





## Summary

### Technical data

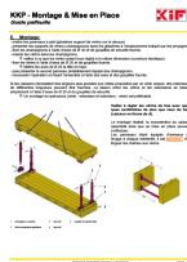
KKP - Montage & Mise en Place  
d'après patentes KIF

Paramètre	Unité	Modèle	Modèle	Modèle	Modèle
Largeur	m	1,20	1,50	1,80	2,10
Hauteur	m	1,20	1,50	1,80	2,10
Poids	kg	120	150	180	210
Force de traction	kN	120	150	180	210
Force de compression	kN	120	150	180	210

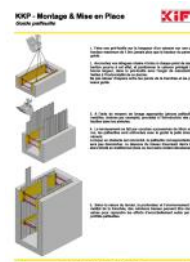
p3

### Montage



p5

### Implementation

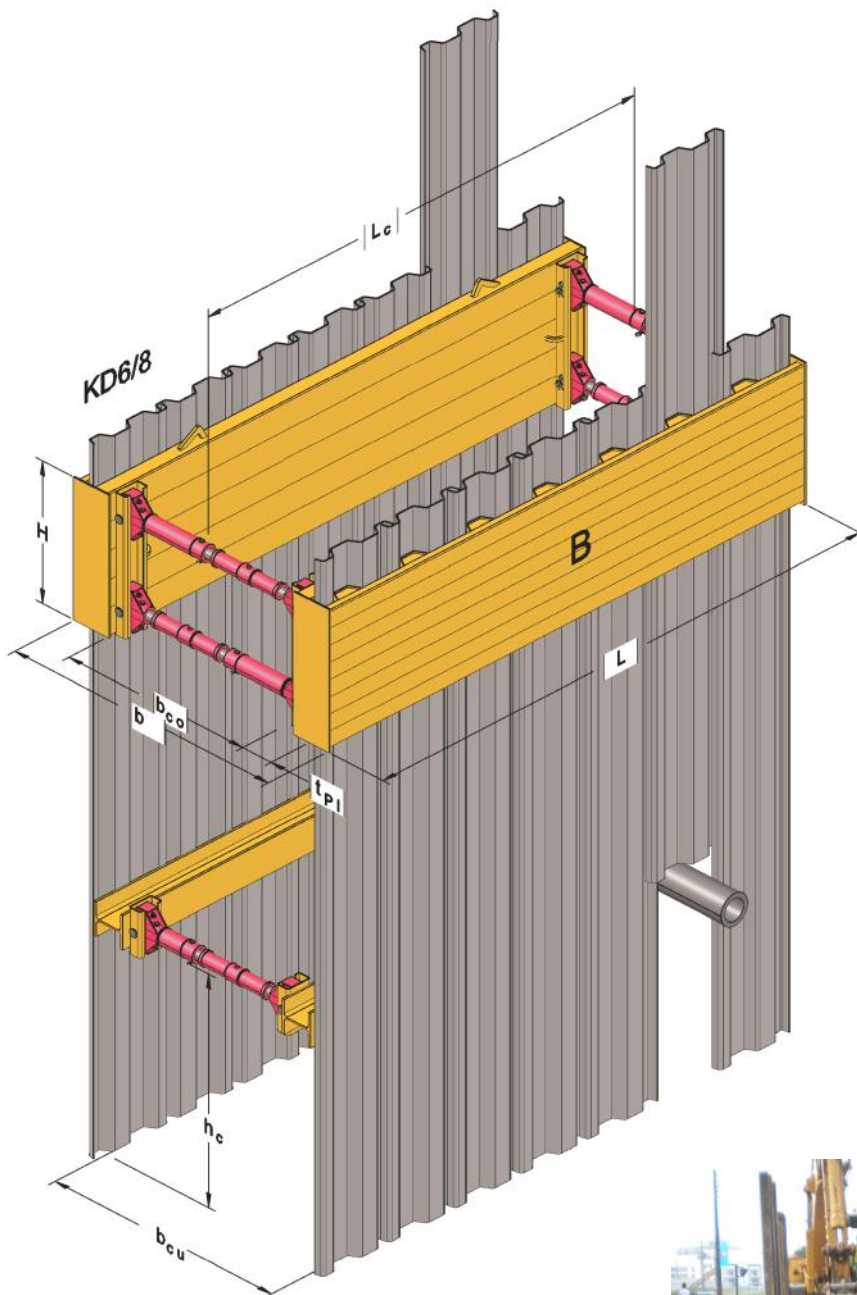


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### Accessories



p7



Conformité  
DIN 4124  
DIN EN 13331

<b>H</b>	Plate height
<b>L</b>	Plate length
<b>L<sub>c</sub></b>	Pipe culvert length
<b>b<sub>co</sub></b>	Working width between plates
<b>b<sub>cu</sub></b>	Working width between sheets
<b>b</b>	Trench width
<b>t<sub>pl</sub></b>	Plate thickness



