

E+S Trench shoring systems / Endsupported compact shoring systems

Medium-Boxes



↑ Medium-Boxes

Shoring length	2,00 m - 4,50 m
Height base unit	2,60 m
Height top unit	1,32 m / 2,00 m
Pipe culvert height	1,45 m
Weight	1460 kg - 2780 kg

In a class of its own.

This series of shoring elements is located between the Lightweight class (Minibox and Lightweight-Boxes) and the capacity boxes. There is virtually no line of products in the Medium class that compares with the E+S range. The specific dimensions and design features of this shoring system make it suitable for universal and varied applications. In the Medium shoring range - pipes up to 1.45 m external diameter - these boxes with a base panel height of 2.60 m are an international bestseller.

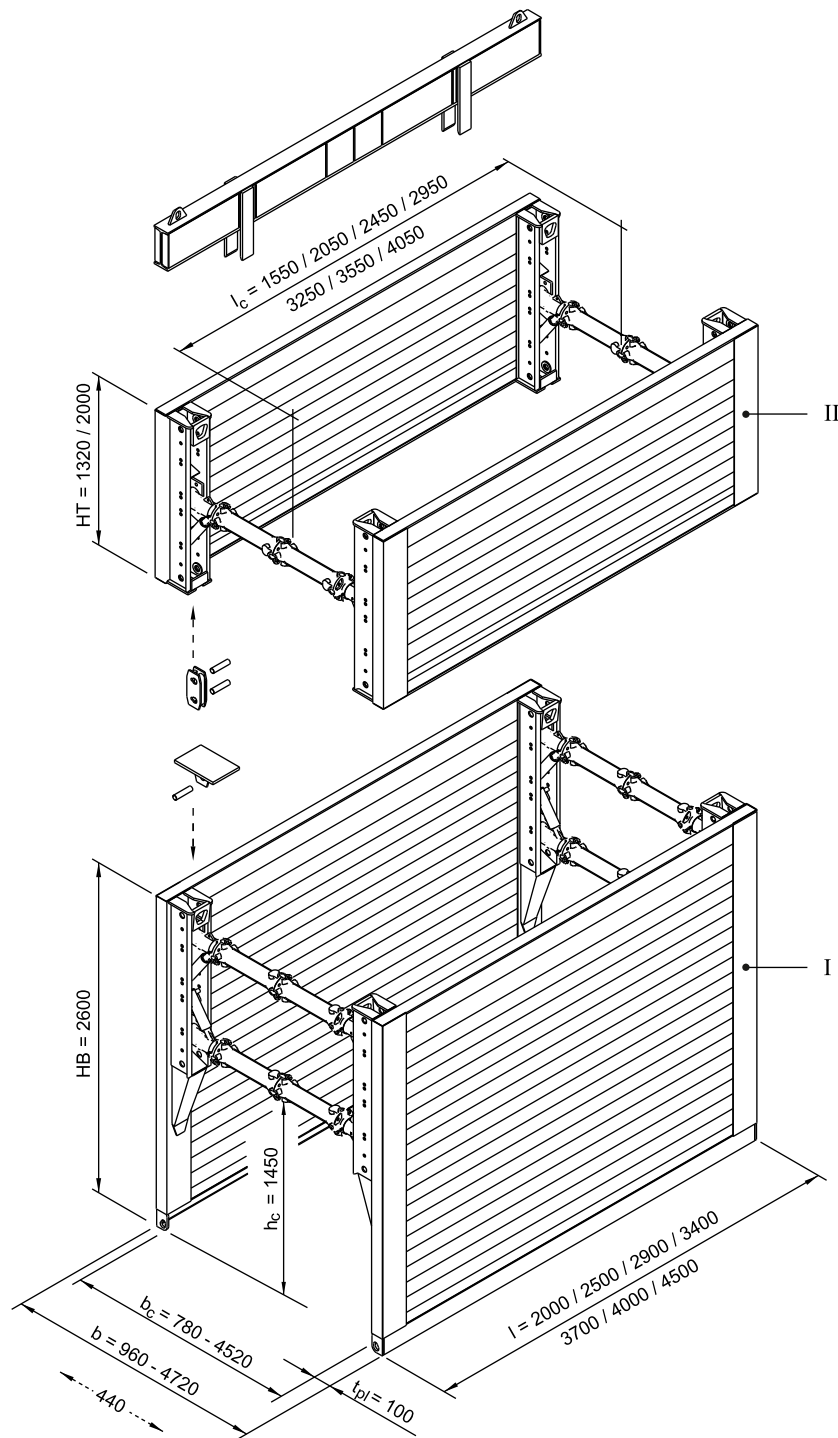
Two parts - one system.

The E+S strut system consists of three efficient individual components. The cast-iron nut. Made of nodular cast-iron (GGG 50). Effectively withstands the tensile and compressive forces. The spindle. Manufactured with threaded tube with friction-welded flange joints and four holes for the flange connecting screws. Thanks to its stepless adjustment facility, it can be adapted to the demanded trench width.

The intermediate tube. The basic version is made of nodular cast iron (GGG 40). The module lengths are 0.25 and 0.55 m. To transmit exceptional forces, intermediate carrier tubes HE-B 180/220 in additional lengths are available. However different the shoring system may be in size, all the boxes of the compact class - from the Lightweight through to the Magnum-Box - use one and the same strut system.

