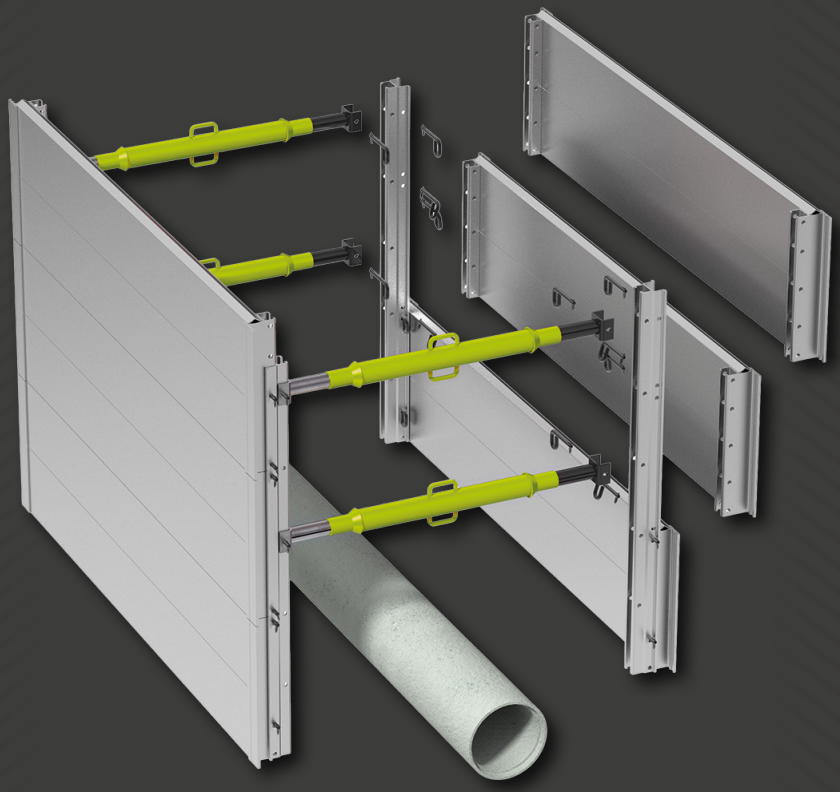
CONDOR



ISCHEBECK

LINEAR SHORING

OPERATING INSTRUCTIONS

Item Overview

1 LITEBOX Panel

The aluminium panel is the main element and can be comined with other components to build trench shoring for max. 3m deep trenches (3.00 x 0.50 m panel) or max 6 m deep trenches (2.00 x 0.50 m and smaller panels).

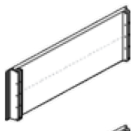
LITEBOX Panel 0.91 x 0.50 m

Weight 14.30 kg
Art-no. 655.0230500021



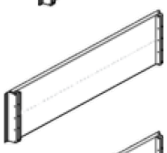
LITEBOX Panel 1.55 x 0.50 m

Weight 23.50 kg
Art.no. 655.0130500010



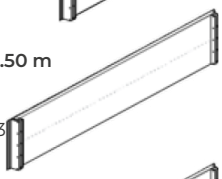
LITEBOX Panel 2.00 x 0.50 m

Weight 28.30 kg
Art.no. 655.0130500011



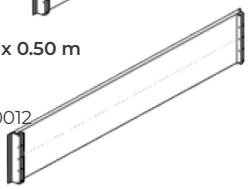
LITEBOX Panel 2.55 x 0.50 m

Weight 36.70 kg
Art.no. 655.0130500013



LITEBOX Panel 3.00 x 0.50 m

Weight 42.10 kg
Art.no. 655.0130500012



2 Aluminium Panel Connector

Used to join together two, three or four LITEBOX panels.

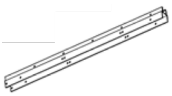
Panel Connector, 0.28 m

- incl. 4 Standard connecting pins Ø 13 mm
Weight 2.03 kg
Art.no. 655.0130504587



Panel Connector, 1.35 m

- incl. 4 Standard connecting pins Ø 13 mm
Weight 6.55 kg
Art.no. 655.0130504590



Panel Connector, 1.85 m (not illustrated)

- incl. 8 Standard connecting pins Ø 13 mm
Weight 9.00 kg
Art.no. 655.0130504594

5 LITEBOX Strut Gi-A

The infinitely adjustable Gi-A struts ensure secure propping trench lining between 0.60 and 2.26 m wide.
Depending on the application, the trench struts can be attached either directly to the aluminium LITEBOX panels or to the aluminium panel connectors. This results in different min./max. trench widths
-incl. 2 Standard connecting pins Ø 13 mm

LITEBOX strut Gi-A/ 60-81

- incl. 2 Standard connecting pins Ø 13 mm
Weight 5.54 kg
Art.no. 655.0130504524
Trench widths:
0.60 - 0.81 m (fixed to LITEBOX panels)
0.72 - 0.89 m (fixed to panel connectors)



LITEBOX strut Gi-A/ 80-121

- incl. 2 Standard connecting pins Ø 13 mm
Weight 7.14 kg
Art.no. 655.0130504525
Trench widths:
0.80 - 1.21 m (fixed to LITEBOX panels)
0.92 - 1.29 m (fixed to panel connectors)



LITEBOX strut Gi-A/ 129-218

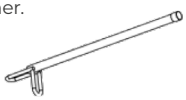
- incl. 2 Standard connecting pins Ø 13 mm
Weight 11.49 kg
Art.no. 655.0130504526
Trench widths:
1.29 - 2.18 m (fixed to LITEBOX panels)
1.41 - 2.26 m (fixed to panel connectors)



4 LITEBOX Spanner

Trench struts can be tightened and released easily with the strut spanner.

Weight 2.42 kg
Art-no. 655.0620210061



Connecting Pins

Used to connect the elements of the aluminium trench lining system together quickly and securely.

5 Standard Connecting Pin Ø 13 mm

With drop-down locking nib. For all connections between panel connectors, ligting eyes and rench struts.

Colour Black
Weight 0.25 kg
Art-no. 655.0130500088



6 Connecting Pin Ø 20 mm

With locking nib. For connecting aluminium manhole corner profiles and aluminium manhole corner connectors.

Colour Galvanised
Weight 0.34 kg
Art-no. 655.0130500099



12 LITEBOX Universal Lifting Eye

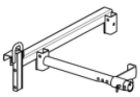
One lifting eye is attached to each of the four corners of a trench box. A hook can then be attached to each one so that the trench box can be lifted and placed in a trench or lifted out of a trench.

