



# Elmendorf Tearing Testers

Tearing Strength

# Testing for Propagated Tear Strength

SDL Atlas Elmendorf Tearing Testers are designed to determine ballistic tearing strength by propagating a single-rip tongue-type tear starting from a cut in a sample of paper, cardboard, plastic, or fabric - both woven or nonwoven. The versatility of the SDL Atlas Elmendorf Testers allow for a wide range of capability for testing both light and heavy weight specimens.

## PowerTear™ High Energy Elmendorf Tearing Tester

The PowerTear High Energy Elmendorf Tearing Tester is the most versatile tearing tester of its kind available. It is designed to provide accurate results while being easy to use.

With increased functionality and unmatched user friendly testing experience, the PowerTear features an innovative pendulum apparatus that is controlled and measured by a sophisticated microprocessor.

Electronic braking and two button release make the instrument safe while a rotary encoder, pendulum balance control, and bearing on the release pin make it accurate and reliable. Lever clamps make sample loading fast and easy for the operator who can then choose the results in 7 different units of measurement.

The PowerTear has an expanded range up to 128 N when used with optional E pendulum for high energy testing.



Ability to adjust zero balance the pendulum provides the most accurate results possible

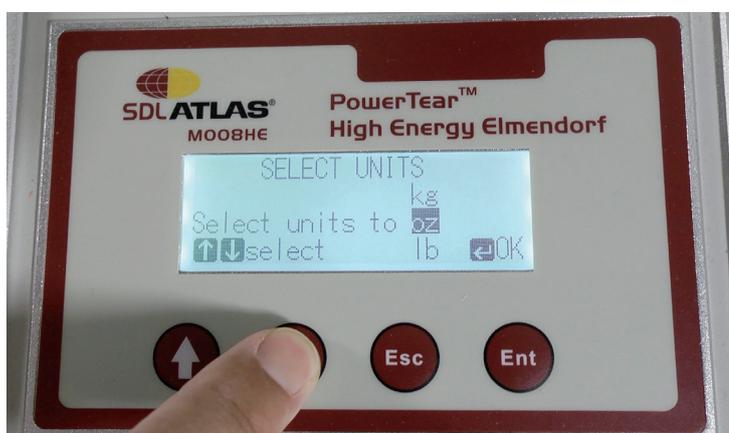
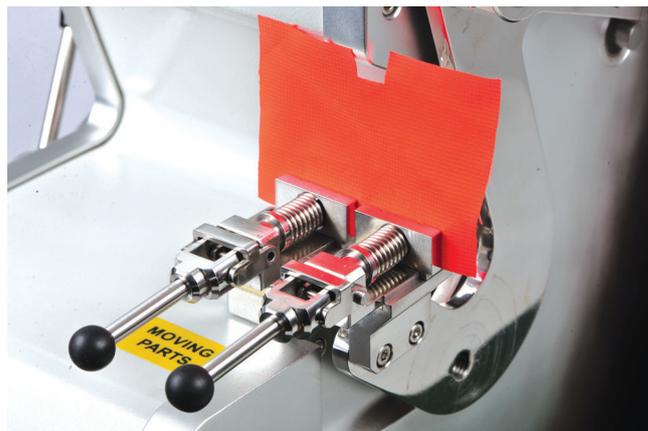


## Manual Elmendorf Tearing Tester

The Manual Elmendorf is the cost-effective alternative for determining the tearing strength of a sample paper, cardboard plastic or fabric. The testing sample is secured and starting cut made. The operator then presses the pendulum release to begin the test. An index on the pendulum indicates the tearing strength. The Manual Elmendorf has a testing range of 8 N to 64 N. Transitioning between pendulums can be quickly and easily achieved to quickly perform tests on a variety of different sample weights. Pendulums and weights are sold separately.

# PowerTear™ Features

- Pendulum and verification weights for 8 N, 16 N, 32 N, and 64 N are included allowing for a variety of testing demands (128 N pendulum optionally available)
- Angular encoder provides a direct measurement ensuring the greatest accuracy possible
- Adjustable pendulum balance allows the user to precisely calculate the center of gravity and make changes as required
- Large stable platform to ensure instrument stability during testing
- Electronic breaking system halts the pendulum after the test for user safety.
- Microprocessor controller can store 99 test results in the instrument
- Set of 4 standard test weights and check weights come in acrylic racks for convenient storage



## Unit Conversion Option Available

Tearing strength results can be displayed in mN, cN, N, g, k, oz and lbs. Results are displayed on an integral 16 character LCD screen at the end of each test. The display also shows the sample number and which pendulum is in use.

