

Universal DKU piling frame element



Complementing large-area steel shoring, the DKU universal piling frame element is a low-deformation, universal, and cost-effective shoring method suitable for urban projects with pipes and cables crossing the trench. The DKU element serves as the upper guide for sheet piles inserted vertically into the ground. In a dig-and-push process, the excavator bucket pushes the sheet piles into the ground with minimum vibration. The DKU element is assembled and pre-adjusted on the same principle as edge-supported shoring systems.

The DKU element can be put to varied uses when combined with supplementary components. The slide-rail adapter permits its use in E+S single slide-rail linear shoring, KRINGS single slide-rail parallel shoring and in single corner slide-rails. In addition, the corner shoring adapter can be used for creating a closed (4-sided) shaft. A further application is the installation of the elements in series.

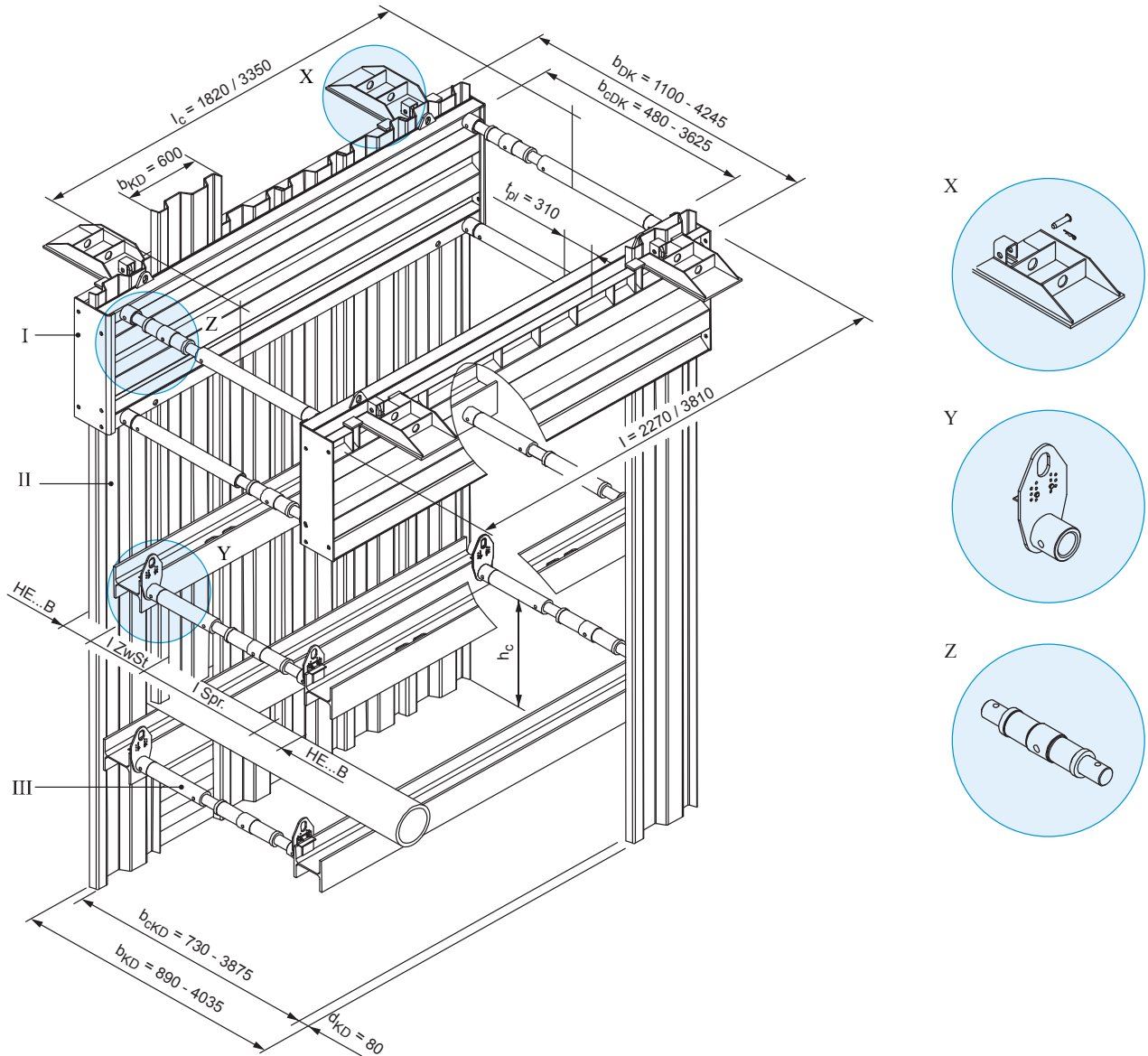
Basic data

Shoring length	2,27 m / 3,81 m
Height sheet pile element	1,00 m
Pipe culvert length	max. 3,35 m
Application depth	variable
Trench width	variable, see page 100

Advantages

- Economical solution for urban areas where transverse installation lines are frequent
- Wide range of applications using supplementary components

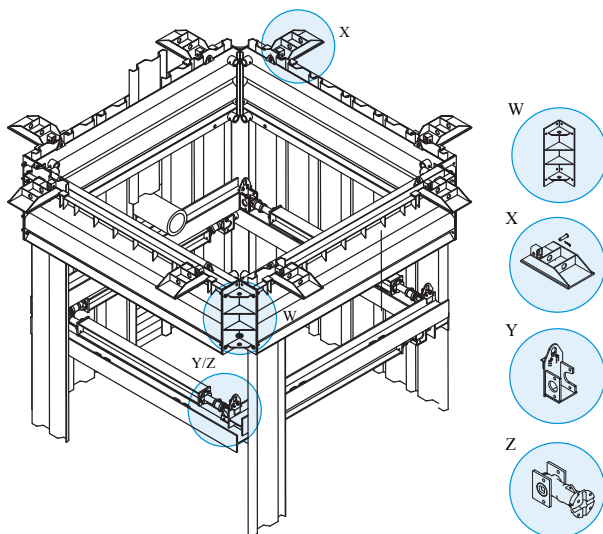
Universal DKU piling frame element with Krings system spreaders



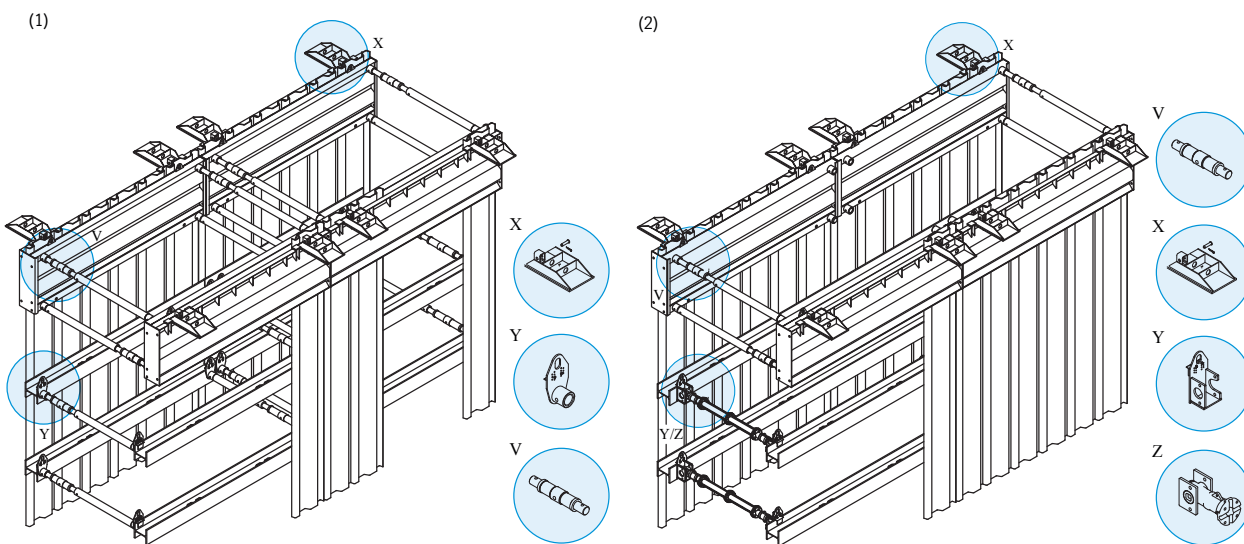
(All dimensions in mm)

