

LITEBOX trench edge support



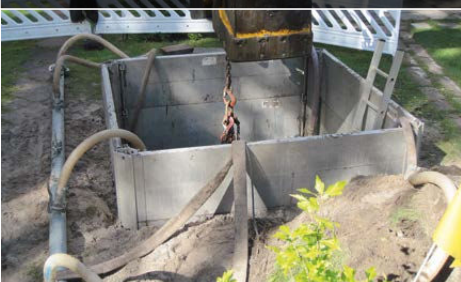
LITEBOX trenching system



LITEBOX trench sheeting system



LITEBOX manhole shoring system



LITEBOX Aluminium Trenching System

One system – many uses.

Lightweight. Efficient. Safe.

LITEBOX aluminium trenching system

System-based, efficient solutions.

The LITEBOX aluminium trenching system is the ideal shoring system for trenches as deep as 6 m and is ideal for inner city applications. This aluminium modular system closes the gap between the frequently heavy and cumbersome steel systems and manual trench timbering.

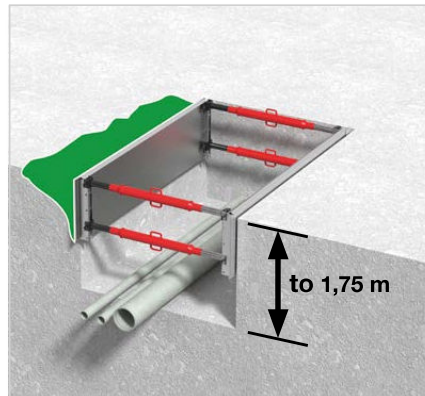
The range is divided into five types of application to match the different requirements of building sites. This modular system can be combined and supplemented as required.

The many applications include the laying of cables and gas and water pipes in open trenches, jacking and working pits for installing pipes and cables underground, installing and repairing service connections to buildings, inspection work, horticultural and landscaping works, etc.



i Watch the video on LITEBOX aluminium trenching systems!

The LITEBOX aluminium trenching system complies with the requirements of DIN 4124 and DIN EN 13331. The safety aspects of the LITEBOX aluminium trenching system have been checked by DGUV test - testing and certification bodies of the German Social Accident Insurance (DGUV)

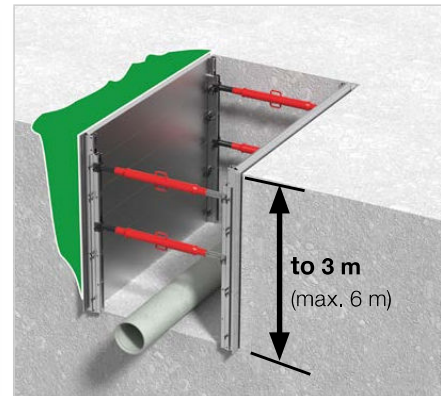


LITEBOX aluminium trench edge support

Partial shoring – for securing max. 1.75 m deep trenches

- Prevents the top edges of the trench from collapsing
- Suitable for stiff and cohesive soils as well as rocky ground
- Can be installed by two persons without plant

Trench box A
> page 5

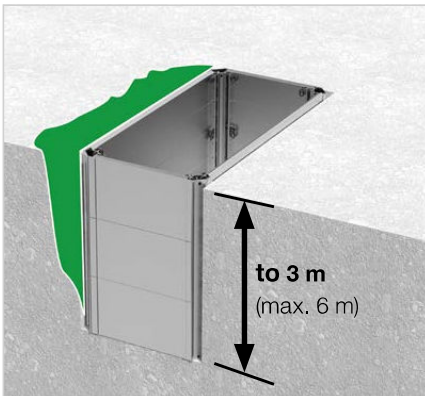


LITEBOX aluminium trenching system

Full shoring – fast and safe, for max. 6 m deep trenches (trench depth > 3m only with panels ≤ 2m)

- Sides fully supported
- For soils that are stable for short periods
- Suitable for use in max. 6 m deep trenches

Trench boxes B to K
> page 6-7

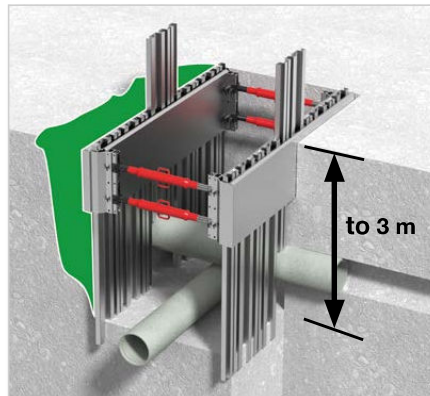


LITEBOX aluminium manhole shoring system

Aluminium manhole shoring – fast and safe, for max. 6 m deep shafts (trench depth > 3m only with panels ≤ 2.55 m)

- Sides fully supported
- For soils that are stable for short periods
- The solution for jacking and working pits
- Suitable for supporting trench ends

Manhole boxes
> page 8-9

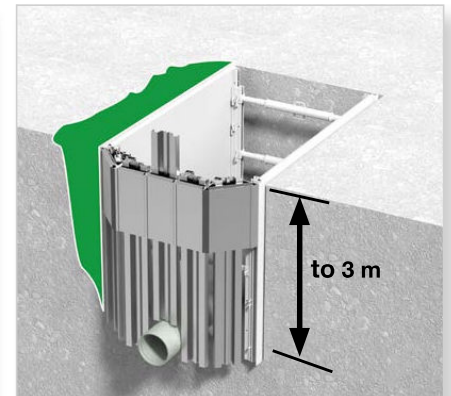


LITEBOX aluminium trench sheeting system

Full shoring with flexible and adjustable aluminium trench sheets – for max. 3 m deep trenches, also in complex situations

- Easy to leave openings for crossing services
- Also suitable for friable and cohesionless soils
- Unobstructed view of trench sheets during installation
- Safe excavation between supported sides also possible
- Generous pipe clearance height

Strongframe box
> page 10-11



LITEBOX aluminium end-face shoring

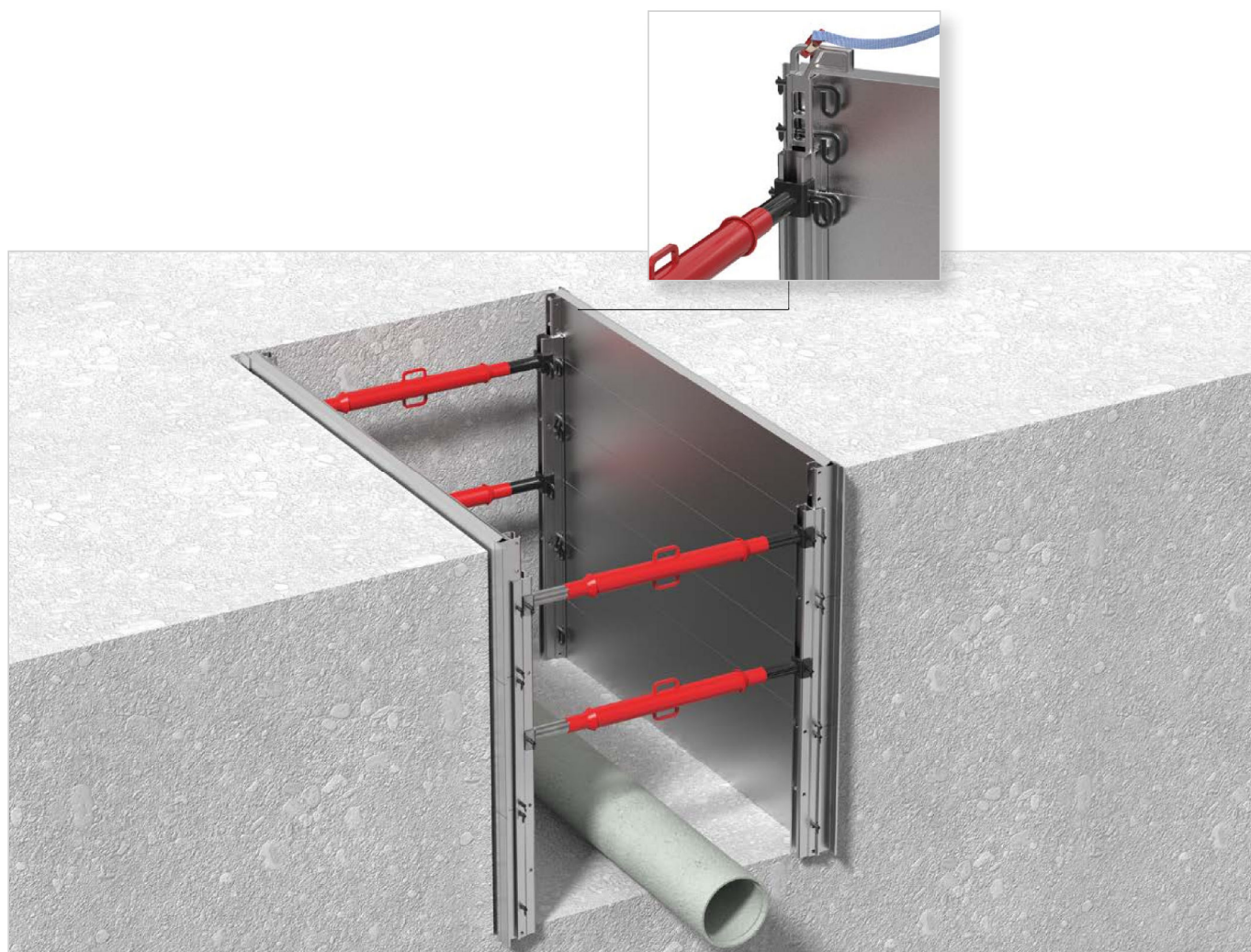
For securing the end faces of a trench against collapse. Shoring in accordance with the relevant standards. Can be combined with our LITEBOX aluminium trenching and aluminium trench sheeting systems. Suitable for use in max. 3 m deep trenches.

