FIBER MED

SMART ANIMAL FIBER ELECTRONIC MEDULLAMETER

Data Sheet

Brand : NFT™
Model. : V1.0

1. DESCRIPTION

The Smart animal fiber Medullameter, called FIBER MED, is a portable instrument that allows to determine the incidence of medulation in white and light color fibers, expressing the results by type of fiber according to its medulation (alpaca, llama, sheep, mohair).

This instrument uses the most modern artificial intelligence technology that allows to interpret digital images and thus provide information on the medulation and fiber diameter.

2. FUNCTIONALITY

Determine the following characteristics:

- The percentage and type of fibers according its medullation (Fibers Non medullated: **NM,** fragmented: **FM**, discontinuous: **DM,** continuous**: CM,** and strongly medullated: **SM**).
- The number of fibers evaluated, number of fibers with and within medulla and by type of medullation.
- The percentage of the total fiber diameter and by type of medullation.
- The total standard deviation of the average fiber diameter (SDMFD) and by type of fibers according to its medullation.
- The graph of the distribution of diameters according to the type of medullated and non-medullated fibers.

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.

3. FEATURES

- Desktop/portable automatic equipment.
- Mechanical system that includes a Y-direction movement table, with precision linear guides, aluminum support pieces for greater precision and PAP motors.
- Optical system that contains a high-speed digital industrial camera, LED technology lighting, optical collimator, and magnifying lenses, moving in the X direction.

- Electronic system, which controls the movements in the X and Y axes; and free pins to add sensors or hardware.
- FIBER MED proprietary software with friendly graphical user interface (Installed on the computer), with new options to choose the animal species and configuration of custom diameter measurement ranges.

4. SYSTEMS

Consists of four (04) components:

- **Electronic:**
  It consists of an electronic card that controls the lighting, sends and receives data from the computer, supplies the necessary energy to each electronic component and controls at least 2 motors to slide pieces of the equipment in the "X", "Y" axes in an appropriate way and synchronized.

- **Mechanic:**
  Composed of the "Y" coordinate table, optical system support, optical system movement toothed belts, slide support, linear guides, pap motors, pulley, casing, among others.

- **Optical:**
  It consists of a digital camera, magnifying lenses, diaphragm, led lenses, spacer and lighting. It is connected by a toothed belt to the "X" axis motor that allows it to move longitudinally in a transverse direction to that of the "Y" coordinate table.

- **Software:**
  Consisting of the set of algorithms and programming codes for digital image recognition based on artificial intelligence technologies, developed as part of FIBER MED, which is installed on a computer, and which allows evaluating the incidence of fiber medullation, expressed in percentage.

5. MAINTENANCE SERVICES

- On-site and remote support
- Software update.

6. ACCESORIES

- One (01) Hardy microtome.
- One (01) User manual in Spanish and english.
- Two (02) USB cable.
- Four (04) blades for cutting fragments.
- One (01) hundred of slides.
- One (01) power cable.
- One (01) hundred of coverslips.
- One (01) sample holder.
- One (01) dropper.
- One (01) stirring rod.
- Six (06) pattern sample.
- One (01) box specially adapted for moving the equipment.
- One (01) briefcase for accessories.

7. MORE INFORMATION

For more information about our products and services or visit our website: https://fiberstech.com/

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