



Department of
Conservation
Te Papa Atawhai



Maintenance Schedule:

How often system maintenance should be performed is track dependant. Tracks with more traffic should be maintained more frequently than others. Frequently vandalised areas should be closely monitored for broken or stolen parts.

Clean any hand tools and footwear before and after performing maintenance.

Tools Required:

- 1 x Rivet Gun
- 1 x Power Drill
- 1 x Heavy Duty Impact Driver
- 1 x Ratchet
- 1 x 60mm Adjustable Wrench
- 1 x 10mm Socket
- 1 x 10mm Spanner
- 1 x 3/8" TEK Screwdriver Long Stem
- 1 x 13mm Socket
- 1 x 13mm Spanner
- 1 x 26mm Socket
- 1 x Allen Key Set
- 1 x 4mm Drill Bit
- 1 x 6mm Drill Bit
- 1 x Thread Tape
- 1 x Craft Knife
- 1 x Phillips Head Screwdriver
- 1 x Flat Head Screwdriver
- 1 x Hacksaw
- 2 x Rubbish Bags
- 1 x Pen
- 1 x Tape Measure
- 1 x Pipe Cutter
- 1 x Deburrer
- 1 x Rubber Mallet
- 1 x Nail Clippers

Common Spare Parts Required:

- Treadle Springs
- Brass Check Valves
- Drench Guns
- Drench Gun Nozzles
- Drench Gun Stickers
- Hand Brushes
- Signs
- Gate Stickers
- Gate Hinges
- Spare Signboards

Ordering Spare Parts:

To order spare parts, replacement parts or to send back broken or vandalised items; please contact MWDesign on 07 839 5018 or email us at orders@biosec.co.nz

Table of Contents:

General Cleaning & Maintenance

Base & Mesh Grating-----	3
Handrails, Benches & Steel Work-----	4
Roof-----	5
Tank-----	6
Signage-----	7
Foot Treadles-----	8
Under Mesh Grating-----	9
Plumbing-----	10
Sterigene Tank-----	11
Brush Units-----	12

Pump Troubleshooting

Troubleshooting-----	13
----------------------	----

Plastic Patching

Plastic Welding-----	14
----------------------	----

Know Before You Go:

If you are unsure about how to check, clean or replace a part on a station; please do not hesitate to contact MWDesign for help or advice. If in doubt, remove the part and return it to MWDesign at:

