

COMPLETE RANGE OF

# YARN TWIST TESTERS



The measurement of the number of yarn twists and their uniform distribution within a package is an essential parameter of yarn quality and final fabric quality. In order to meet different requirements in terms of automation and costs, Mesdan Lab is offering a wide range of yarn twist testers:

- **Hand-operated Twist tester**

Recommended in the production floor nearby the machines or, when twist measurements are checked only occasionally. Often used on flat and texturised filament yarns as well.

- **Twist Lab**

It is definitively the most spread yarn electronic twist tester worldwide (over 1.000 sets in operation). Reliable and extremely versatile, it can be connected to either a printer or PC. Recommended for small laboratories, knitting mills, weaving mills, etc. Thanks to its possibility to apply heavy pretension weights, its application is very popular among industrial yarn producers (like sewing threads, carpet yarns, tire cord, etc.).

- **Twistmatic II**

Providing automatic testing from one bobbin (yarn package), without operators attendance. Ideal for medium and large size spinning mills as well as big weavers where the CV% of yarn twist is an essential condition to ensure even twist distribution. Twistmatic II, in a later stage, can be upgraded with the ACC (Auto Cop Changer). Suitable also for smaller mills in countries where labor cost are increasing. The market demand for this model is continuously on rise.

- **Twistmatic Plus** (i.e. Twistmatic II + Auto Cop Changer)

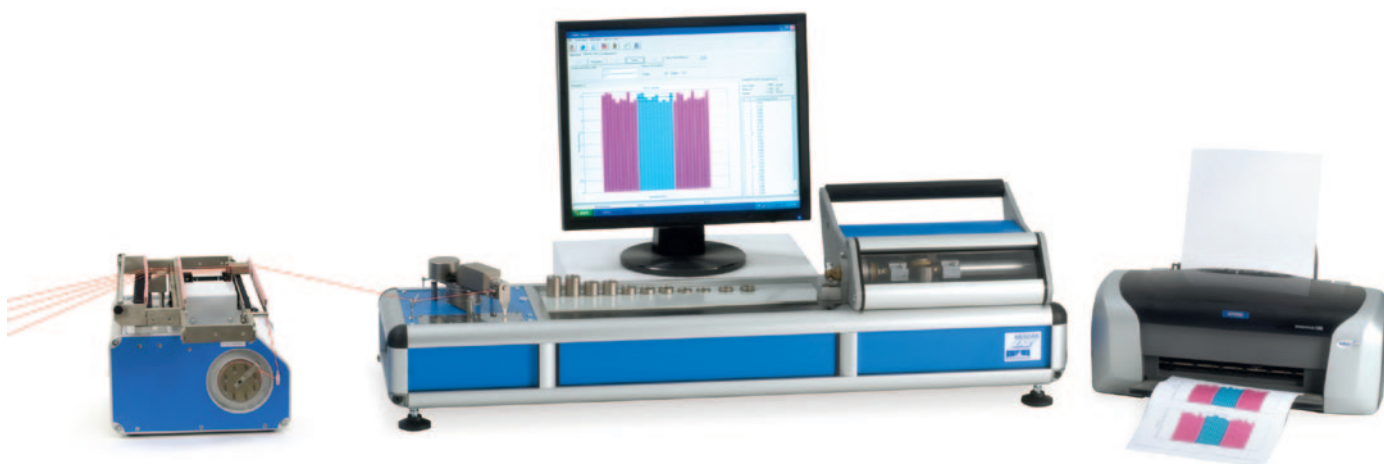
Top range, enables testing of 24 bobbins completely automatically without operator's attendance. Ideal for large size yarn manufacturers and big yarn consumers who wish to monitor, maintain and guarantee their yarn quality supplies (either produced or purchased) at the highest quality level.

The whole range of Mesdan Lab Twist testers is designed and made in Italy.



# TWISTMATIC II

Code 2532



## Description

Fully automatic twist tester controlled by Personal Computer.

The instrument, unique for its high accuracy and results consistency, can automatically perform serial twist tests on a single bobbin (max. 999 tests) or, if connected to the **Auto Cop Changer** (code 299A), it can perform multiple tests up to 24 bobbins (yarns packages) avoiding human errors, often present during manual operations.

