EMERGENCY TANK SHOWER AND EYE WASH

Assembly | Commissioning | Maintenance

ET1400S

INSTALLATION COMPLIANCE

Installation of emergency showers, eye and eye/face wash equipment shall be in accordance with AS4775 or ANSI Standard Z358.1 whichever is applicable to the installation.

Tank Shower frame is not Cyclone Rated when mounted on FRP Grid Base.

Tank Shower frame with privacy panels is Category B Cyclone Rated when bolted to the specified concrete slab and when tank is at least half full of water.

Tank Shower Frame is not rated for cyclone wind category D when privacy panels are installed.

Note: Tank shower must be installed as per manufacturer's drawings and installation instructions.

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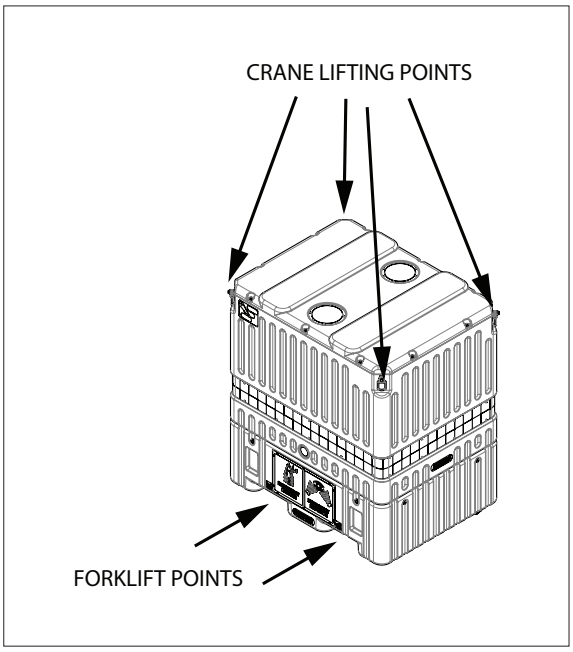
handling of tank assembly

By Forklift

Use the forklift points at the bottom of tank.

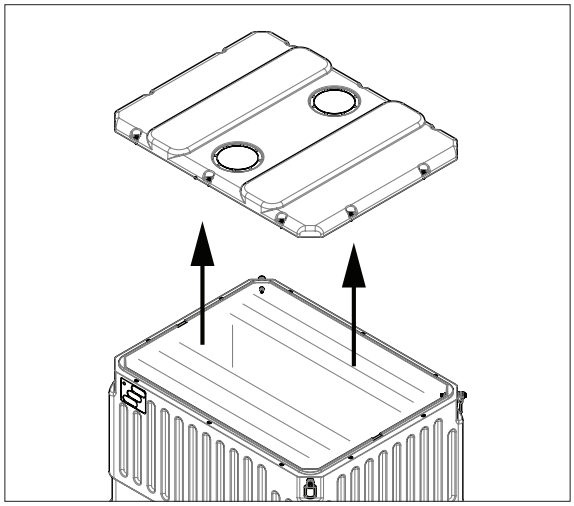
By Crane

Lift the tank using four crane lifting lugs located at each top corner of the tank.



before installation

1. Remove the tank lid.
   Lid is secured with M12 bolts. Use a 19mm socket (or equivalent) to unscrew the bolts.
   Keep the lid and bolts at hand.



2. The `float' has been fixed in place with a carabiner onto the eyelet loop so that it is secure during transportation. When removing the carabiner for assembly, please be careful to lower the float **slowly** until float and chain come to a stop; if it is dropped quickly it can cause damage to the flow controller and/or the float **(SEE IMAGE 1).**

   Check that the chain has not become entangled during transportation.

