USTER® Q-BAR 2

The fabric quality monitoring system

Technical Data
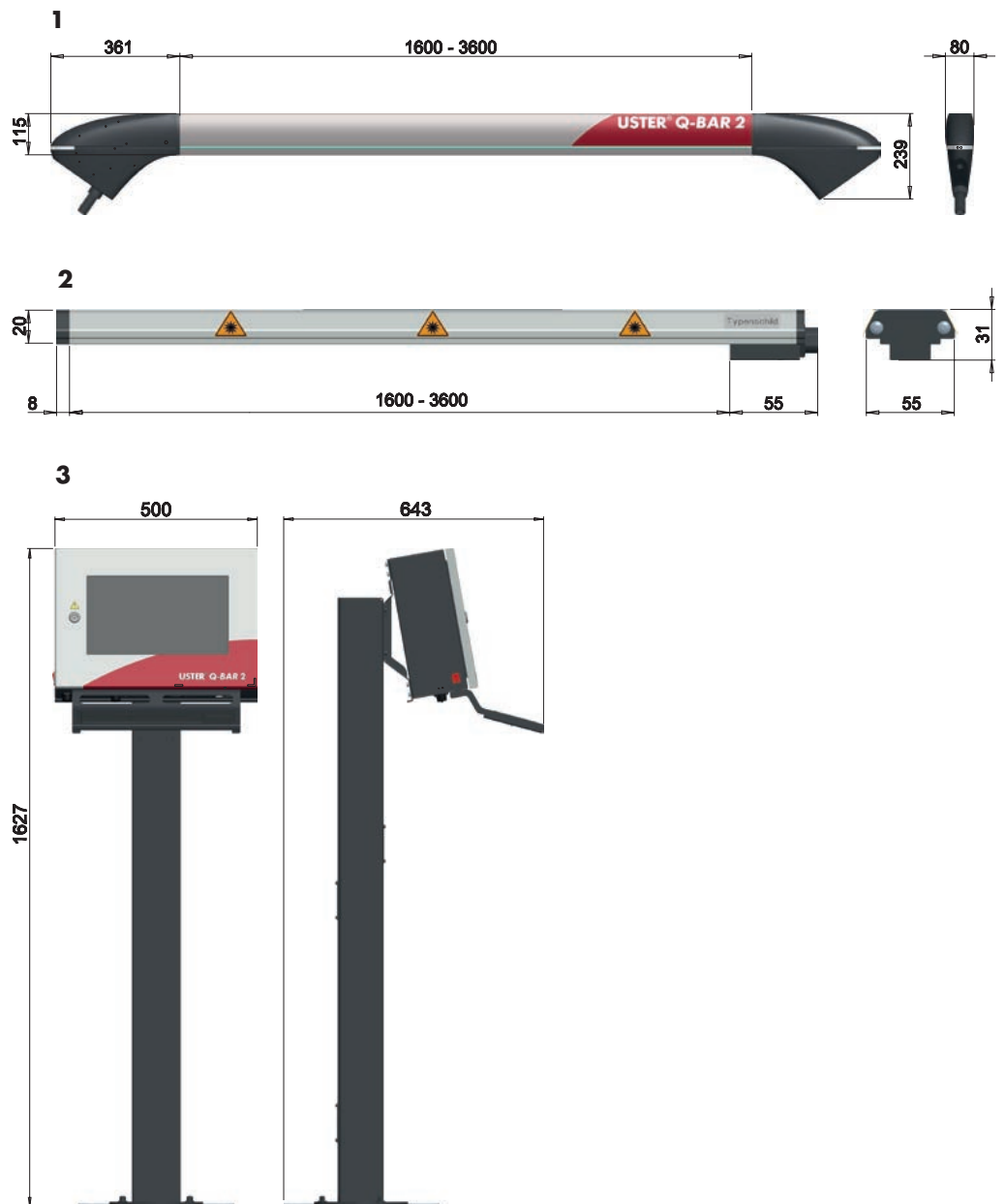
February 2021

USTER®
Think quality

USTER® *Q-BAR 2*
The fabric quality monitoring system

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

361   1600 - 3600   80

115   239

2

20   1600 - 3600   55   31

8   55

3

500   643

1627

1 Test unit
2 Control Unit
3 Brackets

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

Subsystem of the USTER® *Q-BAR 2*:

Test unit (1)	**General instrument usage**	– Recommended for all kind of looms – Special patterns and designs on request
	Cameras	– Cameras are installed in a sealed, slim Aluminum housing
	Illumination unit	– Flat LED illumination to create stable light conditions in the inspection zone

	Status LED'S	– Status LED's on each side
		– Light indications:
		  – Red light = inspection stop/machine stop
		  – Yellow light = calibration mode
		  – Green light = inspection mode

	Position LED'S	– Red LED's 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**	– 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	– Industrial Computer with Intel® Processor – 256 GB SSD hard drive

