

## Krings Trench shoring systems / Endsupported compact shoring systems

### KVL



#### ↑ KVL

Shoring length	2,00 m - 3,50 m
Height base unit	1,50 m / 2,00 m / 2,40 m
Height top unit	0,50 m / 1,00 m
Pipe culvert height	0,72 m / 0,97 m / 1,30 m
Weight	527 kg - 1123 kg

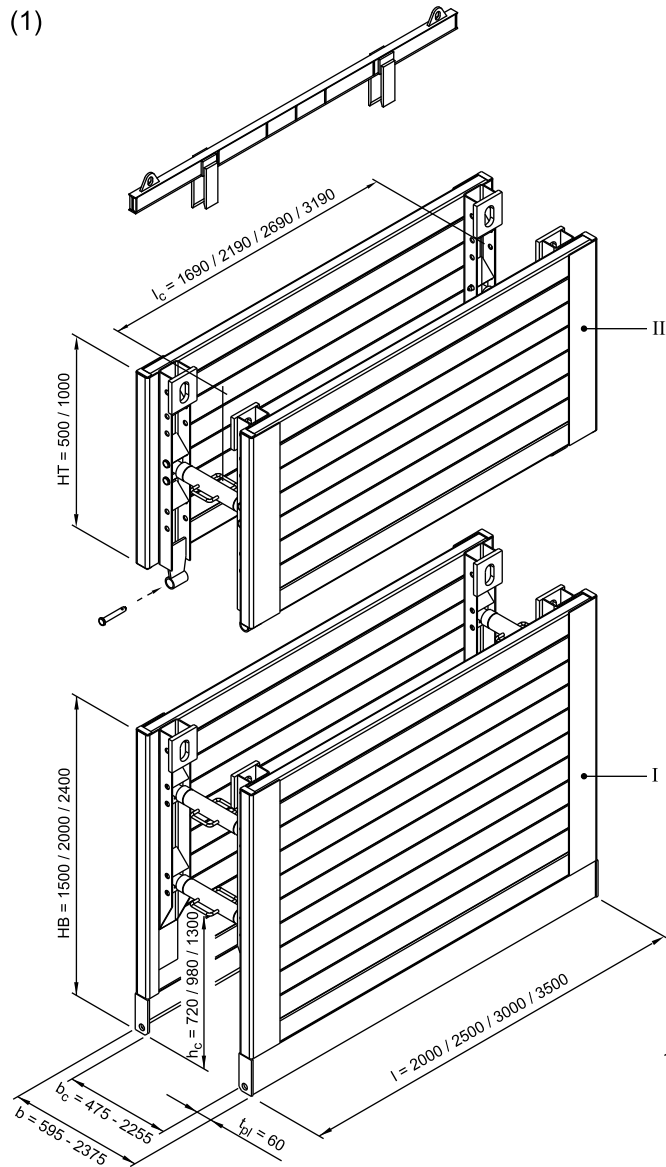
This small steel trench box is designed specifically for inner city shoring jobs. The KVL is ideal for the laying and modernization of gas and water pipes and telephone and power cables and for the creation of service lines.

Thanks to their low weight, the boxes are suitable for handling with small wheeled excavators. Sturdy struts, which can be adjusted to the desired trench width and quickly replaced (secured with bolts and spring pins), and sling lugs on the four corner posts simplify the handling of this type of shoring. Despite their low weight, the assembled boxes are stable and suitable for installation both by placement in the ready-dug trench and by lowering with concurrent excavation.

