



MT

EVENNESS TESTER

For all types of natural, artificial and synthetic spun yarns

MT is designed to measure with high accuracy the mass evenness and imperfections of yarn. MT stands out for the high quality capacitive sensor which is suitable to test yarns, rovings and slivers without need of another external sensor. It is therefore very easy to control the mass variation in the whole spinning process as well as to identify the exact origin of the faults in the spinning process by analysing the spectrogram.

MT Technical Features

- Exclusive capacitive MT-sensor suitable to test from very fine yarns (Ne 200/1) to coarse slivers (80gr/mt)
- Equipped with stand for roving and slivers
- Modular system for fully automatic operation upgrade and for hairiness testing
- Engineered, designed and manufactured in Italy
- Automatic calibration before testing
- Windows MT software with statistics, graphs and data storage
- Numerical and graphical results compatible with the most popular world standards

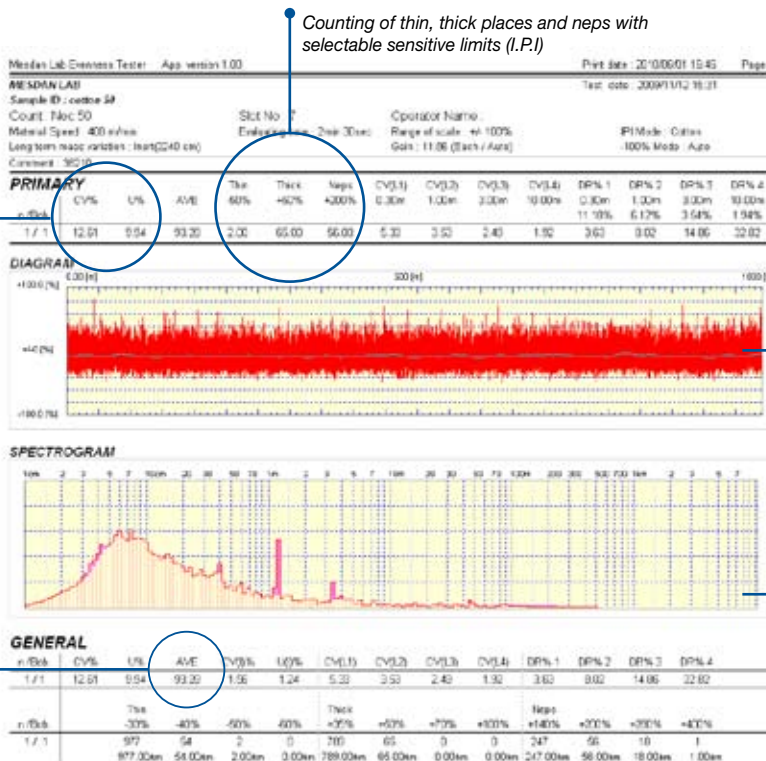
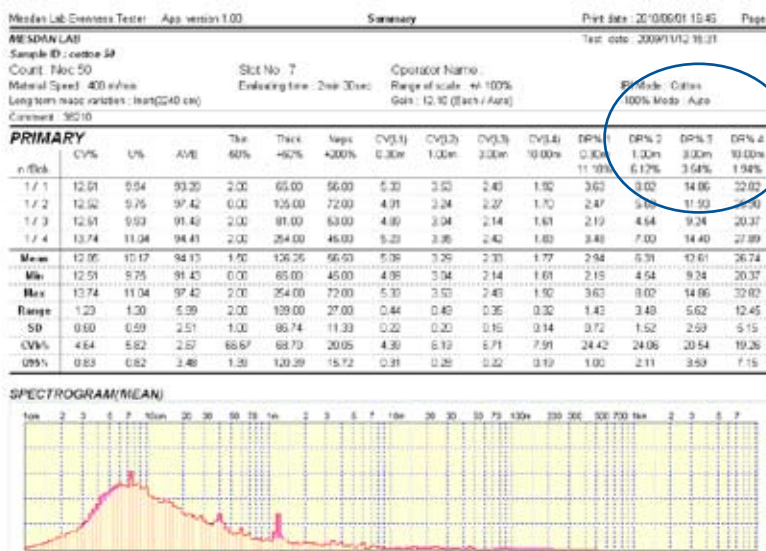


Diagram to analyse the mass variation of the tested material

160 channels spectrogram to examine the periodic faults in the production process and identify the machine parts where the faults are generated

Yarn count variation (%) between single tests to verify the count regularity of the tested material

DR% deviation rate to predict the knitted fabric quality



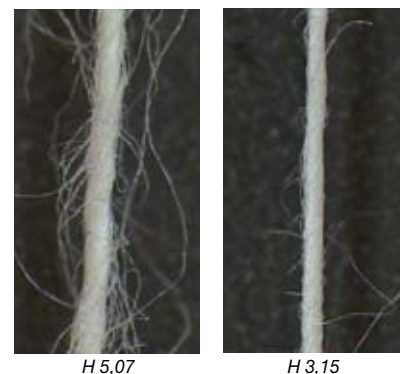
print-out example

MT modular system

H-SENSOR code 2342 (optional)

