AWS-QC

Designed to for quick tool checks and portability, the AWS-QC has become our most popular product. Designed to live outside of the tool corral or calibration area, it can easily be bolted to a workbench or tool cart and accompany an operator for the entire day, allowing them to check their tool as often as they like. Its high quality construction and low cost makes it the best value of any basic tester on the market. The QC has most of the same modes as our higher-end testers, including Peak mode, First Peak Mode, track Mode, adjustable limits and filtering, and more. The unit also features serial data output, and can easily be used to send readings to a PC or serial printer. Advanced testing software is also available to aid in tool certification, data collection, etc. The QC uses high-quality electronics and is accurate to 1% of indicated value for the top 90% of rated capacity. Available in both vertical and horizontal transducer configurations, in capacities of 10 In-Oz to 750 Ft-Lb.

Specifications:

Accuracy: 1% bidirectional

Eight selectable engineering units: Oz.in., Lb.in., Lb.ft., Nm, cNm, KgfCm, gfCm, Kgfm
Modes: Track, Peak, or First Peak.
Heavy Duty Aluminum Housing.
Rechargable NiMH batteries provide 10-12 hours of continuous use.
Dimensions: 3.125”x 3.25”x 3.75”
Weight: 2.5lbs
Display: Segmented, Four Active Digits with menus.

AWS-3000/5000

The AWS-3000, AWS-3000LC, and AWS-5000 are our high end single-transducer bench-mount units with a built-in display. They feature high accuracy, easy-to use menus, and a high quality package. The 3000LC is the simplest tester, offering flat menus and no memory. The 3000 adds an advanced menu with more options, and memory with up to 999 data points, which can be reviewed onscreen or transmitted to a local printer or PC via the standard RS232 interface. The 5000 adds Sets to the menu, so tests can be grouped together for ease of use, and also adds the option of an external transducer switch, so a bench mount or inline transducer can be used with the tester. All models of the 3000/5000 up to 1000 In-Lb include rundown fixtures for power/pulse tool testing. Utilizing high precision electronics the 3000/5000 series testers are certified to 0.5% accuracy of the indicated value for the top 90% of the range, with extended accuracy of 0.25% or extended range of top 95% available in most sizes.

Specifications

Accuracy:	0.5% of indicated.
Modes:	Track, Peak, First Peak
Filtering:	Menu Selectable - 125Hz, 250Hz, 500Hz, 1000Hz, 1500Hz and 2000Hz
Data Output:	RS-232 Serial

AWS-MTM Series

The AWS MTM series bench units provide a multiple transducer system in the most affordable package. The units feature the same electronics and capabilities as the 3000/5000 series units, but in a convenient multiple transducer package. With one MTM you can calibrate an entire shop's worth of tools. Available in 2, 3, and 4 transducer configurations, with an external transducer port standard on the MTM-2, and optional on an MTM-3 or 4. The external transducer port allows the unit to act like any of our other standalone displays, reading Intellect from a bench mount or other external transducer.

AWS-4050 Handheld Display

The newly-redesigned AWS-4050 is our best handheld display to date. It can be used with any of our Intellect equipped transducers to automatically load calibration data and default units as soon as it is plugged in. The on-screen menu system is both capable and straightforward, and is constantly praised by users for its ease-of-use. Users can easily choose from eight different engineering units, test in peak, first peak, or track modes, set high and low limit parameters, auto clear, sleep timer, choose filter settings, sign lock, serial data output settings and more. The unit can be configured to output serial data to a serial printer or computer every time a peak is captured, when the user clears a peak, or from the memory menu.

Inside the 4050 is the best controller board we make. Designed in-house from the ground up, the board is fully programmable to suit new development. Raw torque signals are read directly by our high accuracy 24-Bit Analog to Digital converter chip, which was designed specifically for measuring torque and load cell output. Torque cell connections are made by medical grade Lemo brand connectors made for carrying millivolt-level signals, not an off-the shelf computer-style connector like many manufacturers use, which can't accurately carry such low voltage signals. Even the housing is custom made – designed in-house in 3D Cad and machined in our shop from solid aluminum on one of our CNC mills, the 4050 is a tough product. Like everything else we make, the 4050 is all about accuracy and reliability – no pre-made or generic sensor boards, no off the shelf housings, and no cheap connectors. Even the raw cable used to make transducer connections is custom molded, because most stock cable is not tough enough for the environments our products are often used in. With a 4050, your torque, and your well-being, are safe.

The 4050 is also available with an optional Streaming mode, which can capture thousands of samples in an instant. We don't use any smoothing or averaging to get a correct reading, so we can actually record samples as fast as 7000Hz, meaning we can get 1000 samples in 0.14 seconds. When used with an impact wrench, for example, you can actually see in great detail the effects of bounce from the impact hammer. The length of a test and the number of samples can be changed on the tester, and once samples have been taken, they can be graphed on the unit or sent out the serial port for evaluation on a PC.

AWS-4050 Mini

Our 4050 Mini handheld tester packs all the same features as our standard 4050, but in a compact housing. Also available in stainless steel, which is perfect for medical or laboratory settings.