- Modular system solution easily adapted to different trench widths
- Suitable for the complete extension range of Gi-A trench struts
- Adapts to the edge of the trench, no unnecessary excavation required

End-face shoring
> page 12-13

For further planning information, please refer to the instructions for installation and use for the LITEBOX aluminium trenching and trench sheeting systems and end-face shoring.

Our LITEBOX aluminium trenching system is easily installed



Just a few basic parts for many solutions

Using just a few basic parts it is possible to provide solutions for all customary trench widths and depths (max. 6 m) and awkward situations (crossing services, friable soils, cramped sites). Pipe clearance heights of up to 2.50 m simplify installation work.

Easy assembly – connecting pins instead of bolts

All the individual parts of a trench box are assembled with connecting pins – no bolts or tools necessary. Assembly is carried out on site, if necessary “step by step” in the excavation.

Lightweight parts for easy handling and transport

The heaviest individual part of a LITEBOX aluminium trench box weighs 42 kg. A small van or even a trailer hitched up to a car is sufficient to transport the components to the building site. No heavy plant is needed to assemble the parts.

Fast installation, fast removal

Complete trench boxes are easily installed and removed as complete units. These lightweight units require only light lifting gear. The trench struts are extended to match the trench width exactly.

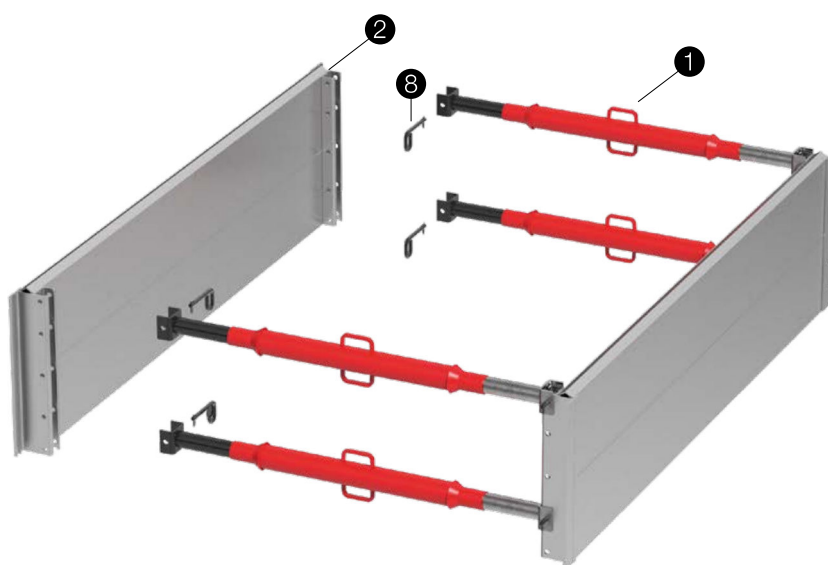


LITEBOX aluminium trench edge support

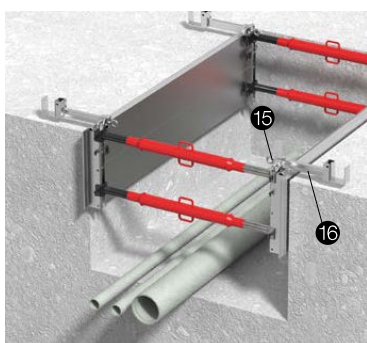
Trench box A

LITEBOX aluminium trench edge support

Trench box A



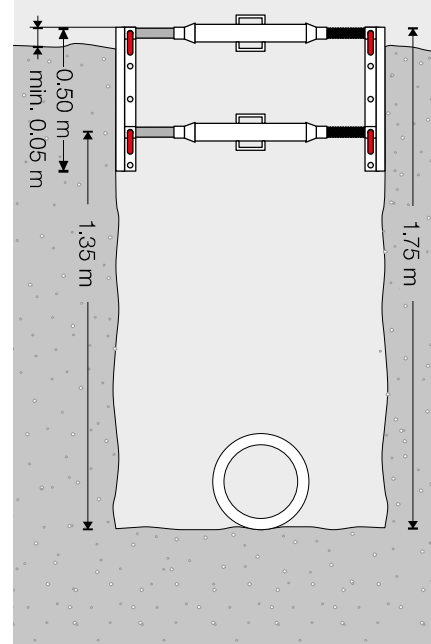
One frequent application for the LITEBOX aluminium trenching system is partial shoring with the aluminium trench edge support system in stable soils and for trenches no deeper than 1.75 m. Most buried services are within that depth. All the advantages of the modular system can be fully exploited for this straightforward application. A trench edge support unit weights no more than 130 kg.



Securing against sliding down

Sliding down of the trenching unit can be prevented by using Litebox universal lifting eyes **15** with holding arms **16** (see chapter special applications and supplements).

Trench box A



Applications

| | |
|----------------------------|----------------|
| Trench depth | 1.75 m |
| Trench width | 0.60 to 2.18 m |
| max. pipe clearance height | 1.35 m |

Max. weight

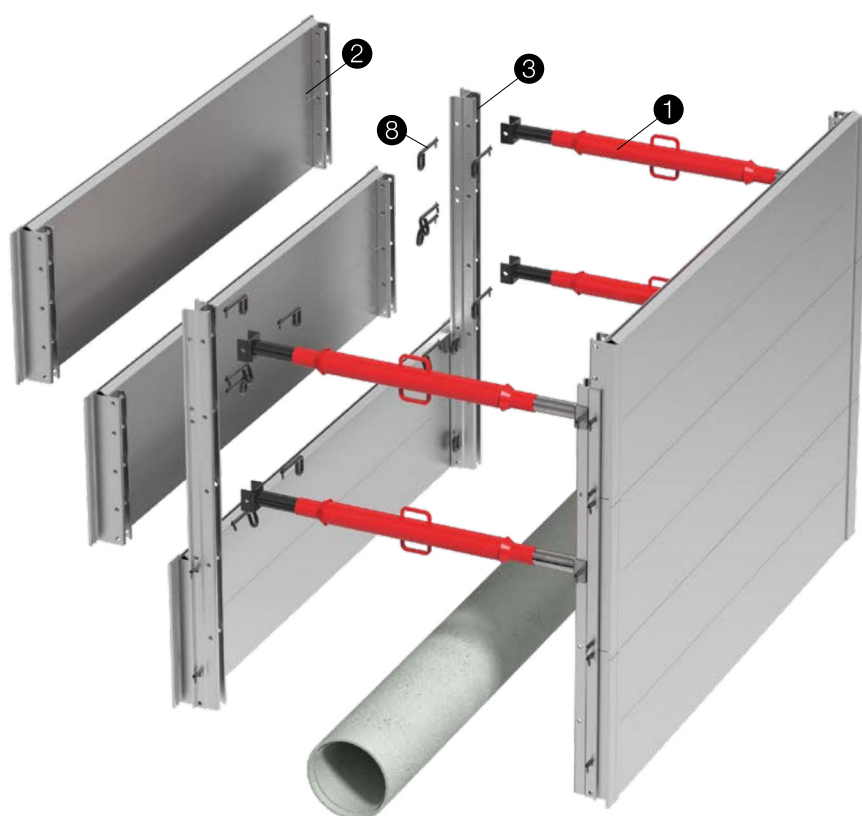
| | |
|--------------------------------------|--------|
| with LITEBOX struts Gi-A / 129 – 218 | |
| 3.00 m LITEBOX panels | 130 kg |
| 2.55 m LITEBOX panels | 119 kg |
| 2.00 m LITEBOX panels | 103 kg |
| 1.55 m LITEBOX panels | 93 kg |

