

User Guide

Concrete Washout System



Product Information

Overview

The Conquip Concrete Washout System is an innovative approach to recycling and reusing waste concrete water on construction sites. Not only will it improve your environmental footprint, the system is easy to use, safe and cost effective.

It is made up of 3 different components; a filtration tray, a skip washing platform and a water storage tank.

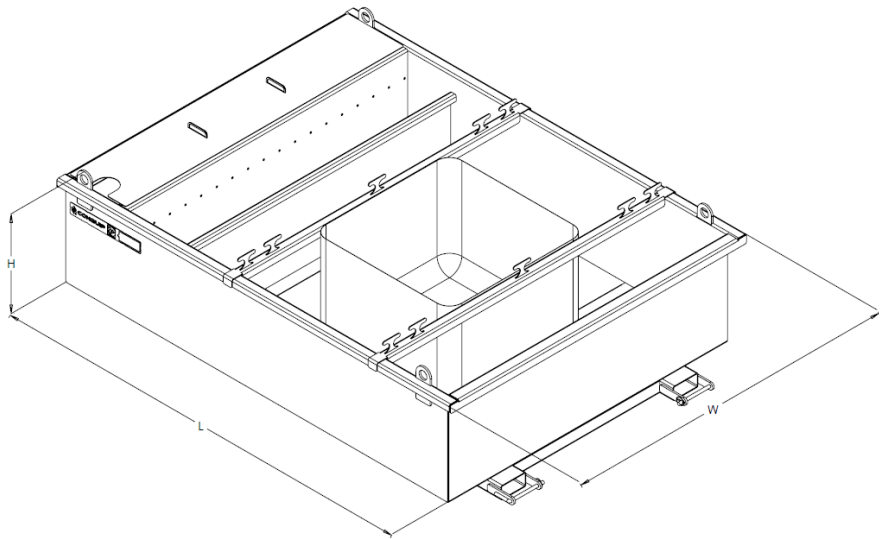
Key Benefits

- Complete environmentally-friendly methodology for concrete washout and reusing concrete waste water.
- Can be used for different applications, including washing of concrete skips and concrete trucks.
- Compact, space saving system.
- Compatible with the Conquip concrete blowout attachment and previous models of skip washing systems.

Product Information

Specification

Item	Product Code
Filtration Tray	CS236AB-02100



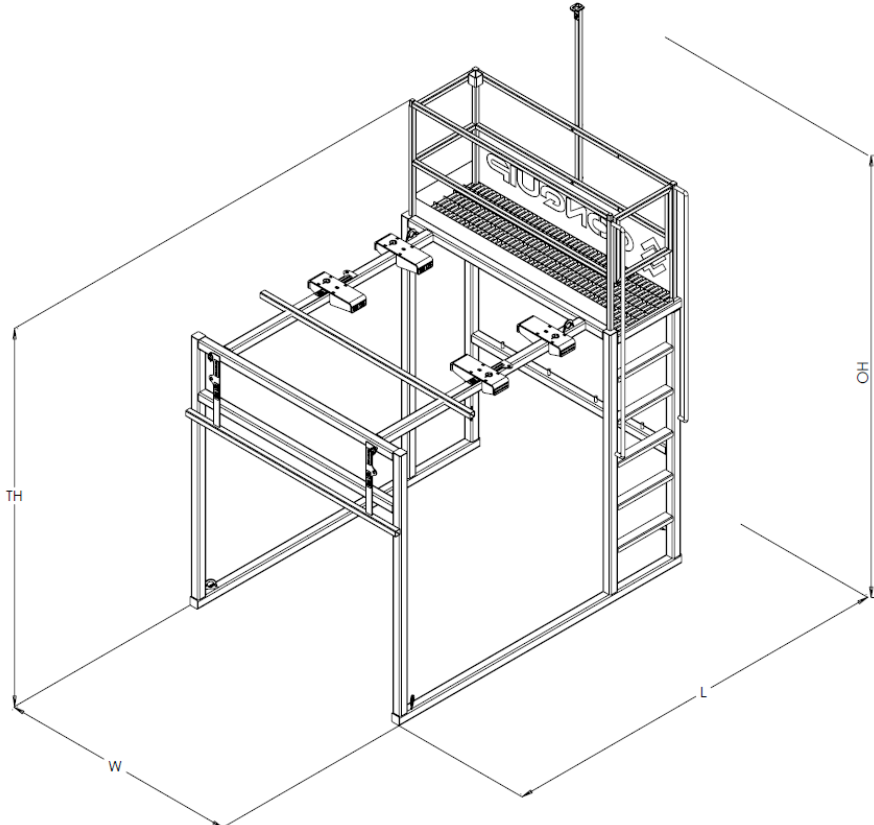
¹Working Load Limit

Height	Width	Length	Weight	WLL ¹	Capacity	Fork Pocket
764mm	1900mm	2613mm	565kg	1000kg	2100 litres	150 x 70mm

