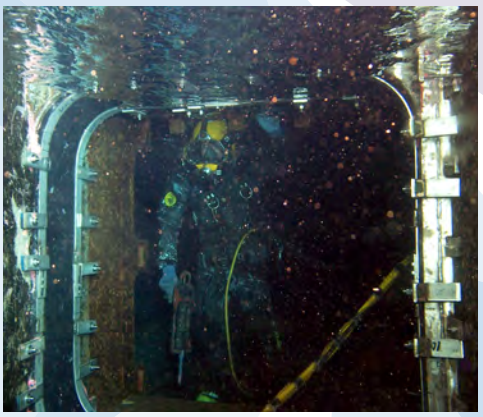
HydraTech

PROJECT EXAMPLES BY MARKET



HydraTech ENGINEERED PRODUCTS

MARKET EXAMPLES

Project Examples Highlighting

INTERNAL PIPE

HydraTite®

JOINT SEAL

IN THE
FOUR MARKETS
THAT UTILIZE THE PRODUCT

Markets For HydraTite

INTERNAL PIPE HydraTite® JOINT SEAL

The proven solution to stop pipe joint infiltration. Suitable for:

- Pressurized pipes
- Drinking water
- Storm drain sewers
- Gas pipelines
- Storage pipelines
- Distribution pipelines
- Power generation pipelines

Transportation & DOT



HydraTite® protects culverts, tunnels, and similar drainage structures.

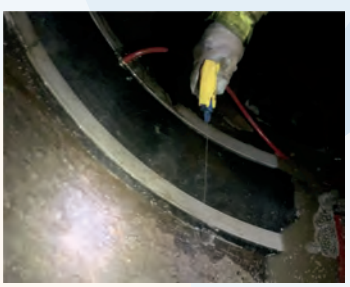
Water & Utilities



HydraTite® is NSF/ANSI 61 approved for potable water 18”-288” diameter pipe. Recognized by AWWA M28, AWWA C621-18, and forthcoming M81.

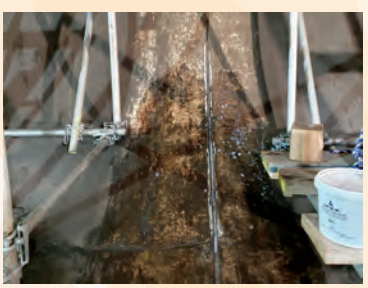
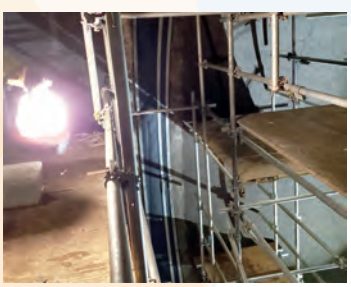
Municipal





HydraTite® is utilized in water and wastewater piping. Approved and specified by various municipalities.

Power & Utilities

HydraTite® is utilized in cooling water piping and tunnels in power plants.

Transportation & DOT

HydraTech Engineered Products, LLC

31 Seals In Two Days

Market
DOT

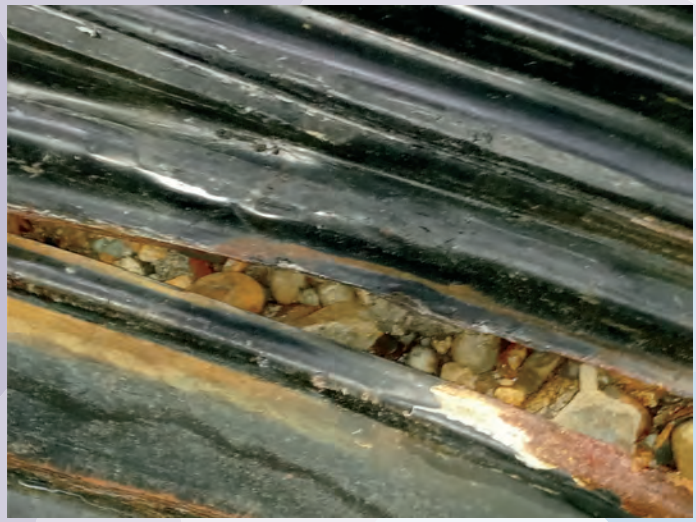
Challenge
Rocks and soil had become exposed at the culvert's separating joints and the quickly falling temperature pressed the project's time frame. The project needed to be completed as soon as possible. Previous repair methods that utilized sealant and grout were now failing. Infiltration, erosion, and eventual sinkholes were a concern as they could stop the above traffic.

