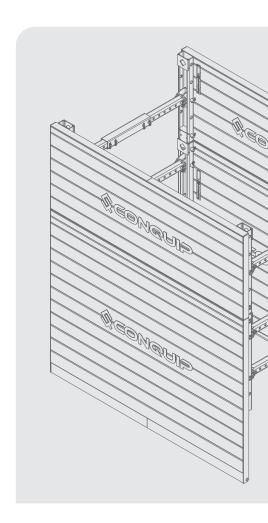


USER GUIDE

## TRENCH BOX





### **DISCLAIMER**

Conquip Engineering Group have prepared this document to provide guidance on the safe erection, use and dismantling of the product it relates to. Conquip Engineering Group is committed to ensuring our customers are informed and supported throughout the use of our equipment. This document does not relieve users of their own duty of care.

This user guide is based on the user being familiar with this type of equipment, exercising all reasonable skill and care in it's use. All work with the equipment should only be undertaken with suitably competent and supervised operatives.

The user should take into account this user-guide, as well as all other available documentation and guidance provided by Conquip and the wider construction industry. The user must remain compliant with relevant safety laws and industry good-practice. Considerations for a Safe System of Work should include, but are not limited to:

Safe handling and lifting of equipment

Provision of safe access and prevention of falls from height

Identification of buried services and unexploded ordinance

Working within confined spaces

Inspection and suitability of ground conditions for the equipment selected

Your attention is drawing to the Construction Design Management Regulations 2015 whereby the person selecting a product for use is a designer and must take account of the health and safety issues arising from their use.

Conquip Engineering Group does not accept any responsibility for the user's operation of the equipment.

Conquip Engineering Group operate a continuous improvement policy and therefore may change the contents of this document at any time without notice.

Your statutory rights are unaffected

If in doubt, ASK Conquip Engineering Group for assistance.

# CONTENTS

#### PRODUCT INFORMATION

INTRODUCTION	04
SPECIFICATION	05
WORKING WIDTHS & STRUT TYPES	06
YOUR INVENTORY	10
COMPONENT WEIGHTS	12
TECHNICAL PERFORMANCE	14
GENERAL GUIDANCE	16
USAGE	
ASSEMBLY INSTRUCTIONS - STANDARD STRUTS	18
ASSEMBLY INSTRUCTIONS - HIGH CLEARANCE STRUTS	20
INSTALLATION INSTRUCTIONS	24
EXTRACTION INSTRUCTIONS	28
MAINTENANCE & INSPECTION	
MAINTENANCE REGIME	32
VISUAL INSPECTION SHEET	33
SAFETY	
SAFETY INSTRUCTIONS	34
USAGE AND TRANSPORT	35
PERSONNEL	36
DO'S & DON'TS	37
LEGAL	
TERMS AND CONDITIONS	38
EC DESIGN CONFORMITY	42
STANDARDS AND REGULATIONS APPLICABLE	43

### **INTRODUCTION**

#### OVERVIEW

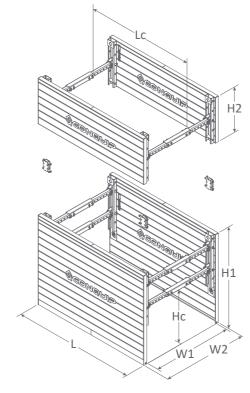
The Conquip <u>Trench Box</u> is a simple to assemble, two-sided trench lining support system designed to be installed by an excavator using the 'dig and push' technique, or by carrying out the excavation on self supporting ground, then lowering each box into place.

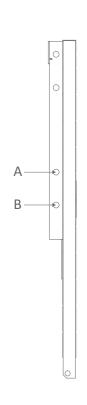
The Trench Box is normally used where ground movement is not critical. Trench boxes are generally not appropriate for unmanaged or waterlogged ground conditions. The size of the system required depends on maximum trench depth and working width requirements. Extensions are available for trench depths of up to 5.18 metres and working widths of up to 4 metres.

Manufactured in the UK from quality steel.

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

### **SPECIFICATION**





		IDENTIFIER	MIN	MAX	
		IDENTIFIER	IVITIN	IVIAX	
S	ASSEMBLED WEIGHT (kg)		2177	2611	
BASE	HEIGHT (mm)	H1	25	60	
NOISI	ASSEMBLED WEIGHT (kg)		1163	1380	
EXTENSION	HEIGHT (mm)	H2	1310		
	LENGTH (mm)	L	350	00	
	MAX TRENCH DEPTH* (mm)		51	80	
rRU⊤	INTERNAL WIDTH (mm)	W1	550	3990	
STANDARD STRUT	EXTERNAL WIDTH (mm)	W2	770	4200	
A O N	CLEADANCE BELOW STRUE (****)	Нс	1500 (Position A)		
STAI	CLEARANCE BELOW STRUT (mm)	HC	1250 (Position B)		
	CLEARANCE BETWEEN STRUTS (mm)	Lc	31	00	
CE	MAX TRENCH DEPTH** (mm)		38	70	
HIGH EARANG STRUT	CLEARANCE BELOW STRUT (mm)	Hc, hcsa	27	50	
CLE	INTERNAL WIDTH (mm)	W1	2065	5000	

\*Based on a Base box with 2No Extension boxes, greater depths may be achievable with a bespoke design.

\*\*Based on a base box with 1No Extension box.