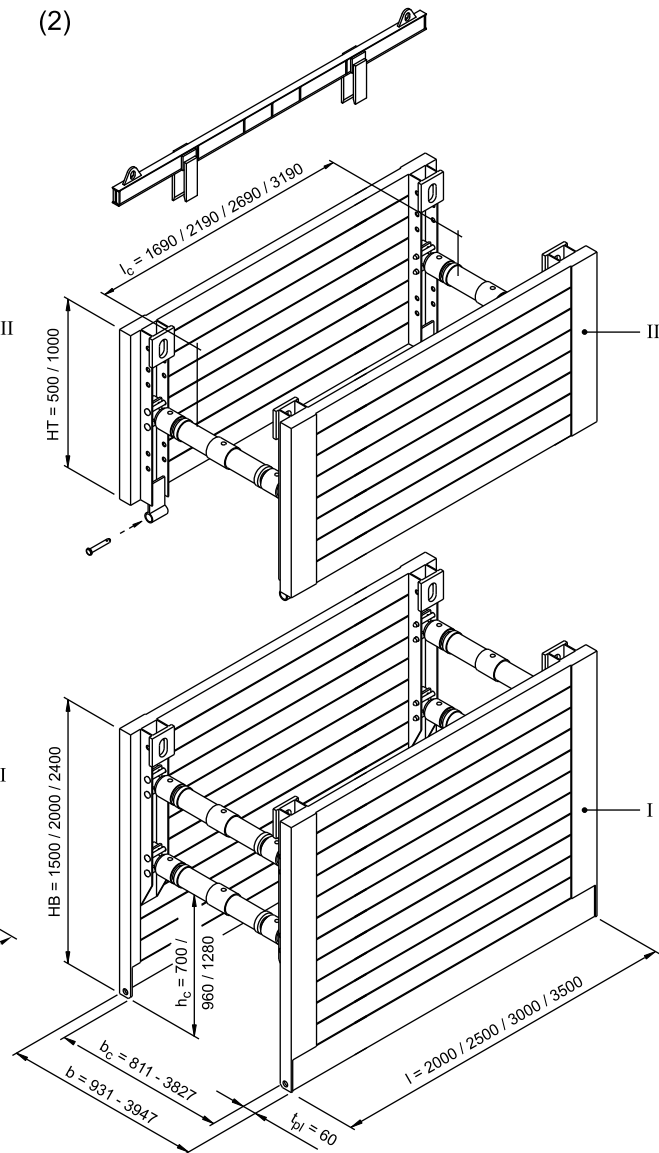
With the aid of an adapter, the struts developed for the KS 60 and KS 100 boxes can also be used if desired.

## KVL

(1)



(2)



I	Base unit
II	Top unit
HB	Height base unit
HT	Height top unit
l	Length

l <sub>c</sub>	Pipe culvert length
b	Shoring / trench width
b <sub>c</sub>	Inner width
h <sub>c</sub>	Pipe culvert height
t <sub>pl</sub>	Thickness

↑ (1) KVL, (2) KVL with spindle 98x550 or 98x700 and adapter

(All dimensions in mm)

## KVL

### Base units

Art. No.	l [m]	h [m]	t <sub>pl</sub> [m]	h <sub>c</sub> [m]	l <sub>c</sub> [m]	G / VP [kg]	G / Box [kg]	A [m <sup>2</sup> ]	eh [kN/m <sup>2</sup> ]
111 030	2,00	<b>1,50</b>	0,06	0,72	1,69	235,0	527,0 *	3,00	32,0
111 050	2,50	<b>1,50</b>	0,06	0,72	2,19	252,0	561,0 *	3,75	26,0
111 080	3,00	<b>1,50</b>	0,06	0,72	2,69	310,0	677,0 *	4,50	21,5
111 040	2,00	<b>2,00</b>	0,06	0,98	1,69	295,0	647,0 *	4,00	32,0
111 060	2,50	<b>2,00</b>	0,06	0,98	2,19	350,0	757,0 *	5,00	26,0
111 090	3,00	<b>2,00</b>	0,06	0,98	2,69	400,0	857,0 *	6,00	21,5
111 092	3,50	<b>2,00</b>	0,06	0,98	3,19	465,0	987,0 *	7,00	18,5
111 091	3,00	<b>2,40</b>	0,06	1,30	2,69	470,0	997,0 *	7,20	21,5
111 093	3,50	<b>2,40</b>	0,06	1,30	3,19	533,0	1.123,0 *	8,40	18,5

