

What's New With Concrete Pipe

Presented by

Concrete Pipe Association

(New Jersey, New York, Pennsylvania)

Patrick J. Kinsella - Director

director@tristateconcretepipe.com

845-926-0915

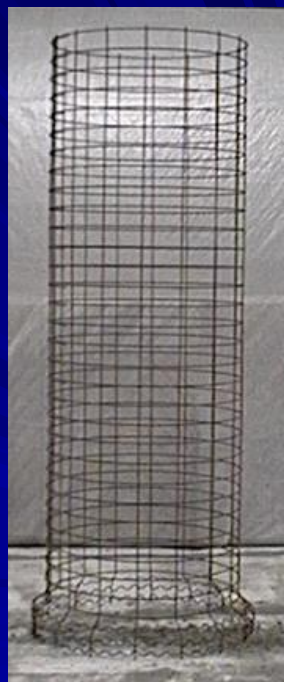
DISCUSSION ITEMS

- 💧 Concrete Pipe Manufacturing
- 💧 Basics of Reinforced Concrete Pipe
- 💧 End Sections
- 💧 Perforated Concrete Pipe
- 💧 Jacking Pipe
- 💧 Velocity Dissipaters

- 💧 Open Forum – What do you need?

The Components of a Concrete Pipe

- Steel Reinforcement
- Sand
- Stone
- Cement



Dry cast pipe making process



- Zero Slump
- Immediate Strip





The batching system's computer controls the amount of sand, stone, cement and water required for the day's mix. The concrete is then distributed to each pipe machine for manufacturing.

Sealing Pipe Joints

Offset



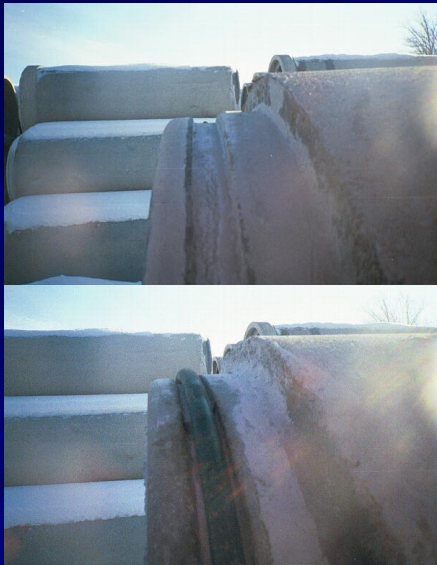
Mortar Joint



- O-Ring Gaskets (ASTM C361/C443)
- External Wrappers (ASTM C877)
- Mortar
- Soil Tight Gaskets (Local Manufacturers)

- Profile Gaskets (ASTM C361/C443)
- Mastic (ASTM C990)
- External Wrappers (ASTM C877)

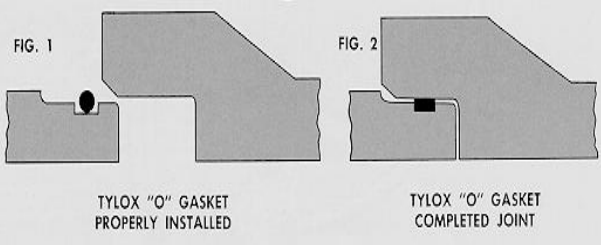
O-Ring Gasket



Profile Gasket



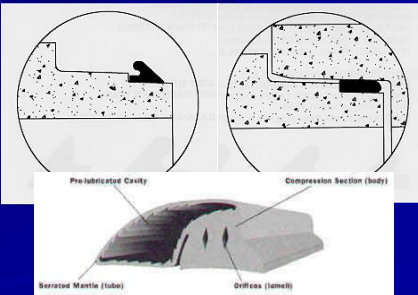
Watertight Joint Designs Available



Joint Annular Space “sealed” w/
Rubber Gasket

Joint and gasket must meet tight
tolerances(Manufacturer)

Proper Installation is
critical(Contractor)