- incl. 2 Standard connecting pins Ø 13 mm
- permissible load 10 kN
Weight 2.10 kg
Art-no. 655.0630504542



16 LITEBOX Ladder Support

Secures ladders 410 - 580 mm wide so that workers can enter and leave excavations safely. Two rail posts can be also insterted into the pockets in the support.
-incl. 3 Standard connectins pins Ø 13 mm
- galvanised
Weight 10.60 kg
Art-no. 655.0630504590

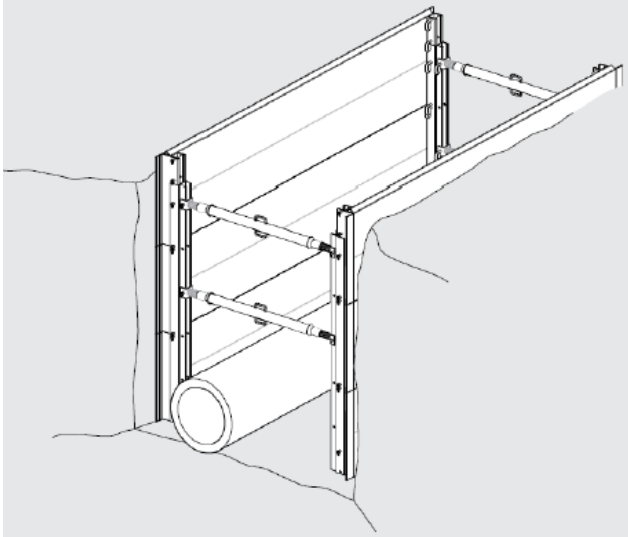


Note: Item overview shows standard Ischebeck products for its intended use only. Project specific variations may occur and substitute items from Ischebeck can be used. For project specific variations, always check suitability with Ischebeck Titan.

Safety accessories and edge protection are available upon request.

This document must be read in conjunction with ITAUS_SAFETY NOTES AND RISK ASSESMENT_12-2025.
Always ensure that local and project specific regulations are adhered to.

Sample Set Up: 1.50m Deep Linear Trench Shoring

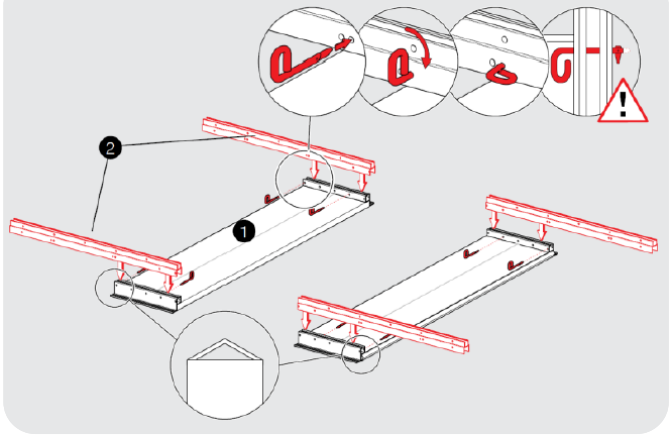


LITEBOX Panels	6
Struts Gi-A	4
Panel Connectors 0.28 m	0
Panel Connectors 1.35m	4
Standard Ø 13 mm connecting pins	32
Lifting Eyes	4

As an example, the next steps describe the assembly of a trenchbox for max. 1.50m deep trenches.

The width of the trench can be chosen as required between 0.72m and 2.26m depending on the Gi-A trench strut being used.

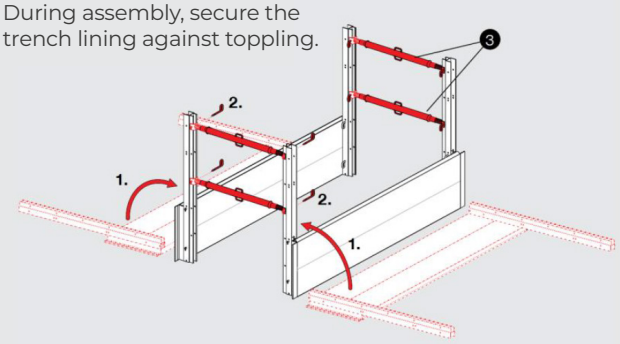
Note! Wider trench widths can be achieved by changing to RSK struts. Gi-A struts can be replaced by RSK struts if required.



Lay out the panels (1) on the ground and fix the panel connectors (2) onto the panels as shown. Always use 4 x standard connecting pins dia 13mm for each panel to panel connector connection.

Always ensure that the standard connecting pin 13mm dia is fully engaged and the gravity pin is closed when the panels are in an upright position.

During assembly, secure the trench lining against toppling.

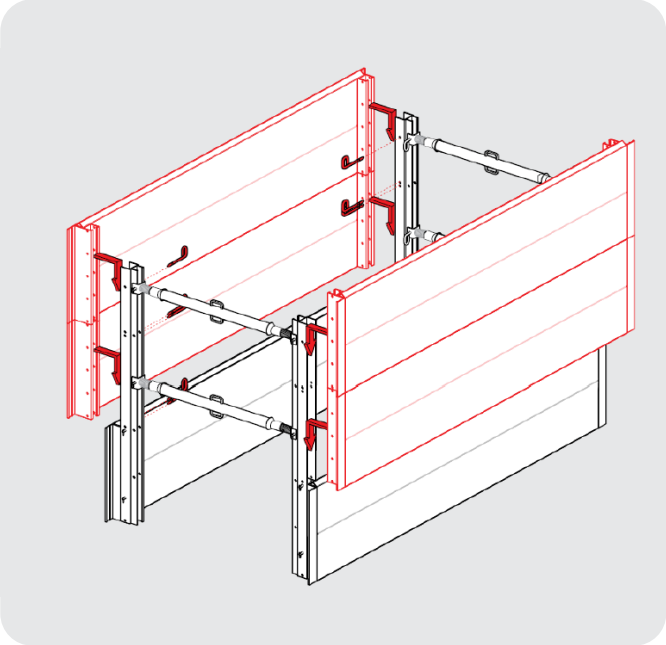


Raise the elements to the vertical position and fix the Gi-A trench struts (3) with the standard connecting pin 13mm dia to the panel connector or directly to the panel.

HINT! Ensure that the Gi-A struts screw threads face in the same direction when installing the struts. This will simplify subsequent adjustments.

