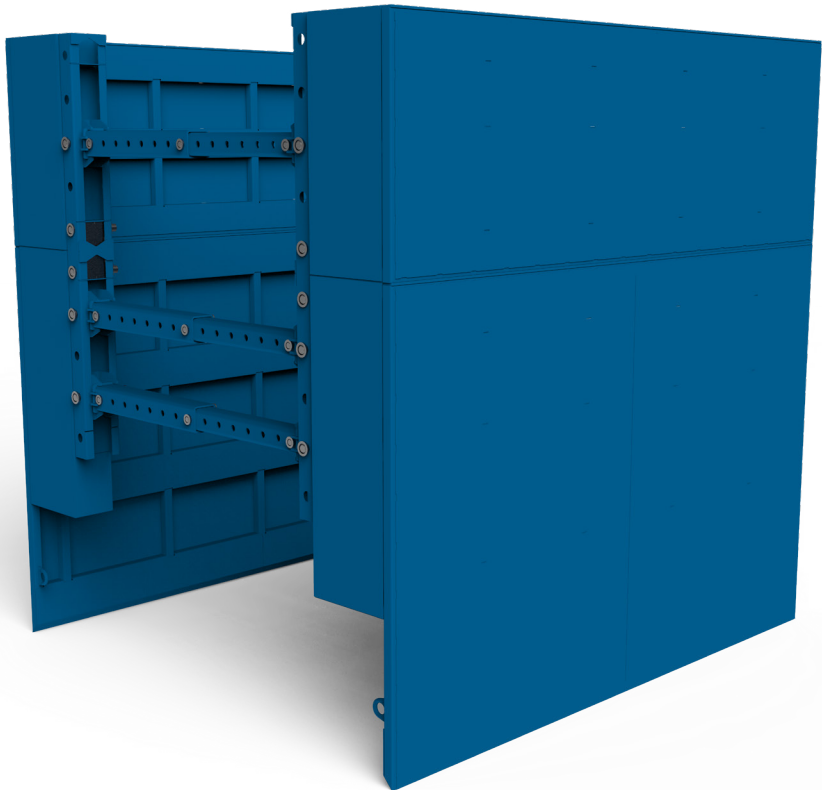


User Guide

Lightweight Manhole Box



Product Information

Overview

The Conquip Lightweight Manhole Box is a simple to assemble, two sided trench lining support system, designed to be installed by an excavator using the 'dig and push' technique, or by simply carrying out the excavation and then lowering each box in place.

The Lightweight Manhole Box is available in approximately 3m length and is generally suitable for trench depths of up to 4m.

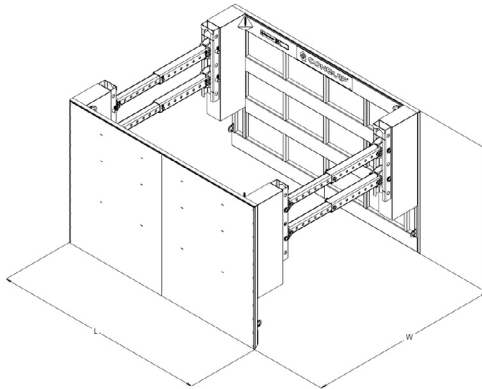
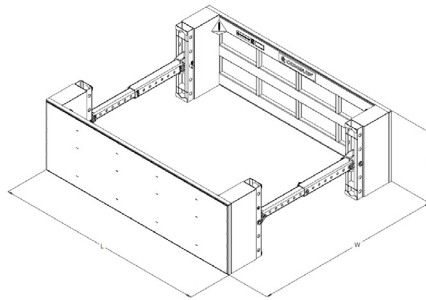
Manufactured in the UK from quality British and EU steel.

Conquip also supply a full range of suitable lifting and extraction chains, edge protection and trench access accessories.

