

# TRENCH SHORING SYSTEM

**LIGHT BOX KVL**



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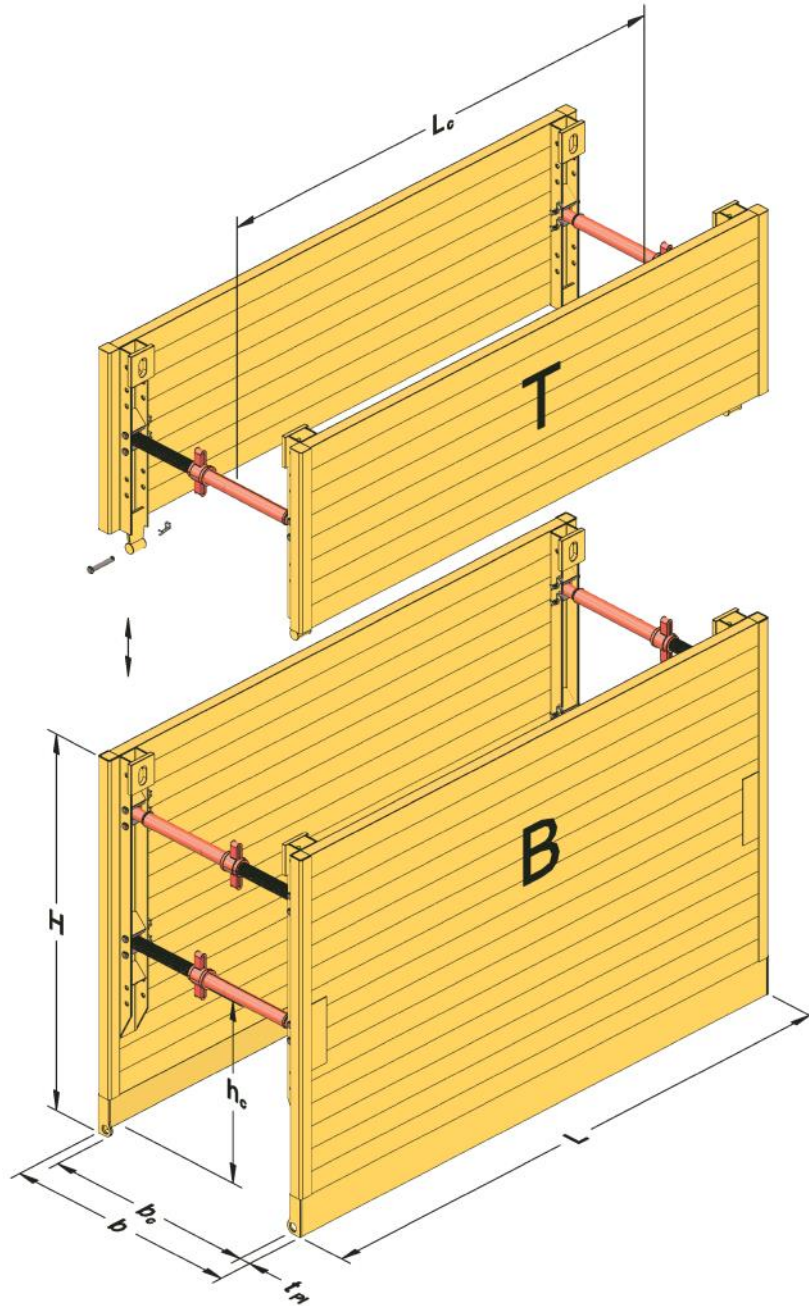
Unit length	2.00 m - 3.00 m
Base box height	1.50 - 2.00 m
Top box height	0.50 - 1.00 m
Pipe culvert height	Max. 0.98 m
Weight	465 kg - 805 kg
Advised depth of work	Up to 3.00 m
Lifting device	Excavator ≈ 5 - 13 tons

The lightest of our steel trench boxes.

Easy to handle with a low capacity excavator, the KVL is ideal for the installation of small diameters at shallow depths.

The KVL spindle extends over a width of 650 to 2000 mm (4 types of jacks).

Often used in urban sites, it can be associated with the mini pile guidebox.

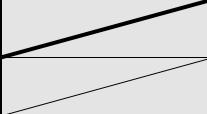
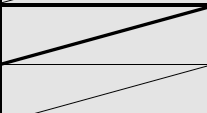
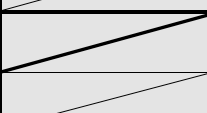


Conformité  
DIN 4124  
DIN EN 13331

<b>H</b>	Plate height
<b>L</b>	Plate length
<b>H<sub>c</sub></b>	Pipe culvert height
<b>L<sub>c</sub></b>	Pipe culvert length
<b>b<sub>c</sub></b>	Working width
<b>b</b>	Shoring width
<b>t<sub>pl</sub></b>	Plate thickness



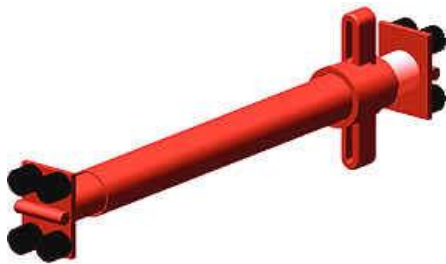
# Light box KVL

Base plate LxH		Weight box	Pipe culvert height H <sub>c</sub>	Pipe culvert length L <sub>c</sub>	Thickness plate t <sub>pl</sub>	State design load limit ed
[mm]		[kg]	[mm]	[mm]	[mm]	[kN/m <sup>2</sup> ]
KVL 2000x	1500	465	720	1690	60	53.3
	2000	595	980			40.8
KVL 2500x	1500	545	720	2190	60	42.6
	2000	700	980			32.6
KVL 3000x	1500	625	720	2690	60	32.0
	2000	805	980			27.2
<b>Top plate</b>						
KVLA 2000x	500	205		1690	60	53.3
	1000	325				40.8
KVLA 2500x	500	235		2190	60	42.6
	1000	380				32.6
KVLA 3000x	500	270		2690	60	32.0
	1000	435				27.2

Any other dimension, consult us.

#### Tensile forces:

- lifting eyes at the plate head Rd = 229 kN
- bottom eyes Rd = 23 kN



Strut type	Working width b <sub>c</sub>	Shoring width b	Weight
	[m]	[m]	[kg]
A	0.53 - 0.63	0.65 - 0.75	12.4
B	0.62 - 0.81	0.74 - 0.93	13.5
C	0.80 - 1.17	0.92 - 1.29	15.7
D	1.16 - 1.89	1.28 - 2.01	19.4

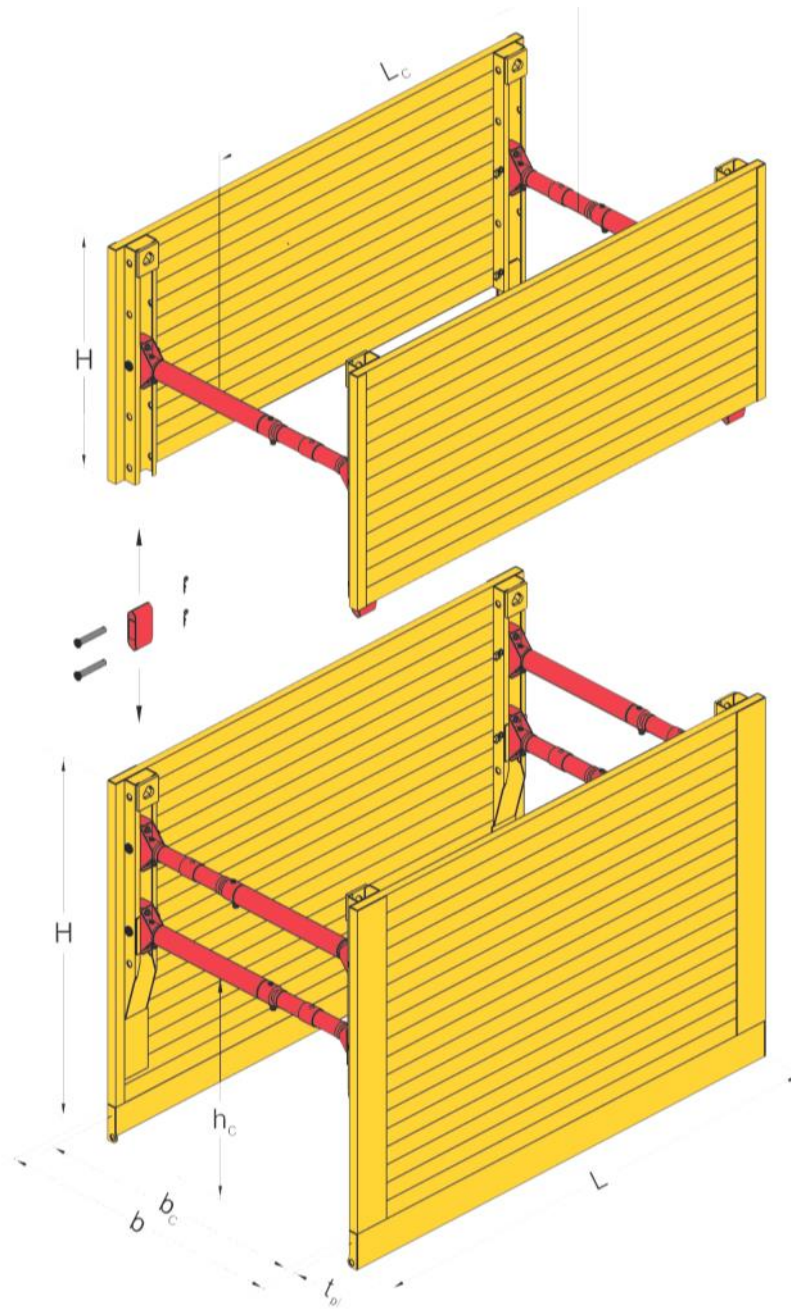
# SHORING BOX KS 60



Unit length	2.00 m - 3.50 m
Base box height	2.40 m
Top box height	1.30 m
Pipe culvert height	Max. 1.35 m
Weight	1120 kg - 1710 kg
Advised depth of work	Up to 4.00 m
Lifting device	Excavator $\approx$ 12 - 18 tons

This box combines robustness and lightness. The spindles used on this box are those of the range known as “heavy”. Widths are flexible with suitability thanks to the extensions tubes that are simply “plugged-in” the spindle. The thickness of these panels (60 mm) makes it possible to maximize clearance of work and to limit the floor space of the excavated trench.