### 3.5 TRENCH BOX

#### WORKING WIDTHS AND BOX WEIGHTS

STANDARD STRUTS



\*Weights include two panels, two levels of struts and associate components

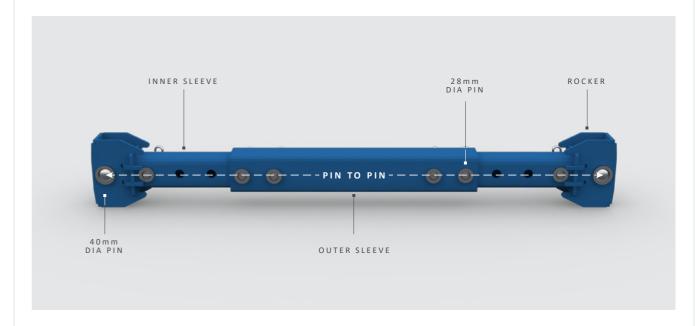
**\$CONQUIP** 

<sup>\*\*</sup>Weights include two panels, one level of struts and associate components

STRUT	BOX INTERNAL WORKING WIDTH (mm)		WORKING WIDTH BOX EXTERNAL WIDTH			TOTAL WEIGHT
TYPE	MIN	MAX	MIN	MAX	OF BASE* (kg)	(kg)
1	55	50	7	66	2177	1163
2	65	50	8	66	2188	1169
3	750		966		2199	1174
4	81	50	1066		2265	1208
5	95	50	1166		2276	1213
6	10	50	1266		2231	1191
7	11	.50	1366		2298	1224
8	1250	1650	1466	1866	2353	1252
9	1850	2250	2066	2466	2419	1285
10	2260	3260	2476	3476	2531	1340
11	2985	3985	3201	4201	2611	1380

### **STANDARD STRUTS**

#### STRUT SELECTION AND ASSEMBLY WEIGHTS



⚠ When splicing outer and inner box sections, you must always use 2No pins used per splice location.

		11	NNER	SLEEV	/ E	0	UTER	SLEE	/ E			
					PRODU	ст сорі						
		TL900081	TL900074	TL900080	TL900047	TL900116	TL900042	TL900289	TL900291		RUT O PIN	STRUT
STRUT					LENGT	H (mm)				LENGT	H (mm)	ASSEMBLY WEIGHT
TYPE	KIT CODE	280	380	480	780	380	780	1790	2515	MIN	MAX	(kg)
1	TL200-00011	1								46	55	31.7
2	TL200-00012		1							56	55	34.4
3	TL200-00013			1						66	55	37.2
4	TL200-00014	2				1				66	65	53.8
5	TL200-00015	1	1			1				86	65	56.6
6	TL200-00016				1					96	65	45.4
7	TL200-00017		1	1		1				10	65	62.1
8	TL200-00018			2			1			1165	1555	75.8
9	TL200-00019				2		1			1765	2165	92.3
10	TL200-00020				2			1		2175	3175	120.1
11	TL200-00021				2				1	2900	3900	140.2

### 3.5 TRENCH BOX

#### WORKING WIDTHS AND BOX WEIGHTS

HIGH CLEARANCE STRUTS

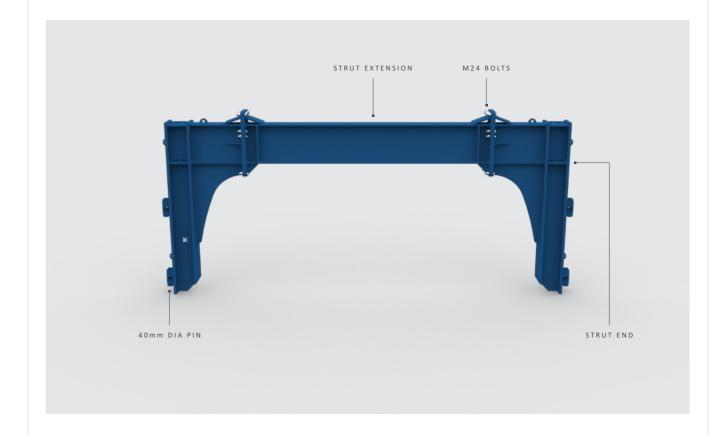


	INTERNAL	EXTERNAL			
STRUT TYPE	WORKING WIDTH (mm)	BOX WIDTH (mm)	TOTAL WEIGHT OF BASE* (kg)	TOTAL WEIGHT OF EXTENSION** (kg)	STANDARD STRUT REQUIRED FOR EXTENSION
HC2	2065	2265	4422	1285	Type 9 Strut
HC3	3000	3200	4888	1380	Type 11 Strut
HC4	4000	4200	5094	1380	Type 11 Strut
HC5	5000	5200	5298	N/A	N/A

\*Weights include two panels, two levels of struts and associate components

### **HIGH CLEARANCE STRUTS**

STRUT SELECTION AND ASSEMBLY WEIGHTS



		STRUT END	
STRUT			
TYPE	KIT CODE	TL900332	
HC2	TL200-00022	2	
HC3	TL200-00023	2	
HC4	TL200-00024	2	
HC5	TL200-00025	2	

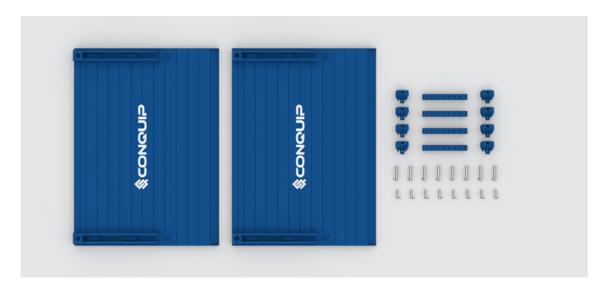
	STRUT EXTENSIONS							
1 M	2 M	3 M						
TL90033	3 TL900334	TL900335						
1								
	1							
		1						

