



TRENCHING & SHORING

Lite Guard City Trench Box Technical Data Sheet

This technical data sheet provides essential information for users of the GAP Group Lite City Trench Box System. It highlights key aspects of trench box assembly, installation, weight, dimensions, planning, and lifting operations that should be considered when compiling method statements.

Overview

The Lite Guard City Trench Box is a two-sided mechanical excavation support system designed for trenches up to **3.9 meters deep**. It is specifically engineered for use with small excavators with limited lifting capacities. The trench box shield is not intended for any other purposes.

System Features

- **Depth Capacity:** Up to 3.9 meters (using one box on top of another in an inverted position).
- **Maximum Lateral Earth Pressure:** 32 kN/m².
- **Application:** Suitable for use in conjunction with GAP's Lite Aluminium Manhole Boxes.
- **Installation Method:** Designed to be installed using a dig and place approach with an excavator.

Weight & Dimensions

- **Complete Base Box:**
 - Weight: 462 kg.
 - Components: 2 panels, 4 struts, pins and R-clips

Planning & Safety Considerations

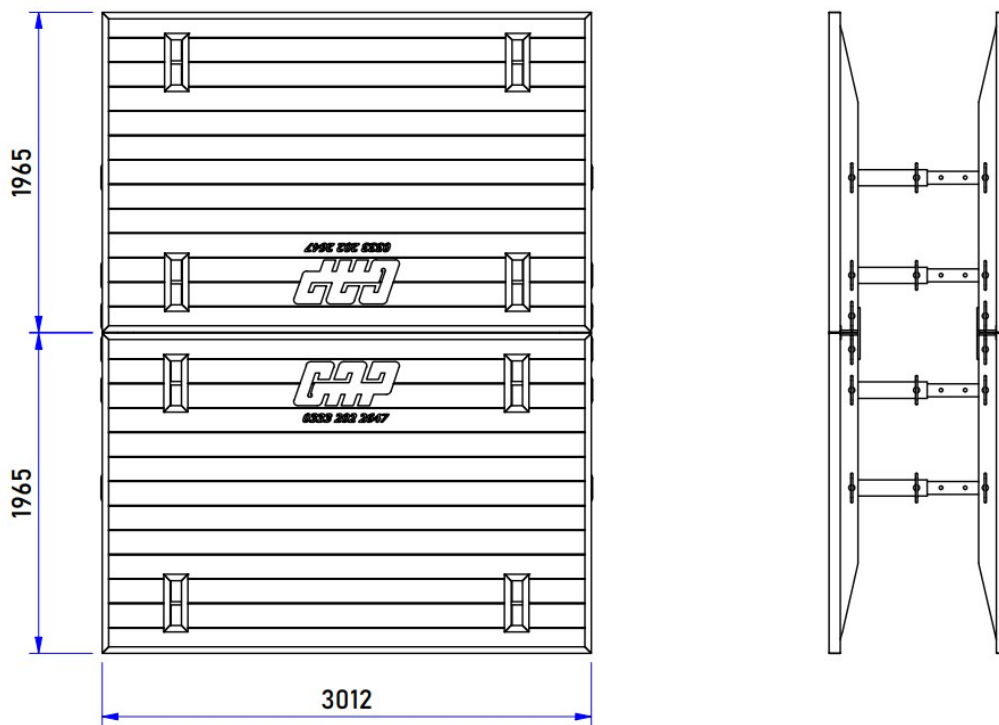
When planning for the use of the Lite Guard City Trench Box, consider the following:

- **Lifting Operations:** Ensure that the excavator's lifting capacity is sufficient to handle the trench box shield components.
- **Assembly & Installation:** Follow safe practices and procedures for assembling and installing the trench box shield, as outlined in your method statement.
- **Site Conditions:** Assess site conditions such as soil type, trench depth, and groundwater levels before installation.

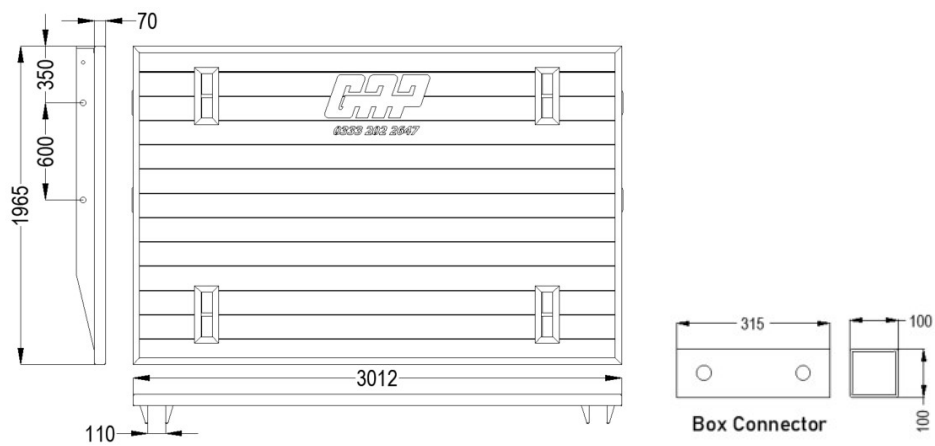
Important Notes

- It is assumed that users are familiar with general safety practices relevant to trench box shield operations.

