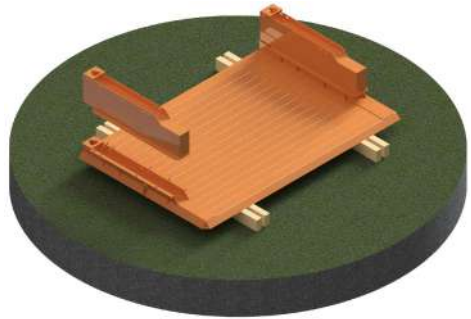
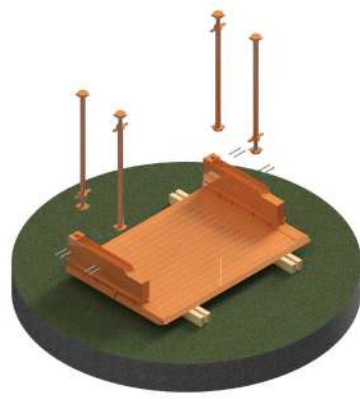


Installation Sequence



1. Lay Manhole Box panel down on a level surface on suitable timber bearers using the 4-Leg chain provided. Secure the lifting hooks through the handling points at the upper and lower ends of the channels. Connect the Manhole Profiles using 8no **M20x40** bolts per profile.



2. Spin out Spindles to the required length and position into the channels alternating as shown. Ensure that the lower Spindles are extended by 30-50mm more than the top Spindles.

Secure using Pins & R-Clips as shown in Detail A.

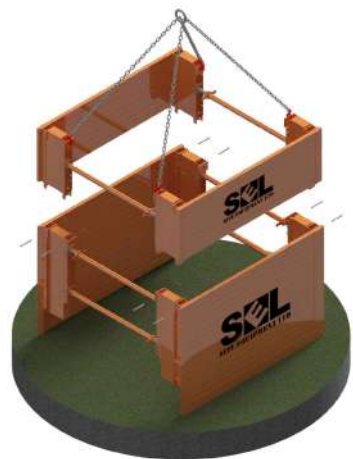


Potential Working at Height

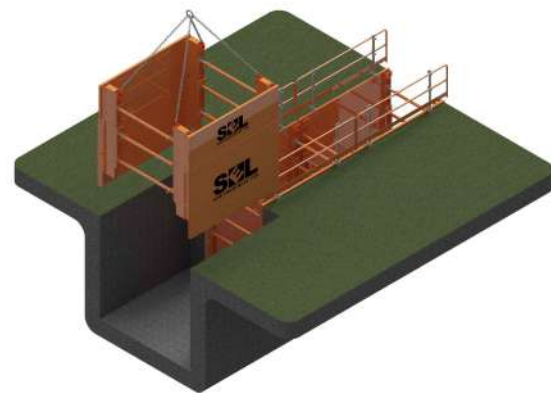
3. Lower opposite panel onto spindles using the 4-Leg chain. Chain hooks to be secured to the handling points at the upper and lower ends of each channel. Secure to spindles using Pins & R-Clips. Do not remove slack in the chains until all the spindles are secured.



4. Lift box into upright position using the 4-Leg chain secured through the upper handling points.

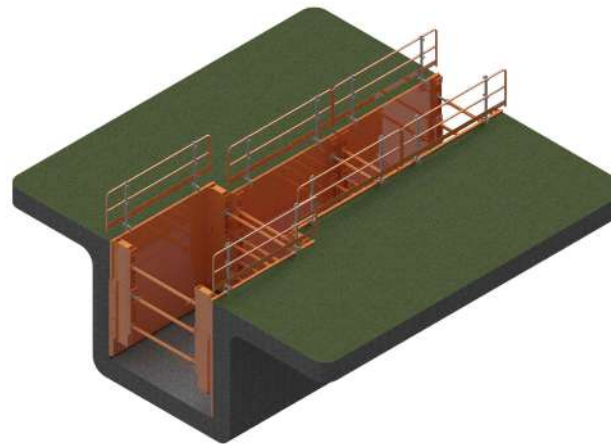


5. Where required, lower Top Box onto Base Box (assembled as Stages 1-4). A second spindle is recommended for ease of installation. Secure to Base box using Pins & R-Clips as shown in Detail A.



6. Lift box into preformed trench excavated in stable ground. A competent person should assess the ground conditions, ensuring that the ground is temporarily stable and self supporting (see below).

A minimum 50mm upstand is recommended.



7. Install suitable edge protection and access where required. Ensure that the open end of the excavation is battered to a safe angle as determined by the Contractor or closed with suitable end closure (see below).

Removal

The removal of the boxes should be performed sequentially. Once the permanent works are installed, the contractor should backfill inside the box in layers not exceeding 500mm.

Once the backfill is compacted to the Permanent Works design standard, the box can be lifted by a maximum of 500mm. Using a single chain leg, pull each corner of the box slightly before attempting to lift the whole box using the 4-Leg chain.

Repeat this process until the boxes can be removed completely.

