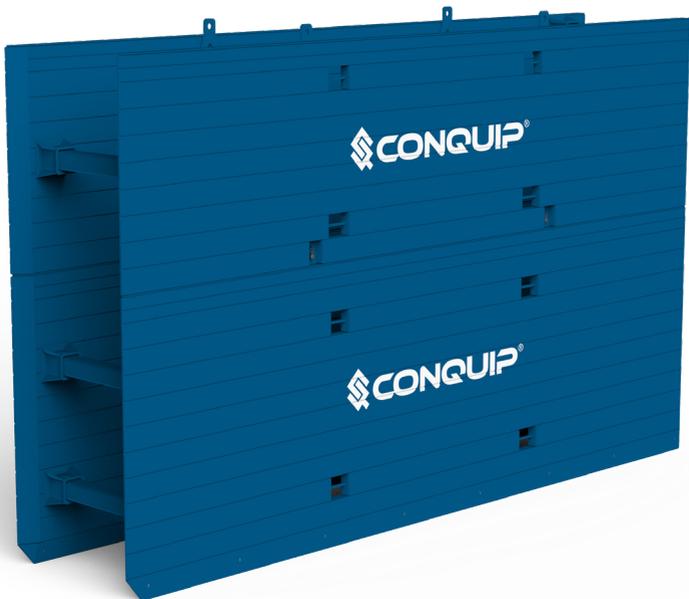




User Guide

# Drag Box

---



## Product Information Overview

The Conquip Drag Box is a simple to assemble, edge-supported trench lining system intended to be installed by an excavator using the excavate and drag technique.

They are designed to provide local support for trenches as transportable 'shields' generally in stable or self-supporting ground conditions. The Conquip Drag Box is normally selected for installing utility pipes in non-urban environments where increased laying rate is required and ground movements are not critical.

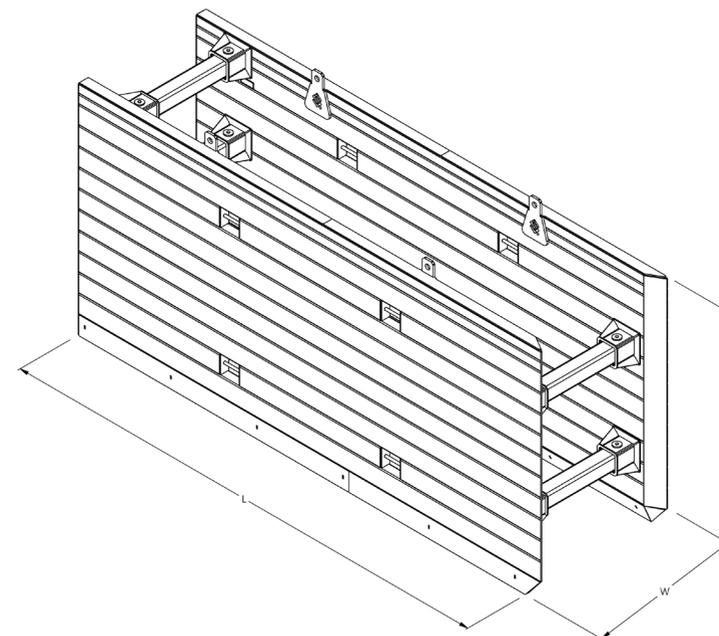
It is generally suitable for trench depths of up to 4.4m and trench widths of up to 3.2m.

All Conquip Drag Boxes are manufactured from Grade S355 British and European steel. The equipment is manufactured at our fabrication facility in the UK to the highest manufacturing standards held in the construction industry.

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

## Product Information Specification

Item	Product Code
Drag Box Base 5000	TL100-00002
Drag Box Extension 5000	TL100-00003
Drag Box Base 7000	TL100-00010
Drag Box Extension 7000	TL100-00011

