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Service advice Sheet

Calibration reference meters required for Statim Autoclaves.

The following are the recommended calibration and test reference meters required to successfully calibrate all variations of Statim Cassette Autoclave when used with the appropriate calibration and test cassette.

CALIBRATION AND TEST CASSETTES.

Steriliser type	Part Number	Description	Meter types required
Statim 2000 (non S)	01-103087S	Calibration cassette Statim 2000	Temperature only
Statim 5000 (non S)	01-103088S	Calibration cassette Statim 5000	Temperature only
Statim 2000S	01-106366S	Calibration Cassette 2000S B	Temperature and pressure
Statim 5000S	01-106367S	Calibration Cassette 5000S C	Temperature and pressure

Please note the following:

- Non S type cassettes require a 1.6mm (1/16") temperature probe and cannot be used with a 3.2mm (1/8") temperature probe. (See meter details for probe diameter).
- S type cassettes have temperature fittings (one fitted and one in the cassette accessories supplied) that will allow the use of both 1.6mm (1/16") and 3.2mm (1/8") temperature probe. (See meter details for probe diameter).
- S type cassettes are designed for both temperature and pressure reference meters **and are suitable for all models, S and Non S**. If these cassettes are acquired, the non S, single port cassette is not required.
- The non S type cassettes should **not** be used to calibrate S class units.
- Please note that when calibrating non-S units with an S type cassette that the pressure meter will not be required and the test port will require the pressure tube supplied with the cassette to be connected to the pressure fitting to prevent steam leakage.

RECOMMENDED REFERENCE METERS.

For use with 01-103087S and 01-103088S test cassettes (non S calibration)

- **Omega HH81A** single channel multifunction digital thermometer (www.omega.com)
- **Omega TJ36-CASS-116G-6-SMP-M Temperature Probe** (with SMP-M miniature male connector).

Note: the above probe is 1.6mm (1/16") diameter.

For use with 01-106366S and 01-106367S test cassettes (S calibration)

There are two options available for use with the S cassettes.

- A set of two independent meters, one pressure and one temperature.
- An integrated hand held pressure and temperature calibrator.

The two independent meters have been included where the user may already have an Omega meter for non S use who is upgrading to S class use, when only a pressure meter will be required.

They are also the lower cost options over the integrated device.

Independent (separate) temperature and pressure meters

Temperature

- **Fluke 51 Series II** Digital Thermometer. <http://www.fluke.com>
- **Fluke 80PK-26** SureGrip Tapered Temperature Probe <http://www.fluke.com>

Notes:

- The flexible thermocouple included with the Fluke digital thermometer will not be used for calibrating SciCan sterilizers. If you wish to use the flexible thermocouple in the future, SciCan advises you to consult the digital thermometer's manual for setting a temporary offset, if required.
- The above probe is 3.2mm (1/8") diameter.
- Customers already in possession of the Omega HH81A or equivalent, and the associated probe can use this meter as a replacement for the Fluke 51 and 80PK-26 probe. Note that the probes are of different diameter and a cassette compression fitting change may be appropriate.

Pressure

- **Druck DPI 705R Absolute Pressure Meter with external 0 - 7 bar absolute pressure transducer with 1/4" NPT female thread.** <http://www.druck.com/>

Combined temperature and pressure meter

- **Heise PTE-1** Handheld LCD digital calibrator complete with temperature and pressure modules, and PT100 probe as follows:
 - **Meter** (without data logging facilities) – *PTEC = X X 4 4A*
 - **Pressure Module** – *HQS2 B A A 400 kPa A*
 - **Temperature Module** – *HQS RT1 PT-100*
 - **RTD Probe Pt-100** – *PT5*

Note:

- These product references are very specific, and the local supplier of Heise equipment should be consulted prior to confirming order codes. www.heise.com
- The meter above is of the non data logging variety. If data logging is required, please consult order code variations from Heise data sheet.
- The above probe is 3.2mm (1/8") diameter.

General notes on reference meters.

- When ordering any digital thermometer and temperature probe, ensure that the supplier is aware that the area where the most accuracy is required is between 130°C and 140°C.
- Temperature meters and probes should always be calibrated as a matched pair.
- Test equipment should be calibrated on a regular basis based on the manufacturers recommended calibration interval.
- Calibration of reference equipment used with autoclaves should ALWAYS be to National or International Standards by a certified calibration laboratory.