# SHORING BOX KS 60



Conformité  
DIN 4124  
DIN EN 13331

H	Plate height
L	Plate length
H <sub>c</sub>	Pipe culvert height
L <sub>c</sub>	Pipe culvert length
b <sub>c</sub>	Working width
b	Shoring width
t <sub>pl</sub>	Plate thickness



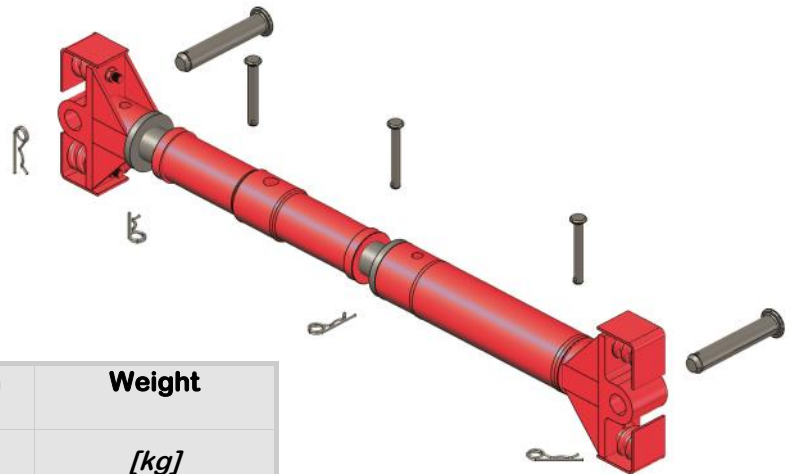
# SHORING BOX KS 60

Base plate LxH	Weight box	Pipe culvert height $H_c$	Pipe culvert length $L_c$	Thickness plate $t_p$	State design load limit ed
[mm]	[kg]	[mm]	[mm]	[mm]	[kN/m <sup>2</sup> ]
KS 2000x2400	1120	1355	1600	60	66.2
KS 2500x2400	1240	1355	2100	60	49.8
KS 3000x2400	1360	1355	2600	60	33.0
KS 3500x2400	1710	1355	3030	60	32.9
<b>Top plate</b>					
KSA 2000x1300	610	-	1600	60	66.2
KSA 2500x1300	680	-	2100	60	49.8
KSA 3000x1300	750	-	2600	60	33.0
KSA 3500x1300	960	-	3030	60	32.9

Any other dimension, consult us.

#### Tensile forces:

- lifting eyes at the plate head  $R_d = 229$  kN
- bottom eyes  $R_d = 23$  kN



Brace extension	Working width $b_c$	Shoring width $b$	Weight
[mm]	[m]	[m]	[kg]
0	0.99-1.29	1.11-1.41	71.0
300	1.29-1.59	1.14-1.71	+ 15.5
500	1.49-1.79	1.61-1.91	+ 20.0
800	1.79-2.09	1.91-2.21	+ 26.7
1000	1.99-2.29	2.11-2.41	+ 31.1

# SHORING BOX KS 100



Unit length	2.00 m - 5.00 m
Base box height	2.40 – 2.90 m
Top box height	1.30 m
Pipe culvert height	Max. 1.55 - 1.85 m
Weight	1456 kg - 2780 kg
Advised depth of work	Up to 5.00 m
Lifting device	Excavator $\approx$ 15 - 20 tons

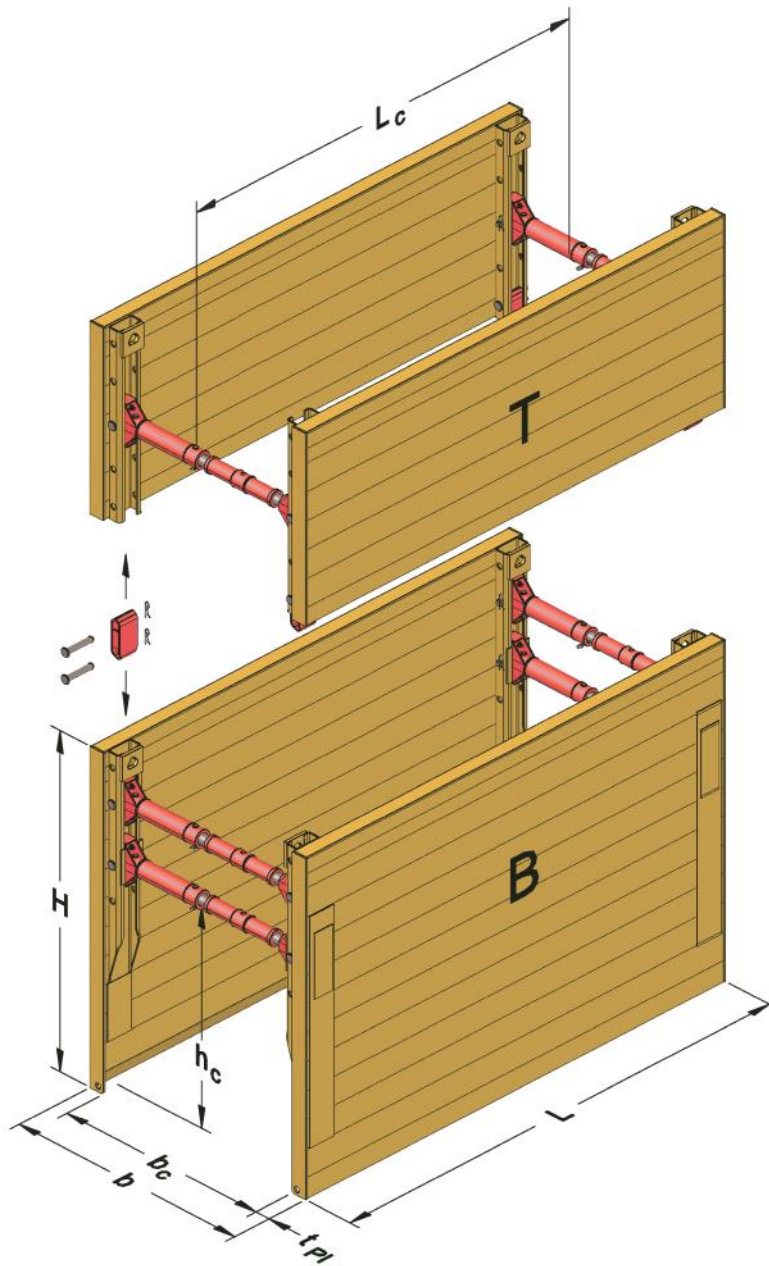
This steel box remains incontestably the most used trench shield through the world.

Its robustness and its handiness enable him to find an application in most trenches.

Its new design offers a pipe culvert height under spindles of 1.55m, and even 1.85m for boxes in 2.90m top (consult us).



# SHORING BOX KS 100



Conformité  
DIN 4124  
DIN EN 13331

H	Plate height
L	Plate length
H <sub>c</sub>	Pipe culvert height
L <sub>c</sub>	Pipe culvert length
b <sub>c</sub>	Working width
b	Shoring width
t <sub>pl</sub>	Plate thickness



# SHORING BOX KS 100

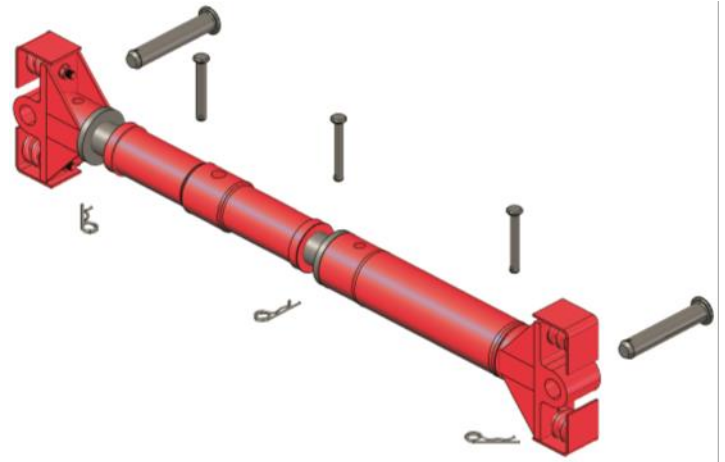
Base plate LxH	Weight box	Pipe culvert height H <sub>c</sub>	Pipe culvert length L <sub>c</sub>	Thickness plate t <sub>p</sub>	State design load limit ed
[mm]	[kg]	[mm]	[mm]	[mm]	[kN/m <sup>2</sup> ]
KS 2000x2400	1460	1535	1614	100	97.5
KS 2500x2400	1650	1535	2114	100	78.0
KS 3000x2400	1850	1535	2614	100	65.0
KS 3500x2400	2050	1535	3114	100	55.7
KS 3750x2400	2150	1535	3364	100	51.3
KS 3750x2900	2630	1875	3364	100	45.0
KS 4000x2400	2240	1535	3614	100	44.6
KS 4500x2400	2570	1535	4114	120	42.9
KS 5000x2400	2780	1535	4614	120	34.3
<b>Extension plate</b>					
KSA 2000x1300	840	-	1614	100	97.5
KSA 2500x1300	970	-	2114	100	78.0
KSA 3000x1300	1090	-	2614	100	65.0
KSA 3500x1300	1210	-	3114	100	55.7
KSA 3750x1300	1270	-	3364	100	51.3
KSA 4000x1300	1340	-	3614	100	44.6
KSA 4500x1300	1690	-	4114	120	42.9
KSA 5000x1300	1830	-	4614	120	34.3

Any other dimension, consult us.