- Hairiness sensor to analyse yarn hairiness
- Determination of Hairiness (H) and standard deviation of Hairiness (sH)
- Statistical and graphical elaboration of hairiness testing
- Diagram and spectrogram of the H value to verify the source of the hairiness in the spinning process

100% cotton Ne 30/1
Ring-spun yarn Compact Yarn



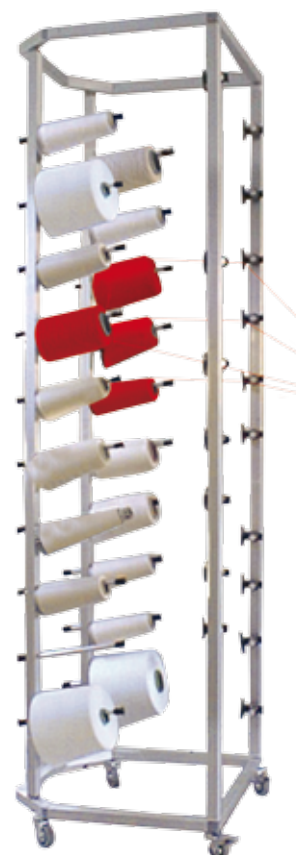
AUTOMATIC COP CHANGER 24 positions code 299A (optional)

- Fully automatic 24 position device suitable for all kinds of yarn and count
- Enabling fully automatic yarn testing without operator's attendance
- Suitable for cops and cones
- Compatible with other Mesdan-Lab automatic testing equipment, such as "Autodyn" automatic strength tester, "Twistmatic" automatic twist tester, "Attrifil" yarn friction tester



MOVEABLE YARN CREEL 24 positions code 3102 (optional)




- 24 position creel fitting wheels, easy to move
- Suitable for cones and cops
- Equipped with adjustable yarn pretensioning disc







UPS DEVICE code 2341.900 (optional)




- Uninterruptible power supply device, always recommended to preserve the instrument in case of power supply fluctuations.
Input: 220-240 VAC, 50/60 Hz
Output: 220-240 VAC (main) 230V (battery)
Power: 1600VA; 960W

Components

Evenness tester code 2341 Measuring frame complete with capacitive sensor suitable for yarn, roving and sliver 
Personal Computer Pre-configured PC with Windows O.S. and MT software in English & Italian language 
Roving and sliver stands for suitable roving and sliver supply 

Optional accessories

H-sensor code 2342 hairiness sensor 
Auto Cop Changer code 299A (A.C.C.) for automatic testing up to 24 bobbins complete with table support 
Creel code 3102 vertical creel 24 bobbins for supply to A.C.C. 
UPS code 2341.900: uninterruptible power supply device 

 standard supply  available optional  always required optional

Results of each individual test

CV% coefficient of mass variation
U% mean deviation of mass variation
AVE relative yarn count
IPI with 4 channels for neps, thick places, thin places
DR% with 4 channels
CV(L)% with 4 reference lengths

Graphic data of each individual test

Diagram of mass variations
Diagram of mass variations in inert or half inert mode
Spectrogram up to 160 channels

Statistics and other results

Mean, range, standard deviation (s), CV_B%
95% confidence limits (Q95%)
IPI per 1000m (1 km) of yarn length
DR_T%, CV(L)_T%, overall spectrogram
 Data and graphics saved in MT databank, printable and exportable to MS Excel format

Measuring Specifications

Range of material: Ne 200 (yarn) to 80g/m (sliver)
Dynamic measuring range: ± 100%, ± 50%, ±25%, ±12,5%
Measuring mode: inert or half inert mode
Material speed: 8 - 25 - 50 - 100 - 200 - 400 m/min
Evaluating time: 10" to 19' 50" at every increment of 10"
Significant CV% and U%: 0,20% to 99,99%

Spectrogram

Number of channels: max.160 channels
Analyzed wave lengths:
 2 cm to 1225.9 m at 400m/min and 6 mins
 1 cm to 613.0m at 200m/min and 6 mins

IPI (imperfections)

Number of channels: 4 channels
Thin places: - 60%, - 50%, - 40%, - 30%
Thick places: +100%, +70%, +50%, +35%
Neps: +400%, +280%, +200%, +140%

Deviation rate DR%

Number of channels: 4 channels
Reference length: 0.01 to 10 m
Level: ±0.01% to ±99.99%

CV(L)%

Number of channels: 4 channels
Reference length: 0.01 to 10 m

H-sensor code 2342: optional optical hairiness sensor
H value: total hairiness in 1 cm of yarn
sH: hairiness standard deviation
CV%: coefficient of hairiness variation
other statistics: min, mean, max hairiness value
diagram of hairiness
spectrogram of hairiness

Air Supply

Measuring frame: 0.2 Mpa and about 4m³/h
Auto Cop Changer 0.6 Mpa and about 4m³/h

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Auto Cop Changer 0.6 Mpa and about 4m³/h

Dimensions (mm)

Evenness Tester code 2341: 400 (W) x 750 (H) x 500 (L)
Auto Cop Changer code 299A: 535 (W) x 250 (H) x 259 (L)
Creel code 3102: 600 (W) x 2000 (H) x 600 (L)
Ups code 2341.900: 100(W) x 270 (H) x 320 (L)