

Manhole-Boxes



The Manhole is a manhole shoring element that unites all the features of a compact shoring system except that only the ends of the module are equipped with extra panels. These are positioned at right angles and firmly connected to the main panel. In addition to the standard solution, the edge-supported shoring system can be supplied as a custom solution in any desired length.

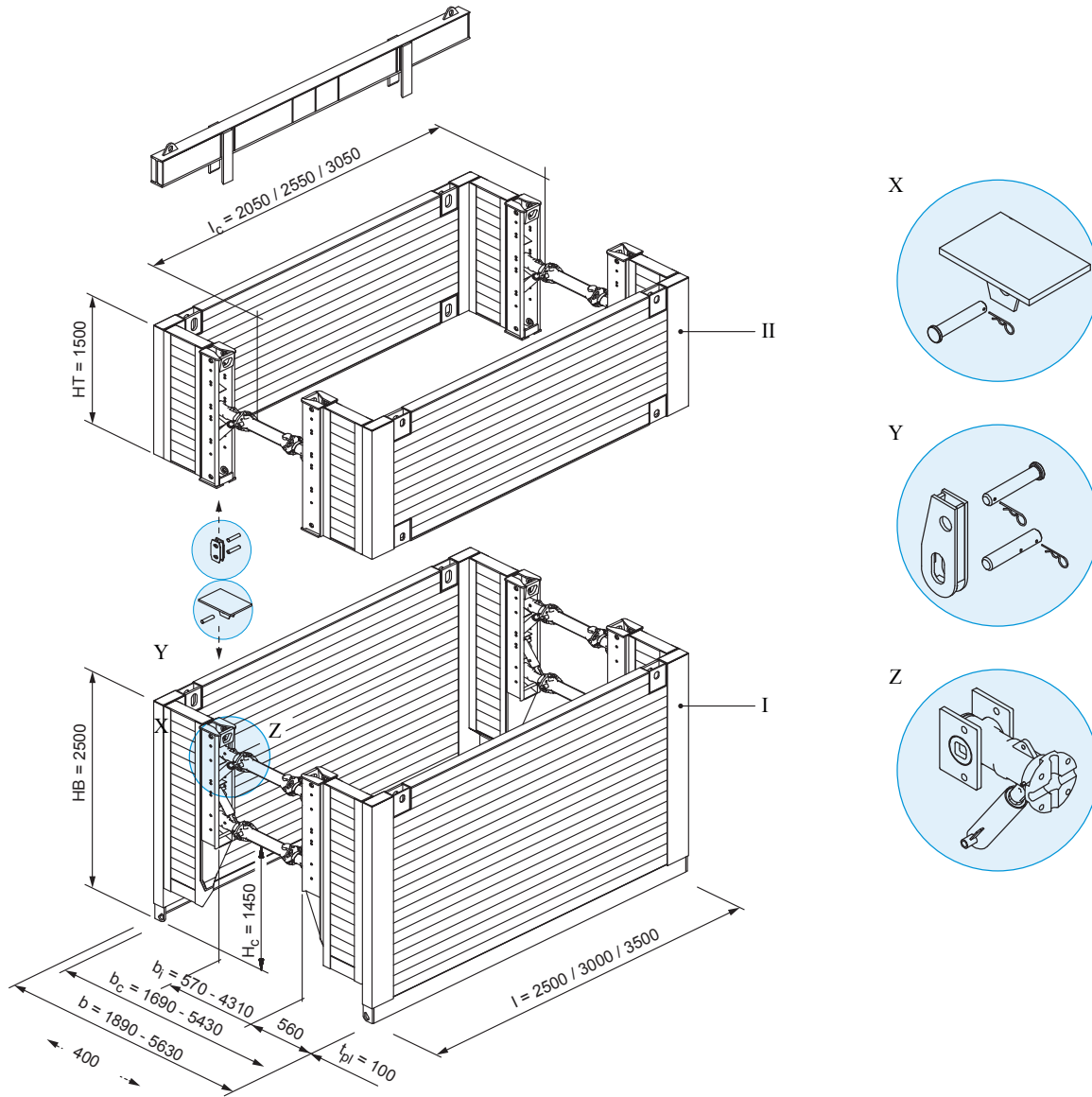
Basic data

Shoring length	2,50 m / 3,00 m / 3,50 m
Height base unit	2,60 m
Height top unit	1,50 m
Pipe culvert height	1,45 m
Weight	2260 kg - 2710 kg
Trench width	variable, see page 70

Advantage

- Ideal for manholes

Manhole-Boxes



(All dimensions in mm)

I	Base unit	l_c	Pipe culvert length	t_{pl}	Thickness
II	Top unit	b	Shoring / trench width	X	Pressure plate
HB	Height base unit	b_c	Inner width	Y	Connector
HT	Height top unit	b_l	Inner culvert width	Z	Spreader with bearing plate and shock absorber
l	Length	h_c	Pipe culvert height		

Base units (Height 2,50 m)

Art. No.	l [m]	t _{pl} [m]	h _c [m]	l _c [m]	G / VP [kg]	G / Box [kg]	eh [kN/m ²]
828 005	2,50	0,10	1,45	2,05	1.130,0	2.260,0	81,8
828 015	3,00	0,10	1,45	2,55	1.275,0	2.550,0	67,4
828 025	3,50	0,10	1,45	3,05	1.355,0	2.710,0	47,7

