USTER® TESTER 6-C800

The quality testing system

Technical Data

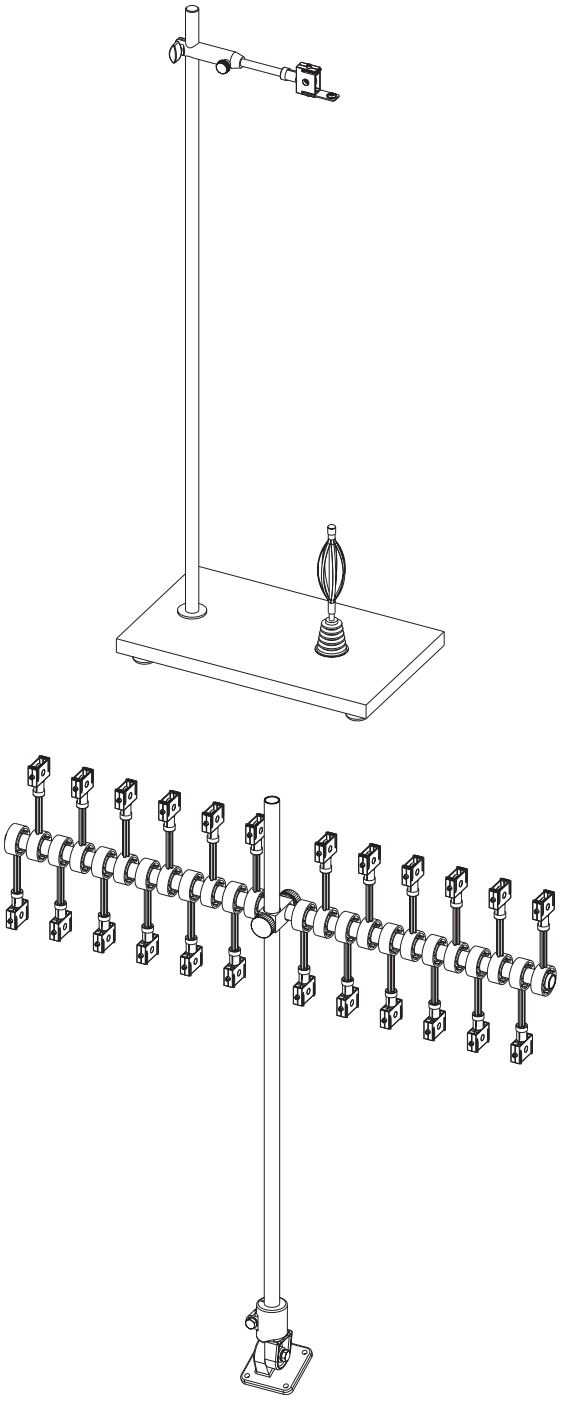
April 2022

USTER®
Think quality

Capacitive and optical sensor technology in the Uster Tester 6 set the new standard for filament yarn producers. Showing spinners the full picture, with all the options for assured quality and cost-effective production.

