	Extended frame	1535x1175x3300	1700	700

Two steps to start testing: select a project, press start

This software features a large, growing host of pre-packaged test methods to help you quickly and efficiently meet the requirements of global test standards such as ASTM, ISO, DIN, EN, BS, and more. Selected by an operator at runtime, these methods are crafted to meet the specific test flow, analysis and reporting requirements of industry standards across a range of specimen and test types. Pre-packaged test methods are available in a wide selection of bundled sets, including: Polymers & Plastics, Metals, Construction Materials, Biomedical Products, Paper Products, Adhesives, foam, textiles and more.



- Versatile, easy-to-use TruTest software with a large and growing library of standards-compliant test methods (ASTM, ISO, DIN, EN, BS, and more)
- Modular design permits easy upgrading
- Plenty of test standards are built in the library of the software for routine tests.
- User configured report: user can preset report template and include necessary information, like company information, statistics, and etc. Test report can export to Excel or Word.
- Powerful graphic function: real time display curves, like displacement-load, stress-strain, displacement-time, load-times, and others
- Powerful analysis function can calculate typical value and display on the curve, like Fm, ReL, ReH, Rp.
- Measurement unit: Users can select SI, or others, like N, kN, kgf, lbf, MPa, and so on, user can define the unit by themselves using formula.

Modular design is simple for operation and upgrading



Specifications:

Model	TF-ETM504	TF-ETM105	TF-ETM205	TF-ETM305	TF-ETM505	TF-ETM605
Type	Type D					
Capacity (kN)	50	100	200	300	500	600
Calibration standard	ISO 7500, Class 1 / Class 0.5					
Force range	0.2% ~ 100%FS / 0.4 ~ 100%FS					
Force accuracy	±1.0% / ±0.5% of reading					
Force resolution	1/350000FS					
Position accuracy	±0.50% of reading					
Position resolution (µm)	0.025		0.014			
Crosshead speed (mm/min)	0.001 ~ 500		0.001 ~ 250			
Crosshead speed accuracy	within ±1% / ±0.5% of set speed					
Crosshead travel (mm)	1150		1200		1400	
Test width (mm)	600		650		700	
Dimension (mm)	1145x765x2340		1210x770x2600		1535x1175x3000	
Power requirements	AC380V±10%, 50/60Hz					
Power consumption	1.5kW		5kW		5.5kW	
Weight (kg)	1200		1500		2000	

Shipping information:

Model	TF-ETM504 TF-ETM105	TF-ETM205 TF-ETM305	TF-ETM505 TF-ETM605
Package	Wooden case with fumigation		
Crated dimension (WidthxDepthxHeight)	1220*930*2490mm	1340*930*2760mm	2860*1510*1372mm
Crated weight	1000kg	1200kg/1600kg	2800kg/3800kg
Lead time	60 working days	60 working days	90 working days