Product Information

Specification

Item	Product Code
Lightweight Manhole Base Box 2.5m	TL104-00013
Lightweight Manhole Base Box 3m	TL104-00015
Lightweight Manhole Extension Box 2.5m	TL104-00014
Lightweight Manhole Extension Box 3m	TL104-00016



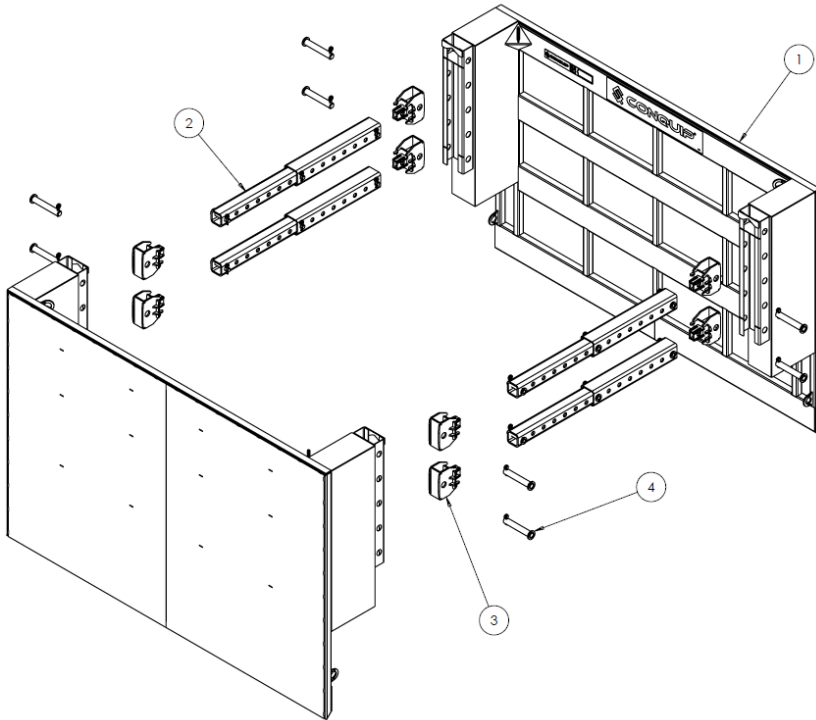
¹Working Load Limit

Product Code	Height	Width	Length	Weight	Limit State Design Load
TL104-00013	2000mm		2500mm	1225kg	23.5kn/m ²
TL104-00015	2000mm	See page 6	3000mm	1300kg	23.5kn/m ²
TL104-00014	1000mm		2500mm	840kg	23.5kn/m ²
TL104-00016	1000mm		3000mm	900kg	23.5kn/m ²

Product Information

Parts Diagram

Lightweight Manhole Base Box



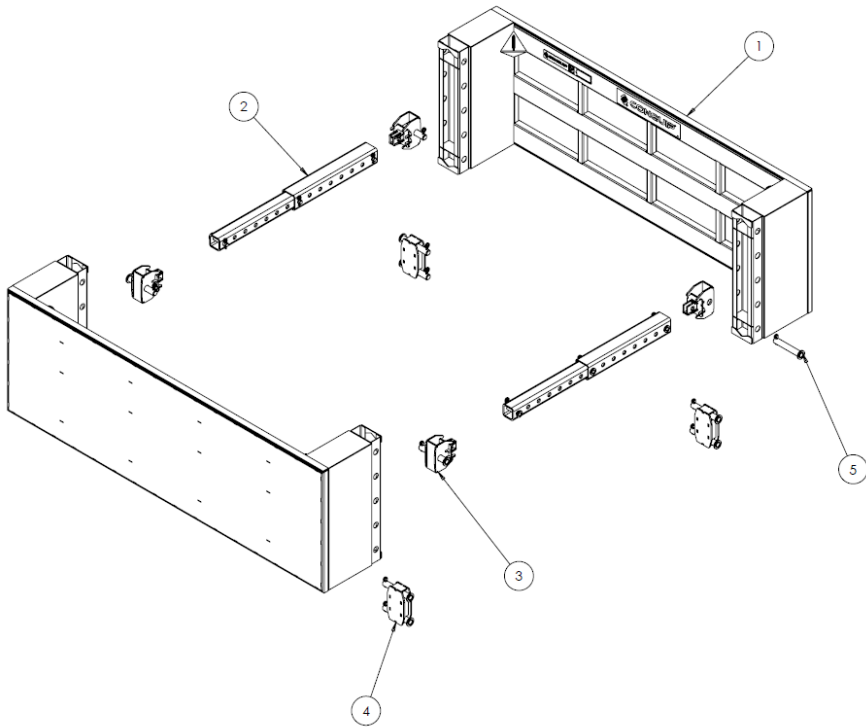
NOTE: These parts are for this model, they may differ for previous versions. Please contact Conquip with any queries.