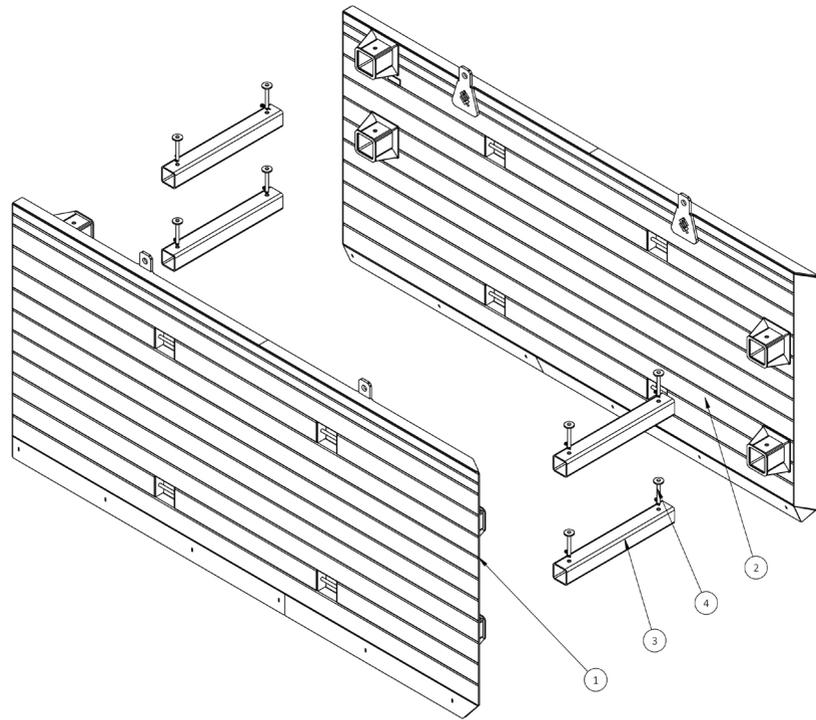


<sup>1</sup>Weight will be equal to or less than the weight stated depending on your strut configuration.

Product Code	Height	Working Width	External Length	Internal Length	Maximum Weight <sup>1</sup>	Limit State Design Load
TL100-00002	2410mm	600-3000mm	5000mm	4140mm	3,716kg	44kn/m <sup>2</sup>
TL100-00003	1810mm	600-3000mm	5000mm	4140mm	2,570kg	44kn/m <sup>2</sup>
TL100-00010	2410mm	600-3000mm	7100mm	6150mm	5,236kg	20kn/m <sup>2</sup>
TL100-00011	1810mm	600-3000mm	7100mm	6150mm	3,940kg	20kn/m <sup>2</sup>

Product Information  
**Parts Diagram**

**Drag Box Base Box**

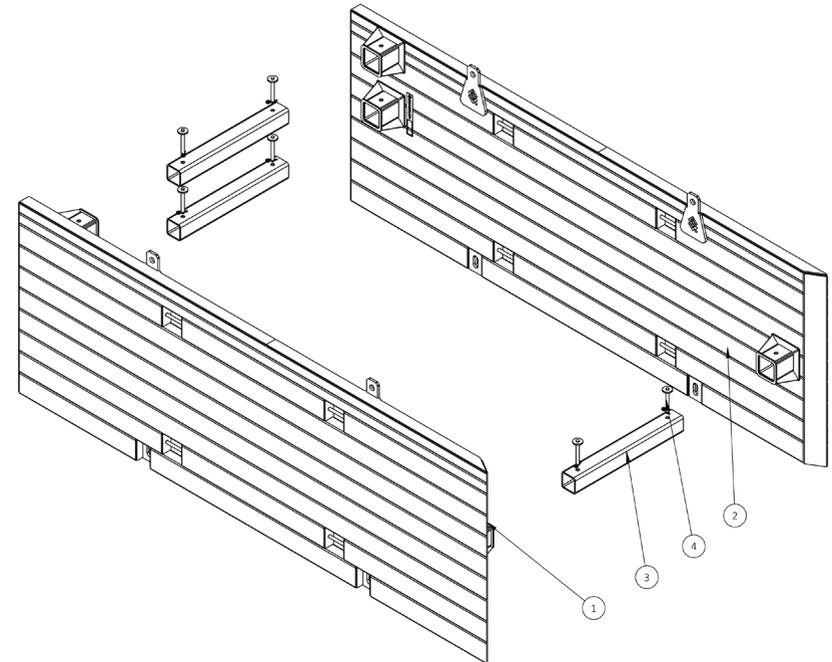


NOTE: These parts are for this model, they may differ for previous versions. Please contact Conquip with any queries.

