Single slide rail inner-city shoring

In urban areas, trench sections crossed by numerous pipes and cables are commonplace. Using large-area shoring systems is then out of the question. The solution is inner-city linear shoring that combines the piling frame element for guiding sheet piles with the components of the linear shoring system.

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 largely low-vibration – an important precondition for digging work in towns which usually involves traffic routes and building structures close to the trench.

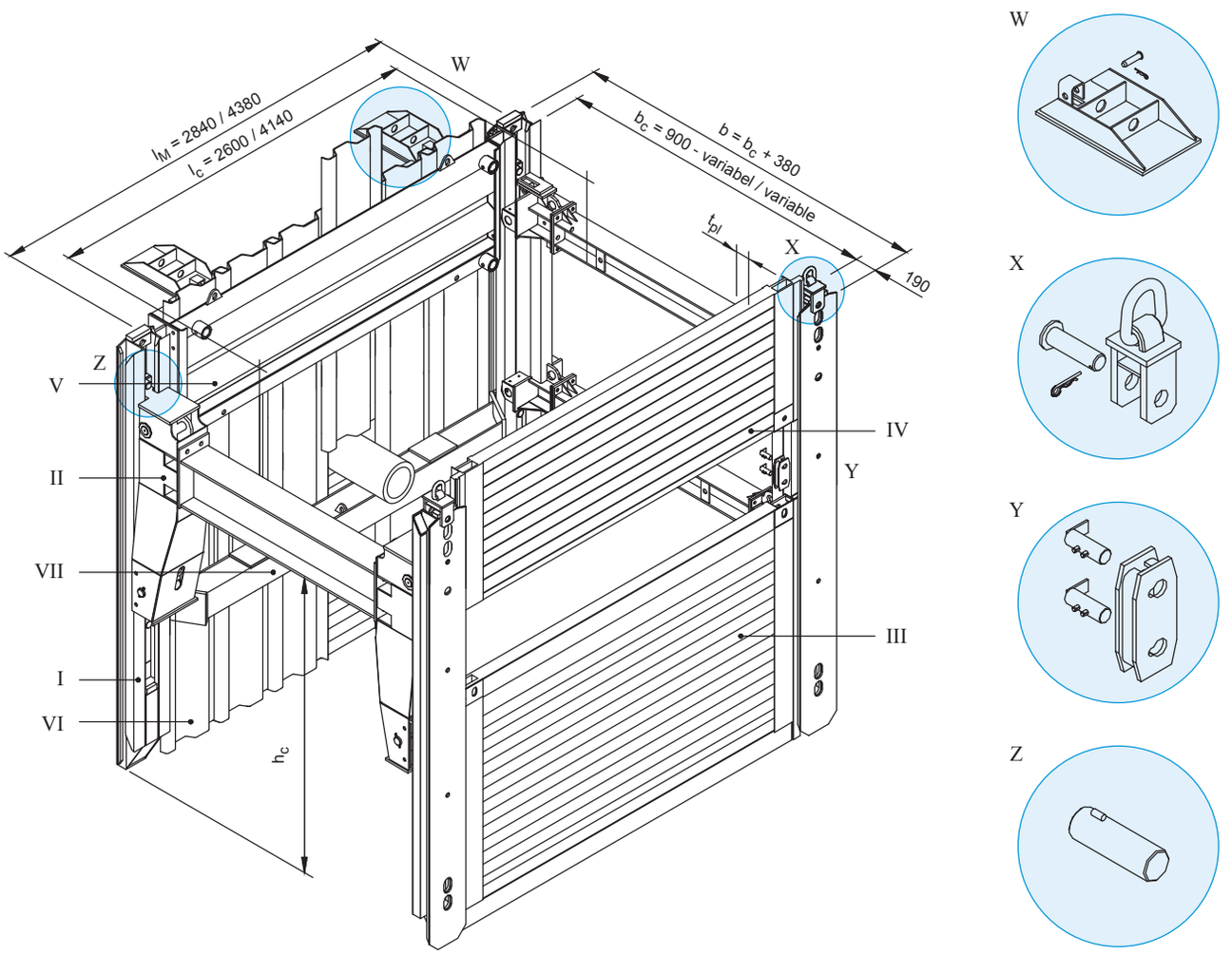
Basic data

Module length	2,84 m / 4,38 m
Length slide rail	4,13 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