Components for system A

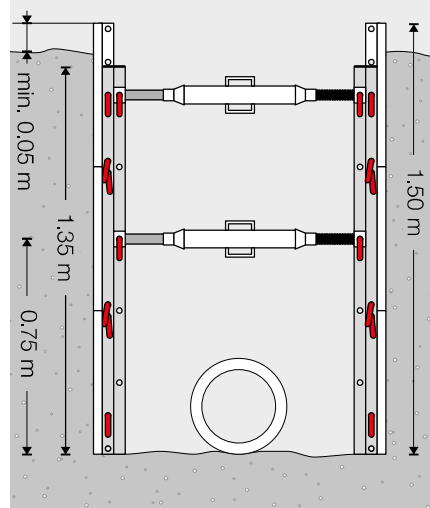
| | |
|---|---|
| 1 LITEBOX struts Gi-A | 4 |
| 2 LITEBOX panels | 2 |
| 8 Standard connecting pins Ø 13 mm | 8 |

Trench boxes B to K*

Trench boxes B to K*



Trench box B

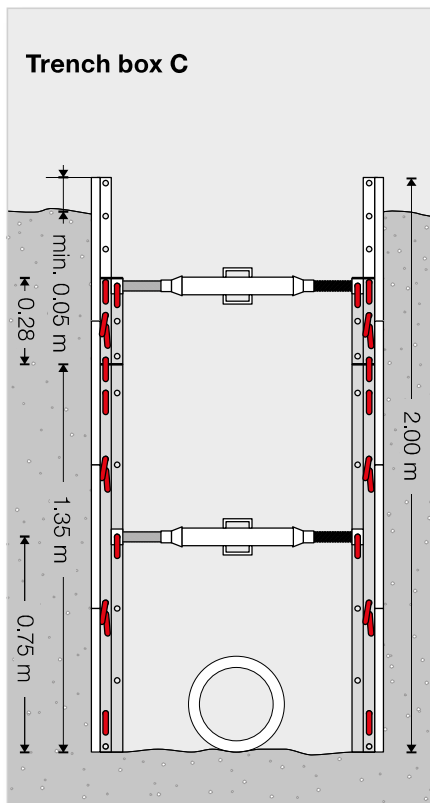


| | |
|----------------------------|----------------|
| Trench depth | 1.50 m |
| Trench width | 0.68 to 2.26 m |
| max. pipe clearance height | 0.75 m |

| | |
|--------------------------------------|--------|
| with LITEBOX struts Gi-A / 129 – 218 | |
| 3.00 m LITEBOX panels | 325 kg |
| 2.55 m LITEBOX panels | 292 kg |
| 2.00 m LITEBOX panels | 242 kg |
| 1.55 m LITEBOX panels | 213 kg |

| | | |
|---|----------------------------------|----|
| 1 | LITEBOX struts Gi-A | 4 |
| 2 | LITEBOX panels | 6 |
| 3 | Panel connectors 0.28 m | - |
| | Panel connectors 1.35 m | 4 |
| 8 | Standard connecting pins Ø 13 mm | 32 |

6



Applications

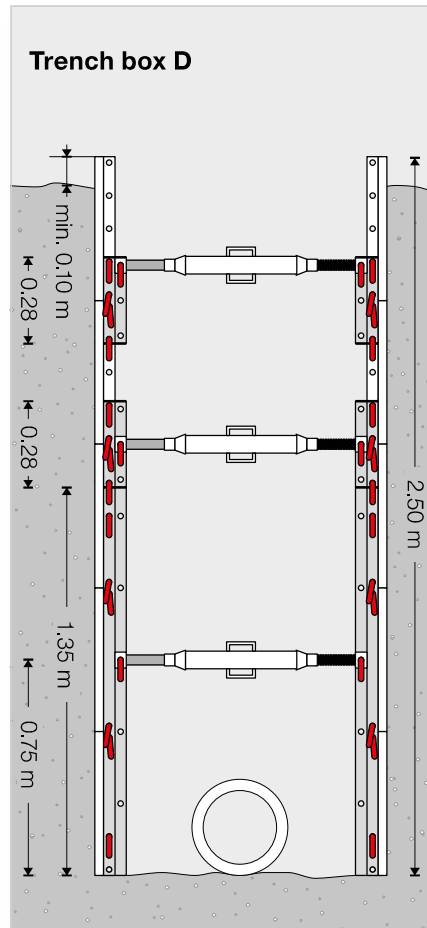
| | |
|----------------------------|----------------|
| Trench depth | 2.00 m |
| Trench width | 0.68 to 2.26 m |
| max. pipe clearance height | 0.75 m |

Max. weight

| | |
|--------------------------------------|--------|
| with LITEBOX struts Gi-A / 129 – 218 | |
| 3.00 m LITEBOX panels | 417 kg |
| 2.55 m LITEBOX panels | 374 kg |
| 2.00 m LITEBOX panels | 307 kg |
| 1.55 m LITEBOX panels | 268 kg |

Components for system C

| | |
|------------------------------------|----|
| ① LITEBOX struts Gi-A | 4 |
| ② LITEBOX panels | 8 |
| ③ Panel connectors 0.28 m | 4 |
| Panel connectors 1.35 m | 4 |
| ⑧ Standard connecting pins Ø 13 mm | 48 |



Applications

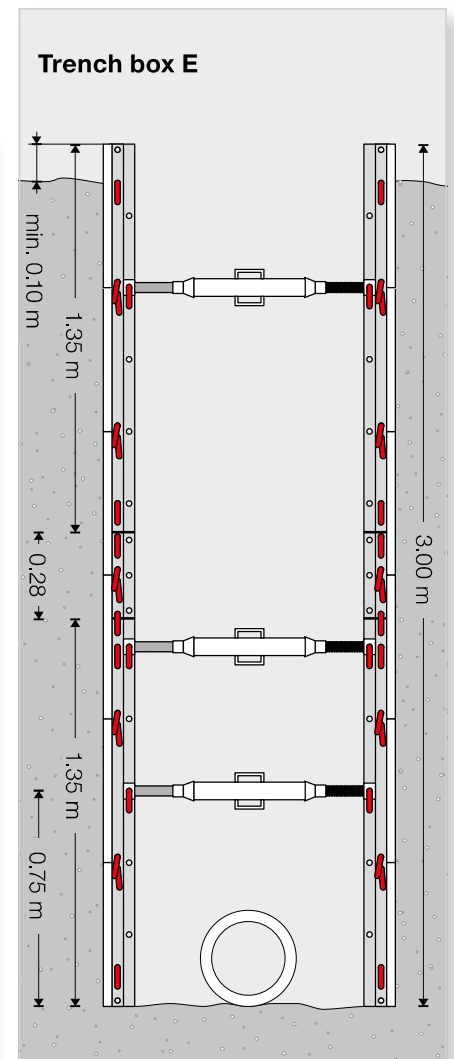
| | |
|----------------------------|----------------|
| Trench depth | 2.50 m |
| Trench width | 0.68 to 2.26 m |
| max. pipe clearance height | 0.75 m |

Max. weight

| | |
|--------------------------------------|--------|
| with LITEBOX struts Gi-A / 129 – 218 | |
| 3.00 m LITEBOX panels | 532 kg |
| 2.55 m LITEBOX panels | 478 kg |
| 2.00 m LITEBOX panels | 394 kg |
| 1.55 m LITEBOX panels | 346 kg |

