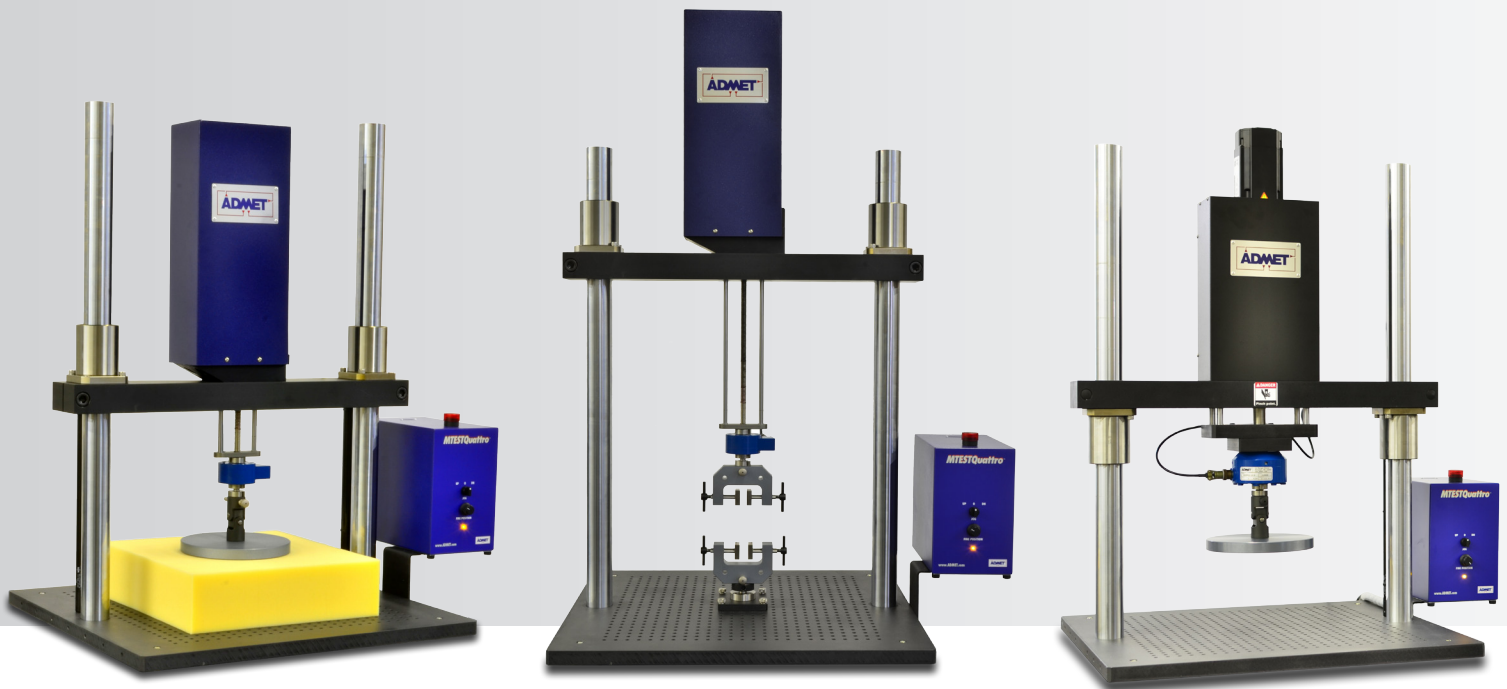


Materials Testing Systems

Foam Testing Systems Configured to Perform ASTM D3574 and ISO Standardized Tests



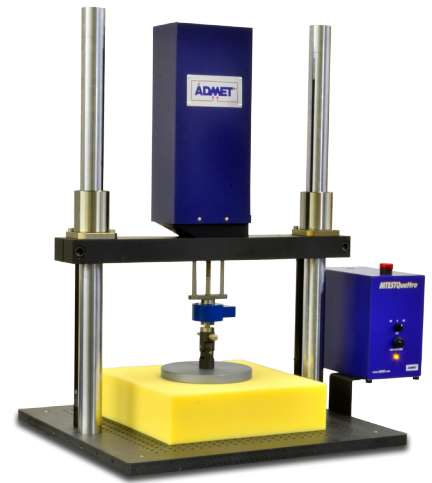
Materials Testing Systems

eXpert 5603F Static Foam Testing System

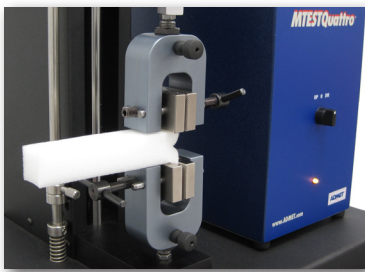
The eXpert 5603F Foam Testing System includes everything needed to perform the ASTM D3574 static tests and the equivalent ISO tests on urethane foam. The dual-column system, capable of speeds up to 508 mm/min (20 in/min), is designed for sample block sizes as large as 24 in x 24 in. Our standard package includes a perforated lower base plate and swivel jointed upper platen per ASTM requirements.

Included with the machine is the MTESTQuattro PC-based control system equipped with the following test procedures that can be easily accessed by the click of a mouse:

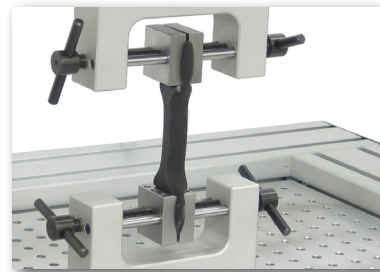
- ASTM D3574- Test B1 / ISO 2439: Indentation Force Deflection (IFD)
- ASTM D3574- Test C / ISO 3386: Compression Force Deflection (CFD)
- ASTM D3574- Test E / ISO 1798: Tensile Tests