ST	RUT ASSEMBLY WEIGHT (kg)
	1186
	1419
	1522
	1624

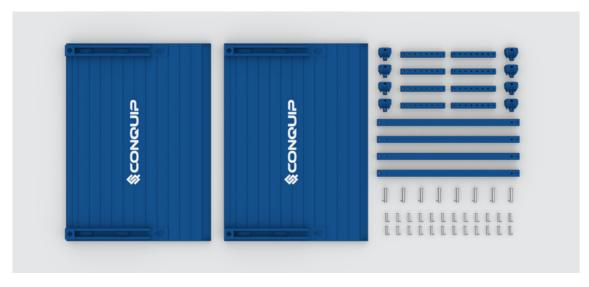
<sup>\*\*</sup>Weights include two panels, one level of struts and associate components

### **YOUR INVENTORY**

#### BASE BOX



EXAMPLE INVENTORY OF STRUT TYPE 6, KIT CODE TL200-00016

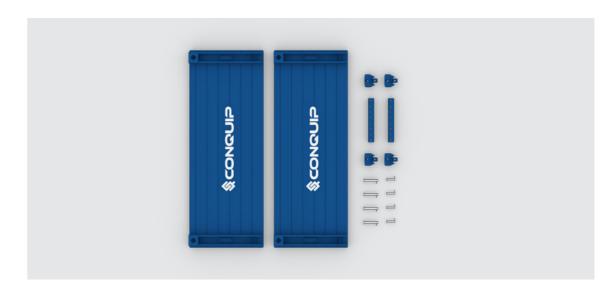


EXAMPLE INVENTORY OF STRUT TYPE 11, KIT CODE TL200-00021

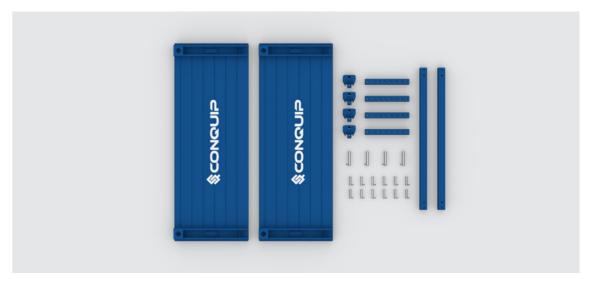
ITEM	Box Panels	Rockers	Strut Kits	40mm Pins	28mm Pins	R-Clips
QUANTITY	2	8	4	8 (2 PER STRUT KIT)	8 / 24 (DEPENDING ON WORKING WIDTH)	1 (PER PIN)

### **YOUR INVENTORY**

#### **EXTENSION BOX**



EXAMPLE INVENTORY OF STRUT TYPE 6, KIT CODE TL200-00016



EXAMPLE INVENTORY OF STRUT TYPE 11, KIT CODE TL200-00021

ITEM	Box Panels	Rockers	Strut Kits	40mm Pins	28mm Pins	R-Clips
QUANTITY	2	4	2	4 (2 PER STRUT KIT)	4/12 (DEPENDING ON WORKING WIDTH)	1 (PER PIN)

### **COMPONENT WEIGHTS**

#### BOXES





3.5m Base Panel

3.5m Extension Panel









**\$**CONQUIP®

Rocker

28mm Dia pin with R clip

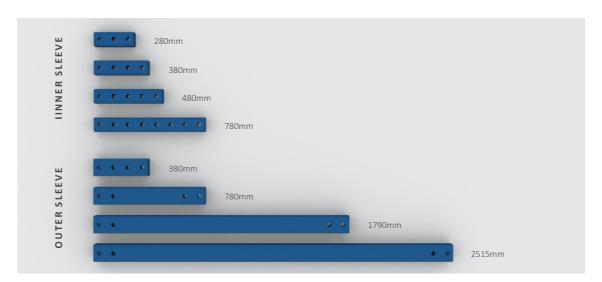
40mm Dia pin with R clip

Box Connector

ITEM CODE	ITEM	WEIGHT (kg)
TL900040	3.5m Base Panel	1025
TL900045	3.5m Extension Panel	550
TL900041	Rocker	10
TL900044	28mm Dia pin with R clip	1
TL900043	40mm Dia pin with R clip	2.5
TL900046	Box Connector	10

### **COMPONENT WEIGHTS**

#### STRUTS





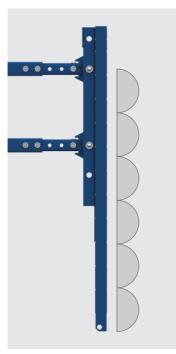
ITEM CODE	ITEM	WEIGHT (kg)
TL900081	Inner sleeve (280mm)	7.7
TL900074	Inner sleeve (380mm)	10.4
TL900080	Inner sleeve (480mm)	13.2
TL900047	Inner sleeve (780mm)	21.4
TL900116	Outer sleeve (380mm)	10.5
TL900042	Outer sleeve (780mm)	21.5
TL900289	Outer sleeve (1790mm)	49.4
TL900291	Outer sleeve (2515mm)	69.4
TL900332	High Clearance Strut End	583
TL900333	High Clearance 1m Extension	223
TL900334	High Clearance 2m Extension	326
TL900335	High Clearance 3m Extension	428

### **TECHNICAL PERFORMANCE**

#### **BOX PRESSURES**

Rated box pressures are calculated to load cases as set out in BS EN 13331-1. The pressure is applied as an even UDL across various heights of the panel. The struts are positioned to generate worst case panel and strut loadings. In general, provided the calculated maximum applied pressure is below the rated box value, then the box is suitable. If the pressure locally peaks above the rated value, but is lower elsewhere, then panel and strut loads can be checked individually.







