

Linear-Boxes



The Linear box shoring system is a combination of slide-rail shoring and box shoring. The trench box is largely immune to subsidence and capable of adapting to a wide range of site conditions. Thanks to the vertically displaceable boogie car on the principle of the linear shoring system, the shoring is extremely versatile. Among other things, it enables stepless pipe culvert heights.

Like all E+S box systems, the linear box is transported and supplied in its fully assembled state so that only the extension bars have to be fitted to achieve the desired trench width. To increase the height, a top unit compatible with Medium and Magnum Shoring with struts can be used.

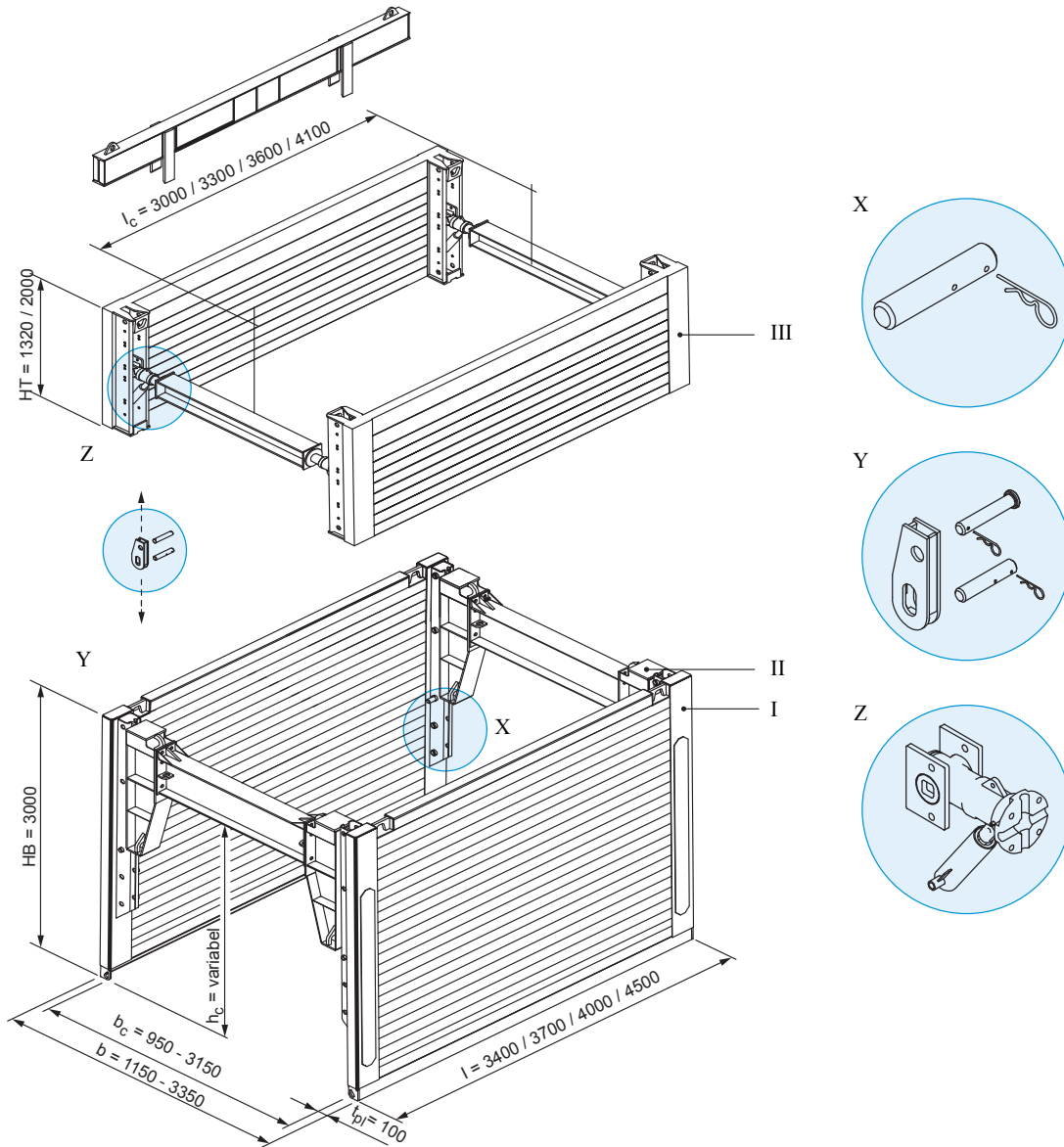
Basic data

Shoring length	3,40 m / 3,70 m / 4,00 m / 4,50 m
Height base unit	3,00 m
Height top unit	1,32 m / 2,00 m
Pipe culvert height	variable
Weight	2050 kg - 2940 kg
Trench width	variable, see page 67