Item Number	Description	Quantity
1	Drag Box Base Panel Left	1
2	Drag Box Base Panel Right	1
3	Drag Box Width Extension	4
4	25mm x 230mm Pins	8

Product Information  
**Parts Diagram**

**Drag Box Extension Box**



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

Item Number	Description	Quantity
1	Drag Box Extension Panel Left	1
2	Drag Box Extension Panel Right	2
3	Drag Box Width Extensions	3
4	25mm x 230mm Pins	6

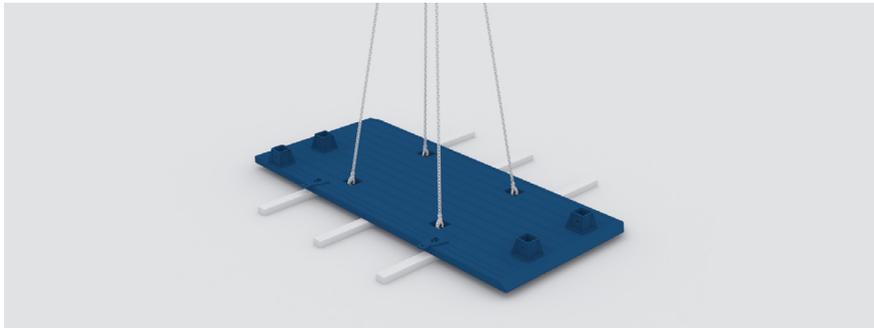
## Original Working Instructions

# Usage Instructions

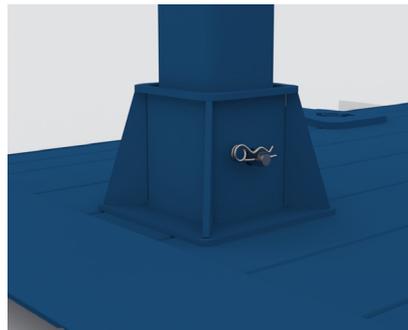
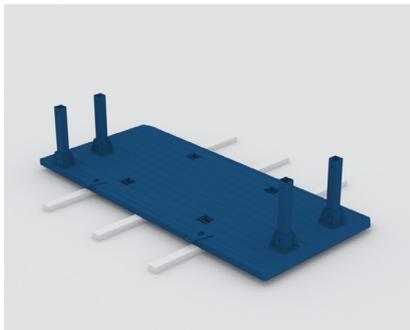
### Important Assembly Notes

- Top extension boxes are to be assembled in the same way but only two struts should be fitted.
- Extension boxes are secured to the base boxes using connector brackets and pins.
- Keep hands clear of naked surfaces.

### Assembly Instructions



1. Before assembling Conquip base boxes and extension boxes, lay timber bearers on the ground.
2. Attach a certified 4 leg chain sling to the four handling points of a side panel and lower onto the timber bearers with the flat face down.

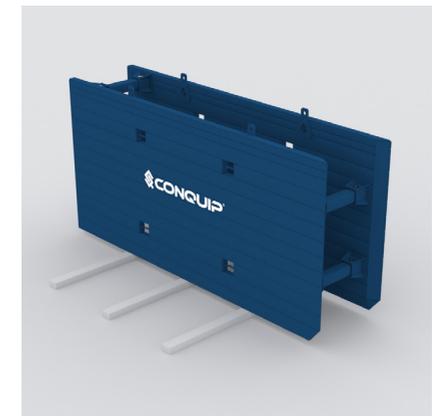


3. Place struts of equal lengths into the connection points protruding from the panel, secure using 25mm pins and R-clips.

Scan for video guide!



4. Connect the sling to the four handling points of the opposite base side panel (flat face up) and lower into position above the struts.  
**Do not detach the chains until the panel is secured to the strut assemblies.**
5. Secure the struts to the panel with the remaining 25mm pins and R-clips.



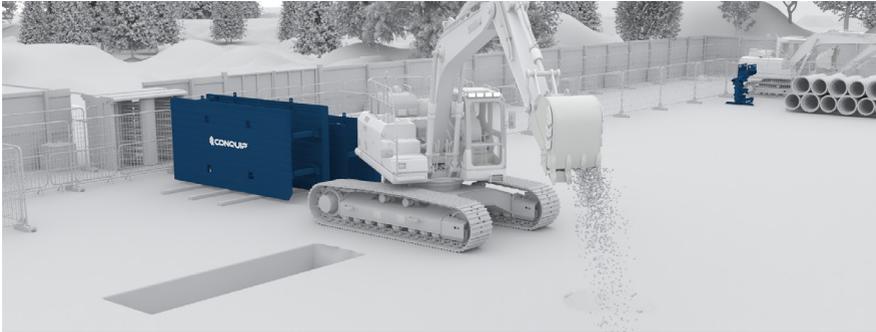
6. Connect a 4 leg chain to the lifting points on the top assembly.
7. Lift into its working position.
8. The box is assembled and ready to move into the trench.

