

Application Story

Automotive

Wireless bore gauging for machine centres



Precision. Quality. Reliability

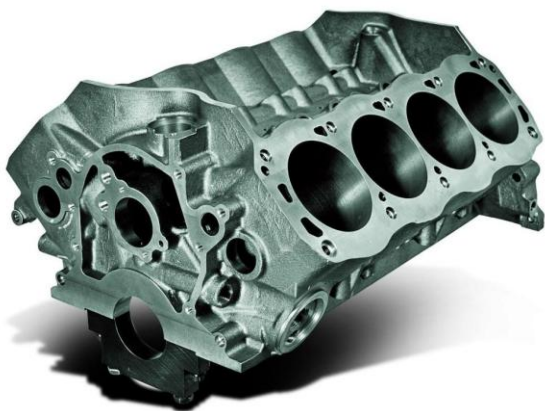
www.solartronmetrology.com • sales.solartronmetrology@ametek.com

The Product

Solartron's WiGauge™ and WiGauge™ Gen II are built for bore and depth gauging applications where wired instruments are unfeasible or undesirable. A calibrated, digital 10 mm spring probe is encased in high impact ABS handle with an optional new integrated colour LCD screen. The unit will mate to nearly any M10 or M6 threaded bore head (dyer thread also available). It will output to a computer via Class 1, 2 or 3 Bluetooth® connection.



Antenna: Class 1, 2 or 3 Bluetooth® - Reading Range: Up to 15 meters – Resolution: <0.1 µm – Power: Detachable, rechargeable battery pack.



The Challenge

In engine plants, machining centres are often used to mill out high precision bores into the engine block and head casting. Operators will typically make one pass, then stop the machine and check the diameters to ensure the bore is within spec. This is either done with stand-alone dial gauges or wired bore gauges. Both pose problems, as the operator must separately record the data for a dial gauge, and a wired bore gauge means a long, cumbersome cable with no reading directly at the machine centre or elsewhere in the assembly process. Also, if multiple gauges are used, the cables can become tangled. Recording of data is key, as more end customers require data tracking of all key dimensions.

Dial Gauge



Bore Gauges with Wires



The Solution

The Solartron WiGauge™ solves the problems encumbered by other bore solutions in an easy, cost effective product. With the WiGauge™, an operator can attach any bore plug (M10 or M6 thread), master it, and then enter the machine centre to take readings.

When a reading is taken, the lower button will flash red or green, giving a simple go/no reading, while the result is sent via Bluetooth® to a computer. If the operator wishes to see a localized reading, an LCD screen on the side of the handle is available on the Gen II model, which not only gives a real time result, but also any Peak+, Peak- or other programmed output. The customer will see cost savings from reduced measurement time and no need to manually record results.

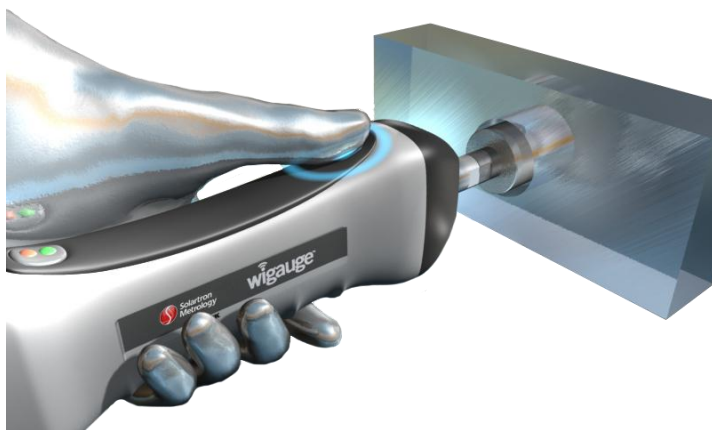
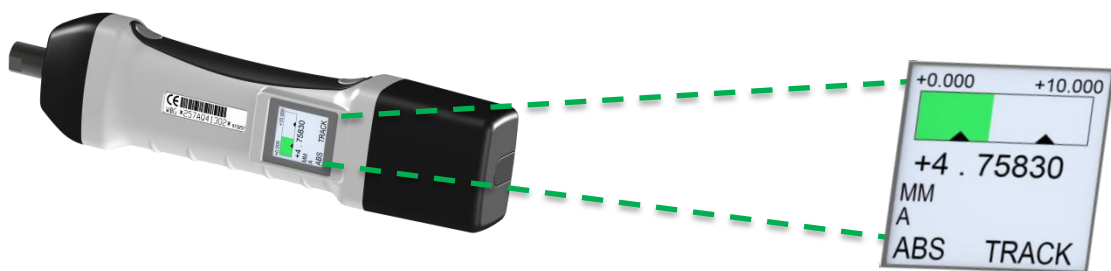
WiGauge™ Gen 1 with Bore Head



Bore Head



WiGauge™ Gen II with LCD screen





The Solartron WiGauge™ kit includes the following:

- WiGauge™ Handle
- Removable Battery Pack with up to 10 hours of life (continuous data transmission)
- Fast Battery Recharger
- Bluetooth® Dongle and Drivers
- WiGauge™ drivers and demo software

Button on handle will light green or red for pass/fail readings.



