



USTER® Q-BAR 2

The fabric quality monitoring system

Technical Data

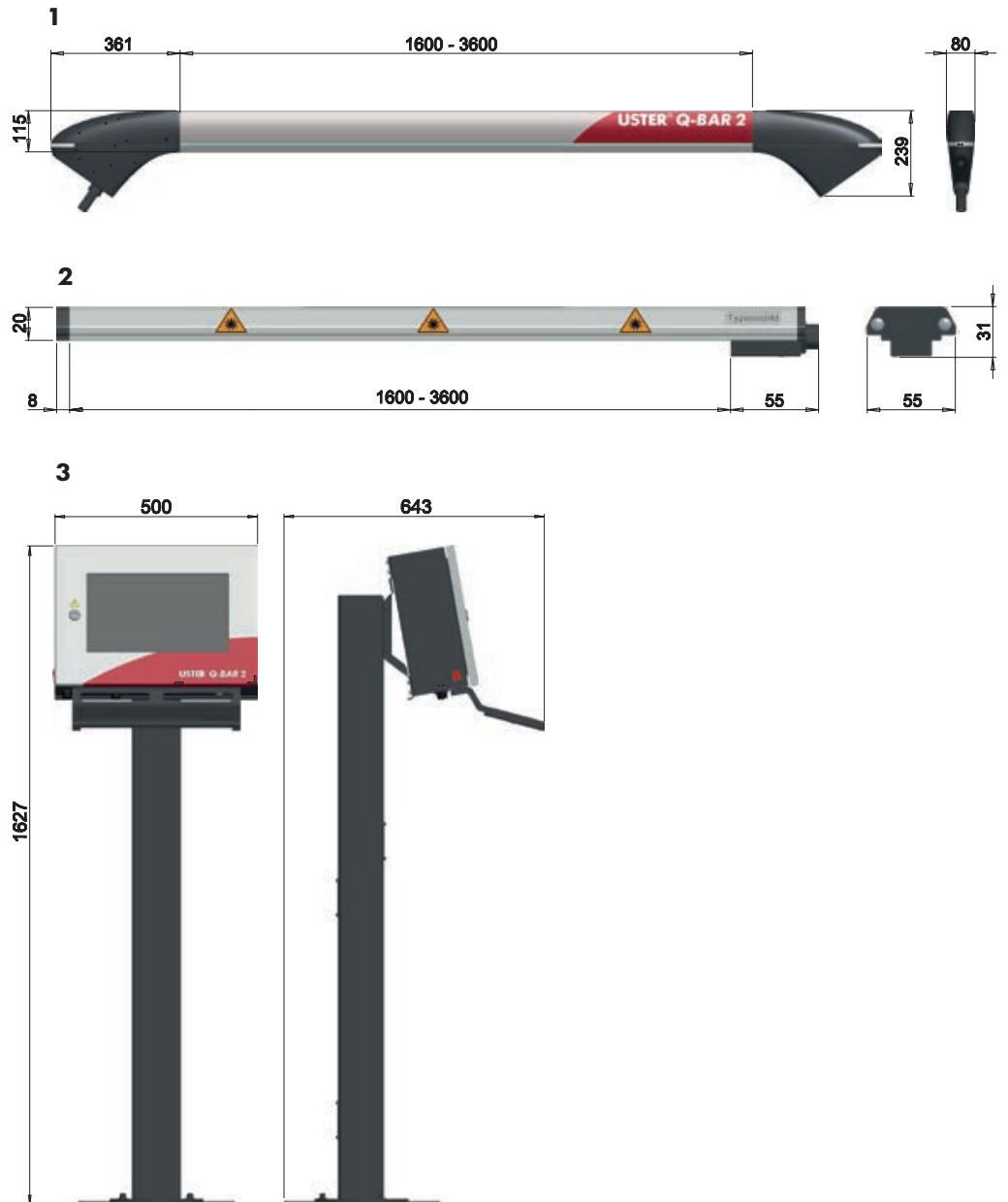
June 2023

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Uster Q-Bar 2 detects faults during the weaving process, thus preventing long-running and repeating defects. Inspecting in the formation and on the fabric, this reduces material losses and the need for manual inspection after production.

