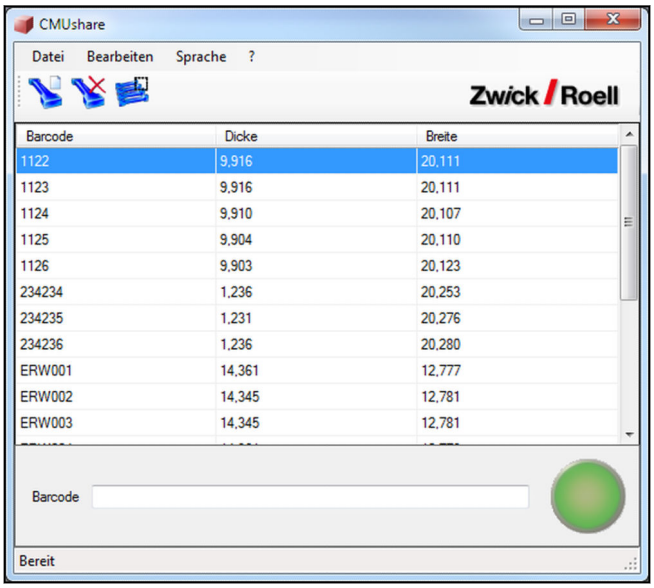
Product Information

Stand-alone cross-section measuring devices CMU30 and CMU80

CTA: 79342 59282

Stand-alone cross-section measuring device CMU30 and CMU80



Screenshot "CMUshare"

Range of application
Cross-section measurement on dimensionally stable specimens made of metals, plastics or composites and other materials.

Components - description of operation
The core of the unit is an enclosed frame on which four digital measuring transducers are mounted. The specimen thickness and width are measured differentially by each pair of transducers. The values from the sensors are recorded by an electronics unit, while a programmable logic controller (PLC) takes care of control and data link functions. By each a centering device in the width and for the thickness orientation ensure correct alignment and reliable positioning of the specimen during measurement. Operation is via a color touch panel, from which the measured values can be read off. The basic settings of the unit can also be configured here.

Measuring sequence - description of operation
After the unit has been switched on it is adjusted by measurement of a reference dimension (adjustment can be repeated periodically if required) andt is so ready to begin measuring.

CMU30:

For specimen measurement the 'width' centering unit is opened, the specimen inserted and the centering unit closed by releasing the opening lever.

A button is then pressed on the display (or in testXpert Testing Software) and the measuring sequence is performed automatically as follows. The 'thickness' centering unit closes, the measuring transducers are applied, then withdrawn once measurement is complete. The measured value is then displayed and transmitted elsewhere if required. If multiple measurements have been selected, the specimen is repositioned by the operator and a new measurement cycle is started. When the pre-selected number of measurements is reached, the average value or minimum value (as desired) is determined and transferred if required.

CMU80:

The CMU80 is equipped with automatic clamping, width-centering and measurement-frame positioning. Following insertion of the specimen the measurement sequence is fully automatic for both single and triple measurement.

Connections - description of operation
The cross-section measuring units communicate via a serial port. In the basic version, values are transmitted directly to the specimen data for the specimen selected in testXpert Testing Software. The optionally available 'CMUshare' software enables the cross-section measuring units to be used as a central measuring station for multiple network-connected testing machines. CMUshare also supports the use of barcodes for specimen identification.