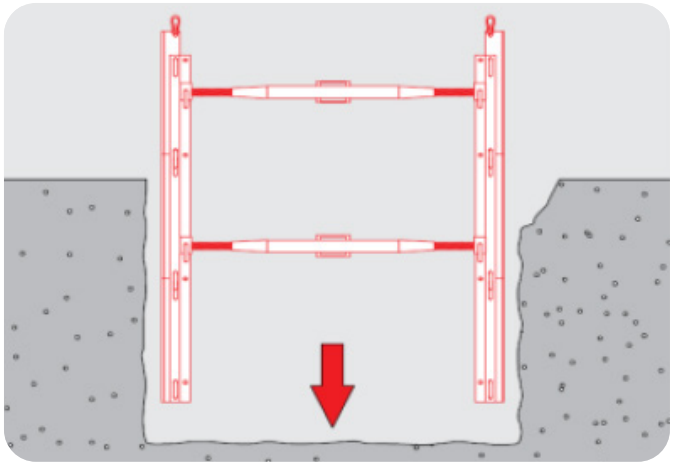
Left hand thread = painted (black)

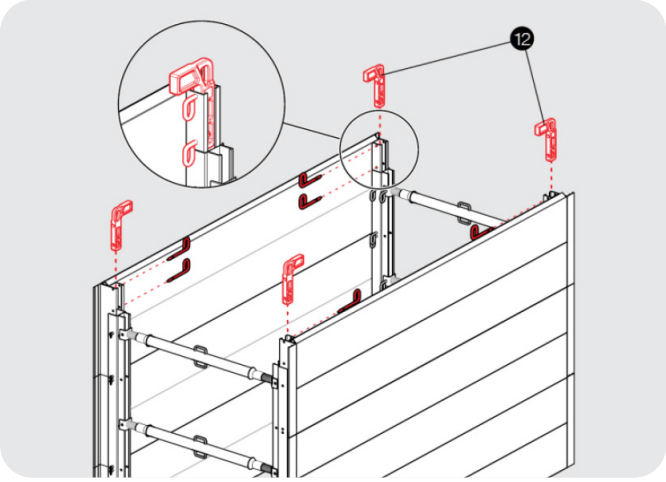
Right hand thread = galvanised (Silver)



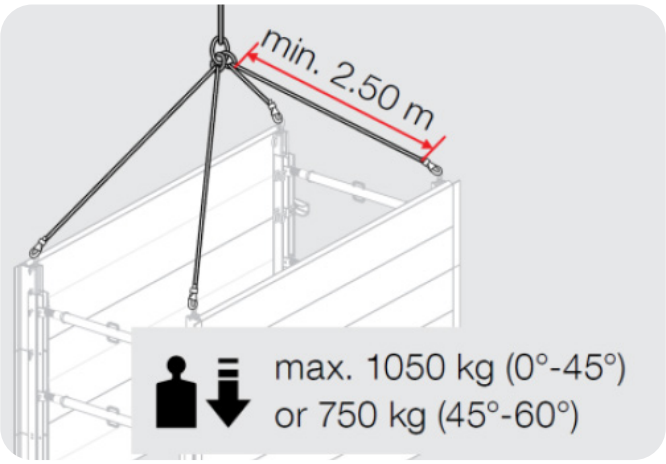
Attach the balance of the panels to complete the 1.5m high trench box and secure these panels with standard connecting pin 13mm dia to the panel connectors.

HINT! Ensure that the trenchbox is slightly narrower than the excavation before lifting in place.

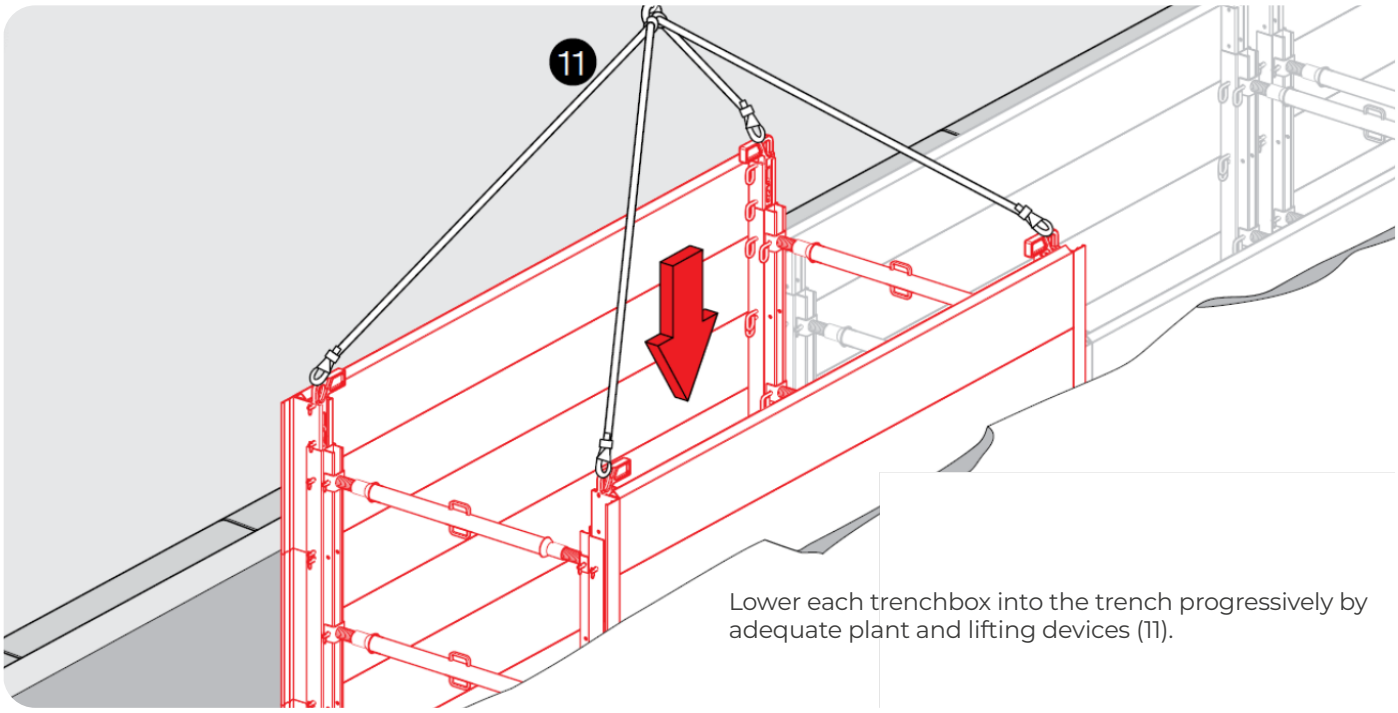




Prior to lifting the trench box into the excavation, attach the universal lifting eye (12) to the panel with 2 x standard connecting pin 13mm dia /each universal lifting eye.

