

LARGE PIPES FOR PIPE JACKING AND OPEN TRENCH INSTALLATION



Large steel-reinforced concrete pipes are a cost efficient, high quality solution for constructing large interceptor sewers and wastewater storage systems. These large pipes are manufactured in vertical steel molds using vibration to compact the concrete. After compaction the pipes are cured and the molds removed. We employ state-of-the-art construction techniques to design and manufacture the steel reinforced pipes, which are used for jacking and open trench construction. These steel reinforced pipes meet our client's technical and installation requirements.

meyer[®]

LARGE STEEL-REINFORCED CONCRETE PIPES

MANUFACTURE USING VIBRATION COMPACTION

Large steel-reinforced concrete pipes are individually manufactured in vertical steel molds. The inner mold is hydraulically controlled, which allows the outer diameter of the mold to be reduced allowing removal of the new pipe. The outer mold is a two-part mold, which allows the mold to be opened for removal of the new pipe. External vibrators on the exterior of the outer mold facilitate compaction of the concrete in the mold. These vibrators are positioned at various positions on the outer mold depending on the diameter and length of the pipe to be manufactured.

CONCRETE QUALITY

The concrete used meets or exceeds the quality criteria for class B 45 sulfa concrete made with early strength sulfate resistant Portland cement.

REINFORCEMENT

The reinforcement is made of BST 500 steel mesh and is designed to meet specific structural requirements.

BUILT-IN ACCESSORIES

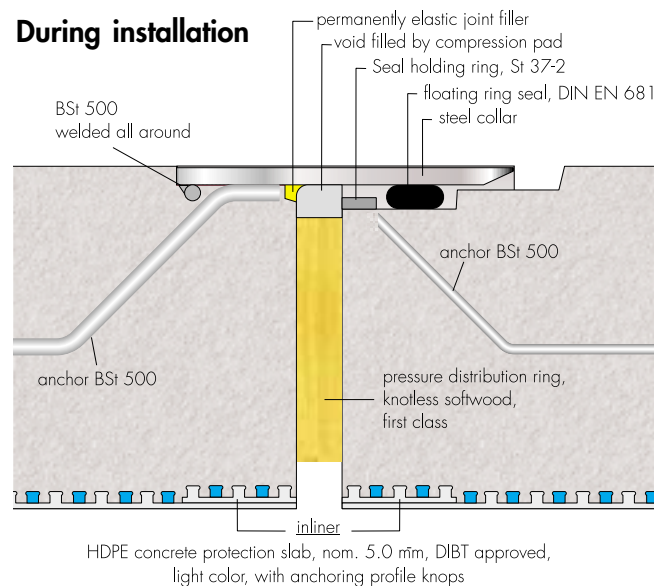
- St 37-3 steel guidance rings, anchors and infiltration barrier.
- WT ST 37-2, weatherproof steel manufactured in accordance with DAST guideline 007.
WSt no. 1.8960 stainless steel V 2A
WSt no. 1.4302 stainless steel V 4A
WSt no. 1.4571;
- ST 37-2 seal holding rings and anchors
- Round head transportation anchors
- ST 37-2 injection nipples with sockets and plugs
- ST 37-2 injection ring line systems with inlet and outlet nipples
- Chamber equipment for intermediate jacking station trailing pipes
- Shells for intermediate jacking station leading pipes
- Sheet shells for manhole connections
- HDPE inliners;
- Other construction accessories, i.e. rails, anchor sleeves, etc.

DESIGN OF PIPE JOINTS

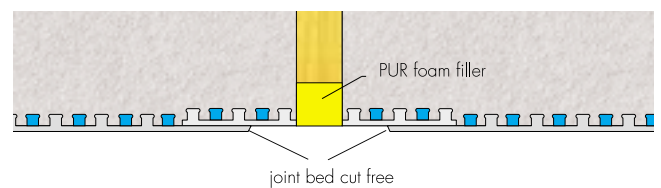
The pipe joints are designed in accordance with current standard specifications, specific client requirements, and technical project requirements. For jacking pipes the floating ring seal must be placed in a groove or recessed space at the spigot end of the pipe.

JACKING PIPE WITH CONCRETE PROTECTION SLAB AS INNER CORROSION PROTECTION

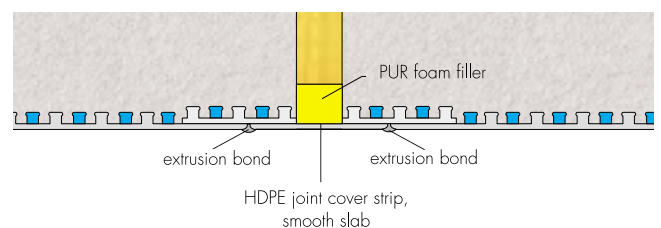
During installation



Joint preparation



After installation



BENEFITS

CORROSION PROTECTION

DIN 4030 states that concrete pipes made of B 45 sulfa concrete are resistant to „very aggressive“ effluents. If even more corrosive effluents are present, additional lining or coating is required.

