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.

DATA + FACTS publications

- Stormwater management with ductile iron pipes
- Resource efficiency of ductile iron pipe systems
- Root resistance of ductile iron pipe joints
- Digitalisation of the water industry
- Trench shoring systems
- Ductile iron pipe systems: products and applications
- Standards, guidelines and technical rules

All folders in the DATA + FACTS series as well as other publications by EADIPS FGR can be downloaded at eadips.org.

Targets and tasks of EADIPS FGR

Information, training and tutoring of specialists and students, promotion of ductile iron pipe systems in planning, installation and operation, standardisation of cast iron pipe systems, presentation of technical and commercial advantages

Products and applications



Ductile iron pipes, fittings and valves



Drinking water and wastewater pressure pipelines, sewers and drains, pipelines for extinguishing water, turbines, cooling water and snow-making equipment

EADIPS® FGR®

European Association for Ductile Iron Pipe Systems

Fachgemeinschaft Guss-Rohrsysteme

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

Phone: +49 (0) 2366 9943905 · E-mail: info@eadips.org

Doncaster-Platz 5 · D-45699 Herten

eadips.org

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

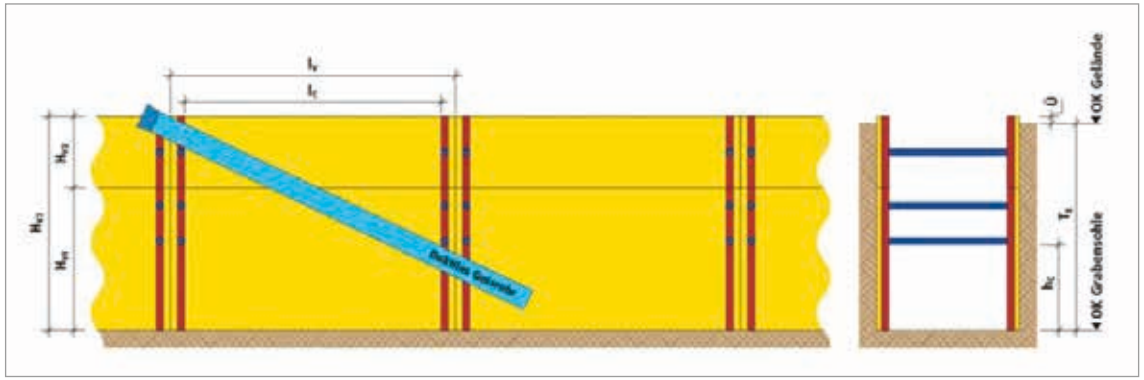
Option 1 shows a schematic diagram of the **process of inserting** a ductile iron pipe **within one shoring unit**. The cast iron pipe can be supported by two slings to do this (one approximately in the middle of the pipe and one in the socket area) and threaded into the trench beneath the lowest level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

Option 2:
Inserting the pipe within two shoring units

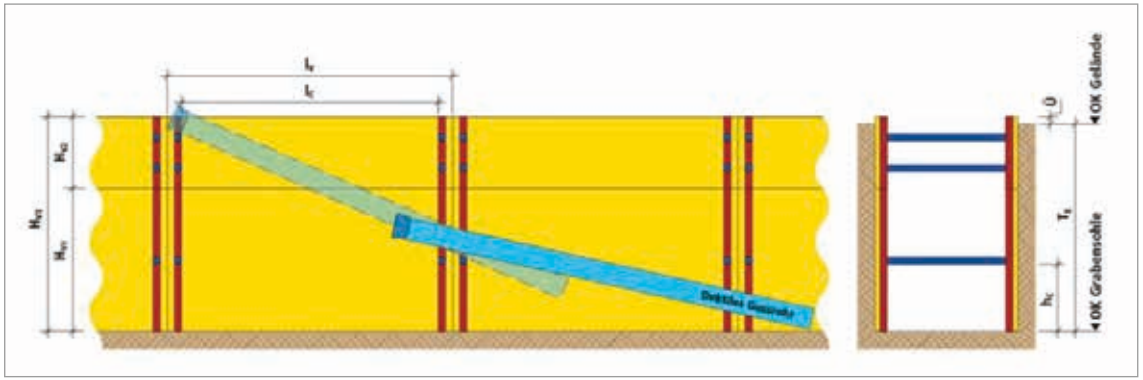
Where the lowest level of struts is very deep, geometric factors may mean that the pipe cannot be threaded in within just one unit but that **two shoring units** are required for this. This complicates the threading process as the slings have to be attached and removed during the insertion process. A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

Option 3:
Swinging in

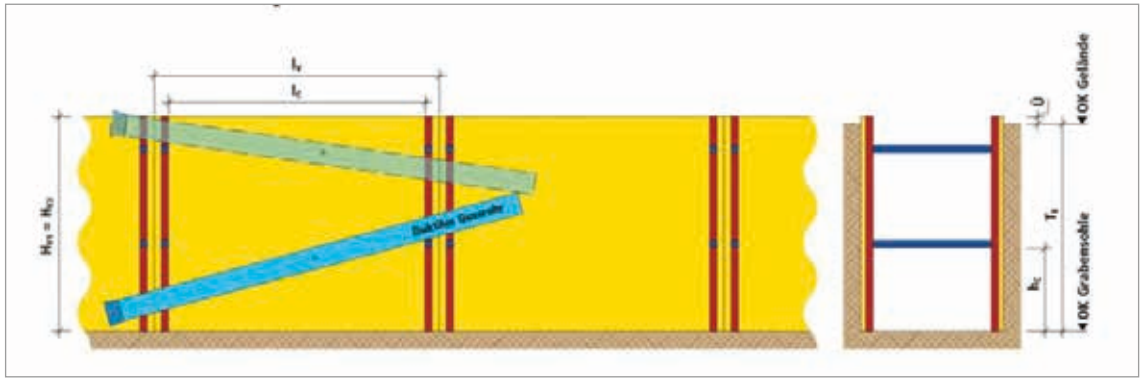
To **swing in** the pipe a sling is attached to its centre of gravity. By **changing its inclination while simultaneously guiding it horizontally**, the pipe is positioned on the pipe bed inside one shoring unit. As the inclination and guiding of the pipe is assisted manually, attention needs to be paid 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	l_V	length of shoring unit	T_E	installation depth (= H_{V3} – U)
H_{V2}	height of top unit	l_c	pipe passage length	Ü	protrusion of shoring unit
H_{V3}	height of shoring unit	h_c	pipe passage height		above ground level (= 0.1 m)
		OK	top		

Shoring panels — Vertical bars — Horizontal struts

You can find comprehensive information on the subject as well as on products and applications in our specialist articles at eadips.org