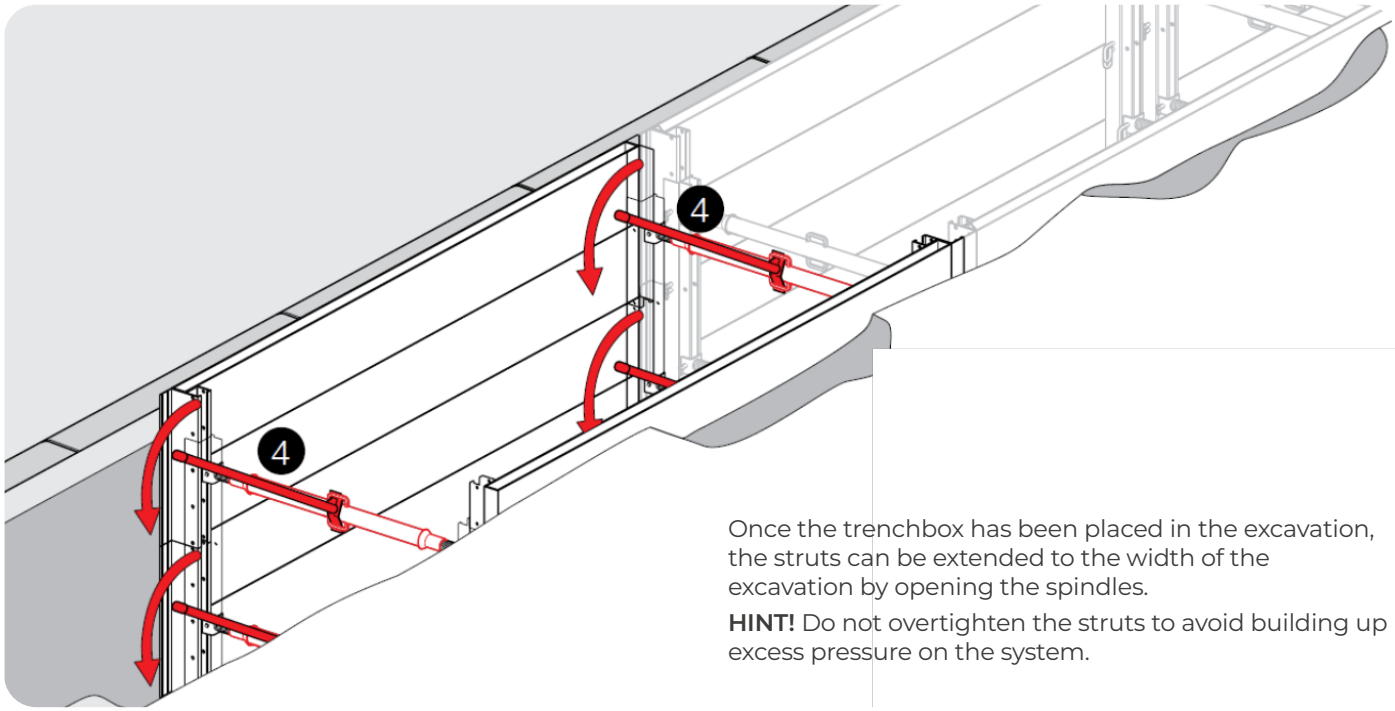






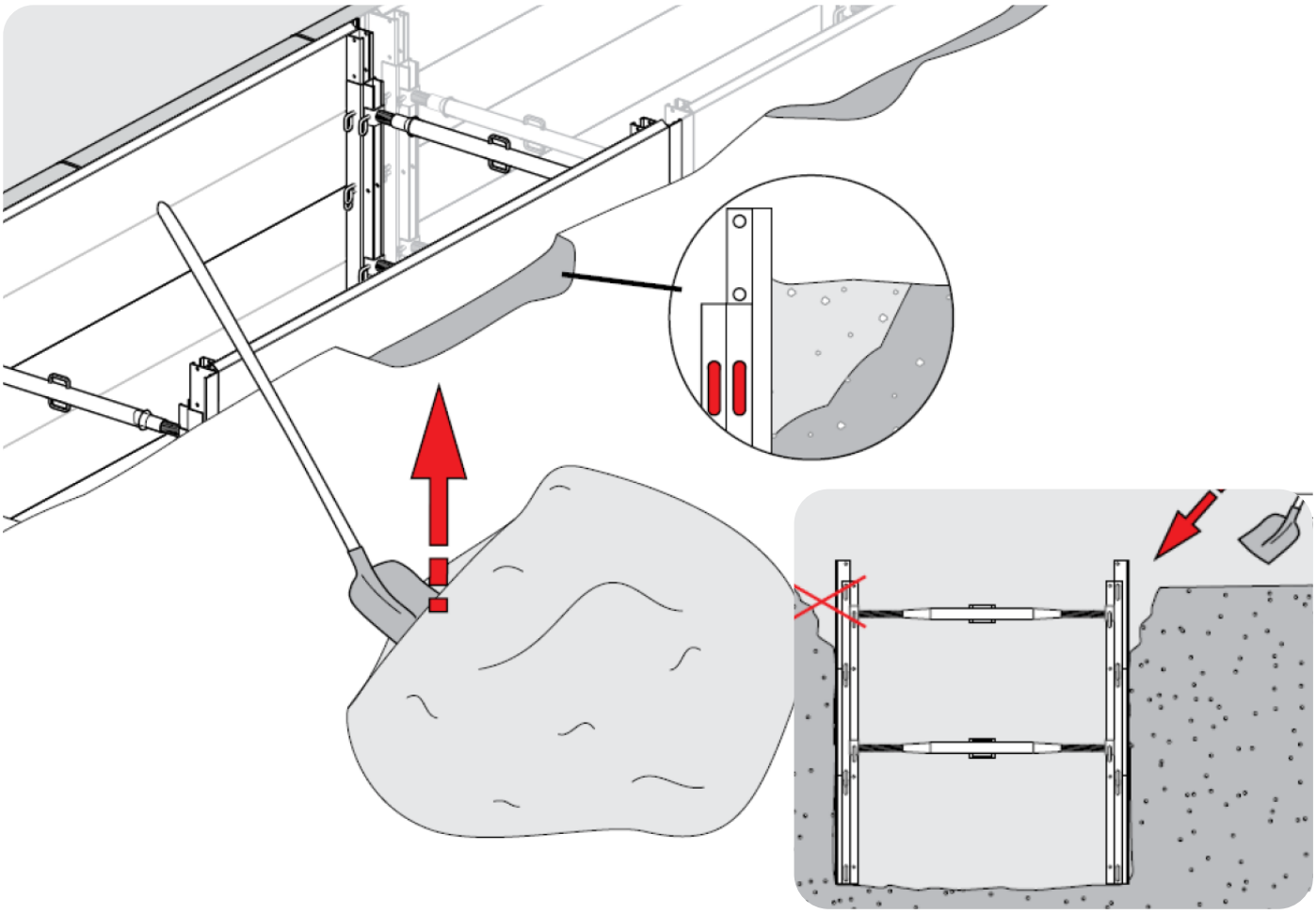
Lower each trenchbox into the trench progressively by adequate plant and lifting devices (11).