MAXIMUM LOAD ON PANEL

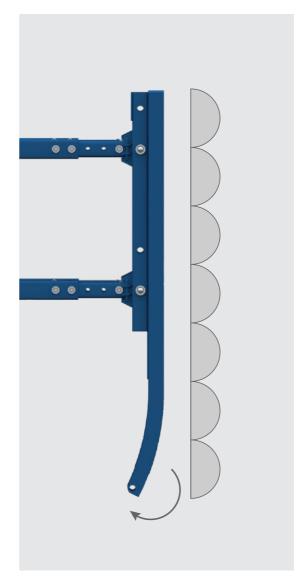
MAXIMUM COMPRESSION ON BOTTOM STRUT

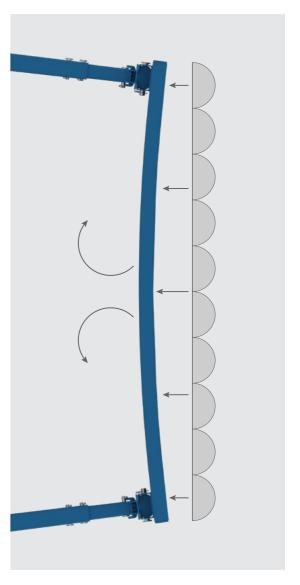
MAXIMUM TENSION ON TOP STRUT

	SWL BOX PANEL PRESSURE (kN/m²)	SWL EXTENSION PANEL PRESSURE (kN/m²)	SWL STRUT COMPRESSION (kN)	SWL STRUT TENSION (kN)	SWL STRUT BENDING (kNm)	SWL EXTRACTION LUG (Te)
STANDARD	30 (Position A)	50	247.3	106.6	N/A	7.0
	50 (Position B)	30				
HIGH CLEARANCE STRUTS	45	45	1700	N/A	350	N/A

### **TECHNICAL PERFORMANCE**

#### **BOX MOMENTS**





PANEL KICKING MOMENT

PANEL BOWING MOMENT

SWL PANEL KICKING MOMENT (kNm/m)	SWL PANEL BOWING MOMENT (kNm/m)
28.0	74.5

### **GENERAL GUIDANCE**

#### SAFE SYSTEMS OF WORK

All aspects of handling, use and maintenance of the equipment should consider a Safe System of Work to be adopted. The equipment includes components with significant weight, requiring appropriate lifting plans, equipment and suitably competent operatives. Assembly of suspended loads should be managed to avoid trapping of fingers.

**\$CONQUIP** 

#### **ACCESS**

Safe access is required for assembly and use of this equipment. Further details are provided in the sections below.

#### STORAGE

#### **DISASSEMBLED BOXES**

Disassembled box panels should be stacked using timber packers between panels up to a maximum of 6 panels high.

Ground should be suitably flat and firm.



#### ASSEMBLED BOXES

Assembled boxes that are between uses or about to be used, may be stored assembled. Extension and Base boxes must be separated from each other. Base box panels must be connected by two levels of struts.

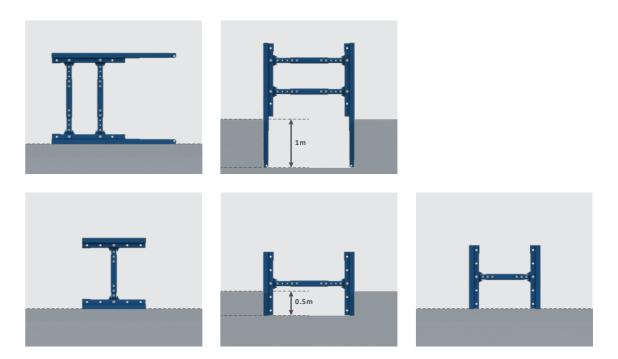
When storing, the following considerations to stability should be made:

- Ground conditions. Poor ground conditions may lead to the panel becoming unstable.
- Wind. High winds can lead to box instability.
- Width of assembly. When stored upright, narrow assemblies are inherently less stable than wider assemblies.
- Ground level. Slopes or uneven ground may contribute to a unit toppling over.

Base Box units should be laid on their side on firm level ground, or upright in a temporary trench 1.0m deep.

Extension boxes should be laid on their side on firm level ground only if they are narrow (1.0m wide or less), otherwise they should be stored upright in a temporary trench 0.5m deep.

Ground should be suitably flat and firm.



#### TRANSPORT & HANDLING

Ensure all panels are stacked in the same orientation and suitably restrained on the vehicle bed.

17



### **USAGE INSTRUCTIONS**



• Before using this equipment, please ensure you read and understand the information outlined in the Safety section of this document.

#### 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

#### STANDARD STRUTS

01. Before assembling Conquip base boxes and extension boxes, lay timber bearers on the ground.





- 02. Attach a certified 4 leg chain sling to the lifting points on one of the panels and lower onto the timber bearers.
- 03. Insert the rocker assemblies into the panel brackets and secure with 40mm pins and R-clips.
- 04. Lower the pre-assembled struts onto the rocker assemblies securing the struts to the panel brackets using pins and R-clips.





- 05. Connect the 4 remaining rocker assemblies to the struts using pins and R-clips.
- 06. Connect the sling to the lifting points of the panel facing downwards and lift into position above the struts.
- 07. Lower the plate carefully, guiding the runners onto the four upright strut assemblies.

#### DO NOT DETACH THE CHAINS UNTIL THE PANEL IS SECURED TO THE STRUT ASSEMBLIES.





OPERATIONAL PROCEDURES

- 08. Secure the struts to the panel with the remaining four pins and R-clips.
- 09. Connect the lifting sling to the top lifting points on the Trench Box and lift the box to the upright working position
- 10. The box is assembled and ready to move into the trench.





#### ASSEMBLY INSTRUCTIONS

#### HIGH CLEARANCE STRUTS

- 01. Lay down high clearance strut ends and strut extensions on timber bearers. For safe lifting, it is recommended that suitably-rated bow shackles are inserted within two opposing bolt holes on the strut extension's end plates.
- 02. For strut ends, use a certified four leg chain for lifting.

