

Keisokki

KEISOKKI EVENNESS TESTER

model KET-80V/C & KET-QTV



Evenness Tester Model KET-80V/C for Windows

The Keisokki Evenness Tester Model KET-80V/C for filament, the new face operating on Windows, succeeds to the legacies of the former models. KET-80V/C, as well as the former models, reveals the characteristics of filament yarn in the terms of CV%, U%, AVE, CV(L)%, etc. Plus KET-80V/C employs Windows technologies.



What are obtained from KET-80V/C?

Numerical data from each individual test

- CV% (coefficient of variation) and U% (mean deviation) of mass variations
- AVE (relative yarn count, or mean cross section)
- Max% and Min% (maximum and minimum cross-sectional deviation from AVE)
- R/2 (the half of the range, which is the sum of Max% and Min%)
- CV(L)% with 4 reference lengths

Graphic data from each individual test

- Diagram of mass variations
- Diagram of mass variations in inert or half-inert mode
- Spectrogram with 160 channels at the maximum

Statistics

- Mean
- Range (R)
- Standard deviations (s)
- CV_B%
- 95% confidence limits (Q95)

Others

- CV(L)_T%
- Overall spectrogram
- Histograms of CV% and AVE

Components

Main components are as follows. A diagram recorder as a physical device is no longer used. The diagram is displayed on the screen.

Measuring frame

Sensor unit and Drive unit are fitted together in the measuring frame.

Main evaluation frame

A PC system for Windows and the KET-80V/C system including the spectrograph are embedded in the frame. The spectrograph is optional. Peripheral devices of a display unit, keyboard, mouse and laser printer are also optional. Windows is preinstalled.

LABOBANK V/AD-C

This is the KET-80V/C program, which is preinstalled in the PC system of the main evaluation frame as well as Windows.

Electronic tension device ETD-V

ETD-V gives a precise tension to the testing filament.

Stand

The measuring frame is put on the stand. In addition, the materials tested are collected in the stand.

Auto cop changer ACC (option)

ACC is available. Up to 24 bobbins can be automatically exchanged one after another.

Technical data

Measuring specification

Range of material:

approx. 10 to 10,000 denier or 11 to 11,000 dTex

Dynamic measuring range:

±100%, ±50%, ±25% and ±12.5%

Measuring mode:

either normal and half-inert modes or normal and inert modes

Material speed:

25 to 800 m/min at every increment of 25 m/min

Evaluation time: 00' 10" to 19' 50" at every increment of 10"

Twisting speed: 1,000 to 22,000 rpm

Twisting direction: S or Z

Diagram recorder speed:

2.5, 5, 10, 20, 25, 50 and 100 cm/min

Recording unit length:

equivalent to 20 cm length of recording paper

Significant CV% and U%: 0.20% to 99.99%

Spectrograph (option)

Number of channels: max. 160 channels

Wavelengths analyzed:

4 cm to 2,451.8 m at 800 m/min and 6 minutes

2 cm to 1,225.9 m at 400 m/min and 6 minutes

1 cm to 613.0 m at 200 m/min and 6 minutes

Amplification setting:

automatic or 0.1 to 99% by manual

CV(L)%

Number of channels: 4 channels

Reference length: 0.20 to 10.00 m

Electronic tension device ETD-V (option)

Range of tension: 5 cN to 50 cN

Auto cop changer ACC (option)

Maximum number of bobbins: 24

Type of knotter: automatic fishermans knotter

Knitting cycle: about 3 seconds

Trigger signal: +12Vdc and 100 msec.

Power supply

Voltage: either 100/110 Vac or 200/220 Vac

Frequency: 50/60 Hz

Compressed air

Measuring frame: 0.6 Mpa and about 4 m³/h

Auto cop changer: 0.6 Mpa and about 4 m³/h

Size and Weight

Measuring frame:

320 (W) x 646 (H) x 364 (D) mm and approx. 34 kg

Main evaluation frame:

425 (W) x 180 (H) x 500 (D) mm and approx. 17 kg

Stand:

340 (W) x 490 (H) x 450 (D) mm and approx. 14 kg

Electronic tension device:

320 (W) x 240 (H) x 147 (D) and approx. 5.5 kg

Auto cop changer:

535 (W) x 250 (H) x 259(D) mm and approx. 30 kg



KET-QTV with 4 sensors

KET-QTV is an evenness tester for filament with 4 independent plug-in sensor units.
Thus the user can test 4 bobbins at a time.

What does KET-QTV provide?

Numerical data from each individual test

- CV% (coefficient of variation) and U% (mean deviation) of mass variations
- Max% and Min% (maximum and minimum cross-sectional deviation from AVE)
- R/2 (the half of the range, which is the sum of Max% and Min%)
- CV(L) % with 4 reference lengths
- CV (half-inert) % and U (half-inert) %

Graphic data from each individual test

- Diagram of mass variations
- Diagram of mass variations in half-inert mode
- Spectrogram

Statistics

- Mean
- Range (R)
- Standard deviations (s)
- 95% confidence limits (Q95)

Technical data

Measuring specification

Sensor : capacitive sensor with one electrode

Sensor unit : max.4 plug-in units with one sensor each

Range of material : on demand at the ratio "min. count / max. count = 1 / 6"
out of the absolute range of 50 to 5,000 dTex,
(for example 100 to 600 dTex or 200 to 1200 dTex)

Material speed : 25, 50, 100, 200 and 400 m/min

Twisting speed : 1,000 to 11,000 rpm

Twisting direction : S or Z

Size and Weight

570 (W) x 1820 (H) x 630 (D) mm and approx. 150kg



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