Application Software for USTER® *Q-BAR 2*

Type of report	**Defect map**	– Defect map – Defect images – Defect position (x,y) – Defects distribution – Statistical graph – Statistics per section – Defects grading
	Album mode	– The album contains the history of past roll inspections – Specific roll inspections can be recalled and allows the user to perform the complete set of actions in offline mode
	Roll list	– The roll selection window allows to select or search a roll to work on, export and delete rolls
Coding and classification	**List of codes**	– Alphanumeric codes can be given to the defects that are of importance
	Classification	– The classification module enables the user to define several classes to get automated classification based on the classes defined – Classification module is used to attain quickly most of the cases of a given defect type or to get an initial base classification
Input data, output of results, languages, units	**Dialog and report languages**	German, English, Chinese, Turkish, Italian, Spanish, French, Portuguese, Hebrew, Japanese, Polish
	Possible units	– 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**	– Remote support capabilities built-in – Diagnostic tools with extensive event logging

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

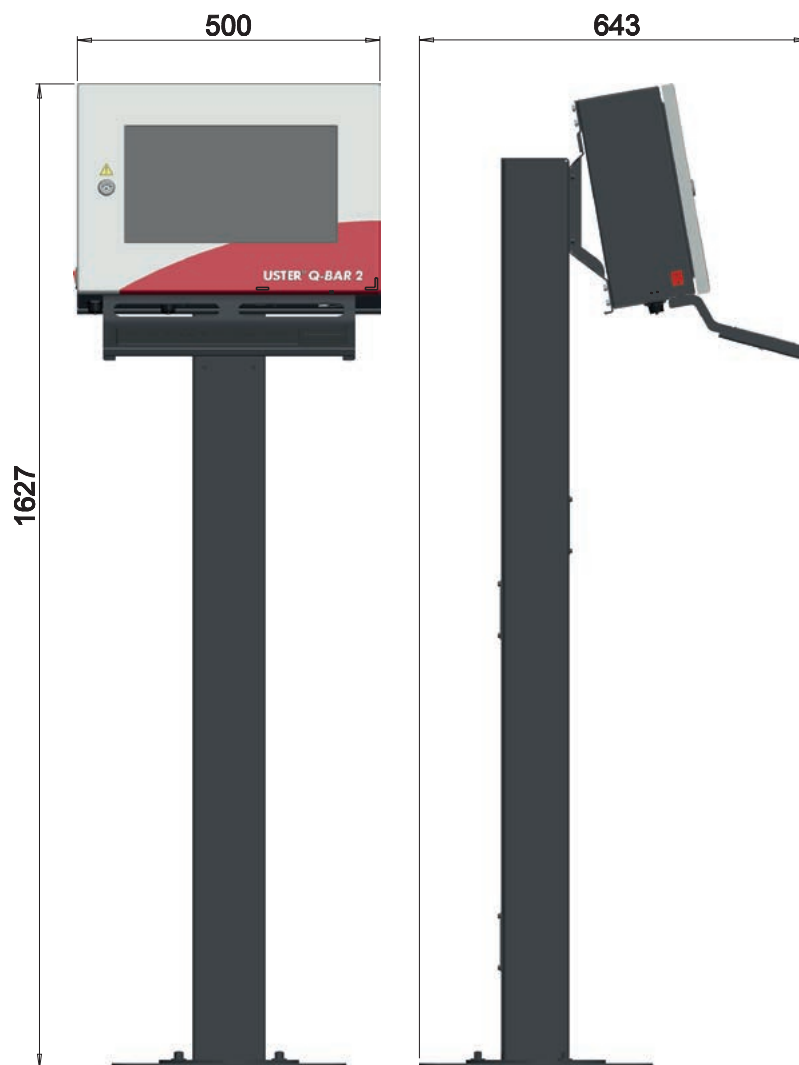| Hardware specification		
	CPU	Intel Core™ i5 8th Generation
	RAM	16 GB
	Hard disk 1	128 GB SSD
	Drives	none
	Network	1 x gigabit Ethernet adaptor
	Display	1920 x 1080 resolution
	Graphic card	Intel integrated HD Graphics 630
	Internet connection	Broadband connection with 10 Mbps minimum speed (for remote support)
	Operating system	Windows 10 1803 Professional or higher (64 bit)

Installation conditions

General ambient conditions	**Mill climate**	– 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
Installation	**Electric connections**	Single phase with protective conductor
	Mains voltage range	100 – 240 VAC
	Mains frequency	50/60 Hz
	Power consumption	Maximum 750 VA
	Compressed air connection	Not required

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	1627	643

Dimensions in inches (refering to drawing above)	W=width inches	H=height inches	D=depth inches
	19.7	64	25.3