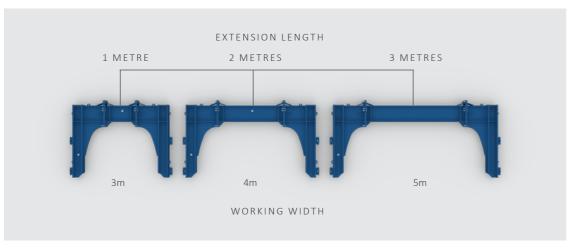


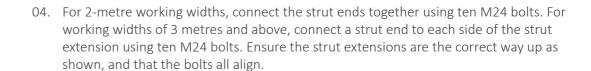


**\$CONQUIP** 

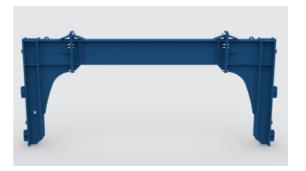
03. High clearance struts can achieve working widths of up to five metres. An assembly of just two high clearance strut ends achieves a working width of two metres. One-metre, two-metre and three-metre extensions can be added to achieve greater working widths.











05. Attach a certified four-leg chain sling to the lifting points on one of the panels and lower it onto timber bearers.





- 06. Attach a two-leg chain to one end of the assembled high clearance strut and lower it into the channel housing of the panel.
- 07. Secure the struts to the panel using 40mm pins and R-clips.

  DO NOT DETACH THE CHAINS UNTIL THE PANEL IS SECURE TO THE STRUTS.





08. Repeat steps 05 and 06 for the second strut.

09. Attach a two-leg chain to the lifting points of the high clearance struts that are closest to the ground.



10. Carefully and slowly, lift the panel until it rotates around the cutting edge and the assembly is balanced on the struts on the opposing side.





11. Connect a four-leg chain to the strut lifting points and lower panel lifting points.



- 12. Clutch the chain to take into account for the offset load that will occur when lifting the incomplete box. Carefully and slowly, lift the panel. If the panel does not lift level, lower and re-clutch the chains.
- 13. Lower the assembly onto the second panel.





- 14. Secure the struts to the panel using 40mm pins and R-clips.

  DO NOT DETACH THE CHAINS UNTIL THE PANEL IS SECURE TO THE STRUTS.
- 15. The Box can now be stood up. Disconnect the four-leg chain and attach a two-leg chain to the strut handling points at the top of the high clearance strut.
- 16. Carefully pull the assembly such that it rotates around the lower panel until standing. It is recommended to chock or embed the lower panel edge to prevent it from sliding during this operation.
- 17. When the assembly is in standing position, ensure that is it on flat and firm ground.







**\$CONQUIP** 

#### IMPORTANT INSTALLATION NOTES

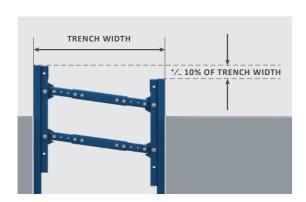
In all cases you must ensure:

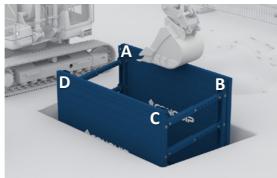
- All buried services and U.X.Os (Unexploded Ordnance) have been identified prior to works and will not be impacted by the excavation unless accounted for in the design.
- Exposed open ends of an excavation are suitably battered or closed off with End Panels.
- Gaps between the box panel and ground are filled with granular material.
- Safe Systems of Work are being worked to at all times.
- Provide safe means of access for assembly and inspection

#### INSTALLATION INSTRUCTIONS

#### DIG AND PUSH

- 01. Excavate the trench to 500 to 1000mm deep (as appropriate for ground conditions). Ensure spoil is discharged away from the excavation.
- 02. Use a certified four-leg chain to lower the box into the trench. Ensure the chain is long enough so that the inside chain angle does not exceed 60 degrees.
- 03. Backfill any over-dig at the sides of the boxes.
- 04. Commence a dig-and-push sequence.
  - i. Maximum 'push' should not exceed 10% of the width of the excavation i.e. 100mm for a 1000mm wide excavation, 300mm for a 3000mm wide excavation.
  - ii. The 'push' should always be carried out on the corner of the box in sequence, i.e. corners  $A \to B \to C \to D \to A$





05. Continue the dig and push until a 950mm upstand remains.



06. To add an extension box, attach box connectors to each former and secure with 40mm Pins and R-Clips.





07. Lift the extension box over Base unit and secure with 40mm Pins and R-Clips.





08. Continue excavation to required depth. Note a minimum 100mm upstand should be provided.



09. If the final panel upstand is less than 950mm, attach suitable edge protection to the side panels. After the final extension box has been attached, and dig-and-push is underway, it is recommended to attach the edge protection once the final panel is at 950mm from ground level, to ensure edge protection is maintained at all times. Take care not to impact the edge protection during final dig-and-push stages.





**\$CONQUIP** 

- 10. Ensure both sides of the box are level.
- 11. Backfill any over-dig at the sides of the boxes.
- 12. Repeat this process until the trench has been fully excavated.