#### Tensile forces:

- lifting eyes at the plate head Rd = 229 kN
- bottom eyes Rd = 47 kN

Brace extension	Working width b <sub>c</sub>	Shoring width b	Weight
[mm]	[m]	[m]	[kg]
0	0.99-1.29	1.20-1.50	71.0
300	1.29-1.59	1.50-1.80	+ 15.5
500	1.49-1.79	1.70-2.00	+ 20.0
800	1.79-2.09	2.00-2.50	+ 26.7
1000	1.99-2.29	2.20-3.00	+ 31.1



## SHORING BOX KS 100 HD

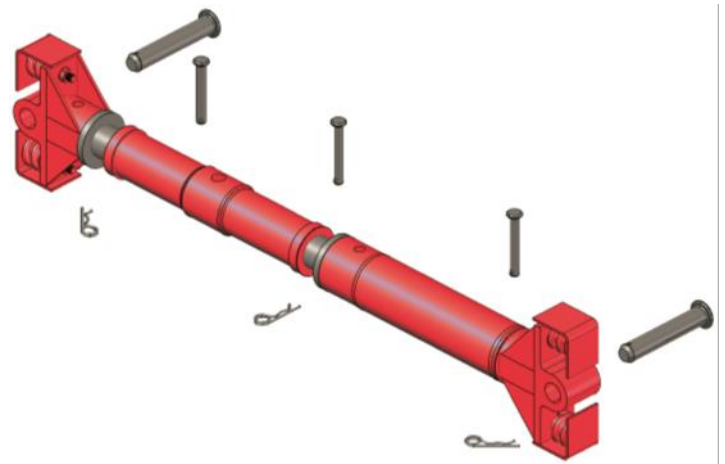
Base plate LxH	Weight box	Pipe culvert height H <sub>c</sub>	Pipe culvert length L <sub>c</sub>	Thickness plate t <sub>p</sub>	State design load limit ed
[mm]	[kg]	[mm]	[mm]	[mm]	[kN/m <sup>2</sup> ]
KS 3000x2920	2260	1870	2614	100	56.2
KS 3500x2920	2510	1870	3114	100	48.2
KS 3750x2920	2630	1870	3364	100	45.0
KS 4000x2400	2750	1870	3614	100	42.2
<b>Extension plate</b>					
KSA 3000x1300	1090	-	2614	100	56.2
KSA 3500x1300	1210	-	3114	100	48.2
KSA 3750x1300	1270	-	3364	100	45.0
KSA 4000x1300	1330	-	3614	100	42.2

Any other dimension, consult us.

**Tensile forces:**

- lifting eyes at the plate head Rd = 229 kN
- bottom eyes Rd = 47 kN

Brace extension	Working width b <sub>c</sub>	Shoring width b	Weight
[mm]	[m]	[m]	[kg]
0	0.99-1.33	1.11-1.45	71.0
300	1.29-1.63	1.14-1.75	+ 15.5
500	1.49-1.83	1.61-1.95	+ 20.0
800	1.79-2.13	1.91-2.25	+ 26.7
1000	1.99-2.33	2.11-2.45	+ 31.1



# MANHOLE BOX KSECK

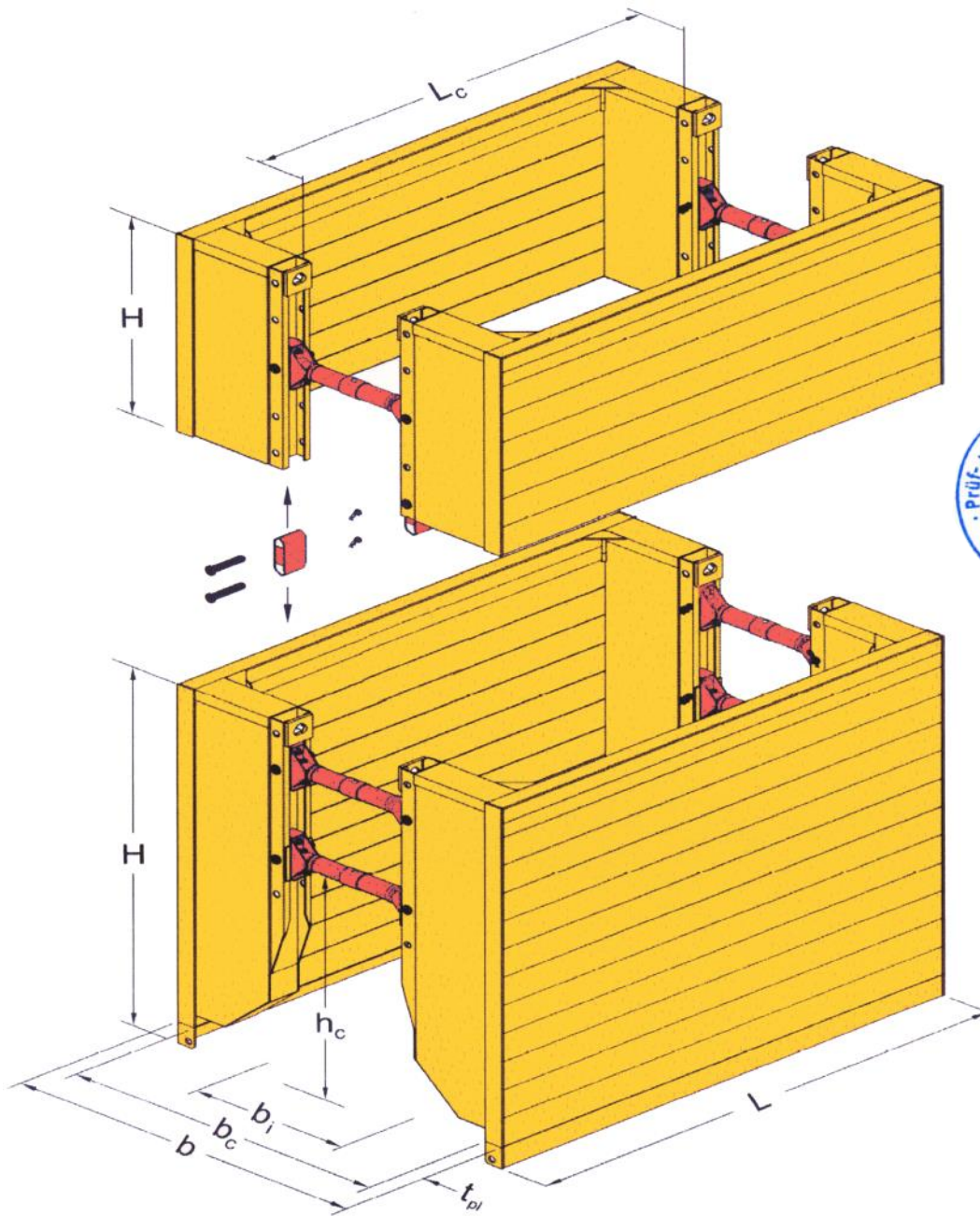


Unit length	2.00 m - 3.50 m
Base box height	2.40 m
Top box height	1.40 m
Pipe culvert height	Max. 1.54 m
Weight	1730 kg - 2330 kg
Advised depth of work	Up to 4.00 m
Lifting device	Excavator $\approx$ 12 - 18 tons

Specially designed to shore the particular areas such as the manhole, this box equipped with "L" shape at both edges, on which struts are fixed. The accessories of fixing are identical to those of the standard range.

The set in of pre-cast elements is easily made in its centre without sacrifice of the width of the current trench.

# MANHOLE BOX KSECK



Conformité  
DIN 4124  
DIN EN 13331

H	Plate height
L	Plate length
H <sub>c</sub>	Pipe culvert height
L <sub>c</sub>	Pipe culvert length
b <sub>c</sub>	Working width
b	Shoring width
t <sub>pl</sub>	Plate thickness



# MANHOLE BOX KSECK

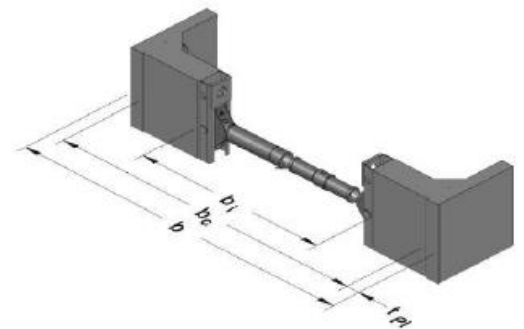
Base plate LxH	Weight box	Pipe culvert height H <sub>c</sub>	Pipe culvert length L <sub>c</sub>	Thickness plate t <sub>p1</sub>	State design load limit ed
[mm]	[kg]	[mm]	[mm]	[mm]	[kN/m <sup>2</sup> ]
KSECK 2000x2400	1330	1350	1580	60	66.2
KSECK 2500x2400	1450	1350	2080	60	49.8
KSECK 3000x2400	1580	1350	2580	60	33.0
KSECK 3500x2400	1920	1350	3080	60	32.9
<b>Top plate</b>					
KSECK A 2000x1400	820	-	1580	60	66.2
KSECKA 2500x1400	890	-	2080	60	49.8
KSECKA 3000x1400	960	-	2580	60	33.0
KSECKA 3500x1400	1160	-	3080	60	32.9

Any other dimension, consult us.

