



Est. 1985

INSPECTORATE for DIVING EQUIPMENT SERVICING and TESTING

Accredited ISO/IEC 17024:2012



Are You Drinking at The Last Chance Saloon

Date of issue: 10/02/2023

Last warning about calibration certificates

For the past 4 years, as part of our accreditation, UKAS have required IDEST to only accept calibration certificates, from Calibration Laboratories that have been accredited by UKAS as working to the requirements of BS EN ISO 17025. This is the only acceptable internationally recognised standard for calibrations and, in the UK, is only issued by UKAS. In Europe and the rest of the world accreditation will be made by ILAC notified bodies.

We need to be careful when selecting a calibration Laboratory that they have the UKAS accreditation required. Not all calibration Labs for example can do pressure, some can only do measurement some can do torque and pressure. If you select a calibration Lab that does only thread gauges and send your pressure gauge and torque wrenches to them, they will either, be farmed out to an alternative calibrator or calibrated outside of their UKAS accreditation. This could result in additional expense for you and possibly rejection of the certificate. The easy thing is to go onto the IDEST website and download D049 list of Calibration Laboratory's and their scope of work.

Thread Gauges

It is essential that your thread gauges have certificates that bear the following information.

- 1.) A title block clearly showing that it is a certificate of calibration, its date of issue, and a unique certificate number.

CERTIFICATE OF CALIBRATION

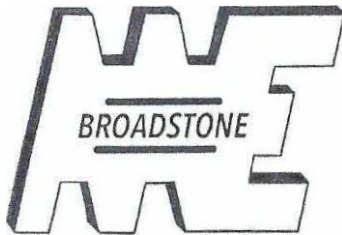
ISSUED BY THE BROADSTONE LABORATORY

Date of Issue November 23, 2021 Certificate number 386559



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- 2.) its UKAS logo with the word calibration and the calibration laboratories unique number laboratory.



Broadstone Gauge & Tool Co.
24, Ventura Place,
Upton Industrial Estate,
Poole, Dorset, BI-116 5SW

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APPROVED SIGNATORIES
M.J.ESSAM.
A.BARFOOT.
A.ROWLANDS.
JJ.ROWLANDS.

email sales@broadstone-gauge.co.uk

Tel (01202) 621927 Fax (01202) 632889

- 3.) The name and address of the calibration Laboratory
- 4.) The name of the test centre submitting the gauges including the permanent identification of the gauge.
- 5.) The date that calibration was done.
- 6.) The standard that the gauges were calibrated to.
- 7.) Test method used to calibrate gauge.
- 8.) A list of nominal sizes and the permitted tolerance
- 9.) A list of sizes actually measured.
- 10.) The signature of the person doing the calibration

What is acceptable

This is a valid certificate from a UKAS accredited Calibration Laboratory.

It carries the details required for traceability the calibration house UKAS accreditation details which automatically allow the assumption that the stated method and the equipment used is compliant with BS EN ISO 17025

The UKAS logo must show the calibration lab number and have the word **calibration** under it. Some UKAS calibration Laboratories have multiple accreditations, it is only the logo with the word Calibration that is acceptable.

A certificate that has an ILAC certification for calibration laboratory's outside of the UK that are accredited to ISO 17025

No other certification is acceptable.

What is not acceptable

- 1.) Certificates headed Certificate of conformity.
- 2.) Certificates that do not have the UKAS calibration laboratory symbol.
- 3.) Certificates that have the UKAS symbol for BS EN ISO 9001
- 4.) Certificates that do not have the owners name details.
- 5.) Certificates that do not have a positive identification to connect item to certificate.
- 6.) A certificate that does not have a statement showing the standard item calibrated too.
- 7.) A certificate that does not show the device parameters including maximum and minimum tolerance.
- 8.) A certificate that does not show the measurements actually taken.
- 9.) A certificate that does not show the date of calibration and the name and signature of the calibrator.

Thread gauges contd...