- ASTM D3574- Test F / ISO 8067: Tear Resistance Test
- ASTM D3574- Test X6: Hysteresis Loss



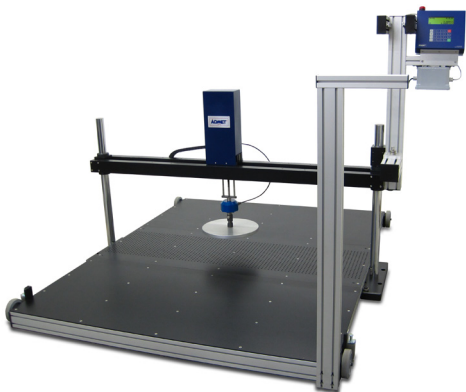
eXpert 5603F Foam Testing System



ASTM D3574 Test F



ASTM D3574 Test E



Custom-designed Mattress Tester

Engineered-to-Order Foam Testing Machines

Taller, shorter, wider, faster, slower; our engineering group will configure a design to meet your specifications. ADMET provides testing systems developed for end user products such as chair cushions, mattresses and box springs. Custom frames, rolling test plates and adjustable height actuators allow for a wide range of sizes and shapes.

1-800-667-3220



eXpert 5952F with compression platens

eXpert 5952F Fatigue Foam Testing System

ADMET's eXpert 5952F series fatigue foam testing machine can perform all the tests that eXpert 5603F can in addition to the Constant Force Pounding test specified under ASTM D3574 Test I3. With a maximum speed of 15,240 mm/min (600 in/min) and fatigue rated components, the dynamic force actuator exceeds the ASTM D3574 speed and cycle requirements.