#### Tensile forces:

- lifting eyes at the plate head Rd = 229 kN
- bottom eyes Rd = 47 kN

Brace extension	Working width b <sub>i</sub>	Working width between profiles b <sub>c</sub>	Shoring width b	Weight
[mm]	[m]	[m]	[m]	[kg]
0	0.99-1.29	1.79 - 2.09	1.91 - 2.21	71.0
300	1.29-1.59	2.09 - 2.39	2.21 - 2.51	+ 15.5
500	1.49-1.79	2.29 - 2.59	2.41 - 2.71	+ 20.0
800	1.79-2.09	2.59 - 2.89	2.71 - 3.01	+ 26.7
1000	1.99-2.29	2.79 - 3.09	2.91 - 3.21	+ 31.1



# MANHOLE BOX KSECK

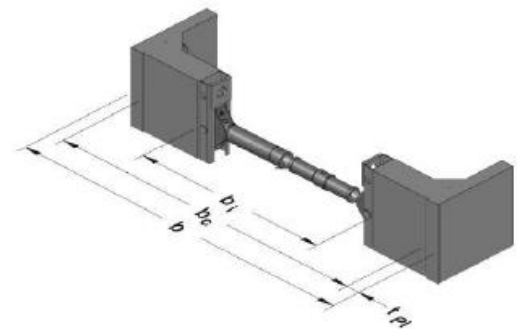
Base plate LxH	Weight box	Pipe culvert height H <sub>c</sub>	Pipe culvert length L <sub>c</sub>	Thickness plate t <sub>p</sub>	State design load limit ed
[mm]	[kg]	[mm]	[mm]	[mm]	[kN/m <sup>2</sup> ]
KSECK 2000x2400	1730	1540	1580	100	97.5
KSECK 2500x2400	1930	1540	2080	100	78.0
KSECK 3000x2400	2130	1540	2580	100	65.0
KSECK 3500x2400	2330	1540	3080	100	55.7
<b>Top plate</b>					
KSECK A 2000x1400	1170	-	1580	100	97.5
KSECKA 2500x1400	1300	-	2080	100	78.0
KSECKA 3000x1400	1430	-	2580	100	65.0
KSECKA 3500x1400	1560	-	3080	100	55.7

Any other dimension, consult us.

#### Tensile forces:

- lifting eyes at the plate head Rd = 229 kN
- bottom eyes Rd = 47 kN

Brace extension	Working width b <sub>i</sub>	Working width between profiles b <sub>c</sub>	Shoring width b	Weight
[mm]	[m]	[m]	[m]	[kg]
0	0.99-1.29	1.99 - 2.29	2.20 - 2.50	71.0
300	1.29-1.59	2.29 - 2.59	2.50 - 2.80	+ 15.5
500	1.49-1.79	2.49 - 2.79	2.70 - 3.00	+ 20.0
800	1.79-2.09	2.79 - 3.09	3.00 - 3.30	+ 26.7
1000	1.99-2.29	2.99 - 3.29	3.20 - 3.50	+ 31.1



# MINI PILE BOX KKP

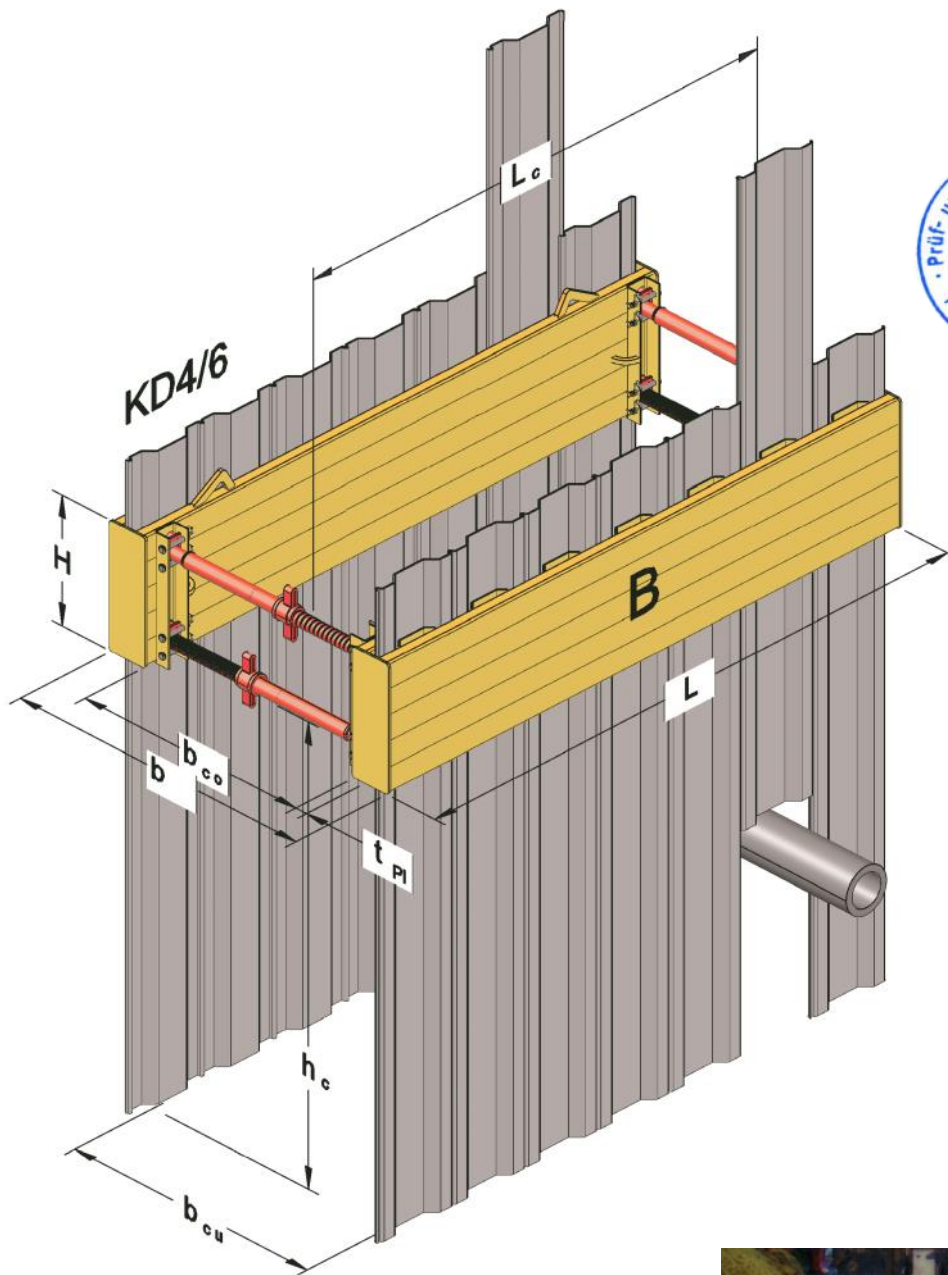


Unit length	2.00 m - 2.8 m
Box height	0.60 m
Weight	560 kg - 730 kg
Advised depth of work	Up to 3.50 m
Lifting device	Excavator $\approx$ 7 - 13 tons

This steel box consists of a special internal guide structure that receives KD4-6 type trench sheet (the trench sheet is a vertical steel profile of 400 or 600mm width) which makes possible to cross transverse networks without any disturbance.

The ideal tool for urban areas at a shallow depth with a minimum space and a maximum existing services. Easy to handle with a backhoe, this box is the perfect complementary product to the KVL light box; and the struts are identical





Conformité  
DIN 4124  
DIN EN 13331

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



# MINI PILE BOX KKP

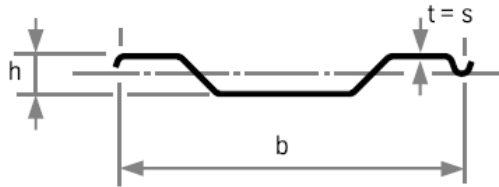
Base plate LxH	Weight box	Trench sheet No.	Pipe culvert length $L_c$	Thickness inner plate $t_{pi}$	State design load limit qd
[mm]	[kg]	[KD4]	[mm]	[mm]	[kN/m]
KKP 2040x600	560	10	1740	60	92.6
KKP 2440x600	650	12	2140	60	61.8
KKP 2840x600	730	14	2540	60	44.2

Any other dimension, consult us.