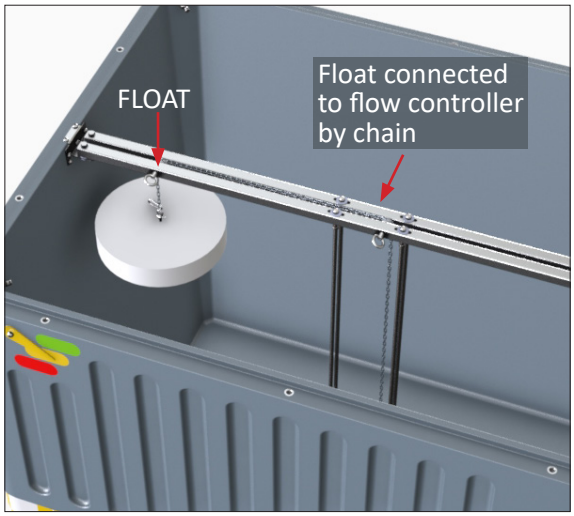


IMAGE 1

assembly

The single piece frame comes pre-assembled with the eyewash and foot activation pedal already attached to the frame. Ensure the frame is in the upright position before proceeding any further. (SEE IMAGE 2)

If required, the height of the foot pedal is adjustable by adjusting the length of the connecting wire rope.

NOTE: The Frame is Designed and Structurally Certified to allow for it to be used within a Category 'D' Wind Region, without requiring it to be disassembled or decommissioned during a storm event.
This Structural Certification only applies when the Frame is mounted onto a Reinforced Concrete Footing that meets the structural design specifications detailed on page 6.

IMAGE 2

CATEGORY 'D' WIND REGION DETAILS

Design Wind Speed	85 m/s
Wind Gust Factor	1.3

Important: Ensure the frame is installed on a flat, level surface. A frame not installed on a level ground may cause the tank to become unstable and may cause the tank shower to topple.

1. Find the coil of eyewash hose supplied inside the tank. Uncoil the hose and feed the hose through the top back frame as shown **(SEE IMAGE 3)**, with the free end loose, ready for connection to the tank.
   Insert the other end of hose into the push-fit connector on the eyewash, and push until it bottoms out.

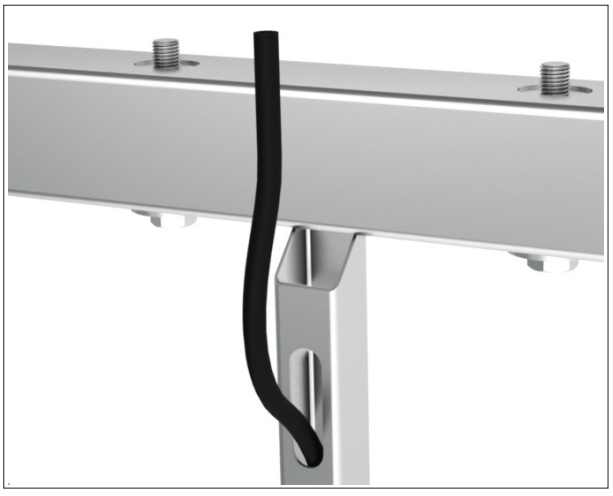


IMAGE 3

2. Check that the tank is not filled with water before installing tank to the frame.

   Lift the tank onto the frame using a forklift or a crane. When lifting using a sling, use the four lifting lugs located on the top corners of the tank.

   Take care to align the bolt mounting holes on the frame with the matching threaded holes on the bottom of the tank assembly **(SEE IMAGE 4).**

IMAGE 4

Tank is ONLY to be lifted when completely empty of water.

3. Use 80mm bolts (x10) and two larger washers (Acetyl and stainless steel supplied) for each bolt, to fix the tank in place.

   Acetyl (plastic) washer should be placed closest to the frame, so that the Acetyl washer is sandwiched between the frame and stainless steel washer **(SEE IMAGE 5).**

   Apply Anti-Seize onto bolt thread before tightening.

   Tighten bolts firmly but do not over-tighten.

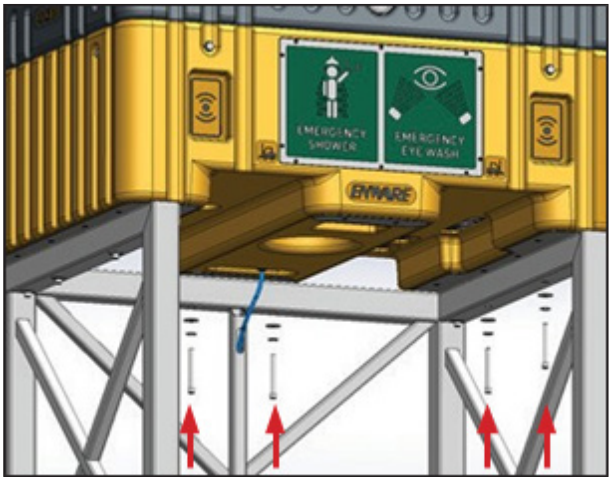


IMAGE 5

4. Insert the eyewash hose into the bulk head fitting, and push until it bottoms out **(SEE IMAGE 6).**

   (The fitting is a push-fit connector and does not require further tightening.)

