



Test instruments and universal test machines for bottles  
Ranges Anditork, Drivetork, Extractor and Topload



# The product range for bottles

## Screwing and unscrewing torque, uncorking force and crush tests

In order to ensure and control the manufacturing process of your bottles, flasks and you closures, it is necessary to perform periodical control of the screwing torque on closures or the crush force on bottles.

This verification can be done by means of torquemeters which enable the measurement of the screwing or opening torque on a bottle after it was screwed by a the screwing machine on the production line or the bottling machine. Force gauges and test machines enable to measure the extraction force of corks, to simulate the break or stacking or to determine the robustness of a bottle.

In order to perfume these tests, Andilog has developed four ranges of products:

### Screwing and unscrewing torque measurement



**Anditork**, for manual torque measurements on closures



**Drivetork**, for automated and repeatable torque measurements

### Force measurement



**Topload**, for automated crush tests on bottles



**Extractor**, for the manual measurement of the extraction force on corks

# Manual torque measurement: Anditork

## Manual torquemeters developed for the simple verification of the opening and closing torque on closures.



The torquemeters Anditork have been developed for the manual opening and screwing torque measurements on bottles. They are adapted to a wide variety of samples such as bottles (water, syrup, wine, and liquor), flasks (perfume, medical), test tubes, jars or pot for instance.

The Anditork range has four versions of displays with different metrological performances and functions to be personalized according to your needs. **Each version is delivered with a stainless steel plates, 4 grips and a certificate of calibration with the measurement details.** The instruments are calibrated individually in our laboratory before each delivery.

## Advantages of the Anditork systems

### Holding tray

The stainless steel tray of the Anditork guaranties the maximal longevity of the tooling and facilitates the cleaning in case of liquid overflow from the bottle or the flasks. The Anditork are equipped with a bottle holder which protect the screw during the positioning of the bottle.

The samples are maintained on the test stand Anditork by means of grips coated with soft rubber. It avoids slipping, deterioration or marking of the samples during the torque measurements. The adjustment of the clamping diameter - from 10 to 200 mm (0.4 to 7 inches) - is done with a setting wheel for a good positioning of the sample in the center of the plate.



### Digital display



The display of the Anditork devices enables the easy reading of the maximum torque for the users and prevents reading errors or misinterpretation often met with analogical torquemeters.

The industrial displays are made to resist to projections and can be easily cleaned. Depending on the product range, the display consists of 1 to 3 lines and can even plot the curve of the test in color.

### Strain gauge sensors

The strain gauge sensors of the Anditork guaranty the precision and repeatability of the measurements over a long period of use. Moreover, **the onboard electronics checks upon every boot that the sensor isn't damaged or abnormally staggered**, avoiding the regular verifications and the mandatory cleaning when using mechanical devices.



# Manual torque measurement: Anditork

## Anditork First – Simple bottle tester for the production line

The torque tester Anditork First enables test up to 12 Nm clockwise and counter clockwise. Its user interface is reduced to the minimum in order to be handy and **facilitate the measurements**.

The navigation in the menus and function of the device can be done using only 3 keys: display the maximum torque value (in clockwise and counter clockwise), change the unit of measurement (Nm, lbin or kgcm) and tare of the measured value.



## Anditork Easy – More precision and traceability



The Anditork Easy enables to perform the same measurements as the Anditork First and offers advanced functions to facilitate the tests, the recording and the data processing. The main additional functions are: **programmable torque set points with audible beep, memory up to 100 results, 2-line display with raw data and peak torque, computer connection and thermal printer**.

Thanks to its rechargeable batteries the Anditork Easy can be easily transferred between different control areas. The test can be run in the laboratory or directly at the bottling machine, and it provides a quick quality control check of the closure.

## Anditork Star – Maximum performance and convenience of use

The torque tester Anditork Star includes the functions of the Anditork Easy with augmented ergonomic and exclusive performances. With its color touch screen, the Anditork Star is user friendly and pleasant to use. Its advanced calculations such as the **break detection of the clamp ring and the display in real time of the curve** enables to perform detailed tests.