Advantages

- Stepless adjustability of the pipe culvert height
- Top panel compatible with Medium- and Magnum-class shorings
- High flexibility due to the vertically displaceable boogie car

Linear box base module with medium top box



(All dimensions in mm)

I	Base unit with boogie car	l	Length	t _{pl}	Thickness
II	Linear-Box boogie car (base unit)	l _c	Pipe culvert length	X	Pin
III	Top unit with struts	b	Shoring / trench width	Y	Connector
HB	Height base unit	b _c	Inner width	Z	Spreader with bearing plate and shock absorber
HT	Height top unit	h _c	Pipe culvert height		

Boogie car

Art. No.	Short description	l [m]	G [kg]
832 226	Linear box boogie car (base unit)	1,38	200,0

Base units with boogie car

Art. No.	l [m]	h [m]	t _{pl} [m]	h _c [m]	l _c [m]	G / VP [kg]	G / Box [kg]	A [m ²]	eh [kN/m ²]
802 328	3,40	3,00	0,10	variable	3,00	1.025,0	2.050,0	10,20	48,2
802 321	3,70	3,00	0,10	variable	3,30	1.089,0	2.178,0	11,10	40,9
802 323	4,00	3,00	0,10	variable	3,60	1.255,0	2.510,0	12,00	35,2
802 325	4,50	3,00	0,10	variable	4,10	1.470,0	2.940,0	13,50	27,4

Top units with struts

Art. No.	l [m]	h [m]	t _{pl} [m]	h _c [m]	l _c [m]	G / VP [kg]	G / Box [kg]	A [m ²]	eh [kN/m ²]
800 700	3,40	1,32	0,10	-	2,95	658,0	1.316,0	4,49	50,5
802 700	3,40	2,00	0,10	-	2,95	930,0	1.860,0	6,80	50,5
800 800	3,70	1,32	0,10	-	3,25	692,0	1.384,0	4,88	42,1
802 750	3,70	2,00	0,10	-	3,25	990,0	1.980,0	7,40	42,1
800 900	4,00	1,32	0,10	-	3,55	775,0	1.550,0	5,28	43,8
800 950	4,50	1,32	0,10	-	4,05	820,0	1.640,0	5,94	34,2

Extension bars (for base and top elements with boogie car)

Art. No.	Short description	l [m]	G [kg]
831 030	Extension bar IPE 400 Linear box (element with boogie car)	0,275	57,0
831 040	Extension bar IPE 400 Linear box (element with boogie car)	0,550	75,0
831 050	Extension bar IPE 400 Linear box (element with boogie car)	1,100	115,0
831 060	Extension bar IPE 400 Linear box (element with boogie car)	1,650	155,0
831 070	Extension bar IPE 400 Linear box (element with boogie car)	2,200	195,0

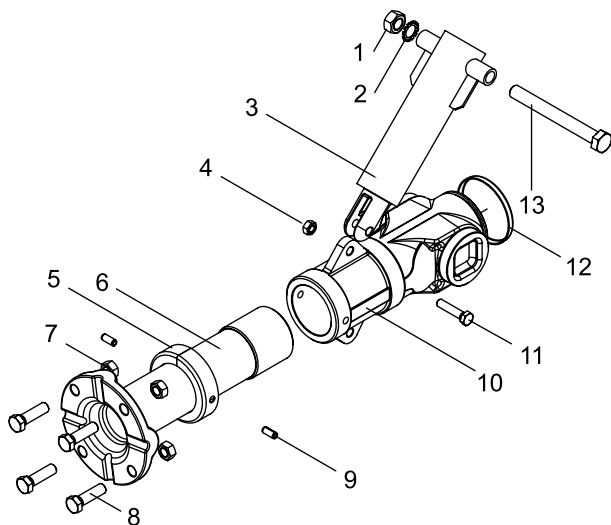
Extension bars (for top elements with spreaders)