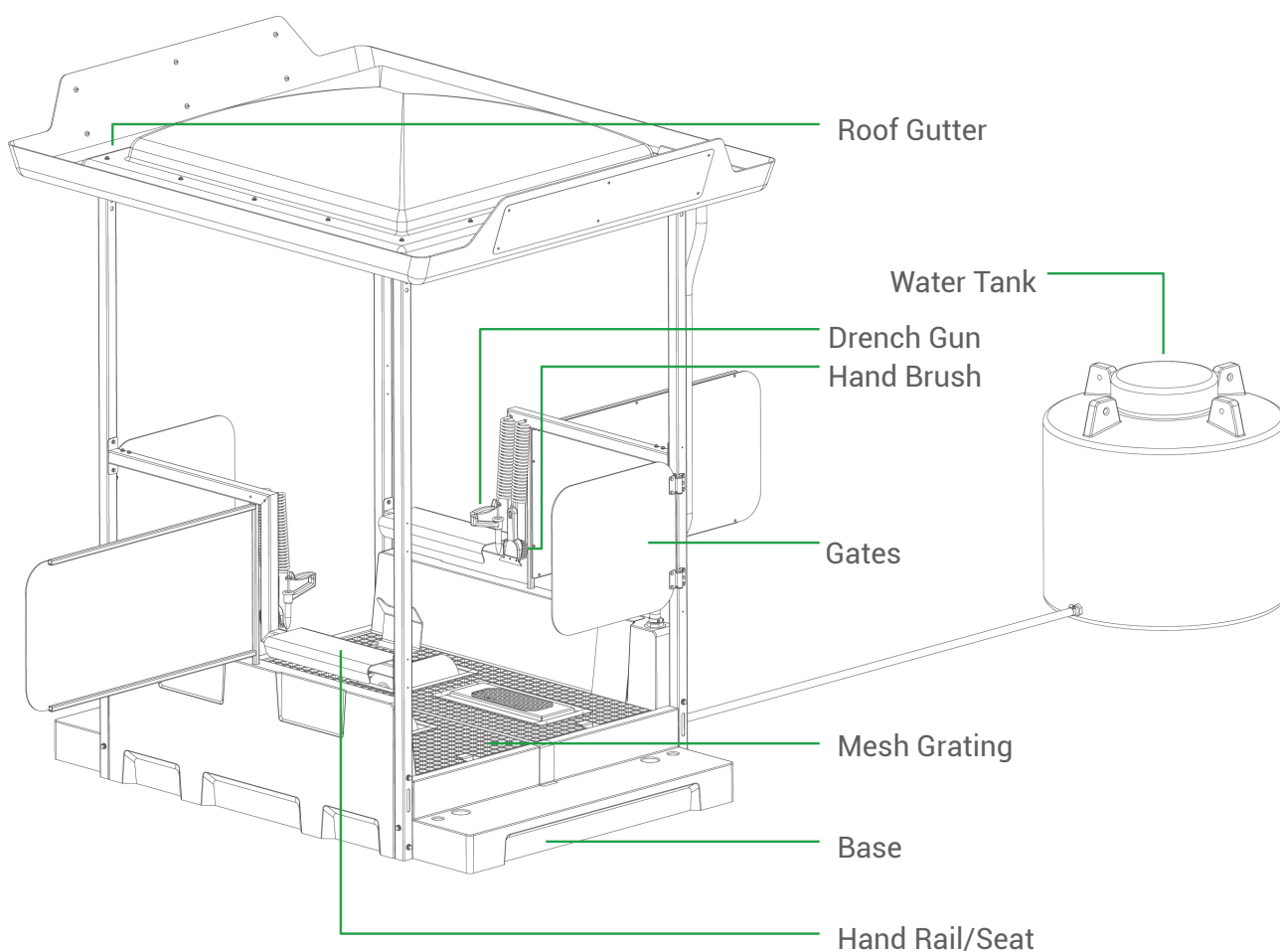
88 Duke Street, Frankton, Hamilton 3204.

We will happily send you replacement parts.

Base & Mesh Grating: General Cleaning & Maintenance

1. Check mesh grates for mud and dirt build up, especially where it may present a slip or trip hazard.
Brush, hose or scrape away any build up. Bag and remove from the site.
If the dirt is built up under the mesh in the bottom of the base, see "Under Mesh Grating - Cleaning & Maintenance."
2. Check access ramps and steps to the station.
Remove any debris, trip or slip hazards to ensure the safety of pedestrians.
3. Check the grates are securely fastened to the base.
Tighten any loose fasteners with the appropriate tools required.
4. Ensure that foot treads and brushes are securely fastened to the mesh grating.
Tighten any loose fasteners with the appropriate tools required.
5. Check to see if mirrors or foot scrapers are dirty.
Use drench guns to wash the mirrors and remove any mud build up on the foot scrapers.

** Ensure you wear gloves when handling mesh grating to avoid splinters. **



Handrails, Benches & Steel Work: General Cleaning & Maintenance

1. Check there is a handbrush and drench gun on each side of the station and are working correctly.

If parts are missing or need replacing, contact MWDesign for replacement parts and seek the appropriate instructions for installation/replacement. Cut and recrimp hoses onto the handrail bracket, drench gun or handbrush where possible.

2. Check welds on joins of metal work.

Remove any sharp edges with a file or if the welds are broken, contact MWDesign about a replacement part.

3. Check bolts/fasteners are secure and will not interfere with the pedestrian accessways.

Tighten any loose fasteners with the appropriate tools required.

4. Ensure seats are free of debris or sharp edges.

Clean or brush away debris, remove any sharp edges with a file or, deburrer or sandpaper.

5. Inspect steelwork for rust.

If rust is visible; sand and repaint affected areas with PPG Primer Grey 238. Contact Auto Link Hamilton on +64 7 846 1443 or email autolinkdistributors.co.nz to place an order.



Tighten any loose fasteners on steel work.



