



Prestige Medical

routine maintenance and testing procedures

In order to ensure a high standard of performance is continued throughout an autoclave's life it is important that the unit is maintained and tested regularly. The maintenance program should be tailored to ensure that all vulnerable parts are inspected or replaced before they deteriorate to a point where the performance or safety of the autoclave can be compromised. Instructions on maintenance are usually to be found in the operating handbook but as a minimum they should include:

- Before each cycle wipe the sealing gasket and remove any debris or foreign bodies from the chamber, trays and rack as these may block filters or damage the gasket.
- Check the water level and top up with sterile water for irrigation BP if require
- Examine the sealing gasket daily for deposits or damage. Defects such as these will impair the autoclave's ability to maintain chamber pressure and temperature. Replace damaged or leaking gaskets immediately.
- Regularly drain the water tank, fill with disinfectant, and leave overnight. Drain, refill with fresh water, and repeat this twice more to remove any disinfectant residue. For units using a recycled water supply, draining the tank daily should be considered in order to meet with water quality regulations.
- Where fitted, regularly inspect all filters such as water and air filters. Clean or replace them as necessary.
- Regularly check the calibration of the autoclave*. Instruments that are out of calibration could lead to a non-sterile cycle being accepted as satisfactory putting patients at risk of infection.
- Check the security of the door safety devices*. Incorrectly set safety devices could lead to an operator or patient being put at risk.
- Check that the over pressure relief valves are free moving, and operate at the correct pressure for the autoclave*.

*NB *These checks should only be carried out by a competent service technician. Not all autoclaves operate the same way so always ask to see a manufacturers training certificate, demonstrating competence to work on your autoclave.*

Before leaving the factory, a new autoclave will undergo numerous tests and checks in order to meet the stringent safety standards of regulatory authorities around the world. To ensure that the autoclave continues to meet the same criteria it is important that a regular testing schedule is adhered to. Properly trained staff must conduct the testing and the results should be entered into a suitable sterilizer log and compared to the original commissioning results. Where applicable, tests should consist of the following procedures:

With an empty chamber containing only the loading furniture operate a normal cycle and record the following in the log -

- Serial Number, and location if appropriate.
- Date, Time, Cycle number
- Time to achieve sterilization hold
- Maximum and minimum temperature during sterilization hold
- Pressure during sterilization hold
- Time at sterilization hold

For a **Vacuum B** type sterilizer the following additional tests should also be carried out.

- Vacuum leak test. Maximum acceptable leak 1.3mB per minute
- Steam Penetration Test, using an appropriate Bowie Dick or Helix test.

The above list of tests is not exhaustive and indicates only the minimum testing required. For further details on tests that should be carried out please refer to fact sheet 12 or the appropriate national standards and guidelines such as EN554, DB9804, AS/NZ4187.

infection control fact sheet 05