Operators may choose the eXpert 5952F to perform the following tests:

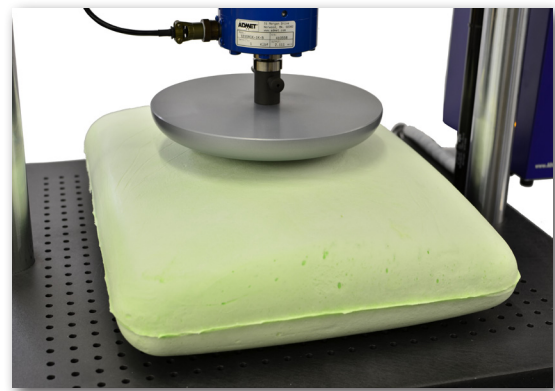
- ASTM D3574- Test I3 / ISO 3385: Dynamic Fatigue Test by Constant Force Pounding (CFP)
- ASTM D3574- Test M: Recovery Time
- ASTM D3574- Static Tests: B1, C, X6, E & F

ADMET makes it possible

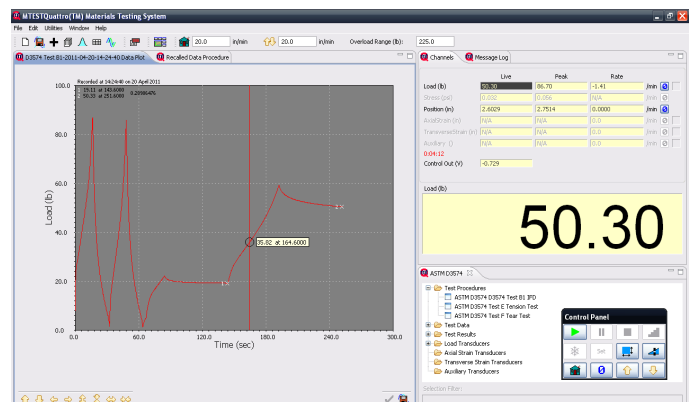
ADMET's high-feature testing machines have been specifically designed to meet the needs of the foam testing industry. After working closely with leaders in the foam industry, we have determined that traditional universal testing machines are not the ideal foam testing solution. Specifically, most systems do not offer enough horizontal testing space to accommodate larger foam samples or provide the capability to perform tension testing. Those that do are designed with other applications in mind and are prohibitively expensive. The eXpert 5603F and eXpert 5952F testers solve these issues by combining a frame designed specifically for foam specimens with our proven tension/compression actuators and machine controllers.

The eXpert 5603F and 5952F both come equipped with ADMET's MTESTQuattro PC-based control system. MTESTQuattro also provides the flexibility to specify a variety of user-defined tests in addition to preloaded ASTM D3574 and ISO test procedures.

Call (800) 667-3220 to talk to an engineer about your foam testing application!



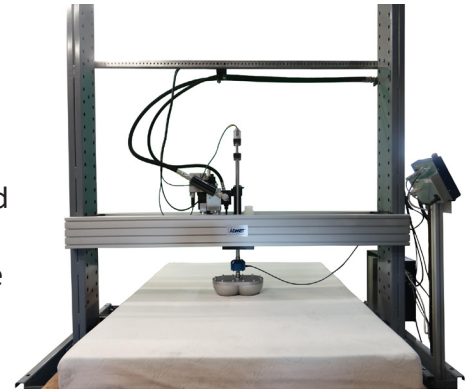
Ready for ASTM D3574 Test M: Foam Recovery Time



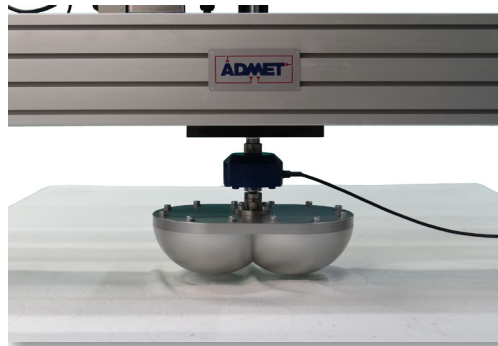
MTESTQuattro performing ASTM D3574 IFD Test

H-Frame Dynamic Cornell Mattress Tester

The ADMET H-Frame Cornell Mattress Tester includes everything needed to perform the ASTM F1566 Section 9 Firmness Retention and Surface Deformation test, commonly referred to as the “Cornell Test”. The system is built on an H-Frame body, which is designed to accommodate up to and including king size mattresses. Capable of speeds up to 1,200 in/min, the ADMET H-Frame Cornell Mattress Tester achieves the 100 strokes/minute requirement per the specification with ease. The system comes equipped with a sliding servo-hydraulic actuator, which allows for testing across all locations of the mattress. A customized ram-head designed to simulate the average human buttocks is supplied with the tester.