## Original Working Instructions Usage Instructions

### Important Installation Notes

- All personnel involved in installation must wear relevant personal protective equipment.
- Never enter an unsupported excavation.
- When connecting extension boxes should be carried out when the top of the base is approximately 200mm above ground level.
- It is mandatory to use Edge Protection when carrying out trench support.

### Installation Instructions

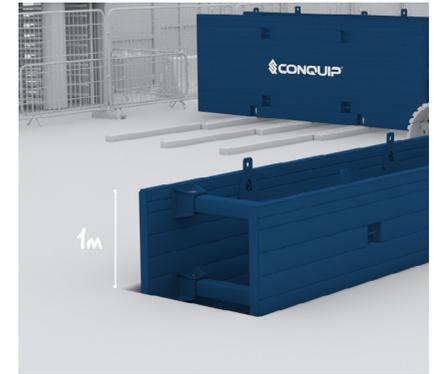
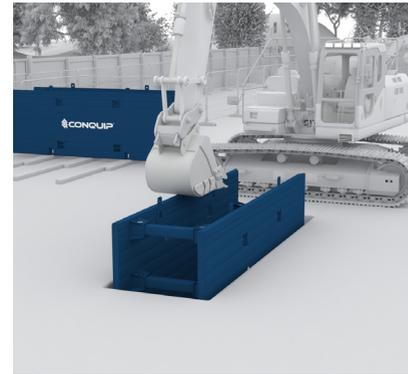


1. Excavate the initial section of the trench to the dimensions (length x width) of the Drag Box base unit Do not dig deeper than the legal limit of 1.2m.



2. Using an excavator or other suitable lifting apparatus, lower the Drag Box into the trench, with a suitably rated 4 leg chain.

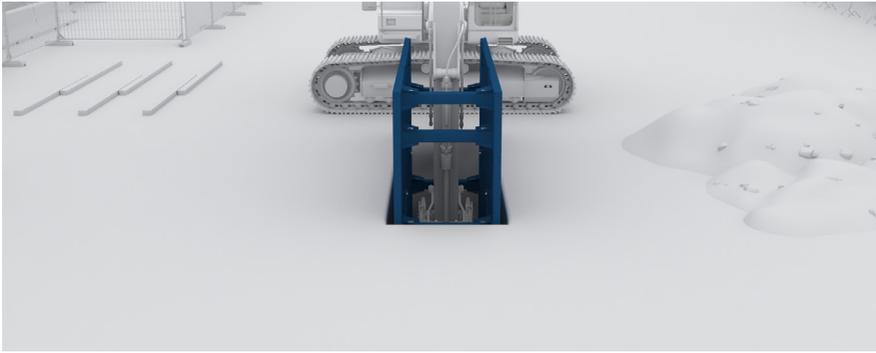
Scan for video guide!



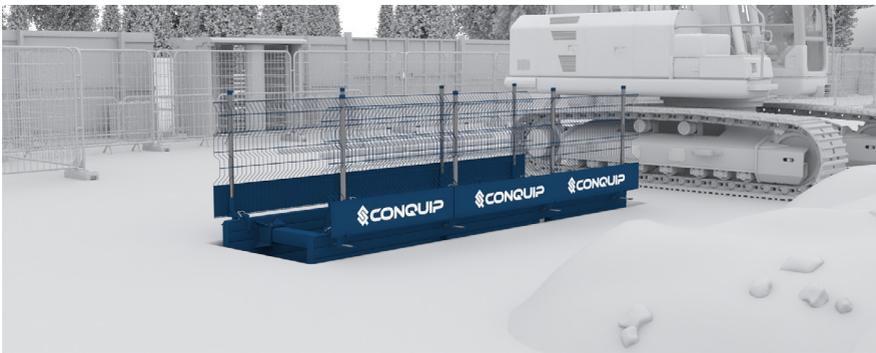
3. Dig between the panel faces and then use the back of the excavator bucket to push the base box down.
4. Conquip recommend the base box protrudes 1m above ground level before adding an extension box.



