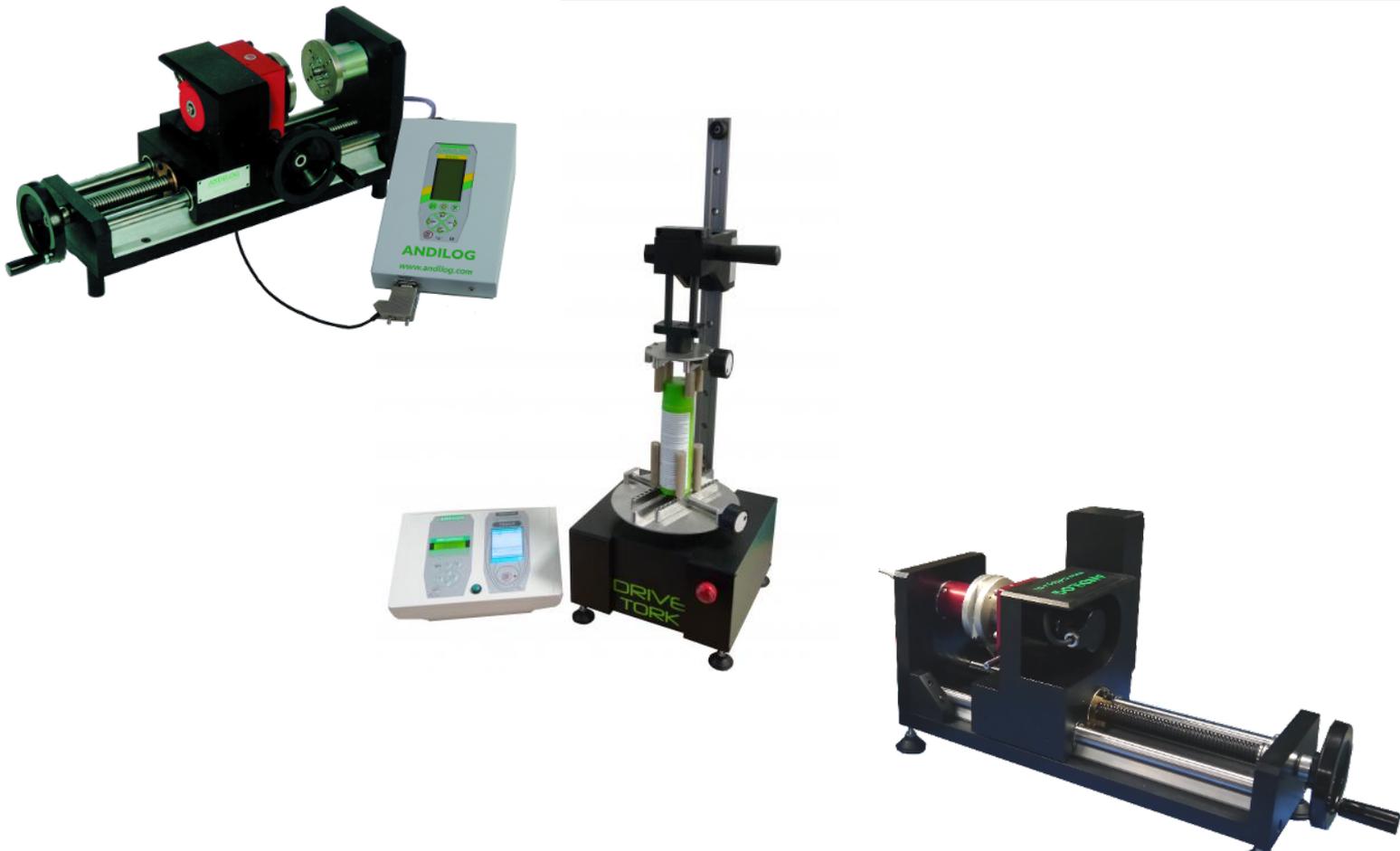




Motorized and manual torque benches

Torque and angle measurement



Presentation of the measuring instruments

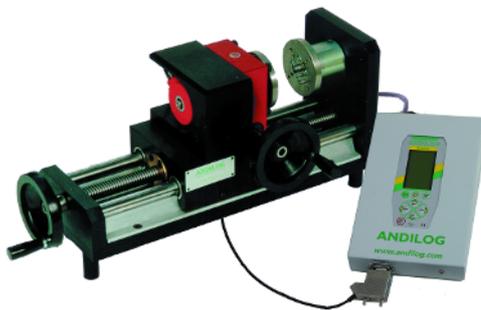
Torque measurement for your applications

Andilog Technologies has been specialized for 30 years in the development and manufacturing of torque and force measurement solutions.. We have a large experience with many companies in the industry (automotive, aerospace) but also in the medical sector and we offer a wide range of standard or custom products for your ambitious projects.