I	Universal DKU piling frame element	d_{KD}	Sheet pile thickness	b_{KD}	Sheet pile shoring width
II	Sheet pile	t_{pl}	Thickness	b_{cDK}	Piling frame clear width
III	Waling strut	l	Length	b_{DK}	Piling frame shoring width
IV	Adapter for DKU E+S spreader	l_c	Pipe culvert length	X	Bearing claw
HB	Height base unit	h_c	Pipe culvert height	Y	Drop-in bearing block
B _{KD}	Sheet pile width	b_{cKD}	Sheet pile clear width	Z	Spindle 98x...

Examples of additional possible technical solutions



Piling frame shoring with corner connector



(1) DKU piling frame shoring in series, (2) DKU piling frame shoring with installation window

Universal DKU piling frame element with Krings system spreaders (height 1.00 m)

Art. No.	Short description	l [m]	l _c [m]	G / VP [kg]	G / Box [kg]	KD / Box
842 671	Universal DKU piling frame element	2,27	1,82	510,0	1.320,0	8
842 674	Universal DKU piling frame element	3,81	3,35	785,0	1.870,0	14

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

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

Extension bars (contd.)

Art. No.	Short description	l [m]	G [kg]
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

Trench widths

l _{ZwSt} [m]	SP SB 98x550		SP SB 98x700	
	b _{cKD} [m]	b _{cDK} [m]	b _{cKD} [m]	b _{cDK} [m]
0,00	0,86 - 1,06	0,61 - 0,81	1,04 - 1,38	0,79 - 1,13
0,30	1,16 - 1,36	0,91 - 1,11	1,34 - 1,68	1,09 - 1,43
0,50	1,36 - 1,56	1,11 - 1,31	1,54 - 1,88	1,29 - 1,63
1,00	1,86 - 2,06	1,61 - 1,81	2,04 - 2,38	1,79 - 2,13
1,50	2,36 - 2,56	2,11 - 2,31	2,54 - 2,88	2,29 - 2,63
2,00	2,86 - 3,06	2,61 - 2,81	3,04 - 3,38	2,79 - 3,13
2,50	3,36 - 3,56	3,11 - 3,31	3,54 - 3,88	3,29 - 3,63
	b _{KD} = b _{cKD} + 0,16 m	b _{DK} = b _{cDK} + 0,62 m	b _{KD} = b _{cKD} + 0,16 m	b _{DK} = b _{cDK} + 0,62 m

Waler struts

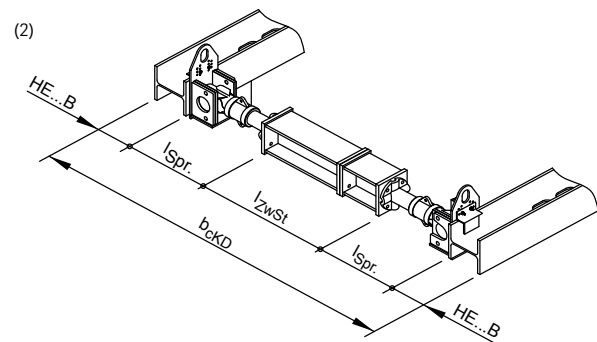
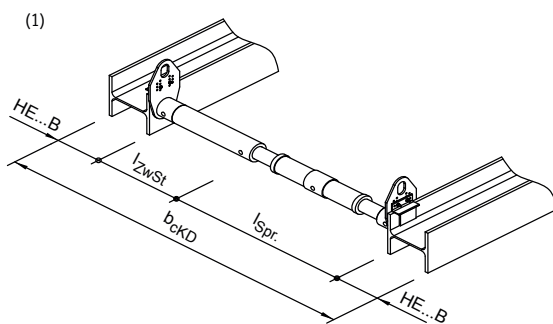
l_{Spr.} (SP SB 98x550) = 620 mm - 820 mm

l_{Spr.} (SP SB 98x700) = 796 mm - 1136 mm

l_{ZwSt} = b_{cKD} - 2 x HE...B - l_{Spr.}

l_{Spr.} = 420 mm - 640 mm

l_{ZwSt} = b_{cKD} - 2 x HE...B - 2 x l_{Spr.}



Accessories / Spares

Art. No.	Short description	l [m]	G [kg]	d [m]Standard
842 753	Adapter for DKU piling frame, corner shoring, h = 1.00 m KDVl		94,0	
842 099	DKU piling frame guide frame	2,27	105,0	
842 100	DKU piling frame guide frame	3,81	175,0	
859 982	Drop-in bearing block, adjustable, Krings		12,0	
859 981	Drop-in bearing block, Emunds+Staudinger		26,0	

Accessories / Spares (contd.)