5. Attach a suitably rated 4 leg chain to the top lifting points of the extension box. Lift and carefully lower onto the base box.  
**Do not detach the chains until the extension box is secured.**
6. Connect using 25mm pins and R-clips.
7. Disconnect the lifting chains once the extension box has been successfully secured to the base box.



8. Continue to dig in between the panel faces until the desired depth is reached.



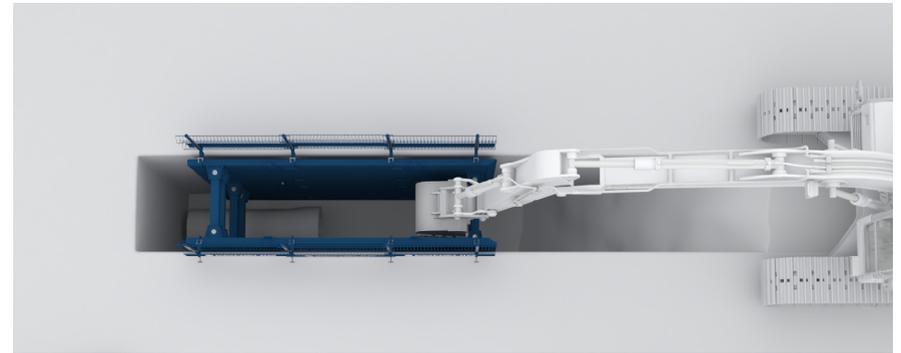
9. Suitable Conquip Edge Protection must be installed if the top of the Drag Box protrudes less than 1m from ground level.



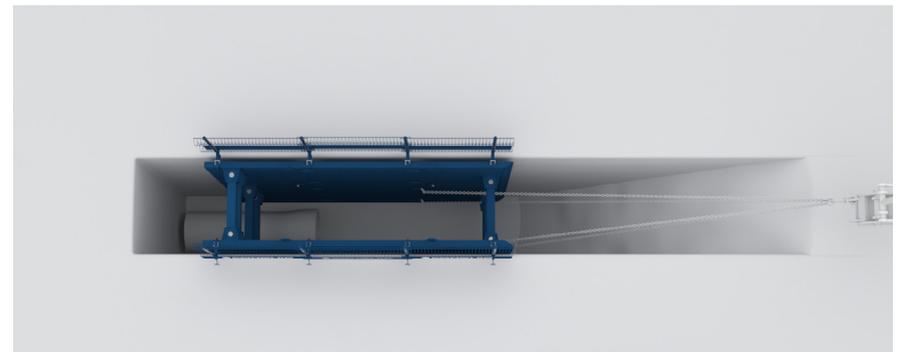
10. Lower the pipe into the Drag Box with the aid of a banksman ensuring all personnel are clear of the operation.



11. As work progresses, the operator digs ahead of the box.



12. **OPTION 01:** For strut assemblies up to 1180mm in length, hook the excavator bucket around the top strut and gently drag the box.



**OPTION 02:** For struts longer than 1180mm, drag by attaching a suitably rated four leg chain to the base box lifting points.