Item Number	Part Number	Description	Quantity
1	TL900082	Trench Box Base Panel 2.5m	2
	TL900072	Trench Box Base Panel 3m	
2	See page 6	Strut Section	4
3	TL900041	Rocker Assembly	8
4	TL900043	40mm Pin Assembly	8

Product Information

Parts Diagram

Lightweight Manhole Extension Box

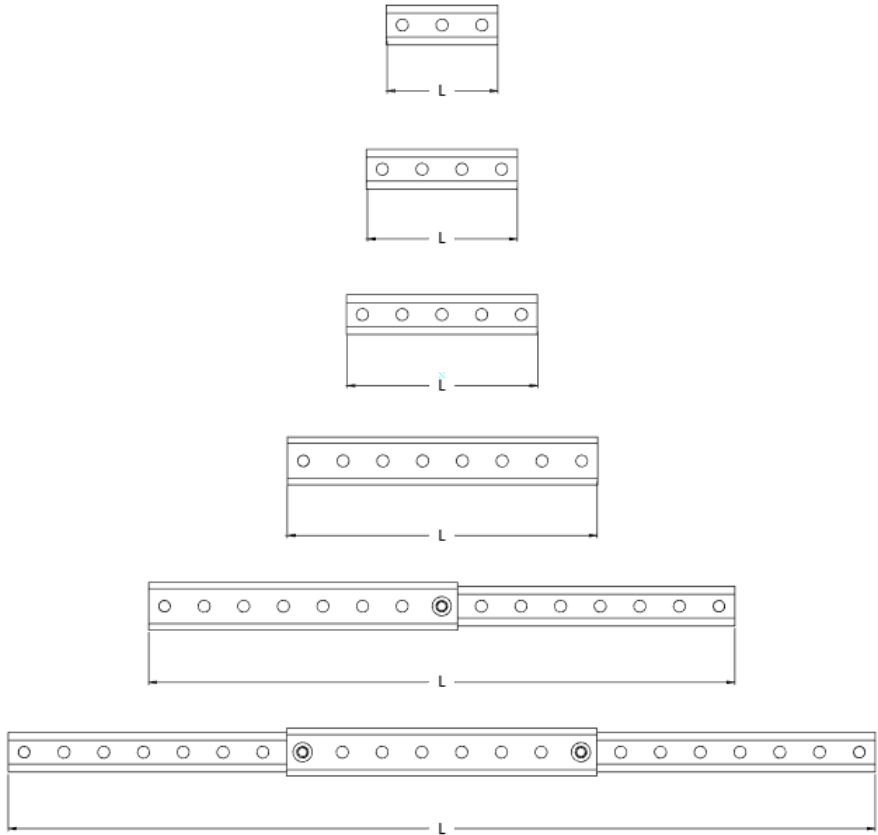


NOTE: These parts are for this model, they may differ for previous versions. Please contact Conquip with any queries.