Paint any rust marks, check for a brush and drench gun on each side.



Ensure a drench gun and brush are present on each side of the station.



Check welds and for any burrs or sharp edges on metal work.

Roof: General Cleaning & Maintenance

1. Inspect roof and check for damage or debris build up.
Remove any leaves, branches or debris that may block the gutter or prevent drainage.
Check for any water leaks or splits. Plastic weld these or seek help from MWDesign.
2. Inspect gutter system and check for debris.
Scoop out leaves, twigs and other debris that will block the water from draining away.
3. Clean out gutter foam.
Slip the foam out from under the galvanised strip. Hose out until clean or replace with a fresh piece if ripped or deteriorated.
4. Inspect downpipe from roof to the base.
Ensure fittings are tight and there are no leaks. Tighten fittings if necessary.



Check downpipe fittings and tighten accordingly.



Check for debris build up in the gutters.



Squeeze and pull roofing foam out from underneath the strap to replace or clean.



Look for any splits in the plastic of the roof.

Tank: General Cleaning & Maintenance

1. Check tank is securely fastened to the ground.
Ensure the earth anchors are in the ground securely holding the tank cables down.
2. Check fittings and pipes attached to tank.
Ensure there are no leaks or loose fittings. Tighten fittings if necessary. You may need to remove the old thread tape and apply new tape.
3. Inspect tank surface for splits in the plastic.
Plastic weld splits in the tank or order a new tank through MWDesign.
4. Check that the lid is fastened on correctly.
The lid should be securely fastened so leaves and debris cannot enter into the tank water.



Check earth anchors are secure in the ground and the cables are taut on the tank.



Check fittings attached to the tank. Tighten any if necessary.



Inspect tank surface and plastic weld any splits if necessary.



Check the tank lid is fastened down with two Tek screws.

Signage: General Cleaning & Maintenance

1. Ensure gates and signboards are securely fastened.
Tighten any loose bolts on the gates. Ensure signboard is riveted on tightly.
2. Check gate hinge functionality.
Check the spring-back on the gates and that they return to standard position. Adjust the gate hinge spring to change the opening/closing strength.
3. Check for scratches, fading, peeling or graffiti on the signs.
Replace signboards where necessary by drilling out the rivets and installing new ones.
Contact MWDesign for ordering new signage, gates or stickers.
4. Clean off any dirt on the signs using soapy water.
Instructions should be clearly visible to be read by pedestrians.



Ensure fasteners are secured tightly.



Ensure signboards are riveted on tightly.



To adjust the gate strength, put a small pin or screwdriver & turn it to your right.



Remove the small stainless pin in the hinge then turn the hinge to the right again.



Reposition stainless pin & repeat until the strength is suitable. Do this to all hinges.

Foot Treadles: General Cleaning & Maintenance

1. Check spray unit mist consistency.

Check that the treadles spray a fine mist of a sterigene/water mix when stood on. When the spray contacts a surface a light foam should appear, this is the sterigene. If not present, the sterigene tank may need to be refilled/replaced. Check there are no air locks, blockages or leaks in the plumbing from the treadle.

2. Ensure foot treadles spring back up after being stood on.

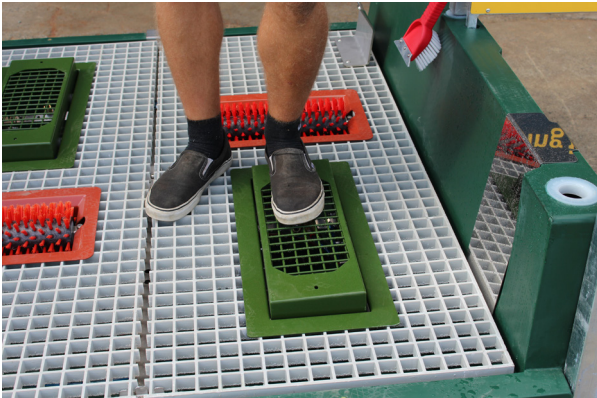
Check there is no debris around the treadle preventing the scissor arms from springing back up. Clean treadles if this is the problem.

3. Check for dribbling spray nozzles.

The check valves may need replacing under the treadle. They could be blocked or seized.