Elements

of the Uster Tester 6-C800 installation



USTER® *TESTER 6-C800*
The quality testing system

Basic installation

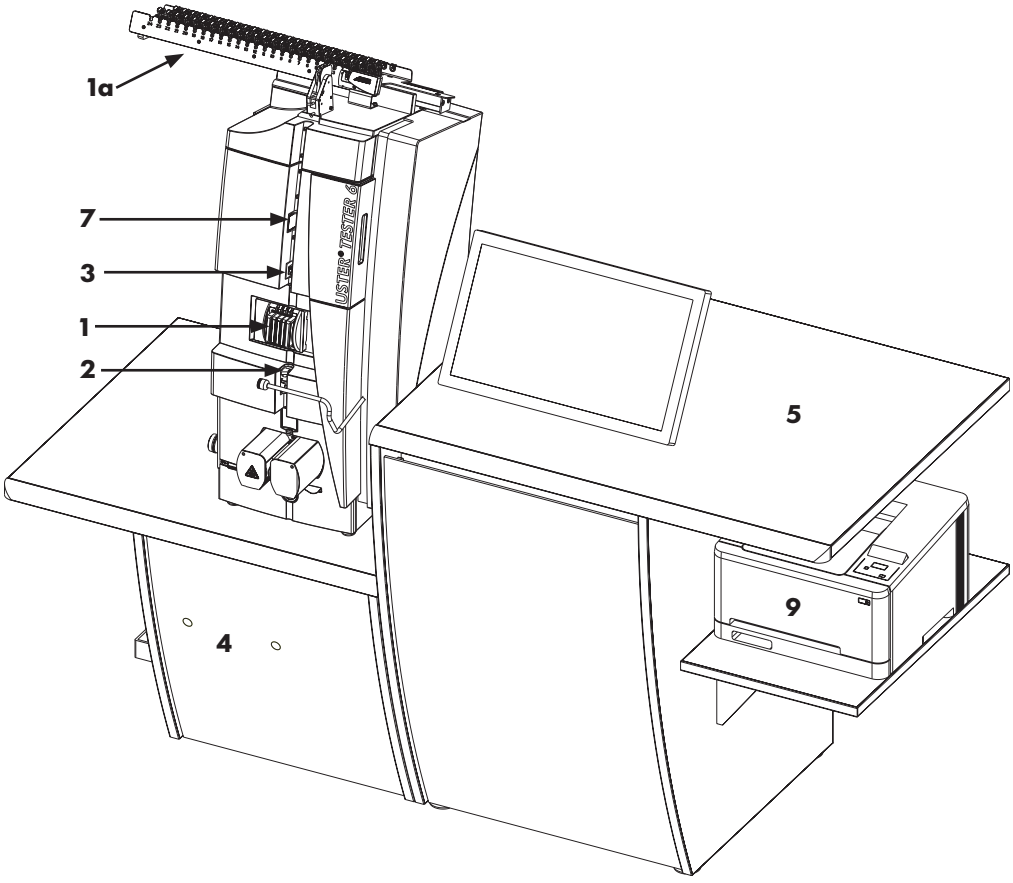
1 Test Unit
– Sensor CC, evenness unit
– Sensor Temperature and Humidity (integrated)
1a Changer/Yarn feeder (only for Uster Tester 6-C800/A)
2 Twister
3 Tensioner
4 Control unit
5 Table set
6 Single package carrier (only for Uster Tester 6-C800/SA)
7 KBS, Knowledge Based System (no illustration)

Options

8 Additional measuring unit
– Sensor OM, intermingling measuring unit
9 Printer provided by the customer

Special Accessories

10 Tensioner support (only for Uster Tester 6-C800/A)



Basic installation

Overall Installation

Functions

- Capacitive measurement of mass variations in filament yarns
- Automatic twist scan
- Analysis, evaluation and data storage of the measurement values
- Editor for customizing reports and settings of mill limits
- Smart view focusing on exceptions and outliers
- Filter functions for quick data selection and preparing of long-term reports
- Knowledge based software for the support of finding the cause of the periodical faults in the spectrogram

Versions

- Uster Tester 6-C800/A (automatic version)
- Uster Tester 6-C800/SA (semi-automatic version)

Included in the delivery

- Test unit
- Control unit
- Touchscreen
- Application software
- Table set
- Tensioner support (automatic version)
- Single package carrier(semi-automatic version)
- Knowledge based system

Subsystem of the Uster Tester 6-C800 basic version:

Test unit (1)

Sensor CC

- Capacitive measurement of mass variations in in filament yarns
- Measurement range: approx. 10 dtex to 2,500 dtex (3 to 10 dtex upon request; upon approx. 6,000 dtex can be measured depending on the structure and yarn count)

Sensor Temperature & Humidity

- Integrated sensor for measurement of temperature and humidity in the environment of the test unit
- Temperature: ±0.3 at a temperature of 20 °C
- Humidity: ±3% rH at a temperature of 20 °C

Tensioner

Material tensioner system for filament yarn

Conveyor

- Material conveying system for filament yarn
- Testing speed from 20 up to 800 m/min

Twister

Material twisting system for multi-filament yarn

Base

Absorber for removal of tested yarn

Tensioner support

For the measurement of yarn packages from a package carrier without yarn tensioner

Changer/ Yarn feeder (1a)	**Automatic version only**	– Automatic selection of the yarn from the package changer and insertion into the measuring slot – Setup of 24 feeder lines, run automatically even when a within fail – Later continuation of the incomplete test
Control unit (4)	**Computer software**	– Uster Tester 6 intuitive touch application software – Windows operating system – System pre-configured and locked down – Simple full system update process
	Computer hardware	– Industrial computer with Intel processor – 3 internal hard drives for data security and system redundancy – 500 GB test data storage
	Computer accessories	– Large easy to read touch screen monitor

Options

Sensor OM, intermingling measuring unit (7)	**Application range**	– Measurement of interminglings per meter – Results interminglings per meter and distance between interminglings – approx. 50 dtex to 2,000 dtex (possible limitation according to the fiber type)