Elements of the Uster Q-Bar 2 installation



- 1 Test unit
- 2 Control Unit
- 3 Brackets

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Basic installation

Overall installation

Functions

- Uster Q-Bar 2 responds quickly and avoids long-running or repeating defects
- Alarm and stop signal enable the operator to react to correct the problem on the loom immediately
- Uster Q-Bar 2 visualizes defects onscreen in the user interface
- Integrated image acquisition and processing
- Full real time image processing
- All defects are detected, categorized, saved and displayed on the operator interface
- High speed detection capabilities
- Clear results regardless of vibration, stops, take-up mechanics or operator presence

Included in the delivery

- Test unit
- Illumination unit
- Control unit with stand
- Brackets and frame to mount on a loom
- Application software

Gross weight of the basic function

Q-Bar 2

- Test unit (depending on width): 9 kg per 1 m
- Control unit with stand: 20 kg
- Brackets and frame: weight depends on the layout

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Subsystem of the Uster Q-Bar 2:

Test unit (1)	General instrument usage	<ul style="list-style-type: none">– Recommended for all kind of looms– Special patterns and designs on request
	Cameras	<ul style="list-style-type: none">– Cameras are installed in a sealed, slim Aluminum housing
	Illumination unit	<ul style="list-style-type: none">– LED illumination to create stable light conditions in the inspection zone
	Status LEDs	<ul style="list-style-type: none">– Status LEDs on each side– Light indications:<ul style="list-style-type: none">– Red light = inspection stop/machine stop– Yellow light = calibration mode– Green light = inspection mode
	Position LEDs	<ul style="list-style-type: none">– Red LEDs mounted in the front and backside of the profile to show the position of the detected defect
Control unit (2)	Uster Q-Bar 2 Computer software	<ul style="list-style-type: none">– Uster Q-Bar 2 intuitive touch application software– Windows operating system– System pre-configured and locked down– Simple full system update process
	Uster Q-Bar 2 Computer hardware	<ul style="list-style-type: none">– Industrial Computer with Intel® Processor– 256 GB SSD hard drive

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Operation Software for Uster Q-Bar 2

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
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
Input data, output of results, languages, units	Dialog and report languages	German, English, Chinese, Turkish, Italian, Spanish, French, Portuguese, Hebrew, Japanese, Polish
	Possible units	<ul style="list-style-type: none">– Length: Feet (ft), yard (yd) or meter (m)– Width: inch (in), centimeter (cm) or millimeter (mm)– Points per 100: feet, yard or meter– Speed: ft/min, yd/min or m/min
Selftest	Function check	<ul style="list-style-type: none">– Remote support capabilities built-in– Diagnostic tools with extensive event logging

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Album PC requirements (minimum) if customer installing on own hardware

Hardware specification	CPU	Intel Core™ i5 new computer generation
	RAM	16 GB
	Hard disk 1	128 GB SSD
	Drives	none
	Network	1 x gigabit Ethernet adaptor
	Display	1,920 x 1,080 resolution
	Graphic card	Intel integrated HD Graphics 630
	Internet connection	Broadband connection with 10 Mbps minimum speed (for remote support)
	Operating system	Windows 10 1803 Professional or higher (64 bit)