Art. No.	Short description	l [m]	G [kg]	d [m]Standard
138 030	Pin 125 x 20	0,125	0,4	0,020
138 200	Spring cotter 92 x 5	0,092	0,1	0,005
ID 0160 F	Spring ring A 20		0,01	DIN 127
336 960	Support bracket for DKU piling frame element		40,0	

l	Length	d	Diameter	G	Weight
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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
850 699	Adjustment bar	0,7	0,024	2,5
139 070	Chain sling connection, 4-leg, 2300 x 13	2,30		45,0
139 080	Chain sling connection, 4-leg, 2800 x 13	2,80		57,0
139 100	Connection stanchion 290 x 145			5,5
842 099	DKU piling frame guide frame	2,27		105,0
842 100	DKU piling frame guide frame	3,81		175,0
859 982	Drop-in bearing block, adjustable, Krings			12,0
859 981	Drop-in bearing block, Emunds+Staudinger			26,0
110 070	Fixing for pressure spring 100 x 85	0,100	0,085	0,8
119 011	KVL adapter for spindles 98x530 / 98x700			7,6
138 170	Mushroom FP 80			13,0
IA 0120 F	Nut M 16			0,03
IA 0130 F	Nut M 20			0,03
138 030	Pin 125 x 20	0,125	0,020	0,4
138 040	Pin 140 x 20	0,140	0,020	0,4
138 070	Pin 212 x 43	0,212	0,043	2,5
861 077	Pressure beam (Lightweight shoring, KS 60, KVL)	1,80		80,0
861 078	Pressure beam (Lightweight shoring, KS 60, KVL)	2,30		95,0
861 079	Pressure beam (Lightweight shoring, KS 60, KVL)	2,80		110,0
861 080	Pressure beam (Lightweight shoring, KS 60, KVL)	3,30		125,0
861 076	Pressure beam (Medium, Magnum shoring, KS 100, GLS)	1,60		176,0
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
138 160	Pressure spring FP 80	0,084	0,054	0,8
100 690	Rubber parts GPU 30 x 40			0,1
IB 0310 F	Screw M 16 x 55			0,11
IB 0360 F	Screw M 20 x 45			0,17
138 200	Spring cotter 92 x 5	0,092	0,005	0,1
336 960	Support bracket for DKU piling frame element			40,0
821 100	Suspension chain KL-13-8	5,000		25,7

Struts / Extension bars

Art. No.	Short description	l [m]	G [kg]
139 385	Plug-in adapter pipe, ZW SB - 108x1000	1,00	28,0
139 400	Plug-in adapter pipe, ZW SB - 108x1500	1,50	37,4
139 420	Plug-in adapter pipe, ZW SB - 108x2000	2,00	47,3
139 425	Plug-in adapter pipe, ZW SB - 108x2500	2,50	60,0
139 430	Plug-in adapter pipe, ZW SB - 108x300	0,30	13,8
139 445	Plug-in adapter pipe, ZW SB - 108x500	0,50	17,7
139 470	Plug-in adapter pipe, ZW SB - 121x1000	1,00	36,3
139 510	Plug-in adapter pipe, ZW SB - 121x500	0,50	25,1
108 950	Spindle -heavy duty design-, lefthand, 98x817		38,0
108 960	Spindle -heavy duty design-, righthand, 98x817		39,0
138 260	Spindle to stick, 98x392		15,7
138 280	Spindle to stick, 98x550		22,0
138 290	Spindle to stick, 98x700		34,0
138 300	Spindle to stick, 98x817, complete		76,9

l	Length	d	Diameter	G	Weight
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