

Standard Calibration Criteria – Force Offerings

Standard Calibration Criteria

- ✓ A Purchase Order must be raised prior to dispatching equipment to the laboratory. All equipment must be clearly marked, referencing both the purchase order number and the Avery Weigh-Tronix quotation number.
- ✓ All equipment is to be shipped to the laboratory at the expense of the customer prior to the arranged calibration date.
- ✓ Equipment must be in full working order prior to calibration by the laboratory, with batteries fully charged and in good condition where appropriate. Any equipment that does not meet these criteria will be returned at the customer's expense, as unfortunately we are unable to carry out repairs.
- ✓ Calibration certificates will be in an electronic format. It will be digitally signed and emailed to the customer shortly after the completion of the calibration.

Calibration of vehicle weigh pads

- ✓ Unless otherwise specified calibrations will be performed in accordance with Avery Weigh-Tronix standard practices detailed within procedure AP-16-1218.
- ✓ Unless specified by the customer, the applied load will be stated in kgf with recorded results reported in kg.
- ✓ Where possible, the weigh pad will be set to a latitude of 45° and an altitude of 0m with a standard gravity value of 9.80665m/s². Where this is not possible weigh pads will be calibrated in the as found condition without reference to a gravity value.
- ✓ It is not the general policy of the laboratory to supply accept/reject or pass/fail statements to customers. However, where a customer requests a tolerance and /or an accept/reject or pass/fail statement is added to a certificate the default decision rule adopted by the laboratory will be as follows:

Agreed decision rule - The acceptance band will equal the tolerance band with zero guard bands where the uncertainty of measurement, at the 95% confidence level, will be considered to assure that the $TUR \geq 1$. Where the TUR is lower than 1, no statement of conformity is possible".

- ✓ Some repair and adjustment work may be carried out however this will come with additional cost. Prior to any repair and adjustment work being performed the customer shall be notified.

Calibration of loadcells and proving devices

- ✓ The Force Laboratory is UKAS accredited to BS EN ISO 17025:2017 for the following:
 - Calibration of load cell in Line with BS EN ISO 376:2011
 - Calibration of load cell in Line with ASTM E74-18e1
 - Calibration of load cell in line with Avery Weigh-Tronix internal procedure AP-16-1203
- ✓ Details of the load cell fitting sizes (thread diameters, pitches, etc), must be provided at the enquiry stage. The laboratory holds a stock of standard and specialist fittings / adaptors to allow most common cells to be fitted to the machines. Should adaptors not be available for a particular load cell, we are able to arrange for the manufacture of these. We will inform the customer of this and highlight the timescales and additional costs in the quotation.
- ✓ Unless otherwise advised, all quotations are for standard single-bridge load cells. Dual bridge and other non-standard cells / systems will be quoted for on a case-by-case basis. It is the customer's responsibility to highlight any non-standard equipment or special test requirements at the enquiry stage.
- ✓ In the compression tests, where applicable, compression fittings supplied by customers will be used. If these compression fittings are not deemed suitable then suitable fittings, supplied by this laboratory, will be used. In the tension tests shackles and adaptors provided by this laboratory will be used.
- ✓ If indicators or other equipment require non-standard setup, full instructions must be provided by the customer, and additional charges may be incurred.
- ✓ Full connection details must be supplied with the equipment, where this is not obvious. Any special cables and connectors must be provided by the customer. Where standalone load cells are to be calibrated using our indicators, we require the provision of wire ends compatible with standard 4mm binding post terminations.
- ✓ The laboratory takes all precautions to prevent damage to customer equipment, but please note that certain devices, particularly Proving Rings, are occasionally prone to sudden catastrophic failure within their rated capacity.
- ✓ All calibration results will be "as found" unless adjustment is requested in writing by the customer.
- ✓ Calibration units will be in kN, kgf or lbf. Unless specified by the customer.
- ✓ Where adjustment is required, either full instructions must be provided, or a representative from the customer must be made available to carry out the adjustment at the laboratory.
- ✓ Calibration certificates will be in an electronic format. It will be digitally signed and emailed to the customer shortly after the completion of the calibration. If particular timescales are required for the provision of the certificate, these must be highlighted at the enquiry stage.