

Lightweight-Boxes



↑ Lightweight-Boxes

Shoring length	2,00 m - 4,50 m
Height base unit	1,60 m / 1,95 m / 2,25 m / 2,40 m
Height top unit	0,96 m / 1,32 m
Pipe culvert height	0,81 m / 1,16 m / 1,19 m / 1,34 m
Weight	745 kg - 2136 kg

Small in size, big in performance.

With base panel heights of 1.6 m to 2.4 m, these shoring systems cover the entire range of applications in inner-city civil engineering projects. They are mainly used for the laying of pipes and cables for electricity, gas and water.

Lightweight-Box 240 - from the small to the largest

With a base panel height of 2.40 m and a max. permitted trench box represent the upper limit in the E+S Lightweight class. It goes without saying that it comes

equipped with all the features exhibited by all E+S products. The 2.40 m high base panel is available in four lengths: 2.00 m, 2.50 m, 3.00 m and 3.50 m. The maximum pipe culvert height is 1.34 m. Like all the top panels, installation is simple and quick yet safe. The connection with post and pins eliminates the risk or error.

With system struts and intermediate tubes

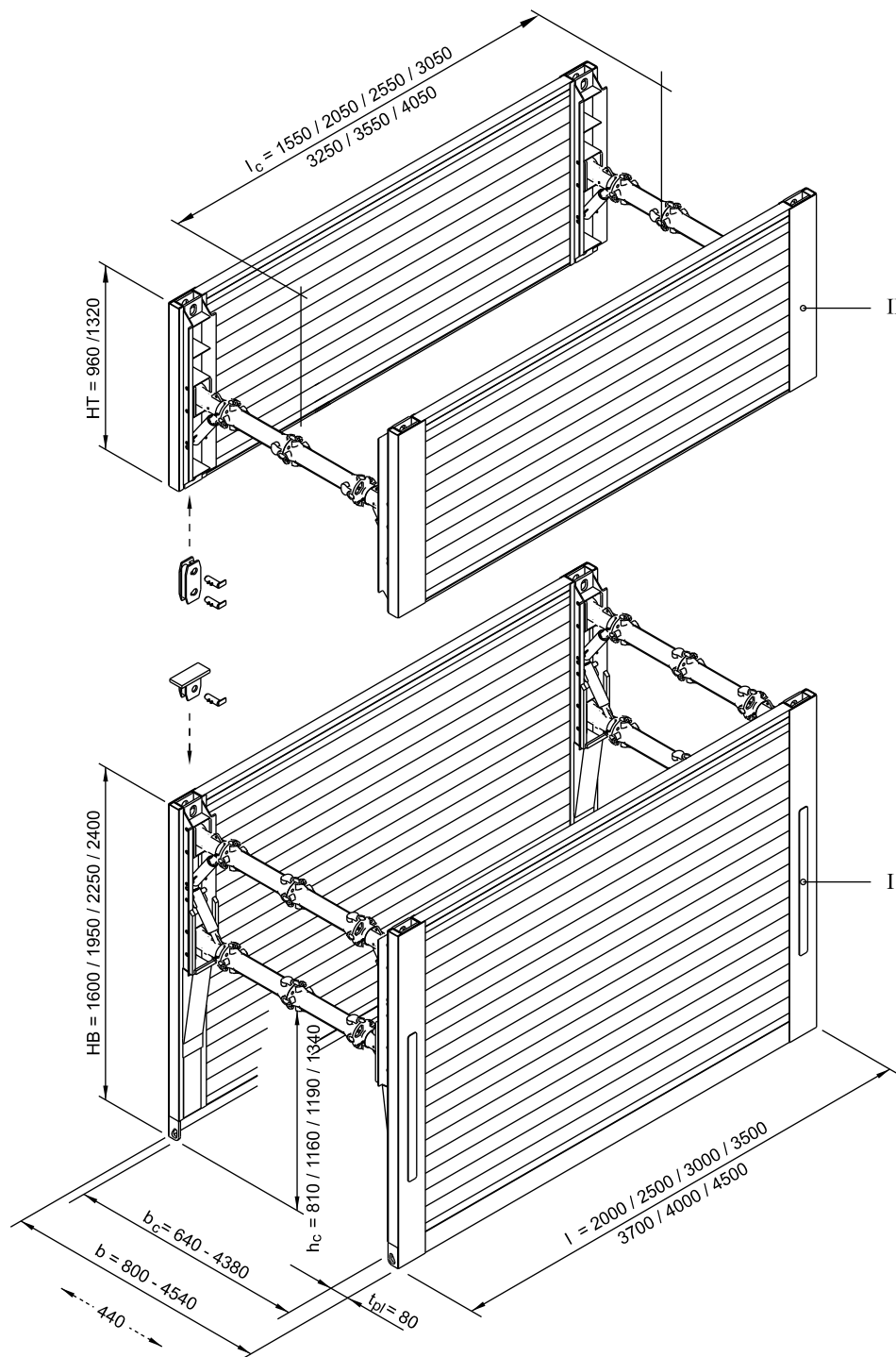
The strut system exclusive for E+S shoring systems, which can be steplessly adjusted from 0.81 up to 4.55 m, can be combined on the standard box with the 0.55 m long intermediate tubes to ensure maximum strength and versatility.

