

Double slide rail inner-city shoring



In urban areas, trench sections crossed by numerous pipes and cables are commonplace. The use of large-area shoring systems is therefore out of the question. The solution for excavation projects at greater depth is overlapping inner-city linear shoring that works on the much same principle as overlapping linear shoring. Overlapping short piles are guided in overlapping piling frame elements. The result is two overlapping walls of sheet piling that can be raised independently of one another.

By using piling frame elements, linear shoring with single or double slide-rails provides a solution even in those areas where gas or water mains or other service pipes cross the trench. The shoring modules and the piles themselves are lowered with very little vibration – an important precondition for civil engineering work in urban areas.

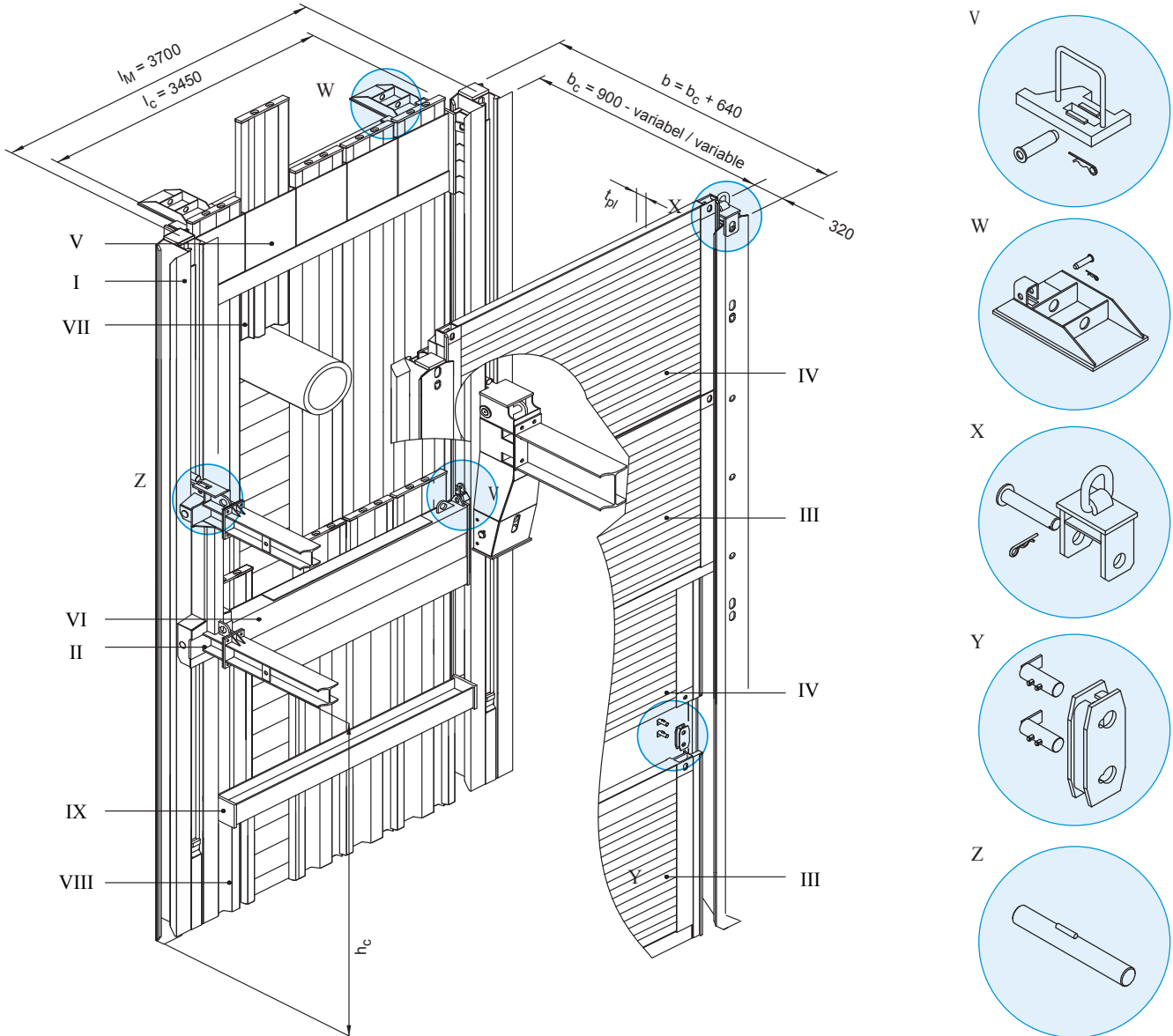
Basic data

Module length	3,70 m
Length slide rail	5,13 m - 9,13 m
Height sheet pile element	1,00 m
Length sheet piles (KD VI/8)	variable
Trench width	variable, see page 32-33