Top units (Height 1,50 m)

Art. No.	l [m]	t _{pl} [m]	h _c [m]	l _c [m]	G / VP [kg]	G / Box [kg]	eh [kN/m ²]
829 005	2,50	0,10	-	2,05	944,0	1.888,0	90,9
829 015	3,00	0,10	-	2,55	1.015,0	2.030,0	67,4
829 025	3,50	0,10	-	3,05	1.090,0	2.180,0	47,7

Extension bars

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 (for cast iron tubular extension bars l = 0.55 m)

Number of extension bars	Length extension bars [m]	b _c [m]	b _i [m]	b [m]
0	0,00	1,69 - 2,13	0,57 - 1,01	1,89 - 2,33
1	0,55	2,24 - 2,68	1,12 - 1,56	2,44 - 2,88
2	1,10	2,79 - 3,23	1,67 - 2,11	2,99 - 3,43
3	1,65	3,34 - 3,78	2,22 - 2,66	3,54 - 3,98
4	2,20	3,89 - 4,33	2,77 - 3,21	4,09 - 4,53
5	2,75	4,44 - 4,88	3,32 - 3,76	4,64 - 5,08
max. 6	3,30	4,99 - 5,43	3,87 - 4,31	5,19 - 5,63

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.

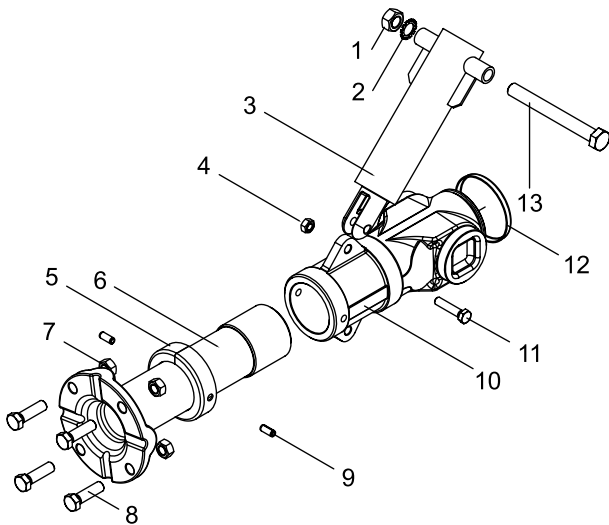
Trench widths (for extension bars HEB 180)

l _{zwSt} [m]	b _c [m]	b _i [m]	b [m]
0,000	1,690 - 2,130	0,570 - 1,010	1,890 - 2,330
0,275	1,965 - 2,405	0,845 - 1,285	2,165 - 2,605
0,550	2,240 - 2,680	1,120 - 1,560	2,440 - 2,880
1,100	2,790 - 3,230	1,670 - 2,110	2,990 - 3,430
1,650	3,340 - 3,780	2,220 - 2,660	3,540 - 3,980
2,200	3,890 - 4,330	2,770 - 3,210	4,090 - 4,530
2,200 + 1,100	4,990 - 5,430	3,870 - 4,310	5,190 - 5,630

From-to dimensions depend on the spindle adjustment range.

Other trench widths are possible by combining different HEB lengths.

Larger trench widths are 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]	d [m]	G [kg]
842 752	Adapter for DKU piling frame, corner shoring, h = 0.50 m KDVI			55,0
842 753	Adapter for DKU piling frame, corner shoring, h = 1.00 m KDVI			94,0
842 750	Adapter for DKU piling frame, E+S spreader			31,0
850 699	Bar for adjusting E+S/Krings spindles (Medium, Magnum, KS 100, slide rail)	0,7	0,024	2,5
302 125	Bearing plate -closed-			4,2
850 500	Cast iron connector (for Medium boxes, Magnum boxes, Manhole)			6,7
862 214	Connector (for Linear box, top unit with struts)			6,1
HB 0190 F	Damping sleeve 10 x 24 mm			0,01
842 099	DKU piling frame guide frame	2,27		105,0
842 100	DKU piling frame guide frame	3,81		175,0
859 981	Drop-in bearing block, E+S			25,6
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
850 600	Pin	0,195	0,035	1,8
850 610	Pin (for Lightweight box)	0,095	0,030	0,5
850 614	Pin 200 x 40 mm (Linear box boogie car)			1,9
851 010	Pressure plate (for Lightweight-Boxes)			7,0
851 005	Pressure plate (for Medium Boxes, Magnum Boxes, Manhole)			19,0
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

Accessories / Spares (contd.)

Art. No.	Short description	l [m]	d [m]	G [kg]
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 0080 E	Spindle, lefthand -hollow-			9,5
GB 0030 E	Spindle, righthand -heavy duty-			17,1
GB 0020 E	Spindle, righthand -hollow-			9,5
301 010	Spreader complete, left hand -heavy duty-			27,1
301 000	Spreader complete, left hand -hollow-			19,5
300 010	Spreader complete, right hand -heavy duty-			27,1
300 000	Spreader complete, right hand -hollow-			19,5
159 161	Spring cotter (850 614)			0,1
HE 0050 F	Spring cotter 6 mm		0,006	0,03
ID 0160 F	Spring ring A 20			0,01
336 960	Support bracket for DKU piling frame element			40,0
821 100	Suspension chain KL-13-8	5,000		25,7

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.