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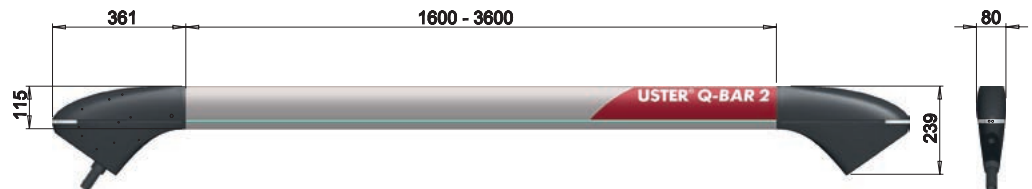
USTER® *Q-BAR 2* test unit (End caps) Dimensions in mm (referring to drawing above)	W=width mm	H=height mm	D=depth mm
	361	239	80

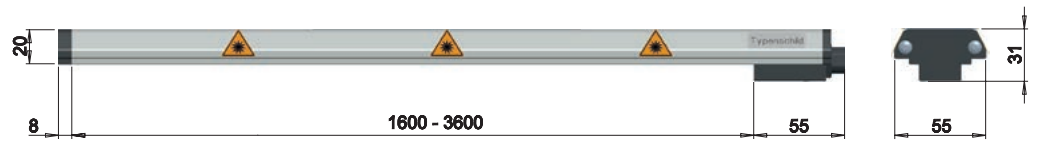| USTER® *Q-BAR 2* test unit (End caps) Dimensions in inches (referring to drawing above)	W=width inches	H=height inches	D=depth inches
	14.2	9.4	3.1

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

USTER® *Q-BAR 2* LED illumination

	W=width mm	H=height mm	D=depth mm
USTER® *Q-BAR 2* LED illumination Dimensions in mm (referring to drawing above) depending on inspection width	1600 – 3600 (+55)	31	55

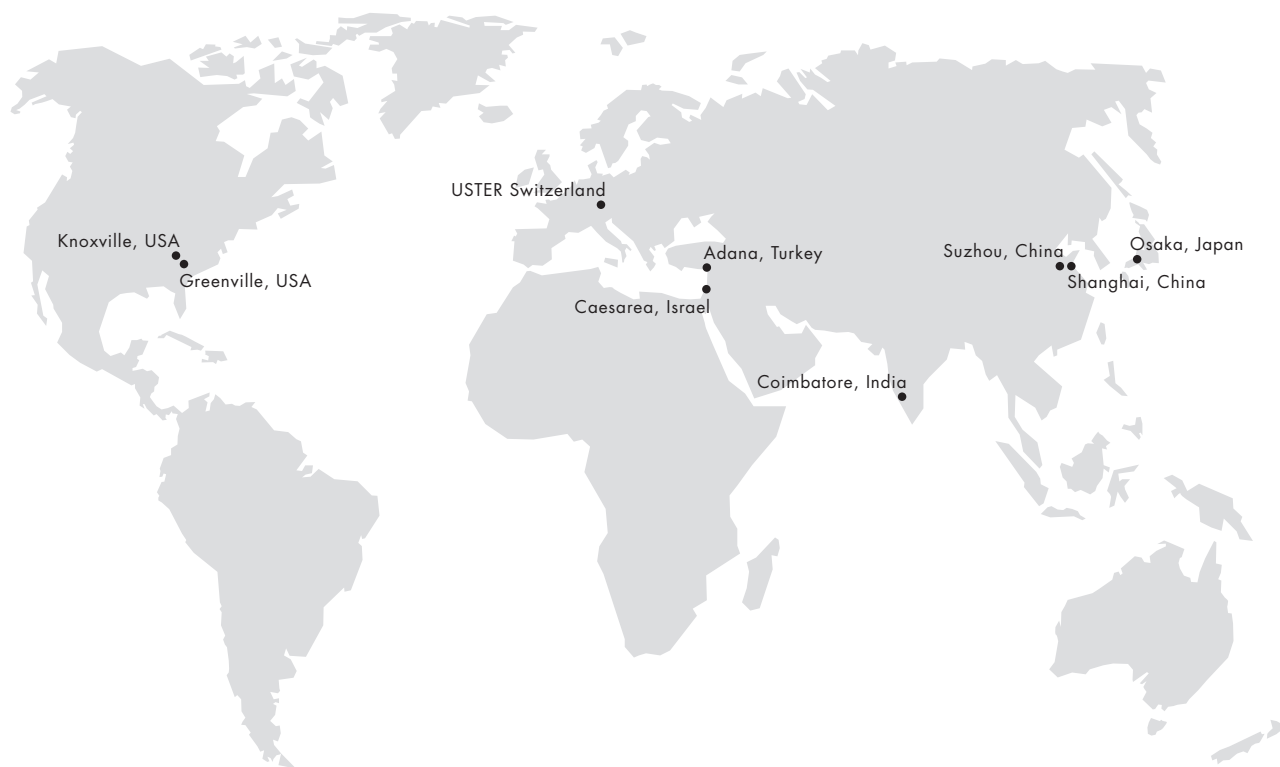|	W=width inches	H=height inches	D=depth inches
USTER® *Q-BAR 2* test unit (End caps) Dimensions in inches (referring to drawing above) depending on inspection width	36 – 142 (+2.2)	1.2	2.2

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.

February 2021

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