Suitable for all types of yarns: ring, open-end, filaments, both "S" and "Z" twist.

## Technical features

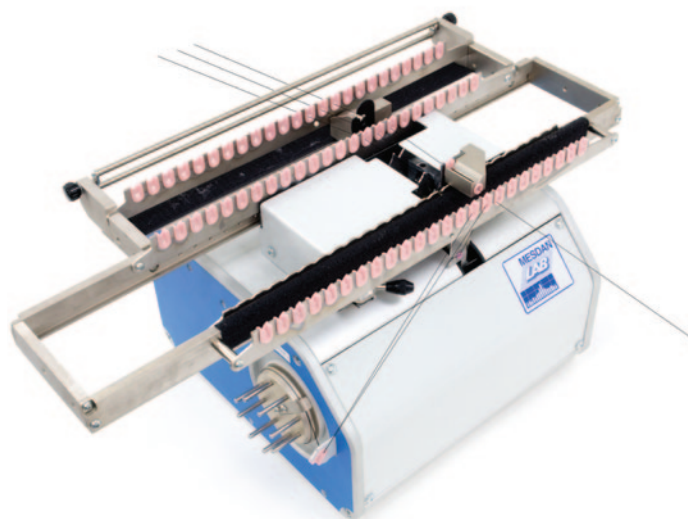
- Automatic testing of either 1 bobbin, or 24 bobbins, by means of the ACC.
- PC controlled (through RS232C serial output).
- Pre-selection of 3 test methods:
  - A) Traditional method: untwisting and re-twisting, for single yarns.
  - B) "Schutz" method: untwisting, re-twisting and double counter-check, particularly suitable for OE yarns and worsted wool yarns.
  - C) Direct method: untwisting, for plied spun yarns, threads and multi-filament yarns.
- Twist testing on certain yarn lengths at preset intervals (enables to test quickly the outside and the inside bobbin yarn layers automatically) or at random.
- Testing specimen length 500 mm.
- Adjustable moving clamps speed up to 2000 rpm by means of a potentiometer.
- Pneumatic yarn clamping.
- Twist results available either per meter or per inch.
- Statistical results: mean value, minimum value, maximum value, CV%, Range, standard deviation and Alfa twist coefficient. All data can be stored in the database.

## Included accessories

- Dedicated data acquisition software to operate the unit
- magnifying lens
- 500 mm fixed calliper, to check the distance between the fixed and the moving clamp (for 2531C & 2531D only)
- Set of weights: 2 cN, 3 cN, 4 cN, 5 cN, 7 cN, 10 cN, 15 cN, 20 cN, 30 cN, which can be combined to obtain a maximum pretension weight of 70 cN
- Bobbin holder suitable for défilé and déroulé bobbin unwinding

## Optional

- **Creel for bobbins**, 24 positions, code 201
- 24-position **Auto Cop Changer**, code 299A
- **CONTROL LAB**, personal computer, code 237.92, monitor, code 250.300 or, as alternative, laptop, code 2532.150
- **Ink jet printer**, code 250.4, set of spare ink jet ribbon, code 250.322, set of A4 paper sheets, code 250.348
- **UPS** (uninterruptible power source), code 2341.900, **multiple electric socket**, code 250.344.