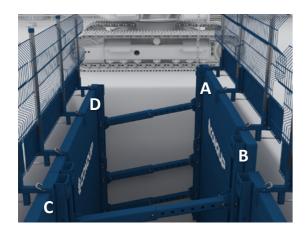
#### USE, INSPECTION & MAINTENANCE

Prior to entering the excavation:

- Check the box and access equipment have been installed correctly. A suitably competent person should inspect the excavation from the top. Carry out air monitoring and testing as appropriate.
- Contractor must provide operatives with suitable training and briefings to safely carry out works within the excavation.
- Contractor must ensure activities surrounding the excavation are not detrimental to the integrity of the excavation (e.g. surcharges or adjacent digging that have not been considered as part of the original excavation design).
- Never move a trench box whilst operatives are inside.
- Before first use and at the start of each working shift, a competent person must inspect the excavation, surrounding ground, equipment, edge protection and air quality (if required), to ensure all are satisfactory.



- 01. Ensure trench has been vacated prior to extraction of shoring boxes.
- 02. Carry out initial backfilling and compaction at base of excavation. Use a separating or debonding layer when concrete is used.
- 03. Attach certified lifting chain to the extraction point, either two legs on one panel, or one leg on one corner. Depending on the depth of box, and ground conditions, the load required to lift the box out the ground can vary, dependant on the friction or 'stickiness' of the retained ground.
  - i. For deep excavations or excavations in poor ground it is recommended to start with lifting corners  $A \to B \to C \to D \to A$
  - ii. For shallower excavations, or excavations in good ground it may be possible to lift a single panel side at a time  $A\&B \rightarrow C\&D$





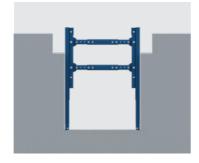
If you are having difficulties extracting the box you can:

- Excavate a 500mm deep slit trench around the perimeter of the box, replacing with loose fill. Take care not to impact the box panels.
- If the box is still not released, you can excavate in further 500mm increments, up to a total depth dependant on the ground conditions. To be assessed by a competent person on site.



28

 For particularly difficult ground, it may be necessary to insert trench sheets down the sides of the box.
 Single sheets can be inserted at the corners and centre of the panel. Contact Conquip Engineering Group if you are struggling to remove the box.



**\$CONQUIP** 



- 04. Continue the extraction backfilling and compacting as required at all stages.
- 05. Repeat until box is a minimum of 950mm above ground level and remove edge protection.
- 06. Continue the extraction until lower box is min 950mm above ground level. Detach the upper box and safely store. See storage section on pages 14-15.











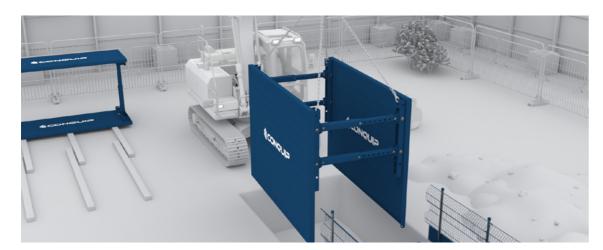


07. Remove R-clips, pins and connectors from the the base box.





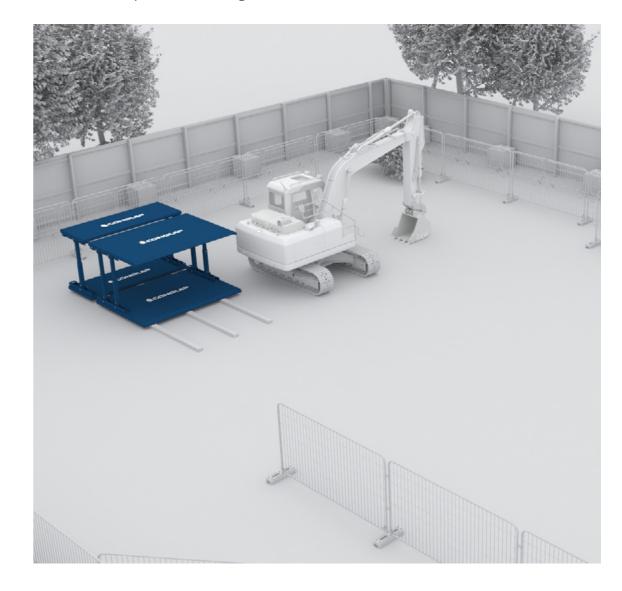
- 08. Continue extraction and backfill until the top of base box is 1000mm above ground level.
- 09. Attach a four-leg chain, remove the base box and safely store. See storage section on pages 14-15.







10. Fill and compact the remaining excavation.





### **MAINTENANCE & INSPECTION**

#### MAINTENANCE REGIME

- It is mandatory that the equipment is thoroughly examined regularly, by a qualified engineer, to ensure compliance with relevant regulations. Conquip recommend carrying out a thorough examination every six months.
- This equipment may incorporate various loose and detachable items including, but not limited to pins, bolt assemblies and adaption plates. Refer to the separate requirements for the safe use of those items.
- 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 the equipment's condition or suitability, do not use it.

#### VISUAL INSPECTION CHECKLIST

INSPECTION ITEMS	RESULTS		COMMENTS
	SATISFACTORY	UNSATISFACTORY	
Serial Number			CQ
Product Code			
Working Load Limit (kg)			
Conforms to user guide specification			
Lift points bent or worn			
Rocker pins fitted / secured with R clip			
Strut pins fitted / secured with R clip			
Strut adjustment pins secured with R clip			
Extension box connector bracket fitted			
Extension box connecting pins secured with R clip			
General visual body inspection			
SIGNATURE			
Name	Position	Qualification	Signature & Date

### **SAFETY INSTRUCTIONS**

#### **BASIC SAFETY NOTES**

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.



M002
Refer to instructions



M004 Wear eye protection



M008 Wear safety footwear



M009 Wear protective gloves



M 0 1 0
Wear protective clothing



M014 Wear head protection



M015
Wear high-visibility
clothing

#### **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.



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

**SCONQUIP** 

 Manoeuvre loaded or raised equipment carefully. Travel and turn slowly to avoid unit becoming unstable.

