

NextGen Laserscan

by AWTALtd.





Copyright

Unless otherwise stated, the copyright and any other rights in respect of the content of all pages in this booklet, including all texts and images, are owned by AWTALtd.

Disclaimer

AWTA Ltd gives no warranty and makes no representation whether express or implied that the software supplied with NextGen Laserscan is error free. The NextGen Laserscan has been designed to perform the functions and operate within the conditions specified in this manual. AWTALtd accepts no responsibility for any loss and/or damage whatsoever arising as a result of the use of the instrument for other functions or outside of the specified conditions.

The information provided in this booklet is for reference only. Although extreme care has been taken to ensure that the information provided is accurate in all respects. You are encouraged to conduct your own enquires to verify any particular piece of information provided in this booklet. Actual product may change at the time of build without notice.

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.



Please scan the QR code with your phone, or visit our

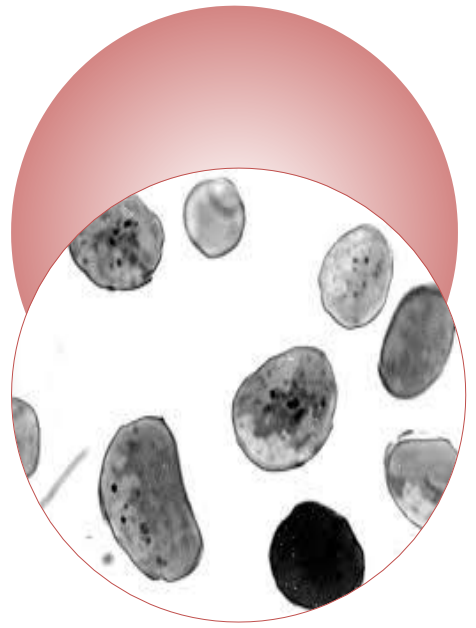


How does it work?

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 may 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 transportation 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-12-2025.

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	100 - 240 V AC 50/60Hz			
Input Current	5 A max			
PC & Software				
Hardware	Intel Core i5 or above	8GB RAM	512GB Storage	1080p Display
OS & Software	Windows 10 or above		Laserscan AWIN II	
Dimensions and Weight				
Dimensions (W x D x H)	550mm x 631mm x 911mm (945mm with lid)			
Weight (gross)	130 kg			
Environmental Parameters				
Location	Indoor, no direct sunlight, dust free			
Ambient Temperature	0 °C to 40 °C			
Operating Temperature	17 °C to 23 °C			
Operating Humidity	20% to 80% non-condensing			
Operating Altitude	Up to 2000 m			
Transport Medium	Distilled Water and Surfactant			
Accessories (Optional)				
Detergent	Teric® 168			
Top Sample Preparation	Guillotine			
Core Sample Preparation	Minicore			
Core Sample Preparation	Snippet Dryer			
Manufacturer Warranty	1 Year			



Contact:

AWTA Ltd

Engineering Department
24 Robertson St. Kensington
VIC 3031 Australia

Phone: (+61) (03) 9371 2100

Email: manufacturing@awta.com.au

Web page: www.awta.com.au