Product Information

Specification

Item	Product Code
Skip Washing Platform	CS241

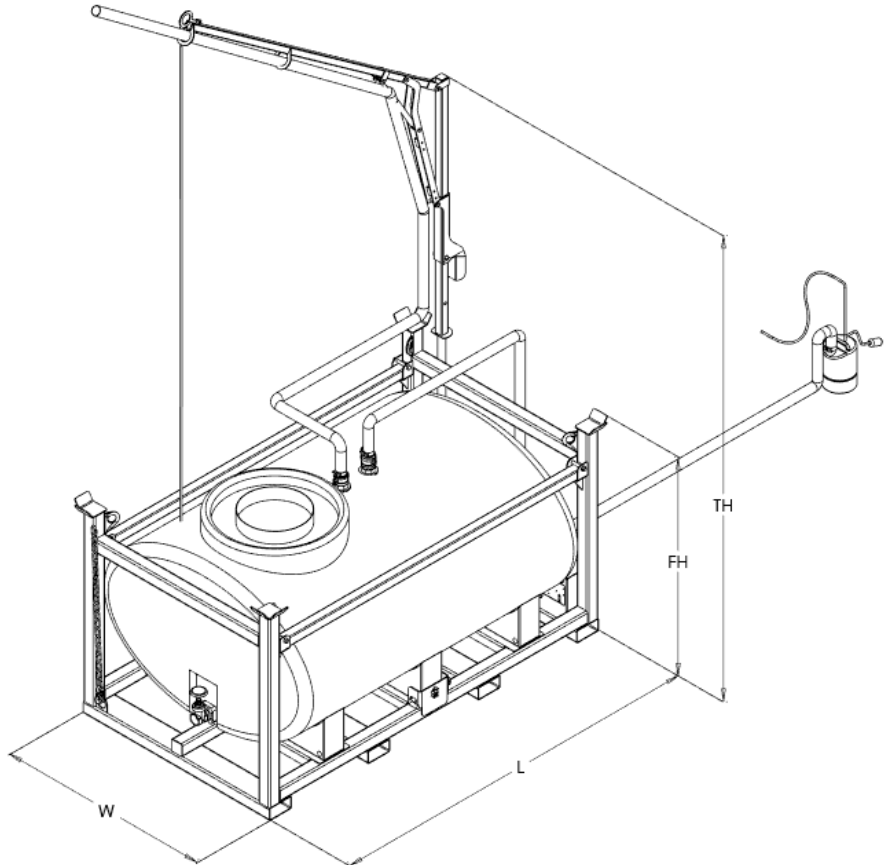


Overall Height	Transport Height	Width	Length	Weight
4395mm	3367mm	2208mm	2960mm	590kg

Product Information

Specification

Item	Product Code
Water Storage Tank	FB306-02000



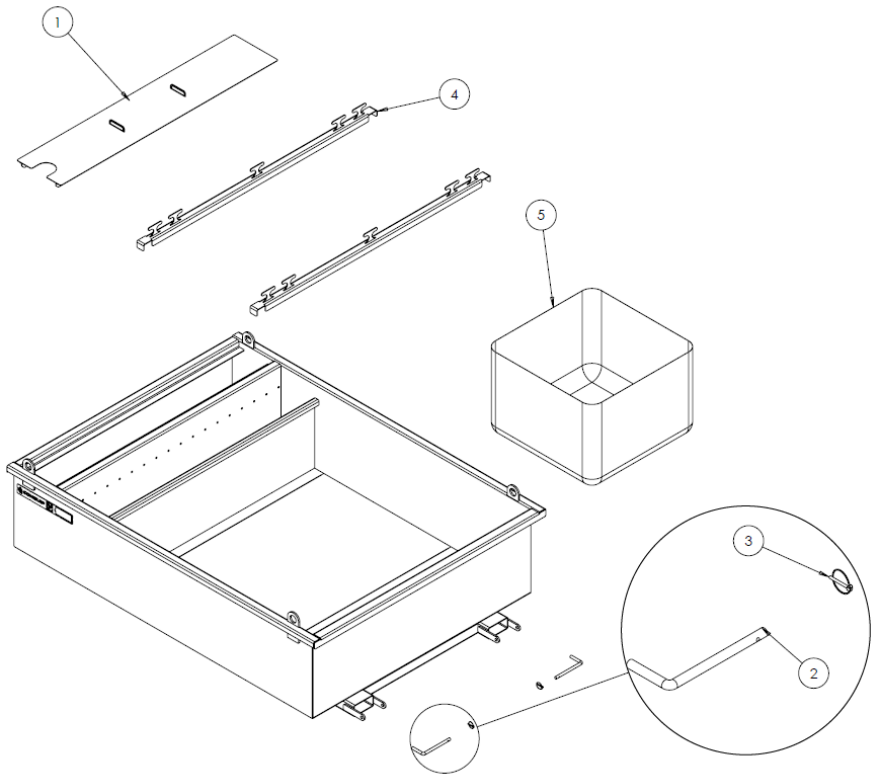
¹Working Load Limit

Frame Height	Transport Height	Width	Length	Weight	WLL ¹	Fork Pocket
1333mm	2900mm	1500mm	2593mm	570kg	2000kg	150 x 70mm

