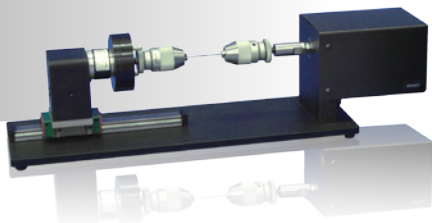


eXpert 81T Series

Universal Testing Systems

System Brochure

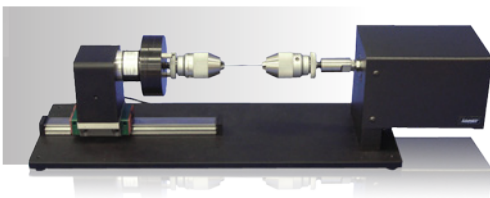


eXpert 81T Series Universal Testing Systems

Torque, Versatility, and Performance.

Torsion Testing Machines for static and fatigue testing.

eXpert 81T series table top torsion testing machines are available in vertical or horizontal orientations. Systems employ a linear slide design for maximum torsional stiffness and minimal axial friction. A reaction torque transducer is attached to a movable tail stock mounted on a linear slide. The tail stock can be left free floating or clamped during testing. All torsion testers feature unlimited rotation in both directions.



eXpert 81T-5S
Torque capacity 5Nm

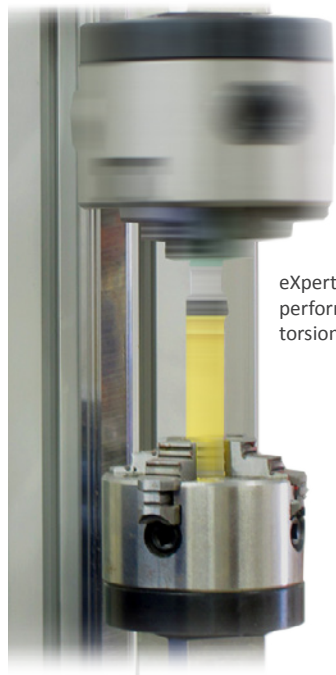
- Table-top models are offered in capacities up to 300Nm (2,650 inlb).
- Models are available for static and fatigue testing.
- Test bone screws, fasteners, metals, orthopaedic devices, plastics, wires and other materials with confidence.



eXpert 81T-20S
Torque capacity
20Nm

Customizable - Backed by superior engineering and a willingness to tailor a system to your testing needs.

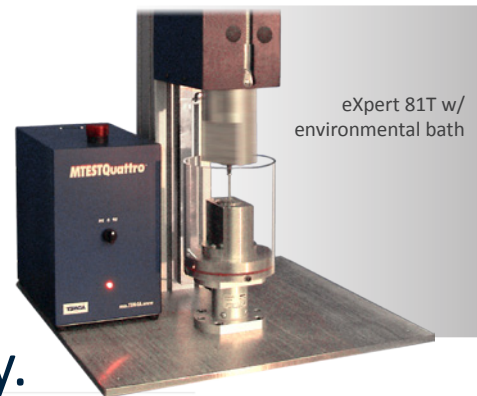
The length of the test bed, servo motor and gearing can be modified to accommodate varying specimen lengths, capacities and test speeds. A second actuator can also be added for performing biaxial tests.



eXpert 81T-20S
performing
torsion test

Trusted - Expertly designed, engineered and supported for life

- Exceeds all ASTM/ISO accuracy requirements.
- Fastest in the industry, an 8 kHz servo loop rate ensures accurate, repeatable, and reliable testing.
- All testing systems are supported for life.



eXpert 81T w/
environmental bath

Test with Certainty.

eXpert 81T Series Universal Testing Systems

Torque, Versatility, and Performance.

System Specifications

Model		81T-5S Static	81T-20S Static	81T-50S Static	81T-100S Static	81T-300S Static	81T-5F Fatigue	81T-10F Fatigue	81T-25F Fatigue
Torque Capacity	Nm	5	20	50	100	300	5	10	25
	lbft	3.6	14.7	36.5	73.7	221	3.6	7.4	18
	inlb	44	177	442	885	2,650	44	88	220
Maximum Speed at 110 VAC ¹	rpm	200	90	100	70	40	1,500	1,500	750
Minimum Speed	rpm	0.01	0.0045	0.005	0.0035	0.002	0.075	0.075	0.038
	deg/min	3.6	1.6	1.8	1.26	0.72	27	27	13.5
Maximum Torque at Full Speed	Nm	5	20	50	100	300	5	10	25
	inlb	44	177	442	885	2,650	44	88	220
Angle Resolution	deg	0.0014	0.0008	0.0008	0.0008	0.0008	0.09	0.09	0.09
Maximum Angle	deg	infinite	infinite	infinite	infinite	infinite	infinite	infinite	infinite
Head to Tailstock Opening Range ²	in	0-30	0-30	0-30	0-30	0-30	0-30	0-30	0-30
	mm	0-760	0-760	0-760	0-760	0-760	0-760	0-760	0-760
Base to Centerline Test Space ³	in	4	4	4	4	4	4	4	4
	mm	100	100	100	100	100	100	100	100
Horizontal Frame Footprint	in	12 x 36	12 x 36	12 x 36	12 x 36	12 x 36	12 x 36	12 x 36	12 x 36
	mm	304 x 1,220	304 x 1,220	304 x 1,220	304 x 1,220	304 x 1,220	304 x 1,220	304 x 1,220	304 x 1,220
Vertical Frame Footprint	in	18 x 18	18 x 18	18 x 18	18 x 18	18 x 18	18 x 18	18 x 18	18 x 18
	mm	457 x 457	457 x 457	457 x 457	457 x 457	457 x 457	457 x 457	457 x 457	457 x 457
Vertical Frame Column Height	in	42	42	42	42	42	42	42	42
	mm	1,066	1,066	1,066	1,066	1,066	1,066	1,066	1,066
Maximum Power	VA	330	330	880	1,100	2,750	1,110	2,200	3,300
Single Phase Voltage	VAC	110-220	110-220	110-220	110-220	110-220	110-220	110-220	220
	Hz	50,60	50,60	50,60	50,60	50,60	50,60	50,60	50,60

