

**USTER® ZWEIGLE
TWIST TESTER 5-A
TWIST TESTER 5-SA**

TECHNICAL DATA

THE YARN INSPECTION SYSTEM

Testing and analyzing the twist level of yarns

Basic Installation

Overall Installation

Functions:

- Absolute measurement of the twist level and twist multiplier of yarns
- 5 different test methods are available:
 - Methods 1 – 5 are available for the semi-automatic version
 - Methods 1, 2, 4, and 5 for the automatic version
 - Test method 1: Single untwist-retwist method
 - Test method 2: Double untwist-retwist method
 - Test method 3: Slippage method
 - Test method 4: Direct counting method
 - Test method 5: Multiple untwist-retwist method
- Collection, evaluation and storage of measurement values

Versions:

- **USTER® ZWEIGLE TWIST TESTER 5-A** (automatic version)
- **USTER® ZWEIGLE TWIST TESTER 5-SA** (semi-automatic version) for normal count (finer than 300 tex, Nm 3.3, Ne 2.0)
- **USTER® ZWEIGLE TWIST TESTER 5-SA** (semi-automatic version) for coarse count (coarser than 300 tex, Nm 3.3, Ne 2.0)

Included in the delivery:

- TESTING INSTRUMENT
- Single-package carrier (only for the semi-automatic version)
- Application software

CHANGER/ YARN FEEDER

Only with the automatic version

Function:

Automatic transfer of the ends from the package changer and insertion into the measuring unit (max. 20 packages)

Application range:

- 1 tex to approx. 300 tex (automatic version)
- 1 tex to approx. 300 tex (semi-automatic version for normal count)
- 300 tex to approx. 800 tex (semi-automatic version for coarse count)
(Limitations according to the type of fiber or stiffness are possible)

Application Software

Reports	<i>Type of reports:</i>	Test reports of measurement series
	<i>Limit values:</i>	<ul style="list-style-type: none">• Determination of fixed limit values• Verification of measured values• Measured values which exceed the set limit values will be marked

Numerical Output of Results	<i>Twist:</i>	Determination of the twist level per meter or per inch
	<i>Alpha:</i>	Determination of the twist multiplier

STATISTICS	<i>Statistical values:</i>	Overall result protocol with statistical data for each result column <ul style="list-style-type: none">• Mean value• Coefficient of variation CV• Min. value• Max. value
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Graphic Output	<i>Diagram:</i>	Overall result protocol with statistical data for each result columns <ul style="list-style-type: none">• Shows the individual measurement and their deviation from the set target
	<i>Frequency distribution diagram:</i>	Representation of the parameter variations within single tests

Input of Data, Output of Results, Languages, Units	<i>Dialog and report languages:</i>	English, German, French, Italian, Spanish, or Turkish can be selected via the operating menu (other languages on request)
	<i>Possible units:</i>	<ul style="list-style-type: none">• Twist: T/m or T/”• Twist direction: Z or S• Count: ktex, tex, dtex, Nm, Nec
	<i>Test length:</i>	<ul style="list-style-type: none">• Semi-automatic version: 10 mm to 500 mm (0.4 to 20 inch)• Automatic version: 500 mm (20 inch)

Self Test	<i>Function check:</i>	Initiated automatically when the installation is switched on
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General

General Ambient Conditions	<i>Room climate:</i>	The ambient conditions must be maintained in order to avoid any influence on the test material (ISO 139) <ul style="list-style-type: none">• Humidity: (65±4)% relative humidity for standard atmosphere and (50±4)% for standard alternative atmosphere• Temperature: (20±2) °C for standard atmosphere and (23±2) °C for standard alternative atmosphere
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Installation Data	<i>Electrical connections:</i>	Single phase mains with protective conductor
	<i>Mains voltage range / frequency:</i>	<ul style="list-style-type: none">• 230 VAC; +6/-10%; 48 to 52 Hz (automatic version)• 110 to 230 VAC; +6/-10%; 48 to 62 Hz (semi-automatic version)
	<i>Power consumption:</i>	<ul style="list-style-type: none">• Max. 150 VA (automatic version)• Max. 50 VA (semi-automatic version)
	<i>Compressed air connection (only automatic version):</i>	<ul style="list-style-type: none">• Air quality: according to ISO 8573.1, class 3• Min. pressure at inlet of air filter regulator: 5 bar (500 kPa) (automatic version)• Minimum air requirements with normal pressure: 8 m³/h (600 kPa)• Min. internal diameter of the connection: 8 mm• Max. length of the connection: 5 m• Max. temperature difference between compressed and laboratory air: 10 °C

Dimension		<ul style="list-style-type: none">• Semi-automatic version: Length 140 cm, width 36 cm, height 20 cm• Automatic version: Length 138 cm, width 55 cm, height 35 cm
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Gross Weight of the Basic Installation	<i>Semi-automatic version:</i>	<ul style="list-style-type: none">• Standard: approx. 13 kg• Total: approx. 20 kg
	<i>Automatic version:</i>	<ul style="list-style-type: none">• Standard: approx. 72 kg• Total: approx. 87 kg

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