Product Information

Parts Diagram

Filtration Tray



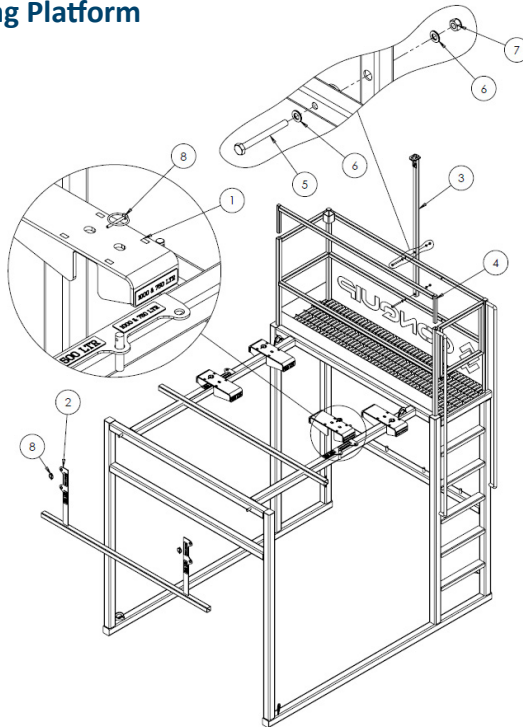
NOTE: These parts are for this model, they may differ for previous versions. Please contact Conquip with any queries.

Item Number	Part Number	Description	Quantity
1	ZZ120232	Pump Chamber Cover Plate	1
2	ZZ990000	16mm Heel Pin	2
3	ZZ990009	6mm Linch Pin	2
4	ZZ120223	Bulk Bag Rail	2
5	ZZ960046	Filter Bag	1

Product Information

Parts Diagram

Skip Washing Platform

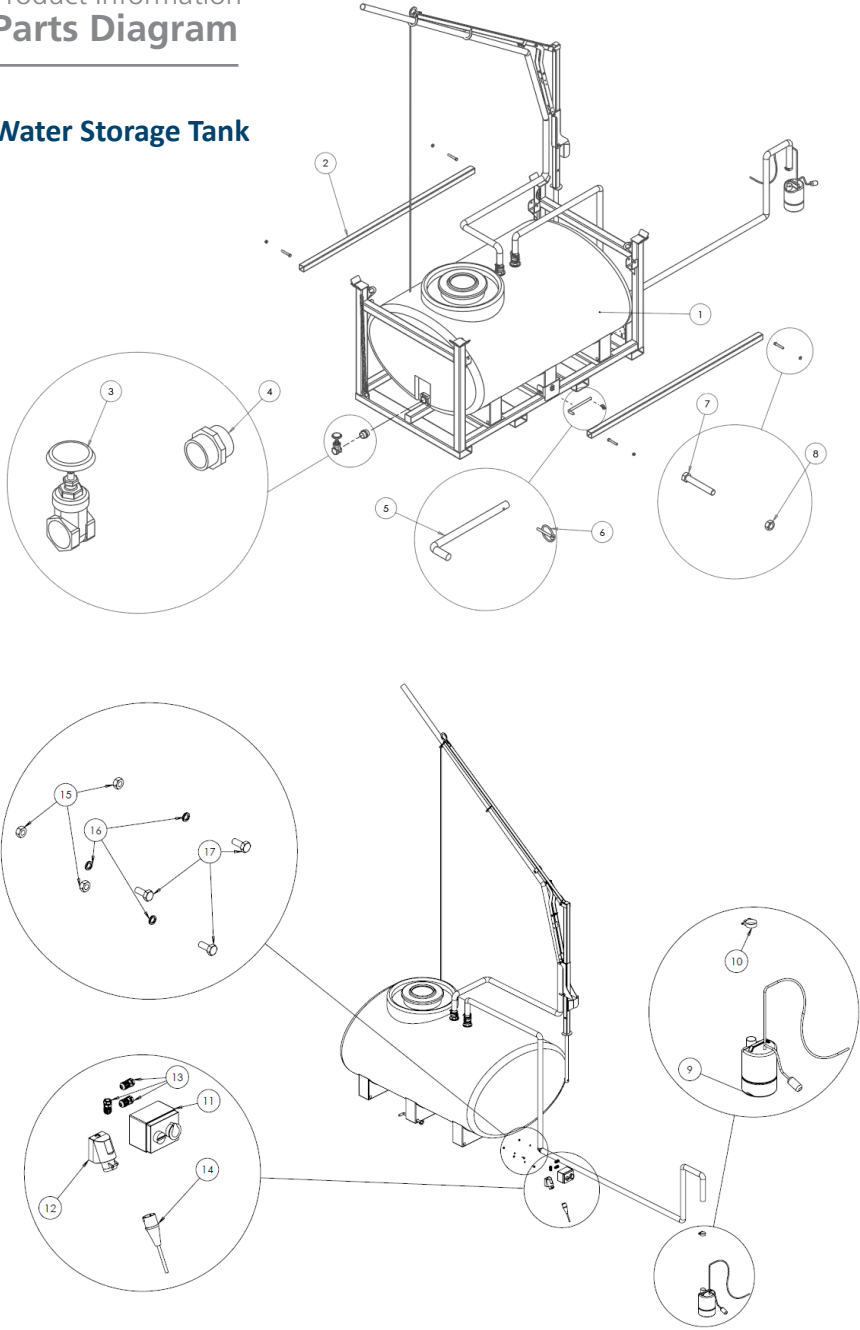


NOTE: These parts are for this model, they may differ for previous versions. Please contact Conquip with any queries.