4. Ensure the treadle spray/pump is working correctly.

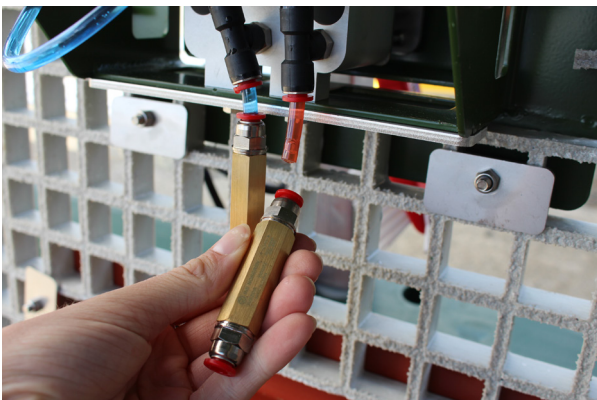
Reference the pump troubleshooting guide section, otherwise contact MWDesign.



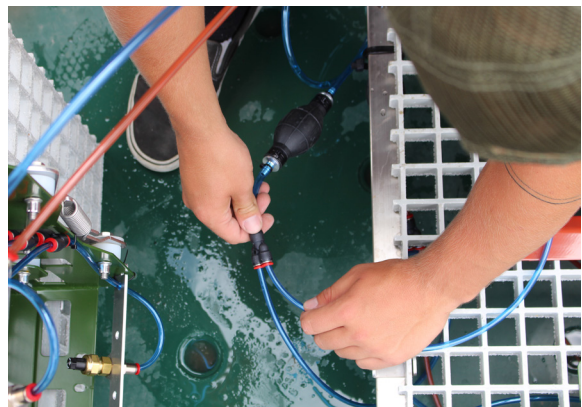
Check treadle for a consistent fine mist spray.



Undo mesh plates and lift the floor units up to access the treadles.



Replace check valves if necessary. Ensure these are plugged in and orientated correctly.



Check all plumbing for leaks and trace it back from the spray nozzles. Squeeze the fuel bulbs to help with identifying where the issue is located.

Under Mesh: General Cleaning & Maintenance

1. Remove the mesh carefully.

Unscrew the button head bolts and twist the mesh plates sideways at each end of the grate. Inspect the base to see if there is any bulging at the sides, if so, take extra care to lift the mesh. Use gloves to lift mesh, lifting the outside edge up first.

2. Inspect under the mesh in the bottom of the base.

The base catches any infected soil and excess sterigene mix from cleaning the footwear. To clean this, pull the centre pipe up and let the water drain away.

3. Remove any infected soil from the site.

Scoop up from the base, bag and remove the soil appropriately.



Lift the mesh and inspect the base.



Pull the centre pipe out from the centre of the base and let the water drain away. Hose this down.



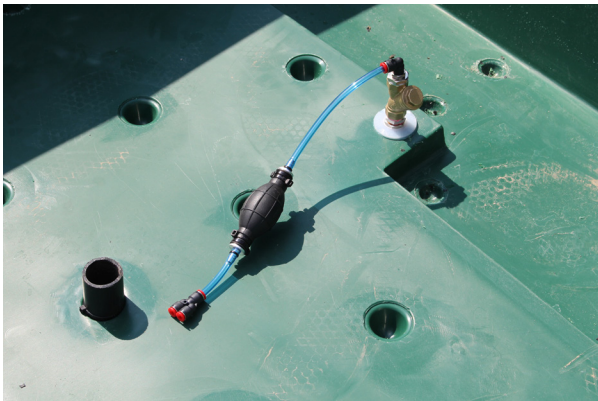
Replace the centre pipe by pushing down until it reaches the cable tie.



Ensure to replace mesh correctly and replace the mesh plates, then tighten.

Plumbing: General Cleaning & Maintenance

1. Inspect plumbing assembly, fuel bulbs and piping under the mesh.
Check for any kinks in the piping, leaks, splits hoses or unplugged hoses from the push fittings.
2. Check the central plumbing for blockages.
Unscrew the brass Y-strainer to access the filter using an adjustable spanner. Clean or replace filter if necessary. Pull off old thread tape and redo if required.
3. Remove any infected soil from the site.
Scoop up from the base, bag and remove the soil appropriately.



