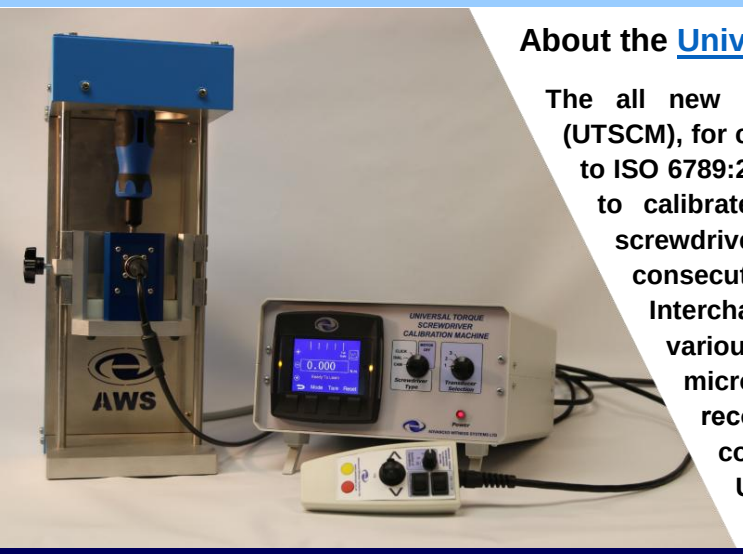
AWS
Advanced Witness Systems Ltd.
Torque Measurement & Calibration

Calibrate 10x Faster with the AWS Universal Torque Screwdriver Calibration Machine

We set out below the real major cost, time and operator advantages against manual operation, with typical proven examples.



About the Universal Torque Screwdriver Calibration Machine

The all new AWS Universal Torque Screwdriver Calibration Machine (UTSCM), for calibrating and testing manually operated torque screwdrivers to ISO 6789:2017, ISO 6789:2003 or company specific standards. Designed to calibrate or test all known types, makes & models of torque screwdrivers and torque watches up to 30 Nm. The number of consecutive operations can be selected as required by the standard. Interchangeable handle adapters are designed to accommodate various models of torque screwdriver, minimising uncertainty. The microcontroller performs a learning cycle before calibration, recording the shape of the tool's torque curve, ensuring the correct rate of the applied torque meets the ISO standard. The UTSCM can be used with our Kepler 4 software to further increase productivity and eliminate data entry errors.

Return on Investment – ISO 6789:2017:

- **Users already meeting ISO 6789:2017 by manual means find it is very time consuming and requires quite some skill, typically requiring an oscilloscope for checking the final 20% of the applied torque is within the 0.5-1 second required by the standard.**
- **Time taken can be up to 4 hours, and very dependent on operator skill.**
- **Using the AWS UTSCM, example calibration time is 25 minutes, and with much less operator skill.**
- **Considerable time saving, generating faster throughput of torque screwdrivers.**
- **Using the AWS UTSCM is up to 10 times faster than the manual method.**
- **Payback can be as short as a phenomenal 10 days*.**

Original Calibration Time	**240 mins**
Calibration Time with UTSCM	**25 mins**
Payback	**10 days***

Return on Investment – ISO 6789:2003:

- **Using the AWS UTSCM to meet ISO 6789:2003, example calibration time is only 7 minutes.**
- **Using the UTSCM is up to 6 times faster, increasing throughput and reducing errors, with less operator skill.**
- **Payback estimated to be as short as 5 weeks**.**

Original Calibration Time	**45 mins**
Calibration Time with UTSCM	**7 mins**
Payback	**5 weeks****

Get in touch for a free virtual demonstration, or click here for a video of the machine in action!

Typical timings for the various calibrations are shown overleaf.

**Based on approximate cost of UTSCM & 3 transducers, 12 calibrations per day, £35/hour hourly rate.*
***Based on approximate cost of UTSCM & 3 transducers, 24 calibrations per day, £35/hour hourly rate.*

Find out more about our range of products by visiting www.awstorque.co.uk, calling us on +44 (0) 1295 266939, or emailing us at sales@awstorque.co.uk.

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Example Calibration Times

Example calibration times to ISO 6789:2017 of various torque screwdrivers using the AWS UTSCM are given below.

Type:	Adjustable Screwdriver
Calibration Time knowing the Uncertainties (b_{od} and b_{int}):	7 minutes
Calibration Time including obtaining the Uncertainties (b_{od} and b_{int}):	33 minutes
Type:	Dial Screwdriver
Calibration Time knowing the Uncertainties (b_{od} and b_{int}):	9 minutes
Calibration Time including obtaining the Uncertainties (b_{od} and b_{int}):	45 minutes
Type:	Preset Screwdriver
Calibration Time knowing the Uncertainties (b_{od} and b_{int}):	4 minutes
Calibration Time including obtaining the Uncertainties (b_{od} and b_{int}):	25 minutes

For more information on timings for other torque screwdrivers, please contact us.