Item Number	Part Number	Description	Quantity
1	ZZ120233	Adjustment Bracket	4
2	ZZ120234	Adjustment Cross Bar	1
3	ZZ120235	Harness Point	1
4	ZZ120236	Removeable Handrail	1
5	NS800138	M10 x 100 Hex Head Set Screw	2
6	NS800262	M10 Washer	4
7	NS800013	M10 Nyloc Nut	2
8	ZZ990009	6mm Linch Pin	6

Product Information
Parts Diagram

Water Storage Tank



NOTE: These parts are for this model, they may differ for previous versions. Please contact Conquip with any queries.

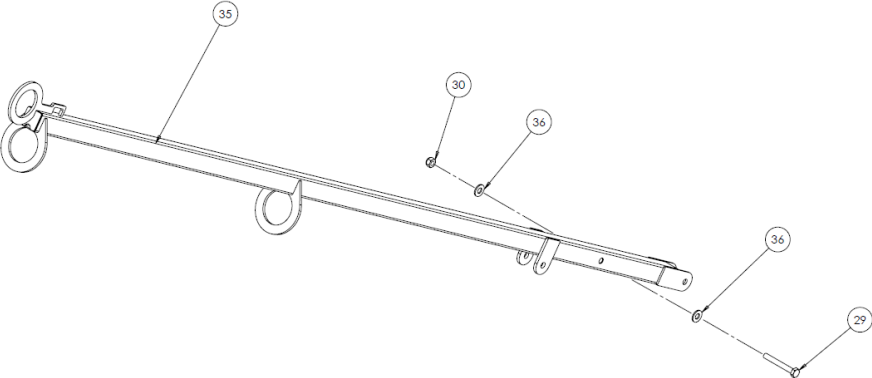
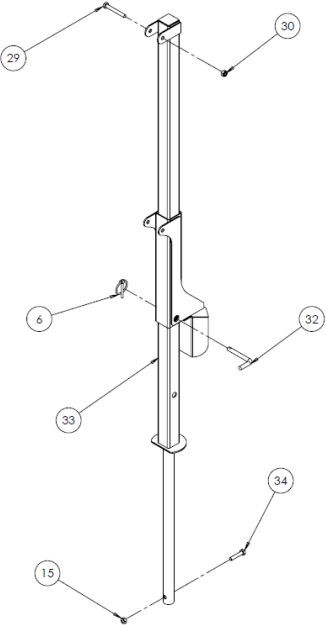
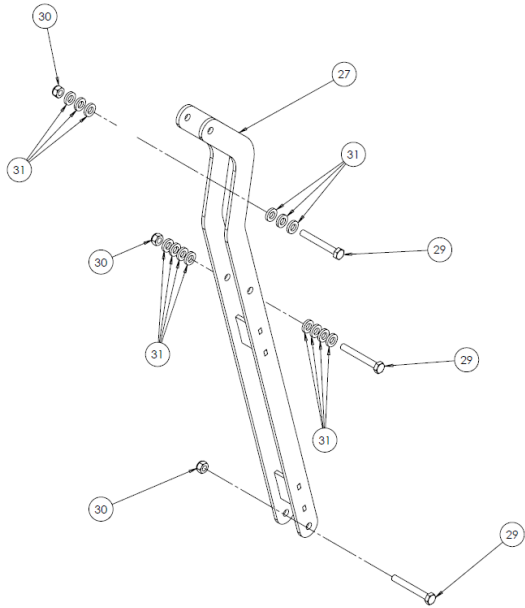
Item Number	Part Number	Description	Quantity
1	ZZ990461	2000 litre Horizontal Transport Tank	1
2	ZZ120226	Removable Spreader / Retaining Bar	2
3	ZZ990468	Stopcock Valve BSP 2" Female	1
4	ZZ990469	2" Nipple (Connector) UPVC	1
5	ZZ410015	20mm Heel Pin	2
6	ZZ990009	6mm Linch Pin	3
7	NS800835	M16 x 100 Set Screw	4
8	NS800380	M16 Full Nut	4
9	ZZ990457	Submersible Pump	2
10	ZZ990459	Hose Clamp for 2" Hose	5
11	ZZ990473	Switched Power Socket 110V 16A	1
12	ZZ990474	Unswitched Power Socket 110V 16A	1
13	ZZ990476	M20 Plastic Cable Gland	3
14	ZZ990475	Lead 14m 110V 16A	1
15	NS800017	M10 Full Nut	3
16	NS800396	M10 Spring Washer	3
17	NS800063	M10 x 25 Hex Head Set Screw	3
18	ZZ990492	Camlock Coupling Alu 2" Male to Hosetail BSP	1
19	ZZ990493	Camlock Coupling Alu 2" Female to Male BSP	1
20	ZZ990472	Plastic 2" Tank Connector	2
21	ZZ990471	Camlock Coupling Alu 2" Male to Female BSP	2
22	ZZ990470	Camlock Coupling Alu 2" Female to Hosetail BSP	2
23	ZZ990458	Superelastic PVC Hose 620mm	1
24	ZZ990458	Superelastic PVC Hose 5380mm	1
25	ZZ990458	Superelastic PVC Hose 6000mm	1
26	ZZ120029	Transportation/Holding Rope 3m	1
27	ZZ120228	Hose Gas Strut Bracket	1