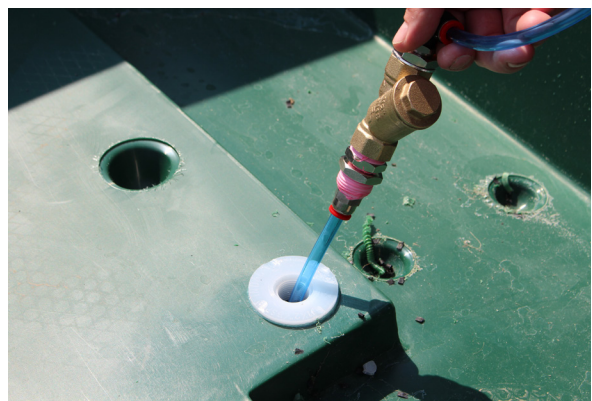
Unplug treadle hoses to the central plumbing.



Using an adjustable spanner, undo the filter and hose it out to clean.



Redo any tape thread that needs replacing.



Remove all soil, clean the base and replace the plumbing.

Sterigene Tank: General Cleaning & Maintenance

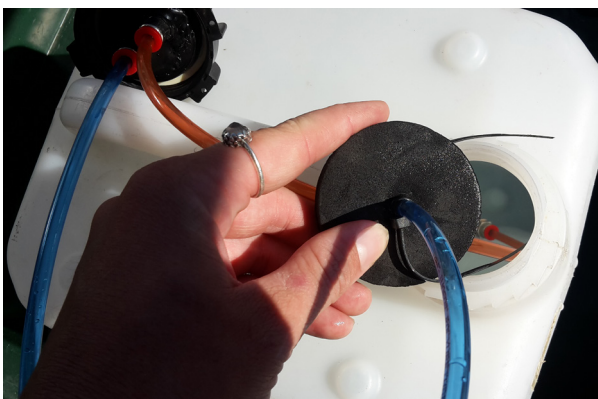
1. Check the sterigene tank levels.
Lift the mesh and check the sterigene tank levels.
2. Ensure the floatie is still attached to the water hose inside the sterigene tank.
If the floatie has fallen off, the hose can not breathe/suck in air preventing the treadle from working correctly.
3. Refill or replace the tank when necessary.
Ensure the tank has the correct mixture of 1:50. Refill the tanks ONLY with correctly supplied/certified sterigene mix. Make sure the tanks are always filled or this will affect sanitation of footwear and cause issues with the pumps.



Undo the mesh plates and lift to the side to access the sterigene tank.



Unplug the hoses from the cap and unscrew. Fill tank or screw the cap onto a new sterigene container.



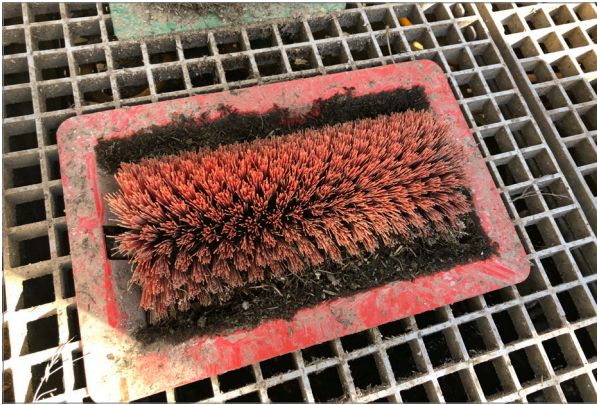
Ensure the floatie is attached securely. Squeeze the floatie and pull it out carefully when removing.