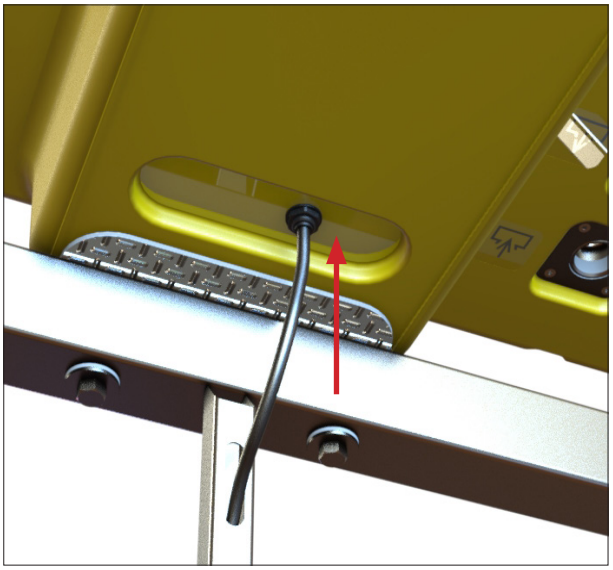


IMAGE 6

5. Locate the inlet fill assembly and fit to the Inlet connection of the tank **(SEE IMAGE 7).**

   The union connection will have to be disassembled to screw the top elbow in. Use appropriate thread sealing tape, to seal the inlet connection.

Ⓐ **NOTE:**
Inlet connection for inlet fill assembly is noted by an
Ⓑ arrow directed into tank.

Overflow outlet is noted by an arrow out of tank.

Assemble union connections for inlet fill assembly, then secure the inlet fill assembly onto tank frame using brackets supplied. The frame has pre-drilled holes to accommodate the 2x bracket fixing screws (M6 head cap screws). Place rubber clamps around the plastic pipe to secure the inlet fill assembly onto bracket.

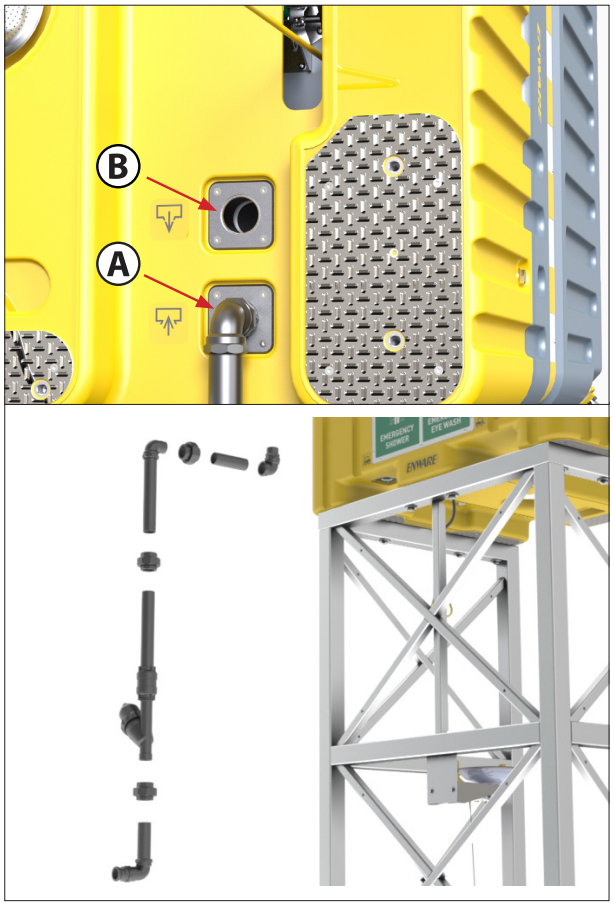


IMAGE 7

6. Reach inside bottom access of tank, and pull the activation valve arm down. Use appropriate step ladder to do so.

   Attach shower activation pull handle to the activation valve arm using the nut and bolt supplied.
   (SEE IMAGE 8)

