The ProGage utilizes the most advanced technology to quickly and accurately measure the thickness of sheeted materials such as paper, plastic film, tissue and toweling, nonwovens, and textiles. The ProGage features a dual speed pressure foot which enables it to perform up to 20 test cycles per minute (based on configuration) while maintaining a high degree of accuracy. The anvil design ensures excellent parallelism as well as zero stability and calibration.

A wide range of selectable presets for the measuring of speed distance and the pressure foot speed, as well as pressure feet diameters and weights, enables the unit to be configured to meet a specific test standard.

Capable of continuous or single testing with statistical analysis that is automatically performed. Average, high, low and standard deviation are computed, displayed and can be printed.

The ProGage can operate in conjunction with other instruments or be controlled remotely through a computer terminal via a RS-232 port.

**Data Acquisition Software**

Data Acquisition Software (DAS) is a Windows® based optional software package that provides the ability to collect data and perform additional statistical analysis. DAS enables you to plot results real time against defined limits, generate semi-custom reports and export test data to other spreadsheet packages for further management.

**Standard Pressure Feet**

- Paper Foot: 0.630” (16mm) Dia, 50.33 kPa
- Paper Foot 0.630” (16mm) Dia, 100 kPa
- Film Foot: 0.250” (6.35mm) Dia, 51.71 kPa
- Tissue Foot: 1.406” (35.7mm) Dia, 2.0 kPa
- Nonwoven Foot: 2.221” (56.4mm) Dia, 0.5 kPa
- Other feet can be made to meet a wide variety of sizes and weights.

**Features**

- Auto push-button zero control
- Dual speed setting for test cycle increases samples measured per minute
- Rigid mechanical design ensures zero and parallel stability
- Stores up to 99 samples - average, high, low and standard deviation
- Single or continuous cycling mode
- Push-button unit conversion: mils, microns, millimeters, inches
- Adjustable travel height of pressure foot
- PC compatible - RS-232 port
Sample Feeder
An automatic strip feeder is available for cross-reel profiling and roll or strip feeding. It can accommodate samples up to 7 inches (177.8 mm) wide. The distance the sample is fed between tests can be set from 0.1 to 19.9 inches (2.5 to 505 mm). The feeder rate is 3.33 inches/sec (84.6 mm/sec).

Performance Data - Measuring Ranges

<table>
<thead>
<tr>
<th>Default Settings</th>
<th>40 mil (1 mm)</th>
<th>100 mil (2.5 mm)</th>
<th>200 mil (5 mm)</th>
<th>500 mil (12.7 mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening - mils:</td>
<td>80</td>
<td>150</td>
<td>220</td>
<td>520</td>
</tr>
<tr>
<td>Dwelling Time:</td>
<td>2 sec</td>
<td>2 sec</td>
<td>2 sec</td>
<td>2 sec</td>
</tr>
<tr>
<td>*Accuracy:</td>
<td>±0.00004 in</td>
<td>±0.00005 in</td>
<td>±0.00025 in</td>
<td>±0.0005 in</td>
</tr>
<tr>
<td></td>
<td>(±0.001 mm)</td>
<td>(±0.0012 mm)</td>
<td>(±0.0064 mm)</td>
<td>(±0.013 mm)</td>
</tr>
<tr>
<td>*Parallelism:</td>
<td>±0.00004 in</td>
<td>±0.00005 in</td>
<td>±0.00025 in</td>
<td>±0.0005 in</td>
</tr>
<tr>
<td></td>
<td>(±0.001 mm)</td>
<td>(±0.0012 mm)</td>
<td>(±0.0064 mm)</td>
<td>(±0.013 mm)</td>
</tr>
<tr>
<td>Display Resolution:</td>
<td>0.0001 in</td>
<td>0.00001 in</td>
<td>0.00005 in</td>
<td>0.0001 in</td>
</tr>
<tr>
<td></td>
<td>0.01 mil</td>
<td>0.01 mil</td>
<td>0.05 mil</td>
<td>0.1 mil</td>
</tr>
<tr>
<td></td>
<td>0.1 micron</td>
<td>0.1 micron</td>
<td>0.5 micron</td>
<td>1 micron</td>
</tr>
</tbody>
</table>

*Accuracy and parallelism specifications are subject to change based on pressure foot diameter and weight and may be adversely affected if a clean environment is not provided.

Special requirements are quoted on request.

Note: Machines that are configured for a particular specification, either customer or published, may differ from the above performance specification.

Physical Specifications

- **Dimensions**: 10 in W x 12 in D x 12.5 in H (254.0 mm x 304.8 mm x 317.5 mm)
- **Net Weight**: 52 lb (23.6 kg)
- **Gross Weight**: 57 lb (25.9 kg)
- **Throat Depth**: 4.75 in (120.6 mm)

Performance Data

- **Measurement Speed Distance**: Range from 0.0005 to 0.500 in (0.012 to 12.7 mm)
- **Dwell Time**: 0.0 - 9.9 seconds (selectable)
- **Pressure Foot Speed**: 15 Presets available between 0.026 - 0.416 in/sec (0.660 mm/sec - 10.566 mm/sec)
- **Pressure Foot Diameter Size**: 0.19 in to 2.2 in (4.83 mm to 56 mm) (special sizes available) (Special applications allow interchangeable pressure feet option)

Specifications subject to change without notice.

Foot Switch
A foot actuated control enables the user to start a test with one press of the foot switch thereby keeping the hands free to insert test samples.

The ProGage Thickness Tester is capable of testing to a variety of standards:

- ASTM D374, D1777, D646, D6988
- TAPPI T411, BS3983, BS4817, EN20534
- ISO 12625-3, DIN 53105, 53353, EDANA 30.4-89

Visit www.thwingalbert.com for a complete listing of industry standards.