

Online databank for shoring systems

Basically, when installing ductile iron pipe systems, it is essential to follow the applicable accident prevention regulations of the construction industry and the pipe manufacturer's installation instructions. Using our **online databank for shoring systems**, which includes a **wide range of search parameters**, construction companies are able to determine which nominal sizes (DN) of ductile iron pipes can be installed in which type of trench shoring system, depending on the depth of installation (TE). The **online databank for shoring systems** also offers the possibility of differentiating between different types and methods (options 1, 2 or 3) which can be used for the pipe material depending on the shoring system.



DN	TE	Shoring system	Option	Material	Weight	Length	Volume	Area	Perimeter
100	1.0	1	1	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	1	2	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	1	3	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	1	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	2	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	3	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	4	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	5	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	6	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	7	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	8	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	9	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	10	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	11	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	12	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	13	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	14	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	15	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	16	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	17	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	18	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	19	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	20	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	21	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	22	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	23	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	24	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	25	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	26	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	27	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	28	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	29	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	30	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	31	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	32	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	33	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	34	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	35	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	36	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	37	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	38	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	39	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	40	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	41	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	42	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	43	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	44	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	45	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	46	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	47	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	48	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	49	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	50	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	51	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	52	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	53	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	54	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	55	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	56	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	57	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	58	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	59	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	60	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	61	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	62	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	63	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	64	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	65	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	66	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	67	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	68	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	69	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	70	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	71	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	72	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	73	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	74	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	75	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	76	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	77	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	78	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	79	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	80	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	81	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	82	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	83	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	84	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	85	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	86	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	87	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	88	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	89	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	90	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	91	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	92	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	93	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	94	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	95	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	96	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	97	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	98	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	99	DI	100	1.0	0.0001	0.0001	0.0001
100	1.0	2	100	DI	100	1.0	0.0001	0.0001	0.0001

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Trench shoring systems

The installation of ductile iron pipes for water supply and wastewater disposal systems with edge-supported shoring units: inserting the pipe with one or two shoring units and swinging in

Trench shoring systems

Installation is characterised by three possible options. They demonstrate the installation of ductile iron pipes for water supply and wastewater disposal using edge-supported trench shoring units.

Option 1: Inserting the pipe within one shoring unit

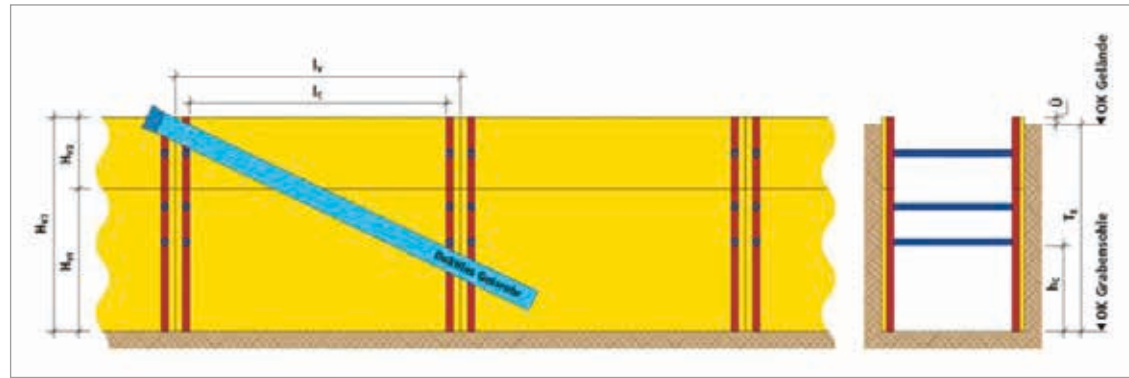
Option 1 shows a schematic diagram of the **process of inserting** a ductile iron pipe **within one shoring unit**. The cast iron pipe can be supported by two slings to do this (one approximately in the middle of the pipe and one in the socket area) and threaded into the trench beneath the lowest level of struts.