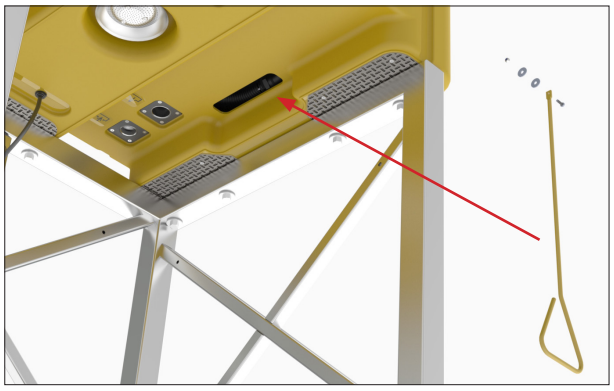


IMAGE 8

INSTALLATION IS NOW COMPLETED AND THE TANK SHOWER IS READY TO BE COMMISSIONED.

SEE PAGE 9 FOR COMMISSIONING.

cyclone wind category D requirements

Note: Frame is not rated when installed onto a relocatable foot base and/or when privacy panels are installed.

Note: Tank Shower is Category D Cyclone Rated when bolted to the specified concrete slab and when tank is at least half full of water.

MOUNTING ANCHORS

The frame is to be anchored to the reinforced concrete footing specified below, using the 4 mounting plates on the frame **(SEE FIGURE 1).**

FIGURE 1

Each mounting plate has provision for 4 anchor bolts/rods (NOT SUPPLIED), for a total of 16 to fully anchor the frame.

The 16 anchors must be of an M12 Stainless Steel Epoxy type with 150mm embedment into the reinforced concrete footing to meet Certification Requirements.

FOUNDATION: The footing is to be founded upon a minimum 150kPa material.

CONCRETE SPECIFICATIONS

ELEMENT	SLUMP	AGGREGATE SIZE	CEMENT TYPE	F'C - MPA
FOOTING SLAB	80mm	20mm max.	GP	32

(continued next page)

cyclone wind category D requirements

REINFORCED CONCRETE FOOTING SPECIFICATIONS

Reinforced concrete footing is to be a minimum 3000 x 3000 x 500mm **(SEE FIGURE 2)** with 16mm Diameter Bars (with a Tensile Stress Capacity of 500 MPa) running at 200mm each way both top and bottom **(SEE FIGURE 3).**

Footing must have a 50mm top and edge cover and a 65mm bottom cover.

