



USTER® *EVS FABRIQ VISION*

The fabric quality assurance system

Technical Data

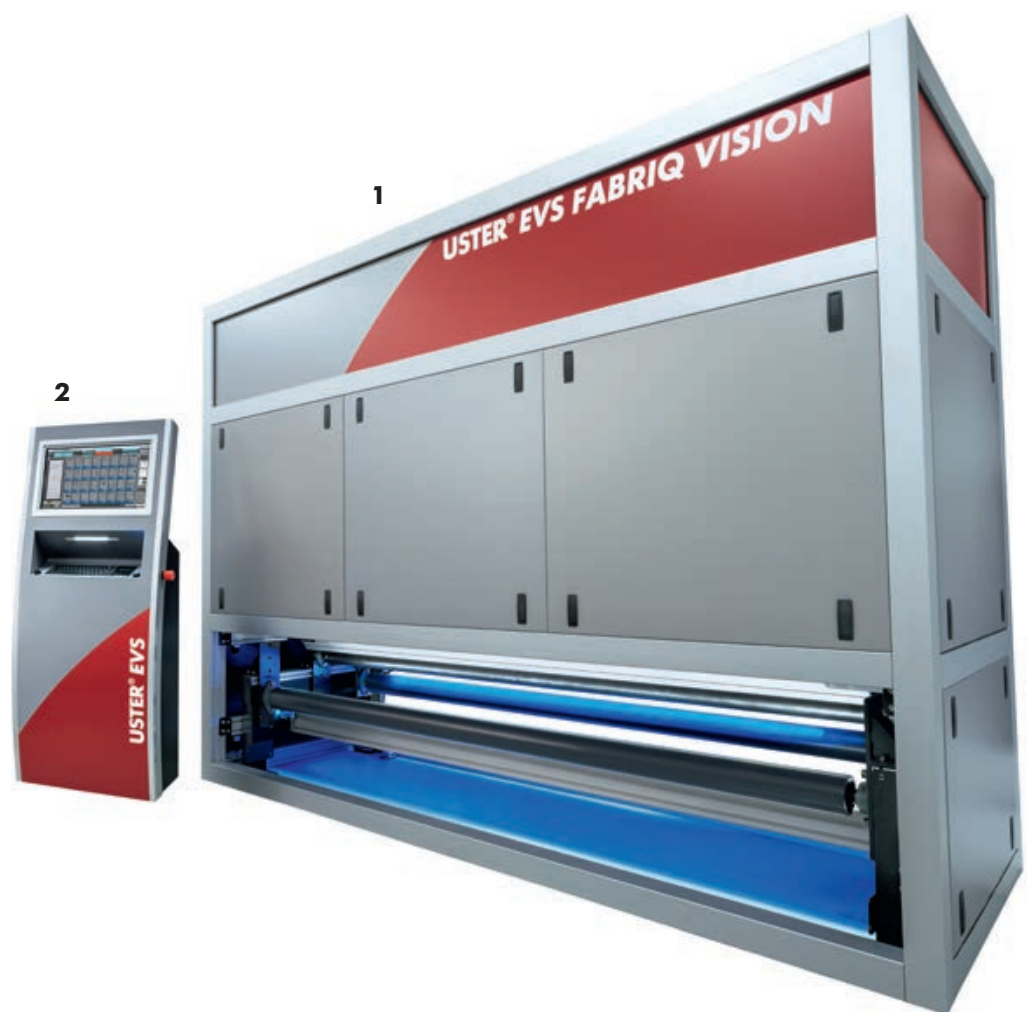
June 2023

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Fabric producers need to guarantee reliable quality. This requires a consistently high rate of defect detection. Uster EVS Fabriq Vision ensures this is achieved by using automated control during intermediate and final inspection, removing the need for costly manual inspection. The system's ability to capture any visible defects allows fabric yield to be optimized and prevents claims.