Bench Mount Transducer

The AWS Bench Mount Transducer is similar to the QC, using the same bolt pattern and styling as the QC, but for use with our higher accuracy displays. It also allows remote mounting from the display, for times when having the two attached is inconvenient or undesirable. Our bench mount, like all our standalone transducers, uses our special AWS Intellect memory chip, which stores calibration data inside the transducer. When plugged into any of our standard displays, such as the 4050 and 4050 Mini, the calibration data and capacity is automatically read into the tester, so switching transducers is simple and easy. Available in capacities from 10 In-Oz to 750 Foot Pounds.

Inline QC With Display

The AWS-QC Inline transducer is our smallest transducer with built-in display. The QC-Inline is perfect for use with a normal ratchet to measure tightening or releasing torque, but can also easily be used to check torque wrenches, or most anything else our other testers use. It is based on the AWS-QC and shares all the same features, in an inline package. With most of the weight centered around the shaft, the QC-Inline is a perfect substitute for expensive rotary transducers for most low to mid-speed applications. Standard capacities from 100 In-Lb to 750 Ft-Lb. For larger sizes we suggest our standard inline transducer with a separate handheld display.

Specifications:

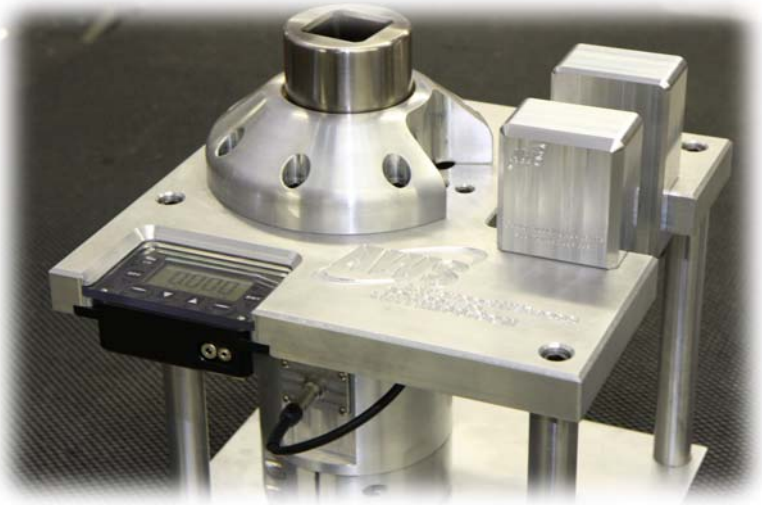
Accuracy: 1% bidirectional

Eight selectable engineering units: Oz.in., Lb.in., Lb.ft., Nm, cNm, KgfCm, gfCm, Kgfm
Operates in Track, Peak, or First Peak modes.
Heavy Duty Aluminum Housing.
Rechargable NiMH batteries provide 10-12 hours of continuous use.
Dimensions: 2”x 2.5”x 4”
Weight: 2.5lbs

Inline Transducers with No Display

High Torque test stands

AWS Also manufactures a line of high quality test stands for 1000, 2000, or 5000 Ft-Lb torque tools. Complete with a high strength joint simulator, reaction post, and bearing-supported transducer, our AWS-HY Stands are perfect for a variety of single or dual reaction tools with a ¾", 1", or 1.5" drive.



What size will my square drive be?

When you order a product from AWS, you only specify the capacity. The square drive size is determined by that capacity, and is related to the industry standards for tools of that capacity. The following table shows which size transducers get which size drive:

10 Oz-In -150 In-Lb	¼" Drive

250 In-Lb – 1000 In-Lb	3/8” Drive
100 Ft-Lb -250 Ft-Lb	½” Drive
450 Ft-Lb – 750 Ft-Lb	¾” Drive

AWS Quality

AWS is a quality-focused company that has designed each an every product from the ground up to maximize accuracy and reliability. We do not just design products to get a reading, we design products to get an *accurate* and *reliable* reading, and every component we use reflects this. We do NOT buy pre-designed general purpose sensor circuits like many companies do – every circuit board we sell was designed in-house to do exactly what we use them for. We also don’t do any analog amplification of the sensor output - which can lead to adjustment and noise issues – we use special high-quality sensor chips that measure the millivolt-level signals directly.

We also use only the highest-quality LEMO electrical connectors for all external torque signals. Many manufacturers use low quality computer connectors designed for carrying 5 or 12 volt signals, but our connectors use a special spiral contact for each pin that maximizes contact area and minimizes resistance. This is extremely important because any change in resistance has a very large affect on such low voltage signals, and any connector not designed for such low voltages simply will not be able to keep consistent readings.

It’s not just our readings that are reliable, but all our mechanical components as well. Cases, transducers, baseplates, bezels, etc are all designed and machined in house from scratch to ensure. Most things are machined from solid aluminum or steel, only using plastic where it makes sense or has no affect on durability. We never buy off the shelf housings for our products, we design them to suit the application at hand.

Why aren’t our testers certified all the way down to 0% of the range? Simply put, the physics don’t allow it and no torque or load cell really should be certified that low, but many manufacturers won’t admit it – beware of dishonest vendors who advertise otherwise.

AWS Logo, for vendor use.