Components for system D

| | |
|------------------------------------|----|
| ① LITEBOX struts Gi-A | 6 |
| ② LITEBOX panels | 10 |
| ③ Panel connectors 0.28 m | 8 |
| Panel connectors 1.35 m | 4 |
| ⑧ Standard connecting pins Ø 13 mm | 68 |



Trench box E

Applications

| | |
|----------------------------|----------------|
| Trench depth | 3.00 m |
| Trench width | 0.68 to 2.26 m |
| max. pipe clearance height | 0.75 m |

Max. weight

| | |
|--------------------------------------|--------|
| with LITEBOX struts Gi-A / 129 – 218 | |
| 3.00 m LITEBOX panels | 635 kg |
| 2.55 m LITEBOX panels | 569 kg |
| 2.00 m LITEBOX panels | 469 kg |
| 1.55 m LITEBOX panels | 411 kg |

Components for system E

| | |
|------------------------------------|----|
| ① LITEBOX struts Gi-A | 6 |
| ② LITEBOX panels | 12 |
| ③ Panel connectors 0.28 m | 4 |
| Panel connectors 1.35 m | 8 |
| ⑧ Standard connecting pins Ø 13 mm | 76 |

Note: As an alternative to the 0.28 and 1.35 m panel connectors, it is also possible to use 1.85 m connectors.

LITEBOX aluminium manhole shoring system

Manhole boxes

LITEBOX aluminium manhole full shoring system

System M (1.5 m excavation depth)

System N (6 m excavation depth, not illustrated)

Combining LITEBOX panels of different lengths enables shafts of various plan dimensions to be secured. An unobstructed working space without struts is possible in shafts down to a depth of 6 m (manhole > 3 m only with panels ≤ 2,55 m, see p. 14). The simple and safe way to support jacking and working pits for installing pipes and cables underground. Left open on one side, the aluminium manhole shoring system is ideal for closing the end of a trench. By using the manhole corner, the external dimensions of the trench unit are always 0.20 m longer than the length of the Litebox panel.

Information on the possible Litebox manhole layouts can be found on page 14.



Two aluminium manhole corner profiles joined with manhole corner connector (depth > 1.50 m)

Manhole boxes

Applications

| | |
|------------------|----------------|
| Excavation depth | up to 6.00 m |
| Manhole width | 1.11 to 3.20 m |

Components to 1.50 m excavation depth

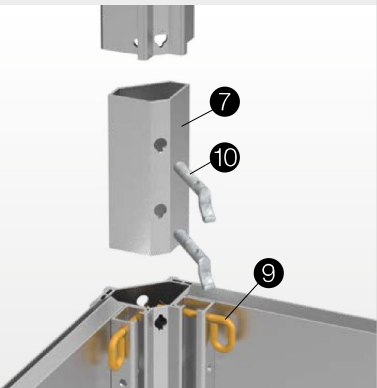
| | |
|---|----|
| Excavation depth 1.5 m | |
| 2 LITEBOX panels, shaft length | 6 |
| LITEBOX panels, shaft width | 6 |
| 6 Manhole corner profiles 1.5 m | 4 |
| 9 Connecting pins Ø 13 mm for manhole corner profiles | 48 |

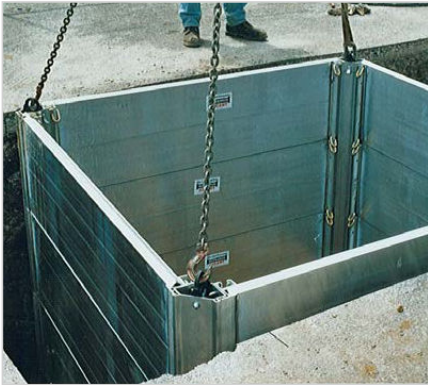
Components to 3.00 m excavation depth (without illustration)

| | |
|---|----|
| Excavation depth 3 m | |
| 2 LITEBOX panels, shaft length | 12 |
| LITEBOX panels, shaft length | 12 |
| 6 Manhole corner profiles 1.5 m | 8 |
| 7 Manhole corner connectors | 4 |
| 9 Connecting pins Ø 13 mm for manhole corner profiles | 96 |
| 10 Connecting pins Ø 20 mm with nib | 8 |

Other excavation depths are possible in 50 cm steps.

Plan size ≤ 2.20 x 2.20 m for manhole depths ≥ 3 m.





Easy removal

Manhole shoring can be removed in one piece or dismantled and the parts removed separately.



Jacking and working pits

Fitting manhole corner profiles to the open side of the shaft shoring results in a maximum pipe clearance height of 1 m in the shaft.



Sides fully supported

Up to a size of $\leq 2.20 \text{ m} \times 2.20 \text{ m}$ on plan, the system is suitable for manholes as deep as 6 m.

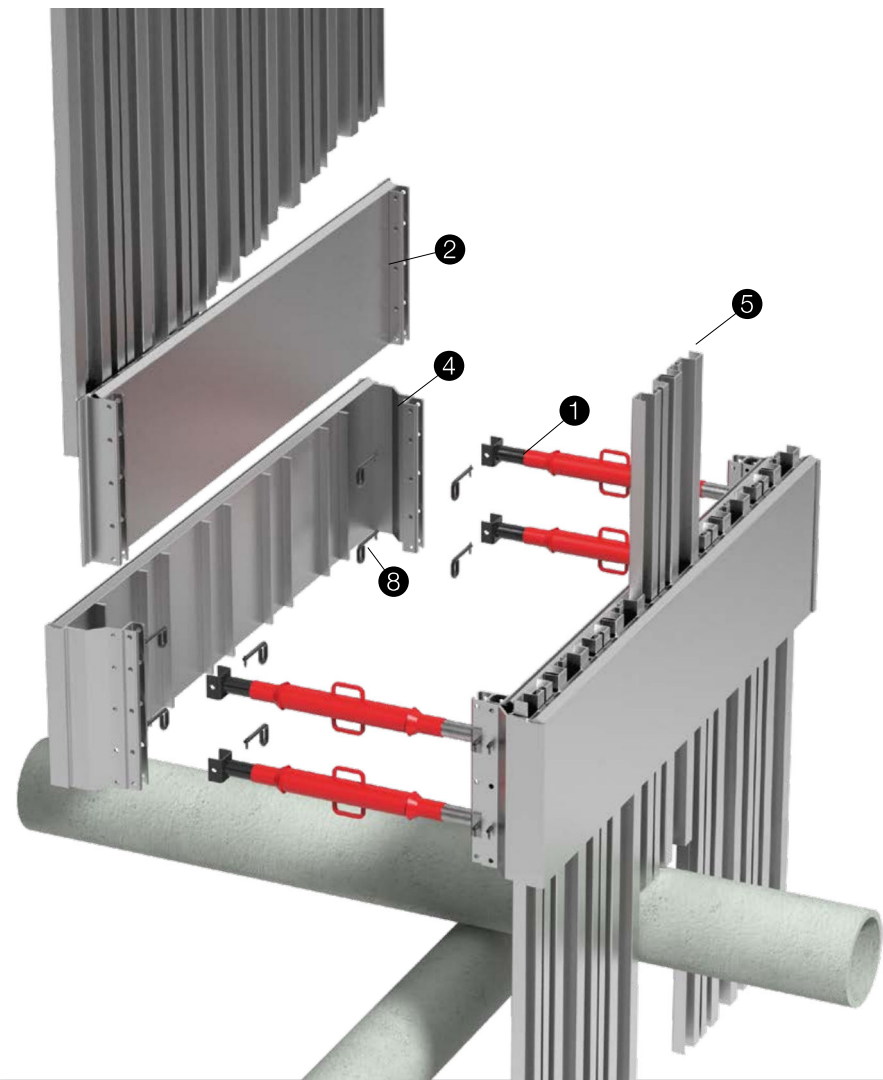


LITEBOX aluminium trench sheeting system

Trench sheeting box

LITEBOX aluminium trench sheeting system

Leaving openings for crossing services and other obstacles in trenches as deep as 3 m is easy with the LITEBOX aluminium trench sheeting system. Combining aluminium trench panels and aluminium guide panels enables the aluminium trench sheets to be installed in the ground over the depth required. Excavations can then be carried out in controlled conditions, safeguarded at all times by the trench lining – even in friable, unstable soils.



