

Product Specification

HVT Genius 2



Generic Name : Fully Automatic High Volume Fibre Tester
Product # : MAG – F1101 | **Test Category** : Cotton Fibre
Industry Usage : Ginning and Spinning



Features :

- Determines the fibre properties of cotton such as Length, Strength, Fineness (Micronaire), Maturity, Moisture, Color and Trash Content of the materials.
- Compact and ergonomic model embedded with microcomputer controlled technology for rapid measurement.
- Inbuilt automated Fibre comb sampler for better sampling repeatability which avoids operator influence.
- Provision to test both Real trash Content by weight as well as Surface trash.
- Surface Trash measurement by Advanced image processing technique using Camera.
- Measurement of Real Trash Content through buoyancy separation technique by use of air currents.
- Automated Fineness and Maturity testing (Double compression method).
- Automated sample changer mechanism for minimal operator work load.
- Parallel as well as simultaneous operations ensure faster testing.
- More tests with single operator can be achieved as the sampling requires handful of cotton without any pre-weighment.
- Inbuilt Barcode scanner for creating and retrieving the bale information.
- Touch screen ensures more user comfort.
- Highly stable and accurate precision weighing balance.
- Calibration in both HVI & ICC mode by USDA and any other international calibration cotton.
- Flexible report options like date wise, lot wise, cotton type wise, as well as consolidated reports.



TECHNICAL DATA

Operating Modes : HVI and ICC

	Length	Strength	Micronaire	Moisture	Color	Trash		
Measuring Principle	Optical	CRE	Airflow	Electrical Conductance	Optical	Gravimetric	Optical	
Measuring Range	: 15 to 45	10 to 50	2.0 to 8.0	3.5 to 20 %	Rd: 40 to 90	Up to 99%	Tr. ct : Upto 400	
	mm	g/tex	µg/inch		+b: 4 to 18		Tr. area : Upto 60 %	
							Tr. Grade : 1 to 8	
Sample size	: One Handful Cotton	8.5 to 10.5 gram	One Handful Cotton	10 to 50 gram	One Handful Cotton			
Numerical Results	Length		Strength	Fineness				
	HVI	ICC		Micronaire and Maturity Ratio MR %				
	UHML, ML (all in inch/mm), UI, SFI, Amount		2.5% & 50% SL (all in inch/mm), UR, SFI, Amount		Bundle Strength in g/tex and Elongation in %			
	Moisture			Color		Trash		
	Moisture in %			Reflectance Rd % Degree of Yellowness +b and American upland Cotton Color Grade CG		Gravimetric	Optical	
					Trash, Dust, Micro-dust and IV loss in %	Trash Count, Trash Area% and Trash grade		

Continued

FQI (Fibre Quality Index) derived from all above characteristics

Predicated Lea **CSP** (for combed & carded yarns) and **PP** (Process Proficiency)

Compressed Air Supply : 5.0 to 6.0 bar dried and filtered air; **Consumption** : ~100 LPM (during test progress only)

Power Supply : Single Phase 220vAC @ 50Hz; **Consumption** : 2750 watts (Including printer 300 watts)

Applicable standard(s) : ASTM D5867 / D2812 & ITMF

Physical Dimensions :

Main Unit

AccuTrash

Size(WDH) : 1080 x 900 x 1200 mm;

Size(WDH) : 800 x 700 x 1000 mm

Weight : 550 kg (Accessories excluded)

Weight : 280 kg

SCOPE OF SUPPLY

1) Main Unit – 2 Nos. (HVT Genius + AccuTrash)

2) Accessories : TFT touch screen monitor - 1 No., CPU - 1 No., Isolation transformer (2 KVA) - 1 No., Precision Electronic Balance - 2 Nos., Laser Printer - 1 No. and Inlet air tube (6m) - 1 No.,

3) Tools : Maintenance Toolkit Box - 1 No.

4) Spares : Set of System Software CDs - 1 No.

5) Documents : User's guide, Warranty certificate, Test certificate & Calibration certificate.

6) Consumables : Standard Calibration cotton for Length & Strength (Pack of 450 g) - 2 Boxes (Each 1 No. of Low & High),
Standard Calibration cotton for Micronaire (Pack of 180 g) - 2 Boxes (Each 1 No. of Low & High),
Standard Calibration color tiles (Set of 5) - 1 Set.
Standard Calibration Trash tiles - 1 Set.

Optional Supply : 1) BaleMan Software (Bale management software)

2) Barcode Software

3) Air compressor with Air dryer and filter

4) Online sine wave UPS-2 KVA

5) Humidification system for Lab

PRE-REQUISITES FOR INSTALLATION

- Suitably conditioned (65% Relative Humidity atmospheric controlled) Room.
- Properly earthed and Stabilized single phase 220vAC @ 50Hz supply equipped with 2 KVA online UPS ported at 5 Amps supply socket 2 Nos. / 16 Amps supply socket 1 No.,
- Laboratory standard compressed air supply at 7.0 bar (10 kg/cm² / 14.5 CFM / Min. 150 tank capacity) with a throughput of 100 LPM,
- Test samples and Suitably qualified operator.

OTHER AVAILABLE MODELS

HVT Expert 1401 and HVT Smile 100 (Compact High Volume Fibre Tester)