

TQC AUTOMATIC CUPPING TESTER

SP4300 / SP4305

DATASHEET

PRODUCT DESCRIPTION

TQC Automatic Cupping Tester to perform a cupping (Erichsen / Dent) test on coated steel panels to define the resistance of paint, varnish or related products to cracking and/or detachment from a metal substrate when subjected to gradual deformation by indentation under standard conditions.

The test is either used as a "pass / fail" test by testing to a specified depth or defining the minimum depth at which a coating fails by gradually increasing the indentation.

The ISO1520 standard requires panels to be slowly deformed at a steady rate between 0,1 mm/s and 0,3 mm/s without interruption. Especially with thicker steel panels hand-operated testers not always allow an uninterrupted deformation.

The TQC Automatic Cupping Tester is driven by a micro-step controlled electro motor which allows precise and steady deformation with 0,01 mm steps. Operation is intuitive by means of a jog-dial switch and a multi-lingual operating menu on a large illuminated display.

An integrated LED powered sample illumination system comforts examining the coating under test. To guarantee maximum visibility of all possible types of surface including high gloss, matte or colored samples the angle of the LED light can be set. Choose light from just one or all directions. The strength of the LED's is adjustable but also the colors can be changed to achieve maximum contrast.

Mandatory test in Qualicoat and QIB accredited laboratories.

BUSINESS

Coating industry, industrial finishing, laboratory

STANDARDS

EN-ISO 1520, DIN 53156, DIN 53232, BS 3900-E4, NBN T22-104, NFT 30 019.

Look up the appropriate standard for a correct execution of the test.

FEATURES

- easy-to-use
- user calibration possible
- integrated multi colour led lighting
- Manual and preset mode
- Multiple languages
- Panel holder adjustable in angle



SCOPE OF SUPPLY

- Automatic Cupping Test
- Reference panel
- Optical tool support rod
- Optical tool mount
- Power cord
- Manual
- Calibration Certificate

ART NO.

SP4300	TQC Automatic Cupping Test set for 240V
SP4305	TQC Automatic Cupping Test set for 100V

ACCESSORIES

LD6182	TQC USB digital microscope
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SPECIFICATIONS

Technical Data

Indenter Speed:	0.01 – 0.70 mm/s
Stroke length:	0 - 12 mm
Max panel width:	Max 100mm
Max. panel thickness steel:	max. 0.8 mm
Max. panel thickness aluminium:	max. 1.2 mm
Max. indentation force:	35kN (3500 kg)

Dimensions and Weight

Depth:	450 mm
Width:	350 mm
Height:	600 mm
Net weight:	approx. 31 kg

Basic Unit

Power Supply:	115 – 230 V, 50 - 60 Hz
Power consumption:	max. 80 Watt
Display:	Blue Illuminated, graphic 100 x 35 mm, 193x64 pixels
Safety:	Emergency Button, integrated Acoustic Alarm
Function:	Jog Shuttle knob by Rotation / Pushing

Accuracy

Indenter Speed accuracy:	+/- 1% of set speed
Stroke length accuracy:	+/- 0.01 mm or 0.2% whichever is greater

USE

The SP4300 / SP4305 TQC Cupping Test has a menu-driven interface and an integrated calibration function. Check the manual for full details.

SPECIAL CARE

- Though robust in design, this instrument is precision-machined. Never drop it or knock it over
- Always clean the instrument after use.
- Clean the instrument using a soft dry cloth. Never clean the instrument by any mechanical means such as a wire brush or abrasive paper. This may cause, just like the use of aggressive cleaning agents, permanent damage.
- Do not use compressed air to clean the instrument.
- Never perform repairs or service to the instrument yourself. This should be done by TQC or selected distributors.

SAFETY PRECAUTIONS

- Always make sure the instrument is connected to an earthed socket.
- Maintenance and inspection should be carried out at the correct intervals
- Operating personnel should be informed before starting with maintenance or repair work
- Always make sure the instruments power is turned off and the instrument is not connected to a socket while adjusting any electrical component whenever maintenance, inspection or repair work is done.
- Do not open the instrument. In case of malfunction always consult the manufacturer.

DISCLAIMER

The right of technical modifications is reserved.

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