As option, it is possible to save the test data or the curve on a USB or in the internal memory up to 2.000 results.



## Anditork Dual – Dedicated to safety cap



The Anditork Dual is specially designed to measure the pushing downward force, opening/closing torques for bottle's cap and the break torque of their safety ring. It uses the same display as the Star version and can read simultaneously a force and a torque sensor.

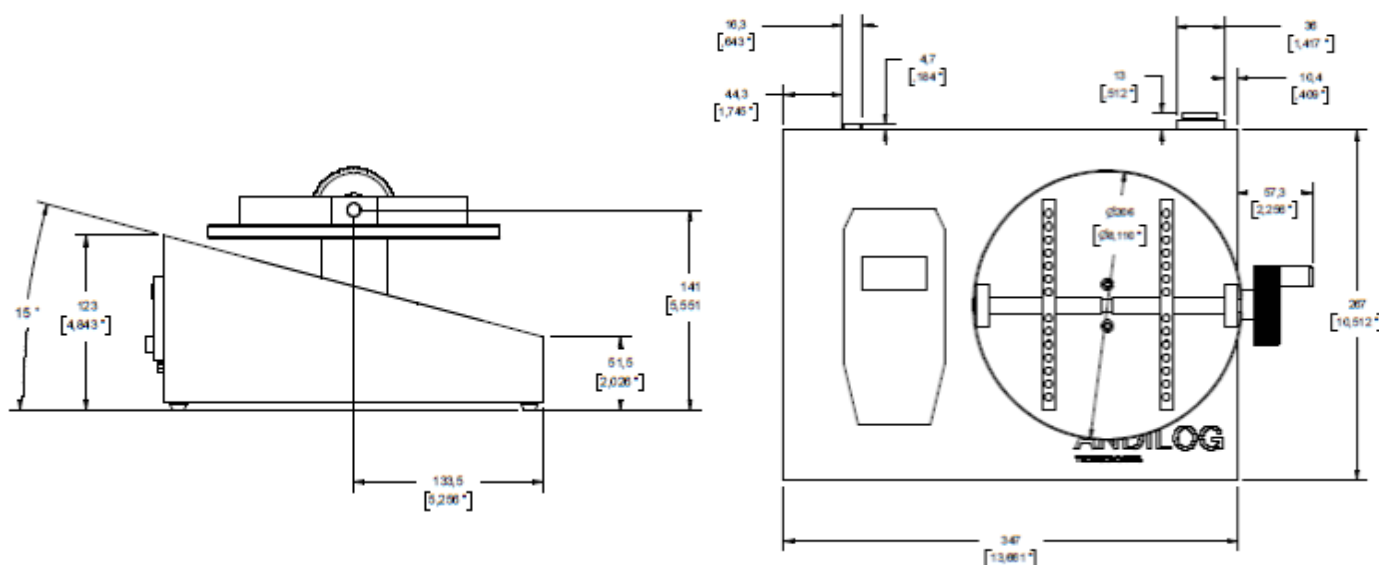
The integrated high end sensor in the Anditork Dual is designed to measure the force and the torque so that the values don't influence each one another. It enables highly precise measurements, repeatable results and a great reliability.