Do's and Don'ts

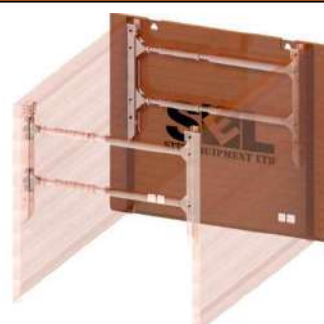
- Contact Site Equipment if unsure about any element of this document.
- Inspect all components to ensure that there are no signs of damage and that they are installed correctly.
- Ensure that the limitations of the box and this safe use guide is fully briefed to all operatives undertaking the work.
- Ensure suitable edge protection and access are provided as required.
- Ensure suitable lifting equipment is employed and suitable checks are carried out regularly.
- Ensure that the full height of adjacent soil is considered where a local ground reduction has been undertaken.
- Do not** enter an excavation unless it has appropriate shoring in place.
- Do not** have vertical earth faces at ends of boxes (see end closure options).
- Do not** allow overdigging of the excavation.
- Do not** allow storing of spoil or construction materials within 4m of the proposed excavation.
- Do not** fly the boxes.
- Do not** have out of balance digs.

Residual Risks

The following residual risks must be addressed in the Contractors RAMS:

- When lowering the opposite panel onto the spindles, ensure operatives hands are low down on the spindle (Stage 3).
- Ensure operatives hands are kept clear of pinch points when lowering the top box onto the base box (Stage 5).
- When removing the chains from the opposite panel, consider potential working at height risks (Stage 3).
- Locate all potential services prior to excavation in accordance with NRSWA Regulations.
- The excavation may be classified as a confined space. The Contractor must assess this risk and provide suitable gas detection and rescue equipment where appropriate.
- If a spindle is struck accidentally by an excavator, inspect immediately. If damage is visible, remove the box from the trench and replace the spindle following the steps identified above.

End Closure Panels



Both ends of the boxes must be either connected to an adjacent box, suitably battered back, or closed off using suitable end closures (End Closure Panels or suitably supported sheets).

Do not use the spindles for support.

Please contact SEL for further information on our full range of end closure options.

Site Specific Considerations

A **Trained and Competent** person must assess both the site and ground conditions.

The box is intended to be employed in ground which is **stable and self supporting** in the short term whilst installing the boxes to the final depth.

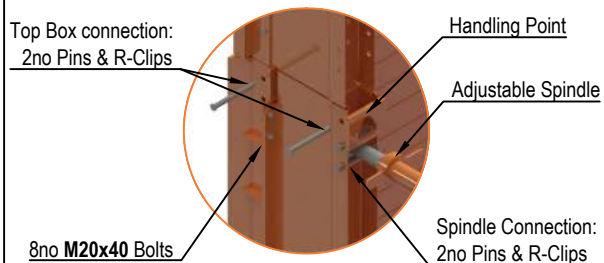
If any of the following ground conditions are anticipated / encountered, please contact SEL for advice as this box system may not be suitable.

- | | |
|---|--|
| <input checked="" type="checkbox"/> Unknown Ground | <input checked="" type="checkbox"/> Very Soft CLAY |
| <input checked="" type="checkbox"/> Very Loose SAND | <input checked="" type="checkbox"/> Silt |
| <input checked="" type="checkbox"/> Very Loose Gravel | <input checked="" type="checkbox"/> Peat |
- Careful consideration must be given to employing boxes in water bearing soils or in the vicinity of watercourses.

If anything beyond the following site conditions are anticipated / encountered **please contact SEL for advice.**

- | | |
|--|---|
| <input checked="" type="checkbox"/> Maximum excavation depth of 3.9m | <input checked="" type="checkbox"/> Maximum excavation duration <12 weeks |
| <input checked="" type="checkbox"/> Plant and machinery <30T operating near dig. | <input checked="" type="checkbox"/> No Structures located within 4m of dig. |
| <input checked="" type="checkbox"/> Adjacent slopes not in excess of +/- 1 in 10. | <input checked="" type="checkbox"/> No Services cross the path of the boxes. |
| <input checked="" type="checkbox"/> Deflection sensitive services not located within 4m of the dig. | <input checked="" type="checkbox"/> A live railway is not located within 7m of the edge of the excavation. |
| <input checked="" type="checkbox"/> Public Highway not located within 7m of the edge of the excavation. | <input checked="" type="checkbox"/> Suitable plant is available to lift and manoeuvre the selected box. |

Detail A



Edge Protection & Access



Please contact Site Equipment for info on our full range of Access & Edge Protection accessories.

Box Details

Box Length	Panel Height	Box Weight Range
m	m	kg
2.00	2.0 Base	1063-1123
	1.0 Top	634-665
2.50	2.0 Base	1181-1241
	1.0 Top	690-721
3.00	2.0 Base	1303-1363
	1.0 Top	746-777
3.50	2.0 Base	1649-1709
	1.0 Top	810-841
4.00	2.0 Base	1897-1957
	1.0 Top	1038-1103

Useful Links



Manhole Box Information Sheet

This drawing is the property of Site Equipment Ltd. and must not be reproduced without their permission.

0	First Issue	SRB	19/12/19
Rev.	Revision Details.	DR	Date.

Status:

Approved



St. Andrews Road
Avonmouth
Bristol
BS11 9HS

www.siteequipment.co.uk santiago@siteequipment.co.uk

BRISTOL CARDIFF LONDON
0117 982 8236 01443 844 713 020 7127 8002

Lite Manhole Box User Guide
Version V1.1

Drawing Scale: Varies
Paper Size: A3

Drawn By: SRB
Date: 19/12/19

Checked By: PJ
Date: 19/12/19

Drawing Number: SEL-UG-LITE_MH_001
Revision: V1.1