## REFERENCE STANDARDS

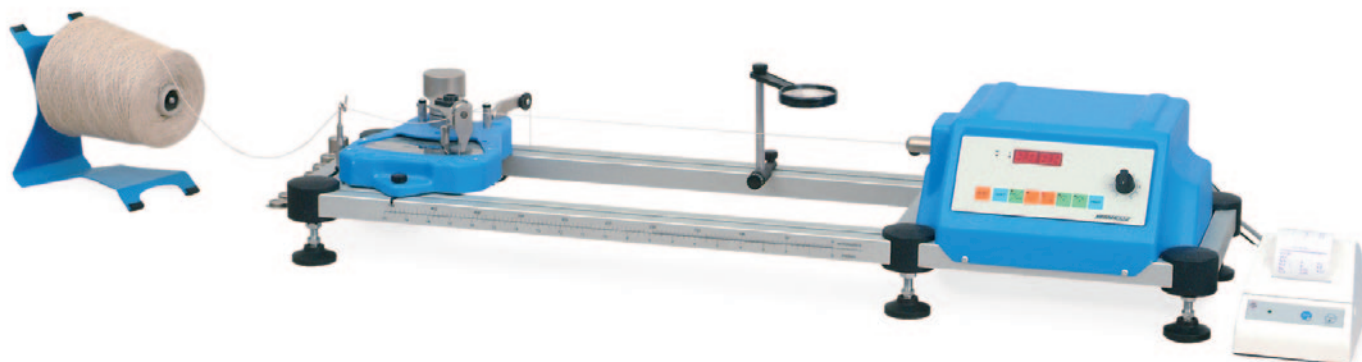
UNI EN ISO 2061, ISO 2061, ISO 7211-4, ISO 17202, UNI 9067, UNI 9277, UNI 9069, ASTM D1422, ASTM D1423

## DIMENSIONS / POWER SUPPLY

Weight: 25 kg  
Dimensions: (L) 1060 (W) 330 (H) 330 mm  
Power supply: 115 Vac or 230 Vac, 50/60 Hz, single-phase

# TWIST LAB

Code 2531C



## Description

Most popular electronic twist tester in the world, suitable for a wide variety of yarns: single, plied spun yarns, multifilament, OE yarns, carpet yarns, sewing threads and other industrial yarns.

## Technical features

- User-friendly key control panel for the selection of test method (A, B, C), twist direction ("S" or "Z"), moving clamp rotation speed and data transmission to the printer.
- Adjustable distance between clamps from 1 to 500 mm.
- Suitable for yarns with a count range from Nm 0.5 to 200, (Tex 5-2000).
- Pre-selection of 3 test methods:
  - A) Traditional method: untwisting and re-twisting, for single yarns.
  - B) "Schutz" method: untwisting, re-twisting and double counter-check, mainly used for OE spun yarns and worsted wool yarns.
  - C) Direct method: untwisting, for plied spun yarns, threads and multifilament yarns.
- Electronic counting of number of turns (up to 9999) displayed on 4-digit digital display (accuracy  $\pm 1$  turn).
- Adjustable speed of moving clamps up to 2000 rpm.
- Yarn pretension system up to 70 cN by means of combinable weights. Set of additional weights available for industrial yarns (optional).
- Two serial ports RS232C for PC connection or printer (optional).
- Endowed with high precision elongation mechanism/device equipped with a graduated scale, a mechanical block for limiting the moving clamp movement (to be positioned according to the maximum yarn lengthening) and led control of "Start" and "Stop" function. Special scale is available on request for dipped tyre-cord. Pretension system with pulleys ensures maximum precision of yarn pre-tension setting and control during the test in compliance with international Standards.
- Inclusive of a dedicated software for data transmission onto an Excel template. The Excel template reports all information related to the setting of the twist tester, test parameters, test results (twists/m and twists/inch) and statistics (mean, min., max., CV%, Standard Deviation, Alfa coefficient of twist, Range%). It also provides a graphical representation of the results in form of a histogram distribution of the results around the mean value or around a pre-set nominal value chosen by the operator. The output Excel file can be saved in the PC database and/or printed.

- Printout: the operator can choose the language (English or Italian), and decide the printout content (only twist values, only statistics, or both).

## Included accessories

- Data acquisition software (with Excel template)
- magnifying lens
- 500 mm fixed calliper, to check the distance between the fixed and the moving clamp
- Set of weights: 2 cN, 3 cN, 4 cN, 5 cN, 7 cN, 10 cN, 15 cN, 20 cN, 30 cN, which can be combined to obtain a maximum pretension weight of 70 cN
- Bobbin holder suitable for défilé and deroulé bobbin unwinding

## Optional

- **Pretension weights** for industrial yarns (1N, 1.50N, 2N), code 2531.104
- **Mini thermal printer**, code 2531C.136, set of thermal paper for printer, code 2531C.138