Never access an open, unsecured trench! Ensure that personnel is familiar with local regulations, the Ischebeck Titan safety notes and a site specific risk assessment has been conducted.



Once the trenchbox has been placed in the excavation, the struts can be extended to the width of the excavation by opening the spindles.

HINT! Do not overtighten the struts to avoid building up excess pressure on the system.



Backfill any voids between the panels and the excavation.

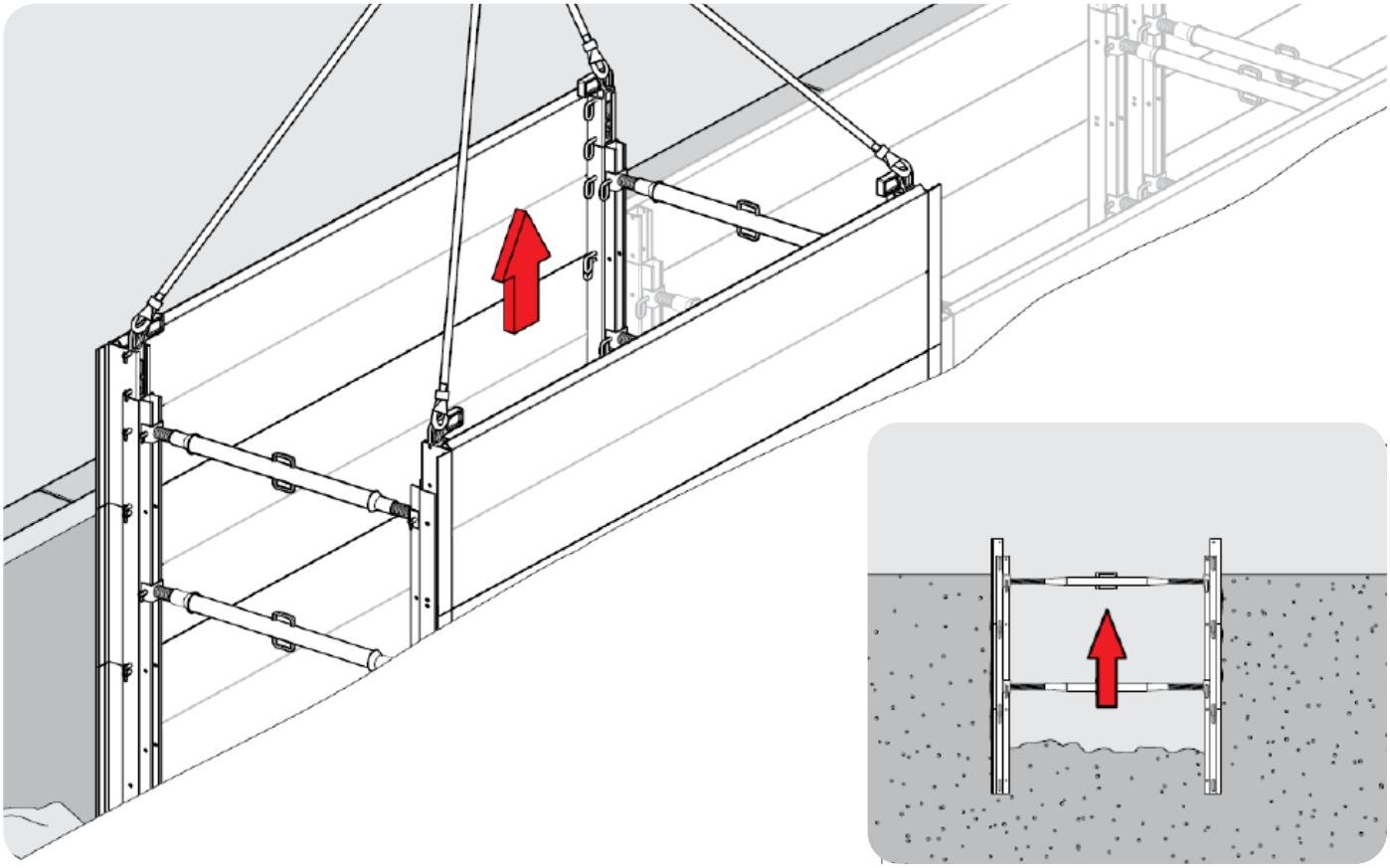
HINT! Let the trenchbox extend about 50mm beyond the excavation to avoid excess materials falling into the trench.

Install all required safety accessories (i.e. handrails, davit arm with winches, ladder access) as required.





Removal of Trench Box



Shoring removal must be planned and carried out in reverse order of installation.

No person is permitted in an unsupported trench at any time.

Basic Maintenance

Regularly check that all pins are in place and secured.

Replace damaged components.

Avoid laterally loading the struts-either by hanging or propping from them or accidentally striking them with the site plant.

Do's and Don'ts

DO use a ladder to enter the working space between the struts of the shield.

DO wear a safety helmet and PPE to minimise the risk of injury.

DO ensure that the excavator operator is aware of your intentions.

DO ensure that the unsupported part of the trench is safely battered.

DO NOT climb up or down the struts.

DO NOT use any unsupported part of the trench of access.