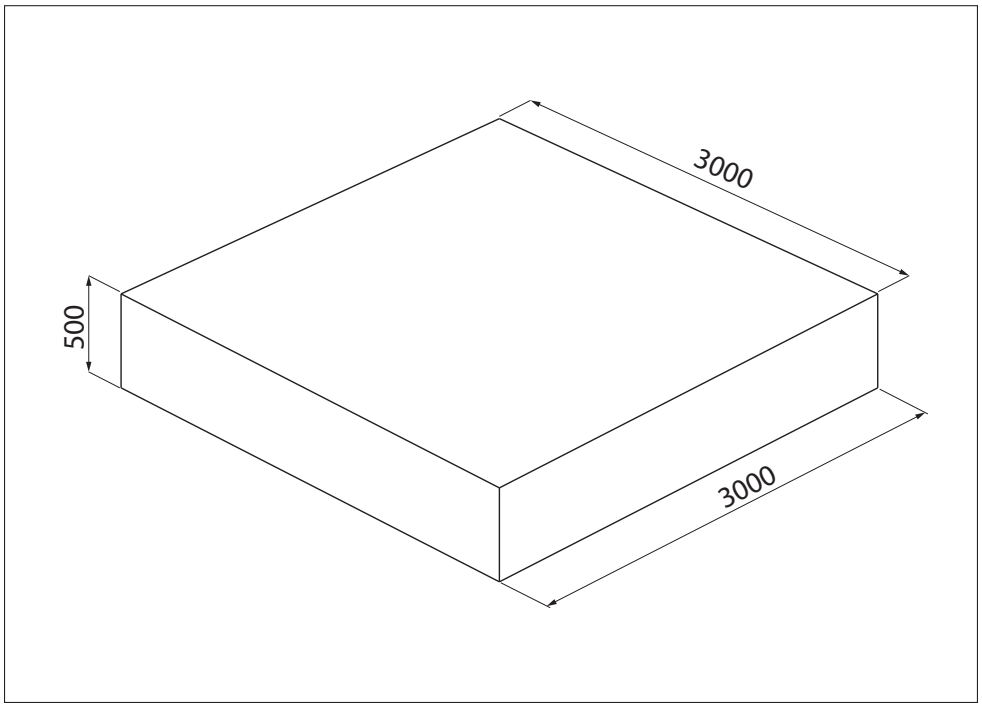


FIGURE 2

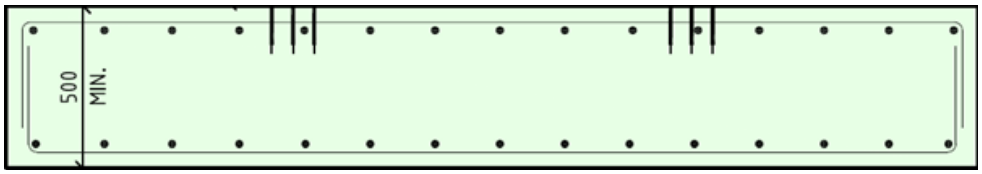


FIGURE 3
Cross Section showing reinforcement bars in one direction

CONCRETE NOTES

1. All workmanship and materials shall be in accordance with AS3600-2001 concrete structures code.
2. Concrete quality and clear concrete cover are to be as specified.
3. Concrete element sizes do not include thickness of any applied finishes.
4. All concrete shall be mechanically vibrated. The vibrator shall not be used to spread concrete.
5. Reinforcement is shown diagramatically, not necessarily shown in true projection.
6. All reinforcement shall be firmly supported on plastic or MS plastic tipped or galvanised chairs placed at not greater than 800mm centres both ways.

cyclone wind category B requirements

Note: Tank Shower frame is not Cyclone Rated when mounted on FRP Grid Base.

Note: Tank Shower is Category B Cyclone Rated when bolted to the specified concrete slab and when tank is at least half full of water, with or without privacy panels.

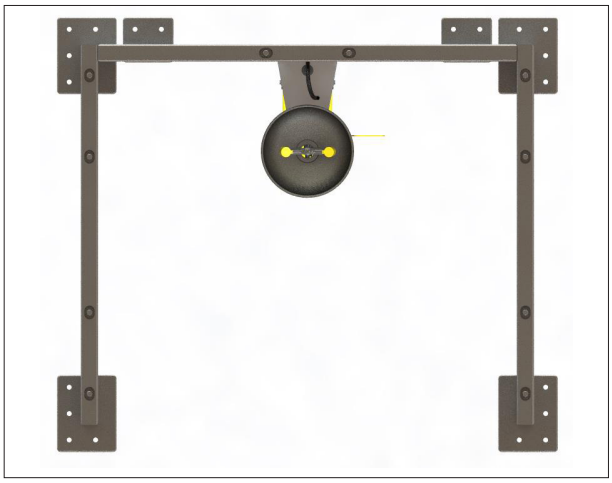


FIGURE 1

MOUNTING ANCHORS

The frame is to be anchored to the reinforced concrete footing specified below, using the 6 mounting plates on the frame **(SEE FIGURE 1).**

Each mounting plate has provision for 4 or 2 anchor bolts/rods (NOT SUPPLIED), for a total of 20 to fully anchor the frame.

The 20 anchors must be of an M12 Stainless Steel Epoxy type with 150mm embedment into the reinforced concrete footing to meet Certification Requirements.

FOUNDATION: The footing is to be founded upon a minimum 150kPa material.

CONCRETE SPECIFICATIONS

ELEMENT	SLUMP	AGGREGATE SIZE	CEMENT TYPE	F'C - MPA
FOOTING SLAB	80mm	20mm max.	GP	32

REINFORCED CONCRETE FOOTING SPECIFICATIONS

Reinforced concrete footing is to be a minimum 2000 x 2000 x 200mm **(SEE FIGURE 2)** with 16mm Diameter Bars (with a Tensile Stress Capacity of 500 MPa) running at 200mm each way both top and bottom **(SEE FIGURE 3).**

Footing must have a 50mm top and edge cover and a 65mm bottom cover.