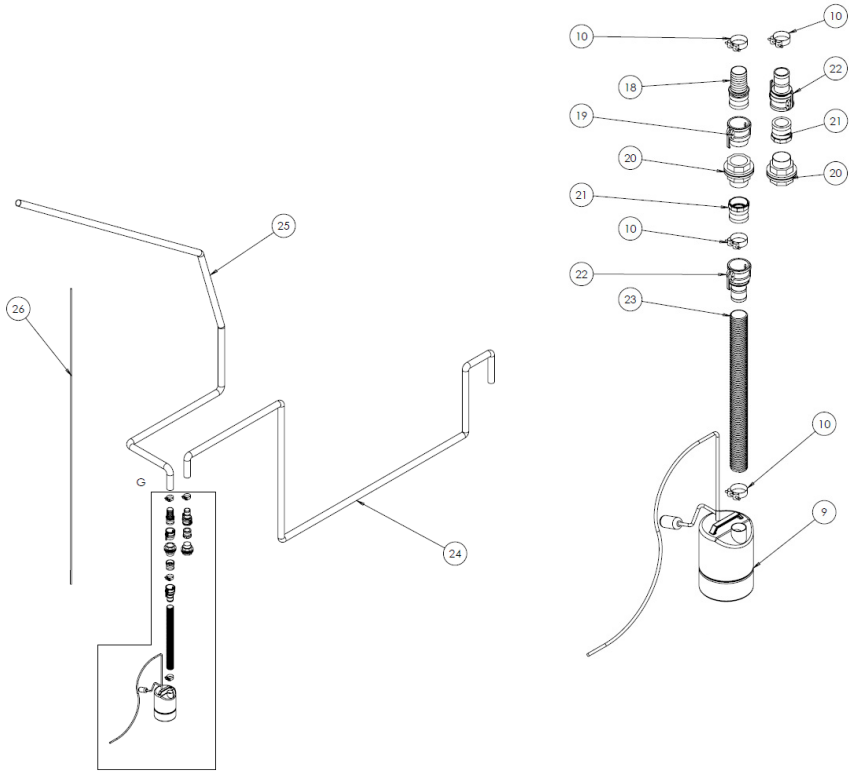
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Product Information

Parts Diagram

Water Storage Tank





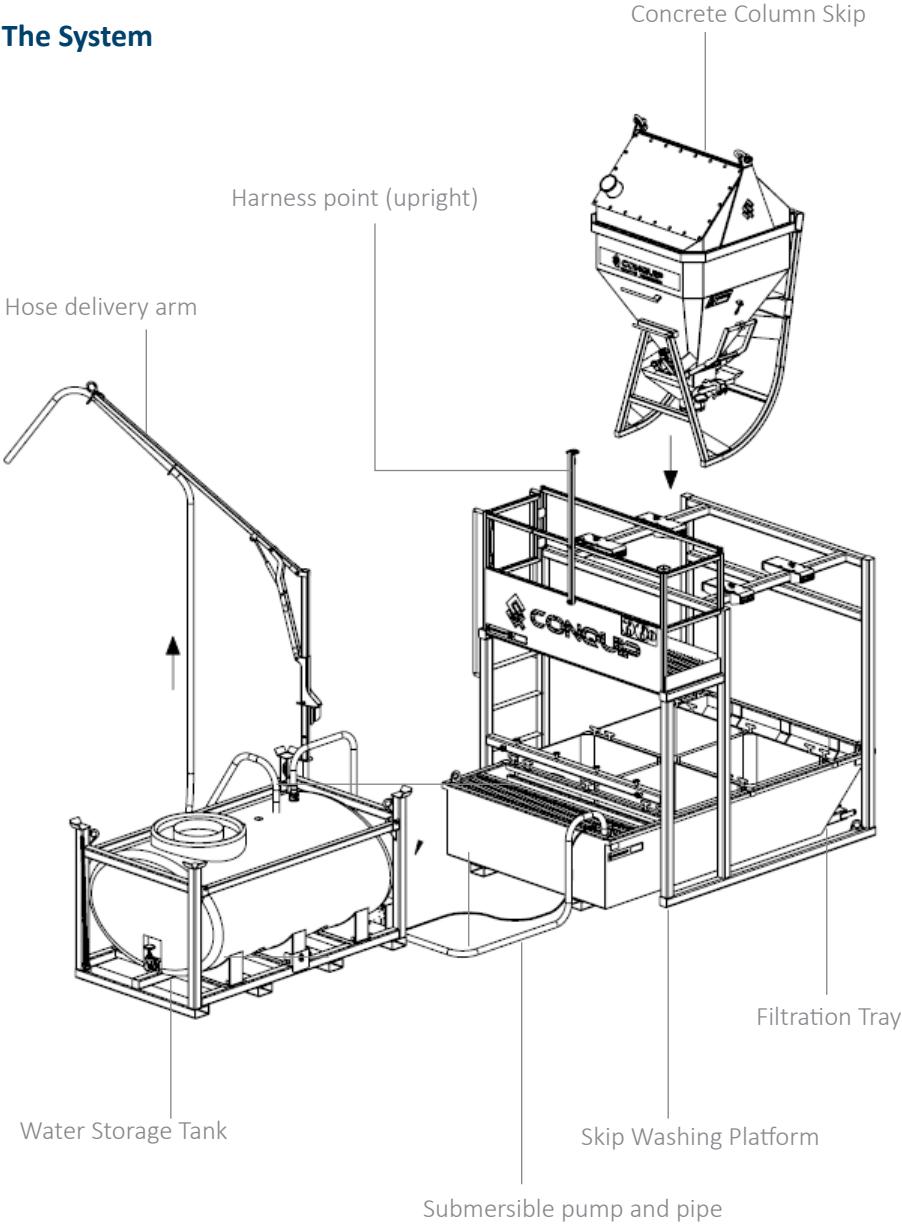
NOTE: These parts are for this model, they may differ for previous versions. Please contact Conquip with any queries.