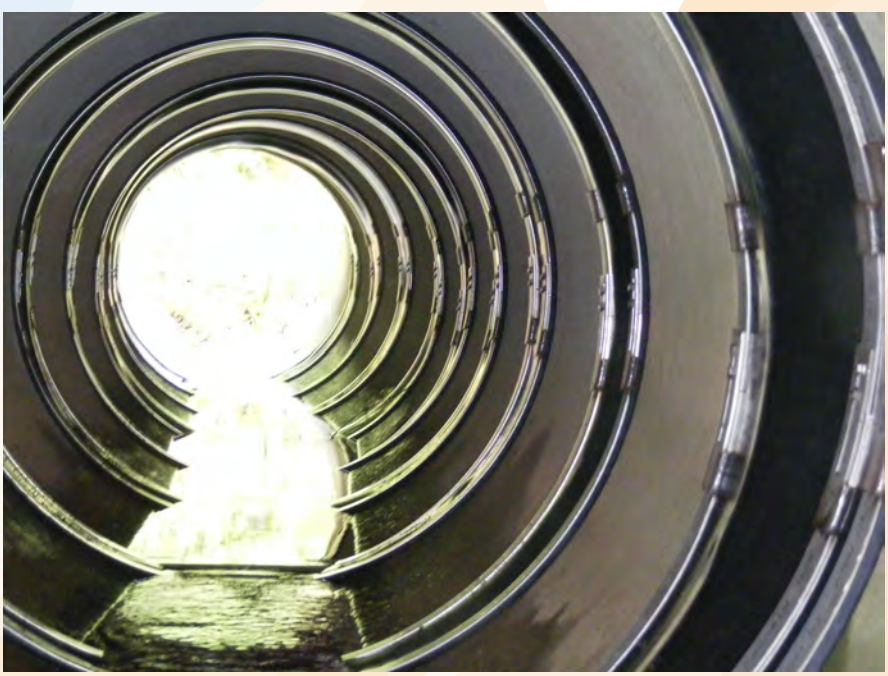
Engineered Solution
31 HydraTite® seals of various widths ranging from 11" to 21", all 54" in diameter, were installed. Stainless steel backing plates were installed beneath the EPDM seal where the joint's separation was more severe.

Scope
The project was scheduled to take 3 days but was completed in only 2 days. HydraTech had to grind and clean the concrete surface of the culvert to ensure the 31 seals were installed properly, many with backing plates. The entire project was completed despite the low temperatures and standing water.

Solution
The HydraTite® seal provides an economical repair to prevent infiltration and erosion without the need for dewatering or digging. The project did not affect the above traffic and ensured that the traveling public would be safe from future sinkholes. The quick turnkey solution was implemented before the freeze and thaw of the coming months, which could further separate the pipe joint. The HydraTite® seal does not rely on adhesive or sealant and is not adversely affected by temperatures.