Item Number	Part Number	Description	Quantity
1	TL900083	Trench Box Extension Panel 2.5m	2
	TL900073	Trench Box Extension Panel 3m	
2	See page 6	Strut Section	2
3	TL900041	Rocker Assembly	4
4	TL900046	Connecting Bracket	4
5	TL900043	40mm Pin Assembly	12

Product Information

Specification



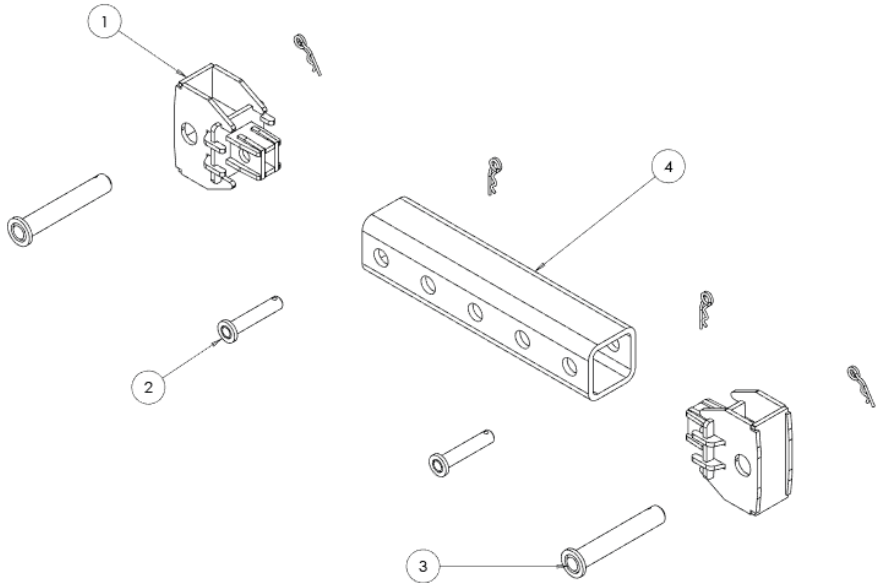
NOTE: The increments between each hole is 100mm. The resistance is 164kN.

Section	Trench Width (External)	Working Width (Internal)	Length (Extended)	Weight
1	1625mm	1565mm	280mm	3.4kg
1	1725mm	1665mm	380mm	4.7kg
1	1825mm	1765mm	480mm	5.9kg
1	1265mm	2065mm	780mm	9.6kg
2	2365 - 2965mm	2165 - 2765mm	1480mm	18.4kg
3	3065 - 3665mm	2865 - 3465mm	2180mm	27.2kg

Product Information

Parts Diagram

Incremental Struts 1 Section



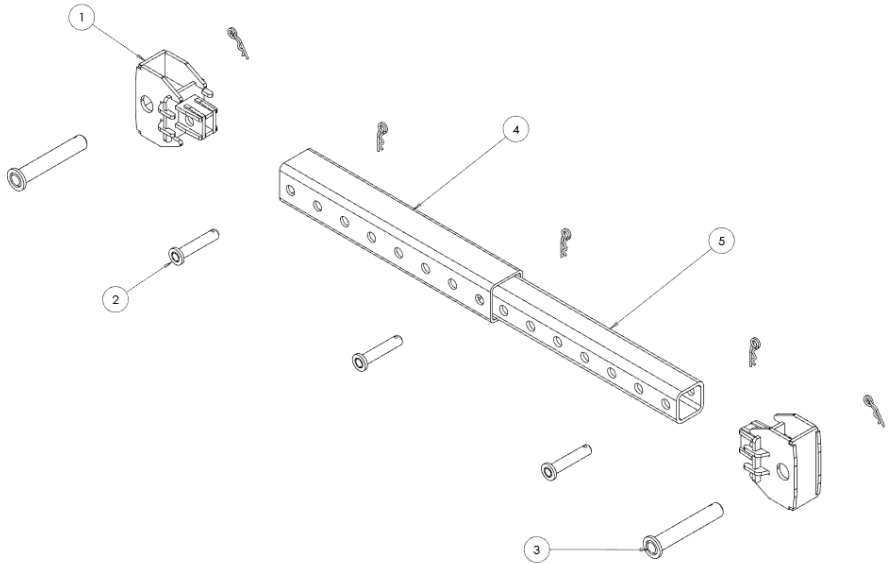
NOTE: These parts are for this model, they may differ for previous versions. Please contact Conquip with any queries.

