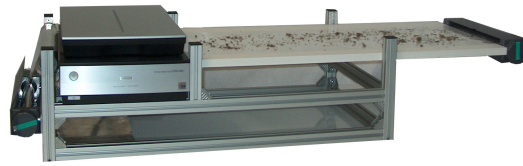


# FibreShape Automatic

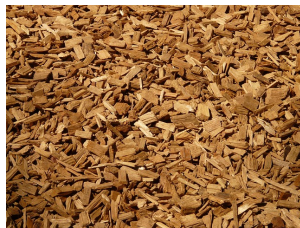
## Product information

FibreShape Automatic is a quality control and characterization system for fibers and chips such as wood, jute, hemp and bast. It is unique in its set of features, simple user interface, and rapid characterization process, from the sample preparation to the printed certificate. Further advantages:

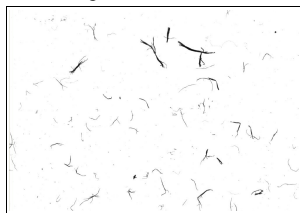


- a quick measurement method for measuring the individual objects from your sample
- numerically stable measurement of fiber length and width, regardless of fiber size and shape
- easy and fast specimen preparation (dry or wet)

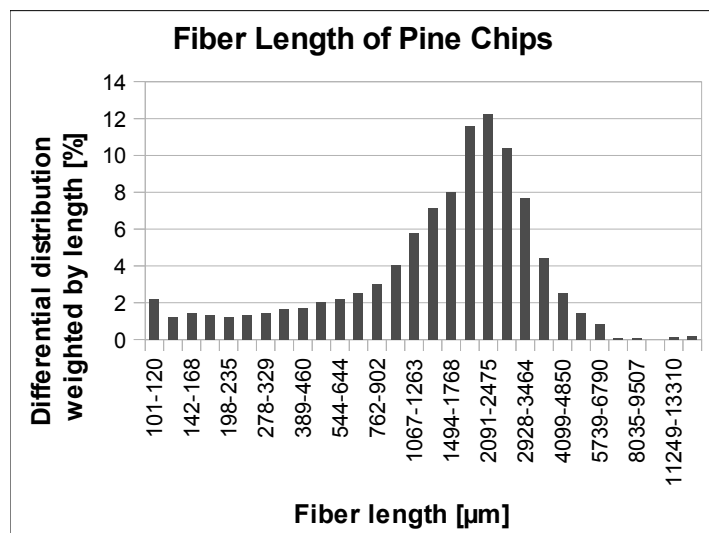
## Two examples of length and width measurement with FibreShape



Wood chips



4,2 cm  
Pine chips for the WPC production,  
measured with Fibreshape



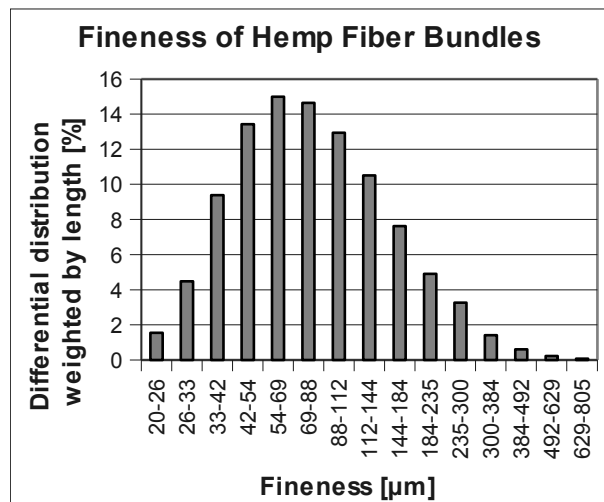
FibreShape Automatic is applied to the production control of chip boards, fiberboards, WPC, etc. The size distribution (fiber length and width) of wood chips is a determining factor for the properties and the quality of the final product.



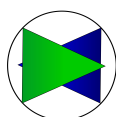
Field of industrial hemp



2,4 cm  
Hemp fiber bundles, measured  
with Fibreshape



FibreShape Automatic is also in use for the quality control of raw hemp and end products (e.g. rovings and yarn). Hemp fibers are nowadays mainly used in technical applications as for example in the automotive (natural fiber reinforced plastics) or paper industry.



## Specifications:

Measurable size range:	from 30 µm in fiber width to 30 cm in fiber length
Characterization parameters:	<ul style="list-style-type: none"><li>• shape (similarity to rectangle, roughness, aspect ratio, etc.)</li><li>• size (fiber width and length)</li><li>• texture properties</li><li>• orientation (is a key factor influencing the mechanical properties of a composite material or the quality of textiles)</li></ul>
Fiber orientation measurement:	Accuracy: 1°
Typical characterizations:	<ul style="list-style-type: none"><li>• particles size distribution</li><li>• shape descriptors according to ISO 9276 - 6 such as aspect ratio and elongation</li><li>• length and width distribution</li></ul>
Typical applications:	cotton, wood chips, flock, wool, glass fibers, grass, carbon fibers, cellulose fibers
Statistical evaluations:	<ul style="list-style-type: none"><li>• weighted size distribution (histogram and cumulative distribution); logarithmic and linear scale</li><li>• size range selection; predefined ranges according to ISO</li><li>• mean and standard deviation for proportional descriptors (shape factors)</li></ul>
ISO Compliance:	ISO 9276 - 6
Dimensions / weight:	180 x 48 x 35 cm / 25 kg
Voltage:	220/110 V 50/60 Hz;
Specimens preparation area:	0,3 m <sup>2</sup>
Imaging:	A4 flat bed scanner which allows to measure the objects in transmission or reflective light mode with up to 1600 dpi real optical resolution