Application Software for Uster Tester 6-C800

Reports	**Type of report**	– Standard test report of the measurement series – Pre-defined table reports and graphical reports for different application – Long-term reports – Customized reports
	Display and printout of the reports	– Live view report during the measurement – Analyze tool with all measured data and graphical output – Smart view report for exceptions and outliers – Automatic printout after the measurement
	Limit values	– Setting of customized limits according to standard deviation and absolute values – Automatic verification of the measured values – Measured values which exceed the limit will be marked with red color in the reports
Numerical results Sensor CS	**Unevenness U**	Measurement of mass unevenness by the help of the irregularity
	Coefficient of variation CVm	Measurement of mass unevenness by the help of the coefficient of variation
	Coefficient of variation CVm (L)	Measurement of mass unevenness for cut length of 1, 3, 10, 50 and 100 m
	Maximum mass deviation	– m (min) = maximum mass reduction – m (max) = maximum mass increase – Possible cut length of 1, 3, 10, 50 and 100 m
	Relative count	Percentage count variation of the test material between single tests in a sample, with reference selectable

Numerical results Sensor OM	**Interminglings/m**	Measurement of the interminglings per meter
	Interminglings/ m min	Measurement of the minimum interminglings per meter
	Interminglings/ m max	Measurement of the maximum interminglings per meter
	Intermingling distance	Measurement of the interminglings distance between interminglings
	Intermingling distance/min	Measurement of the minimum distance between interminglings
	Intermingling distance/max	Measurement of the maximum distance between interminglings
Statistics	**Statistical values**	Overall result protocol with statistical data of the test results – Mean value – Standard deviation s – Coefficient of variation CV – 95% confidence interval – Min. value – Max. value
Graphic output of results: Sensors CS	**Diagram**	– Selectable ranges for x-axis and y-axis – Cut length: normal, 1, 3, 10, 50, 100 m – Zoom function in the single diagram – Possibility of representing single diagram, multiple diagram and serial diagram
	Spectrogram	– 220 channels – Possibility of representing single spectrogram and multiple spectrogram
	Length variance curve LVC	– Representing the cut length from 2 cm to 600 m depending on the test length – Possibility of representing single LVC and multiple LVC
	Histogram	– Representing of the parameter variations in percentage – Possibility of representing single histogram and multiple histogram

Graphic output of results: Interminglings	**Histogram**	– Representing the distribution of interminglings and distance of interminglings – Possibility of representing single histogram and multiple histogram
	Sequence diagram	– Representing the sequence of interminglings and distance of interminglings – Possibility of representing single sequence diagram and multiple sequence diagram
Data protection	**Back-up**	– Automatic data backup to dedicated internal hard drive every 15 minutes – Data export to external USB or other network devices supported
Input data, output of results, languages, units	**Dialog and report languages**	English, German, French, Italian, Spanish, Portuguese, Turkish, Russian, Chinese or Japanese can be selected (other languages on request)
	Possible units	– Count: mtex, tex, dtex, den – Speed: m/min or yd/min
System security protection	**Protection function**	– System protected from viruses, network and other security threats – Remote support capabilities built-in – Diagnostic tools with extensive event logging – Automated system recovery

Installation conditions

General ambient conditions	**Room climate**	The ambient conditions must be maintained in order to avoid any influences on the test material according to ISO 139 (2005). – Humidity: 65±4% – Temperature: 20±2 °C standard atmospheres
Installation	**Electronical connections**	Single phase with protective conductor
	Mains voltage range	100 – 240 VAC
	Mains frequency	50/60 Hz
	Power consumption	Maximum 1,000 VA

	Compressed air connection	– Air quality: according to ISO 8573.1, class 3
		– Connection:
		  – Min. pressure at inlet of air filter regulator: 6 bar
		  – Max. pressure at inlet of air filter regulator: 10 bar
		– Requirement compressed air: Standard
		  – C800 Automatic: 12 m^3/h
		  – C800 Semiautomatic: 9 m^3/h
		– 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

Gross weight of the basic function	**Semi-automatic version**	– Test unit: 60 kg – Furniture: 118 kg – Complete system: 208 kg
	Automatic version	– Test unit: 78 kg – Furniture: 118 kg – Complete system: 225 kg

Uninterrupted power supply (UPS)