It is mandatory that you have your 'working' thread gauges compared with the National or international standards on an annual basis. This is done by sending them to a calibration laboratory that is accredited to measure the thread diameters and the thread form using instruments whose calibration is directly traceable to the national or international standards and has been confirmed within its agreed calibration period that is within date and in within tolerance.

UKAS accept that the minimum current 'working' gauges are M25 and G 5/8, these gauges must be held by a test centre, must be in calibration and must be in date.

As a concession UKAS accept that there are several thread sizes and forms that are infrequently used, and annual calibration would be excessive. With the prior approval of the chief engineer test centres may extend the calibration of the gauges for up to 250 uses or three years, whichever is soonest, providing that the gauges are packed in protective packaging and stored in a warm dry atmosphere.



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Master Pressure gauges

The master pressure gauge must be calibrated by a UKAS accredited calibration laboratory on an annual basis. This gauge should be a high resolution / high precision gauge. Preferably the gauge should be demounted following the monthly comparison check or if that is not possible mounted flexibly so that the pulse vibration from the pump does not cause the needle to bounce against the stop.

When giving instructions about calibrating the master gauge it must be made clear that you require a certificate in accordance with their BS EN ISO 17025 accreditation both on the rising and falling values. You do not need to have a full-scale calibration, 50 bar more than your maximum test pressure is sufficient

Torque wrenches

Until 2017 torque wrenches were simple tools beloved by car mechanics and used to ensure consistency of the tightening force applied to a thread. The tolerance was + or - 4% and this was sufficient for our needs and was derived by exercising the torque wrench for 3 operations at low / medium / high - 9 operations in total. In 2017 the ISO standard 6789 was changed and became part 1 and part 2. Part 1 is designed for new torque wrenches and is a Certificate of Conformity that basically states that the torque wrench is performing in accordance with the specification. It does not usually show any actual measurements taken, to get a certificate to show actual calibration measured values you need to specify a certificate to comply with BS EN ISO6789:2017 part 2. This calibration is way more than our requirements and can require values taken at up to 135 individual test points.

The original BS EN ISO6789:2003 meets our requirements for a torque wrench. Some UKAS calibrators are still providing calibration to the old standard, and we shall continue to accept these certificates.

In addition, until we get told otherwise we will continue to accept non UKAS calibration certificates for torque wrenches providing they show the calibrators full name and address, that the torque transducer used is calibrated, in date, and has traceability to UKAS, has the torque wrench owners name and unit serial number and shows actual readings taken at a minimum of 9 points and that all of those points are within plus or minus 4%.



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BS EN ISO 18119:2018+amd1:2021

Whilst reminding you about certificates another matter arises with regards to the change of standards.

As of the 31st Of December 2022 the only standard you may legally test to is the above ISO standard. **1802 & 1968 are dead.**

Last March we sent out to all test centres a Zip file with copies of documents you need to have in place for the 1st of January 2023. We are finding quite frequently on inspections that the Zip file was not received, it went to the wrong person, my computer cannot access zip files, and other less plausible excuses.

If you have been inspected then you are probably OK, but if your re-inspection is not due until 23 or 24 then you must change your documentation to reflect only the new standard. This means changes to booking in sheets, work sheets and test certificates.

Most of the work has been done for you, it is up to you to personalise the documents.

If on inspection we find that you have not converted to the new system it will most likely result in a period of suspension for non-compliance.

It's up to you, to test cylinders you need to be an approved person, IDEST gives you a relatively low-cost option to gain and maintain your status, but it does mean that you play by the rules. The IDEST scheme is approved by UKAS, and allows us to offer your approved person status. The alternative would be that you seek approval directly from UKAS, but you may not like the cost of that route.

**IDEST Administration Office c/o Bailey Russell, 14 High Northgate,
Darlington, DL1 1UN Tel: 01325 238250
website: www.idest.co.uk e-mail: admin@idest.co.uk**

Inspectorate for Diving Equipment Servicing and Testing