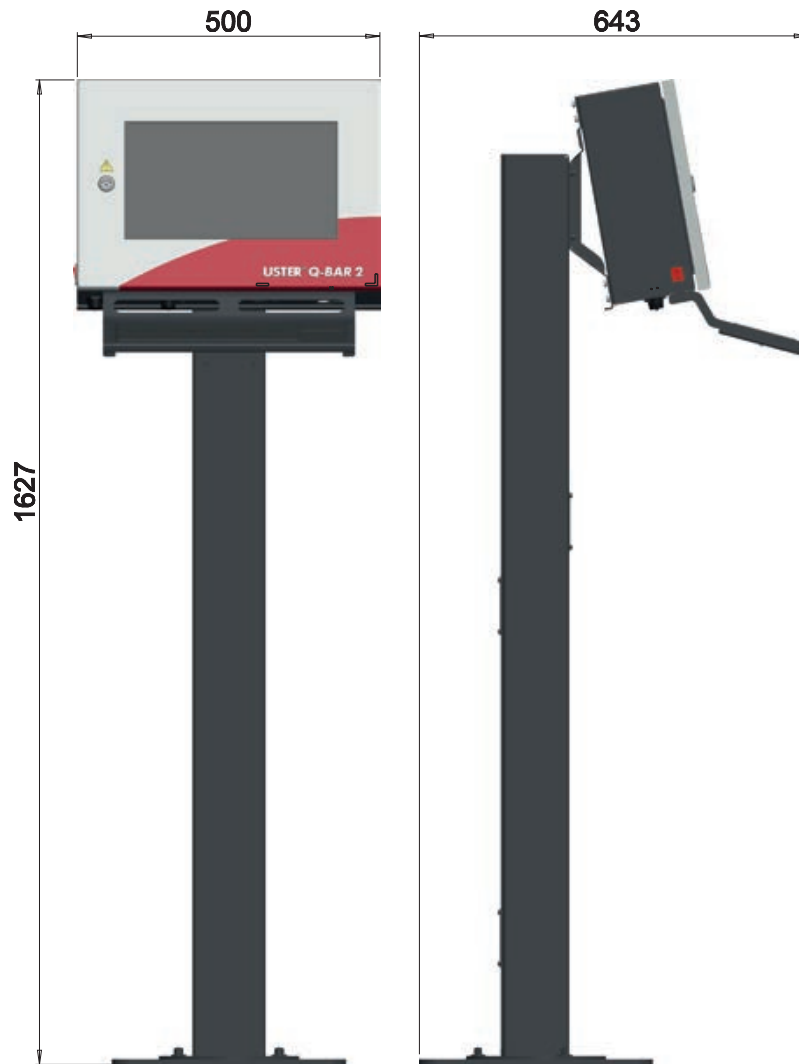
Installation conditions

General ambient conditions	Mill climate	<ul style="list-style-type: none">– The temperature should be maintained below 35 °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
	Electric connections	Single phase with protective conductor
Installation	Mains voltage range	100 – 240 VAC
	Mains frequency	50/60 Hz
	Power consumption	Maximum 750 VA
	Compressed air connection	Not required

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Uster Q-Bar 2 control unit



Control unit Dimensions in mm
(referring to drawing above)

W=width
mm

H=height
mm

D=depth
mm

500

1,627

643

Dimensions in inches
(referring to drawing above)

W=width
inches

H=height
inches

D=depth
inches

19.7

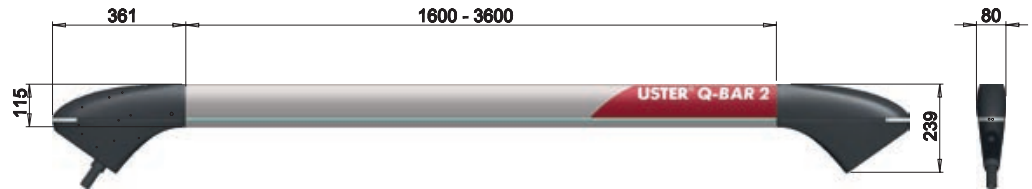
64

25.3

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Uster Q-Bar 2 test unit



Uster Q-Bar 2 test unit (End caps) Dimensions in mm (referring to drawing above)	W=width mm	H=height mm	D=depth mm
	361	239	80

Uster Q-Bar 2 test unit (End caps) Dimensions in inches (referring to drawing above)	W=width inches	H=height inches	D=depth inches
	14.2	9.4	3.1

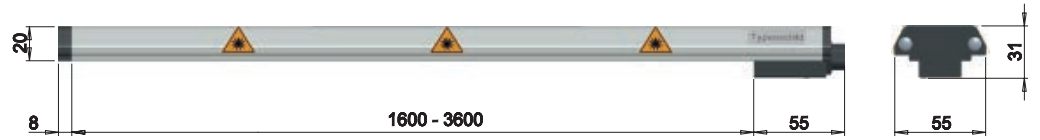
Uster Q-Bar 2 test unit (profile) Dimensions in mm (referring to drawing above) depending on inspection width	W=width mm	H=height mm	D=depth mm
	1,600 – 3,600	115	80

