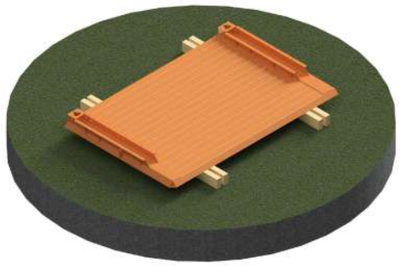
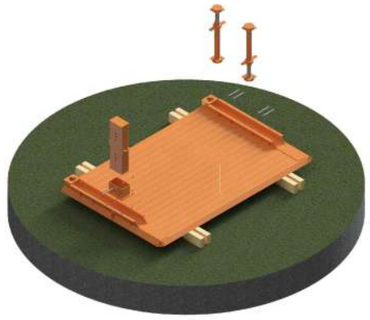
Installation Sequence



1. Lay Drag 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.



2. Spin out Spindles to the required length and position into the channels alternating as shown. Secure using Pins & R-Clips as shown in Detail A.

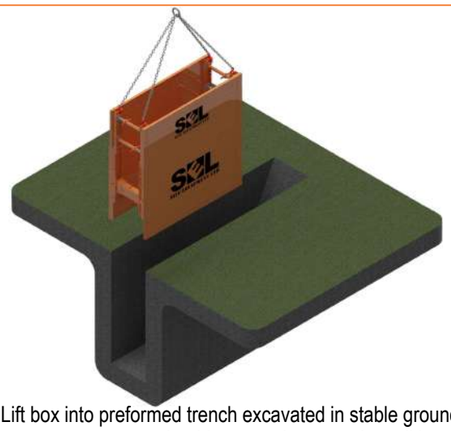
Secure the Collar using **4no M12x40** Bolts. Insert the correct length Distance Pipe and fix using an **M20x200** Bolt.

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 as Stage 2. Do not remove slack in the chains until all the spindles are secured.

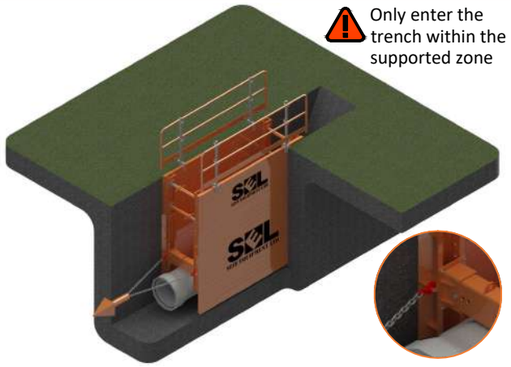
4. Lift box into upright position using the 4-Leg chain secured through the upper handling points.

For narrow drag boxes, it is recommended to temporarily place the box into a shallow flat bottomed trench for stability.

5. Where required, lower Top Box onto Base Box (assembled similar to Stages 1-4).
Secure to Base box using Pins & R-Clips as shown in Detail A.



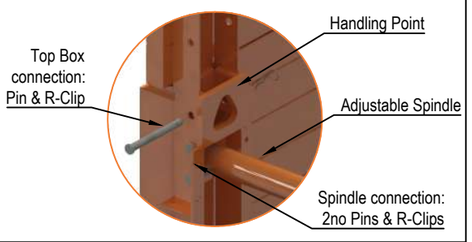
6. Lift box into preformed trench excavated in stable ground. A competent person should assess the ground conditions, ensuring that the ground is temporarily stable and self supporting (see below).
A minimum 50mm upstand is recommended.



Only enter the trench within the supported zone

7. Excavate the leading trench and drag the box using two chain legs fixed to the handling points on the cutting edge. Rather than tracking the machine, use the excavators hydraulic arm to drag the box.
Once the box is in the next location, adequately backfill the previous trench ensuring a safe batter slope remains.

Detail A



Edge Protection & Access

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

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.

- ✗ Unknown Ground
- ✗ Very Loose SAND
- ✗ Very Loose Gravel
- ? **Careful consideration must be given to employing boxes in water bearing soils or in the vicinity of watercourses.**
- ✗ Very Soft CLAY
- ✗ Silt
- ✗ Peat

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

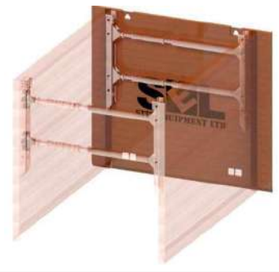
- ✓ Maximum excavation depth of 3.9m
- ✓ Plant and machinery <30T operating near dig.
- ✓ Adjacent slopes not in excess of +/- 1 in 10.
- ✓ Deflection sensitive services **not** located within 4m of the dig.
- ✓ Public Highway **not** located within 7m of the edge of the excavation.
- ✓ Maximum excavation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

Residual Risks

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

1. When lowering the opposite panel onto the spindles, ensure operatives hands are low down on the spindle (Stage 3).
2. Ensure operatives hands are kept clear of pinch points when lowering the top box onto the base box (Stage 5).
3. When removing the chains from the opposite panel, consider potential working at height risks (Stage 3).
4. Locate all potential services prior to excavation in accordance with NRSWA Regulations.
5. 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.
6. 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



If required, drag boxes can be 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.

Removal

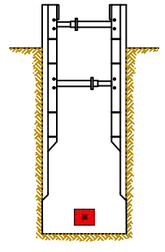
The removal of the boxes should be performed sequentially. Once the end of the run is reached, the contractor should backfill inside the box in layers not exceeding 500mm.

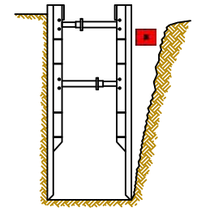
Once the backfill is compacted to the Permanent Works design standard, the box can be lifted by a maximum of 500mm. If required, use a single chain leg to pull each corner of the box slightly before attempting to lift the whole box using the 4-Leg chain.

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.





Box Details

Box Length	Panel Height	Box Weight Range
m	m	kg
2.00	2.0 Base	776-827
	1.0 Top	406-420
2.50	2.0 Base	894-945
	1.0 Top	462-476
3.00	2.0 Base	1016-1077
	1.0 Top	518-532
3.50	2.0 Base	1362-1413
	1.0 Top	582-596
4.00	2.0 Base	1610-1661
	1.0 Top	844-858

Useful Links

Drag Box Information Sheet

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

Status:

Approved

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Lite Drag Box User Guide
Version V1.1

Drawing Scale:	Paper Size:
Varies	A3
Drawn By: SRB	Date: 19/12/19
Checked By: PJ	Date: 19/12/19
Drawing Number: SEL-UG-LITE_D_001	Revision: V1.1