# Manual torque measurement: Anditork

## Technical specifications

| FUNCTIONS         | FIRST           | EASY                | STAR                      | DUAL                 |
|-------------------|-----------------|---------------------|---------------------------|----------------------|
| Sensor            | 12 Nm           | 3, 6 or 12 Nm       | 1.5, 3, 6 or 12Nm         | 1.5, 3, 6 or 12Nm    |
| Unit              | Nm, lbin, kgcm  | Nm, lbin, mNm, lbin | Nm, mNm, lbin, lbft, inoz |                      |
| Resolution        | 0.01 Nm         | 1/10 000            |                           | 1 / 10 000           |
| Accuracy          | 0.5 % FS        | 0.25% FS            |                           | 0.25 % FS            |
| Bauds rate        | 1 000 Hz        | 1 000 Hz            | 5 000 Hz                  | 1 000 Hz each sensor |
| Autonomy of use   | 16 hours        | 8 hours             | 8 hours                   | 6 hours              |
| Sample diameter   | 10 up to 200 mm |                     |                           |                      |
| Lines displayed   | 1               | 2                   |                           | 3                    |
| Set points        | No              | Yes                 |                           | Yes                  |
| Transfer of data  | No              | 100 Hz              |                           | 1 000 Hz             |
| Memory            | No              | 100 results         |                           | 2 000 results        |
| Curve             | No              | No                  |                           | Yes                  |
| Break calculation | No              | No                  |                           | Yes                  |
| Printer           | No              | Option              | No                        | No                   |
| Save on USB       | No              | No                  | Option                    | Option               |

## Dimensions of the Anditork



# Automated torque measurement: Drivetork

## Eliminate the influence of the user on your measurements

In order to perform a precise and repetitive measurement it is preferable to use a torque bench with a programmable constant speed. In this way, the **measurement performed will always be independent from the person who closes or opens the closure.** Thanks to its controlled rotation at constant speed, the motorized test bench Drivetork operates without human influence on the bottles.

It is best suited for screwing tests: closures, bottles, screws, nuts etc. Its measuring head is equipped with a movable head lock which enables the torque sensor to freely go up and down progressively on the Thread during the tests.

The Drivetork can be programmed to perform the following tests on closures:

- Complete unscrewing
- Break of the safety ring
- Unscrewing without opening and screwing



## One unique solution for multiple samples



The grips and plates enable to test various diameters, forms and sizes of bottles.



Interchangeable torque sensors from 0.15 to 12 Nm (1-100 in-lbs).

## Technical specification

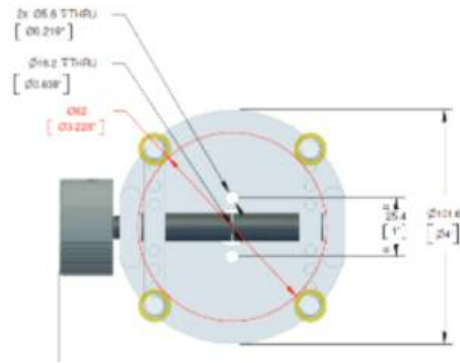
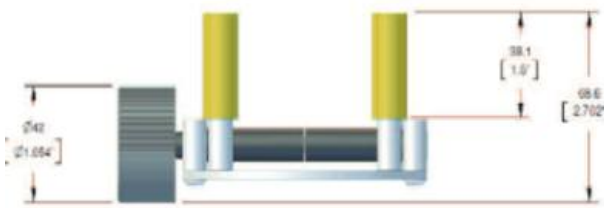
- Torque range: 0 – 12 Nm (1 - 100 in-lb).
- Interchangeable sensors
- Torque precision: 0.25% FS
- Speed rate: 1.000 Hz
- Angle resolution: 0.1°
- Rotating speed: 1-10 rpm (customizable on demand)
- Direction of measurement: screwing/unscrewing
- Sample height: 0-350 mm (0-140 in)
- Max. travel: 75 mm (30 in)
- Max. diameter of the bottles: 150 mm (60 in)
- Max. diameter of the closures: 80 mm (30 in)
- PC connection via USB cable and compatible USB stick as option
- Clamping accessories customizable on demand

# Accessories for Drivetork

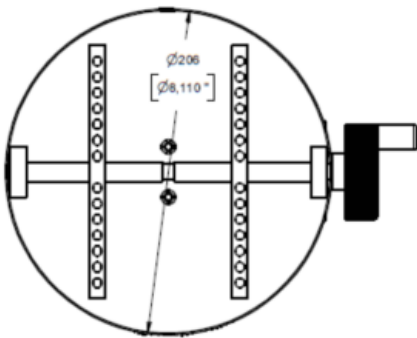
## Different plates and accessories for the range Drivetork and Anditork

Various holding accessories for your samples can be mounted on the Drivetork. The choice of these accessories depends on the type of products you wish to test. We can also design and manufacture special clamps and grips on demand based on your test requirements. Please consult us for further information.