#### **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.
- 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.



#### DO'S AND DON'TS

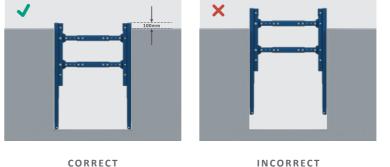
#### DO:

- Contact Conquip Engineering Group if you are unsure.
- Inspect all components prior to first use and each shift thereafter.
- Use suitable lifting equipment at all times.
- Ensure the surrounding ground profile and all possible surcharges have been included in the design information when selecting a box. Slopes near an excavation can increase the loads on the box.
- Maintain edge protection on all leading edges.
- Ensure all operatives using the equipment and excavation are fully briefed with a Safe System of Work and appropriate supervision.
- Obtain a bespoke design where one is required for the specific ground conditions or use case. (Conquip can provide this service).
- Ensure all pins and clips are fully engaged and secured.
- Be vigilant for catching fingers.
- ldentify all buried services prior to excavation.
- Keep operatives clear of active slewing operations.

#### DON'T:

- X Use the struts to support trench sheets, unless permitted by a bespoke design.
- X Use more than two extension boxes unless permitted by a bespoke design.
- X Fly the boxes above excavation formation level unless permitted by a bespoke design.
- X Have out-of-balance excavations at the sides. Fill with loose material.
- X Enter the box during installation.
- X Drag the box.
- × 'Snatch' the lifting chains when extracting the box from the ground.
- X Enter a 'Confined Space' without suitable air monitoring equipment. Trench excavations may be considered as a 'Confined Space'

#### **BOX POSITIONING:**





ECI

INCORRECT

INCORRECT

### **TERMS & CONDITIONS**

### CONQUIP ENGINEERING GROUP STANDARD PRODUCT WARRANTY

#### 01. COMMENCEMENT

- 1.1 This Warranty shall commence on the Commencement Date and shall continue until the earlier of:
- (a) the Expiry Date; or
- (b) the date on which it may be voided in accordance with clause 4.1(b)
- when it shall terminate automatically without notice.

#### 02. DUTY OF GOOD FAITH

2.1 The Purchaser shall in the exercise of its rights under this Warranty and in the compliance with its obligations under this Warranty be subject to and shall in all respects owe and comply with a duty of good faith to the Warrantor.

#### 03. NATURE AND EXTENT OF COVER

- 3.1 Subject to clause 3.2 the Warrantor agrees and undertakes to the Purchaser that it shall be liable to the Purchaser under and in accordance with the terms of this Warranty in the event that:
- (a) prior to the Expiry Date the Purchaser shall notify a Warranty Claim to the Warrantor; and
- (b) the Equipment or any relevant part of the Equipment shall have become unusable as the result of defective material or defective workmanship prior to the Expiry Date.
- 3.2 The Warrantor's obligation under clause 3.1 shall be expressly subject to the provisions of clauses 4, 5 and 6 and conditional upon the Purchaser's compliance in full with the provisions of clause 7.

#### 04. RESTRICTIONS

- 4.1 The following restrictions apply to this Warranty:
- (a) This Warranty is personal to the Purchaser and neither the legal benefit nor legal burden of this warranty may be assigned or novated or otherwise transferred by the

Purchaser to any other party. Any purported assignment, novation or transfer shall not be binding upon the Warrantor.

- (b) This Warranty shall be void in the event that the Purchaser:
- (i) cannot provide authentic and original documentary evidence that the Purchaser has during the period between the Commencement Date and the Expiry Date complied with the Maintenance and Servicing Requirements; and/or
- (ii) has, during the period between the Commencement Date and the Expiry Date, exceeded the Purchaser's Usage Cycle Parameters; and/or
- (iii) has, during the period between the Commencement Date and the Expiry Date, exceeded the Purchaser's Use Parameters; and/or
- (iv) has carried out, or procured the carrying out by any third party of, any repair to the Equipment or any part of the Equipment which is not an Authorised Repair; and/or
- (v) has operated the Equipment after having replaced any part of the Equipment with a part which has not been supplied and fitted by the Warrantor; and/or
- (vi) has modified the Equipment in any way prior to use.

#### 05. EXCLUSIONS

- 5.1 The following are excluded from the scope of this Warranty:
- (a) Loss of and/ or damage to the Equipment or any part of it resulting from any collision between the Equipment and any other fixed or stationary or mobile object whatsoever, irrespective of whether that collision was or was not caused by the Purchaser; and/or
- (b) Loss of and/or damage to any personal property and/or possessions or other equipment not forming part of the Equipment but which is present in or about the Equipment; and/or
- (c) loss and/or damage which is covered by any other insurance policy taken out and maintained by the Purchaser or in respect of which the Purchaser has a contractual obligation to do so; and/or
- (d) loss and/or damage to the equipment which is consistent with the use by the Purchaser of the Equipment:
- (i) in compliance with the Maintenance and Servicing Requirements; and
- (ii) in compliance with the Usage Cycle Parameters; and
- (iii) in compliance with the Use Parameters; and
- (iv) having only carried out Authorised Repairs to the Equipment; and
- (v) having all and any replacement parts fitted by the Warrantor; and

(vi) in unmodified form.

#### 06. LIMITATION OF LIABILITY

- 6.1 The Warrantor's liability to the Purchaser shall be limited as follows:
- (a) The Warrantor shall not in any circumstances be liable to the Purchaser for indirect and/or consequential and/or economic loss suffered and/or incurred as the case may be by the Purchaser; and

**SCONQUIP** 

- (b) The Warrantor shall only be liable to the Purchaser for the reasonable and proper costs reasonably and properly incurred by the Purchaser directly in connection with the repair and/or replacement (at the Warrantor's absolute discretion) of the Equipment or any part of the Equipment; and
- (c) The Warrantor's liability to the Purchaser shall notwithstanding any other provision of this Warranty, not in any circumstances exceed the Purchase Price of the Equipment.