Trench sheeting box

Applications

Trench width 0.91 to 2.49 m

Trench max. 1.50 m deep

- Aluminium trench sheet 1.50 m
- Pipe clearance height 1.00 m
- Aluminium trench sheets not embedded in base of trench

Trench max. 2.00 m deep

- Aluminium trench sheet 2.50 m
 - Pipe clearance height 1.50 m
- Aluminium trench sheets not embedded in base of trench

Trench max. 3.00 m deep

- Aluminium trench sheet 3.50 m
- Pipe clearance height 2.50 m
- Additional horizontal bracing or aluminium trench sheets embedded in base of trench (see LITEBOX aluminium trench sheeting system, instructions for installation and use)

Max. weight

with LITEBOX struts Gi-A / 129 – 218
1.50 m Aluminium trench sheet 343 kg
2.50 m Aluminium trench sheet 457 kg
3.50 m Aluminium trench sheet 569 kg

Components

| | |
|------------------------------------|----|
| ① LITEBOX struts Gi-A | 4 |
| ② LITEBOX panels 2 m long | 2 |
| ④ Aluminium guide panels 2,05 m | 2 |
| ⑤ Aluminium trench sheets | 20 |
| ⑧ Standard connecting pins Ø 13 mm | 16 |



The simple solution for complex situations and large pipe clearance heights



Safe excavation with an unobstructed view and without relieving the effecting soil at adhesion



Lightweight and flexible, no need for heavy plant

LITEBOX aluminium end-face shoring

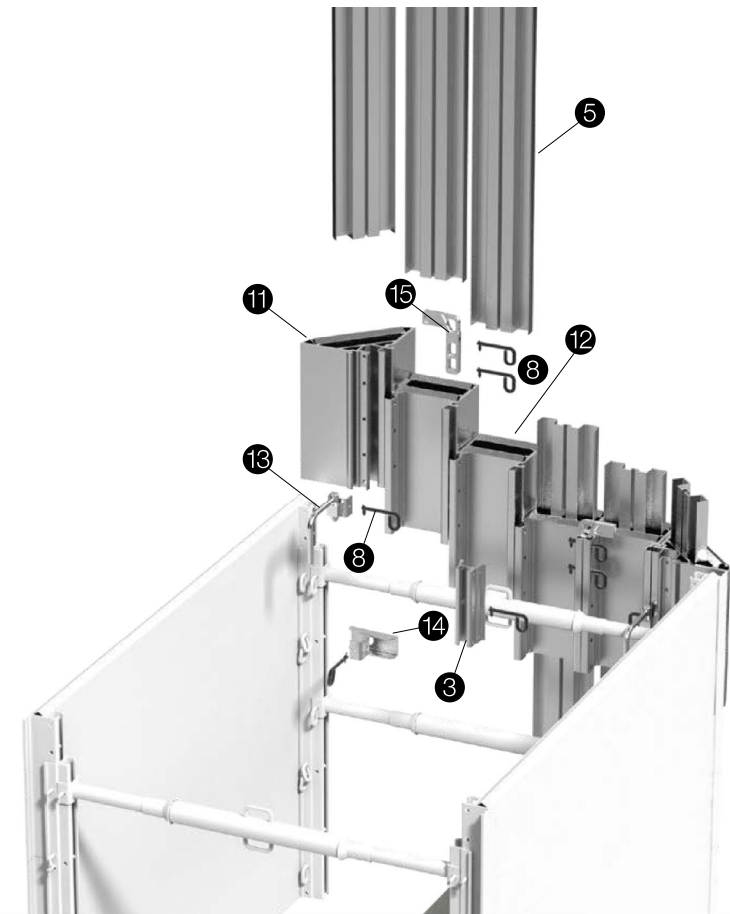
Shoring for trench end faces

LITEBOX aluminium end-face shoring

DIN 4124 applies for sloping back or otherwise securing the sides of any excavations, including end faces, to prevent collapse. Solutions with timber planks or steel panels assembled on site are time-consuming and costly, and in some cases are not adequately braced against the trench struts.

Our LITEBOX aluminium end-face shoring can be easily adjusted to the trench width. To do this, the appropriate number of modular chamber elements are slotted together and secured with standard connecting pins. Aluminium trench sheets slotted into the modular chamber elements close off the end face over the full depth. End-face shoring can be pre-assembled and then lowered into place, but it is also possible to add individual parts once in place.

LITEBOX aluminium end-face shoring can be combined with our LITEBOX aluminium trenching and aluminium trench sheeting systems.



Aluminium end-face shoring

Applications

Trench width 0.84 to 2.35 m

Trench max. 3 m deep

Max. weight

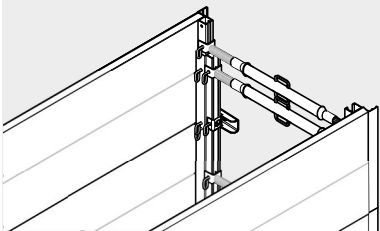
| | |
|-------------------------------------|-----------|
| with aluminium trench sheets 3.50 m | |
| Width of end-face shoring | weight |
| 0.84 m – 1.13 m | 122.80 kg |
| 1.08 m – 1.35 m | 160.80 kg |
| 1.33 m – 1.60 m | 194.80 kg |
| 1.58 m – 1.85 m | 232.80 kg |
| 1.83 m – 2.10 m | 270.90 kg |
| 2.08 m – 2.35 m | 308.90 kg |

Components for Aluminium End-face shoring

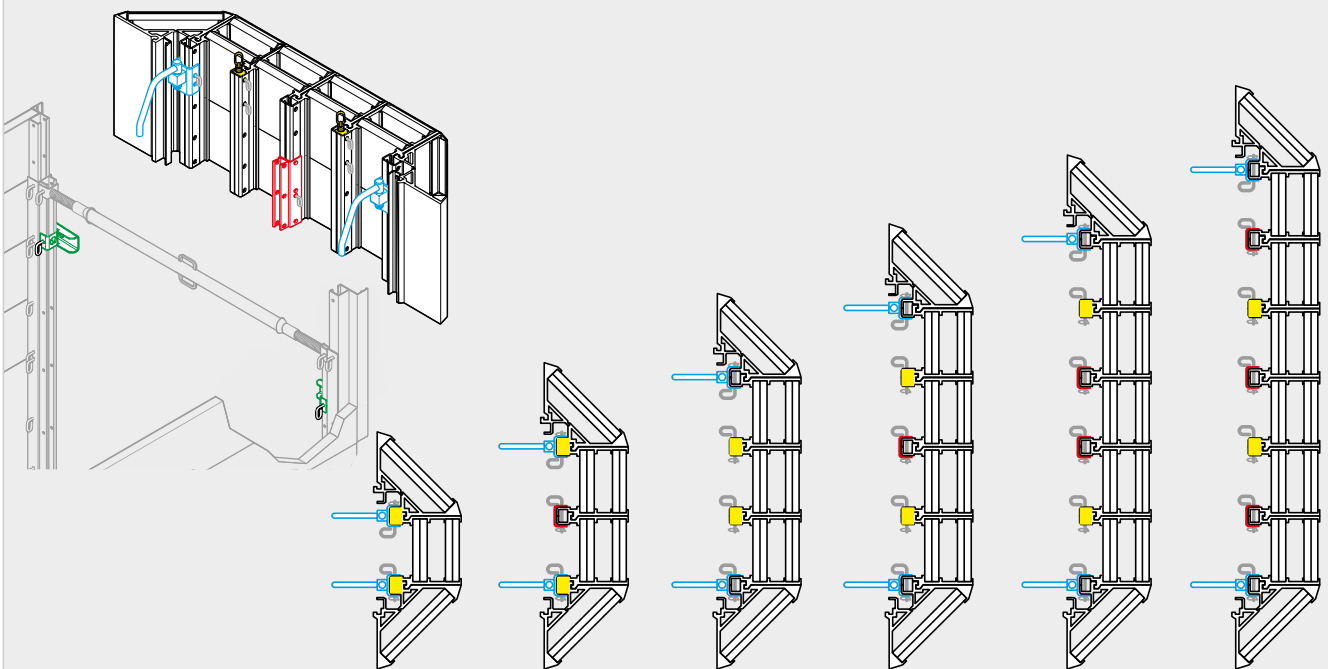
| | | |
|----|-------------------------------------|-------|
| 3 | Panel connectors 0.28 m | 0 – 3 |
| 5 | Aluminium trench sheets | 1 – 7 |
| 8 | Standard connecting pins Ø 13 mm | 4 - 9 |
| 11 | Corner element | 2 |
| 12 | Chamber element | 1 – 7 |
| 13 | Swivel cradle | 2 |
| 14 | Supporting bracket | 2 |
| 15 | Universal lifting eye | 2 |









Note

We recommend fitting an additional trench strut (in the second hole from the top) for trench depths ≥ 2 m in order to position the end-face shoring flush with the trench box.



