



The Gelbo Flex Tester with Particle Counter is to measure the amount of loose fibres (lint) shed from non-woven materials in a 30 second time period of flexing. It is important that non-woven textile materials must have a low tendency to lint.

The IDM Gelbo Flex Tester with Particle Counter is a fast and accurate instrument for determining the linting of non-woven materials.

This test can also be applied to other materials like tissues.



The sample is subjected to repetitive twisting and compression cycles, air is withdrawn from the testing chamber and particles in the air stream are counted and classified with the laser particle counter.

**Gelbo Flex Tester with Particle Counter** consists of two 82.8mm diameter mandrels, one fixed and the other attached to a moveable arm to perform the flexing action. The moveable mandrel twists and compresses the sample at 60 cycles/min of 180° rotation over 120mm of stroke.

**Flexing Chamber** measuring 300 x 300 x 300 mm which has removable panels for easy cleaning with built in Isokinetic intake probe (air collector), and HEPA filter to reduce the incoming dust & lint.

**Particle Counter** counts and sorts the particles in real time with relevance to sizing from 0.3 to 25.0µm OR 0.5 to 25.0µm. The counter will simultaneously monitor up to 6 environmental sensors such as temperature, humidity, air velocity or differential pressure. These are recorded whilst measuring particles. It has a flow rate of 1CFM (28.3 LPM) and is able to store up to 3,000 data sets including particle and environmental data, plus location time etc. It also prints reports on a built in thermal printer.



## Applications:

- Non-Wovens
- Wovens
- Textiles
- Healthcare
- Hygiene
- Filtration

## Benefits:

- Easy to use
- Fast results
- Accurate

## Specifications:

- 82.8mm diameter mandrels x 2
- 60 Cycles/min
- 180° rotation
- 120mm stroke
- Flexing Chamber: 300 x 300 x 300mm
- Flow Rate: 1CFM (28.3 LPM)
- Storage: Up to 3,000 data sets



**\* EXAMPLE \***  
Sample being tested

## Features:

- Gelbo Flex Tester
- Flexing Chamber and Air Collector
- Stainless Steel cutting template: 285mm x 220mm
- Sample Mounting Fixture
- Isokinetic Probe (Air Collector)
- Particle Counter: Optional sizes available
  - 0.3 to 25.0µm
  - 0.5 to 25.0µm
- 6 Sensor Monitor

## Standards:

- ISO 9073-10
- Inda IST 160.1
- DIN EN 13795-2
- YY/T 0506.4



## Options:

- **Particle Counter** (Please specify sizing range when ordering)

Model

<b>3100+ C6</b>	<i>inda IST 160.1</i>	<i>0.3, 0.5, 1.0, 5.0, 10.0, 25.0µm</i>
<b>5100+ C6</b>	<i>inda IST 160.1</i>	<i>0.5, 1.0, 3.0, 5.0, 10.0, 25.0µm</i>
<b>3100+ C8</b>	<i>ISO 9073-10</i>	<i>0.3, 0.5, 0.7, 1.0, 3.0, 5.0, 10.0, 25.0µm</i>
<b>5100+ C8</b>	<i>ISO 9073-10</i>	<i>0.5, 1.0, 2.0, 3.0, 5.0, 7.0, 10.0, 25.0µm</i>

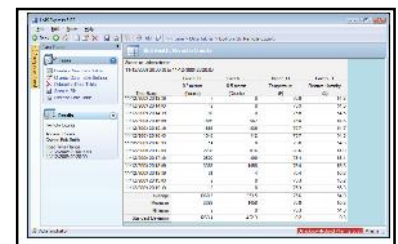


**Particle Counter**

- **LMS Express 7 Software**

LMS Express 7 allows users to manually download data directly from Lighthouse instruments or import Lighthouse Secure Data files from supported counters.

- Manual data download from Lighthouse Portable Particle Counters via COM ports and Network Ports
- Exports data tables and reports to excel (\*.XLS) or CSV
- Exports graphs to BMP, JPEG, and more
- Easy unit conversion
- Localized dates and numbers
- Includes database with archiving feature



Data tables allow you to view data points in detail. They can be printed and exported to Microsoft Excel file (\*.xls) or Comma Separated Values file (\*.csv).

- **Airstream® Horizontal Flow Cabinet**

Room air is taken from the top of the clean bench through a disposable pre-filter with 85% arrestance. The air is forced evenly across the ULPA filter, creating a clean stream of air within the workzone.

- Clean Bench with Standby Mode for more energy saving
- DC ECM Motor: Only 155 Watts (for 4ft size)
- Stable & self-compensating flow
- ULPA filter (up to ISO Class 3)
- Quiet operation



**Flow Cabinet**



## Guide to ordering Flow Cabinets (optional)



L	H	-	G	-	F		
1	2	3	4	5	6	7	8

1 <sup>st</sup> Place Holder		2 <sup>nd</sup> Place Holder		3 <sup>rd</sup> Place Holder		4 <sup>th</sup> Place Holder		5 <sup>th</sup> Place Holder		6 <sup>th</sup> Place Holder		7 <sup>th</sup> Place Holder		8 <sup>th</sup> Place Holder	
PRODUCT LINE		FLOW		SIDE WALL		WIDTH		INTERNAL HEIGHT		CONTROL		WINDOW		ELECTRICAL	
Laminar Flow	L	Horizontal	H	Glass	G	3 feet	3	2 feet	A	Sentinel™ Gold	G	Fixed	F	230 VAC, 50/60Hz	8
				Stainless Steel	S	4 feet	4	2.5 feet	B					115 VAC, 50/60Hz	9
						5 feet	5	3 feet	C						
						6 feet	6								
						8 feet	8								

## Dimensions:

### Gelbo Flex Tester:

- **H:** 300mm
- **W:** 1,100mm
- **D:** 350mm
- **Weight:** 45kg

### Particle Counter:

- **H:** 290mm
- **W:** 270mm
- **D:** 230mm
- **Weight:** 6kg



## Connections:

### Electrical:

**Gelbo Flex Tester:** 220/240 VAC @ 50 HZ or 110 VAC @ 60 HZ  
(please specify when ordering)

**Particle Counter:** 85 - 264 VAC @ 50/60 HZ