### Microtork plate (mounted at the bottom or on top of the Drivetork)



### Large plate (mounted at the bottom)



Stainless steel plate with large diameter delivered with 4 grips in soft rubber. Length of the grips: 76 mm (0,3 in).

Best suited for tests on bottles, flasks and canisters.

### Tailor made holder and mating part



We design and manufacture accessories on demand with the exact shape of your closures. This tailor made accessories have the advantage to limit any slipping and to avoid the clamping of the closure through the finger grips. In this way the closure is always maintained the same way and not constrained during the rotation.

The measurements are more repeatable and precise. Please consult us for more information and a personalized study of your project.

### Jaw for champagne cork and sparkling wines



This jaw has been specially design for torque measurements in twist on champagne corks. It ensure the good grip of the cork and deter eventual slippage.

The gripper can be mounted on our portable force gauges of the range Centor Easy TH for measurements on site.

Please consult us for further information.

## Compression measurements on packaging - Topload tests

The measurement of the crushing or compression force on a packaging enables to verify its shape retention especially during transportation. It consists in performing sampling inspection of the force needed to crush a packaging. It can be for instance a plastic, PET or metal bottles, cardboard or cans.

The measuring principle consists in crushing a sample at constant speed and to measure the stress (the force) needed to distort the packaging. A few measurement techniques exist depending on the type of packaging and the resistance criterion: measurement up to break force, measurement of the force at a given height, measurement of the height at a given crushing position, measurement of the crush at a given force etc.

Main tests:

- **Detection of the break force with automatic return**
- **Measurement of the force at a crushing distance**  
(example: force needed to crush a bottle up to 10 mm-0,4 in)
- **Measurement of the force at a given height**  
(example: force when the bottle has a height of 250 mm-10 in)
- **Crush measurement at a given force**  
(example: how did the bottle crash under a force of 100 N)



## Technical specification

- System reads to use
- Available in version 1 kN and 2 kN
- For all type of bottles or cardboard up to 400 mm/16 in height
- Compression tests at constant speed between 5 and 350 mm/mn (0,2-14 in)
- Interchangeable force sensor from 10 N to 2 kN
- Precision of the force measurement: 0.1% of the sensor capacity
- Data speed: 1 000 Hz
- Holder and compression plate
- Certificate of calibration included
- Results recording on USB or computer connection
- As an option: control software for PC



## Your canisters or cardboards are too big for the Topload?

We also offer twin columns machines suitable for bigger samples and capable of measuring force up to 50 kN. In particular cases it is also possible to design or adapt our existing systems of measurement for abnormal packaging.

Please contact us to expose your project and have a feasibility study be done.



# Range Extractor – Extraction force of corks

## Extractor 500 – Manual force gauge for corks

In conformity with the Cork Manufacturers Norm, the hand-held "corkscrew" Extractor 500 consists of a Centor First and specific accessories to measure the extraction force of still wine corks.

It is a simple and robust solution, to be used per hand like a classical corkscrew and it saves the maximal applied of the user. Maximal tensile force: 500 N



## Extractor II - Test stand for the cork extraction



The Extractor II is a simple and practical system to measure in a repetitive and quick way the breakout or extraction force on wine corks.

This manual test stand enables to open bottle without the use of force. The force gauge displays the applied force in real time and saves the maximal necessary traction force to extract the cork.

The Extractor II suits measurements up to 500 N.

### A simple, robust and practical measurement system

The Extractor II is equipped with 2 handles with quick clamping for a flexible height adjustment regardless of the bottle to test. The upper handle adjusts the position of the force gauge whereas the lower one adjusts the height of the bottle holding arm. The quick clamping system enables an easy positioning in a few seconds regardless of the bottle type - 75cl, 50cl, Bordeaux etc (25oz, 16oz).