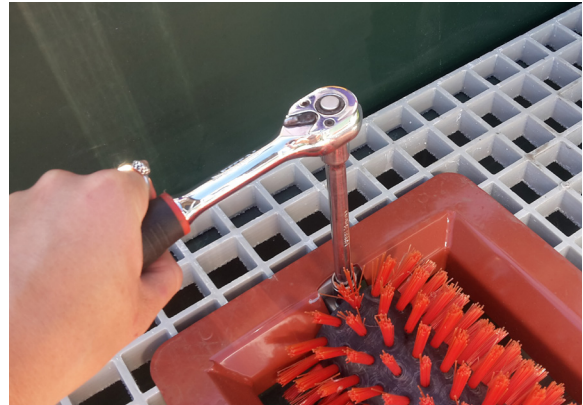
Lay the tank down in the correct orientation, plug in the plumbing again and lay the mesh down. Ensure the tank cap hoses are plugged red to red and blue to blue. Remember to prime the treadles by squeezing the fuel bulbs until the treadle starts to spray.

Brush Units: General Cleaning & Maintenance

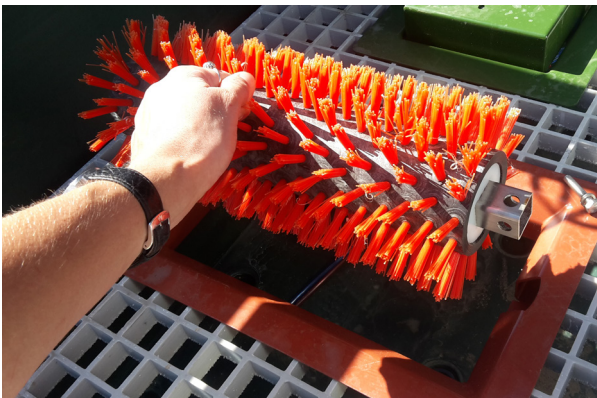
1. Check brushes for mud and dirt build up.
You will need to hose these out and clean with disinfectant.
2. Check for wear and tear on the brush.
If the bristles are worn or flattened on the brush, you can undo the bolts either side of the brush and rotate it 90 degrees to extend its life.
3. Check for damage to the footbrush frame.
If the footbrush frame is damaged or broken, you will need to lift the mesh and undo the frame and replace it with a new one. Order new brushes or parts through MWDesign.



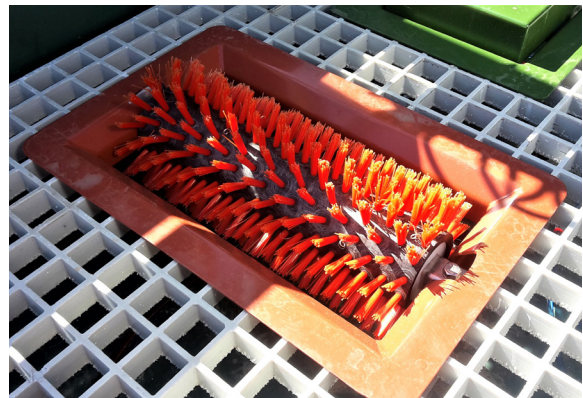
Check for dirt build up or worn bristles like shown.



Clean the brush and undo the bolts at either end.



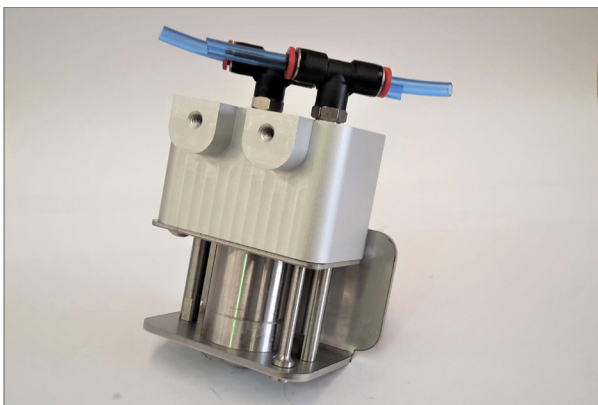
Lift the brush out and rotate 90 degrees or until you reach an unused side of the footbrush.



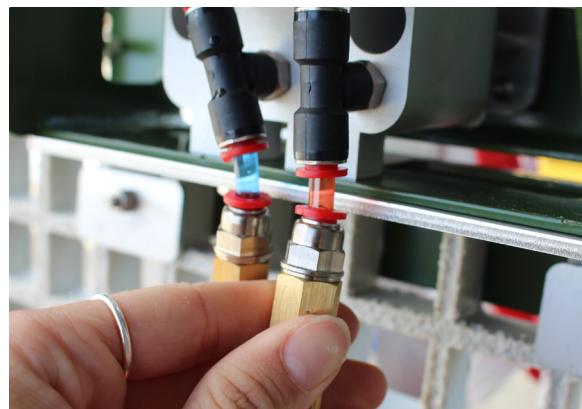
Sit the brush back into the frame, replace the bolts and tighten until secure.

