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CT15 Cupping Tester

Ref. 0304800

Read this manual carefully before using the equipment.

NEURTEK instruments

1 PRODUCT DESCRIPTION

The product is a manual cupping tester to test the resistance of coatings of paint, varnish and related products to cracking and/or detachment from the substrate in different deformation conditions, according to the UNE-EN ISO 1520 standard.
Because of its internal design, the force that must be applied to the handle to perform the test is very small, making the job simpler and easier.
Similarly, the measurement of the deformation achieved is easily read on the digital display.

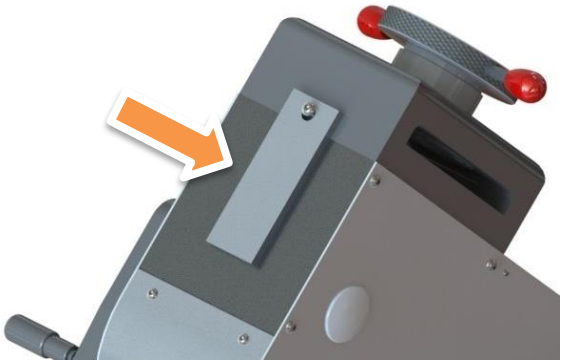
SPECIFICATIONS

Maximum thickness of the sample:	1.2 mm (steel or aluminium)
Maximum width of the test specimen:	120 mm
Feed per revolution:	0.25 mm
Weight:	10 kg

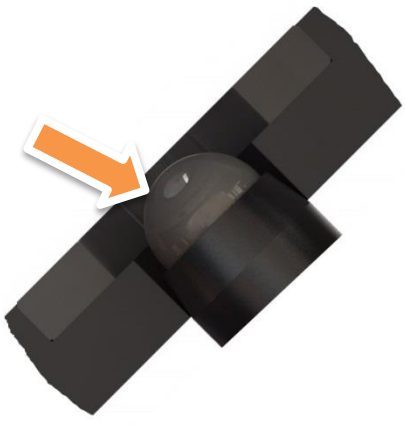
2 CALIBRATION / RESETTING

You have to carry out the calibration or resetting when you receive the product and use it for the first time.
It is also recommended to carry out calibration at regular intervals, as a preventive measure.

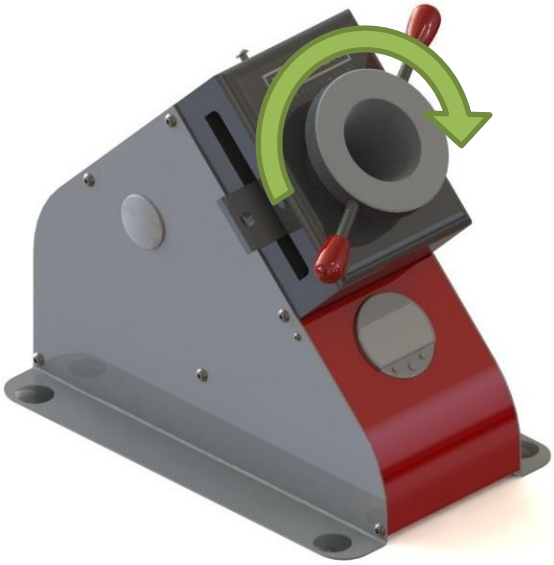
At the back of the CT15 Cupping Tester you will find the calibration or reset plate.

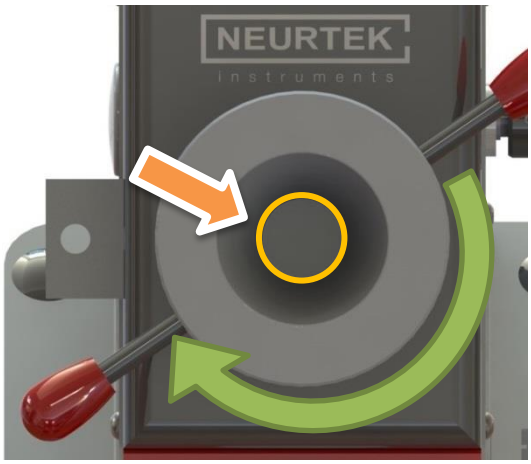


Turn the handle towards you (the mechanism will move downwards) until it reaches the bottom, or until the upper part of the punch ball is below the area of support.



Insert the calibration plate until it is centred in the test area and secure it with the clamping piece without excessive force.

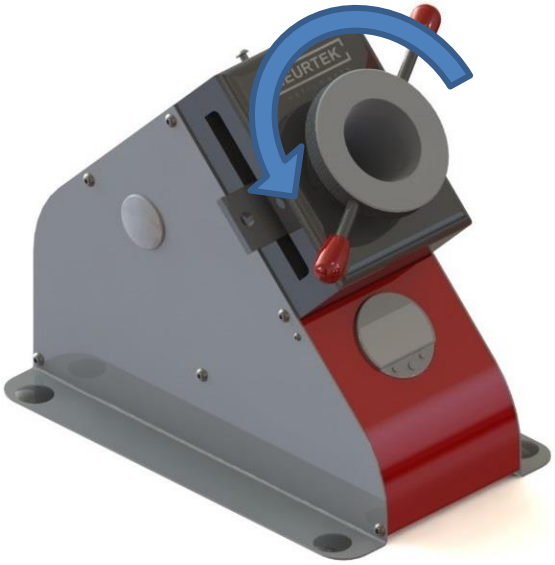




Turn the handle to raise the mechanism until it reaches the top, which means that the punch ball has made contact with the calibration plate.

