Mini KKP - Assembly and operating manuel

Pile guide box

Summary

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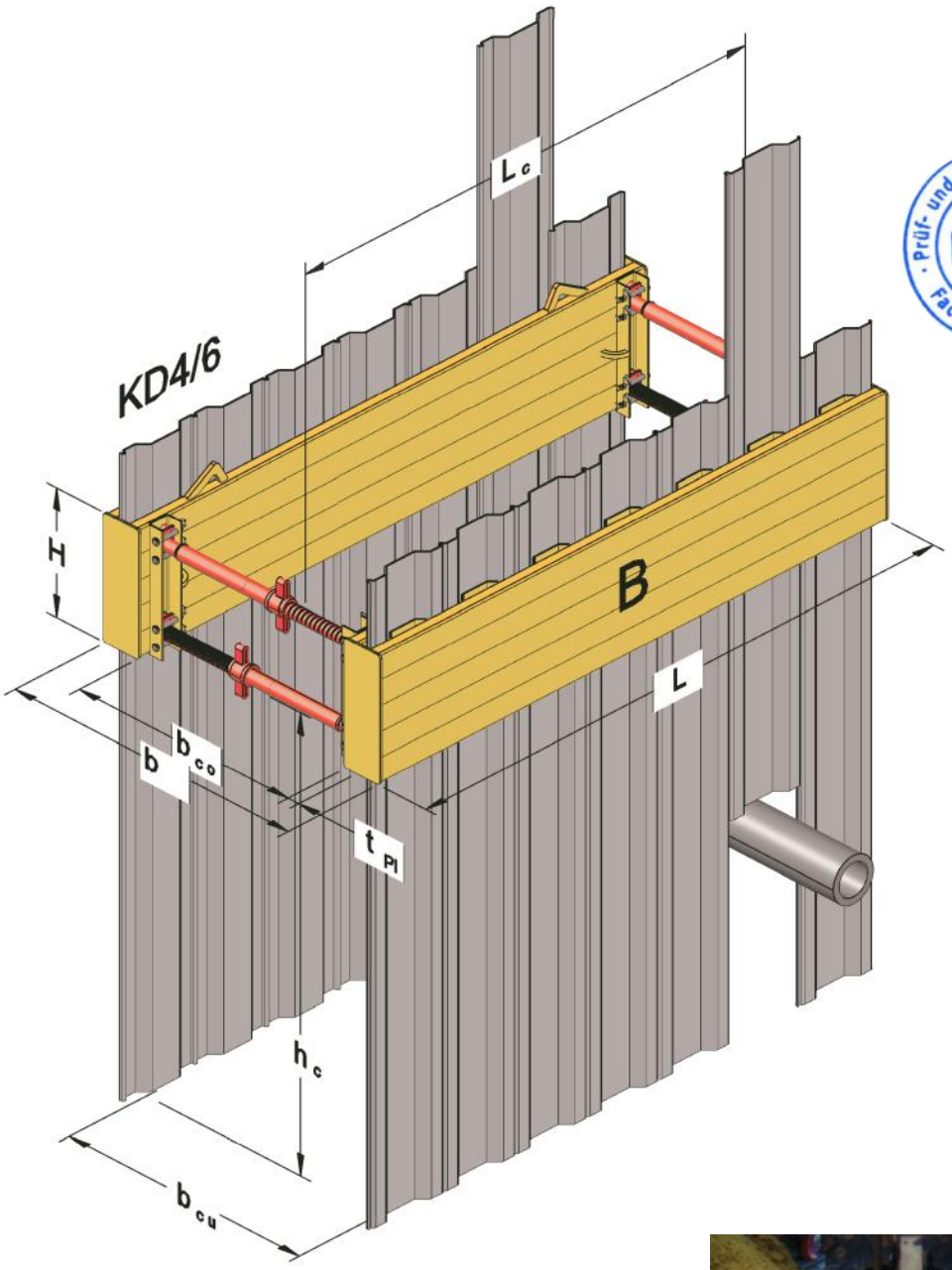