# KKP - Assembly and operating manuel

## Pile guide box



Base plate LxH	Weight box	Trench sheet No.	Pipe culvert length $L_c$	Thickness inner plate $t_{pi}$	State design load limit $q_d$
[mm]	[kg]	[KD6]	[mm]	[mm]	[kN/m]
KKP 2940x1000	1730	10	2510	120	154.9
KKP 3520x1000	1970	12	3090	120	107.1
KKP 4020x1000	2170	14	3590	120	81.6

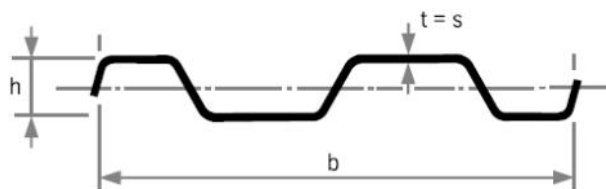
This plates can be interlocked into slide rail system.

Any other dimension, consult us.

#### Tensile forces:

- lifting eyes at the plate head  $R_d = 229$  kN

**KD 6/8**



Width $b$	Height $h$	Thickness $t$	Section modulus $W_y$	Moment of inertia $I_y$	Bending moment $M_d$	Weight single pile	Weight wall
[mm]	[mm]	[mm]	[cm <sup>3</sup> /m]	[cm <sup>4</sup> /m]	[kNm/m]	[kg/m]	[kg/m <sup>2</sup> ]
600	80	8	242	969	60.5	50.0	83.3

Brace extension	Working width	Inner working width between sheets	Shoring width	Weight
[mm]	$b_c$ [m]	$b_{cu}$ [m]	$b$ [m]	[kg]
0	0.99-1.33	1.23-1.57	1.54-1.88	71.0
300	1.29-1.63	1.53-1.87	1.84-2.18	• 15.5
500	1.49-1.83	1.73-2.07	2.04-2.38	+ 20.0
800	1.79-2.13	2.03-2.37	2.34-2.68	+ 26.7
1000	1.99-2.33	2.23-2.57	2.54-2.88	+ 31.1





### **A. General**

The monoblock K.I.F box, appears under the shape of 2 panels of the same dimensions put face to face. The space between the panels is adapted with rigid mechanical jacks.

For the assembly, it is necessary to plan:

- A mean of handling (mechanical shovel, forklift truck or a mobile crane),
- Two workers accompanying the driver of the handling machine,
- 4 leg chain/slings with 4 safety hooks / standards (DIN 5687 / DIN 5688 / ISO 3076 NF 818 4/+A1),
- A sledgehammer, a steel bar, or a jack key. Some ropes to help the rotation of the box, when it is handled under the bucket of the excavator
- Our standard equipment does not require any keys for bolting.

Standards must be respected:

- DIN 4124 Excavations and open-air trenches
- DIN IN 13331 parts 1 and 2 trench shoring systems.
- Safety regulations of the occupational health.
- Instructions for the prevention of the accidents / instructions relative to the safety at work.

Our trench shoring system carries the GS initials (certified Safety), which means it is in compliance with the current European Standards.

### **B. Lifting and transport**

Only the handling rings can be used for lifting (hooks , ropes).

The means of handling must be adapted to the weight to be transported.

By security measure, only hooks provided with a screed can be used (safety hooks).

The transport should be made as close as possible of the ground to avoid any useless and dangerous pendular movement.

It is forbidden to stay in the zone of gyration of the hoisting device as well as under raised loads.

Be very careful with the existing areal electric lines !

A permanent eye contact must be maintained between the driver and the person who guides him.

### **C. Measures to reduce hazards:**

The construction site must be well bounded and secured (ribbons, barriers or other means of protection).

The surrounding road traffic must be secured if necessary, by additional staff.

The staff has to wear safety clothes (helmet, safety footwear, gloves).

Possible instabilities due to the wind which can arise during the assembly or the installation of the trench shoring equipment must be considered (use of ropes).

The trench shoring systems and parts should be stored in a horizontal way, on a stable ground.

During the installation, the instructions of the mode of use must be respected.

### **D. Maintenance & repair**

Normaly, the different parts of the equipment should be checked before installation.

Original KIF spare parts can be used during repairs.

We draw your attention on the fact that any repair made by yourself and if you use spare parts from other manufacturers, will cancel the guarantee.

Due to the intense utilization of the equipment, all parts should be repainted with anti-rust paint, every two years.