\* with spindle 70x650

### Top units

Art. No.	l [m]	h [m]	t <sub>pl</sub> [m]	h <sub>c</sub> [m]	l <sub>c</sub> [m]	G / VP [kg]	G / Box [kg]	A [m <sup>2</sup> ]	eh [kN/m <sup>2</sup> ]
111 130	2,00	<b>0,50</b>	0,06	-	1,69	92,0	214,0 *	1,00	32,0
111 150	2,50	<b>0,50</b>	0,06	-	2,19	105,0	240,0 *	1,25	32,0
111 170	3,00	<b>0,50</b>	0,06	-	2,69	130,0	290,0 *	1,50	30,6
111 172	3,50	<b>0,50</b>	0,06	-	3,19	150,0	330,4 *	1,68	21,9
111 120	2,00	<b>1,00</b>	0,06	-	1,69	165,0	360,0 *	2,00	32,0
111 140	2,50	<b>1,00</b>	0,06	-	2,19	195,0	420,0 *	2,50	32,0
111 160	3,00	<b>1,00</b>	0,06	-	2,69	217,0	464,0 *	3,00	30,6
111 174	3,50	<b>1,00</b>	0,06	-	3,19	245,0	520,4 *	1,68	21,9

\* with spindle 70x650

### Extension bars

Art. No.	Short description	l [m]	G [kg]
118 050	Spindle - 70x600 (rubber pad oval)	0,465 - 0,670	9,0
118 080	Spindle - 70x800 (rubber pad oval)	0,665 - 1,070	13,1
118 010	Spindle - 70x1180 (rubber pad oval)	1,065 - 1,870	18,3
118 060	Spindle - 70x650 (rubber pad round)	0,523 - 0,617	12,2
118 070	Spindle - 70x740 (rubber pad round)	0,613 - 0,797	13,4
118 090	Spindle - 70x920 (rubber pad round)	0,799 - 1,161	15,8
118 020	Spindle - 70x1280 (rubber pad round)	1,153 - 1,878	20,5
118 100	Spindle - 70x1470 (rubber pad round)	1,339 - 2,254	25,4

### Trench widths

Art. No.	Short description	Stroke [m]	b <sub>c</sub> [m]	b [m]
118 050	Spindle - 70x600 (rubber pad oval)	0,205	0,475 - 0,680	0,595 - 0,800
118 080	Spindle - 70x800 (rubber pad oval)	0,405	0,675 - 1,080	0,795 - 1,200
118 010	Spindle - 70x1180 (rubber pad oval)	0,805	1,075 - 1,880	1,195 - 2,000
118 060	Spindle - 70x650 (rubber pad round)	0,094	0,533 - 0,627	0,653 - 0,747
118 070	Spindle - 70x740 (rubber pad round)	0,184	0,623 - 0,807	0,743 - 0,927
118 090	Spindle - 70x920 (rubber pad round)	0,362	0,809 - 1,171	0,929 - 1,291
118 020	Spindle - 70x1280 (rubber pad round)	0,725	1,163 - 1,888	1,283 - 2,008
118 100	Spindle - 70x1470 (rubber pad round)	0,915	1,349 - 2,264	1,469 - 2,384

## KVL

### Shoring widths for spindle 98x550 with adapter

Extension bar	l [m]	b <sub>c</sub> [m]	b [m]
	without	0,811 - 1,011	0,931 - 1,131
139 430	0,30	1,111 - 1,311	1,231 - 1,431
139 445	0,50	1,311 - 1,511	1,431 - 1,631
139 385	1,00	1,811 - 2,011	1,931 - 2,131
139 400	1,50	2,311 - 2,511	2,431 - 2,631
139 420	2,00	2,811 - 3,011	2,931 - 3,131
139 425	2,50	3,311 - 3,511	3,431 - 3,631