## REFERENCE STANDARDS

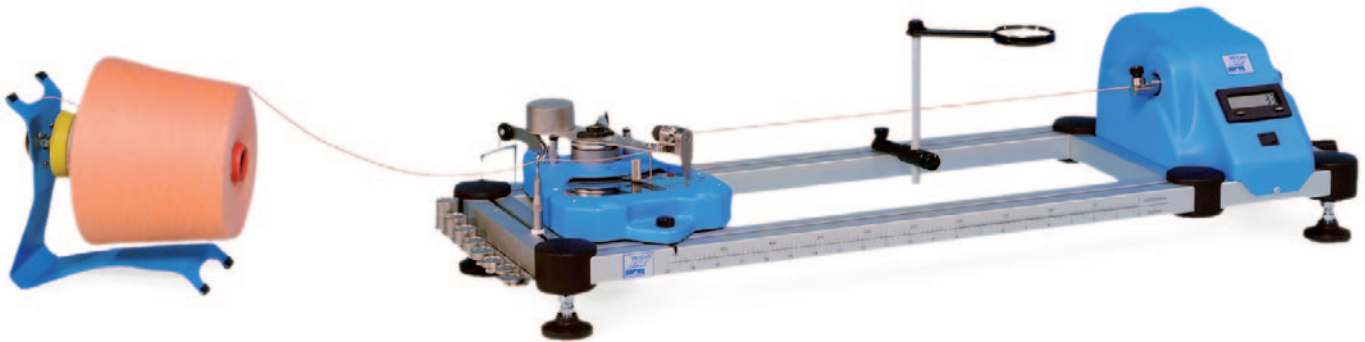
UNI EN ISO 2061, ISO 2061, ISO 7211-4, ISO 17202, UNI 9067, UNI 9277, UNI 9069, ASTM D1422, ASTM D1423

## DIMENSIONS / POWER SUPPLY

Weight: 11.5 kg  
Dimensions: (L) 1060 (W) 300 (H) 220 mm  
Power supply: 115 Vac or 230 Vac, 50/60 Hz, single-phase



# HAND-OPERATED TWIST TESTER Code 2531D



## Description

Latest version of the hand-operated twist tester for twist measurement on a wide range of single yarns, plied spun yarns, multifilament, OE yarns and industrial yarns.

## Technical features

- Adjustable distance between clamps from 1 to 50 cm (from 0.39" up to 19.7").
- Suitable for yarns with a count range from Nm 0.5 to 200, (Tex 5-2000).
- Pre-selection of 2 test methods:
  - A) Traditional method: untwisting, retwisting, for single spun yarns.
  - B) Direct method: untwisting for plied yarns, threads and multifilament yarns.
- Electronic counting of number of turns displayed on 8-digit digital display (accuracy  $\pm 1$  turn).
- Endowed with high precision elongation mechanism/device equipped with a graduated scale, a mechanical block for limiting the moving clamp movement (to be positioned according to the maximum yarn lengthening) and led control of "Start" and "Stop" function. Pretension system with pulleys ensure maximum precision of yarn pre-tension setting and control during the test in compliance with international Standards (optional).
- Special elongation scale is available on request for dipped tyre-cord.
- Yarn pretension system up to 70 cN by means of combinable weights. Set of additional weights available for industrial yarns (optional).
- Winch for mandrel rotation with transmission ratio 1:10.

## Included accessories

- magnifying lens
- 500 mm fixed calliper, to check the distance between the fixed and the moving clamp
- Set of weights: 2 cN, 3 cN, 4 cN, 5 cN, 7 cN, 10 cN, 15 cN, 20 cN, 30 cN, which can be combined to obtain a maximum pretension weight of 70 cN
- Bobbin holder suitable for défilé and deroulé bobbin unwinding

## Optional

- **Pretension weights** for industrial yarns (1N, 1.50N, 2N), code 2531.104



Photographs and descriptions of the present leaflet have to be considered as purely indicative and not binding

## REFERENCE STANDARDS

UNI EN ISO 2061, ISO 2061, ISO 7211-4, ISO 17202, UNI 9067, UNI 9277, UNI 9069, ASTM D1422, ASTM D1423

## DIMENSIONS / POWER SUPPLY

Weight: 9 kg  
Dimensions: (L) 1000 (W) 340 (H) 220 mm  
Power supply: 8 x 1,5 Vdc (AA) battery