Product Line
Reinforced Concrete Pipe
8' Lengths
12" – 144" in Diameter

Elliptical Reinforced Concrete Pipe
14 in x 23 in to
116 in x 180 in
8' Lengths



End Sections







Specialty Fittings
**Wyes and Bends in
Various Sizes and Angles**



**Reinforcement
throughout**





Perforated Pipe

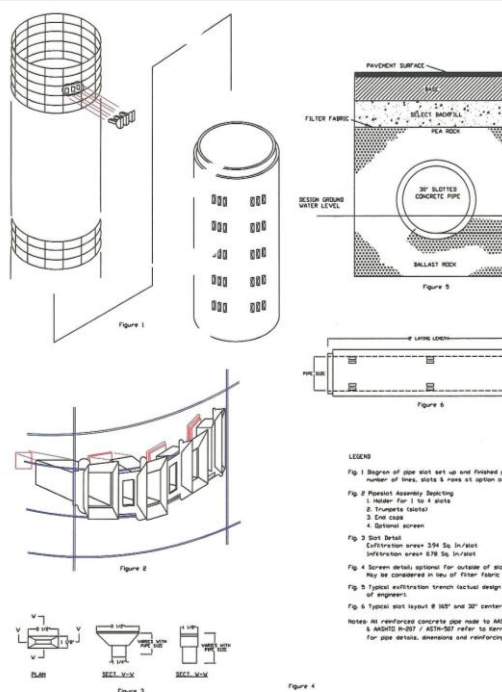


A photograph showing two large, black, flexible pipes being installed in a trench. The pipes are supported by a concrete structure with two large circular openings. The pipes are being laid out in a trench, and the surrounding area is covered with black plastic sheeting.



Still satisfies 3 EB Requirements

Pipe-Slots



INSERTS LOCK ON TO CAGE FOR ACCURATE PLACEMENT



Examples of a pre & post production



Jacking Pipe



The cages are assembled and the steel band is attached to the cage with spacers, the spacers are welded approximately every 18" around the inside of the band.



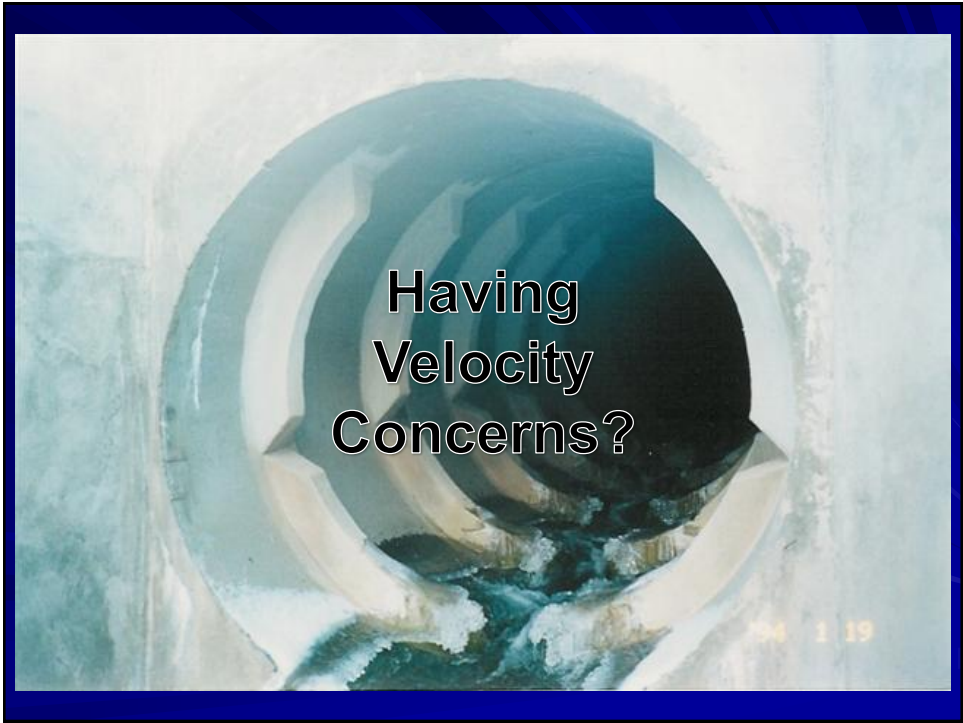
1 1/2" or 2" (depending on the Jacking contractor) steel nipples are attached to couplings and welded in the cage, they are set 1" out off the outside cage and capped off or filled with foam



The inside cage has the coupling welded 3/4" out from the cage, Tie wraps are placed next to the nipples to mark there place



The steel nipple and coupling threads need to be cleaned out. The steel band at the bell needs to be wiped clean for paint preparation.



Service Life

Circa 1842 and Still Sound

The first recorded installation of concrete pipe was in 1842 in Mohawk, New York. This portion was removed by the American Concrete Pipe Association for archival purposes, in 1986.



**Engineered for
the long run**

Advantages of RCP

- Greatest strength against deflection and buckling.
- Least amount of excavation and expensive backfill.
- Tight joints can be achieved with wide choice of gasket materials.
- Immune to rust, fire and UV radiation.
- Chemical and abrasion resistant.
- Proven service life is 70-100 years.
- Forgiving, compensates for construction shortcomings

Questions???

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Pennsylvania

PA TRANSPORTATION
PA AGGREGATES
PA LOCATIONS
PA VENDORS
PA CEMENT
PA LABOR

KEEP PA STRONG
BUY CONCRETE PIPE
*Do It Right - Specify Concrete Pipe
-- Non-Flamable Choice --*