For further information or assistance, please contact GAP Group.



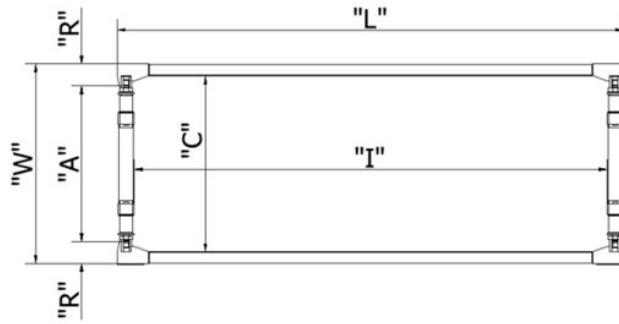
Box Component Identification, Range and Dimensions



Pins and Struts

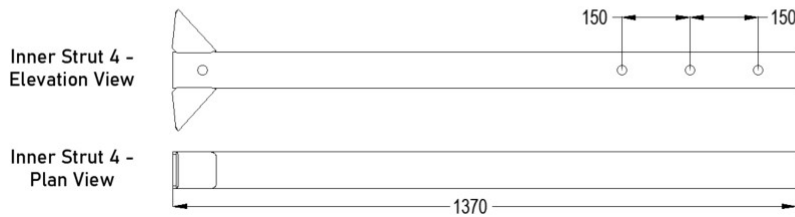
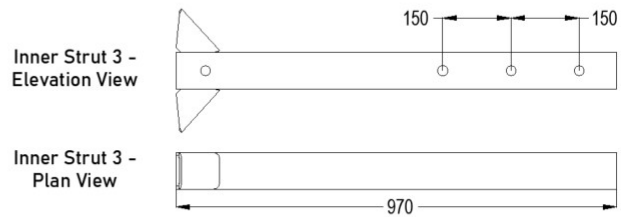
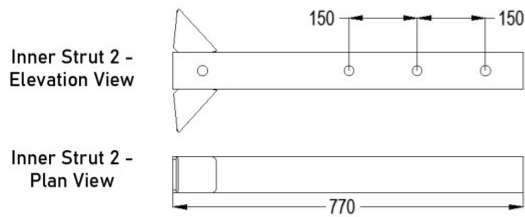
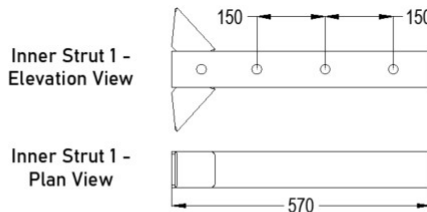
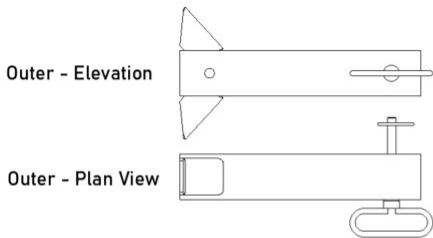
- **Pins:** Each Lite Guard City Trench Box requires **8 pins** with handles (19 x 180mm) to securely connect the components.
- **Extension Connectors:** Additionally, **4 Lite Guard City Box Extension connectors** are needed to attach one Box/Extension Box to the Base Box.

These components are essential for ensuring the stability and safety of the trench box system during use.