Conformité
DIN 4124
DIN EN 13331

H	Plate height
L	Plate length
L_c	Pipe culvert height
b_{C0}	Pipe culvert length
b_{CU}	Working width
b	Shoring width
t_{pl}	Plate thickness

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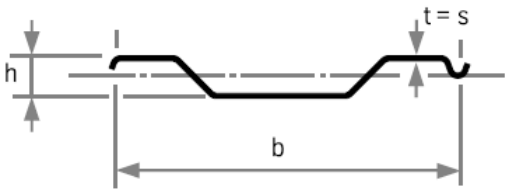
Base plate LxH	Weight box	Trench sheet No.	Pipe culvert length L_C	Thickness inner plate t_{pl}	State design load limit qd
[mm]	*[kg]*	*[KD4]*	*[mm]*	*[mm]*	*[kN/m]*
KKP 2040x600	560	10	1740	60	92.6
KKP 2440x600	650	12	2140	60	61.8
KKP 2840x600	730	14	2540	60	44.2

Any other dimension, consult us.

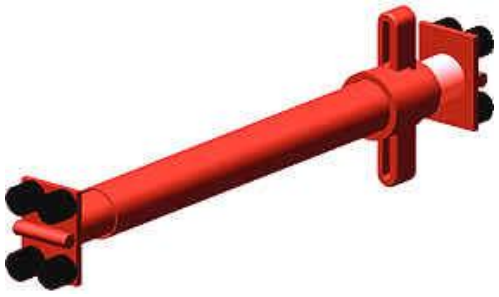
Tensile forces:

- lifting eyes at the plate head Rd = 229 kN

KD 4/6



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^3/m]*	*[cm^4/m]*	*[kNm/m]*	*[kg/m]*	*[kg/m^2]*
400	50	6	102	254	25.5	22.1	55.3



Strut type	Working width b_C	Inner working width between sheets b_{cu}	Shoring width b	Weight
	[m]	*[m]*	*[m]*	*[kg]*
A	0.53 - 0.63	0.65 - 0.75	0.89 - 0.99	12.4
B	0.62 - 0.81	0.74 - 0.93	0.98 - 1.17	13.5
C	0.80 - 1.17	0.92 - 1.29	1.16 - 1.53	15.7
D	1.16 - 1.89	1.28 - 2.01	1.52 - 2.25	19.4

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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.

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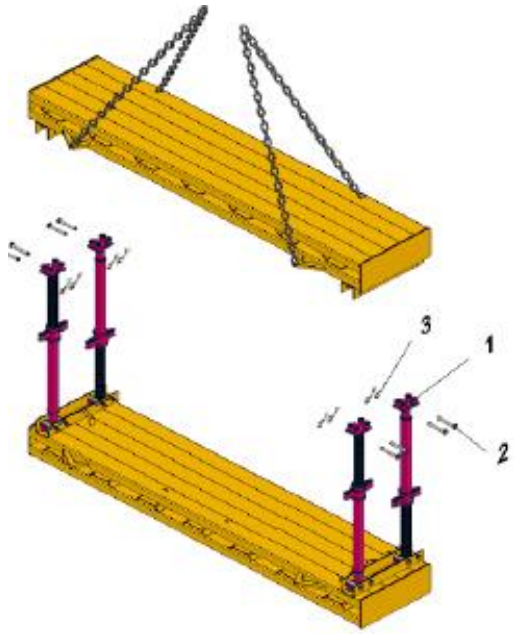
E. Montage:

