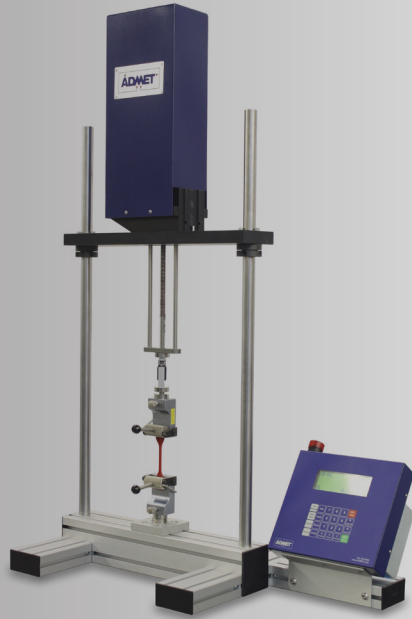


System Brochure



eXpert 5000 Series Modular Universal Testing Systems

A bold and flexible new approach to materials and product test systems.

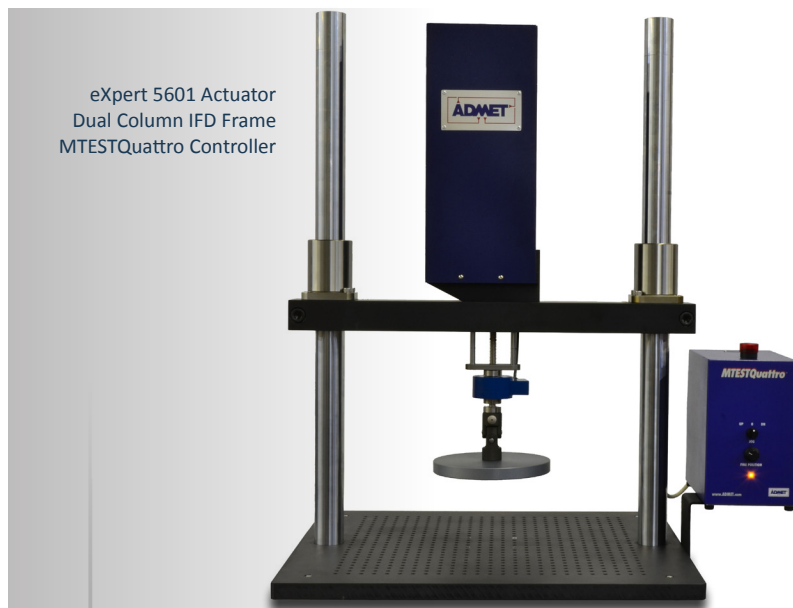
The eXpert 5000 series testing systems are modular in design; you choose the actuator, test frame and controller to meet your testing needs. Each system features a detachable actuator with fast acting servo motor. Actuators are available in force capacities from 1kN to 10kN with several actuators capable of performing fatigue tests at frequencies up to 10Hz. Load frames are offered in single or dual column table top arrangements and ADMET will even custom design a frame when necessary. Two controllers are available. MTESTQuattro(R), a PC based system for more advanced materials and product tests; and the eP2, a standalone digital controller well suited for repetitive quality control testing. The result is a flexible and modular system capable of performing a wide variety of tests.

Applications

- Tension, compression and bend testing according to common ASTM and ISO test specifications.
- Durability and cyclic fatigue testing on products and materials.
- Foam testing including IFD and constant force pound tests according to ASTM D3574.
- Adhesive peel testing.
- Furniture, sporting goods and medical device testing.



eXpert 5603 Actuator
Single Column Frame
MTESTQuattro Controller



eXpert 5601 Actuator
Dual Column IFD Frame
MTESTQuattro Controller

Test with Certainty.

eXpert 5000 Series Modular Universal Testing Systems

To Configure a Test System, Follow 3 Easy Steps.....