This brochure gives you an overview of our manual and motorized torque measurement solutions for research and development and quality control.

Here are four categories that Andilog offers for your measurements:

Horizontal torsion bench - static torque



Twist - Manual torque and angle measurement



Drivetwist - Motorized torque and angle measurement

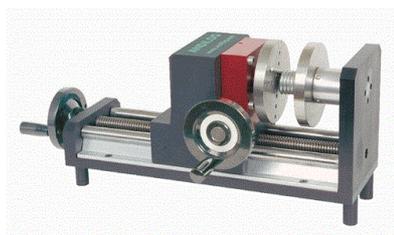
Vertical torsion bench - static torque



Drivetork - Vertical torsion bench for screwdriving measurement

Manual horizontal torsion bench : Twist

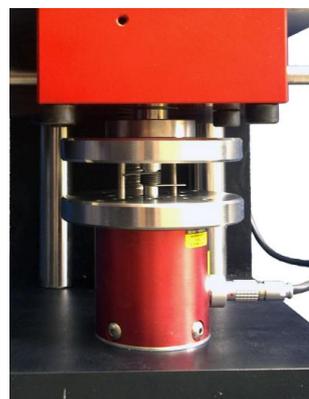
Manual angle and torque measurement



Designed for the manual control of torsion springs, the Twist is the ideal solution to carry out your measurements on springs or any type of samples subjected to torsion (screws, screwdrivers, axes). **It displays on the same screen the torque, angle and curve values of your tests.**

The Twist is supplied ready to use with its two threaded plates. This allows you to mount various accessories for your tests: support pins, drive systems, chuck etc.

This test bench is equipped with a high quality strain gauge torque transducer with a capacity of up to 40 Nm / 500 lbin and an accuracy of 0.5% PE. Lower capacity torque transducers can be connected to the Twist for measurements on samples requiring lower torque. These transducers are interchangeable and do not require any configuration of the device thanks to our SPIP technology.



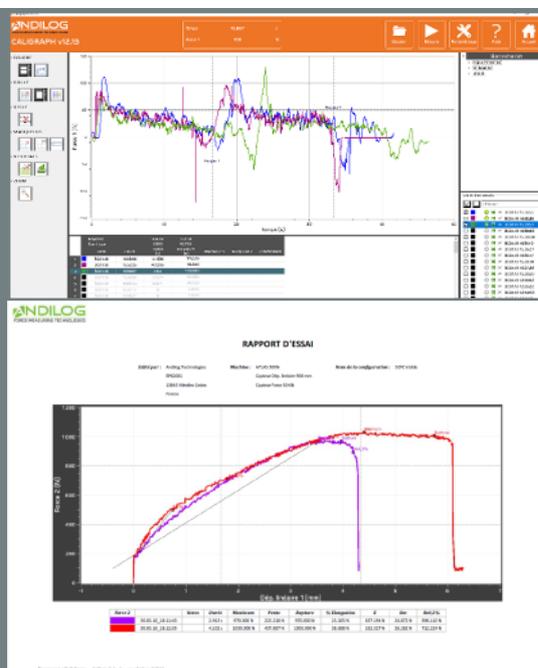
The very rigid frame is designed to guarantee a perfect alignment between the two torsion plates in order not to introduce any measurement error. The positioning of the measuring head is done by means of a ball screw to adjust to the width of the spring. The rotation is done by means of a crank. Thanks to the very high transmission between the crank and the plate, it is easy to make repeatable measurements at a precise angle.

Option : Caligraph - Real time measurement on computer

The Twist can be connected to a computer using a USB cable. Coupled with the Caligraph acquisition and analysis software, you can follow the evolution of your torque curves in real time, record your data, automatically calculate your results and edit test reports.

Measurement begins with a single click and you can track torque and angle measurements live at up to 1,000 Hz. Caligraph has more predefined calculations allowing for example to calculate the maximum torque, the torque at a given angle, the average between two values or to detect a break.

Caligraph includes a report editor that allows you to easily present your curves and results in Microsoft Word or PDF files. Export functions allow you to export your measurements or curves to Microsoft Excel for further analysis or integration into other computer systems.



Automated torque and angle measurement: Drivetwist

Remove the influence of the operator on the measurement

In order to perform an accurate and repetitive torque measurement on your springs, metal or plastic parts, it is necessary to use an automated torsion bench.

The DriveTwist motorized torsion meter allows you to perform these measurements without the influence of the operator thanks to a regulated rotation at constant speed.

The DriveTwist has two working modes. Either a manual control from the console for adjustment tests, or from a computer for advanced measurements with the Califort software.



The control command allows the DriveTwist to be rotated to position itself before the measurements or to adjust the first tests. It indicates in real time the speed of rotation, the position and it allows to display the curve of the measurement. It has fast and slow speed controls (adjustable).