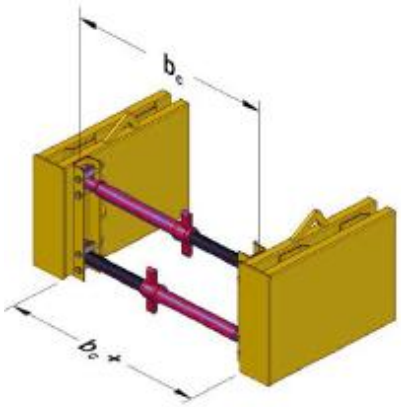
- The panels are lying flat on the ground.
- Set up the spindle supports in the sliding guide where the drillings are located.
- Fix the spindles with the bolt Ø20mm and the supplied safety clips.
  - Head upwards for the bolt Ø20mm.
- Prepare the second panel with the spindle supports.
- Renew the operation in order to set up the trench box with the bolts and safety clips.



1 Strut
2 Safety clip Béta
3 Bolt Ø20

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.



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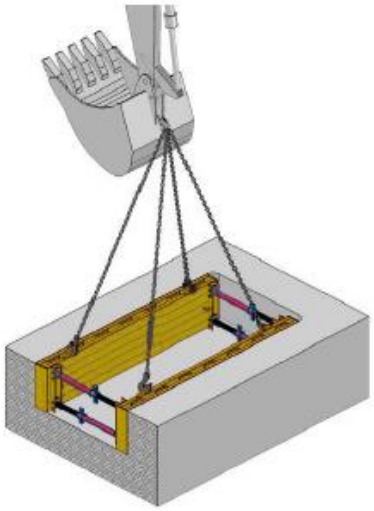
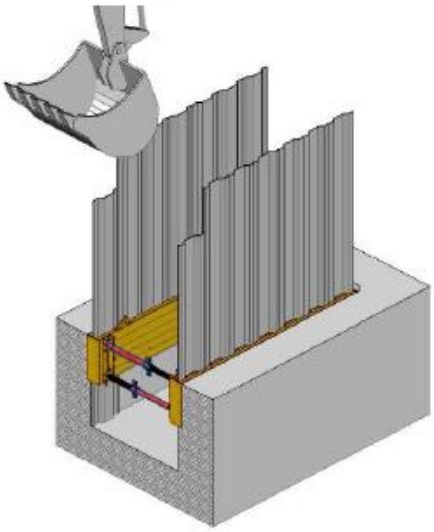


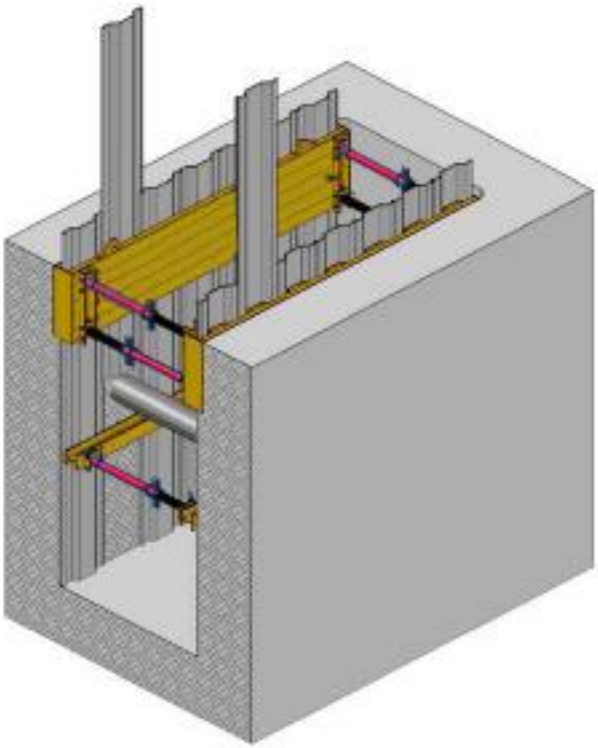
1. Make a pre-excavation on the length of a box on a maximum depth of 1.0m, never more than the height of the guide panel.

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.

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G. Accessories

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

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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.

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