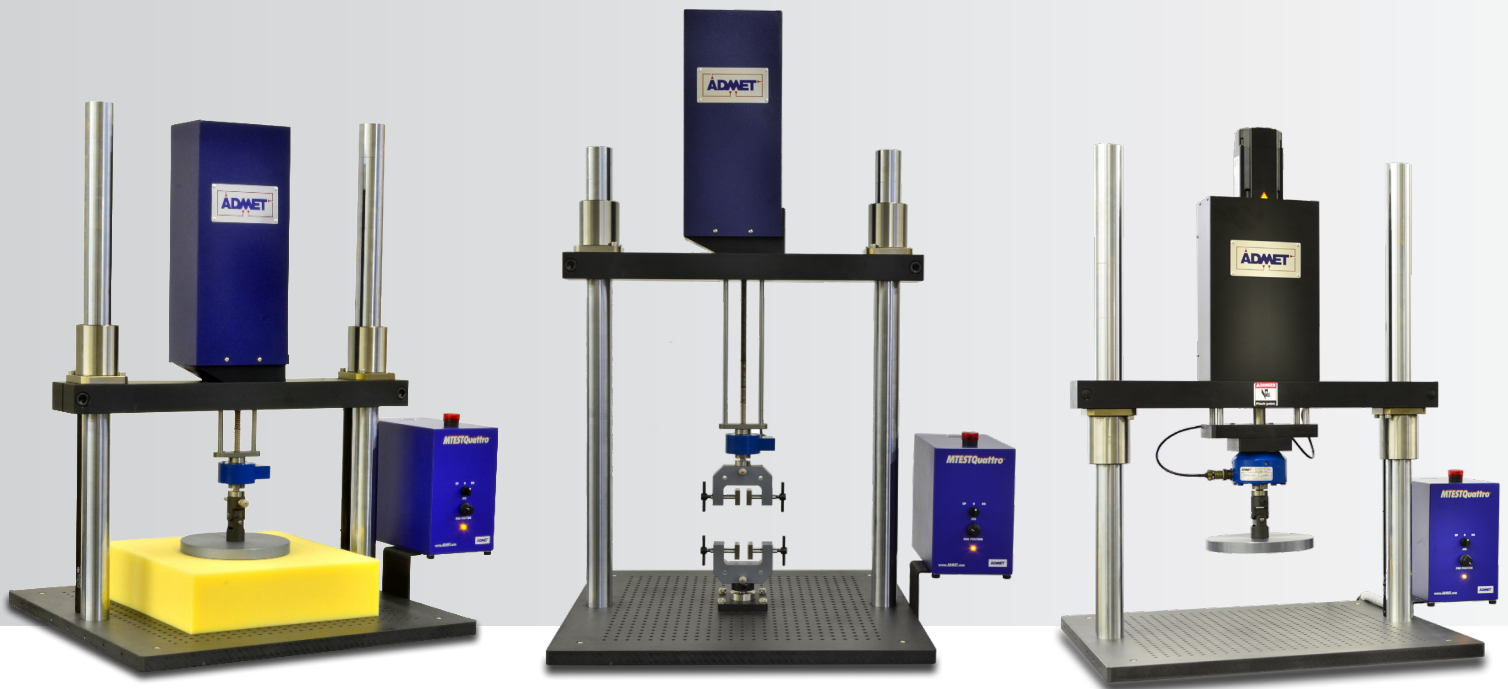


Materials Testing Systems

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



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

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 5900F series 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 eXpert 5900F both come equipped with ADMET's MTESTQuattro PC-based control system which includes preloaded ASTM D3574 and ISO test procedures. MTESTQuattro also provides the flexibility to specify a variety of user defined tests.