Installation as the situation demands.

According to the static requirement and the local conditions on site, the Lightweight-Box 240 can be installed by prior excavation or progressive excavation.

Technical contents are subject to change. Publishing date 07/02/2008

Lightweight-Boxes



I	Base unit	l_c	Pipe culvert length
II	Top unit	b	Shoring width
HB	Height base unit	b_c	Inner width
HT	Height top unit	h_c	Pipe culvert height
l	Length	t_{pl}	Thickness

Lightweight-Boxes

(All dimensions in mm)

Lightweight-Boxes

Base units (Height 1,60 m)

Art. No.	l [m]	t _{pl} [m]	h _c [m]	l _c [m]	G / VP [kg]	G / Box [kg]	A [m ²]	eh [kN/m ²]
801 455	2,00	0,08	0,81	1,55	372,5	745,0	3,20	17,50
801 505	2,50	0,08	0,81	2,05	420,0	840,0	4,00	17,50
801 568	3,00	0,08	0,81	2,55	502,3	1004,5	4,80	17,50
801 578	3,50	0,08	0,81	3,05	538,0	1076,0	5,60	17,50

Base units (Height 1,95 m)

Art. No.	l [m]	t _{pl} [m]	h _c [m]	l _c [m]	G / VP [kg]	G / Box [kg]	A [m ²]	eh [kN/m ²]
801 475	2,00	0,08	1,16	1,55	422,5	845,0	3,90	17,50
801 525	2,50	0,08	1,16	2,05	477,5	955,0	4,88	17,50
801 565	3,00	0,08	1,16	2,55	537,5	1075,0	5,85	17,50
801 575	3,50	0,08	1,16	3,05	617,5	1235,0	6,83	17,50
801 588	3,70	0,08	1,16	3,25	644,0	1288,0	7,22	17,50
801 590	4,00	0,08	1,16	3,55	815,0	1630,0	7,80	17,50

Base units (Height 2,25 m)

Art. No.	l [m]	t _{pl} [m]	h _c [m]	l _c [m]	G / VP [kg]	G / Box [kg]	A [m ²]	eh [kN/m ²]
801 015	2,00	0,08	1,19	1,55	515,0	1030,0	4,50	23,00
801 055	2,50	0,08	1,19	2,05	593,5	1187,0	5,63	23,00
801 105	3,00	0,08	1,19	2,55	627,5	1255,0	6,75	23,00
801 108	3,50	0,08	1,19	3,05	730,0	1460,0	7,88	23,00
801 109	4,00	0,08	1,19	3,55	939,5	1879,0	9,00	23,00

Base units (Height 2,40 m)

Art. No.	l [m]	t _{pl} [m]	h _c [m]	l _c [m]	G / VP [kg]	G / Box [kg]	A [m ²]	eh [kN/m ²]
801 210	2,00	0,08	1,34	1,55	550,0	1100,0	4,80	23,00
801 215	2,50	0,08	1,34	2,05	635,0	1270,0	6,00	23,00
801 220	3,00	0,08	1,34	2,55	675,0	1350,0	7,20	23,00
801 110	3,50	0,08	1,34	3,05	770,0	1540,0	8,40	23,00
801 120	4,50	0,08	1,34	4,05	1068,0	2136,0	10,80	23,00

Top units (Height 0,96 m)