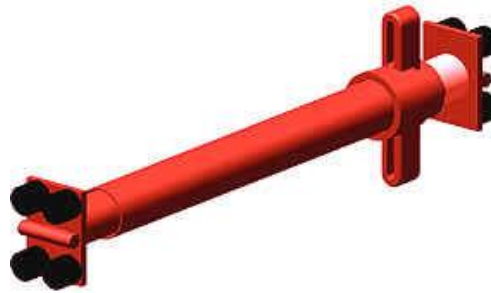
#### Tensile forces:

- lifting eyes at the plate head  $R_d = 229$  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 <sup>3</sup> /m]	[cm <sup>4</sup> /m]	[kNm/m]	[kg/m]	[kg/m <sup>2</sup> ]
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

# PILE GUIDE BOX KKP



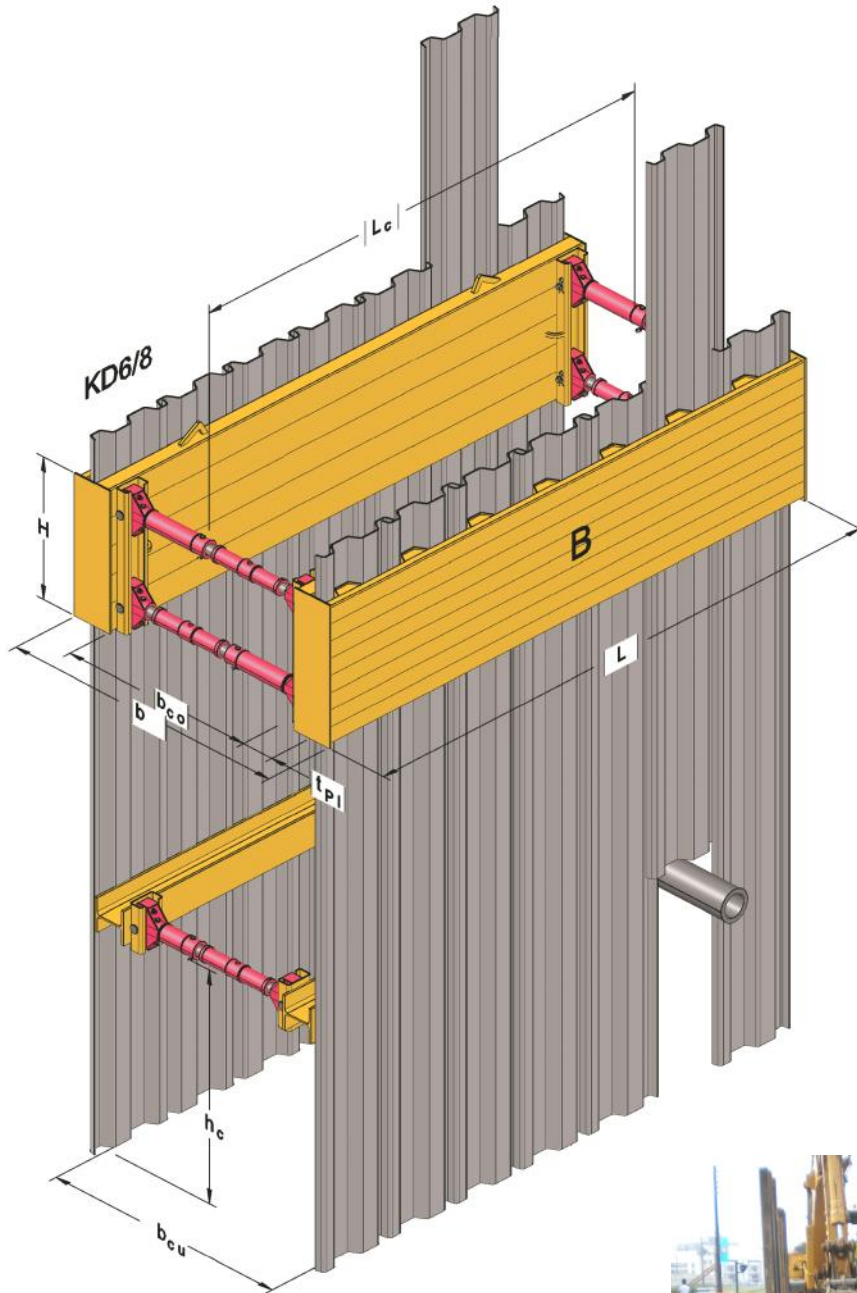
Unit length	3.00 m - 4.0 m
Box height	1.00 m
Weight	1730 kg - 2170 kg
Advised depth of work	Up to 7.50 m
Lifting device	Excavator $\approx$ 15 - 18 tons

The fastest solution for safe and economic urban works.

The structure of these pile guides makes it possible to receive the trench sheets and guide them throughout their descent by maintaining them.

Being able to be used as a solid box or to be associated with the sliding system, this pile guide makes it possible to apprehend with ease, facility and in full safety any encumbered network zone and services.

# PILE GUIDE BOX KKP



Conformité  
DIN 4124  
DIN EN 13331

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



# PILE GUIDE BOX KKP

Base plate LxH	Weight box	Trench sheet No.	Pipe culvert length $L_c$	Thickness inner plate $t_{pi}$	State design load limit qd
[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

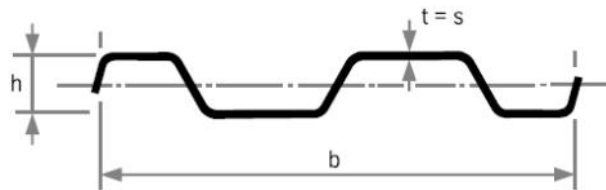
This plates can be interlocked into slide rail system.

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 $b_c$	Inner working width between sheets $b_{cu}$	Shoring width b	Weight
[mm]	[m]	[m]	[m]	[kg]
0	0.99-1.29	1.23-1.53	1.54-1.84	71.0
300	1.29-1.59	1.53-1.83	1.84-2.14	+15.5
500	1.49-1.79	1.73-2.03	2.04-2.34	+ 20.0
800	1.79-2.09	2.03-2.33	2.34-2.64	+ 26.7
1000	1.99-2.29	2.23-2.53	2.54-2.84	+ 31.1



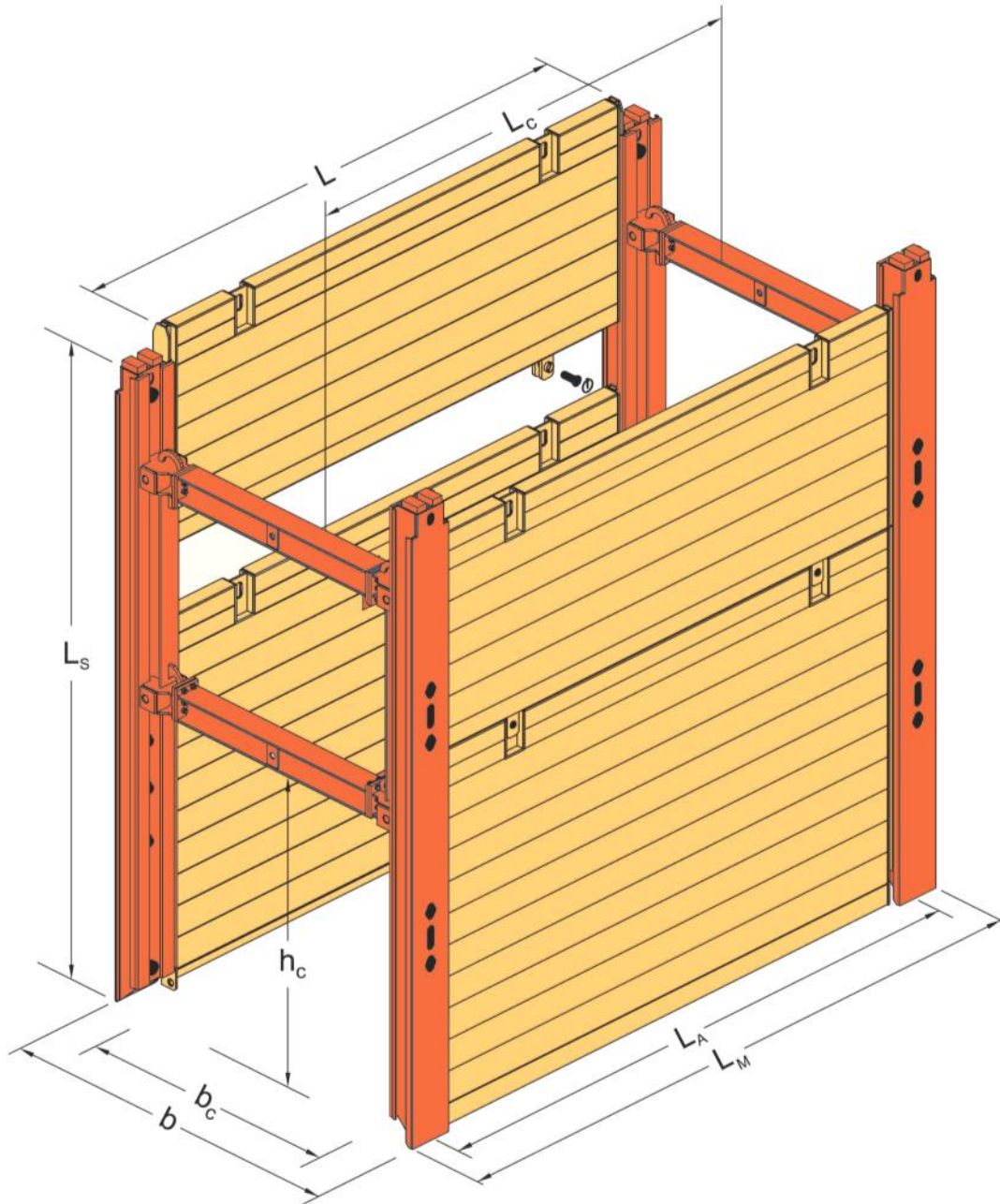
# Slide rail system PARALLEL SINGLE rail EGPV



Advised depth of work	Max. 4.0 m
Rail length	4.0 m
Rail weight	465 kg
Limit state design moment	338 kN.m
Stretch length	2.0 m - 6.25 m
Lifting device	Excavator $\approx$ 15 - 25 tons

Usually, the sliding system is used at depths exceeding the 4.0m, however based on works to be done and soil conditions, trench boxes can be unsuitable. This is why we developed this Light Single Slide Rail. The Single Slide rail of the parallel EGPV system, receives the panels which are guided throughout their descent with the “cutting and push down” method. This being done simultaneously during the excavation.