Step 1: Select an Actuator

Actuator Model		5601	5602	5603	5951	5952	5955
		Static	Static	Static	Dynamic	Dynamic	Dynamic
Continuous Force	lbf	225	500	1,000	500	1,125	2,250
	kN	1	2.2	4.5	2.5	5	10
	kgf	100	225	450	250	500	1,000
Peak Force	lbf	--	--	--	900	1,800	3,150
	kN	--	--	--	4	8	14
	kgf	--	--	--	400	800	1,400
Maximum Speed	in/min	25	7	20	480	480	480
	mm/min	635	178	504	12,192	12,192	12,192
Actuator Stroke	in	12	12	12	6	6	6
	mm	305	305	305	152	152	152
Position Resolution	μin	2.9	0.87	2.2	100	50	50
	μm	0.073	0.022	0.057	2.54	1.27	1.27
Throat Depth when mounted on 1 Column Frame	in	3	3	3	--	--	--
	mm	76	76	76	--	--	--
Maximum Power	VA	100	100	250	1,760	2,800	3,600
Single Phase Voltage	VAC	100-240	100-240	110,220	220	220	220
	Hz	47-63	47-63	50,60	50,60	50,60	50,60

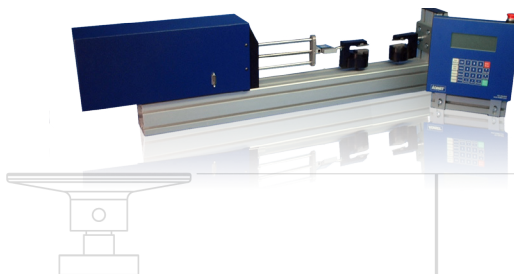
Load Measurement Accuracy:
+/- 0.5% of reading down to 1/100 of load cell capacity. Meets or exceeds ASTM E4, BSENIS 7500-1: 2004, DIN 51221 and JIS B7721 standards. ADMET self-identifying load cells are offered with all systems.

Strain Measurement Accuracy:
+/- 0.5% of reading down to 1/50 of full scale with ASTM E83 class B extensometers. Meets or exceeds ASTM E83 and BSENISO9513: 2002 standards.

Step 2: Select a Test Frame



Single Column Frame - Normally used in vertical orientation but can be easily re-configured to test in the horizontal. Recommended for 5601, 5602 and 5603 actuators only.



Frame	1 Column	
Total Vertical Test Space ¹	in	31
	mm	787
Total Lateral Test Space	in	3.5
	mm	89
Height	in	53.3
	mm	1354
Width (Frame Only)	in	18.9
	mm	480
Depth	in	15.1
	mm	384

Notes:

1. Total Vertical Test Space is the distance from the top surface of the base platen to the bottom surface of the moving crosshead, excluding load cell, grips and fixtures. Larger openings can be accommodated by ordering an extended column frame.

eXpert 5000 Series Modular Universal Testing Systems

2 Column Static Test Frame - Recommended for 5601, 5602 and 5603 actuators only.

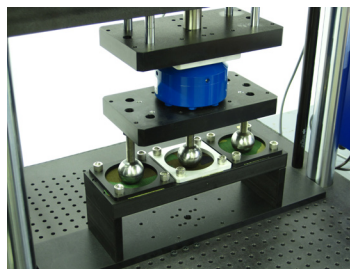


System configured with an eXpert 5601 1kN actuator mounted on a 2 column static test frame with MTESTQuattro. Test system is equipped with a three station 90 deg peel fixture with pneumatic grips. MTESTQuattro reads the (3) 10 lbf load cells and calculated average peel force within a displacement window.

Frame		2 Column
Total Vertical Test Space	in mm	32 813
Space Between Columns	in mm	16.5 419
Height	in mm	54.3 1379
Width (Frame Only)	in mm	18.9 480
Depth	in mm	15.1 384

2 Column Dynamic/Foam Testing Frame - Compliant with ASTM D3574 Foam Testing Requirements.

Frame		2 Column
Total Vertical Test Space ¹	in mm	32 813
Space Between Columns	in mm	24 609
Height	in mm	54.3 1379
Width (Frame Only)	in mm	30 762
Depth	in mm	24 609
Base Details	Includes 6mm dia holes on 20mm center	

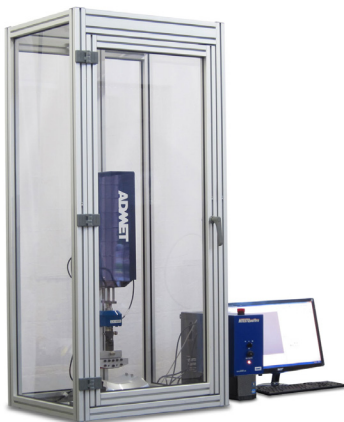


Three station fixture for testing the durability of textiles through cyclic loading.

