Cell Washer Service Checklist- 55 point check

Below is a list of minimum checks that a Henderson Biomedical engineer will perform during a service visit. This list is intended as a guide and is not exhaustive. Indeed, there may be other checks that the engineer carries out. Please note that some of the checks listed below cannot be performed on every model of cell washer.

Visual inspection of the instrument and accessories

General inspection of the instrument

Check for signs of damage to the casing and abnormal noises

Initial checks

Ensure that the cell washer has been properly decontaminated before work begins

This can be carried out by the engineer if the user has not done so already.

Check the display screen is clear and free from any faults

Take a note of the user program settings for later reference

Check the cell washer is located correctly

Check the cell washer has been appropriately sited, e.g. not on the edge of a work bench or squeezed between other equipment

Functional checks

Verify the operation of the speed

Does it reach the required speed? Is it stable? Check with a calibrated tachometer if needed

Verify the operation of the brake

Do the different levels of braking work as they should be?

Verify the operation of the timer

Verification of the out-of-balance detection system

Carry out adjustments if necessary

General Checks

Inspect the tubing and drain. Clear obstructions if necessary

Inspect the tubing connections and secure them if necessary

Flush the system with deionised or distilled water

Clean and dry the interior after normal usage to prevent corrosion and contamination

Flush the system with cleaning solution
Clean the fill ports on the rotor
Check the saline volume setting and calibrate it if necessary. Frequency varies by length of service
Inspect the rotor for wear, corrosion, and damage. Replace the rotor if these conditions exist
Inspect the tube holders for wear and damage. Replace tube holders if they are worn or damaged, or after they have been in use for two years
Replace the supply/drain tubing and internal tubing
Replace the tube holder inserts for 10 mm x 75 mm tubes

Lid

Ensure that the lid lock is functional

Can the lid be opened whilst in use? Does the lid open button / latch work?

Inspect and lubricate hinges and lock
Adjust lid support hinges if required
Check the gas strut(s) are functional
Inspection of the lid seal if present

Inner bowl

Inspection of the inner bowl

Check for signs of impact damage from the rotor or buckets and also any signs of corrosion

Inspect the bowl seal and motor gasket if present

Is it corroded? Is it loose?

Motor

Visual inspection of the motor

Check for signs of wear and tear, loose cables and corrosion

Inspect the anti-vibration mounts for wear and tear
Carry out an insulation test
Inspect motor shaft

Is it straight or damaged in any way?

Lubricate motor shaft
Inspect condition of drive belt if present

Accessories

Visual inspection of **all** accessories

Check for signs of wear, damage, deformation and corrosion.

Ensure that rotor nuts and other securing devices are present

Inspect rotor lids and seals ('O' rings)

Specifically check for any signs of stress cracks on rotor

Clean and lubricate threaded components

Clean and lubricate trunnions

Electrical

Visual inspection of electronics including the PCB

Check for loose wires and/or connectors. Check the instrument is properly earthed

Do any of the components or cables show signs of burning?

Electrical safety checks carried out using a Portable Appliance Test (PAT)

Check panel indicators and switches are functional

Verify integrity of the mains cable and plug

Check all the keys on the keypad/screen are working

Ensure cooling fan is functional and clean if necessary

General housekeeping

Ensure all nuts and bolts are properly secured

Clean instrument

Remove all expired and unnecessary labels. Remove adhesive deposits using label remover

Ensure that Henderson Biomedical Service and Support sticker is placed somewhere visible on the instrument

Complete service/calibration label sticker with date, serial number and engineer's initials

Leave instrument with original programmed settings set by the user

Inform the user of any remedial work and/or potential future problems (if any)

Offer advice and/or tips on prolonging the life of the instrument