WiGauge™ Software

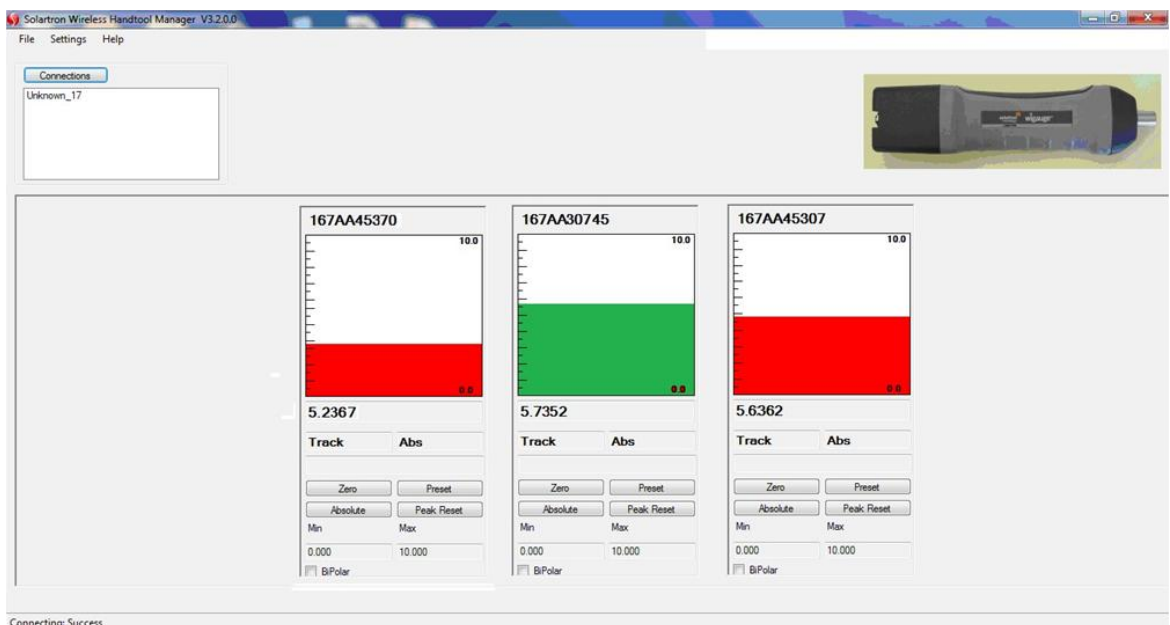
WiGauge™ software drivers are available, so the unit can be connected to any SPC or computer programme via Bluetooth®. Also available is a WiGauge™ Demo software, (shown below) which can display readings and output results to a spreadsheet. To download the free drivers, go to www.solartronmetrology.com.



Specifications

- Class 1, 2 or 3 Bluetooth®
- IP65 Protection
- <0.1 µm resolution
- Audio signal when data is transmitted
- Transmits data up to 15 metres
- 0 to 60°C Operating Temperature

Bluetooth® Dongle connects with up to 7 WiGauge™ units.



United Kingdom - Head Office

Solartron Metrology
Steyning Way
Bognor Regis
West Sussex
PO22 9ST
Tel: +44 (0) 1243 833333
Fax: +44 (0) 1243 833322
Sales.solartronmetrology@ametek.com

France

Solartron Metrology
Rond-point de l'Espine des Champs
Buroplus - Bat. D
Elancourt 78990
Tel: +33 (0)1 30 68 89 50
Fax: +33 (0)1 30 68 89 59
france.solartronmetrology@ametek.com

Germany

Ametek GmbH
Solartron Metrology Division
Rudolf-Diesel-Strasse 16
40670 Meerbusch
Tel: +49 (0) 2159 9136 500
Fax: +49 (0) 2159 9136 505
vertrieb.solartron@ametek.de

Brazil

Ametek do Brasil, Ltda
Rod. Eng Ermenio de Oliveira Penteado, Km 57, SP75
Bairro Tombadouro
13337-300, Indaiatuba, SP, Brazil
Tel: +55 19 2107 4126

India

Ametek Instruments India Private Limited
1st Floor, Left Wing
Prestige Featherlite Tech Park
Plot #148, EPIP II Phase
Whitefield, Bengaluru 560 066
Karnataka, India
Tel: +91 80 6782 3200
Fax: +91 80 6782 3232

USA

Solartron Metrology
USA Central Sales Office
915 N. New Hope Road, Suite C
Gastonia, NC 28054
Tel: +1 800 873 5838
Fax: +1 704 868 8466
usasales.solartronmetrology@ametek.com

China

AMETEK Commercial Enterprise (Shanghai) Co. Ltd
No. 155 Puhui Road
Ju Ting Economic Development Zone
Shanghai 200131, China
Tel: +86 21 5763 2509
Fax: +86 21 5866 0969 Ext. 261/262
china.solartronmetrology@ametek.com



Solartron Metrology

Precision Driven

Offices worldwide
Agent and distributor details
available at
www.solartronmetrology.com



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Solartron pursues a policy of continuous development. Specifications in this document may therefore be changed without notice.

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