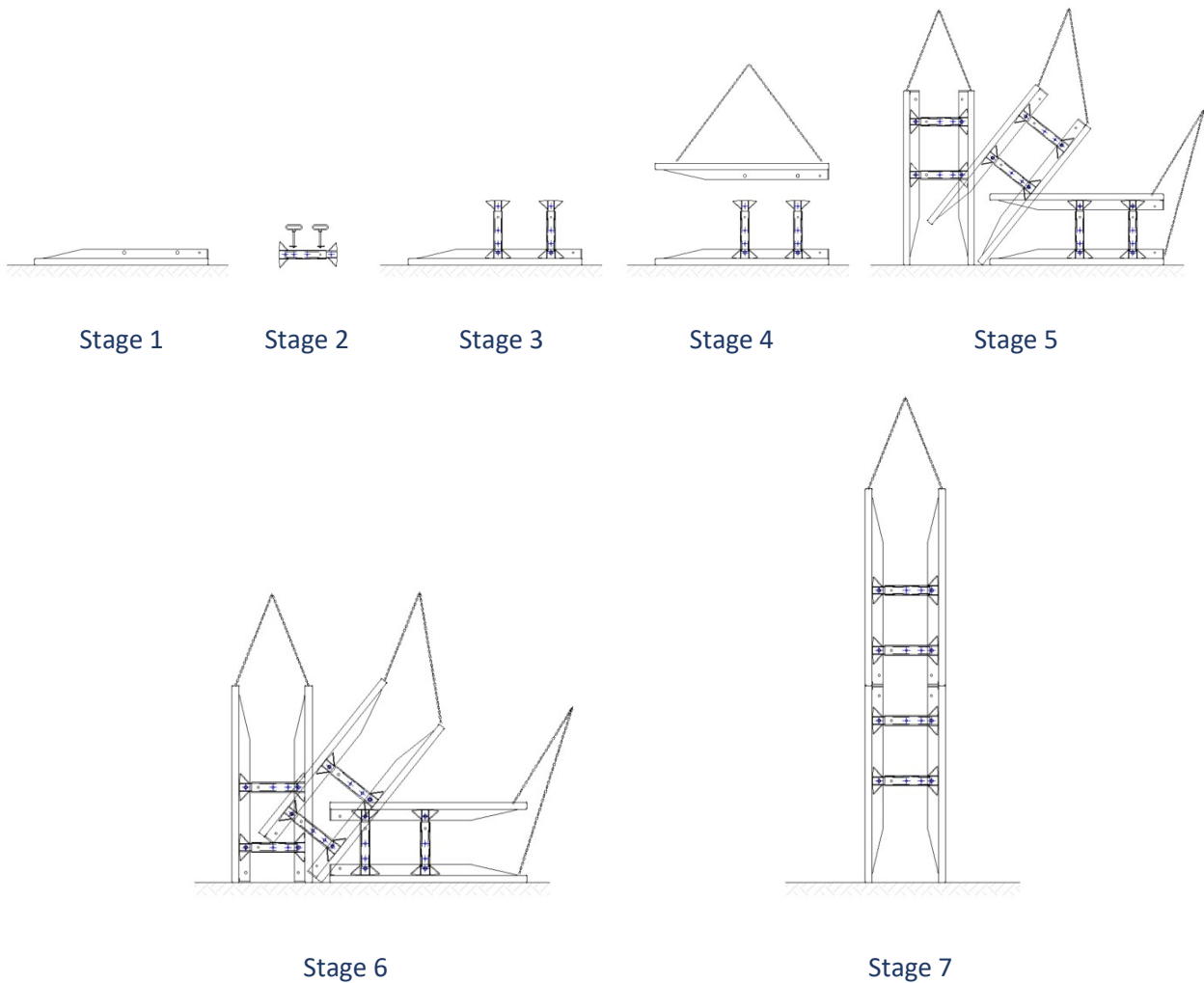


Strut Type	"A" Pin to Pin Length (mm)		"R" Outside Face to Pin Centre (mm)	"C" Internal Clearance (mm)		"I" Internal Clearance (mm)	"W" Overall Width (mm)		Clearance Below Lower Strut (mm)	"L" Overall Length (mm)
	Min	Max		Min	Max		Min	Max		
Size 1	520	820	143	660	960	2622	800	1100	950	3012
Size 2	720	1020	143	860	1160	2622	1000	1300	950	3012
Size 3	920	1220	143	1060	1360	2622	1200	1500	950	3012
Size 4	1320	1620	143	1460	1760	2622	1600	1900	950	3012

Struts:



Site Assembly:



Lite Guard City Box Assembly and Installation Procedure

Stage 1: Prepare the Base Panel

- Place one of the base panels on the ground with the strut connector points facing upwards.

Stage 2: Assemble the Struts

- Assemble 4 struts to the required length:
 - 1 inner strut.
 - 1 outer strut.

Stage 3: Attach Struts to the Base Panel

- Attach the assembled struts to the base panel using pins, ensuring they are securely connected.

Stage 4: Complete the Base Assembly

- Attach the second base panel to the other end of the struts using pins to complete the base box assembly.

Stage 5: Position the Base Box Upright

- Using 4 chains, lift and stand the box onto its cutting edge by securing the chains to the upper lifting eye points.

Stage 6: Assemble and Position the Top Panel

- The Lite City Box is used as an extension. Assemble the box following the same procedure as above.
- Once assembled, rotate the box upside down.

Stage 7: Position the Top Panels Upright

- Lift the inverted box and carefully position it on top of the base panels.
- Secure the top box to the base box using 4 connectors and 8 pins.

Note: For disassembly and removal, follow the procedure in reverse order.

This step-by-step guide should help ensure the proper and safe assembly and installation of the Lite City Box.