

NextGen Laserscan

by AWTALtd.





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The NextGen Laserscan

The measurement of wool fibre diameter can be conducted through four distinct methods as delineated by the International Wool Textile Organisation (IWTO). AWTA Ltd employs the IWTO-12 Laserscan fibre diameter analyser method for fibre diameter certification and fleece measurement services.

In 1972, CSIRO initiated the development of the first Laserscan, establishing the foundation and obtaining approval for the method from the IWTO. Subsequently, in 1996, AWTA Ltd acquired the rights to manufacture and sell the Laserscan and continued its further development.

Introduced in 2014, the NextGen Laserscan has swiftly established itself as a cutting-edge technology in the field. Its global clientele spans a diverse range of end users, encompassing universities, mills, government facilities, and more. The market reception of the NextGen Laserscan has been exceptional, attesting to its innovative features and precision in measuring wool fiber diameter. With its widespread adoption, it has become an indispensable tool for various industries and research institutions, setting new standards in fiber measurement and analysis.



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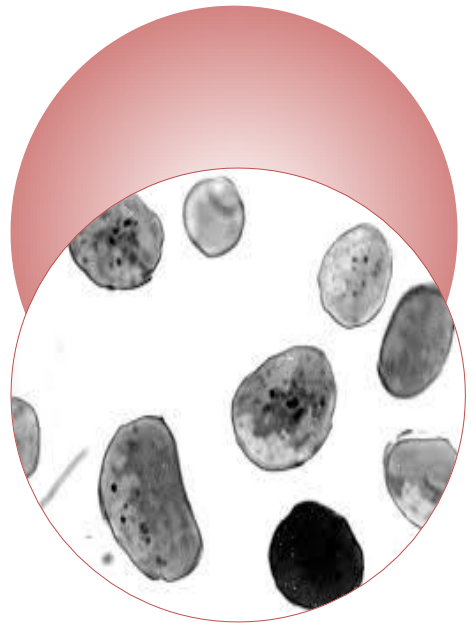


How does it work?

The Wool Industry has chosen to characterise Fibre Diameter in relation to the average thickness or width of a two-dimensional projected image composed of numerous fibre snippets. In the accompanying figure¹, microscopic fibre cross-sections are depicted. The non-uniform geometry complicates the definition of Mean Fibre Diameter (MFD), rendering it a more intricate task than it many initially appear.

The fibre snippets are very short pieces of fibre, typically around 2mm long, which have been cut at random positions along the length of the fibre. The precise mechanism for doing this usually involves using a Minicore.

The NextGen Laserscan works by mixing fibre snippets with water and a neutral detergent called transporation fluid. The mixture then flows through a measurement cell, where the shadow cast by the wool fibre snippet in a laser beam is utilised to determine its diameter.



¹ Photograph provided by Peter Turner, CISRO Division of Wool Technology, Belmont, Victoria, Australia



Laserscan

Model: NextGen

Technical Information

The AWTA NextGen Laserscan instrument meets the test standards of the International Wool Textile Organisation standard IWTO-12-2012.

The NextGen Laserscan Model is a cutting edge solution that revolutionises precision measurements with its advanced features and user-friendly design. It boasts seamlessly integrated electronics, ensuring optimal performance and reliability. Navigating through intricate measurements is a breeze with the simple and easy-to-use user interface, thanks to Laserscan AWIN II software, empowering users of all skill levels. The temperature-controlled cabinet guarantees stable operating conditions, enhancing

the accuracy and consistency of your results. Embrace efficiency with the full automatic process, streamlining your workflow and minimising manual intervention. The NextGen Laserscan goes beyond conventional standards by employing a water based transporation fluid, not only promoting environmental sustainability but also contributing to a clean and efficient operation.

Technical Speicifactions

Power				
Input Voltage	AC 85-264 V (50/60Hz)			
Rating	250 W (unit only)			
PC & Software				
Hardware	Intel Core i5 or above	8GB RAM	512GB Storage	1080p Display
OS & Software	Windows 8 or 10		Laserscan AWIN II	
Dimensions and Weight				
Dimensions (WxDxH)	550mm x 631mm x 911mm			
Weight (gross)	160 kg			
Environmental Parameters				
Operating Temperature	17°C to 23°C			
Operating Humidity	20% to 80%			
Accessories (Optional)				
Detergent	Teric 168			
Top Sample Preparation	Guillotine			
Core Sample Preparation	Minicore			
Core Sample Preparation	Snippet Dryer			
Manufacturer Warranty	1 Year			



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