



# Thwing-Albert Instrument Company

More Than a Century of Testing Solutions

The Heavy Duty Elmendorf ProTear quickly and accurately measures the tearing strength of heavy weight materials including paper, nonwovens, plastics, and textiles. A high capacity instrument, the Heavy Duty Elmendorf is equipped with augmenting weights to increase capacity to 25,600 grams-force.

A mechanical model is available which obtains test results by means of a pointer on a graduated scale from 0-100% and reports it as a percentage of the pendulum capacity.

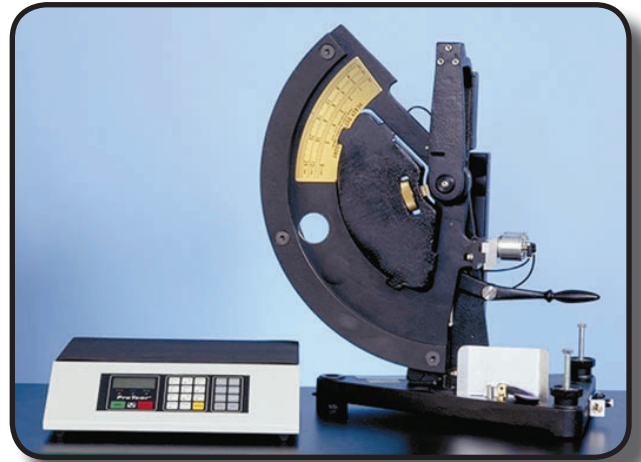
Advanced electronics enhance the functionality of the unit by providing complete test control and direct digital readout of results. Pneumatic clamping and a digital encoder which monitors pendulum movement ensures repeatable, precise test results. Quickly enter sample data, configure test parameters, results and reports, obtain results as percent of scale, tear index, grams, mN or pounds, and receive instant analysis with an easy-to-read display and one-touch software.



## Data Acquisition Software

An optional data acquisition software program installs quickly and is easily configured with user-friendly drop-down menus. It provides the ability to capture serial data, customize it for specific requirements and then transfer it to other applications such as Excel™ and Access™. Use the capabilities of these applications to create graphs and reports that automatically update with real-time data.

## Heavy Duty ProTear Elmendorf Tear Tester



Ideal for higher gauge materials, the Heavy Duty ProTear tests up to 25,600 grams.

- Touch-screen user interface with Windows CE operating system
- Augmenting weights are available to increase capacity to 25,600 grams
- User-friendly, one-touch software
- Pneumatic clamping
- RS-232 & Parallel Ports
- Digital encoder for precision measurements

The Heavy-Duty **ProTear Elmendorf Tear Tester** is capable of testing to a variety of standards:

ASTM D751, D5734, ASTM D1424  
ISO 13937-1

Visit [www.thwingalbert.com](http://www.thwingalbert.com) for a complete listing of industry standards.



### *Calibration Checkweights*

Maintaining the calibration of the Heavy Duty Elmendorf ProTear is vitally important to the units' performance. Checkweights are available for periodically verifying the calibration of the instrument.

### *Sample Cutter*

Accurate samples are necessary to achieve repeatable test results. A twin blade cutter, which

ensures precise cuts, facilitates testing and reduces operator fatigue, is available. Quickly and accurately prepare samples 63mm wide and up to 6" long.

### *ProTear Electronic Upgrade Package*

Update an existing Heavy Duty Elmendorf with the advanced ProTear electronics and quickly enhance the functionality of the unit.

### *Physical Specifications*

#### **Dimensions**

19" W x 13" D x 24" H  
483 mm x 330 mm x 610 mm

#### **Net Weight**

69 lbs (31.3 kg)  
(includes 6400 gm pendulum)

#### **Operating/Storage Environment**

Air Temperature:

Operating: 10% to 50% C

Storage: -25% to 70% C

Relative Humidity:

Operating: 10% to 85% (Non-Condensing)

Storage: 5% to 90% (Non-Condensing)

### *Performance Data*

#### **Capacity**

6400, 12,800 & 25,600 grams

#### **Accuracy**

0.5% of Pendulum Capacity

#### **Display**

4 Line by 16 Character Backlit LCD,  
Wide-angle view

#### **Statistical Analysis**

Average, Standard Deviation, High, Low, Range,  
Variance

#### **Test Memory**

99 Test Results

#### **Electrical Requirements**

110 VAC 10% @ 50 Hz  
120 VAC 10% @ 60 Hz  
220/230 VAC 10% @ 50 Hz  
240 VAC 10% @ 0 Hz

#### **Power Consumption**

10 Watts Max

#### **Outputs**

RS-232 serial port  
Parallel printer port

#### **Result Reporting**

Digital Encoder & Display

#### **Result Units**

% of Pendulum, Force in Grams, lb, mN

#### **Sample Clamps**

Manual or Pneumatic

*Specifications subject to change without notice.*

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