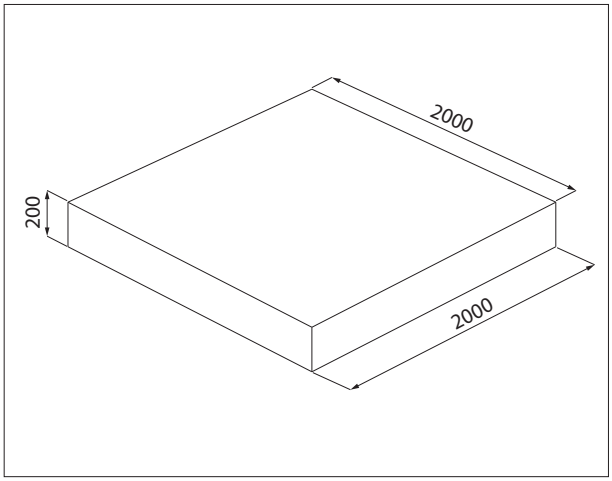


FIGURE 2

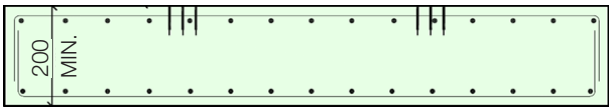


FIGURE 3
Cross Section showing reinforcement bars in one direction

CONCRETE NOTES

1. All workmanship and materials shall be in accordance with AS3600-2001 concrete structures code.
2. Concrete quality and clear concrete cover are to be as specified.
3. Concrete element sizes do not include thickness of any applied finishes.
4. All concrete shall be mechanically vibrated. The vibrator shall not be used to spread concrete.
5. Reinforcement is shown diagramatically, not necessarily shown in true projection.
6. All reinforcement shall be firmly supported on plastic or MS plastic tipped or galvanised chairs placed at not greater than 800mm centres both ways.

commissioning

1. Attach water source to the 40mm inlet camlock fitting **(SEE IMAGE 9)**.

   Use only clean water to fill the tank.

2. Turn on water supply and commence filling.

IMAGE 9

3. Take note of the water level indicator **(SEE IMAGE 10).**
   When it reaches the yellow level, activate the shower and eye wash to flush the line and to test operation.

   When activating the eye wash for the first time, take the aerators out of eye wash outlet to clear the line of any debris.

   Check for any leaks in joints and connections.