At this point set the gauge to zero, pressing the SET button for 3 seconds:

Turn the handle to release the pressure of the punch ball and loosen the clamping piece.



The gauge will show a negative figure, indicating that it is below zero, the correct position before you start testing.

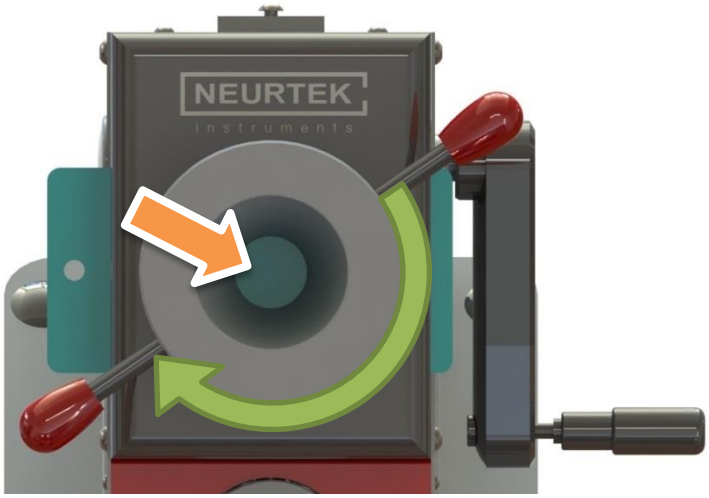
The gauge stores the zero position in its memory.

However, it is recommended to check zero with some regularity to ensure that measurements are taken correctly.

3 PEFORM A MEASUREMENT

Note that the display shows a negative number, indicating that the punch ball is below the supporting surface.

Enter the test specimen making sure that it is centred in the test area, and hold it in place without excessive pressure:

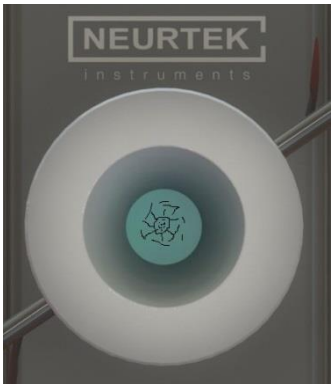


Turn the handle so that the punch ball begins to rise.

For each turn of the handle the punch ball will rise by 0.25 mm, so that if we consistently turn it at a rate of 1 revolution per second we will be fulfilling the speed requirement specified by the UNE-EN ISO 1520 standard, which is between 0.1 and 0.3 mm/sec.

As we continue to raise we observe the test specimen inside the cone and can see how deformation occurs.

We continue to examine the coating of the test specimen until we detect cracking or detachment of the substrate, at which moment we stop raising the ball.



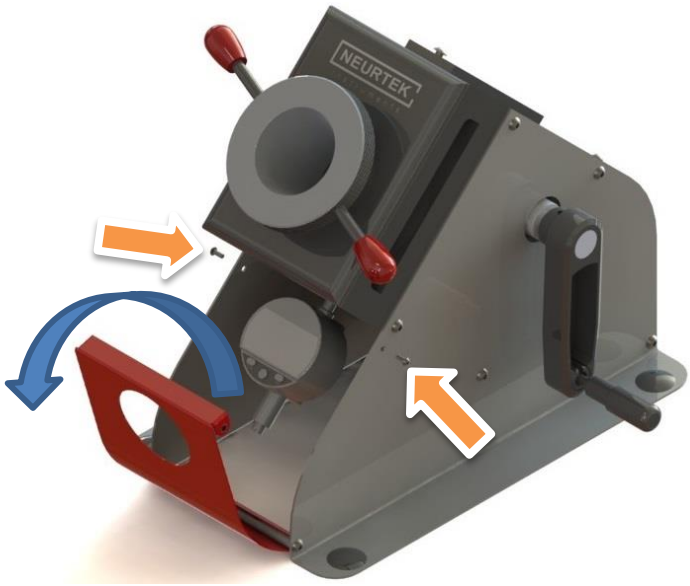
At this point we can see the measurement for the depth of indentation:

Once the result has been noted, or when you want to continue, turn the handle to lower the punch until the measurement shown is below zero.

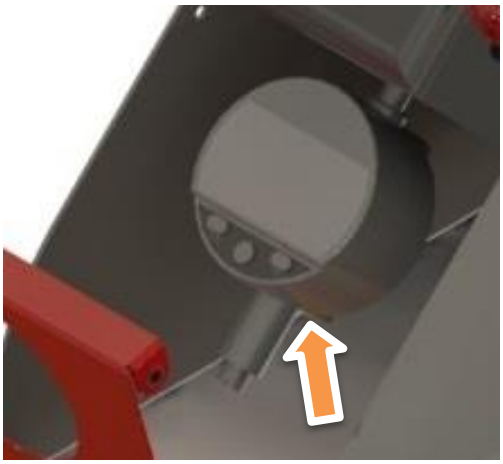
Loosen the clamping piece and the sample will be released.

4 BATTERY REPLACE

Loosen the screws on the side as indicated and rotate the front cover.



In this way we have access to the battery compartment of the gauge.



Remember that after changing the battery the device must be calibrated, or set to zero.

5 MAINTENANCE

- No special maintenance is required.
- The work (punching) area must be kept clean.
- Clean the device with a soft, dry cloth.
- Do not use compressed air, which could carry particles into the interior and could cause damage.
- Do not use brushes or other abrasive materials that could damage the device either.

6 SAFETY PRECAUTIONS

- Be careful with hands in the area where the sample is held.
- During the test the sample must always be held in place using the clamping piece.
- Do not use test specimens of brittle material which might break during the test and could cause accidents.