Uster Q-Bar 2 test unit (End caps) Dimensions in inches (referring to drawing above) depending on inspection width	W=width inches	H=height inches	D=depth inches
	63 – 142	4.5	3.1

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Uster Q-Bar 2 LED illumination



Uster Q-Bar 2 LED illumination
Dimensions in mm
(referring to drawing above)
depending on inspection width

W=width
mm
1,600 - 3600
(+55)

H=height
mm
31

D=depth
mm
55

Uster Q-Bar 2 test unit
(End caps) Dimensions in inches
(referring to drawing above)
depending on inspection width

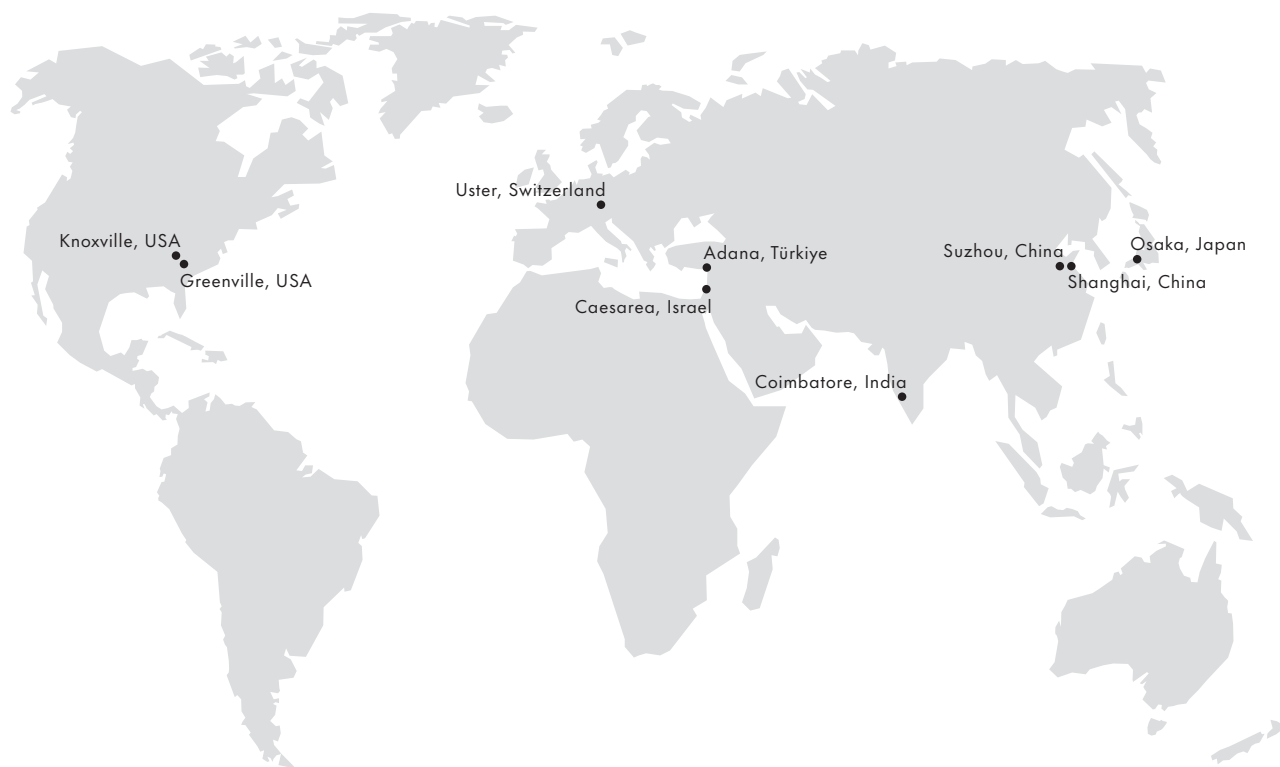
W=width
inches
36 - 142
(+2.2)

H=height
inches
1.2

D=depth
inches
2.2

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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