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Zwick / Roell

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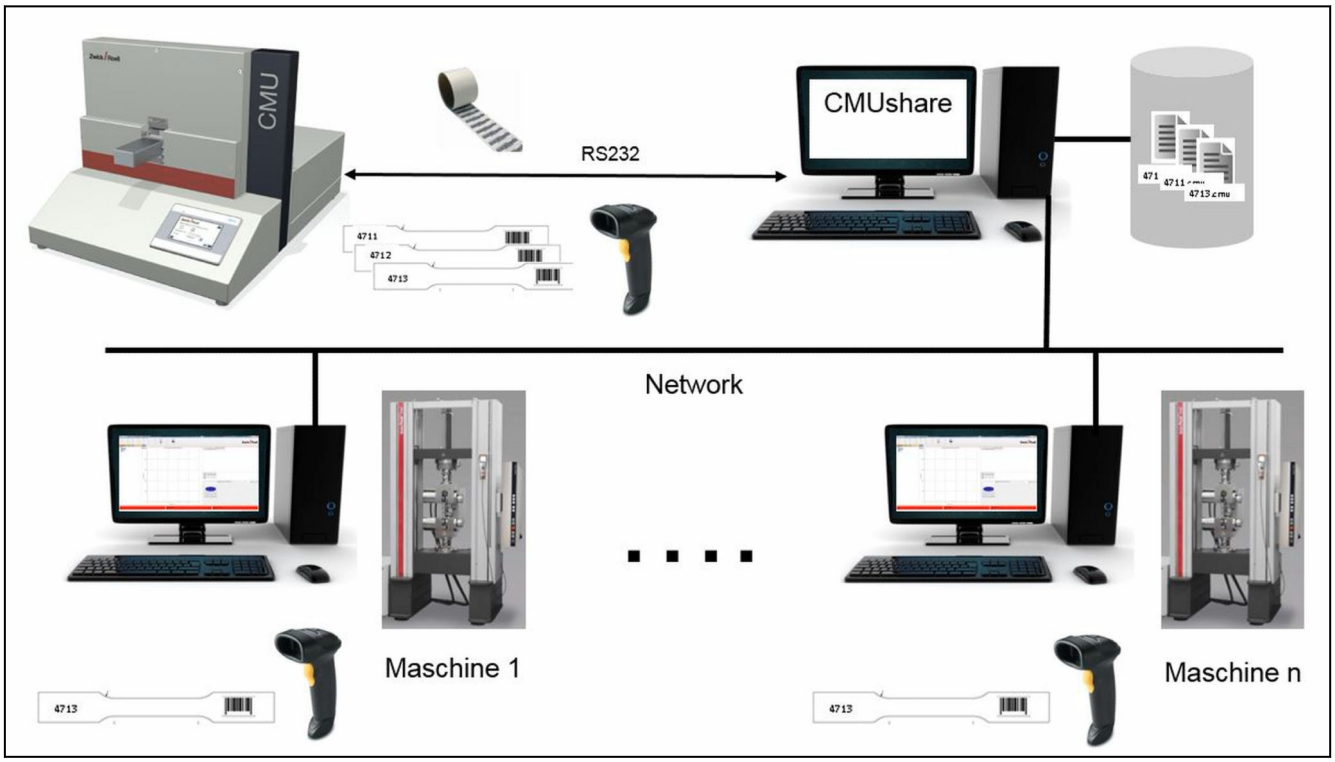

Central measuring station with CMUshare

Advantages

- High-accuracy cross-section measurement, highly resistant to temperature influences due to use of a differential measuring-system with 4 high-resolution measuring-transducers mounted on an enclosed frame.
- Operator influence largely eliminated (e.g. via centering units in width and thickness orientations) for high test-result repeatability.
- Cross-section measuring unit can be used as a central dimension-measuring station in conjunction with CMUshare software. Assignment of data to correct specimen ensured by use of labeling (e.g. via barcode or felt pen).

The measurement uncertainty of the cross-section measuring device satisfies the requirements of ISO 6892-1, Annex B, in the stated measurement ranges. ISO 6892 - 1 Annex B.

- Electrical connection: 110-230 V AC, 50/60 Hz
- Compressed air connection: 6 bar, filtered, unoiled

Description	CMU30	CMU80	
Specimens			
Shape	Flat specimens	Round and flat specimens	
Thickness, max.	30	80	mm
Width, max.	40	70	mm
Parallel length, min.	60	60	mm
Overall length, min.	100	320	mm

All data at ambient temperature.

We reserve the right to make technical changes in the course of ongoing development.

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Description Item No.	CMU30 1007665	CMU80 1014919	
Measurement range/Accuracy			
Measurement range, thickness	0.2 ... 30	5 ... 80	mm
Measurement range width	6 ... 40	10 ... 60	mm
Resolution	< 0.01	< 0.01	µm
Repeatability[1)]	±1	±2	µm
Weight	37	97	kg

1) at a gage block

Software for connection

Version	testXpert II	testXpert III
Single-user	1008337	- (integrated)
Central measuring station	1008337 + 1008338	1056775

All data at ambient temperature.