Item Number	Part Number	Description	Quantity
1	TL900041	Rocker	2
2	TL900044	Pin 40mm \varnothing x 150mm	3
3	TL900043	Pin 40mm \varnothing x 250mm	2
4	TL900081	Strut, 280 x 100mm	
5	TL900074	Strut, 380 x 100mm	
6	TL900080	Strut, 480 x 100mm	1
7	TL900047	Strut, 780 x 100mm	

Product Information

Parts Diagram

Incremental Struts 2 Section



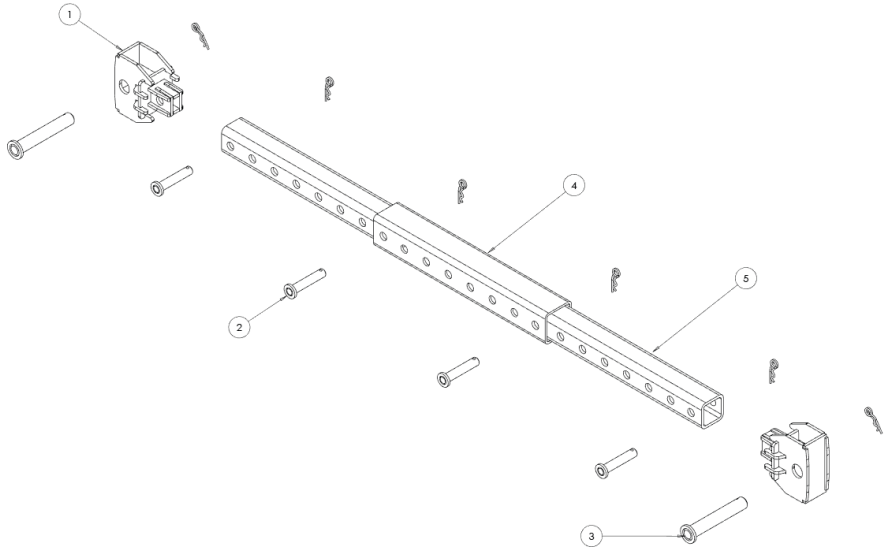
NOTE: These parts are for this model, they may differ for previous versions. Please contact Conquip with any queries.

Item Number	Part Number	Description	Quantity
1	TL900041	Rocker	2
2	TL900044	Pin 40mm \varnothing x 150mm	3
3	TL900043	Pin 40mm \varnothing x 250mm	2
4	TL900042	Strut, 780 x 120mm	1
5	TL900047	Strut, 780 x 100mm	1

Product Information

Parts Diagram

Incremental Struts 3 Section



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	TL900041	Rocker	2
2	TL900044	Pin 40mm \varnothing x 150mm	3
3	TL900043	Pin 40mm \varnothing x 250mm	2
4	TL900042	Strut, 780 x 120mm	1
5	TL900047	Strut, 780 x 100mm	2

Original Working Instructions

Usage Instructions

Important Usage Notes

- The Lightweight Manhole Box should only be used with one extension box connected. Do not attempt to connect or use with more than one extension box.
- Never enter an unsupported excavation.
- A top extension should be attached when the top of the base is approximately 200mm above ground level.

Installation Instructions

1. Excavate the ground to approximately 1m or deeper, as ground conditions permit.
2. Lower the box into the trench using a 4 leg chain sling of the correct capacity.
3. The excavator operator then digs progressively between the two faces of the box plates.
4. The operator then uses the back of the bucket of the excavator to push down on the 4 corners of the box in turn.
5. Repeat steps 3 and 4 until the desired depth is reached.
6. When attaching a top extension, these should be attached to the Base Box at each corner, using connectors supplied. Each connector is secured using a pair of pins and R-clips.

Extraction Instructions

1. To extract a Lightweight Manhole Box from the ground, simply reverse the installation process.
2. Start by backfilling the trench.
3. Progressively pull the box upwards using a certified 4 leg lifting chain sling.
4. If the top extension boxes have been used, these should be disconnected as the joint becomes clear of the ground and then lifted clear before reconnecting the sling to the Base Box and continuing the extraction.

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



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