#### 07. WARRANTY CLAIMS

- 7.1 The Purchaser shall in respect of any claim against the Warrantor under this Warranty and within 24 hours of the occurrence of the subject matter of the Warranty Claim:
- (a) Complete in full and submit to the Warrantor a Warranty Claim in the form annexed to Schedule 4;
- (b) Provide date stamped or date identifiable photographs evidencing the claim; and
- (c) Make the Equipment or the relevant part of the Equipment available to the Warrantor for inspection within 48 hours of notification of the relevant Warranty Claim.

#### 08. ENTIRE AGREEMENT

- 8.1 This Warranty constitutes the entire agreement between the parties and supersedes and extinguishes all previous promises, assurances, warranties, representations and understandings between them, whether written or oral, relating to its subject matter.
- 8.2 Each party agrees that it shall have no remedies in respect of any statement, representation, assurance or warranty (whether made innocently or negligently) that is not set out in this Warranty. Each party agrees that it shall have no claim for innocent or negligent misrepresentation or negligent misstatement based on any statement in this Warranty.

No variation of this Warranty shall be effective unless it is in writing and signed by the parties (or their authorised representatives).

#### 09. WAIVER

No failure or delay by a party to exercise any right or remedy provided under this Warranty or by law shall constitute a waiver of that or any other right or remedy, nor shall it prevent or restrict the further exercise of that or any other right or remedy. No single or partial exercise of such right or remedy shall prevent or restrict the further exercise of that or any other right or remedy.

#### 10. SEVERANCE

- 10.1 If any provision or part-provision of this Warranty is or becomes invalid, illegal or unenforceable, it shall be deemed deleted, but that shall not affect the validity and enforceability of the rest of this Warranty.
- 10.2 If any provision or part-provision of this Warranty is deemed deleted under clause 10.1 the parties shall negotiate in good faith to agree a replacement provision that, to the greatest extent possible, achieves the intended commercial result of the original provision.

#### 11. THIRD PARTY RIGHTS

11.1 This Warranty does not give rise to any rights under the Contracts (Rights of Third Parties) Act 1999 to enforce any term of this Warranty.

#### 12. GOVERNING LAW

12.1 This Warranty and any dispute or claim (including non-contractual disputes or claims) arising out of or in connection with it or its subject matter or formation shall be governed by and construed in accordance with the law of England and Wales.

#### 13. JURISDICTION

13.1 Each party irrevocably agrees that the courts of England and Wales shall have exclusive jurisdiction to settle any dispute or claim (including non-contractual disputes or claims) arising out of or in connection with this Warranty or its subject matter or formation.

# DESIGN CONFORMITY (EC & UK)

- (01) This certificate meets the requirements of the Machinery Directive 2023/42/EC of the European Parliament and Council.
- (02) This certificate meets the requirements of the Supply of Machinery (Safety) Regulations 2008.

#### **DETAILS**

#### NAME & ADDRESS OF MANUFACTURER:

Conquip Engineering Group Ltd, Unit 4, Waterbrook Estate, Alton, Hampshire. GU34 2UD

#### NAME & ADDRESS OF PERSON TO COMPILE TECHNICAL FILE:

Name: Daniel Critchley

Address: Conquip Engineering Group, Unit 4, Waterbrook Estate, Alton, Hampshire. GU34 2UD

NAME & ADDRESS OF AUTHORISED REPRESENTATIVE IF ONE HAS BEEN MANDATED BY THE MANUFACTURER:

N/A

NAME, ADDRESS, AND IDENTIFICATION NUMBER OF THE NOTIFIED BODY (01) OR APPROVED BODY (02), WHERE APPLICABLE:

N/A

#### **EQUIPMENT DESCRIPTION**

PRODUCT CODES	GENERAL DESCRIPTION / DESIGNATION	SAFE WORKING LOAD
TL101-00003	Standard Trench box 3.5m Base	30 / 50 kPa
TL101-00004	Standard Trench box 3.5m Extension	50 kPa



#### HARMONISED STANDARDS & REGULATIONS

ITEM	CODE	DESCRIPTION	
EC DIRECTIVE/ REGULATION:	2006/42/EC	Directive 2023/42/EC - new machinery directive	
	BS EN 13331-1:2002 BS EN 13331-2:2002	Trench Lining Systems	
HARMONISED STANDARDS:	BS EN 12811-2:2004	TW Equipment- Information on materials	
STANDARDS.	BS EN 1993-1-1 2005	Eurocode 3. Design of steel structures General rules and rules for buildings	
	BS EN 1990:2002+A1:2005	Eurocode. Basis of structural design	
OTHER	LOLER 1998	Lifting Operations and Lifting Equipment Regulations 1998 (LOLER)	
REGULATIONS:	PUWER 1998	Provision and Use of Work Equipment Regulations 1998 (PUWER)	

#### DECLARATION

#### PLACE OF DECLARATION:

Alton

#### DATE OF DECLARATION:

October 2025

I declare that the above equipment meets the Essential Health and Safety requirements of the

- (01) Machinery Directive 2023/42/EC of the European Parliament and Council.
- (02) Supply of Machinery (Safety) Regulations 2008 and Section 6 of the Health and Safety at Work Etc. Act 1974.

NAME:	POSITION:	SIGNATURE:
Daniel Critchley	Managing Director	Elk.

### TALKING TO US IS EASY **WE'RE HERE TO HELP**

Call us on 0333 300 3470 Email us at sales@cqegroup.com www.cqegroup.com