LITEBOX aluminium end-face shoring (for trench boxes A to E)



| Width of end-face shoring | 0.84 – 1.13 m | 1.08 – 1.35 m | 1.33 – 1.60 m | 1.58 – 1.85 m | 1,83 – 2.10 m | 2.08 – 2.35 m |
|--|----------------------------------|---------------|---------------|---------------|---------------|---------------|
| Gi-A 60-81 without panel connector (with panel connector) | 0.60 – 0.81 m (0.68 – 0.89 m) | | | | | |
| Gi-A 80-121 without panel connector (with panel connector) | 0.80 – 1.21 m (0.88 – 1.29 m) | | | | | |
| Gi-A 129-218 without panel connector (with panel connector) | 1.29 – 2.18 m (1.37 – 2.26 m) | | | | | |
|  Panel connectors 0.28 m | - | 1 | - | 1 | 2 | 3 |
|  Aluminium trench sheets | 3 | 4 | 5 | 6 | 7 | 8 |
|  Standard connecting pins | 6 | 7 | 8 | 9 | 10 | 11 |
|  Corner element | 2 | 2 | 2 | 2 | 2 | 2 |
|  Chamber element | 1 | 2 | 3 | 4 | 5 | 6 |
|  Swivel cradle | 2 | 2 | 2 | 2 | 2 | 2 |
|  Supporting bracket | 2 | 2 | 2 | 2 | 2 | 2 |
|  Universal lifting eye | 2 | 2 | 2 | 2 | 2 | 2 |

Overview of parts for aluminium end-face shoring with LITEBOX aluminium trench sheeting system:
see LITEBOX aluminium trench sheeting/end-face shoring instructions for assembly and use.

Technical data



The LITEBOX aluminium trenching system complies with DIN 4124 (Excavations and trenches) and EN 13331 (Trench lining systems), and in Germany has been checked for safety by DGUV test - testing and certification bodies of the German Social Accident Insurance (DGUV).

Earth pressure according to civil engineering employers' liability insurance association (TBG)

| Trench depth [m] | ≤ 3 | 4 | 5 | 6 |
|---|-------|-------|-------|-------|
| Earth pressure e_k [kN/m ²] | 17.50 | 23.00 | 28.60 | 34.10 |
| Pipe clearance height [m] | 0.75 | 0.75 | 0.50 | 0.50 |

LITEBOX aluminium trenching system (systems B to K)

Average weight approx. 30 kg/m²

| LITEBOX panels [m] | 3.00 x 0.50 | 2.55 x 0.50 | 2.00 x 0.50 | 1.55 x 0.50 | 0.91 x 0.50 |
|--|-------------|-------------|-------------|-------------|-------------|
| Permissible trench depth [m] | 3.00 | 3.00 | 6.00 | 6.00 | 6.00 |
| Spacing of trench struts in trench direction [m] | 2.85 | 2.40 | 1.85 | 1.40 | 0.76 |

LITEBOX aluminium manhole shoring system

15 possible plan forms for aluminium manhole shoring system [m]:

| | | | | |
|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| 3.00 x 3.00 (3.20 x 3.20) | | – | – | – |
| 3.00 x 2.55 (3.20 x 2.75) | 2.55 x 2.55 (2.75 x 2.75) | | | |
| 3.00 x 2.00 (3.20 x 2.20) | 2.55 x 2.00 (2.75 x 2.20) | 2.00 x 2.00 (2.20 x 2.20) | – | – |
| 3.00 x 1.55 (3.20 x 1.75) | 2.55 x 1.55 (2.75 x 1.75) | 2.00 x 1.55 (2.20 x 1.75) | 1.55 x 1.55 (1.75 x 1.75) | – |
| 3.00 x 0.91 (3.20 x 1.11) | 2.55 x 0.91 (2.75 x 1.11) | 2.00 x 0.91 (2.20 x 1.11) | 1.55 x 0.91 (1.75 x 1.11) | 0.91 x 0.91 (1.11 x 1.11) |

Dims. in () = external dims. of aluminium manhole shoring system

LITEBOX aluminium trench sheeting system

Average weight approx. 30 kg/m²

| | | |
|------------------------------|---|--|
| Litebox guide frame [m] * | 2.05 x 0.50 | 2.05 x 0.50 |
| Permissible trench depth [m] | 2.50 without embedment in base of trench | 3.00 with embedment in base of trench |
| Pipe clearance height [m] | 1.50 | 2.50 |

*to be used only with Litebox Panel 2.00 x 0.50 m

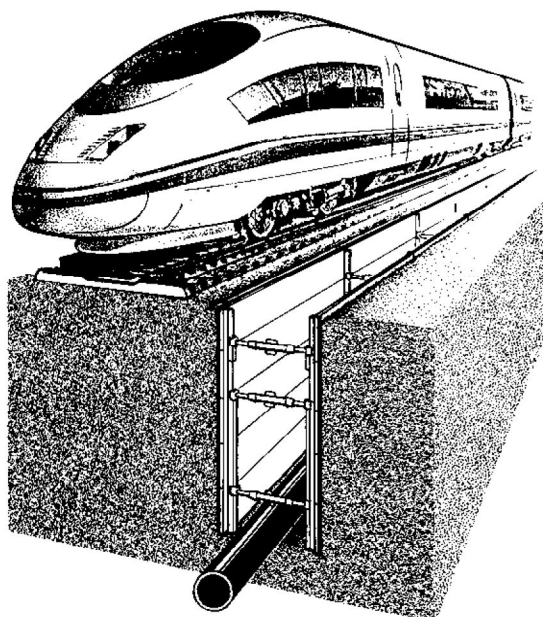
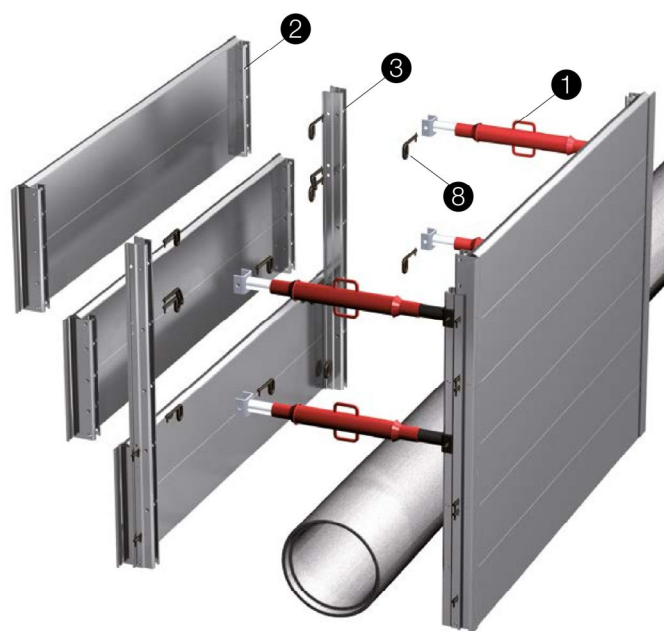
Verified typical calculations
are available.

LITEBOX aluminium trenching system alongside railway lines

With its low weight plus fast and simple assembly, the LITEBOX aluminium trenching system is the perfect answer to installing buried services alongside railway lines. Trenches as deep as 3 m are no problem at all.