### E. Montage:

- The panels are lying flat on the ground.
- Set up the spindle supports in the sliding guide where the drillings are located.
- Fix the spindle supports with the bolt  $\text{Ø}40\text{mm}$  and the supplied safety clips.
- Insert the jacks into the spindle supports.
  - ✎ Please check for the same opening for the spindles
- Fix the spindles with the bolt  $\text{Ø}20\text{mm}$  and the supplied safety clips.
  - ✎ Head upwards for the bolt  $\text{Ø}20\text{mm}$ .
- Prepare the second panel with the spindle supports.
- Renew the operation in order to set up the trench box with the bolts and safety clips.

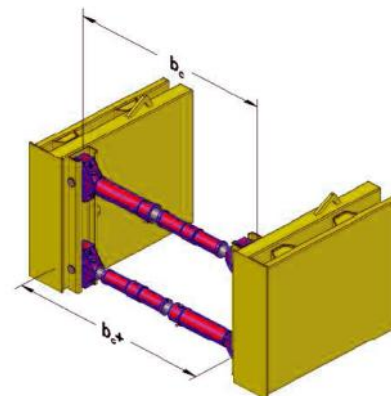
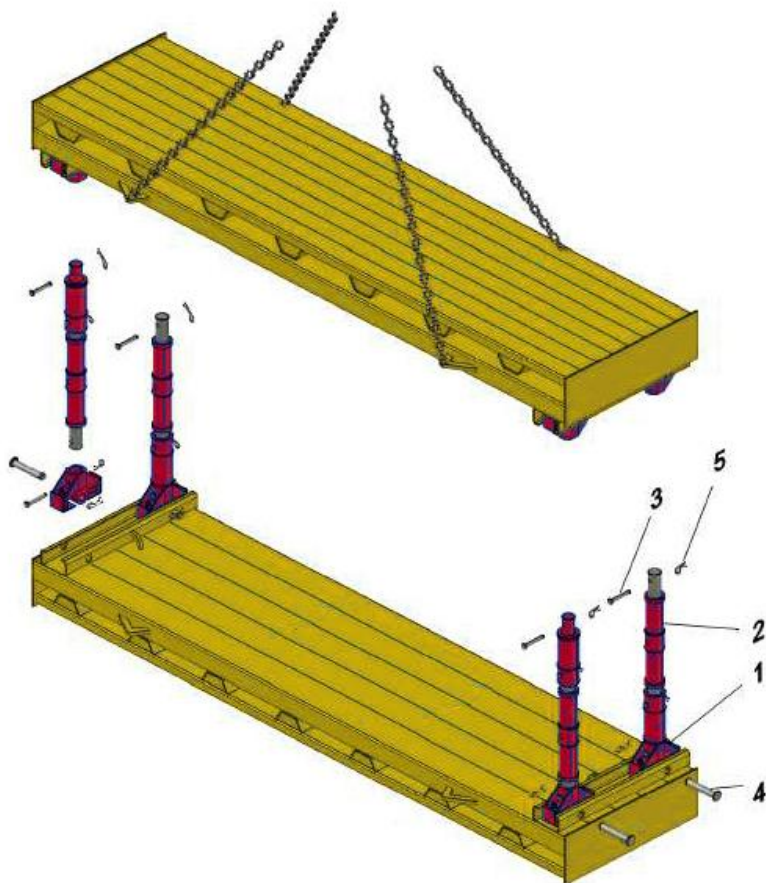
Spindle-extensions can be supplied in case your trench boxes need a wider width other than the standard width (standard spindle).

The connection between spindles and spindle-extensions is set up with  $\text{Ø}20\text{mm}$  bolts and safety clips.

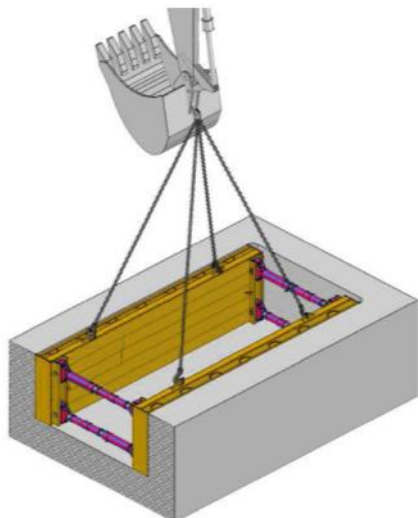
- ✎ A quincunx set up of the spindle/spindle-extension/spindle is recommended.

**Be sure to adjust the jack bottom with a few centimeters more than the top (box-shaped A).**

The assembly made the handling of the box assembled and its implementation can be made. The panels are equipped with lifting rings at each end, it is **FORBIDDEN** to sling chains to the jacks.