Art. No.	l [m]	t _{pl} [m]	h _c [m]	l _c [m]	G / VP [kg]	G / Box [kg]	A [m ²]	eh [kN/m ²]
801 595	2,00	0,08	-	1,55	278,3	556,5	1,92	17,50
801 625	2,50	0,08	-	2,05	316,7	633,3	2,40	17,50
801 665	3,00	0,08	-	2,55	356,5	712,9	2,88	17,50
801 675	3,50	0,08	-	3,05	395,2	790,3	3,36	17,50

Top units (Height 1,32 m)

Art. No.	l [m]	t _{pl} [m]	h _c [m]	l _c [m]	G / VP [kg]	G / Box [kg]	A [m ²]	eh [kN/m ²]
801 628	2,00	0,08	-	1,55	340,5	681,0	2,64	23,00
801 630	2,50	0,08	-	2,05	390,9	781,8	3,30	23,00
801 635	3,00	0,08	-	2,55	407,9	815,8	3,96	23,00
801 680	3,50	0,08	-	3,05	430,0	860,0	4,62	23,00

Extension bars

Art. No.	Short description	l [m]	G [kg]
850 091	Extension bar GGG 40	0,250	11,2
850 100	Extension bar GGG 40	0,550	18,7
850 112	Extension bar HEB 180	0,275	28,0

Lightweight-Boxes

Extension bars (contd.)

Art. No.	Short description	l [m]	G [kg]
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
850 105	Extension bar HEB 220	0,275	40,0
850 115	Extension bar HEB 220	0,550	58,0
850 121	Extension bar HEB 220	1,100	98,0
850 130	Extension bar HEB 220	1,650	140,0
850 141	Extension bar HEB 220	2,200	180,0

Trench widths (for extension bars l = 0,55 m)

Number of extension bars	Length extension bars	Inner width b _c	Trench width b
n	[m]	[m]	[m]
0	0	0,64 - 1,08	0,80 - 1,24
1	0,55	1,19 - 1,63	1,30 - 1,70
2	1,10	1,74 - 2,18	1,90 - 2,34
3	1,65	2,29 - 2,73	2,45 - 2,89
4	2,20	2,84 - 3,28	3,00 - 3,44
5	2,75	3,39 - 3,83	3,55 - 3,99
max. 6	3,30	3,94 - 4,38	4,10 - 4,54

From-to sizes dependent on spindle adjustment range.

Other trench widths possible by combining the two different extension bar lengths l = 0.25 m and l = 0.55 m.

Larger trench widths available on request.

Accessories / Spares

Art. No.	Short description	l [m]	G [kg]	d [m]	Standard
300 000	Spreader complete, right hand -hollow-		19,5		
300 100	Shock absorber	0,143	6,1		
301 000	Spreader complete, left hand -hollow-		19,5		
302 125	Locating plate -closed-		4,2		
850 510	Connector steel (for Lightweight-Boxes)		3,1		
850 610	Bolt (for Lightweight-Box)	0,095	1,7	0,030	
851 010	Pressure plate (for Lightweight-Boxes)		8,5		
GB 0020 E	Spindle right hand -hollow-		9,5		
GB 0040 E	Spindle housing, right hand		9,4		
GB 0070 E	Spindle housing, left hand		9,4		
GB 0080 E	Spindle left hand -hollow-		9,5		
HB 0190 F	Damping sleeve 10 x 24 mm		0,01		DIN 1481
HD 0013 F	Metal cap for spindle housing		0,4		
HD 0040 F	PE cap for the spindle		0,01		
HD 0050 F	Metal cap for spindle		0,1		
HD 0110 F	Grease nipple		0,1	0,01	DIN 71412
IA 0095 F	Nut M 12		0,1		DIN 985
IA 0120 F	Nut M 16		0,04		DIN 934
IA 0130 F	Nut M 20		0,1		DIN 934
IB 0215 F	Screw M 12 x 55		0,1		DIN 933
IB 0310 F	Screw M 16 x 55		0,1		DIN 933
IB 0360 F	Screw M 20 x 45		0,2		DIN 933
IB 0420 F	Screw M 20 x 180		0,6		DIN 601
ID 0160 F	Spring ring A 20		0,01		DIN 127

Lightweight-Boxes

l	Length	d	Diameter
l _c	Pipe culvert length	A	Area
b	Trench width	G	Weight
b _c	Inner width	G / VP	Weight per shoring panel
h _c	Pipe culvert height	G / Box	Weight per shoring box
t _{pl}	Thickness	eh	Earth pressure max.