



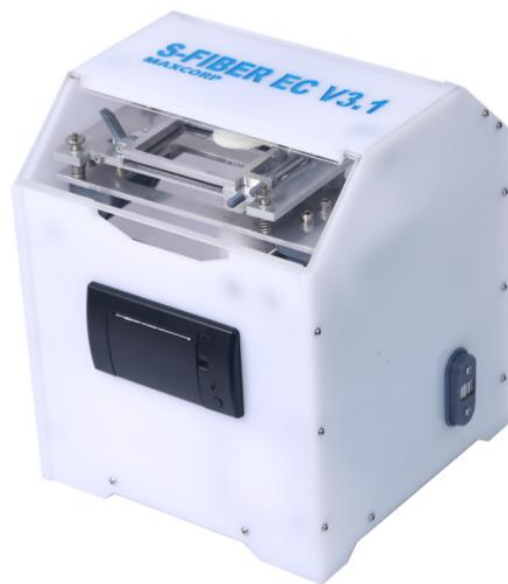
# NATURAL FIBER'S TECH S.A.C.

RESEARCH & DEVELOPMENT CENTER

## S FIBER EC

ELECTRONIC ANIMAL FIBER CHARACTERIZER – BASIC VERSION

Data Sheet



**Brand** : MAXCORP™  
**Model** : V3.1  
**Patent** : Peru, Bolivia, Spain, Argentina.

### 1. DESCRIPTION

The Electronic Fiber Characterizer (Basic Version), is a portable equipment that allows evaluating the quality of the fiber of animal origin, making measurements of various physical characteristics of the animal fiber (South American camelids, sheep, goats, rabbits, camels, muskox, cattle, etc.), with the capacity to incorporate procedures for other types of fibers. It uses the most modern digital image processing technology and allows the transmission and storage of the entire database and graphs of the measurements obtained, allowing subsequent printing using the same equipment.

The S-FIBER EC has the capacity to work in the field, performing satisfactorily in altitude conditions up to 5,300 meters above sea level and at temperatures from 0 °C to 45 °C.

The characteristics it measures are: Mean fiber diameter (MFD) and Standard deviation

The accuracy and precision statistics of the equipment are indicated in the following table:

PRECISION STATISTIC	VALOR
Average accuracy (μm)	0.337
Standard Error (μm)	0.107
Confidence interval (at 95%) - (μm)	±0.209
2*IC*100/MFD <sup>(1)</sup>	2.080 %
Statistical quality control	At ±2σ

<sup>(1)</sup> Percentage of 2 times the confidence interval based on the mean fiber diameter - MFD

### 2. FUNCTIONALITY

Determine the following characteristics:

- Mean fiber diameter (MFD).
- Standard deviation (SDMFD).
- Monitor the ambient temperature and humidity.

It allows enter an identification and description of the samples, the visualization of images and data, as well as the export and storage of images and data in an Excel sheet.



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### 3. FEATURES

- Portable equipment capable of working in the field, it has a transport backpack.
- Acrylic case.
- Weight: 3,8 kg.
- Dimensions: 22.5 cm x 22.4 cm x 28.5 cm.
- Power supply: 220 – 240 V / 50 – 60 Hz.
- Provided with a thermal printer for physical visualization of results.
- Lens for magnification and visualization of the fiber.
- LED technology lighting.
- Coordinate table for scanning along and across all fibers.
- S-FIBER EC software, for laptop or desktop.
- Measures long and short fragments of animal fiber.
- Monitor ambient temperature and humidity.
- Evaluates fibers within a range of mean diameter between 4 and 120  $\mu\text{m}$ . (Adjustable by animal species only in the latest version of the software).

### 4. SYSTEMS

Consists of four (04) components:

- **Electronic:**  
It controls 2 motors to slide pieces of equipment on the “x” and “y” axis in an adequate and synchronized way, controls the lighting, the temperature and humidity sensors and sends data to the computer.
- **Mechanical:**  
It is made up of some static and other mobile elements, which together form the “x” and “y” coordinate table, microscope support, object holder, sample holder, casing, among others.
- **Optical:**  
Within which a digital camera, magnifying lenses and LED lighting are considered, which together, becomes our personalized digital microscope.
- **Software:**  
It is the digital image processing program that we have developed and installed on the computer, which allows us to evaluate the quality of fibers of animal origin.

### 5. ACCESORIES

- One (01) power [supply cable](#).
- One (01) USB cable.
- One (01) User manual in Spanish and english.
- One (01) fiber fragment disperser (snippets).
- Six (06) pattern sample.
- Six (06) simple holders.
- One (01) gripper.
- One (01) short wick preparer.
- One (01) fiber fragment cutter.
- One (01) comb.
- Two (02) absorbent towels or cloths.
- One (01) backpack to carry the equipment.
- One (01) briefcase to carry accessories.

### 6. MAINTENANCE SERVICES

- On-site and remote support
- Software update.

### 7. MORE INFORMATION

For more information about our products and services or visit our website: [www.fiberstech.com](http://www.fiberstech.com)

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