Components

- ① LITEBOX struts Gi-A
- ② LITEBOX panels
- ③ Panel connectors
- ⑧ Standard connecting pins Ø 13 mm



Technical data for rail systems

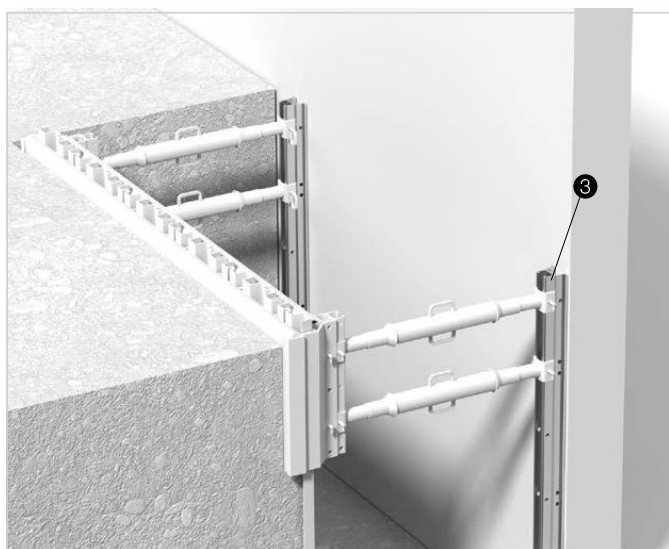
| | | |
|--|---------------|---------------|
| LITEBOX panels | 1.55 x 0.50 m | 0.91 x 0.50 m |
| Permissible trench depth | 3.00 m | 3.00 m |
| Spacing of trench struts in trench direction | 1.40 m | 0.76 m |
| Pipe clearance height | 0.50 m | 0.50 m |

For further information, please refer to the typical calculations and the instructions for installation and use. Assumptions for structural calculations: loads to DIN 1054, RiL 836, RiL 804 and DIN Special Report 101 (load model 71 and SW/2) [consistent soil strata with $\gamma = 20 \text{ kN/m}^3$ and angle of friction of soil ϕ between 25° and 35°].

Special applications and supplements

Versatile modular system

Wide trenches, unusual situations or stricter safety requirements? By combining the various components or combining them with components from the extensive ISCHEBECK formwork range, it is possible to extend the range of applications of this already versatile modular system.



Shoring on one side only

Aluminium panel connectors are used where shoring is required on one side of a trench only (e.g. adjacent basement walls).

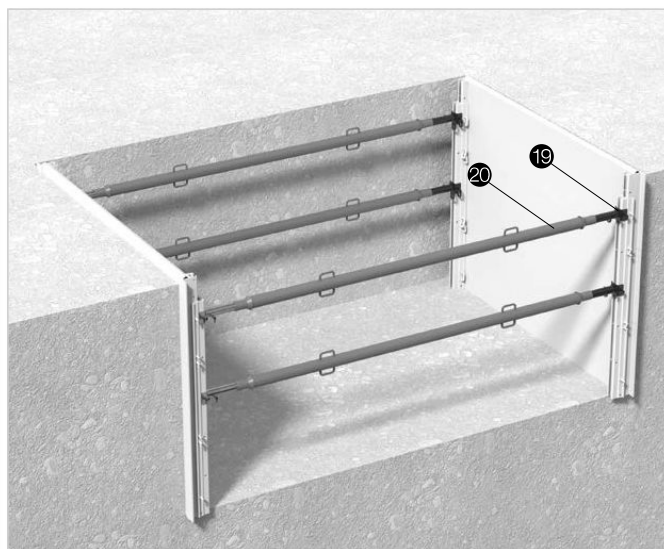
- Works with full shoring in LITEBOX aluminium trenching and aluminium trench sheeting systems

Trench depth and width

- The trench depth depends on the permissible trench depths for the different systems.
- Trenches up to 6.85 m wide (with push pull-props)*

Components

- ③ Aluminium panel connector available in three lengths: 0.28/1.35/1.85 m



Wide trenches

The trench struts can be replaced by TITAN RSK push-pull props in the case of wide trenches.* The props are connected to the aluminium panel connector with RSK adapters. This enables trenches up to 6.85 m wide to be secured. TITAN RSK push-pull props can be used with full shoring in the LITEBOX aluminium trenching and aluminium trench sheeting systems.

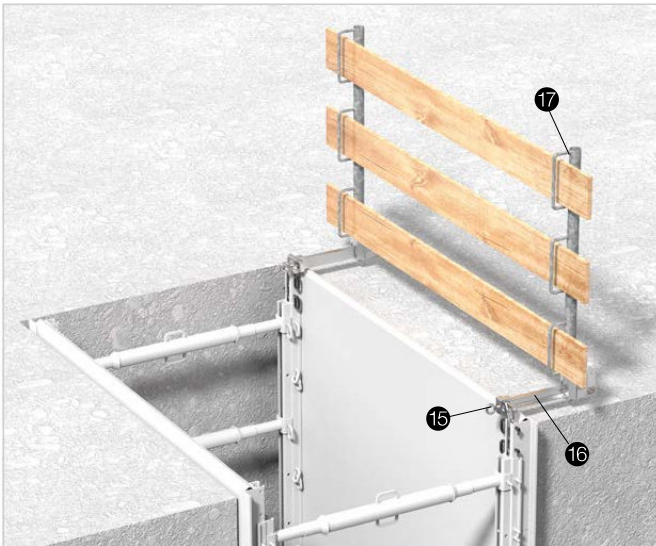
Trench depth and width

- The trench depth depends on the permissible trench depths for the different systems.
- Trenches up to 6.85 m wide (with push pull-props)*

Components

- ①⑨ TITAN RSK push-pull prop
- ②⑩ RSK adapter

*The permissible loads for push-pull props may not be exceeded. For further information please consult the push-pull props TITAN brochure.



Securing against sliding down

Sliding down of the trench shoring can be prevented by using Litebox universal lifting eyes with holding arms (see chapter special applications and supplements).

Edge protection

Rail posts can be inserted directly into the panel or holding arm to prevent people from falling down. Suitable side protection boards (e.g. 150x30 sorting class S10 or better) are provided by the customer.

Components

- 15 Universal lifting eye
- 16 Holding arm
- 17 LITEBOX Rail post Gi-A



LITEBOX Ladder Support

The ladder support secures ladders to the trenching unit. Rail posts can also be inserted at the access point.

Suitable for ladders from 410 to 580 mm wide. The ladder support can be used in LITEBOX aluminium trenching system and manhole shoring system including full-shoring.

Components

- 17 LITEBOX Rail post Gi-A
- 18 LITEBOX Ladder Support

Overview of system components and useful accessories



❶ Trench strut Gi-A (incl. 2 Standard connecting pins Ø 13 mm)

External dims. LITEBOX aluminum trenching system without connector

External dims. LITEBOX aluminum trenching system with connector

External dims. LITEBOX aluminium trench sheeting system

Permissible loading depending on spindle travel

Weight

Art.no.

Gi-A / 60 – 81

0.60 – 0.81 m

0.72 – 0.89 m

0.91 – 1.12 m

103.5 – 56.4 kN

5.54 kg

0130504524

Gi-A / 80 – 121

0.80 – 1.21 m

0.92 – 1.29 m

1.11 – 1.52 m

98.9 – 56.1 kN

7.35 kg

0130504525

Gi-A / 129 – 218

1.29 – 2.18 m

1.41 – 2.26 m

1.60 – 2.49 m

84.3 – 44.2 kN

11.49 kg

0130504526



❷ LITEBOX panel

| Length | Weight | Art.no. |
|--------|----------|------------|
| 0.91 m | 14.28 kg | 0230500021 |
| 1.55 m | 23.50 kg | 0130500010 |
| 2.00 m | 28.30 kg | 0130500011 |
| 2.55 m | 36.66 kg | 0130500013 |
| 3.00 m | 42.10 kg | 0130500012 |



❸ Panel connector

(incl. 4, 6 or 8 Standard connecting pins
Ø 13 mm)

| Length | Weight | Art.no. |
|--------|---------|------------|
| 0.28 m | 2.03 kg | 0130504587 |
| 1.35 m | 6.55 kg | 0130504590 |
| 1.85 m | 9.00 kg | 0130504594 |



❹ Aluminium guide panel

for LITEBOX panel 2,00 m
(incl. 4 Standard connecting pins
Ø 13 mm)

| Length | Weight | Art.no. |
|--------|----------|------------|
| 2.05 m | 37.00 kg | 0130504580 |



❺ Aluminium trench sheet

A total of 20 aluminium trench sheets are
required per trench sheeting unit.

| Length | Weight | Art.no. |
|--------|----------|------------|
| 1.50 m | 8.30 kg | 0630500082 |
| 2.50 m | 14.00 kg | 0630500084 |
| 3.50 m | 19.60 kg | 0630500086 |



❻ Manhole corner profile

(incl. 4 or 12 Standard connecting pins
Ø 13 mm, yellow)

| Length | Weight | Art.no. |
|--------|----------|------------|
| 0.50 m | 3.80 kg | 0130504593 |
| 1.50 m | 13.70 kg | 0130504597 |



❼ Manhole corner connector

(incl. 2 Standard connecting pins
Ø 20 mm, with nib)

For connecting two aluminium manhole
corner profiles for deeper shafts.

| Length | Weight | Art.no. |
|--------|---------|------------|
| 0.30 m | 1.40 kg | 0130504598 |



8 Standard connecting pin with drop-down locking nib, Ø 13 mm

For fixing LITEBOX panels, Gi-A LITEBOX struts, panel connectors, lifting eyes, etc.