### Shoring widths for spindle 98x700 with adapter

Extension bar	l [m]	b <sub>c</sub> [m]	b [m]
	without	0,987 - 1,327	1,107 - 1,447
139 430	0,30	1,287 - 1,627	1,407 - 1,747
139 445	0,50	1,487 - 1,827	1,607 - 1,947
139 385	1,00	1,987 - 2,327	2,107 - 2,447
139 400	1,50	2,487 - 2,827	2,607 - 2,947
139 420	2,00	2,987 - 3,327	3,107 - 3,447
139 425	2,50	3,487 - 3,827	3,607 - 3,947

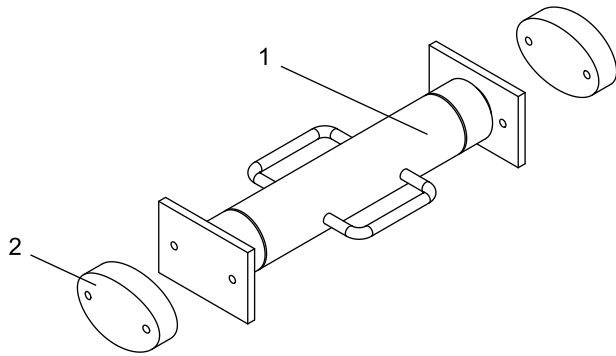
### Accessories / Spares

Art. No.	Short description	l [m]	G [kg]	d [m]	Standard
139 070	Chain sling connection, 4-leg, 2300 x 13	2,30	45,0		
139 080	Chain sling connection, 4-leg, 2800 x 13	2,80	57,0		
119 011	KVL adapter for spindles 98x530 / 98x700		6,5		
138 030	Pin	0,125	0,4	0,020	
861 077	Pressure beam (Lightweight shoring, KS 60, KVL)	1,80	117,0		
861 078	Pressure beam (Lightweight shoring, KS 60, KVL)	2,30	138,0		
861 079	Pressure beam (Lightweight shoring, KS 60, KVL)	2,80	161,0		
861 080	Pressure beam (Lightweight shoring, KS 60, KVL)	3,30	183,0		
100 690	Rubber parts GPU 30 x 40		0,1		
138 200	Spring cotter 92 x 5	0,092	0,1	0,005	
821 100	Suspension chain KL-13-8	5,000	25,7		
139 110	Wire rope 4-legs, 1800 x 20	1,80	40,0		
139 115	Wire rope 4-legs, 2300 x 20	2,30	44,0		
139 120	Wire rope 4-legs, 2800 x 20	2,80	46,0		

l	Length	d	Diameter
l <sub>c</sub>	Pipe culvert length	A	Area
b	Trench width	G	Weight
b <sub>c</sub>	Inner width	G / VP	Weight per shoring panel
h	Panel height	G / Box	Weight per shoring box
h <sub>c</sub>	Pipe culvert height	eh	Earth pressure max.
t <sub>pl</sub>	Thickness		

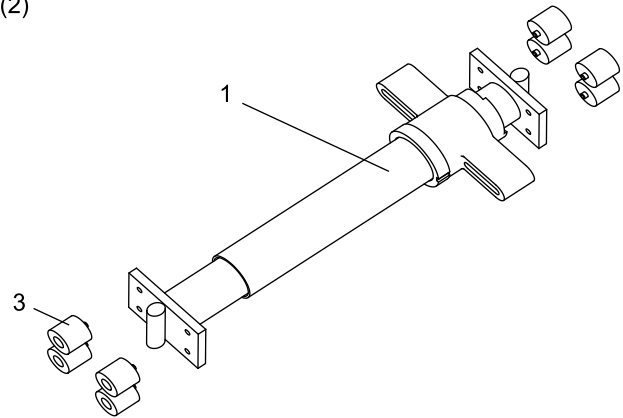
## KVL

(1)



↑ (1) KVL spindle, 70 x 600 / 800 / 1180

(2)



↑ (2) KVL spindle, 70 x 650 / 740 / 920 / 1280 / 1470

- 1 Spindle
- 2 Rubber parts (elliptical)

- 3 Rubber element Ø 40 mm