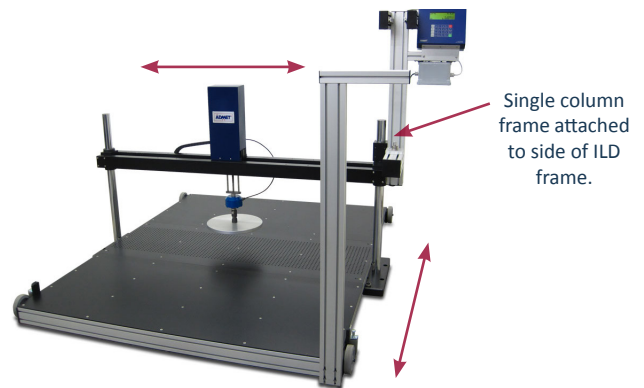


Two column dynamic test frame with eXpert 5951 actuator for performing constant force pound test according to ASTM D3574.

Custom Test Frames - Taller, shorter, wider; our engineering group will configure a design to meet your specifications.



Single column test frame equipped with eXpert 5601 1kN actuator provided with protective enclosure and custom fixturing for testing the adhesive pull off strength of balance weights from automobile wheels.

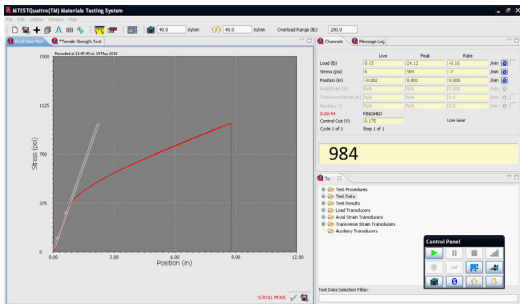
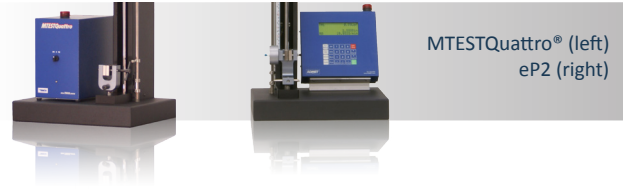


Custom test frame with eXpert 5603 5kN actuator for testing mattresses and box springs according to ASTM F1566. Test bed is on rollers and actuator is on a slide so that any point on the mattress can be tested. A single column frame is attached to the side of the custom frame allowing the eXpert 5603 actuator to be easily relocated for performing tension tests on individual mattress springs.

eXpert 5000 Series Modular Universal Testing Systems

Step 3: Select a Controller 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 load rates to 1 kHz.



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.

Grips and Accessories

Systems can be equipped with a variety of grips, fixtures, environmental chambers and temperature controlled baths to accommodate a wide range of testing requirements. Visit our website for an on-line catalog of our standard offerings. ADMET will also custom design fixtures to meet your testing needs. For more accurate strain measurements, extensometers or deflectometers can be added to any ADMET testing System.



Three station 90 deg peel fixture with pneumatic grips. System configured with an eXpert 5601 1kN actuator mounted on a 2 column static test frame. MTESTQuattro reads the (3) 10 lbf load cells and calculated average peel force within a displacement window.



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

Single column frame equipped with eXpert 5601 1kN actuator and the eP2 Digital Controller for measuring the flexural properties on endoscope tubing. Custom flex fixture was provided according to customer specifications.

eXpert 5000 Series Modular Universal Testing Systems

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.