Colour black
Weight 0.25 kg
Art.no. 0130500088



9 Connecting pins Ø 13 mm for manhole corner profiles

For connecting LITEBOX panels to manhole corner profiles

Colour yellow
Weight 0.23 kg
Art.no. 0130500096



10 Connecting pin Ø 20 mm

With nib, for connection manhole corner profiles and corner connections.

Colour galvanised
Weight 0.34 kg
Art.no. 0130500099



11 Corner element for aluminium end-face shoring

For inserting an aluminium trench sheet. Ensures a good connection between modular chamber element and trench box.

Weight 18.30 kg
Art.no. 0630500073



12 Champer element for aluminium end-face shoring

For insert an aluminium trench sheet. Easy to connect thanks to the patented design.

Weight 16.40 kg
Art.no. 0630500070



13 Swivel cradle

(incl. 1 Standard connecting pin, Ø 13 mm) Used to secure the end-face shoring against slippage.

Weight 2.25 kg
Art.no. 0630504576



14 Supporting Bracket

(incl. 1 Standard connecting pin Ø 13 mm) Ensures a suitable bearing area on the trench shoring.

Weight 1.75 kg
Art.no. 0630504577



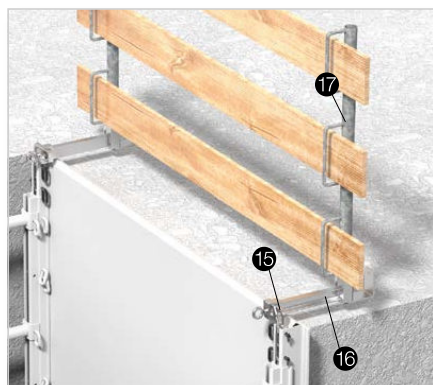
Universal-LITEBOX Spanner

For the easy tightening and releasing of trench struts.

Weight 2.42 kg
Art.no. 0620210061

Components for special applications and supplements

Safety



15 LITEBOX Universal lifting eye

A lifting eye is attached to the trench lining units at all 4 corners. With the help of the lifting eye the trenching unit can be lifted and placed in or lifted out of the trench.

- permissible load 10 kN

Weight

2.10 kg

Art.no.

0630504542



16 Holding arm

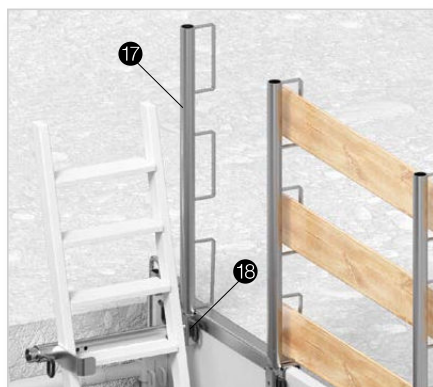
The holding arm secures the trench unit against sliding down. It is attached to the LITEBOX universal lifting eye with a locking screw. Suitable for every trenching type.

Weight

3.08 kg

Art.no.

0630500043



17 LITEBOX Rail post Gi-A

For erecting a safety barrier alongside the trench; (Ø 48 mm x 1.10 m, galvanised)

Weight

5.36 kg

Art.no.

0130500089



18 LITEBOX Ladder Support

(incl. 3 Standard connecting pins Ø 13 mm)

The ladder support secures ladders from 410 to 580 mm wide. In addition two Rail posts can be inserted at the access point.

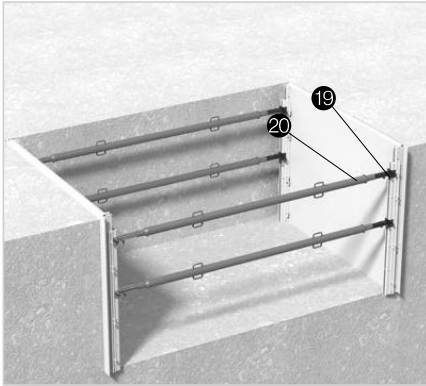
Weight

10.60 kg

Art.no.

0630504590

Large trench widths



19 RSKAdapter

For connecting TITAN push-pull props. Required for wider trenches. The permissible loads for push-pull props may not be exceeded.

Weight 0.68 kg
Art.no. 0130500069



20 TITAN RSK push-pull prop

With screw jack at both ends; left- and right-hand threads.

RSK 3 (1.80 m – 3.20 m)

Weight 15.60 kg
Art.no. 0220200039

RSK 4 (2.60 m – 4.00 m)

Weight 19.80 kg
Art.no. 0220200041

RSK 6 (4.60 m – 6.00 m)

Weight 35.00 kg
Art.no. 0220200042

RSK 8 (6.20 m – 7.60 m)

Weight 68.50 kg
Art.no. 0220200043

Accessories

Installation accessories



An universal lifting eye (incl. 2 Standard connecting pin Ø 13 mm) is attached to each of the four corners of a trench lining unit. A hook can then be attached to each one so that the unit can be lifted and placed in a trench or lifted out of a trench.

- permissible load 10 kN

Weight 2.10 kg

Art.-no. 0630504542

As an alternative to the universal lifting eye a 3D-lifting eye can be used (incl. 2 Standard connecting pin Ø 13 mm)

- permissible load 10 kN

Weight 1.50 kg

Art.-no. 0130504541



Lifting eye for manhole profile

(incl. 1 Standard connecting pin Ø 20 mm with nib)

The lifting eye can be attached to the top of a manhole corner and used to lift either the entire manhole shoring or just the corner element out of the excavation. Extracting the corner element in stages enables the LITEBOX panels to be removed from the bottom of the excavation.

Weight 1.05 kg

Art.no. 0330504594



Lifting sling

For the safe installation and removal of trench lining units. Four universal lifting eyes or 3D-Lifting eyes or 4 lifting eyes for manhole lining units are required.

- permissible load 10 kN, DIN 7541

Weight 3.61 kg

Art.-no. 0630500040

Logistic



TITAN Storage rack, rectangular

Stackable. For the storage and transport of panels etc., with easily accessible lifting eyes.

- Permissible load 15 kN.

Weight 37.00 kg

Art.no. (painted) 0120600003

Art.no. (galvanised) 0120600004



TITAN Storage rack, square

Stackable. For the storage and transport of short lengths etc., with easily accessible lifting eyes.

- Permissible load 15 kN

Weight 31.70 kg

Art.no. (painted) 0120600008



Mesh Transport box TITAN

Cranable and stackable, with fold-down panel on one side, capacity 0.75 m³.

- Permissible load 15 kN

Weight 73.00 kg

Art.no. 0620600050

Accessories for trench sheeting system and end-face shoring



Driving head

This protects the aluminium trench sheets when being installed with an excavator bucket or similar plant.

Weight 2.83 kg
Art.no. 0630500083



Lifting clamp

The lifting clamp is fitted to an aluminium trench sheet so that it can be extracted with an excavator bucket or similar plant.

Weight 3.00 kg
Art.no. 0630500081



TITAN 38 Post shore positioner

Attached to aluminium trench sheets as fixing point or to prevent slippage.

Weight 0.10 kg
Art.no. 0620490058



LITEBOX aluminium trenching system is the ideal system for inner-city building sites.



It is easy to leave gaps in the LITEBOX aluminium trench sheeting system to accommodate crossing services. Also suitable as shoring in friable, unstable soils.

The photos reproduced in this brochure represent momentary snapshots of work on building sites. It is therefore possible that certain facts and circumstances do not fully correspond to the technical (safety) requirements.

Falsework and Formwork systems



Trench lining systems



Geotechnical solutions



Certified Management-System to DIN EN ISO 9001:2015



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