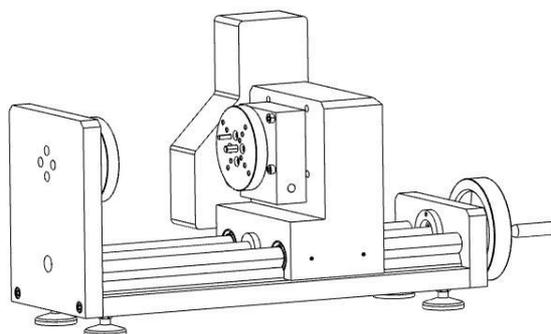
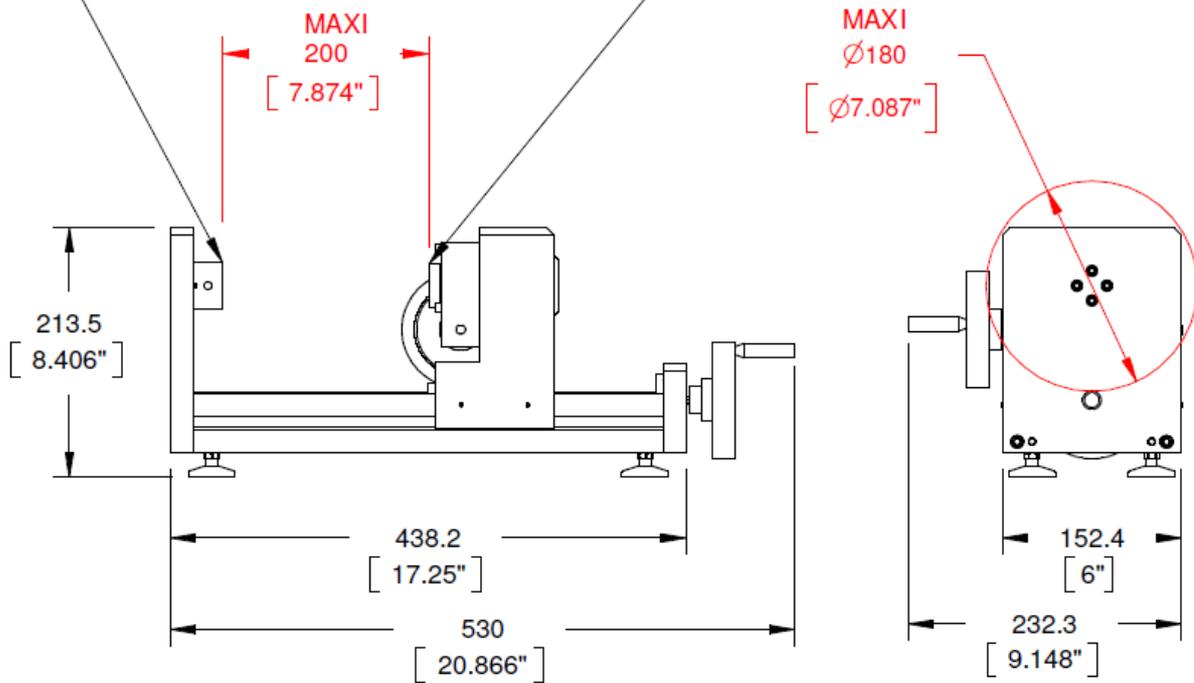
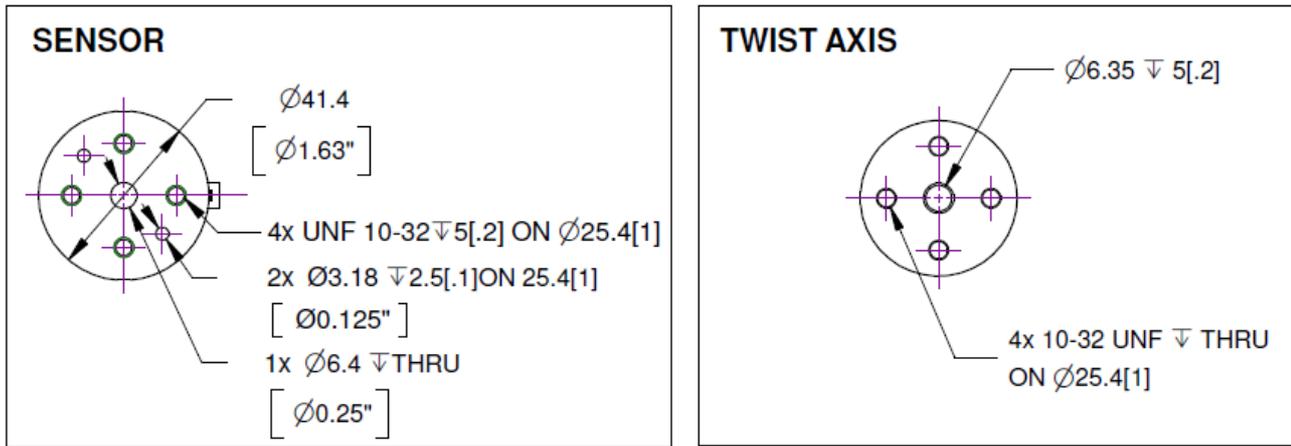
It is possible to have an overview of the force curve or to make automatic calculations from the console. Moreover, the Drivetouch has digital inputs and outputs that allow it to be connected to a PLC or to perform contact or continuity tests...