# Slide rail system PARALLEL SINGLE rail EGPV



Conformité  
DIN 4124  
DIN EN 13331

H	Plate height
L	Plate length
L <sub>c</sub>	Pipe culvert length
L <sub>s</sub>	Rail length
L <sub>m</sub>	Unit length
b <sub>c</sub>	Working width
b	Shoring width
h <sub>c</sub>	Pipe culvert height



# Slide rail system PARALLEL SINGLE rail EGPV

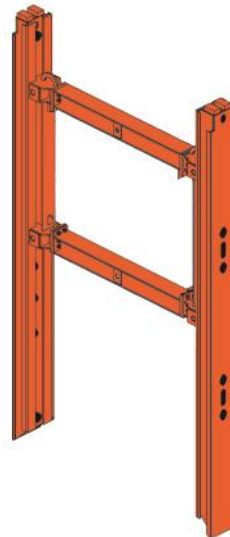
Base plate LxH	Weight plate	Length unit $L_M$	Pipe culvert length $L_c$	Thickness plate $t_p$	State design load limit ed
<i>[mm]</i>	<i>[kg]</i>	<i>[mm]</i>	<i>[mm]</i>	<i>[mm]</i>	<i>[kN/m<sup>2</sup>]</i>
KR 2000x2400	510	2562	2102	100	171.6
KR 2500x2400	605	3062	2602	100	110.4
KR 3000x2400	690	3482	3022	100	81.1
KR 3500x2400	805	4062	3602	100	56.6
KR 4000x2400	1165	4562	4102	120	71.0
KR 4500x2400*	1305	5062	4602	120	56.2
KR 5000x2400*	1630	5562	5102	120	73.1
KR 6250x2400*	3510	6788	6328	120	66.0
<b>Top plate</b>					
KRA 2000x1400	335	2562	2102	100	171.6
KRA 2500x1400	395	3062	2602	100	110.4
KRA 3000x1400	450	3482	3022	100	81.1
KRA 3500x1400	525	4062	3602	100	56.6
KRA 4000x1400	745	4562	4102	120	71.0
KRA 4500x1400*	830	5062	4602	120	56.2
KRA 5000x1400*	1020	5562	5102	120	73.1
KRA 6250x1400*	2315	6788	6328	120	66.0

\*Special required dimensions available; characteristics may vary based on steel choice for their fabrication.

#### Tensile forces:

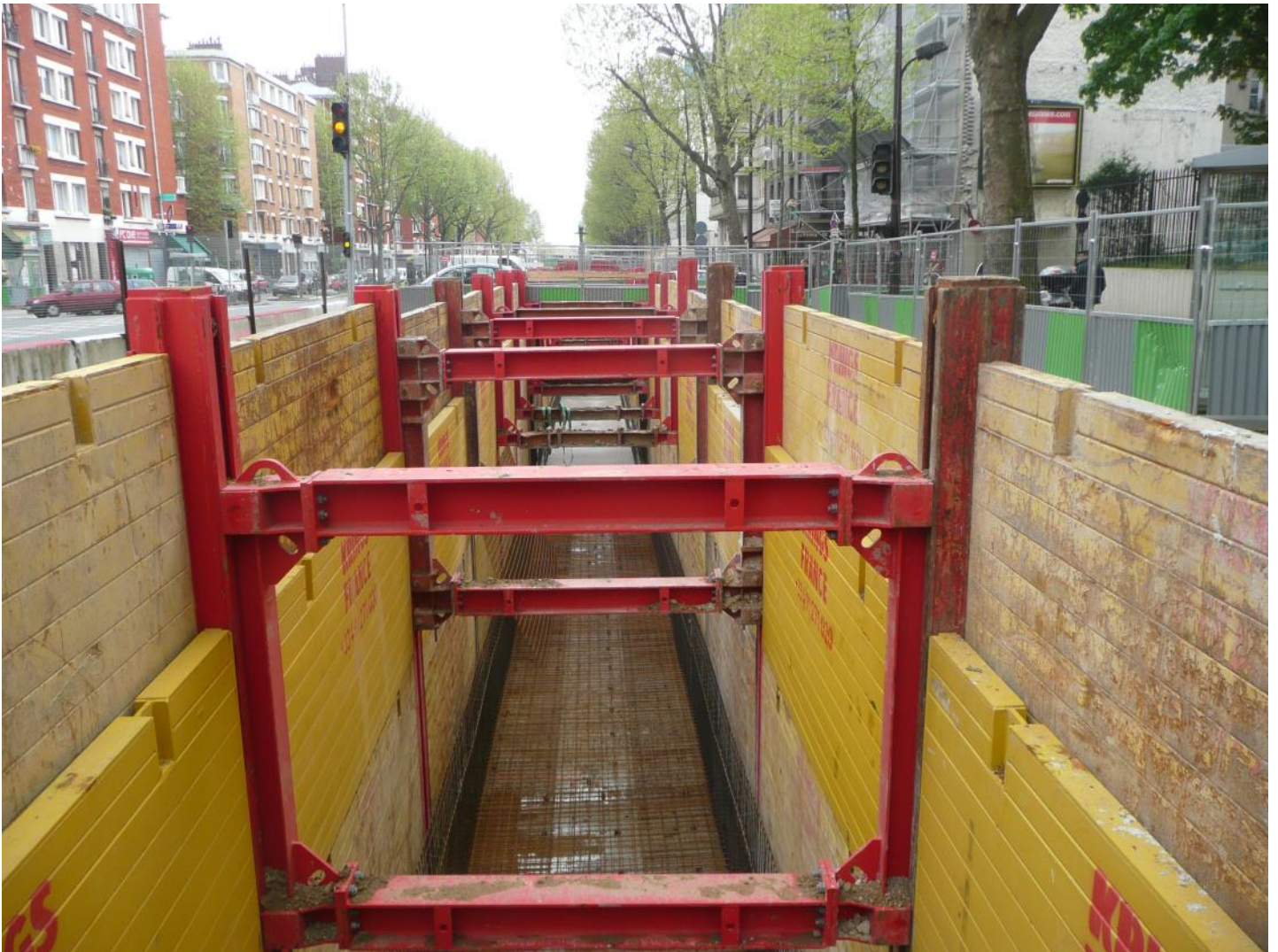
- lifting eyes at the rail head  $R_d = 229$  kN
- lifting eyes at the plate head  $R_d = 226$  kN
- bottom eyes  $R_d = 47$  kN

Working width mini $b_c$	Excavation width mini $b$	Post frame weight (without brace beam)
<i>[mm]</i>	<i>[mm]</i>	<i>[kg]</i>
482	682	1186





# Slide rail system PARALLEL DOUBLE rail DGPV



Advised depth of work	Max. 8.0 m
Rail length	4.8 / 6.0 / 7.5 m
Rail weight	1150 / 1425 / 1770 kg
Limit state design moment	997 / 1002 / 1106 kN.m
Stretch length	2.0 m - 6.25 m
Lifting device	Excavator $\approx$ 25 - 45 tons

The excellence of Sliding and Lining system with parallel DGPV double slide rails. The panels are guided throughout their descent by the “cutting and push down” method in solid posts whose spacing are ensured with a rigid parallelogram, or Sliding Frame or “Boogie car, serving as a stay.