Advantages

- Cost-effective shoring wherever transverse electrical lines and house connections exist
- No vibrational or impact forces

Double slide rail inner-city shoring with U-type or rectangular boogie car



(All dimensions in mm. The details of length of pipe opening l_c refer to the rectangular boogie car.)

From an intermediate piece length combination of 1.10 m, it is mandatory to mount the shoring horizontally.

I	Linear shoring support	VIII	Sheet piles (inside belt)	h_c	Pipe culvert height
II	Boogie car	IX	Waling (outside belt)	t_{pl}	Thickness
III	Base panel	X	Waling (inside belt)	V	Bracing of inside belt
IV	Top panel	l_M	Module length	W	Bearing claw
V	Sheet pile element (outside belt)	l_c	Pipe culvert length	X	Pull adapter
VI	Sheet pile element (inside belt)	b	Shoring / trench width	Y	Connector
VII	Sheet piles (outside belt)	b_c	Inner width	Z	Pin

Linear shoring support

Art. No.	Short description	l [m]	G [kg]
820 912	Linear shoring support	5,13	1.002,0
820 915	Linear shoring support	6,13	1.192,0
820 920	Linear shoring support	7,13	1.404,0
820 924	Linear shoring support	8,13	1.859,0
820 929	Linear shoring support	9,13	2.325,0

Sheet pile elements -outer belt- (height 1.00 m)

Art. No.	l [m]	l _M [m]	t _{pl} [m]	l _c [m]	G [kg]
820 980	3,45	3,70	0,30	3,45	1.330,0

Sheet pile elements -inner belt- (height 1.00 m)

Art. No.	l [m]	l _M [m]	t _{pl} [m]	l _c [m]	G [kg]
821 000	3,34	3,70	0,30	3,45	1.217,0

Base panel -outside- (Height 2,32 m)

Art. No.	l [m]	l _M [m]	t _{pl} [m]	l _c [m]	G / VP [kg]	A [m ²]
821 320	3,45	3,70	0,11	3,45	812,0	8,00

Top panel -outside- (Height 1,32 m)

Art. No.	l [m]	l _M [m]	t _{pl} [m]	l _c [m]	G / VP [kg]	A [m ²]
822 410	3,45	3,70	0,11	3,45	560,0	4,55

Base panels -inside- (height 2.32 m)

Art. No.	l [m]	l _M [m]	t _{pl} [m]	l _c [m]	G / VP [kg]	A [m ²]
821 255	3,34	3,70	0,11	3,45	803,0	7,75

Top panel -inside-

Art. No.	l [m]	l _M [m]	h [m]	t _{pl} [m]	l _c [m]	G / VP [kg]	A [m ²]
822 140	3,34	3,70	1,32	0,11	3,45	570,0	4,41
822 145	3,34	3,70	2,30	0,11	3,45	840,0	7,68

The details of length of pipe opening l_c refer to the rectangular boogie car.

Linear shoring boogie car

Art. No.	Short description	l [m]	G [kg]
832 200	Rectangular boogie car	2,00	420,0
832 215	Linear shoring rectangular boogie car	2,20	490,0
832 205	Linear shoring U-type boogie car	2,00	550,0

Extension bars for rectangular boogie car

Art. No.	Short description	l [m]	G [kg]
830 005	Extension bar HEB 220	0,140	38,0
830 010	Extension bar HEB 220	0,275	50,0
830 011	Extension bar HEB 220	0,350	55,0
830 012	Extension bar HEB 220	0,375	57,0
830 015	Extension bar HEB 220	0,412	60,0
830 020	Extension bar HEB 220	0,550	70,0
830 030	Extension bar HEB 220	1,100	110,0
830 075	Extension bar HEB 220	1,650	152,0
830 125	Extension bar HEB 220	2,200	192,0
830 300	Extension bar HEB 220	3,300	278,0
830 305	Extension bar HEB 220	4,400	358,0