H-Frame Cornell Mattress Tester



ASTM F1566 Testing



ASTM F1566 Cornell Compression Platen

Designed for Ease of Use

Included with ADMET’s standard H-Frame Cornell Mattress Tester is a specialized eP2 controller designed to perform the Cornell Test without any operator interaction. The controller comes preloaded with a test procedure allowing the user to specify up to 8 cumulative cycle points to record force deflection data for calculation of support firmness and dimple values. Once the test is initiated, the system will cycle through the test and automatically record measurements at the specified cycle points.



Specialized eP2 Controller

Upon test completion, a report displaying the force values at specified deflections for each cycle point is stored to disk in ASCII delimited format, which enables it to be opened in common spreadsheet programs like Microsoft Excel.

The Cornell Tester + would be equipped with control options for Cornell Mattress testing as well as ASTM D3574 Tests

System Specifications

Model		5603F Static	5636F Static	5952F Dynamic	Cornell Tester +	Foam Test Standard	5603F Static	5636F Static	5952F Dynamic	Cornell Tester +
Load Capacity	lbf	1,000	1,000	1,000	1,000	ASTM D3574 Test B1	✓	✓	✓	✓
	kN	4.5	4.5	4.5	4.5		✓	✓	✓	✓
	kgf	450	450	450	450		✓	✓	✓	✓
Maximum Stroke	in	10	10	10	8	ASTM D3574 Test C	✓	✓	✓	✓
	mm	254	254	254	203		✓	✓	✓	✓
Maximum Speed	in/min	20	40	480	1,200	ASTM D3574 Test E	✓	✓	✓	✓
	mm/min	508	1,016	12,192	30,480		✓	✓	✓	✓
Position Control Resolution	μin	2	2	100	100	ASTM D3574 Test F	✓	✓	✓	✓
	μm	0.05	0.05	2.54	2.54		✓	✓	✓	✓
Horizontal Test Space	in	24	24	24	78	ASTM D3574 Test I3			✓	✓
	mm	610	610	610	1,981				✓	✓
Vertical Test Space ¹	in	30	30	30	38	ASTM D3574 Test M		✓	✓	✓
	mm	762	762	762	965			✓	✓	✓
Frame		Dual Column	Dual Column	Dual Column	H-Frame	ASTM D3574 Test M		✓	✓	✓

Notes:

1. 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.

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.

About ADMET

ADMET is a high-feature universal test machine manufacturer based in Norwood, Massachusetts. In 1986, Richard Gedney, CEO and founder of ADMET, graduated from Northeastern University in Boston with a degree in Mechanical Engineering. By 1988, he had graduated from MIT with a master's degree in mechanical engineering and by 1989 he had formed Advanced Machine Technology, later shortened to ADMET.

Over the next 9 years, ADMET built an enviable reputation building software and controllers for a large range of electromechanical and servohydraulic materials testing machines. The software and controller packages were implemented on not only new systems but also as retrofits and upgrades where testing challenges proved too much for existing competitor equipment. The culture that exists within the company today was built in those early days, solving a plethora of engineering problems in the mechanical testing and measurement systems world.

By 1998, it was time to translate that deep engineering expertise and develop a complete line of products and systems. In 1999, the original eXpert 5600 system was introduced and over the next decade ADMET continued to invest in its product family, launching many product ranges covering tension, compression, flexure and peel/adhesion tests. The company has expanded aggressively into the end user market and now sells to over a dozen industries including automotive, aerospace, biomedical, construction, plastics, metals, test labs, and university sectors as well as major government agencies. Customers include Lawrence Livermore National Lab, GE, DuPont, Boeing, US Steel, John Deere, Bechtel, Medtronic, and Harvard Medical School. ADMET customers are located in over 48 countries.