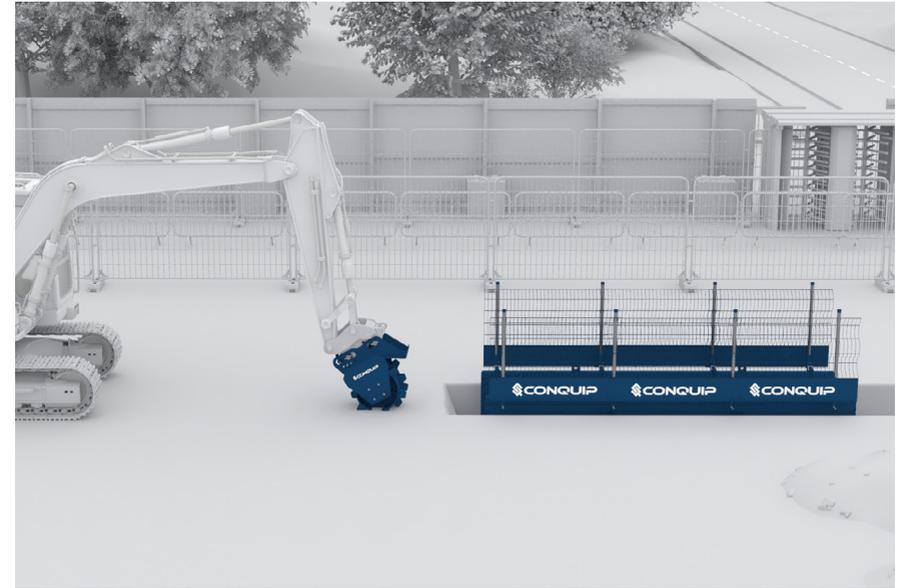
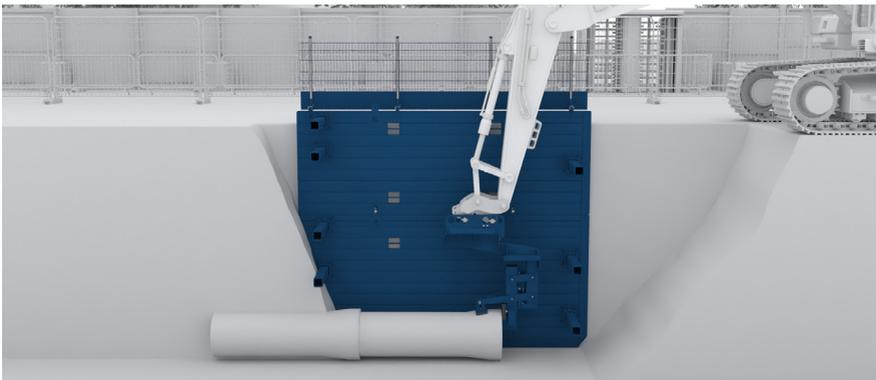


13. Backfill onto the pipes at the rear of the Drag Box.



14. Lower the next pipe into the Drag Box.

15. Our Excavator Mechanical Pipe Pusher allows for accurate pipe placement.



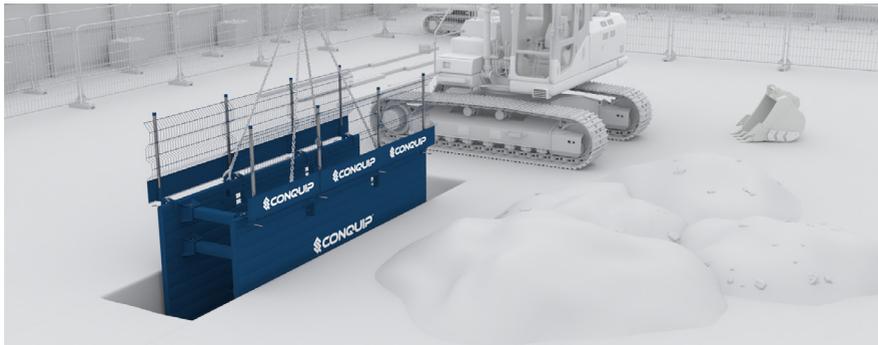
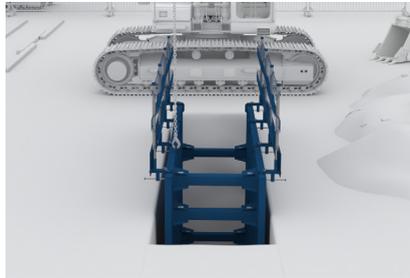
16. Our Excavator Compaction Wheel can be used to compact the surface after the Drag Box has moved.



17. Repeat steps 11-16 until all pipes have laid.

## Extraction Instructions

1. Once all pipes have been laid and back filled, the Drag Box can be removed.
2. To extract, attach a suitably rated single leg chain to one of the top lifting points of the extension box.
3. Then slowly lift to loosen the ground.



4. Repeat this process for the other top lifting points until the Drag Box is ready to extract and detach single leg chain.
5. Attach a suitably rated 4 leg chain to the top lifting points of the extension box.
6. Lift until the top of the extension box is 1m above ground level.