SETTING UP YOUR REFERENCE METERS.

With certain meter types, some sub-assembly procedures will need to be undertaken to connect the device to your Statim calibration cassette. All cassettes are supplied with the necessary accessories to enable you to convert your meter of choice from those recommended above, to the appropriate fitting on the cassette.

Instructions for assembling the various devices are as follow:

Omega HH81A

No sub-assembly required

Fluke 51 Series II and 80PK-26 probe.

The 1.6mm (1/16") Swagelok compression fitting attached to the extension adaptor connected to the cassette should be removed and the 3.2mm (1/8") fitting attached. Use P.T.F.E. tape to ensure a steam tight seal.

Druck DPI 705R Absolute Pressure Meter with external 0 - 7 bar absolute pressure transducer with 1/4" NPT female thread.

The Pressure Transducer will require an adaptor fitting and Swagelok Quick Lok coupling (supplied with cassette) to be fitted before use.

Please refer to Figure 1 below when reading assembly procedure.

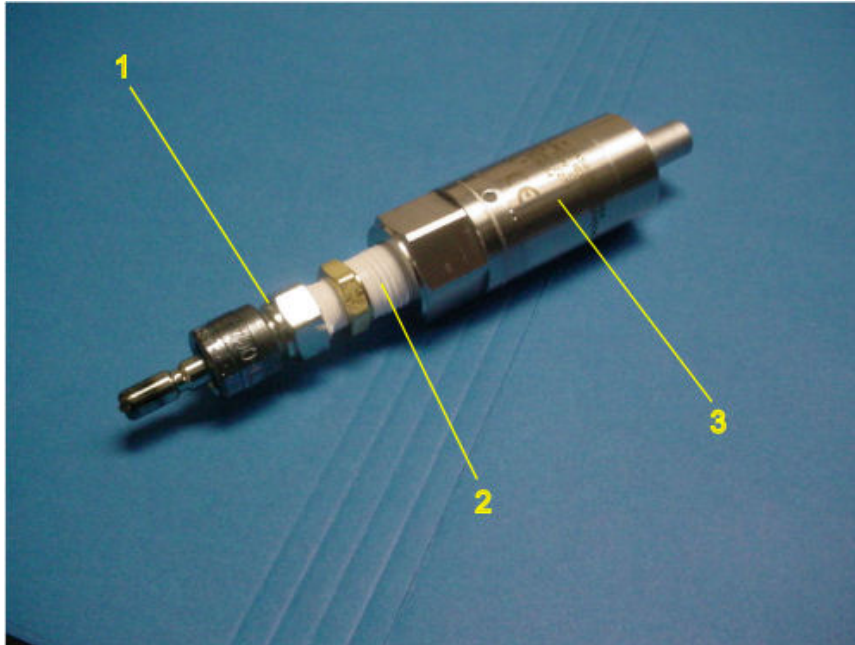


Figure 1: Pressure transducer with adaptor and Quick Lok connector attached.

- Install Quick Lok connector (1) onto adaptor fitting (2) (included with calibration cassette kit.) **DO NOT OVERTIGHTEN FITTING! The use of P.T.F.E. plumbers tape as shown is essential to ensure the connection is free from steam leaks. If the joint leaks, steam can enter the transducer and damage the unit internally.**
- Install assembly (from previous step) onto external pressure sensor (3) from Druck DPI 705R. **DO NOT OVERTIGHTEN FITTING! The use of P.T.F.E. plumbers tape as shown is essential to ensure the connection is free from steam leaks. If the joint leaks, steam can enter the transducer and damage the unit internally.**

Heise PTE-1 (Pressure module).

- Install Quick Lok connector (1) in to pressure module. **DO NOT OVERTIGHTEN FITTING! The use of P.T.F.E. plumbers tape as shown is essential to ensure the connection is free from steam leaks. If the joint leaks, steam can enter the module and damage the unit internally.**

SETTING UP YOUR CASSETTE.

The following is only applicable to the S class cassettes and will be required prior to first use.

- Install second Quick Lok connector supplied in cassette accessories, on to cassette adaptor fitting. **The use of P.T.F.E. plumbers tape as shown is essential to ensure the connection is free from steam leaks.**
- When required for use, connect tubing supplied in kit (with female connectors) to Quick Lok connectors on calibration cassette and pressure transducer (Druck) or pressure module (Heise)..