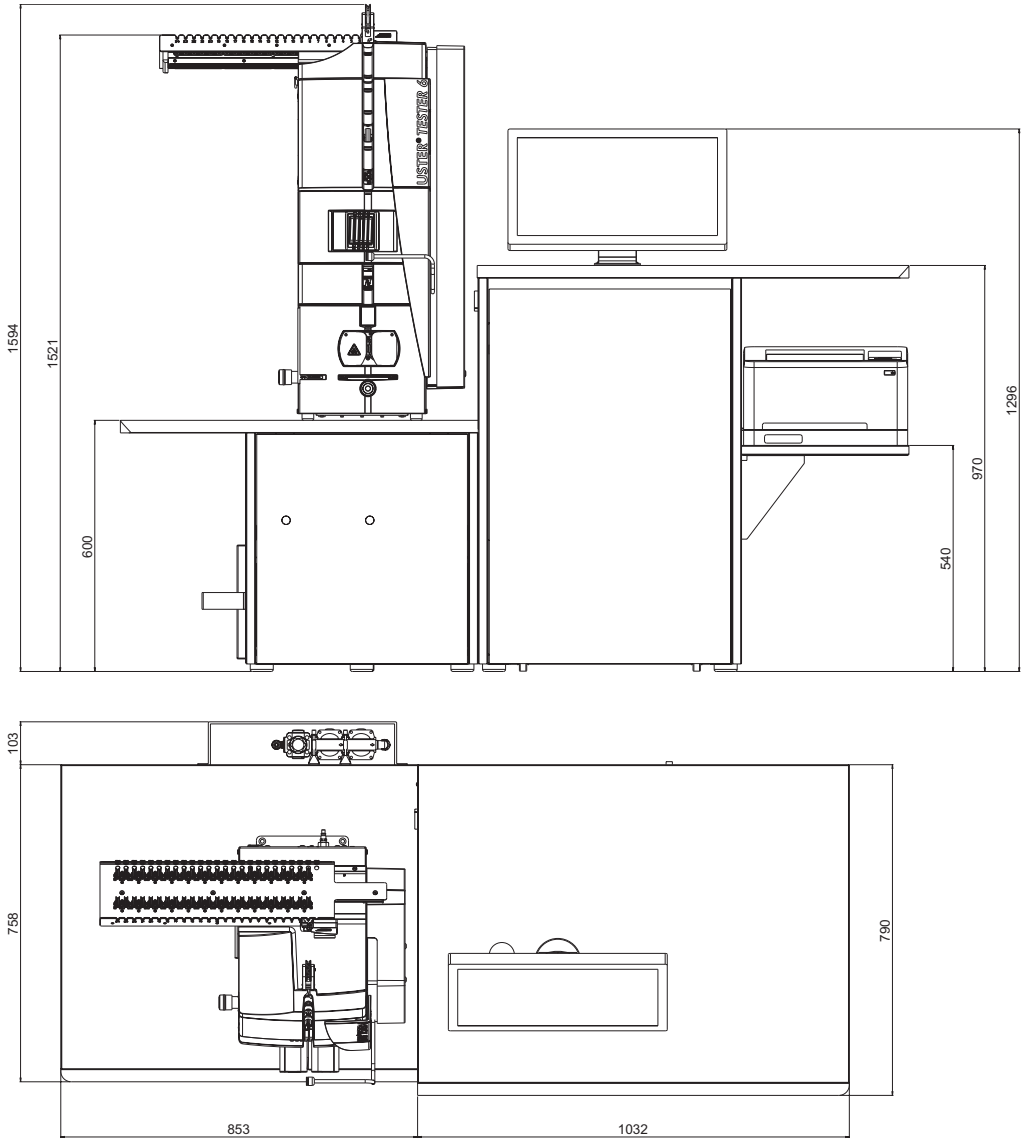
UPS must be provided by the customer

	UPS Model	Tower
	UPS Bypass Type	ON-Line
Electrical Input	**Nominal Voltage**	120 VAC, 220 – 240 VAC
	Voltage range 120 VAC	90 – 138 VAC
	Voltage range 230 VAC	160 – 276 VAC
	Frequency	50/60 Hz
Output	**Nominal Output Voltage**	120 VAC, 230 VAC
	Power Capacity	1,000 VA (1 kVA)/900 W
	Voltage regulation	+/-3%
Enviroment	**Safety markings 120/208 V**	UL, CUL, VCCI
	Safety markings 230 V	CE, GS
	Ambient operating temp.	Laboratory condition are acceptable
	Relative humidity	Laboratory condition are acceptable

Note: It is not permitted to connect a Laser Printer.

Space required for the installation of Uster Tester 6-C800/A

– At a vibration free location



Uster Technologies has made all possible efforts to ensure that all information is accurate at the time of publication. Hereby it is declared that alterations to the product may be possible at any time. In these cases the information contained in this technical datasheet is subject to change without notice.

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