Pump: Troubleshooting Guide

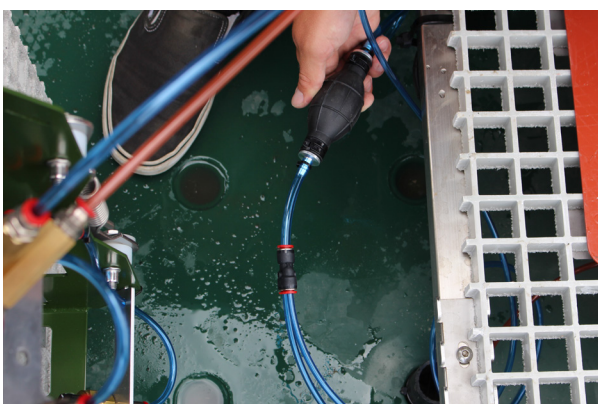
1. Make sure the pump is moving up and down.
If it is stuck or seized, send it to MWDesign and we will replace it.
2. Is water going through the system?
Check the water lines (blue hoses) are primed by squeezing the blue fuel bulb continuously until the treadle nozzles start to spray. Check there are no air blocks and the check valves are facing the correct way and are not seized. Check water levels in the tank.
3. Is sterigene going through the system?
Check the sterigene (red hoses) are primed by squeezing the red fuel bulb continuously until the treadle nozzles start to spray. Check there are no air blocks and the check valves are orientated correctly and not seized. Check the sterigene tank level and fill accordingly.
3. Are the check valves working?
If the are not working, contact MWDesign to purchase replacement valves. Ensure they are orientated correctly to the hose lines. Check hoses for kinks or leaks.



Check for dirt build up and spring-back on the pump.



Check that the valves are orientated correctly and hoses are plugged in accordingly.



Pump the water through by squeezing the blue fuel bulbs to prime the treadles and check to see if there are any plumbing issues.



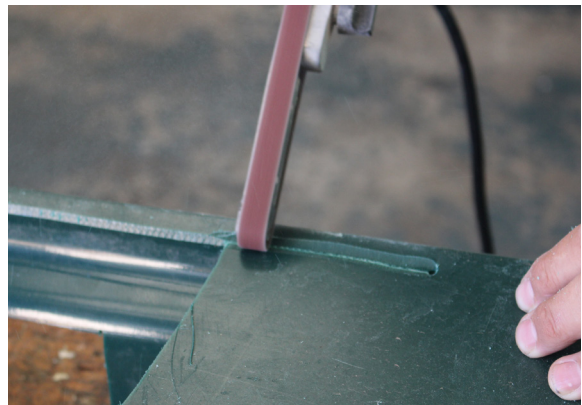
Check the sterigene tank level and fill or replace if necessary.

Plastic Patching: Plastic Welding

1. Locate the split or hole that needs fixing in the base or tank.
Drill a hole at the end of the split to ensure it does not split further. If there is a hole that needs patching, cut a patch of plastic the correct size to fit over the hole.
2. Remove any burrs and sand the working space down to expose the split.
Use an electric belt sander to expose the surface to weld and clean away any burrs if necessary.
3. Heat the surface and weld.
Heat the surface you will be patching with a heat gun. Thread the plastic welding strip into the welding head attached to the heat gun and feed it through and you move the head along the split or edge of the patch you are attaching.
3. Fill the split/hole and sand back.
Keep feeding the welding strip into the head until the split or the hole is full. Allow the plastic to cool before sanding back flush with the original surface.



Drill a hole at the end of the split to ensure it does not split any further onto the base or tank.



Sand back any burrs and expose the split.



Feed the plastic welding strip in through the head slowly and work your way along the split.



Fill the hole completely, allow to cool then sand back flush with the original surface.