HDPE liners with profile anchoring knobs on one side to anchor to the concrete pipe are provided, which meet the requirements of PE DIN 16776.

The HDPE liners are bonded with a joint cover strip made of the same HDPE material.

TESTING EQUIPMENT

The manufacturer can provide the test equipment for testing the joint tightness of jacking pipes and open trench pipes after the pipe has been installed.

QUALITY ASSURANCE

- In-house monitoring
- Third party monitoring by Güteschutz Beton- und Fertigteilwerk Nord eV.
- Monitoring by the client

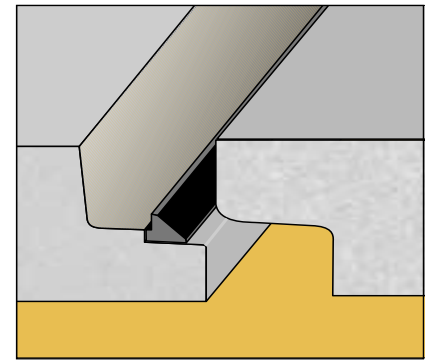
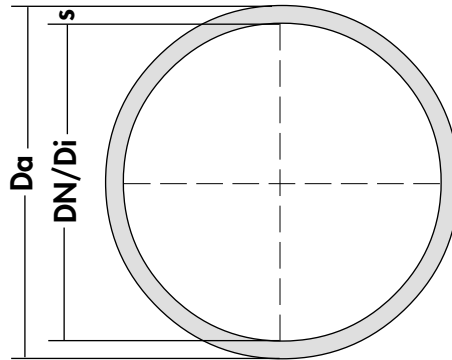
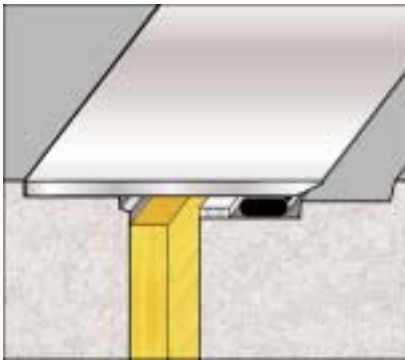


Large steel reinforced concrete pipes manufactured in vertical steel molds with vibratory compaction and cured in the mold result in high quality pipes with significant benefits:

- High concrete density with no voids
- Uniform compressive strength
- Smooth interior and exterior surfaces
- Excellent dimensional accuracy including roundness, straightness, and parallel pipe ends
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- Exact position of the reinforcing steel with a specific thickness of concrete both inside and outside the steel reinforcement
- Exact position of the steel guidance rings, and round head transportation anchors.
- Optimum mechanical anchoring for HDPE liners.

JACKING PIPES

OPEN TRENCH PIPES



DN mm	s mm	Da length mm	max. mm	weight t/m
2000	200	2400	4000	3,45
2000	250	2500	4000	4,32
2200	240	2680	4000	4,6
2200	300	2800	4000	5,9
2400	300	3000	4000	6,36
2400	250	2900	4000	5,2
2500	250	3000	4000	5,4
2600	300	3200	4000	6,83
2700	300	3300	3000	7,07
2800	300	3400	3000	7,3
3000	300	3600	3500	7,78
3200	260	3720	3500	7,1
3500	350	4200	3000	11,41

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2000	200	2400	3500	3,45
2000	250	2500	3500	4,32
2200	240	2680	3500	4,6
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2600	200	3000	3500	4,40
2700	300	3300	3000	7,07
2700	250	3200	3000	5,79
2800	300	3400	3000	7,30
2800	250	3300	3000	5,99
3000	300	3600	3500	7,78
3200	260	3720	3500	7,10
3500	350	4200	3000	11,41

Further nominal diameters and special lengths available on request.

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ALSO AVAILABLE

Our product range also includes special pipes such as:

- intermediate jacking station leading pipes;**
- intermediate jacking station trailing pipes;**
- manhole connection pipes, etc.**

Design details to be specified for individual orders.

In addition to the products with round cross-section we also offer special profiles, e.g.:

- kite shaped cross-section;**
- egg-shaped cross-section;**
- round cross-section with dry weather channel,**
- and round cross-section with separating wall.**



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