Elements of the Uster EVS Fabriq Vision installation



Basic installation

- 1 Test unit with spectroscopes
- 2 UEVS Control Unit including touchscreen monitor
- 3 Rollers (without illustration)

Options

- 4 All in one Control Unit (without illustration)
- 5 All in one PC workstation for review
- 6 Optimized Cut Control (without illustration)
- 7 Infrared marker (without illustration)
- 8 Laser pointer (without illustration)
- 9 Rollers for sensitive fabrics (without illustration)

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Basic installation

Overall installation	Functions	<ul style="list-style-type: none">– Uster EVS Fabriq Vision visualizes defects onscreen in the user interface– Real-time integrated image acquisition processing– All defects are detected, categorized, saved and displayed on the operator interface– High-speed detection capabilities up to 1,000 m/min– Color (RGB) or black and white (monochrome) image processing
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Included in the delivery	<ul style="list-style-type: none">– Test unit with spectrosopes– UEVS Control Unit including touch screen monitor– Illumination unit– Encoder (length meter)– Application software– All in one PC workstation review– High resolution to detect smallest defects <0.5 mm
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Subsystem of the Uster EVS Fabriq Vision:

Test unit (1)	Application range	<ul style="list-style-type: none">– Recommended for woven, knitted and warp knitted fabrics
Installation options	In-line	<ul style="list-style-type: none">– After the coating-line, dyeing-line or at the exit of a finished range as stand-alone or together with Uster EVS Fabriq Shade
	Off-line	<p>As a stand-alone system installed at the following locations:</p> <ul style="list-style-type: none">– Plant's final quality control post– Warehouse's incoming inspection post– Cut & sew mapping before spreading– Integrated with Uster EVS Fabriq Shade
	Illumination	<p>Depending on the fabrics characteristics, different light sources can be applied in different angles and positions.</p> <ul style="list-style-type: none">– White LED– Blue side light– UV– Infrared
	Inspection width	<ul style="list-style-type: none">– Inspection width = fabric width + lateral movement of the fabric caused by the fabric flow– Max. fabric inspection widths:<ul style="list-style-type: none">– 2,250 mm– 3,000 mm– 3,700 mm– 4,400 mm– Max. fabric width for BFA (Broken Filament Analyser)<ul style="list-style-type: none">– 1,500 mm

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UEVS Control Unit (2)	Computer software	<ul style="list-style-type: none"> - Uster EVS Fabriq Vision intuitive touch application software - Windows operating system - System pre-configured and locked down - Simple full system update process
	Computer hardware	<ul style="list-style-type: none"> - Computer with Intel® processor - 1 internal 500 GB hard drive
All in one review workstation (3)	Computer software	Review workstation for the application of the data review only
Rollers (4)	Hardware	Material: Aluminum/Steel Roughness: Ra <1.6 µm Concentricity/runout 0.25 mm for Ø100/0.5 mm for Ø140 mm Ø100 mm, for long systems fabric width 3.7 & 4.4 m Ø140 mm

Options on request

All in one Control Unit (5)	Application	Instead of Uster EVS Control Unit
Optimized Cut Control (UEOCC) with laser pointer (7)	Application range	<ul style="list-style-type: none"> - After the data review, the defect map is synchronized at the UEOCC, which stops the cutting table automatically at the precise point of the planned cut of defective fabric - The laser pointer indicates the exact position of defects during the cutting table process
Infrared marker (8)	Application range	<ul style="list-style-type: none"> - To locate the exact position of defects and cutting points with high accuracy, Uster uses an infrared marker to put invisible marks on the fabric selvage - This is used later in the sync process at the UEOCC, when the infrared sensor detects the invisible marks
BFA Rollers (9)	Hardware	Material: Aluminum/Steel Roughness: Ra <0.8 µm Concentricity/runout 0.05 mm diameter 100 and 140 mm

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Operation Software for Uster EVS Fabriq Vision

