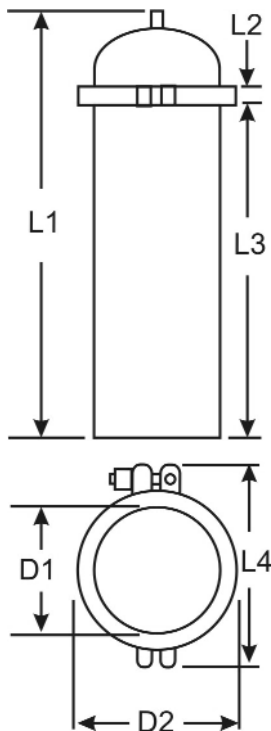


Pressure resistant monitoring system for Autoclaves

Quick Reference Guide



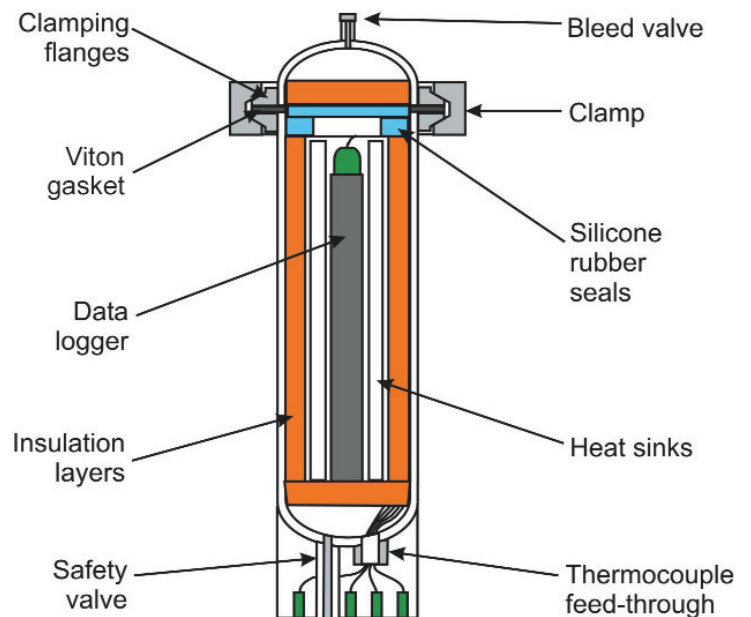
Thermal Barrier – TB0300



Thermal Barrier – TB0300

| | |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Overall dimensions | L1 555mm (21.85") |
| | L2 25mm (1.0") |
| | L3 455mm (17.9") |
| | L4 250mm (9.85") |
| | D1 158mm (6.25") |
| | D2 190mm (7.5") |
| Operating pressure | Maximum 15 bar (217.5 lb/sq in) |
| Pressure relief | Automatic valve opening at 1.0 bar (14.5 lb/sq in) in case of leakage. Final release by bleed screw. |
| Operating temperature | Maximum 250°C (482°F) |
| Thermal duration | 7.5 hours at 150°C (300°F) 4 hours at 200°C (390°F) 3.5 hours at 250°C (480°F) |
| | <small>*Above duration times are for use in a dry atmosphere. Consult Datapaq if system is used in a wet (steam) atmosphere.</small> |
| Weight | 13kg (28.5lbs) including heat sinks |
| Heatsink | 2x TBI085A |

Key to parts



TB0300 Thermal Barrier – Assembly Instructions

1. Assemble parts for fitting



Parts include: Lid, base, clamp, heatsinks, gaskets & thermocouples.

2. Fit heatsinks



Insert heatsinks into thermal barrier base.

3. Check inner gasket



Ensure silicone rubber base gasket is in place.

4. Check inner gasket



Ensure silicone rubber lid gasket is in place.

5. Reset data logger



WARNING

Do not use lithium batteries with loggers DP11B or Tpaq100.

Reset data logger and initiate start trigger (see main manual).
Fit into thermal barrier.

6. Fit thermocouple plugs



Fit thermocouple plugs into correct sockets.

7. Check main gasket



Check main 'Viton' pressure gasket (TB0300A 64). If there are any signs of wear or splits, replace immediately.

8. Fit main gasket



Fit the main 'Viton' gasket.
Note: This gasket can be fitted either way up

9. Fit barrier lid



Carefully fit the thermal barrier lid onto the base. Ensure the gasket registers on both lid and base flanges.

10. Fit clamp



Press down on lid to close flanges enough to fit clamp (TB0300A 63).

11. Fit clamp



Hand tighten clamp nut and check to make sure 'Viton' gasket is in the correct place.