Transportation & DOT





Water & Utilities

HydraTech Engineered Products, LLC

Submerged Square Conduit

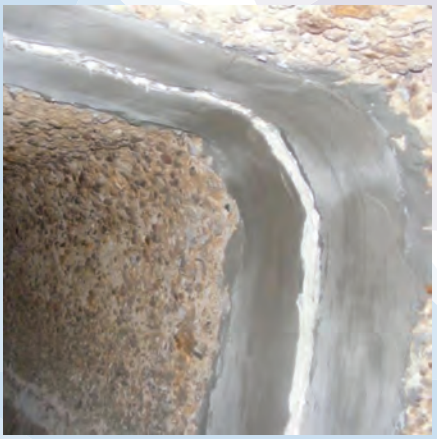
Market
Water / Utilities

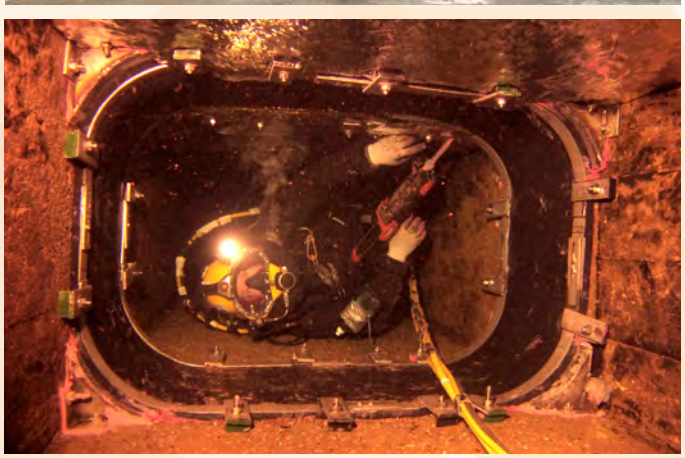
Challenge
A water treatment plant in western Ohio was confronted with repairing leaks of costly treated water from an underground transfer chamber, without draining the system.

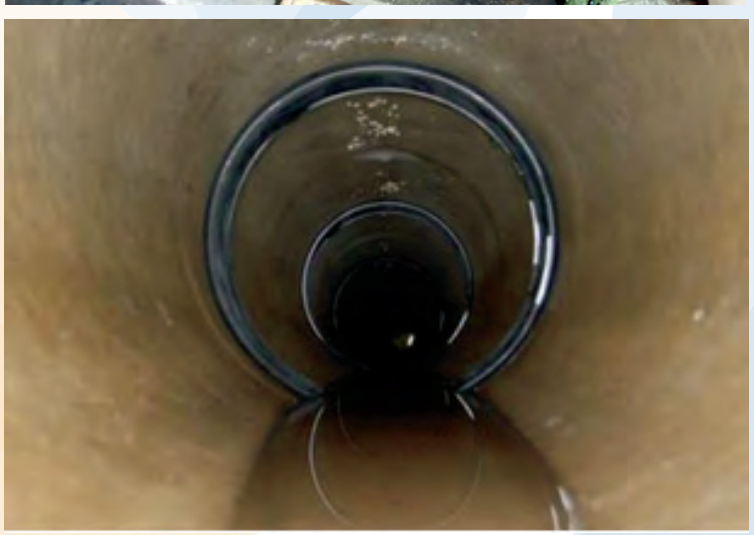
Engineered Solution
Custom manufactured NSF61 HydraTite® Extra Wide Seals were selected as a solution. The HydraTite® seal, which is typically used to repair joints in pipe and elliptical conduits, was custom designed to accommodate the inside corners and straight surfaces of the rectangular transfer chambers.

Scope
During an inspection performed by divers, a total of five (5) construction joints in various reinforced concrete transfer chambers were identified as the sources of the leaks. The corners of the square cross section chambers required prefabricated stainless steel forms to produce the required radius. The straight sections of the HydraTite® seal are equipped with anchor clips.

Solution
Divers, after training on the installation of the HydraTite® seal, prepared the deteriorated surface areas on either side of the joints and installed the HydraTite® seals with the furnished stainless steel forms and anchor clips.







Municipal

Six Joints In A 60” Water Main

Market
Municipal

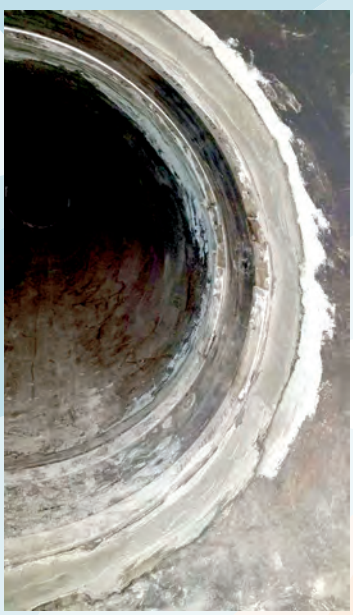
Challenge
A water main break flooded the streets at River’s Edge in Cincinnati, Ohio. A new section of pipe was ordered in to replace the failed section of pipe, but there were concerns that the neighboring joints in the pipe would fail if preventative action was not taken immediately.