User interface	Data visualization	Real-time visualization of quality data during inspection, including <ul style="list-style-type: none">– Defect images– Defect map– Defect list– Measurement graphs (width, speed, GSM)
Processing tools	Alerts and warnings	Indication of alerts in different levels indicate drop in quality or performance for quick time-to-action according to customer-specific business rules. <ul style="list-style-type: none">– Repeating defects– Defect size– Defect amount– Customized rules
	Automatic Pre-classification	Automatic real-time pre-classification of defects for efficient understanding <ul style="list-style-type: none">– Shape– Size– Contrast– Repeating interval
Measurements	Width and length measurement	Continuous measurement of width and length of the roll during production <ul style="list-style-type: none">– Indication of measurement on graph– Indication of min, max and average width in header
	Uniformity	Continuous monitoring of fabric uniformity of the roll during production <ul style="list-style-type: none">– Indication of measurement in graph– Consider deviation as defect according to customized rules
Cut Optimization	Cut Optimization module	<ul style="list-style-type: none">– The Cut Optimization module allows optimizing for the best quality, ensuring the best yield– It permits to cut out portions of bad quality fabric, defining the best length for each roll– The Cut Optimization is a combination of various permutations and combinations based on the selection of options
General settings	Dialog and report languages	English, German, French, Italian, Spanish, Portuguese, Turkish, Hebrew, Polish, Chinese or Japanese can be selected
	Possible units	<ul style="list-style-type: none">– Length: foot, yard or meter– Width: inch or millimeter– Points per 100: foot, yard or meter– Majors per 100: foot, yard or meter– Speed: ft/min, yd/min or m/min

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Selftest

Function check

- Remote support capabilities built-in
- Diagnostic tools with extensive event logging

Fabriq Album and Fabriq Assistant provide tools for reviewing the quality data captured by the inspection system.

Installation conditions

General ambient conditions

Mill climate

- The temperature should be maintained below 45° C and humidity should be kept below 80% without condensation
- The general electronic devices of the system may behave abnormally and usually have higher failure rates above the specified limits
- For higher ambient temperatures the connection of an AC is recommended (AC must be provided by the customer)

Installation

Electrical connection

Single phase with protective conductor

Mains voltage range

115 VAC or 230 VAC

Mains frequency

50/60 Hz

Power consumption

Maximum 1,000 VA

Compressed air connection

Not required

Single phase with protective conductor

Proper grounding cable and connection pit >4 mm²

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Uninterrupted power supply (UPS)