Item Number	Part Number	Description	Quantity
28	ZZ960042	Gas Strut Fixed Force 1500N	1
29	NS800138	M10 x 100 Set Screw	5
30	NS800013	M10 Nyloc Nut	5
31	ZZ960066	M10 Washer 4mm	14
32	ZZ960068	Securing Pin	1
33	ZZ120227	Upright Hose Arm Assembly	1
34	NS800870	M10 x 60 Set Screw	1
35	ZZ120229	Long Reach Hose Arm	1
36	ZZ960067	M10 Washer 2.5mm	2

Original Working Instructions

Usage Instructions

The System



Original Working Instructions

Usage Instructions

Important Installation Notes

- If removing lifting chains from the platform, ensure that you are using a certified access platform for working at height.
- The tank already has a second submersible pump fitted inside.
- The Filtration Tray is supplied with a heel pin; this must be fitted correctly before use. If the heel pin is missing do not use the equipment, do not use alternatives, but contact Conquip Engineering Group for a replacement.
- Ensure the harness point is down when the Skip Washing Platform is being transported.

Installation Instructions

1. Before starting to set up the system, ensure that there is a safe and approved 110V electricity supply at close proximity to the designated set up area.
2. Check that all components, tools and equipment required for the assembly are available before starting.
3. To attach the Filtration Tray to a forklift, first release the heel pin by removing the lynch pin and pulling from the attachment. Set the machine's forks to the correct width for the Filtration Tray fork pockets. Make sure that they are equidistant from the centre.
4. Drive the telehandler to the Filtration Tray aligning the forks with the Filtration Tray fork pockets.
5. Double check that all is correctly aligned, then move the telehandler forward until the forks are fully inserted into the fork pockets.
6. Apply the park brake and switch off the forklift engine.
7. Insert the heel pin ensuring it passes behind the heel of the fork, use the lynch pin to lock the heel pin in place. The Filtration Tray is now ready to move.
8. Position the Filtration Tray in the designated area with clear space above and on all sides.
9. Crane lift and lower the Skip Washing Platform over the tray, using certified lifting chains attached to the lifting eyes on the top of the frame. Ensure both legs are outside the tray and sit level on the ground.

Original Working Instructions

Usage Instructions

Installation Instructions Continued

10. With the Skip Washing Platform in position, the Harness Point Upright can be moved into position. The central bolt should be loosened slightly and the outer bolt removed completely. Swing the post upright and refit the central bolt to fix the upright to the mid-rail. Tighten both bolts.
11. Remove the cover of the section at the rear of the tray and lower the submersible pump into it. Replace the lid, taking care that the pipe fits through the hole in the cover.
12. Position the Water Storage Tank at the rear of the Filtration Tray and the Skip Washing Platform and connect the pipe from the Filtration Tray.
13. Plug in the power source for the pump that is in the tray. This has an auto-switch that will ensure it starts to pump as the water level rises.

Existing Conquip Skip Washing Frame

The following instructions are specifically for those retrofitting the new Conquip Concrete Washout System to the existing upright Skip Washing Platform (CS231).

1. Before starting to set up the system, ensure that there is a safe and approved 110V electricity supply at proximity to the designated set up area.
2. Check that all components, tools and equipment required for the assembly are available before starting.
3. Position the Filtration Tray in the designated area with clear space above and on all sides (as per Installation Instructions 3- 8 on the previous page).
4. Place the framework, listed as Skip Frame Upstand, over the Filtration Tray ensuring that the 2 steps on the same side as the Skip Washing Platform ladder.
5. Crane lift and lower the Skip Washing Platform over the tray and upstand, using certified lifting chains attached to the lifting eyes on the top of the frame. Ensure both sides of the frame slot into the 'V' shaped guides on the upstand below.
6. Use the cross braces and bolts to fix the Skip Washing Platform to the Skip Frame Upstand.
7. Make sure the frame is stable and firm.
8. Follow Installation Instructions 10- 13 to complete the Installation process.