DO NOT move the shield when personnel is inside it.

DO NOT attach lifting chains to struts.

Tech Data - Linear Trench Shoring Arrangements

Refer to structural certification SSCE-25218-C1 dated 5th Dec 2025.

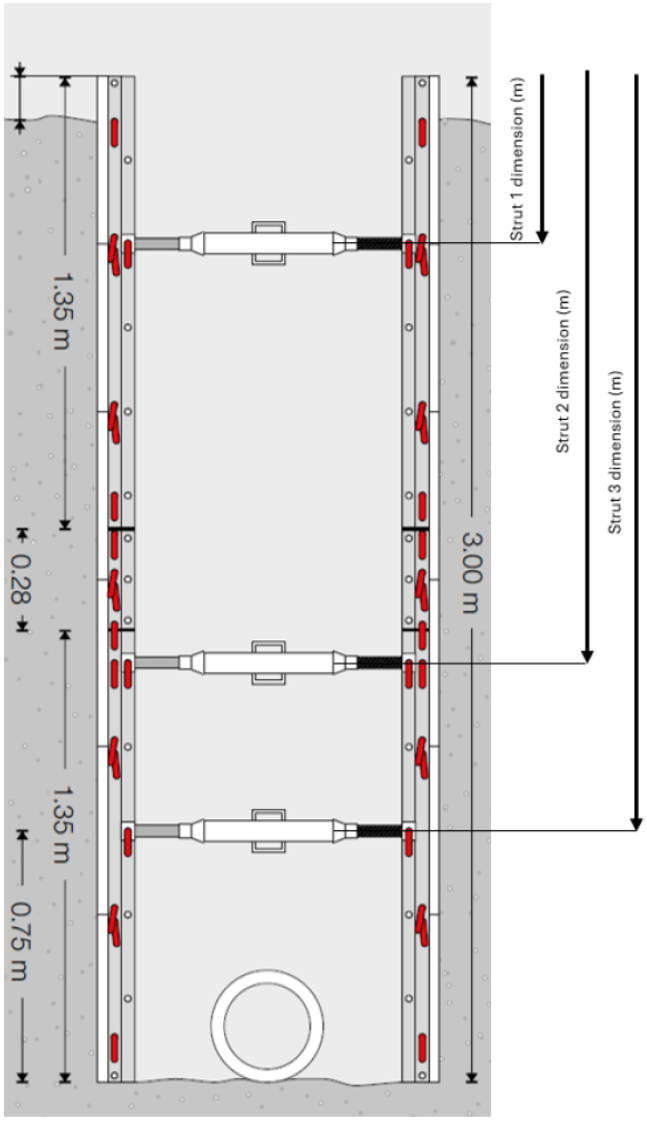
All strut positions are from top of box / panel.

All KPAs based on struts at max extension.

Panel	WLL
0.91m	120.0
1.55m	70.0
2.00m	57.5
2.55m	40.0
3.00m	22.5

Component	Fully Closed WLL	Full Exension WLL
Gi-A 60 to 81	56.67	47.72
Gi-A 80 to 120	56.67	47.50
Gi-A 129 to 210	56.67	37.19

Section Properties - Panel Connector	
A =	1604 mm^2
J =	18231 mm^4
Iy =	1287909 mm^4
Iz =	1525366 mm^4
Iw =	1.54x10^9 mm^6
Zy =	27974 mm^3
ry =	28 mm
rz =	30 mm



Panel and Connectors - 0.91m Panel - 0.5m Understrut Clearance								
Depth	Max Kpa		Strut 1 (m)	Strut 2 (m)	Strut 3 (m)	Strut 4 (m)	Strut 5 (m)	Strut 6 (m)
	Rec	Tri						
0.50	-	-	-	-	-	-	-	-
1.00	73.00	97.30	0.14	0.50	-	-	-	-
1.50	73.00	87.60	0.25	1.00	-	-	-	-
2.00	73.00	83.40	0.50	1.50	-	-	-	-
2.50	73.00	81.10	0.40	1.00	2.00	-	-	-
3.00	73.00	79.60	0.50	1.75	2.50	-	-	-
3.50	73.00	78.60	0.50	1.50	2.00	3.00	-	-
4.00	73.00	77.80	0.50	1.50	2.00	2.50	3.50	-
4.50	73.00	77.20	0.50	1.50	2.00	2.50	3.00	4.00
5.00	73.00	76.80	0.50	1.25	2.00	3.00	3.75	4.50

Panel and Connectors - 0.91m Panel - 0.75m Understrut Clearance								
Depth	Max Kpa		Strut 1 (m)	Strut 2 (m)	Strut 3 (m)	Strut 4 (m)	Strut 5 (m)	Strut 6 (m)
	Rec	Tri						
0.50	-	-	-	-	-	-	-	-
1.00	-	-	-	-	-	-	-	-
1.50	51.60	61.10	0.25	0.75	-	-	-	-
2.00	51.60	58.20	0.50	1.25	-	-	-	-
2.50	51.60	56.60	0.40	1.00	1.75	-	-	-
3.00	51.60	55.60	0.50	1.75	2.25	-	-	-
3.50	51.60	54.90	0.50	1.50	2.00	2.75	-	-
4.00	51.60	54.40	0.50	1.50	2.00	2.50	3.25	-
4.50	51.60	54.00	0.50	1.50	2.00	2.50	3.00	3.75
5.00	51.60	53.60	0.50	1.25	2.00	3.00	3.75	4.25

Panel and Connectors - 0.91m Panel - 1.0m Understrut Clearance								
Depth	Max Kpa		Strut 1 (m)	Strut 2 (m)	Strut 3 (m)	Strut 4 (m)	Strut 5 (m)	Strut 6 (m)
	Rec	Tri						
0.50	-	-	-	-	-	-	-	-
1.00	-	-	-	-	-	-	-	-
1.50	-	-	-	-	-	-	-	-
2.00	33.00	37.70	0.50	1.00	-	-	-	-
2.50	33.00	36.60	0.40	1.00	1.50	-	-	-
3.00	33.00	36.00	0.50	1.50	2.00	-	-	-
3.50	33.00	35.50	0.50	1.50	2.00	2.50	-	-
4.00	33.00	35.20	0.50	1.50	2.00	2.50	3.00	-
4.50	33.00	34.90	0.50	1.50	2.00	2.50	3.00	3.50
5.00	33.00	34.70	0.50	1.25	2.00	3.00	3.50	4.00