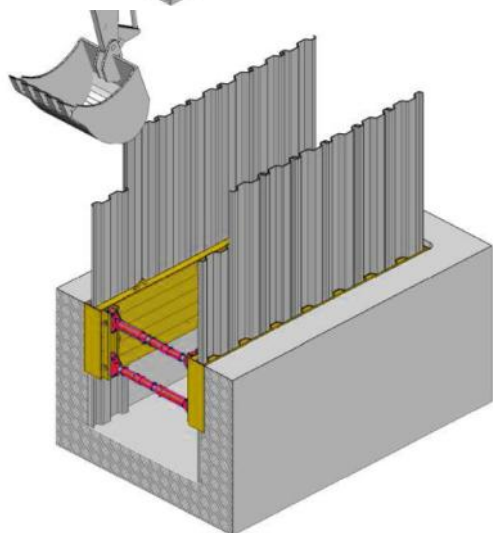
- |   |                  |   |                       |   |                  |
|---|------------------|---|-----------------------|---|------------------|
| 1 | Mushroom spring  | 3 | Bolt $\text{Ø}20*140$ | 5 | Safety clip beta |
| 2 | Mechanical strut | 4 | Bolt $\text{Ø}40*212$ |   |                  |



1. Make a pre-excavation on the length of a box on a maximum depth of 1.0m, never more than the height of the guide panel.

2. Hang your chain slings four strands handling points provided for this purpose, and position the box preset to the correct width in the pre-excavation with the handling equipment. Make sure the horizontality of the latter.

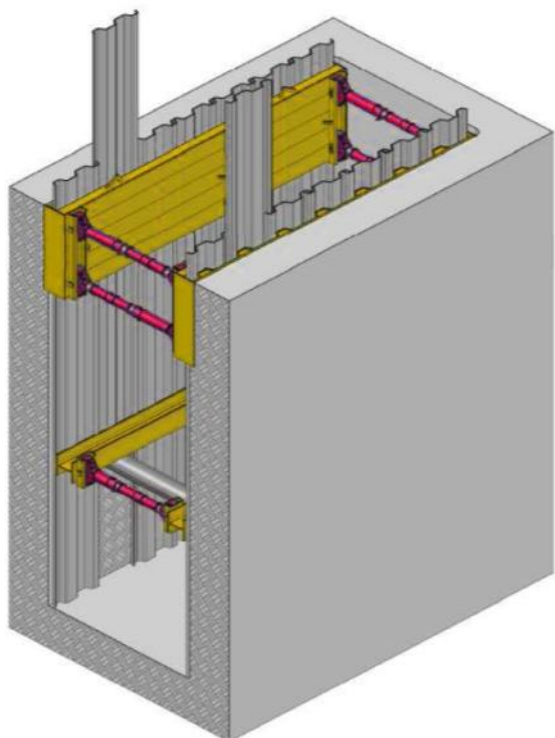
Do not leave space between the walls of the trench and guide signs.



3. Using suitable lifting equipment (sheet piles clamps, shackles, chains, for example), proceed to the introduction of sheet piles in the alveoli.

4. The excavation is done by successive layers of about 50cm, the sheet piles are driven with the bucket of the excavator simultaneously.

When an obstacle is encountered, the corresponding sheet pile will not be lowered. The underside of the crossing network will then be shield in traditional (wood or other avoiding landslide).



5. Depending on the soil condition, the depth and the immediate environment of the trench, low wailer may be necessary to use the cantilever forces applied to the sheet piles profiles.



### G. Accessoires



Mandatory accessory for jobs requiring handling of sheet piles or sheet piling, this clamp secures automatic dropping of sheet pile or pile away.

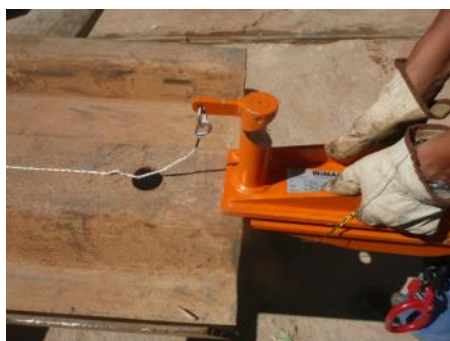
Model	LZ-1	DZ-3
Pulling force	1 000 kg	3 000 kg
Sheet piles	CR440 - KD4 or similar	KD6-8 or similar
Sheet pile thickness	4mm	8mm
Weight	4kg	15kg

# KKP - Assembly and operating manuel

## Pile guide box



How to use a clamp  
Automatic sheet piles DZ3?



Unlock the bolt by a single 180° rotation.



Drag the clip to the hole in the sheet pile.



Ensure that the axis is to the right of the hole.



Lock the axis with a simple 180° rotation.



The sheet pile fixed, secure handling can be done.



The sheet pile up and stable stall.



Pull the string to carry out remotely of 180° rotation of the axis.



The clamp releases the sheet pile.

Automatic clamp sheet piles avoids climb to win the profiles.  
Do not use the automatic clamp sheet piles for removal profiles.

(we offer extraction clamps)

Do not stand under the load being handled.