Usage Instructions

1. Arrange a filtration bag inside the filtration tray near to the location of washing out. For example, if washing out a concrete skip the bag needs to be positioned in the middle of the tray, beneath where the skip will discharge the material.
2. Secure the filtration bag to the rails that are placed across the filtration tray by putting the bolt bag handles around the hooks on the rail.
3. Begin to wash out the concrete equipment directly into the filtration bag, as per instructions on pages 16-17.
4. As the bag begins to fill up with large aggregate this can be crane lifted out of the tray and disposed of.
5. In the tray, the water, free from heavy aggregate, flows over a weir into the second section of the tray.
6. In the second section, remaining sediment sinks to the bottom, while water, free from particles, can flow through the holes into the third and final section of the tray.
7. As the final section of the tray starts to fill up with water the pump will start pumping automatically, transferring water from the tray to the water storage tank.
8. When the water in the tank needs to be pumped into the concrete truck or elsewhere, operate the switch for the pump in the tank.
9. To adjust the hose delivery arm on the Water Storage Tank, remove the pin and push the arm up to full height, then re-insert the pin.
10. The pump in the tank pumps water at a rate of 225litres/min. (In under 9 minutes the pump can empty a full tank of water).
11. The water that is pumped into the truck is taken back to the concrete batching plant to be reused. Alternatively, the stored water can be crane lifted onto a concrete slab for use in a wet-curing process or used for cleaning concrete equipment.
12. If any large aggregate material is left in the first section of the tray it can be removed using a shovel.

Original Working Instructions

Usage Instructions

Using the Skip Washing Platform

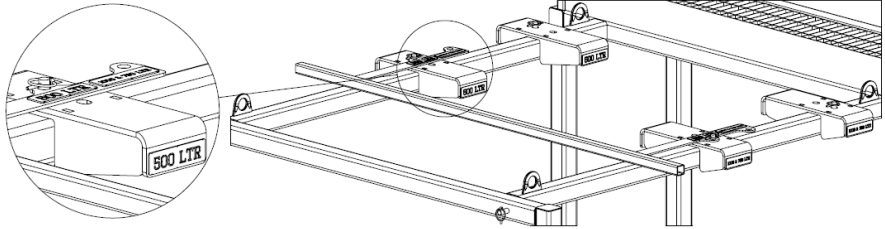
1. Platform operators should wear a suitable safety harness with lanyard, adjusted to suit and attached to the harness point.
2. The cleaning process creates wet concrete waste which is a hazardous alkaline compound. When working with wet concrete operators must wear suitable PPE including alkali resistant gloves, full body suit and face protection in addition to the site PPE requirements determined by the risk assessment.
3. The wash hose or jet-washer lance can be stored in the holster attached to the hand rail, but this must be arranged in a safe manner.
4. High pressure washing equipment should be subject to additional risk assessment and hazard controls.
5. The platform front hand rail may be removed and stored in the top of the rear rail to improve access for skip washing. The rail should be returned to its original position whenever there is not a skip in the platform.
6. The platform can be configured to Conquip Column Skips from 500 litres The configurations must be changed before lifting a skip into the platform.
7. The configuration is changed with four adjustable resting pads and a restraint bar. The resting pads can be adjusted by removing the linch pins, lifting off the restraint bar and resting pads, rotating the resting pads 180° so a smaller/larger length is overhanging into the skip holding area and replace the linch pins. For the largest sizes of skip the resting pads and the restraint bar will need to be removed completely. The restraint bar can be stored on the end of the Skip Washing Frame, secured with a linch pin, when not required. The drawings on page 17 show what configuration is required for each size of skip.

Original Working Instructions

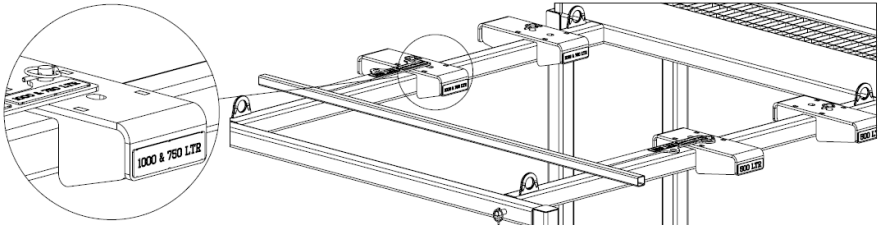
Usage Instructions

Configuration

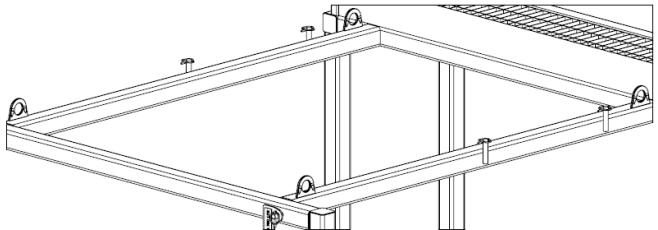
500 litre skips



1000 & 750 litre skip



1500, 2000 & 3000 litre skip



Cleaning a Conquip Column Skip

1. Ensure that the open 'mouth' of the column skip is facing the personnel platform of the skip washing frame.
2. If you are cleaning a Column Skip with lifting chains, the chains can be lowered to the most convenient position before unhooking from the crane. If you are cleaning a skip with a bale arm, the bale arm must be lowered to the safe position before unhooking from the crane.
3. When the skip is in the correct position it may be unhooked from the crane or remain attached according to operational requirements and site risk assessment. The crane must not be moved when an operator is on the platform.
4. Using a wash hose or jet-washer, clean the skip, removing all waste concrete from the skip.
5. Once the skip is clean and free of all loose waste and water, it can be lifted away. The wash operator must leave the platform and be clear of the area before the skip is lifted away.