Panel and Connectors - 1.55m Panel - 0.5m Understrut Clearance								
Depth	Max Kpa		Strut 1 (m)	Strut 2 (m)	Strut 3 (m)	Strut 4 (m)	Strut 5 (m)	Strut 6 (m)
	Rec	Tri						
0.50	-	-	-	-	-	-	-	-
1.00	43.00	57.30	0.14	0.50	-	-	-	-
1.50	43.00	51.60	0.25	0.75	-	-	-	-
2.00	43.00	49.10	0.50	1.25	-	-	-	-
2.50	43.00	47.70	0.40	1.00	2.00	-	-	-
3.00	43.00	46.90	0.50	1.75	3.00	-	-	-
3.50	43.00	46.30	0.50	1.50	2.00	3.00	-	-
4.00	43.00	45.80	0.50	1.50	2.00	2.50	3.50	-
4.50	43.00	45.50	0.50	1.50	2.00	2.50	3.00	4.00
5.00	43.00	45.20	0.50	1.25	2.00	3.00	3.75	4.50

Panel and Connectors - 1.55m Panel - 0.75m Understrut Clearance								
Depth	Max Kpa		Strut 1 (m)	Strut 2 (m)	Strut 3 (m)	Strut 4 (m)	Strut 5 (m)	Strut 6 (m)
	Rec	Tri						
0.50	-	-	-	-	-	-	-	-
1.00	30.30	-	-	-	-	-	-	-
1.50	30.30	36.30	0.25	0.75	-	-	-	-
2.00	30.30	34.60	0.50	1.25	-	-	-	-
2.50	30.30	33.60	0.40	1.00	1.75	-	-	-
3.00	30.30	33.00	0.50	1.75	2.25	-	-	-
3.50	30.30	32.60	0.50	1.50	2.00	2.75	-	-
4.00	30.30	32.30	0.50	1.50	2.00	2.50	3.25	-
4.50	30.30	32.00	0.50	1.50	2.00	2.50	3.00	3.75
5.00	30.30	31.80	0.50	1.25	2.00	3.00	3.75	4.25

Panel and Connectors - 1.55m Panel - 1.0m Understrut Clearance								
Depth	Max Kpa		Strut 1 (m)	Strut 2 (m)	Strut 3 (m)	Strut 4 (m)	Strut 5 (m)	Strut 6 (m)
	Rec	Tri						
0.50	-	-	-	-	-	-	-	-
1.00	-	-	-	-	-	-	-	-
1.50	-	-	-	-	-	-	-	-
2.00	19.40	21.71	0.50	1.00	-	-	-	-
2.50	19.40	21.11	0.40	1.00	1.50	-	-	-
3.00	19.40	20.73	0.50	1.50	2.00	-	-	-
3.50	19.40	20.46	0.50	1.50	2.00	2.50	-	-
4.00	19.40	20.72	0.50	1.50	2.00	2.50	3.00	-
4.50	19.40	20.12	0.50	1.50	2.00	2.50	3.00	3.50
5.00	19.40	20.00	0.50	1.25	2.00	3.00	3.50	4.00

Panel and Connectors - 2.00m Panel - 0.5m Understrut Clearance								
Depth	Max Kpa		Strut 1 (m)	Strut 2 (m)	Strut 3 (m)	Strut 4 (m)	Strut 5 (m)	Strut 6 (m)
	Rec	Tri						
0.50	-	-	-	-	-	-	-	-
1.00	33.00	44.00	0.14	0.50	-	-	-	-
1.50	33.00	39.60	0.25	0.75	-	-	-	-
2.00	33.00	37.71	0.50	1.25	-	-	-	-
2.50	33.00	36.67	0.40	1.00	2.00	-	-	-
3.00	33.00	36.00	0.50	1.75	3.00	-	-	-
3.50	33.00	35.54	0.50	1.50	2.00	3.00	-	-
4.00	33.00	35.20	0.50	1.50	2.00	2.50	3.50	-
4.50	33.00	34.94	0.50	1.50	2.00	2.50	3.00	4.00
5.00	33.00	34.74	0.50	1.25	2.00	3.00	3.75	4.50

Panel and Connectors - 2.00m Panel - 0.75m Understrut Clearance								
Depth	Max Kpa		Strut 1 (m)	Strut 2 (m)	Strut 3 (m)	Strut 4 (m)	Strut 5 (m)	Strut 6 (m)
	Rec	Tri						
0.50	-	-	-	-	-	-	-	-
1.00	-	-	-	-	-	-	-	-
1.50	23.50	28.20	0.25	0.75	-	-	-	-
2.00	23.50	26.86	0.50	1.25	-	-	-	-
2.50	23.50	26.11	0.40	1.00	1.75	-	-	-
3.00	23.50	25.64	0.50	1.75	2.25	-	-	-
3.50	23.50	25.31	0.50	1.50	2.00	2.75	-	-
4.00	23.50	25.07	0.50	1.50	2.00	2.50	3.25	-
4.50	23.50	24.88	0.50	1.50	2.00	2.50	3.00	3.75
5.00	23.50	24.74	0.50	1.25	2.00	3.00	3.75	4.25

Panel and Connectors - 2.00m Panel - 1.0m Understrut Clearance								
Depth	Max Kpa		Strut 1 (m)	Strut 2 (m)	Strut 3 (m)	Strut 4 (m)	Strut 5 (m)	Strut 6 (m)
	Rec	Tri						
0.50	-	-	-	-	-	-	-	-
1.00	-	-	-	-	-	-	-	-
1.50	-	-	-	-	-	-	-	-
2.00	15.00	17.10	0.50	1.00	-	-	-	-
2.50	15.00	16.60	0.40	1.00	1.50	-	-	-
3.00	15.00	16.30	0.50	1.55	2.00	-	-	-
3.50	15.00	16.10	0.50	1.50	2.00	2.50	-	-
4.00	15.00	16.00	0.50	1.50	2.00	2.50	3.00	-
4.50	15.00	15.80	0.50	1.50	2.00	2.50	3.00	3.50
5.00	15.00	15.70	0.50	1.25	2.00	3.00	3.50	4.00