12. Check copper gasket



Make sure copper gasket (SC1057A) is not damaged.

Fit a new copper gasket every 5 runs
Note: Also shown above is bleed valve (TB0300A 28)

13. Torque bleed valve



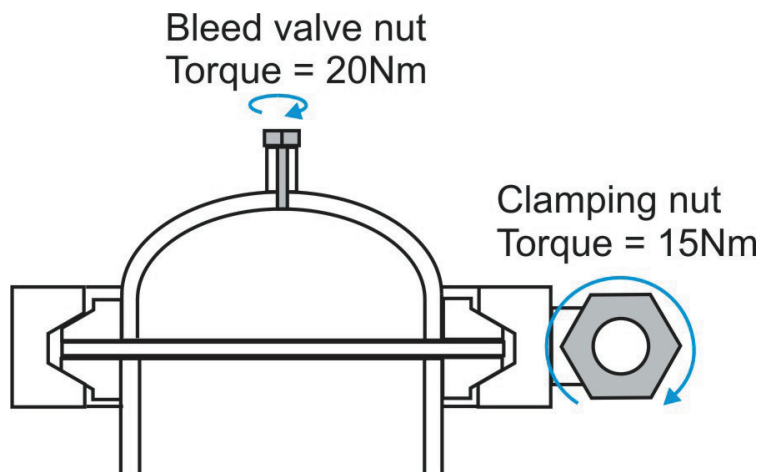
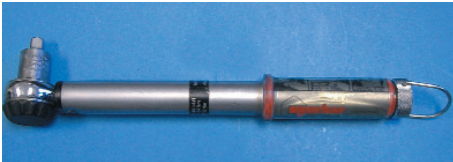
Torque bleed valve to 20 NM (15 lbf ft).

14. Torque clamping nut

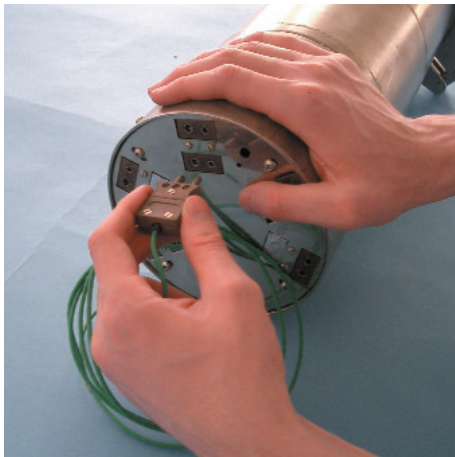


Torque clamping nut to 15 Nm (11 lbf ft).

For the next operation you will need a torque wrench



15. Fit thermocouples



Fit thermocouples into numbered sockets on the base of the thermal barrier.

16. Thermocouple lengths



Thermocouples used with this system are Type K open junction.

Part numbers are:

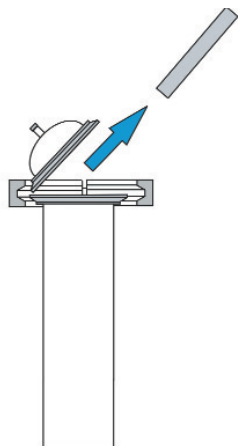
| | |
|---------|------|
| PA0940A | 1m |
| PA0941A | 1.5m |
| PA0942A | 2m |
| PA0943A | 3m |
| PA0944A | 4m |
| PA0945A | 5m |
| PA0946A | 6m |

17. Run through process



Check process temperature, duration and pressure, against specification shown on this sheet before running.

18. Remove data logger from thermal barrier



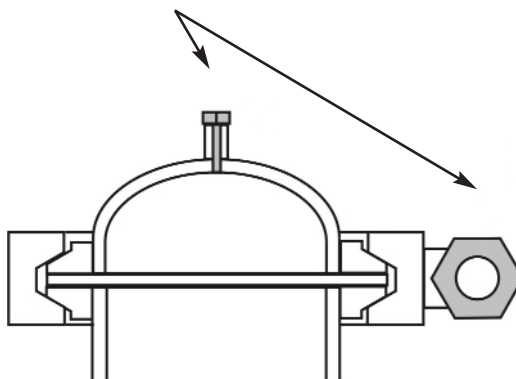
As soon as the thermal barrier exits the autoclave, remove the lid and take out the data logger.



WARNING:

When opening lid, always crack bleed valve open first to remove any residual pressure* **BEFORE** releasing clamp nut.

*'residual pressure' within barrier is not necessarily indicative of leaks, but may be caused by the expansion of hot air within the confined space of the barrier.



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