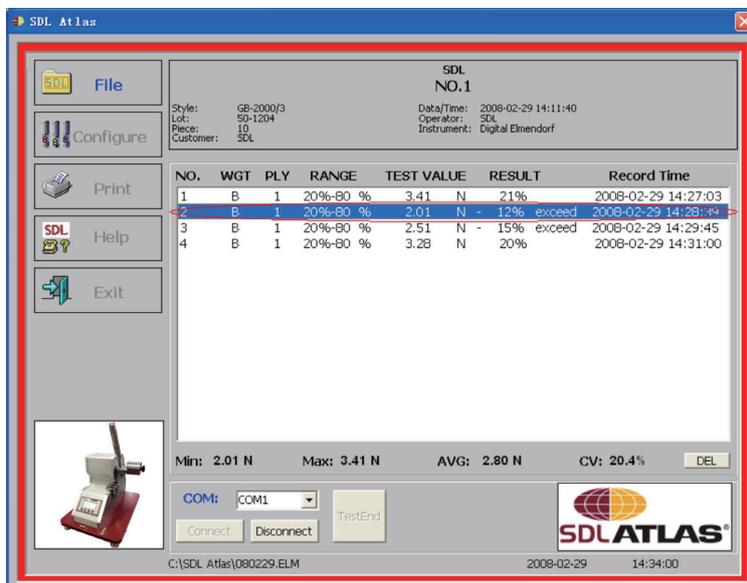
## Connects to PC

The PowerTear comes with USB output interface and software for connecting to a PC for testing and data storage allowing for searchable records.

Software allows inputting of:

- Batch information
- Remarks
- Specimen descriptions
- Ability to include or exclude particular test results

Customizable reports allow the user to select the desired result calculations and save as a Microsoft Excel File.



# Specifications and Standards

## PowerTear™ High Energy Elmendorf

## Manual Elmendorf

### Configurations

Standard Configuration	<ul style="list-style-type: none"> <li>PowerTear Elmendorf Tearing Tester</li> <li>Pendulum and Verification Weights (A-D for 8 N, 16 N, 32 N and 64 N)</li> <li>USB Instruction Manual and Software</li> </ul>	<ul style="list-style-type: none"> <li>Manual Elmendorf Tearing Tester</li> </ul>
Optional Accessories	<ul style="list-style-type: none"> <li>Pendulum Kit E - Extends Capacity to 128 N</li> </ul>	<ul style="list-style-type: none"> <li>Pendulum A - 8 N maximum</li> <li>Pendulum B - 16 N maximum</li> <li>Pendulum C - 32 N maximum Additional Weight 16 N - Converts Pendulum B to C</li> <li>Pendulum D - 64 N maximum Additional Weight 48 N - Converts Pendulum B to D</li> </ul>

### Specifications

Operation Mode	Automatic	Manual
Measuring Range	5 Grades 8 N, 16 N, 32 N, 64 N, 128 N	4 Grades 8 N, 16 N, 32 N, 64 N
Tearing Strength Unit Display	mN, cN, N, g, Kg, oz, lb	mN
Analysis Software	Yes	N/A
Test Result Output	Yes (RS232)	Yes
Dimensions (LxWxH)	420 mm x 620 mm x 430 mm	458 mm x 190 mm x 324 mm
Weight	85 kg (excludes weights)	15 kg (excludes weights)
Power	230 V / 50 Hz or 115 V / 60 Hz, Single Phase	N/A

### Standards

Comply to:	ISO 13937-1, 1974, 4674-2, 6383-2 ASTM D1424 NEXT 17 TAPPI T414 M&S P29 DIN 53128, 53862 BS 4253, 4468 AFNOR G07-149 INDA IST 100.1 WSP 100.1.R3	ISO 13937-1, 1974, 4674-2, 9290 ASTM D1424 NEXT 17 TAPPI T414 M&S P29 DIN 53862 BS 4253, 4468 INDA IST 100.1 WSP 100.1.R3
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Providing confidence in standard based testing through expertise and global partnering



**SDL ATLAS LLC**  
 3934 Airway Drive  
 Rock Hill, SC 29732-9200, USA  
 Telephone: +1 803 329 2110  
 Facsimile: +1 803 329 2133  
 Website: www.sdlatlas.com

**SDL ATLAS LTD.**  
 1B, Building B, JuanXiangDa Mansion,  
 No. 9 Zhongshan Park Road,  
 Nanshan, Shenzhen, 518052, China  
 Telephone: +86 (755) 2671 1168  
 Facsimile: +86 (755) 2671 1337  
 Website: www.sdlatlas.com

**SDL ATLAS LTD.**  
 3J, Garment Centre, 576 Castle Peak Road,  
 Kowloon, Hong Kong  
 Telephone: (852) 3443 4888  
 Facsimile: (852) 3443 4999  
 Website: www.sdlatlas.com