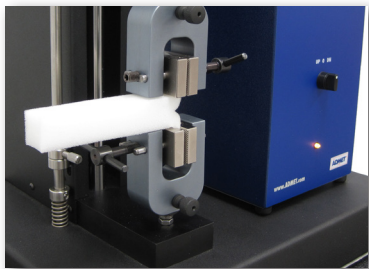
eXpert 5603F Static Foam Testing System

The eXpert 5603F 5kN Foam Testing System includes everything needed to perform ASTM D3574 static tests and the equivalent ISO tests on urethane foam. The standard dual-column system, capable of speeds up to 1016 mm/min (40 in/min), is designed for sample block sizes as large as 16 in x 16 in (Wider column spacings are available to accommodate larger samples). Our standard package includes a perforated lower base plate and 203 mm diameter compression platen with swivel mount per ASTM D3574 requirements. Included with the machine is the MTESTQuattro® PC-based control system pre-loaded with the following test procedures that can be easily accessed with the click of a mouse:

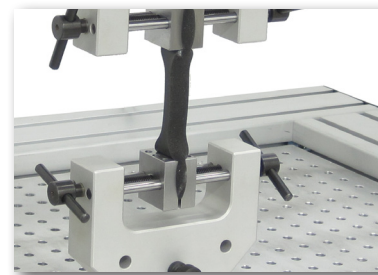
- ASTM D3574 - Test B1 / ISO 2439: Indentation Force Deflection (IFD)
- ASTM D3574 - Test C / ISO 3386: Compression Force Deflection (CFD)
- ASTM D3574 - Test E / ISO 1798: Tensile Tests
- ASTM D3574 - Test F / ISO 8067: Tear Resistance Test
- ASTM D3574 - Test M: Recovery Test
- ASTM D3574 - Test N: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



eXpert 5603F Foam Testing System



ASTM D3574 Test F



ASTM D3574 Test E

Call ADMET Toll Free:1-800-667-3220

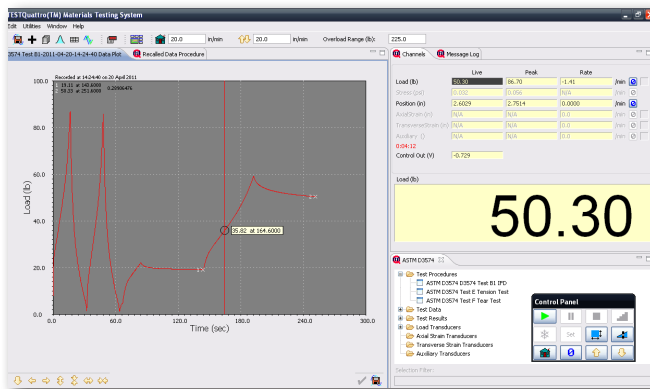


eXpert 5952F with compression platens

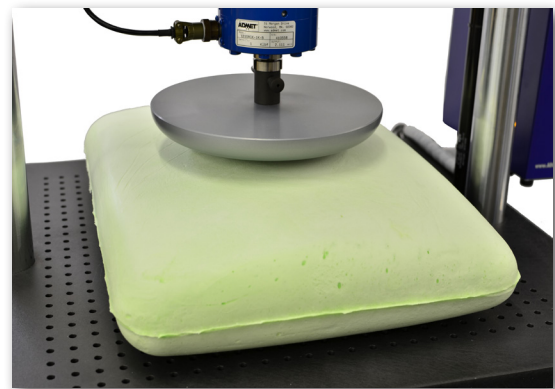
eXpert 5900F Fatigue Foam Testing System

ADMET's eXpert 5900F series fatigue foam testing machines perform all the static tests that the eXpert 5603F can in addition to the Constant Force Pound test specified under ASTM D3574 Test I3. With a maximum speed of 12,000 mm/min (480 in/min) and fatigue rated components, the dynamic force actuator exceeds the ASTM D3574 speed and cycle requirements. ADMET offers two eXpert 5900F series models: the eXpert 5961F has a force capacity of 1kN and the eXpert 5952F is rated to 5kN. Both eXpert 5900F series models 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, E, F, N