Art. No.	Short description	l [m]	G [kg]
850 091	Extension bar GGG 50	0,250	11,2
850 100	Extension bar GGG 50	0,550	18,7
850 112	Extension bar HEB 180	0,275	28,0
850 110	Extension bar HEB 180	0,550	43,0
850 124	Extension bar HEB 180	1,100	70,0
850 132	Extension bar HEB 180	1,650	100,0
850 135	Extension bar HEB 180	2,200	130,0

Trench widths

l _{zwSt} [m]	b _c [m]	b [m]
0,000	0,950	1,150
0,275	1,225	1,425
0,550	1,500	1,700
1,100	2,050	2,250
1,650	2,600	2,800
2,200	3,150	3,350

Other trench widths possible by combining different IPE lengths.
Larger trench widths available on request.

E+S spreader, complete, right/left, with shock absorber

1	Nut M 20
2	Lock washer A 20
3	Shock absorber
4	Nut M 12
5	Metal cap for spindle
6	Spindle, right / left
7	Nut M 16
8	Hexagon screw M 16 x 55
9	Damping sleeve 10 x 24 mm
10	Cast-iron nut, right / left
11	Hexagon screw M 12 x 55
12	PVC dust cap for spindle nut
13	Hexagon screw M 20 x 180

Accessories / Spares

Art. No.	Short description	l [m]	G [kg]	d [m]
850 699	Bar for adjusting E+S/Krings spindles (Medium, Magnum, KS 100, slide rail)	0,7	2,5	0,024
302 125	Bearing plate -closed-		4,2	
HB 0190 F	Damping sleeve 10 x 24 mm		0,01	
832 228	Extension bars for linear box boogie car		226,0	
HD 0110 F	Grease nipple		0,01	0,01
HD 0050 F	Metal cap for spindle		0,1	
HD 0013 F	Metal cap for spindle housing		0,2	
IA 0095 F	Nut M 12		0,01	
IA 0120 F	Nut M 16		0,03	
IA 0130 F	Nut M 20		0,03	
IA 0185 F	Nut M 30		0,30	
HD 0040 F	PE cap for the spindle		0,01	
861 072	Pressure beam	3,60	335,0	
861 076	Pressure beam (Medium, Magnum shoring, KS 100, GLS)	1,60	176,0	
861 074	Pressure beam (Medium, Magnum shoring, KS 100, GLS)	2,35	236,0	
861 070	Pressure beam (Medium, Magnum shoring, KS 100, GLS)	2,80	271,0	
861 071	Pressure beam (Medium, Magnum shoring, KS 100, GLS)	3,40	318,0	
IB 0215 F	Screw M 12 x 55		0,06	
IB 0310 F	Screw M 16 x 55		0,11	
IB 0420 F	Screw M 20 x 180		0,56	
IB 0360 F	Screw M 20 x 45		0,17	
IB 0601 F	Screw M 30 x 65		0,60	
300 100	Shock absorber	0,143	4,5	
GB 0070 E	Spindle housing, left hand		9,4	
GB 0040 E	Spindle housing, right hand		9,4	
GB 0090 E	Spindle, lefthand -heavy duty-		17,1	
GB 0030 E	Spindle, righthand -heavy duty-		17,1	
301 010	Spreader complete, left hand -heavy duty-		27,1	

Accessories / Spares (contd.)

Art. No.	Short description	l [m]	G [kg]	d [m]
300 010	Spreader complete, right hand -heavy duty-		27,1	
ID 0160 F	Spring ring A 20		0,01	
821 100	Suspension chain KL-13-8	5,000	25,7	

Zubehör / Ersatzteile (für die Verbindung Grundelement mit Laufwagen / Aufsatzelement mit Spreizen)

Art. No.	Short description	l [m]	G [kg]	d [m]
862 214	Connector (for Linear box, top unit with struts)		6,1	
138 070	Pin 212 x 43	0,212	2,5	0,043
138 200	Spring cotter 92 x 5	0,092	0,1	0,005
HE0065 F	Spring cotter A7		0,03	0,006

l	Length	b _c	Inner width	G	Weight
l _c	Pipe culvert length	h _c	Pipe culvert height	G / VP	Weight per shoring panel
l _{ZwSt.}	Total extension bar length	t _{pl}	Thickness	G / Box	Weight per shoring box
b	Shoring / trench width	A	Area	eh	Earth pressure max.