Single 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	VII	Waling	t_{pl}	Thickness
II	Boogie car	l_M	Module length	W	Bearing claw
III	Base panel	l_c	Pipe culvert length	X	Pull adapter
IV	Top panel	b	Shoring / trench width	Y	Connector
V	Sheet pile element DKU	b_c	Inner width	Z	Pin
VI	Sheet pile	h_c	Pipe culvert height		

Linear shoring support

Art. No.	Short description	l [m]	G [kg]
820 935	Linear shoring support, single slide rail	**4,13**	710,0

Universal DKU piling frame element (height 1.00 m)

Art. No.	Short description	l [m]	l_M [m]	t_{pl} [m]	l_c [m]	G / VP [kg]
842 671	Universal DKU piling frame element	**2,27**	2,84	0,31	1,75	510,0
842 674	Universal DKU piling frame element	**3,81**	4,38	0,31	3,29	785,0

You can find further piling frame elements at our website www.es-verbau.com

Base panel (Height 2,32 m)

Art. No.	l [m]	l_M [m]	t_{pl} [m]	l_c [m]	G / VP [kg]	A [m²]	eh [kN/m²]
821 160	**2,60**	2,84	0,11	2,60	650,0	6,03	90,00
821 855	**4,14**	4,38	0,15	4,14	1.300,0	9,58	81,00

Top panel (Height 1,32 m)

Art. No.	l [m]	l_M [m]	t_{pl} [m]	l_c [m]	G / VP [kg]	A [m²]	eh [kN/m²]
821 180	**2,60**	2,84	0,11	2,60	450,0	3,43	90,00
822 783	**4,14**	4,38	0,15	4,14	873,0	5,45	81,00

Top panel (Height 2,30 m)

Art. No.	l [m]	l_M [m]	t_{pl} [m]	l_c [m]	G / VP [kg]	A [m²]	eh [kN/m²]
822 155	**2,60**	2,84	0,11	2,60	660,0	5,98	90,00
822 785	**4,14**	4,38	0,15	4,14	1.409,0	9,50	81,00

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
832 205	Linear shoring U-type boogie car	**2,00**	550,0
832 215	Linear shoring rectangular boogie car	**2,20**	490,0

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, Single slide rail shoring

Length extension bar [m]	b_c [m]	b [m]
without extension bar	0,900	1,280
0,140	1,040	1,420
0,275	1,175	1,555
0,350	1,250	1,630
0,375	1,275	1,655
0,412	1,312	1,692
0,550	1,450	1,830
1,100	2,000	2,380
1,650	2,550	2,930
2,200	3,100	3,480
3,300	4,200	4,580
4,400	5,300	5,680

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

Waling

Art. No.	Short description	l [m]	l_M [m]	G [kg]
842 704	Waling for DKU piling frame, module length 2.84 m (single slide rail, e+s)	**2,60**	2,84	300,0
842 711	Waling for DKU piling frame, module length 4.38 m (single slide rail, e+s)	**4,13**	4,38	445,0

Accessories / Spares

Art. No.	Short description	l [m]	G [kg]	d [m]
842 753	Adapter for DKU piling frame, corner shoring, h = 1.00 m KDVI		94,0	
842 751	Adapter for DKU piling frame, h = 1.00 m KDVI (single slide rail)		75,5	
862 200	Connector		5,5	
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**	1,0	0,035
861 074	Pressure beam (Medium, Magnum shoring, KS 100, GLS)	**2,35**	236,0	
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	
336 960	Support bracket for DKU piling frame element		40,0	

l	Length	t_{pl}	Thickness	G / VP	Weight per shoring panel
l_M	Module length	A	Area		
l_c	Pipe culvert length	G	Weight		