Cleaning a Concrete Truck Chute

1. Position the truck so the concrete chute is over the filtration bags in the filtration Tray.
2. Using a wash hose or jet-washer, clean the chute, removing all waste concrete, ensuring the waste falls into the filtration bags below.
3. Once the chute is clean, it can be folded up and the truck driven away.

Original Working Instructions

Safety Instructions

Basic Safety

A site-specific Risk Assessment, and lift plan where applicable, must be completed by the responsible person before using this equipment to control risks, produce a safe system of work and ensure safety for you, your colleagues and others. Your risk assessment will determine the correct Personal Protective Equipment (PPE) for the task you are doing. You must use it. Conquip recommends that you should wear:

- Suitable clothing
- Gloves
- Hard hat
- Protective footwear (steel toecaps)
- Safety glasses
- Safety Harness



Important Safety Notes

- Read these instructions before using this equipment. If there is anything you do not understand or if you have any concerns do not use this equipment. Contact your supervisor or Conquip Engineering Group for advice.
- You must check that you have considered all the safety requirements for the task you are doing and that this equipment is suitable.
- You must protect bystanders and the general public by preventing access to the working area.
- Do not use this equipment if you are tired, unwell or under the influence of alcohol or drugs. If you are taking any medicine or undergoing treatment you should inform your supervisor.

Usage & Transportation

- Never unevenly load this equipment.
- The weight of the equipment, together with its attachments, must be added to the weight of the load when calculating the total load that will be imposed on the lifting apparatus / operating machine.
- This equipment must be used in conjunction with the load ratings of the lifting apparatus / operating machine. (Refer to the manufacturers' load ratings and original working instructions).
- Make sure you know how to use this equipment and understand all aspects of its operation in case of emergency.
- This equipment weighs more than 25kg. Do not lift or manhandle without machine assistance.
- Do not operate this equipment near overhead power lines.
- Take care in confined spaces, near ceilings or similar hazards. This equipment was designed for vertical lifting. Do not drag, or swing.
- Before operating this equipment, check that you have enough space for you to work safely and make sure that the working area is clear of hazards, obstructions and personnel.
- Before lowering equipment make sure that the landing zone is clear and capable of accepting the size and weight of the load.
- Crush Risk. Keep hands and feet clear of the equipment at all times to avoid injury.
- Do not exceed the maximum Working Load Limit (WLL) shown on the serial plate. Ensure that the WLL on the individual lift points is not exceeded.

Personnel

- All personnel must wear relevant personal protective equipment.
- Do not wear loose clothing or jewellery and tie back long hair to avoid becoming tangled or trapped in this equipment. You must make everyone in the work area aware of what you are doing.
- All personnel involved in the lifting operation must be competent to do so and must have been briefed in conjunction with this User Guide available from Conquip Engineering Group, the manufacturer.

Equipment Maintenance & Cleaning

- It is mandatory that the equipment is thoroughly examined regularly, by a qualified engineer, to ensure compliance with relevant regulation/s. (Conquip recommend to carry out thorough examination every six months).
- This product may incorporate various loose and detachable items of lifting gear. Refer to the separate requirements for the safe use of those items.
- When not being used, store the unit in a clean, upright condition and in a safe place where it will be protected from thieves and unauthorised users.
- This equipment must be inspected by the responsible person before each use and then regularly, as determined by your risk assessment or working practice. If you have any concerns about condition or suitability do not use.

Disclaimer

Warranty

The products supplied by Conquip Engineering Group are all guaranteed by a 12 month warranty.

Apart from where exceptions apply, Conquip Engineering Group promises to repair or replace any fault which the Company considers to be due to defective material or workmanship within 12 months of the date of sale, at no additional cost.

- Faults arising from unauthorised alterations (see modifications section below for full details).
- Damage caused by abuse, neglect, misuse or falling.
- Damage caused because of failure to follow transportation, storage, loading, cleaning or operating instructions.
- Replacement or repair of components due to fair wear and tear.
- Any consequential damage or wear arising from the use or fitting of additional or non-standard parts.

Modifications

If any third-party modifications or alterations, involving drilling, welding, cutting or distortion of materials in any form, are to be carried out on the product, Conquip Engineering Group must provide full written approval prior to the work being carried out.

Alterations, modifications, additions or repairs must be carried out by Conquip Engineering Group's recognised distributors, if they are not carrying out the work themselves.

Conquip Engineering Group operate a continuous improvement policy and therefore reserve the right to alter technical specifications and user guide details at any point without notice.

Conquip Engineering Group will not cover or reimburse any transportation and/or shipment costs to and from their premises or their recognised agents, or any material and/or labour costs for repair, replacement or assessment against a warranty claim.

Conquip Engineering Group and/or their directors, employees, insurers or recognised agents will not be held liable for consequential damages, losses or expenses relating to the inability to use the product correctly for its purpose.

Important Notes

- This User Guide is for this Conquip product only.
- Any movements of the product must be thoroughly planned before the work commences to identify potential hazards and assess risk.
- All personnel involved in lifting and transportation of this product must have read this User Guide and must be properly briefed.
- You must be competent, alert and medically fit when using this equipment. If you have a medical condition, a mental or physical disability, you must seek advice from a medical professional before using this equipment.

Talking to us is easy

We're here to help

Call us on 0800 116 076

Email us at sales@conquipgroup.co.nz

www.conquipgroup.co.nz