MTESTQuattro® performing ASTM D3574 IFD Test

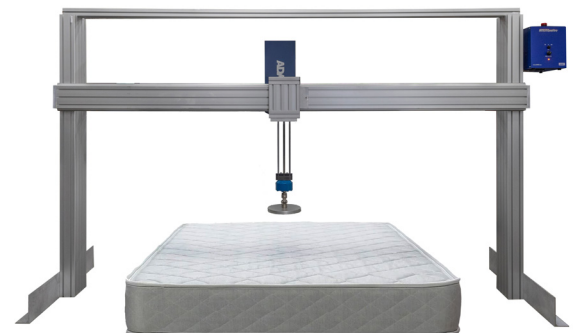


Ready for ASTM D3574 Test M: Foam Recovery Time

Floor Standing and Table Top Mounted H-Frames to Accommodate Larger Sample Sizes

ADMET also offers test frames to accommodate larger foam blocks and mattresses. Our H-Frame configuration for mattress testing accepts the same 5603F actuator and is capable of performing all of the static ASTM D3574 tests listed above.

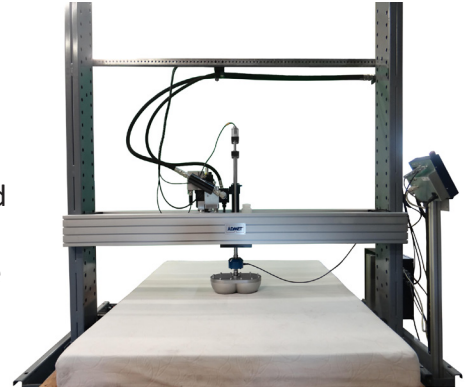
The H-Frame features an actuator mount which allows the user to infinitely adjust the location of the compression platen anywhere along the test frame. The eXpert 5603F actuator features a 10 in stroke. The height of the H-Frame crosshead is manually adjustable to accommodate a wide range of mattress/foam thicknesses.



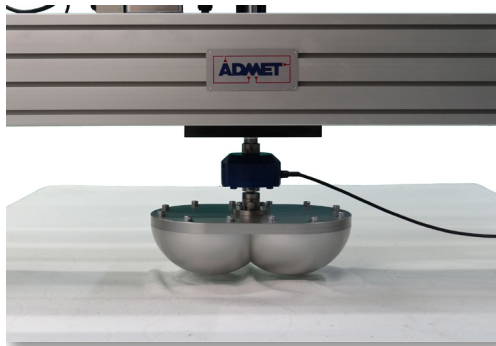
Floor Standing H-Frame for Testing Mattresses

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 the eP2 Digital 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.



Specialized eP2 Controller

Once the test is initiated, the system will cycle through the test and automatically record measurements at the specified cycle points. 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 viewed in common spreadsheet programs like Microsoft Excel.

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System Specifications

Model		5603F Static	5952F Dynamic	5961F Dynamic	Cornell Tester +
Load Capacity	kN	5	5	1	5
	lbf	1,125	1,125	225	1,125
	kgf	510	510	100	510
Maximum Stroke	mm	254	254	254	203
	in	10	10	10	8
Maximum Speed	mm/min	1,016	12,192	12,192	30,480
	in/min	40	480	480	1,200
Position Control Resolution	µm	0.158	1.239	1.587	2.54
	µin	6.25	48.8	62.5	100
Horizontal Test Space ¹	mm	405	405	405	1,980
	in	16	16	16	78
Vertical Test Space ²	mm	762	762	762	965
	in	30	30	30	38
Frame		Dual Column	Dual Column	Dual Column	H-Frame

	5603F Static	5952F Dynamic	5961F Dynamic	Cornell Tester +
ASTM D3574				
Test B1 IFD	✓	✓	✓	✓
Test C CFD	✓	✓	✓	✓
Test E Tensile	✓	✓	✓	✓
Test F Tear Resistance	✓	✓	✓	✓
Test I3 Dynamic Fatigue		✓	✓	✓
Test M Recovery Time		✓	✓	✓
Test N Hysteresis Loss	✓	✓	✓	✓

Notes:

1. Wider column spacings are available to accommodate larger foam blocks.
2. 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. ADMET customers are located in over 48 countries around the world.