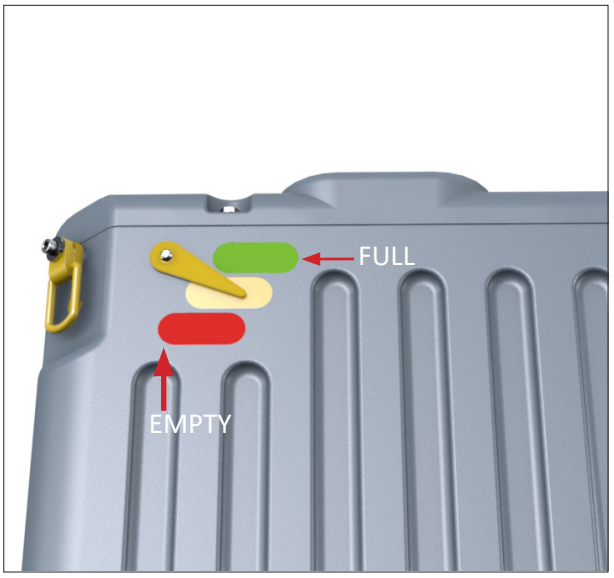


IMAGE 10

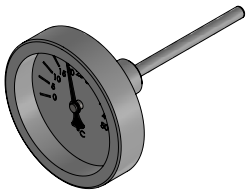
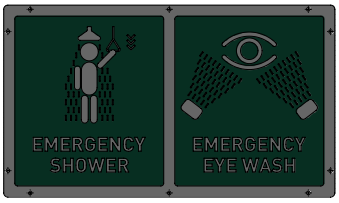
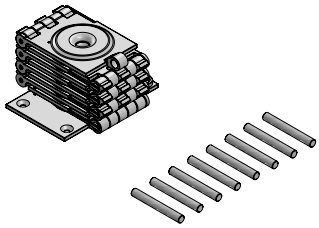
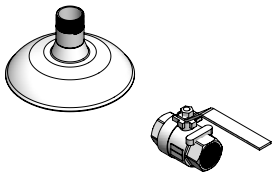
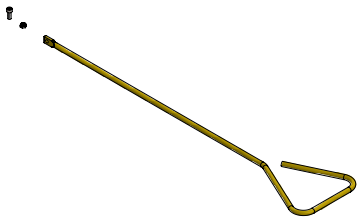
4. Turn shower and eye wash off and continue to fill. Replace aerators onto the eye wash outlet.

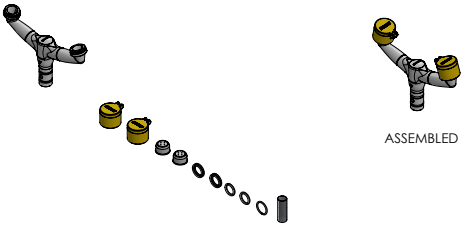
5. Once water starts to flow out from the internal overflow, turn off the infeed water and disconnect from the 40mm camlock fitting.

COMMISSIONING COMPLETE

Shower and eyewash are now commissioned and tank shower and eyewash are ready for use.

spare parts

Description	Part Number	Image
WATER LEVEL ASSEMBLY	ET14SP003	
TEMPERATURE GAUGE	ET14SP004	
SIGNAGE SHOWER - EYEWASH STAINLESS STEEL	ET14SP005	
FLOW CONTROLLER - ORIFICE PLATES	ET14SP006	
SHOWER ROSE ASSEMBLY	ET14SP007	
PULL HANDLE ASSEMBLY	ET14SP008	

Description	Part Number	Image
EYEWASH CONNECTOR KIT	ET14SP009	
EYEWASH OUTLET KIT	ET14SP010	
INFILL KIT	ET14SP016	

cleaning

Enware product should be cleaned with a soft damp cloth using only mild liquid detergent or soap and water. Do not use cleaning agents containing a corrosive acid, sourcing agent or solvent chemicals. Do not use cream cleaners, as they are abrasive. Damage caused this way will not be covered by warranty.

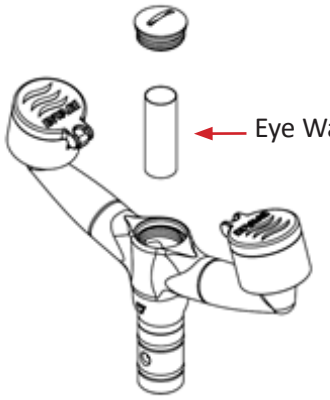
maintenance schedule

WEEKLY UNIT ACTIVATION

In accordance with ANSI Z358.1 or AS 4775 (whichever is applicable).

The unit should be activated every week for a period long enough to verify operation and ensure the flushing fluid is available. The unit must then be refilled to the correct height.

Note: the intent is to ensure that there is a flushing fluid supply at the head of the device and to clear the supply line of any sediment build up that could prevent fluid from being delivered to the head of the device and to minimise microbial contamination due to sitting water. Internal eye wash strainer should also be removed and cleaned during this process or when required.



ANNUAL INSPECTION

In accordance with ANSI Z358.1 or AS4775 (whichever is applicable).

Shower units and eye wash shall be inspected annually by a qualified technician to ensure ongoing performance.

INSPECTION TAGS

Inspection tags are available (if not already supplied) to record weekly and annual inspections. If you need to purchase inspection tags contact Enware.

FILTER MAINTENANCE

Filters to be checked and cleaned once a month or in accordance with usage. Filters are located at Y-Strainer on the inlet fill assembly, and at the filter strainer in the eye wash tee piece.

WATER QUALITY CHECK

Enware recommends that water quality is checked for suitability of use in an emergency. These checks should be done periodically (at intervals based on the specific site risk assessment) to determine if the flushing fluid needs to be replaced.

CLEANING THE TANK

It is recommended to empty the tank periodically to ensure good water quality. The interval will depend on the specific site risk assessment.

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