Option 2: Inserting the pipe within two shoring units

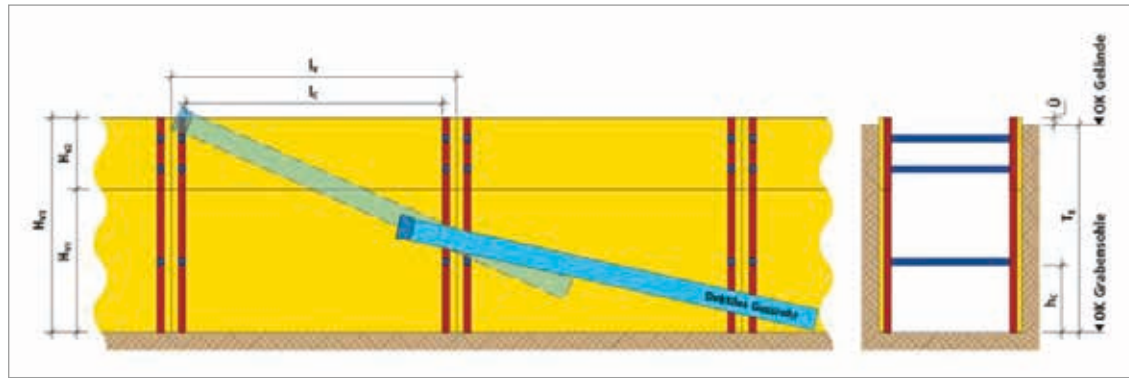
Where the lowest level of struts is very deep, geometric factors may mean that the pipe cannot be threaded in within just one unit but that **two shoring units** are required for this. This complicates the threading process as the slings have to be attached and removed during the insertion process. A secure fixing of the pipe must always be ensured here.

Option 3: Swinging in

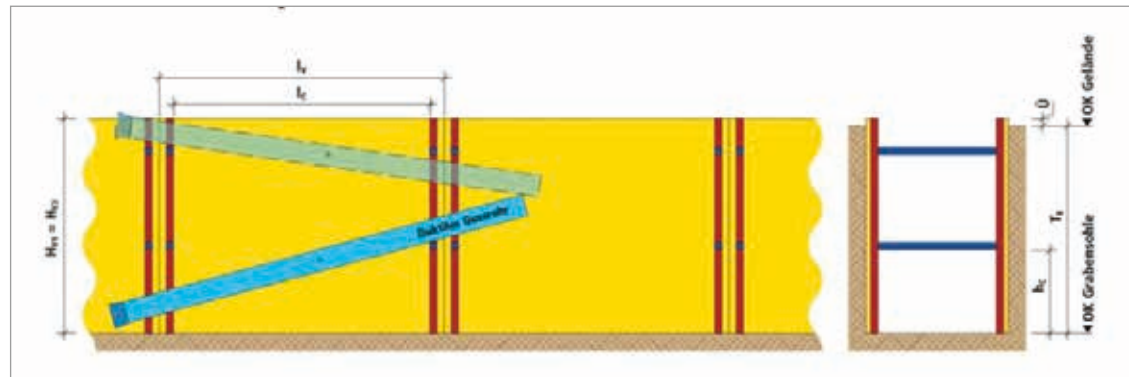
To **swing in** the pipe a sling is attached to its centre of gravity. By **changing its inclination while simultaneously guiding it horizontally**, the pipe is positioned on the pipe bed inside one shoring unit. As the inclination and guiding of the pipe is assisted manually, attention needs to be paid to the secure attachment of the pipe; inclining the pipe too steeply is to be avoided.



Option 1:
Edge-supported trench shoring, inserting the pipe within one shoring unit



Option 2:
Edge-supported trench shoring, inserting the pipe within two shoring units



Option 3:
Edge-supported trench shoring, swinging in

Key:

H_{v1} height of ground shoring
 H_{v2} height of top unit
 H_{v3} height of shoring unit

l_v length of shoring unit
 l_c pipe passage length
 h_c pipe passage height
 OK top

T_e installation depth ($= H_{v3} - U$)
 U protrusion of shoring unit above ground level ($= 0.1 \text{ m}$)

■ Shoring panels

■ Vertical bars

■ Horizontal struts



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