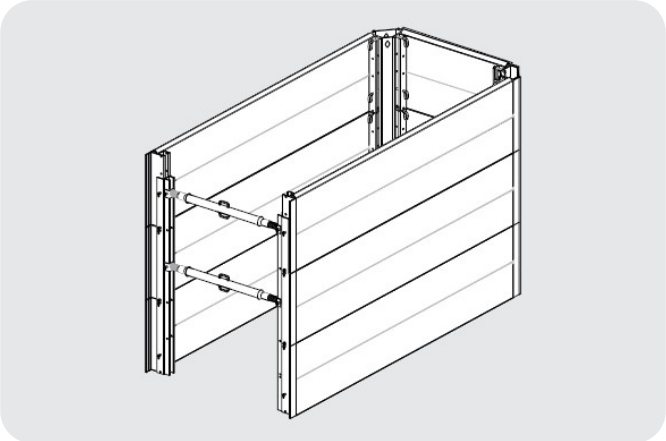
Panel and Connectors - 2.55m Panel - 0.5m Understrut Clearance								
Depth	Max Kpa		Strut 1 (m)	Strut 2 (m)	Strut 3 (m)	Strut 4 (m)	Strut 5 (m)	Strut 6 (m)
	Rec	Tri						
0.50	-	-	-	-	-	-	-	-
1.00	26.00	34.60	0.14	0.50	-	-	-	-
1.50	26.00	31.20	0.25	0.75	-	-	-	-
2.00	26.00	29.70	0.50	1.25	-	-	-	-
2.50	26.00	28.80	0.40	1.00	2.00	-	-	-
3.00	26.00	28.30	0.50	1.75	3.00	-	-	-
3.50	26.00	28.00	0.50	1.50	2.00	3.00	-	-
4.00	26.00	27.70	0.50	1.50	2.00	2.50	3.50	-
4.50	26.00	27.50	0.50	1.50	2.00	2.50	3.00	4.00
5.00	26.00	27.30	0.50	1.25	2.00	3.00	3.75	4.50

Panel and Connectors - 2.55m Panel - 0.75m Understrut Clearance								
Depth	Max Kpa		Strut 1 (m)	Strut 2 (m)	Strut 3 (m)	Strut 4 (m)	Strut 5 (m)	Strut 6 (m)
	Rec	Tri						
0.50	-	-	-	-	-	-	-	-
1.00	-	-	-	-	-	-	-	-
1.50	18.40	21.60	0.25	0.75	-	-	-	-
2.00	18.40	20.50	0.50	1.25	-	-	-	-
2.50	18.40	20.00	0.40	1.00	1.75	-	-	-
3.00	18.40	19.60	0.50	1.75	2.25	-	-	-
3.50	18.40	19.30	0.50	1.50	2.00	2.75	-	-
4.00	18.40	19.20	0.50	1.50	2.00	2.50	3.25	-
4.50	18.40	19.00	0.50	1.50	2.00	2.50	3.00	3.75
5.00	18.40	18.90	0.50	1.25	2.00	3.00	3.75	4.25

Panel and Connectors - 3.00m Panel - 0.50m Understrut Clearance								
Depth	Max Kpa		Strut 1 (m)	Strut 2 (m)	Strut 3 (m)	Strut 4 (m)	Strut 5 (m)	Strut 6 (m)
	Rec	Tri						
0.50	-	-	-	-	-	-	-	-
1.00	-	-	-	-	-	-	-	-
1.50	22.00	21.60	0.25	0.75	-	-	-	-
2.00	22.00	20.50	0.50	1.25	-	-	-	-
2.50	22.00	20.00	0.40	1.00	1.75	-	-	-
3.00	22.00	19.60	0.50	1.75	2.25	-	-	-
3.50	22.00	19.30	0.50	1.50	2.00	2.75	-	-
4.00	22.00	19.20	0.50	1.50	2.00	2.50	3.25	-
4.50	22.00	19.00	0.50	1.50	2.00	2.50	3.00	3.75
5.00	22.00	18.90	0.50	1.25	2.00	3.00	3.75	4.25

Panel and Connectors - 3.00m Panel - 0.75m Understrut Clearance								
Depth	Max Kpa		Strut 1 (m)	Strut 2 (m)	Strut 3 (m)	Strut 4 (m)	Strut 5 (m)	Strut 6 (m)
	Rec	Tri						
0.50	-	-	-	-	-	-	-	-
1.00	-	-	-	-	-	-	-	-
1.50	15.70	18.80	0.25	0.75	-	-	-	-
2.00	15.70	17.90	0.50	1.25	-	-	-	-
2.50	15.70	17.40	0.40	1.00	1.75	-	-	-
3.00	15.70	17.10	0.50	1.75	2.25	-	-	-
3.50	15.70	16.90	0.50	1.50	2.00	2.75	-	-
4.00	15.70	16.70	0.50	1.50	2.00	2.50	3.25	-
4.50	15.70	16.60	0.50	1.50	2.00	2.50	3.00	3.75
5.00	15.70	16.50	0.50	1.25	2.00	3.00	3.75	4.25

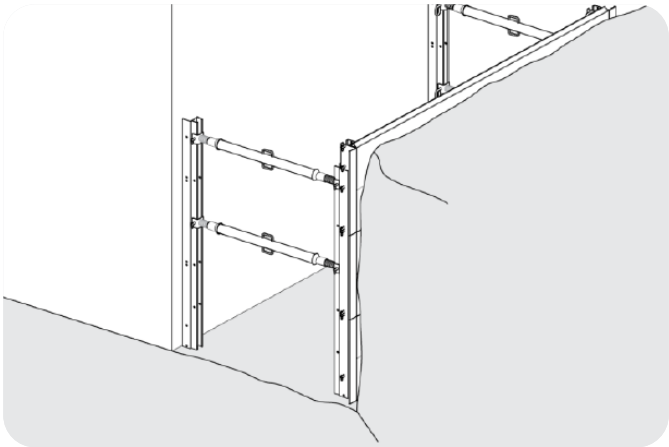
Special Applications



Manhole shoring open to one side

Where required, use manhole shoring open to one side at the start or end of a trench or where services are connected (T section) and panels can be removed to allow services to cross. Always refer to datasheets, engineer designs and certification!

Note: This solution requires manhole corner profiles and panel connectors for strut fixation



Shoring On One Side Only

In order to be able to work adjacent to existing structures, the trench shoring can be braced against the structure with the help of the panel connector.

Always check local regulations and the load bearing capacity of the structure first.



While information in this Guide is correct at time of printing, product specifications and product availability are subject to change without further notice. Please visit our website for the most up to date information. Job site photos are strictly intended for general product illustration only and may not comply with all applicable safety standards or site requirements.