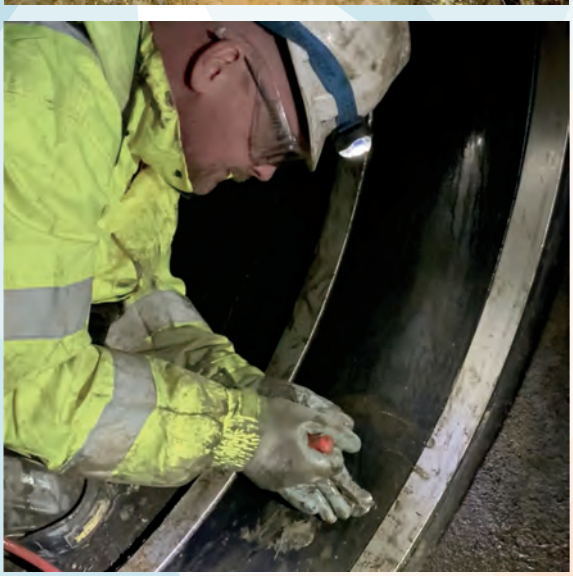
Engineered Solution
The water main leak caused extensive erosion of the soil compaction around the pipe and surrounding areas. Any shifting of the pipe joints could cause leaking. The engineer specified HydraTite® to eliminate joint leaking near the pipe break and guarantee a watertight fix.

Scope
Six HydraTite® seals were ordered for installation. These 60” seals were to be installed on the three closest pipe joints on either side of the new section of pipe. HydraTech prepared the pipe joints by clearing away the calcium build-up on the interior pipe surface. Next, the six seals were installed and air tested to ensure that they would guarantee no leaks. The project was expected to take several days, however, HydraTech completed ahead of schedule, in only two days.

Solution
HydraTite® provided an economical repair to prevent joint leakage and erosion without the need for additional excavation. HydraTite® will protect the people living above this section of the pipe against future sinkholes.

Municipal





Power & Utilities

HydraTech Engineered Products, LLC

Sediment Pond Sinkhole

Market
Power & Utilities

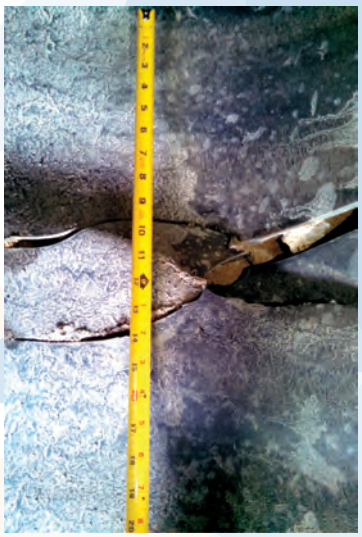
Challenge
During a monthly landfill inspection of a sediment pond, a sinkhole was noted behind the headwalls of two ADS 48-inch pipes. It was identified that each pipe had cracking at the interface between the concrete headwall and the pipe, which allowed groundwater and sediment to enter the pipe, causing the sinkhole.

Engineered Solution
The HydraTite® seal was selected to cover the cracks within the pipes, as a proven method to eliminate infiltration and provide movement of pipe as settling occurs.

Scope
Each outlet pipe was prepared for installation of the HydraTite® seals and inspected for the diameter and length of repair required.

Solution
The HydraTite® seals, manufactured at HydraTech's Cincinnati facility and installed inside the outlet pipes, were sleeved together to provide additional length over the defective areas and eliminate further infiltration. Sleeving is a process in which HydraTite® seals are interlocked to provide a continuous length along the defective area of piping. The entire project took two days to install and will provide a long-term repair.

Power & Utilities



HydraTech Engineered Products, LLC

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