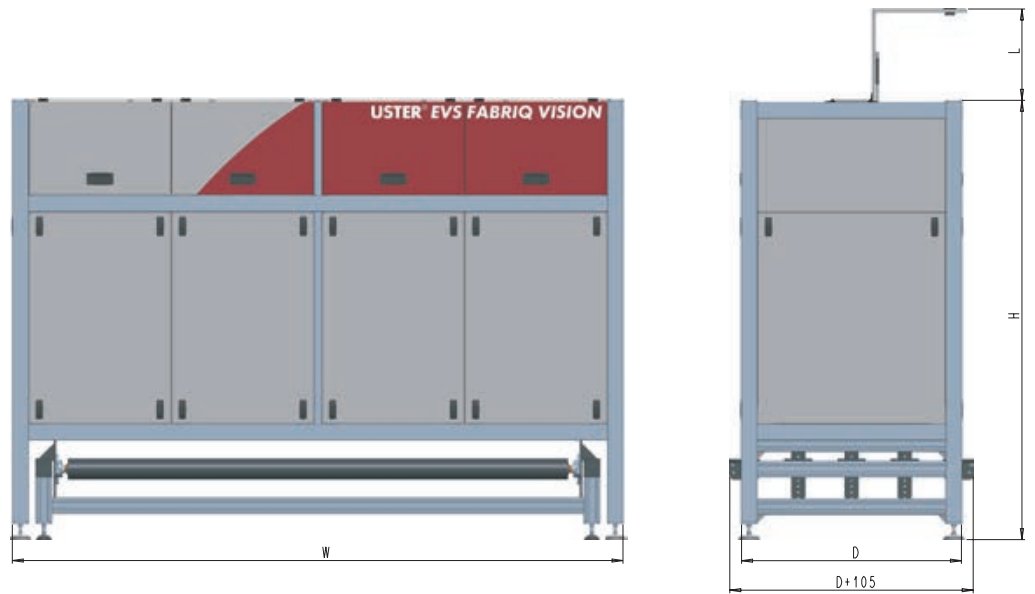
UPS must be provided by the customer

	UPS Bypass Type	ON-Line or Line-Interactive
	Max. dimensions to store 290x400x130 mm in control unit cabinet	D x W x H
Electrical Input	Nominal Voltage	According to local standards
	Frequency	According to local standards
Output	Nominal Output Voltage	120 VAC or 230 VAC
	Power Capacity	850 VA/480 W
	Voltage regulation	+/-3%
Environment	Safety markings	According to local standard
	Ambient operating temp.	0 to 45 °C
	Relative humidity	0 to 80%
Connections	Input Connector	IEC C14
	Output Connectors	2x IEC C13

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Fabriq Vision test unit

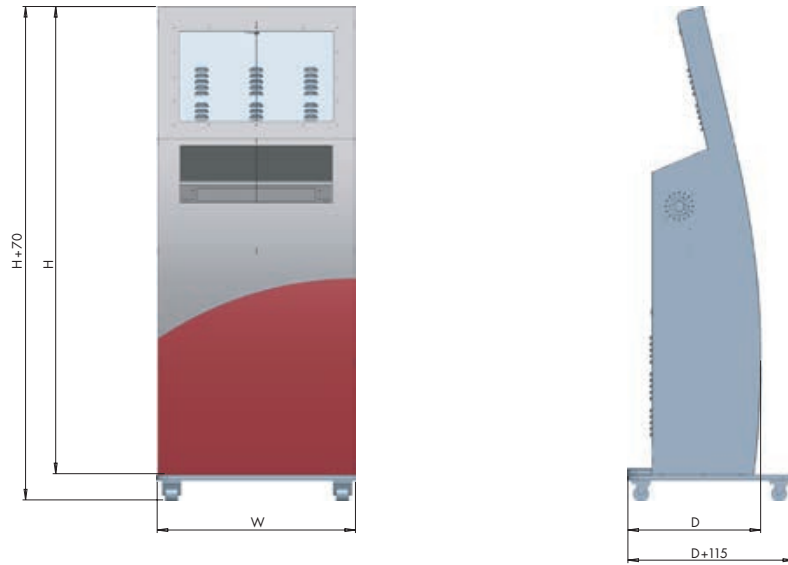


Fabriq Vision test unit Dimensions in mm (referring to drawing above)	Inspection width mm	W=width mm	H=height mm/Total	D=depth mm	Weight kg (including rollers)	L=Height of lid on top (mm)
BFA 1,500	2,250	2,260	2,150/2,600	800	1,100	450
	3,000	3,740	2,150/2,600	680/1,080	600	450
	3,700	4,440	2,150/2,600	680/1,080	700	450
	4,400	5,140	2,150/2,600	680/1,080	800	450
				900	450	

Fabriq Vision test unit Dimensions in yards (referring to drawing above)	Inspection width yds	W=width yds	H=height yds/Total	D=depth yds	Weight kg (including rollers)	L=Height of lid on top (yds)
BFA 1.64	2.46	2.47	2.35/2.84	0.88	1,100	0.49
	3.28	4.09	2.35/2.84	0.74/1.18	600	0.49
	4.05	4.85	2.35/2.84	0.74/1.18	700	0.49
	4.81	5.62	2.35/2.84	0.74/1.18	800	0.49
				900	0.49	

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UEVS Control Unit



UEVS Control Unit Dimensions in mm (referring to drawing above)	W=width mm	H=height mm	D=depth mm	Weight kg
	650	1,550	440	85

UEVS Control Unit Dimensions in yards (referring to drawing above)	W=width yds	H=height yds	D=depth yds	Weight lbs
	0.71	1.7	0.48	187

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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