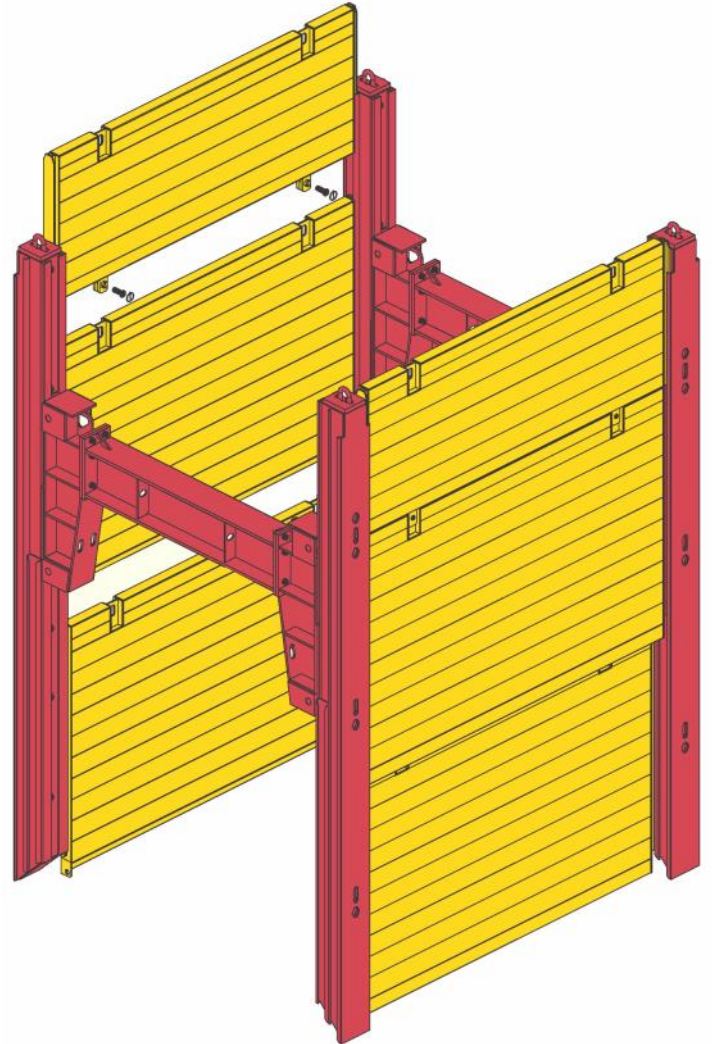
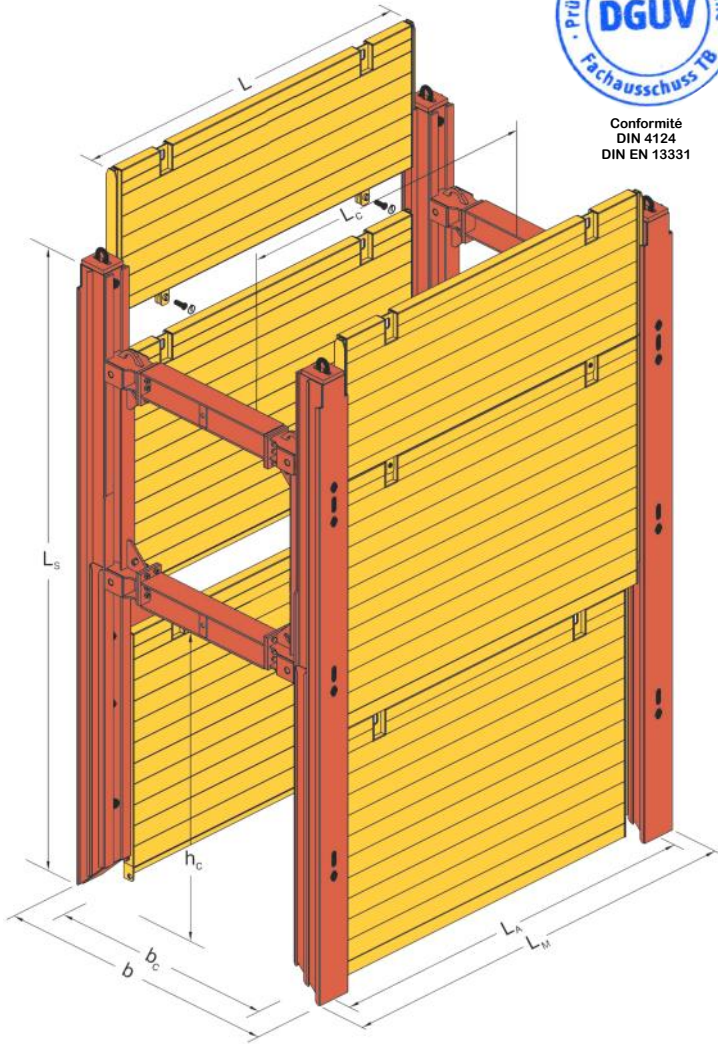
Thus, ensuring a perfect and constant width.

The individual action exerted on each element separately, facilitates the installation and the extraction; thus, reducing friction forces of the holded soil.

# Slide rail system PARALLEL DOUBLE rail DGPV



Conformité  
DIN 4124  
DIN EN 13331



H	Plate height
L	Plate length
L <sub>c</sub>	Pipe culvert length
L <sub>s</sub>	Rail length
L <sub>m</sub>	Unit length
b <sub>c</sub>	Working width
b	Shoring width
h <sub>c</sub>	Pipe culvert height



# Slide rail system PARALLEL DOUBLE rail DGPV

Base plate LxH	Weight plate	Length unit $L_M$	Pipe culvert length $L_C$	Thickness plate $t_{pl}$	State design load limit ed
<i>[mm]</i>	<i>[kg]</i>	<i>[mm]</i>	<i>[mm]</i>	<i>[mm]</i>	<i>[kN/m<sup>2</sup>]</i>
KR 2000x2400	510	2562	2102	100	171.6
KR 2500x2400	605	3062	2602	100	110.4
KR 3000x2400	690	3482	3022	100	81.1
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\*Special required dimensions available; characteristics may vary based on steel choice for their fabrication.

#### Tensile forces:

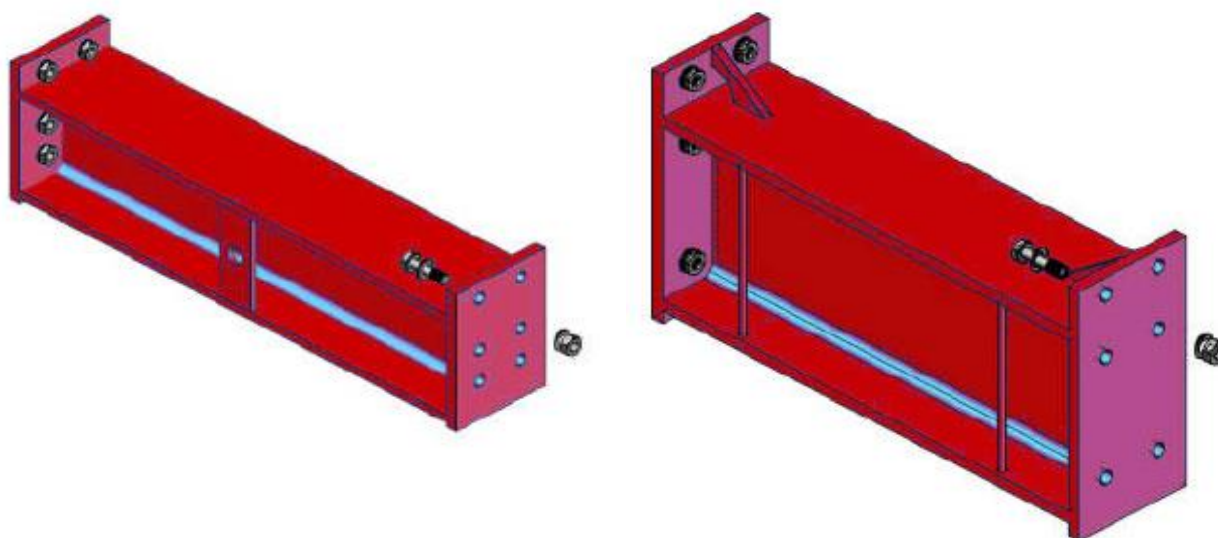
- lifting eyes at the rail head  $R_d = 229$  kN
- lifting eyes at the plate head  $R_d = 226$  kN
- bottom eyes  $R_d = 47$  kN



# Slide rail system PARALLEL DOUBLE rail DGPV

Description Slide rail	Lenght	Thickness rail	Bending moment	Weight
	<i>[m]</i>	<i>[mm]</i>	<i>[kNm]</i>	<i>[kg]</i>
DGPV	4.80	320	1020	1075
DGPV	6.00	320	1020	1355
DGPV	7.50	325	1106	1780

Description Sliding frame	Length	Dimensions flange	Minimum working width	Weight
	<i>[m]</i>	<i>[mm]</i>	<i>[m]</i>	<i>[kg]</i>
DGLW	2.00	240*305	0.73	308
DGLW	2.80	240*305	0.73	343
DGU-LW	1.45	300*580	0.92	488



# Slide rail system DOUBLE rail DGFP



Advised depth of work	Max. 7.5 m
Rail length	4.5 / 5.5 m
Rail weight	397 / 489 kg
Limit state design moment	360 kN.m
Stretch length	2.0 m - 6.25 m
Lifting device	Excavator $\approx$ 25 - 30 tons

Always being utilized in the past for large trench shoring areas, it is still used nowadays.

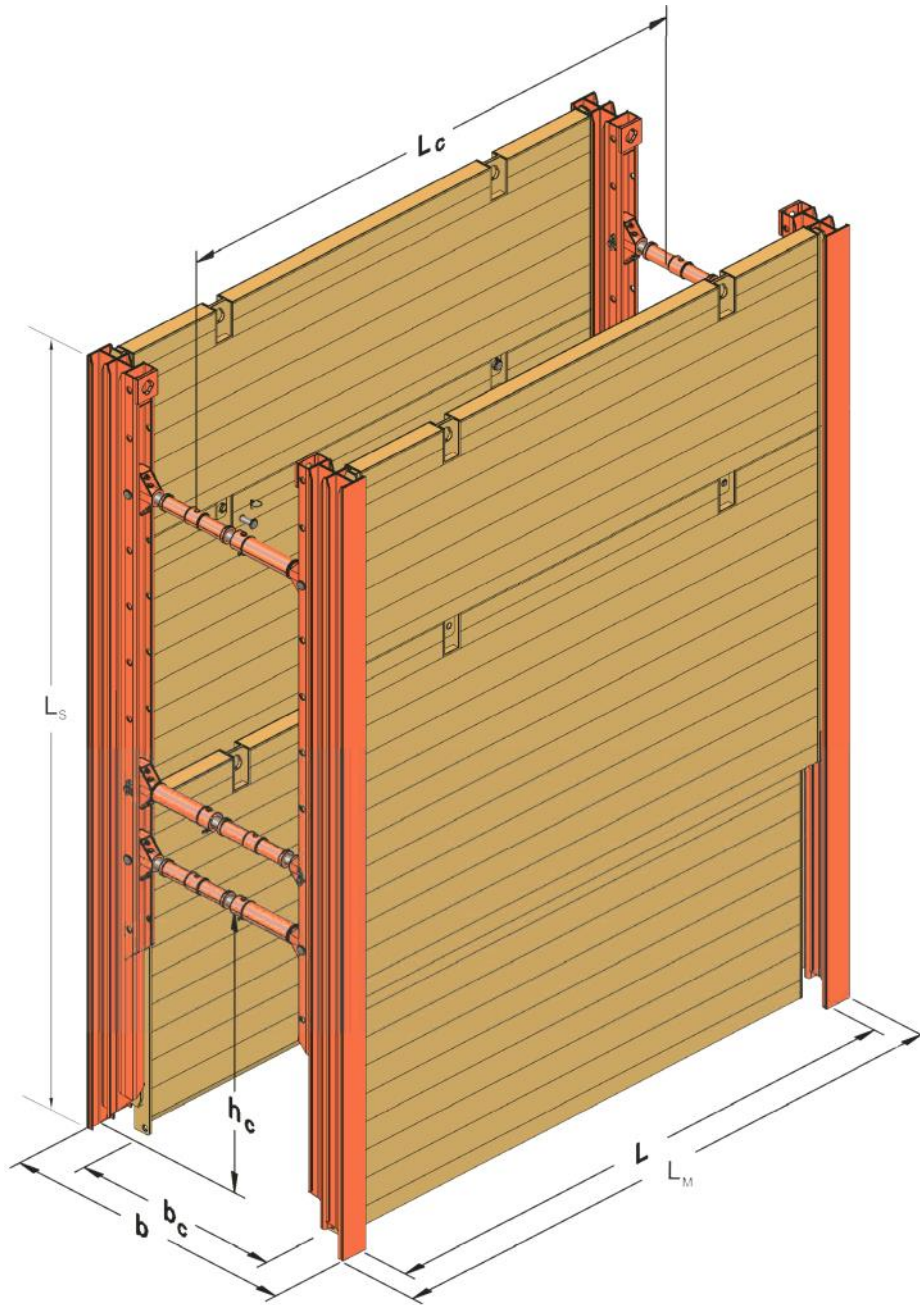
The FP sliding device ensures comfortable work thanks to its modularity and it offers a large and safe work area in the trench.