Technical contents are subject to change. Publishing date 22/03/2013

Medium-Boxes



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

Medium-Boxes

(All dimensions in mm)

Medium-Boxes

Base units (Height 2,60 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]
800 010	2,00	0,10	1,46	1,55	730,0	1.460,0	5,20	70,0
800 100	2,50	0,10	1,46	2,05	825,0	1.650,0	6,50	60,0
800 150	2,90	0,10	1,46	2,45	908,0	1.816,0	7,54	55,0
800 200	3,40	0,10	1,46	2,95	1.028,0	2.056,0	8,84	50,8
800 300	3,70	0,10	1,46	3,25	1.118,0	2.236,0	9,62	42,3
800 400	4,00	0,10	1,46	3,55	1.257,0	2.514,0	10,40	44,0
800 440	4,50	0,10	1,46	4,05	1.390,0	2.780,0	11,70	34,2

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]
800 550	2,00	0,10	-	1,55	463,0	926,0	2,64	70,0
800 600	2,50	0,10	-	2,05	531,0	1.062,0	3,30	60,0
800 650	2,90	0,10	-	2,45	578,0	1.156,0	3,83	55,0
800 700	3,40	0,10	-	2,95	658,0	1.316,0	4,49	50,8
800 800	3,70	0,10	-	3,25	692,0	1.384,0	4,88	42,3
800 900	4,00	0,10	-	3,55	775,0	1.550,0	5,28	44,0
800 950	4,50	0,10	-	4,05	820,0	1.640,0	5,94	34,2

Top units (Height 2,00 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]
802 550	2,90	0,10	-	2,45	840,0	1.680,0	5,80	55,0
802 700	3,40	0,10	-	2,95	920,0	1.840,0	6,80	50,8
802 750	3,70	0,10	-	3,25	1.005,0	2.010,0	7,40	42,3

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
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

Medium-Boxes

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

Number of extension bars n	Length extension bars [m]	b _c [m]	b [m]
0	0,00	0,78 - 1,22	0,98 - 1,42
1	0,55	1,32 - 1,77	1,52 - 1,97
2	1,10	1,88 - 2,32	2,08 - 2,52
3	1,65	2,43 - 2,87	2,63 - 3,07
4	2,20	2,98 - 3,42	3,18 - 3,62
5	2,75	3,53 - 3,97	3,73 - 4,17
max. 6	3,30	4,08 - 4,52	4,28 - 4,72

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 [m]	b _c [m]	b [m]
0,000	0,780 - 1,220	0,980 - 1,420
0,275	1,055 - 1,495	1,255 - 1,695
0,550	1,330 - 1,770	1,530 - 1,970
1,100	1,880 - 2,320	2,080 - 2,520
1,650	2,430 - 2,870	2,630 - 3,070
2,200	2,980 - 3,420	3,180 - 3,620
2,200 + 1,100	4,080 - 4,520	4,280 - 4,720

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.

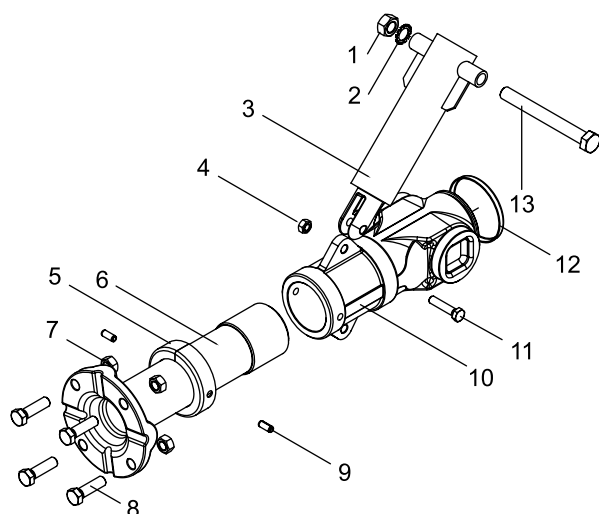
Accessories / Spares

Art. No.	Short description	l [m]	G [kg]	d [m]	Standard
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	2,5	0,024	
336 960	Bearing claw for DKU piling frame element		40,0		
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		DIN 1481
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	DIN 71412
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		DIN 985
IA 0120 F	Nut M 16		0,03		DIN 934
IA 0130 F	Nut M 20		0,03		DIN 934
IA 0185 F	Nut M 30		0,30		DIN 934
HD 0040 F	PE cap for the spindle		0,01		
850 600	Pin	0,195	1,8	0,035	
850 610	Pin (for Lightweight box)	0,095	0,5	0,030	
850 614	Pin 200 x 40 mm (Linear box roller unit)		1,9		

Medium-Boxes

Accessories / Spares (contd.)

Art. No.	Short description	l [m]	G [kg]	d [m]	Standard
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		
861 076	Pressure beam (Medium, Magnum shoring, KS 100, GLS)	1,60	175,5		
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		
851 010	Pressure plate (for Lightweight-Boxes)		5,0		
851 005	Pressure plate (for Medium Boxes, Magnum Boxes, Manhole)		17,0		
IB 0215 F	Screw M 12 x 55		0,06		DIN 933
IB 0310 F	Screw M 16 x 55		0,11		DIN 933
IB 0420 F	Screw M 20 x 180		0,56		DIN 601
IB 0360 F	Screw M 20 x 45		0,17		DIN 933
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		
HE 0100 F	Spring cotter (Linear-Box)		0,01	0,006	
HE 0050 F	Spring cotter 6 mm		0,03	0,006	DIN 11024
ID 0160 F	Spring ring A 20		0,01		DIN 127
821 100	Suspension chain KL-13-8	5,000	25,7		
862 216	Top cover for Linear-Box		3,00		



- 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

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

Medium-Boxes

l	Length	A	Area
l_c	Pipe culvert length	G	Weight
b	Shoring / trench width	G / VP	Weight per shoring panel
b_c	Inner width	G / Box	Weight per shoring box
h_c	Pipe culvert height	eh	Earth pressure max.
t_{pl}	Thickness		