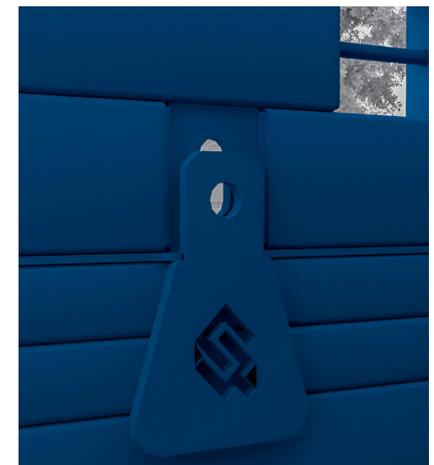
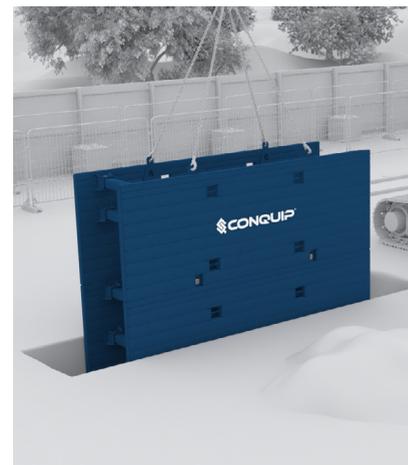


7. It is now safe to remove the Edge Protection panels.

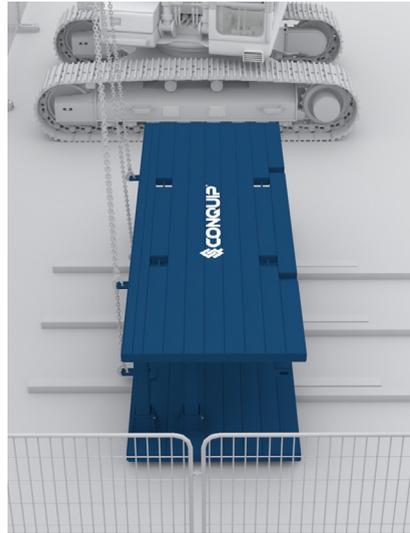
Scan for video guide!



8. Back fill between the panels of the Drag Box.



9. Reattach the 4 Leg chain sling and lift the Drag Box until the top of the base box is 90cm above ground level.
10. With the 4 leg chain sling still attached to the lifting points, remove the 25mm pins and the R-clips.



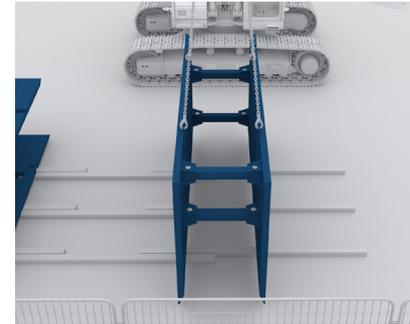
11. Slowly and carefully lift the extension box up and away from the excavation onto timber bearers and detach the chains.

12. To prevent wind loading, lower the extension box onto its side.



13. Return to the excavation and back fill between the panels of the base box.

14. Attach a suitably rated 4 leg chain sling to the top lifting points of the base box.



15. Carefully lift the base box out of the excavation and place on timber bearers.

16. Lower it onto its side to prevent wind loading.



17. Back fill the excavation.



18. To compact the surface area, use our Excavator Compaction Wheel for optimum results.

19. Once the surface area has been sufficiently compacted, remove all equipment from the area.

## 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.
- Before lifting, check that the load is secured, balanced and stable. Allow space for the equipment to move if the load shifts.

## 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.

# EC Declaration of Conformity

## In accordance with EN ISO 17050-1:2004

Declaration: As defined by the Machinery Directive 2006/42/EC and subsequent amendments

We, CONQUIP ENGINEERING GROUP, herewith declare that the following indicated equipment meets the fundamental health and safety requirements concerning the EU guide line(s), due to their design and manufacture.

This declaration will be rendered null and void if the machine is changed without our approval.

**Signed:**



**Dated: 2021**

**Garry Critchley, Managing Director**

<b>Product Code(s):</b>	TL100-00010 / TL100-00011
<b>EC Directive/ Regulation:</b>	2006/42/EC, Lifting Operations and Lifting Equipment Regulations 1998 Provision and Use of Work Equipment Regulations 1998
<b>Harmonised Standards:</b>	BS EN ISO 12100:2010 BS EN 13155
<b>General Description/ Designation:</b>	Drag Box – TL100-00002 / TL100-00003, TL100-00010 / TL100-00011
<b>WLL:</b>	TL100-00002 / TL100-00003 = N/A TL100-00010 & TL100-00011 = N/A

## 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 +44 (0) 333 3000 3470

Email us at [sales@cqegroup.com](mailto:sales@cqegroup.com)

[www.cqegroup.com](http://www.cqegroup.com)

**Conquip Engineering Group**

Waterbrook Estate, Alton, Hampshire, GU34 2UD