Extension bars for U-type boogie car

Art. No.	Short description	l [m]	G [kg]
831 503	Extension bar HEA 450	0,140	77,0
831 500	Extension bar HEA 450	0,275	107,0
831 507	Extension bar HEA 450	0,375	115,0
831 510	Extension bar HEA 450	0,550	140,0
831 520	Extension bar HEA 450	1,100	220,0
831 530	Extension bar HEA 450	1,650	300,0
831 540	Extension bar HEA 450	2,200	375,0

Trench widths, Double slide rail shoring

Length extension bar [m]	b _c [m]	b [m]
without extension bar	0,900	1,540
0,140	1,040	1,680
0,275	1,175	1,815
0,350	1,250	1,890
0,375	1,275	1,915
0,412	1,312	1,952
0,550	1,450	2,090
1,100	2,000	2,640
1,650	2,550	3,190
2,200	3,100	3,740
3,300	4,200	4,840
4,400	5,300	5,940

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

Waling (piling frame element, double slide rail)

Art. No.	Short description	l [m]	l _M [m]	G [kg]
821 002	Waling -inside- (double slide rail, E+S)	3,30	3,70	310,0
821 003	Waling -outside- (double slide rail, E+S)	3,46	3,70	374,0

Accessories / Spares

Art. No.	Short description	l [m]	d [m]	G [kg]
842 758	Adapter for DKU piling frame, corner shoring, h = 0.50 m KDIV			47,0
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
842 759	Adapter for DKU piling frame, h = 0.50 m KDIV (single slide rail, e+s)			40,0
842 749	Adapter for DKU piling frame, h = 0.50 m KDVI (single slide rail, e+s)			45,0
842 751	Adapter for DKU piling frame, h = 1.00 m KDVI (single slide rail)			75,5
834 080	Adapter for EGS / DGS (LV)			105,0
862 200	Connector			5,5
834 100	Cover panel for in-situ concrete DG -base panel-	0,750		7,9
834 110	Cover plate for in-situ concrete DG -top plate-	1,000		9,9
842 099	DKU piling frame guide frame	2,27		105,0
842 100	DKU piling frame guide frame	3,81		175,0
IA 0150F	Nut M 24			0,1
IA 0210F	Nut M 36			0,4
862 100	Pin (for connector)	0,110	0,035	1,0
832 246	Pin for boogie car (deep Linear shoring)	0,300	0,05	4,6
832 230	Pin for Pressure Plate Rectangular Boogie Car	0,150	0,035	1,4
832 245	Pin, Linear shoring (double slide rail)	0,300	0,04	3,2
850 720	Pin, Linear shoring (single slide rail)	0,150	0,05	2,5
861 075	Pressure beam (boxes, slide rail)	4,60		425,0
861 085	Pressure beam (boxes, slide rail)	5,80		525,0
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
861 076	Pressure beam (Medium, Magnum shoring, KS 100, GLS)	1,60		176,0
834 015	Pressure plate for boogie car			12,4
834 060	Pull adapter double slide rail			43,6
834 057	Pull adapter single slide rail			33,0
IB 0470F	Screw M 24 x 80			0,4
IB 0614F	Screw M 36 x 80			1,0
HE 0050 F	Spring cotter 6 mm		0,006	0,03
HE 0060F	Spring cotter 8 mm		0,008	0,1
336 960	Support bracket for DKU piling frame element			40,0
821 100	Suspension chain KL-13-8	5,000		25,7
842 704	Waling for DKU piling frame, module length 2.84 m (single slide rail, E+S)	2,60		300,0
842 705	Waling for DKU piling frame, module length 3.88 m (single slide rail, E+S)	3,64		402,0
842 710	Waling for DKU piling frame, module length 4.13 m (single slide rail, E+S)	3,89		420,0
842 711	Waling for DKU piling frame, module length 4.38 m (single slide rail, E+S)	4,13		445,0

l	Length	t _{pl}	Thickness	G / VP	Weight per shoring panel
l _M	Module length	A	Area		
l _c	Pipe culvert length	G	Weight		