### Linear guidance system



- Holds the bottle vertically to ensure the force measurement in the axis of the force gauge. In this way it deters the errors due to offset loads.
- Protects the bottle during the tests and avoids the direct contact with the test stand. Its internal curved shape adapts to the shape of the bottle and enables the control of bottles with a diameter up to 76mm (3in) with a neck of 38mm diameter (1,5in).

### Dumping washer on the basis

As for the guidance system, the basis of the Extractor II has a soft elastomer washer which amortizes the contact between the glass of the bottle and the test stand. This shock absorber reduces the shocks during the cork extraction.



# Acquisition and report software

## Caligraph – Visualize your tests in real time



With the acquisition and analysis software Caligraph, you can watch the evolution of the curve of force and torque in real time, save your data, calculate automatically the results and edit customizable test reports.

The measurement starts with a simple click and you follow live with a speed rate of 1.000 Hz (depending on the equipment) the essential information with predefined calculations of your choice.

**Caligraph is the indispensable complementary tool to utilize the full potential of the force and torque gauge Centor Star on your computer.**

## Datastick II - The portable data saving solution for your tests



Thanks to the new DATASTICK II you can now count on a real portable solution to save easily all of your tests.

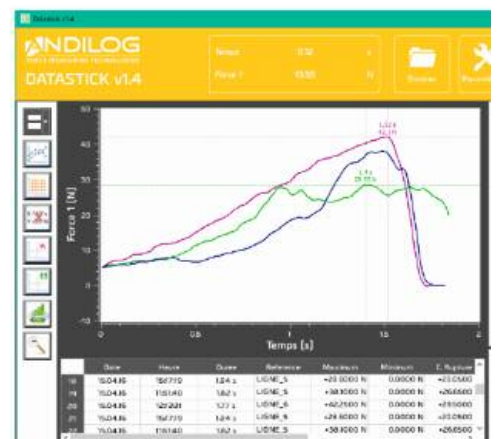
The software Datastick II and its USB stick help you save automatically or on demand the results (calculations, statistics) and the curves of your tests on an USB stick.

The included software enables you to visualize the curves and measurement data on your computer and benefit from the performance of Caligraph. You can import the data saved, compare the curves and tests results and finalize your measurements with the editing of PDF or Word reports. You can also export the points of the curves in Excel.

Datastick II is user friendly and plugged in the connector of the housing thanks to its adapter and the setting takes place through the interface of the Centor.

It is a complete solution for tests in the field and it is adapted to the demanding needs for better result traceability.

**Compatible with:** Drivetork, Topload, Anditork Star, Anditork Dual



# Driving and test software Califort

## Califort – Advanced material testing software

The software Califort enables you to perform complex and precise force and torque measurements in all simplicity.

Califort offers you several benefits:

- **Intuitive** and preset for the users
- **Performing and handy** to customize your measurements
- **Customizable** in the editing of your reports and the result analysis



The new designed interface of Califort has been fully optimized to offer a better experience with a clear and well organized interface.

It facilitates reading and usability of the software for faster and efficient daily use. Califort remains available to use with Microsoft Windows tablets and touch screens thanks to its integrated virtual keyboard and suitable interface.



### Infinite number of industrial applications

Califort is able to set the most demanding sequenced test protocols and comes with an extensive list of pre-defined calculations, which can be performed automatically during your tensile, compression or torsion test maximum, minimum, average, or break as well as the Young's modulus, the modulus of elasticity etc.

Each sequence can be customized to run up, down, clockwise at different speeds and with a stop condition (i.e. breaking point, force at position, time, travel position etc.). It also offers a cycling feature for repetitive actions.

### Customize your results

Califort has an advanced editor which enables the data integration into a report: curve, result chart, test configuration and customization of headers and footers on each report for a total personalization.

**Califort is the turnkey software to support you in the programming of your tests and insures the optimal traceability of your results.**



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