The DriveTwist is the simplest and most complete system to tackle the most diverse torsion tests in the workshop or laboratory.

FEATURES	Twist	Drivetwist
Capacity	0,7 / 1 / 6 / 12 / 24 / 40 Nm	0,7 / 1 / 6 / 12 / 24 Nm
Torque sensor accuracy		0,5% FS
Torque sensor resolution		1/10 000 FS
Angle resolution		0,01°
Units		Nm, mNm, inoz, inlb, kgcm
Torque units		Tr/Min, °/s
Speed units		1,000 Hz
Computer communication	Option: Caligraph (1 USB port required)	Control software Califort (2 USB ports required)
Cycles	Manuels	255
Weight	20 kg	25 kg

Dimensions of the benches and platens

Twist & Drivetwist



Automatic screwing control: Drivetork

Drivetork, the torsion bench dedicated to screwing measurements

To achieve an accurate and repeatable torque measurement, it is preferable to use a torsion bench with a programmable constant speed so that the measurement is always performed at the same constant speed and does not depend on the person turning the sample. The Drivetork vertical motorized torsion meter allows to perform measurements without the influence of the operator thanks to a regulated rotation at constant speed.

The Drivetork is equipped with two high precision sensors: a torque sensor and an angle sensor. **These two sensors are perfectly aligned to guarantee the quality of the measurements in the axis of the sample.**



The torque transducer is available in different capacities depending on the measurement range over which it is used. The Drivetork can perform torque measurements from a few mNm to 12Nm.

The angle sensor: it is of incremental type and has a resolution of 0.1° . Adjusted directly on the axis of rotation, it is perfectly aligned with the sample to ensure an accurate measurement of the angle.

One solution for many samples

The Drivetork is particularly well suited for screw tests: caps, bottles, screws, nuts, implants etc. Its measuring head has a translation axis allowing a free ascent and descent during the screwing measurements.

The Drivetork can be programmed to perform the following tests, among others

- Complete unscrewing
- Breakage of the cap ring
- Unscrewing without opening and then screwing again



The Drivetork torque sensors are interchangeable from 0.15 to 12 Nm.



Caractéristiques techniques

- Measuring range: 0 - 12 Nm
- Interchangeable sensors
- Torque accuracy : 0.5% Full Scale
- Acquisition speed : 1 000 Hz
- Angle resolution : 0.1° (0.1°)
- Rotation speed : 1-10 rpm (custom speed on request)
- Measuring direction : screwing and unscrewing
- Sample height: 0-350 mm
- Maximum screwing stroke: 75 mm
- Maximum diameter of samples: 150mm
- Maximum diameter of samples: 80mm
- Connection to PC via USB and USB key compatible in option
- Customgripping accessories on request

Califort control and test software

Califort - Advanced control and acquisition software

Califort software allows you to easily perform complex and accurate force or torque measurements.

With Califort, you have a solution that is :

- Intuitive and locked down for operators
- Powerful and quick to learn to customize your measurements
- Customizable to edit your reports and analyze your results



The new clean design of the Califort interface facilitates reading, navigation and ergonomics of the software for a quicker handling and a more efficient daily use.

Califort is compatible with Microsoft Windows tablets and touch screens by integrating a virtual keyboard and an adapted interface.



An infinite number of uses

Califort allows you to configure complex test sequences and has a list of calculations that it can perform automatically during your compression, traction or torsion tests: maximum, minimum, average or breakage calculations but also Young's modulus, modulus of elasticity etc.

The motion sequences can be customized to go up, down or rotate at different speeds and with stop conditions (breakage, reaching a force or position etc.). It also has cycle functions to perform a repetitive operation several times.

Customize your results

Califort has an advanced report editor that allows you to integrate the data you need: curves, results table, logo, test configuration and to modify the headers or footers of each report for total customization.

Califort is the turnkey test software that accompanies you in the programming of your tests and ensures an optimal traceability of your results.



General conditions of use:

- Temperature : 10 to 35 °C
- Humidity : Normal laboratory or industrial conditions
- The test machines must be used on a stable and vibration-free work surface

Manual and motorized torsion benches

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