FP is the least heavy system of all sliding systems.

# Slide rail system DOUBLE rail DGFP



Conformité  
DIN 4124  
DIN EN 13331



H	Plate height
L	Plate length
L <sub>c</sub>	Pipe culvert length
L <sub>s</sub>	Rail length
L <sub>m</sub>	Unit length
b <sub>c</sub>	Working width
b	Shoring width
h <sub>c</sub>	Pipe culvert height



# Slide rail system DOUBLE rail DGFP

Base plate LxH	Weight plate	Unit length $L_M$	Pipe culvert length $L_C$	Thickness plate $t_p$	State design load limit ed
<i>[mm]</i>	<i>[kg]</i>	<i>[mm]</i>	<i>[mm]</i>	<i>[mm]</i>	<i>[kN/m<sup>2</sup>]</i>
KR 2000x2400	510	2562	2102	100	171.6
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KRA 6250x1300*	2315	6788	6328	120	66.0

\*Special required dimensions available; characteristics may vary based on steel choice for their fabrication.

#### Tensile forces:

- lifting eyes at the rail head  $R_d = 229$  kN
- lifting eyes at the plate head  $R_d = 226$  kN
- bottom eyes  $R_d = 47$  kN

Working width mini $b_C$	Excavation width mini $b$	Portico weight (without extension)
<i>[mm]</i>	<i>[mm]</i>	<i>[kg]</i>
871	1671	1007 / 1191



# Slide rail system

## Corner rail



Advised depth of work	Max. 8.0 m
Rail length	3.5 / 5.5 / 7.5 m
Rail weight	195 / 580 / 770 kg
Limit state design moment	113/ 216 / 216 kN.m
Stretch length	2.0 m - 6.25 m
Lifting device	Excavator $\approx$ 25 - 45 tons

Sliding system allowing protection of the four faces of a pit. Use of slide rails of 90° angle in which we can engage and slide the panels.

The broad range of panels guarantees multiple dimensions and combinations while ensuring comfort and total safety.

Ideal for the installation of tanks, the realization of boring pits, and other pump stations.

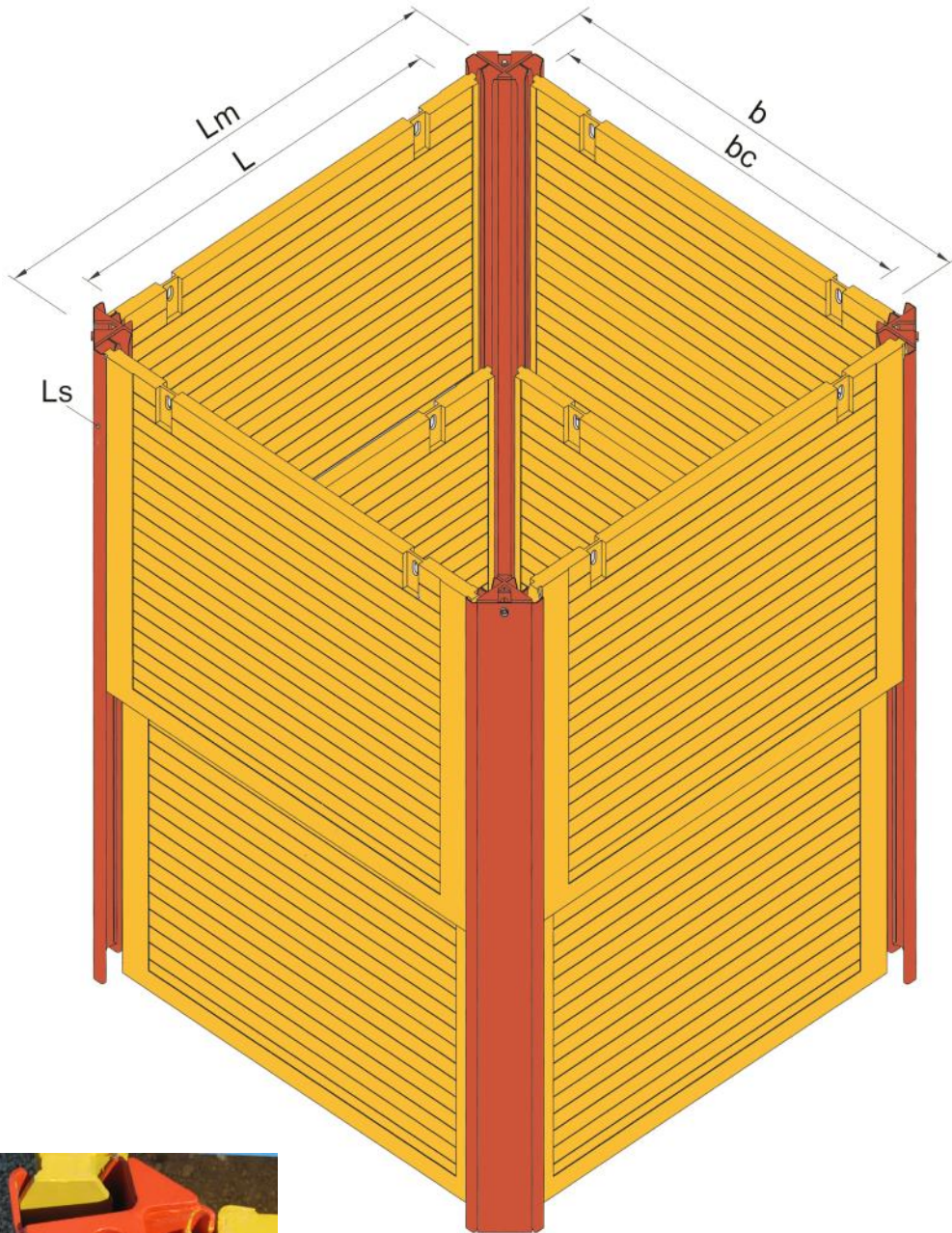
This system limits the floor space of the excavation.



# Slide rail system Corner rail



Conformité  
DIN 4124  
DIN EN 13331



L	Plate length
L <sub>s</sub>	Rail length
L <sub>M</sub>	Unit length
b <sub>c</sub>	Working width
b	Shoring width

# Slide rail system

## Corner rail

Base plate LxH	Weight plate	Length unit $L_M$	Pipe culvert length $L_C$	Thickness plate $t_{pl}$	State design load limit ed
<i>[mm]</i>	<i>[kg]</i>	<i>[mm]</i>	<i>[mm]</i>	<i>[mm]</i>	<i>[kN/m<sup>2</sup>]</i>
KR 2000x2400	510	2562	2102	100	171.6
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\*Special required dimensions available; characteristics may vary based on steel choice for their fabrication.

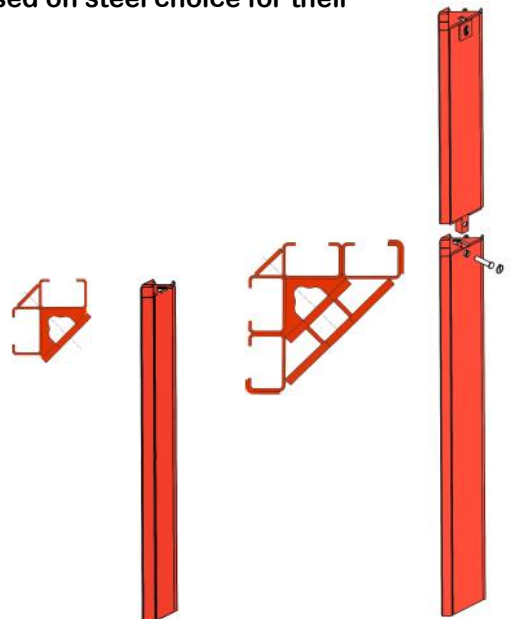
\*Special required dimensions available; characteristics may vary based on steel choice for their fabrication.

### Single EG ECK 3000/3500/4000

Limit state design moment	Rail thickness	Rail weight
<i>[kNm]</i>	<i>[mm]</i>	<i>[kg]</i>
113	218	164/192/218

### Double DG ECK 4500/5000/5500

Limit state design moment	Rail thickness	Rail weight
<i>[kNm]</i>	<i>[mm]</i>	<i>[kg]</i>
363	305	715/780/840





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