ADMET will modify a system to meet your needs.

Notes:

1. At 220 VAC the maximum speed will double.
2. Head to tailstock opening range is calculated without torque cells, grips and fixtures. Longer opening ranges can be accommodated by ordering an extended frame.
3. Base to centerline test space is the distance from the top surface of the base plate (horizontal orientation) or column (vertical orientation) to the centerline of the rotating spindle. Larger test spaces can be accommodated by ordering an extended column frame.



Test with ADMET.

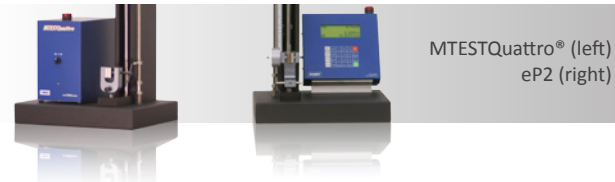


eXpert 81T Series Universal Testing Systems

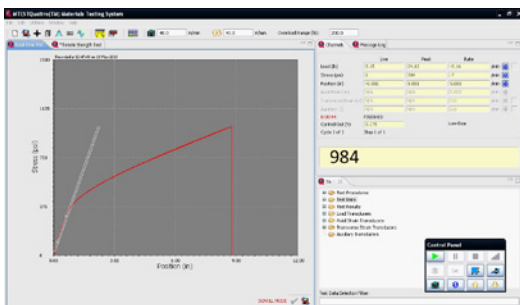
Torque, Versatility, and Performance.

Controls and Software

All ADMET Testing Machines can be equipped with one of two closed loop servo controllers. MTESTQuattro®, our most advanced testing system, is a PC-based unit that offers a wide range of flexibility in control, data acquisition, analysis, and reporting. The eP2 Digital Controller, a standalone touch panel unit, offers a balance between performance and simplicity. Both controllers feature 8 kHz servo update periods and programmable log rates to 1 kHz.

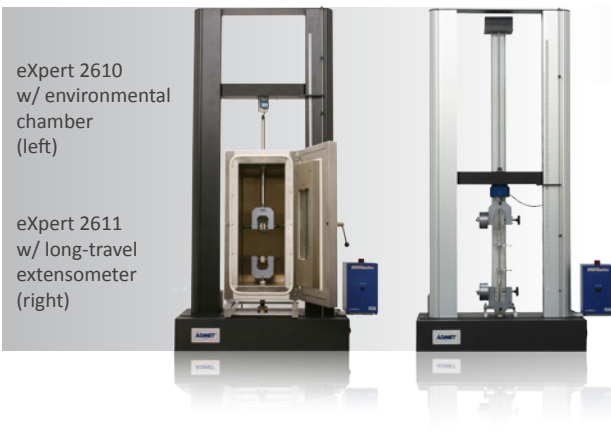


MTESTQuattro® (left)
eP2 (right)



MTESTQuattro® running on Windows

Controller	MTESTQuattro®	eP2 Digital Controller
Interface	PC Software	Touch Panel
Analysis	Extensive calculations library w/ built-in ASTM/ISO specification analysis.	Standard calculation package for basic testing requirements and QC testing.
Test Procedures	Use built-in or create an unlimited number of simple to complex procedures.	Save up to six test procedures in eP2.
Reporting	Store and organize all data. View and print user customizable test reports with chart and tables.	Post test, view current results on eP2 screen and send data to PC for reporting using optional GaugeSafe software.



eXpert 2610
w/ environmental
chamber
(left)

eXpert 2611
w/ long-travel
extensometer
(right)

Accessories - Grips, environmental chambers, extensometers, baths, cutting tools and more.

Systems can be equipped with a variety of grips, fixtures, environmental chambers and temperature controlled baths to accommodate a wide range of testing requirements. For more accurate strain measurements, extensometers or deflectometers can be added to any ADMET testing System.



For more grips information, please visit <http://admet.com/grips.htm>

Service and Calibration

Training and Service - ADMET testing systems are easy to learn and use. We provide free introductory on-line training and, if needed, additional on-site training. Our manuals, tutorials, and trouble shooting guides are updated regularly. We provide free phone and email product support through the life of the system. ADMET's on-site service and calibration team includes over 100 individuals in over 40 locations in the USA.

Calibration - Customers can setup calibration contracts with ADMET or a private party. All services are A2LA accredited and meet ISO/IEC Guide 17025 and ANSI/NCSL Z540.



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