

# HDPE FOR BURIED SERVICES

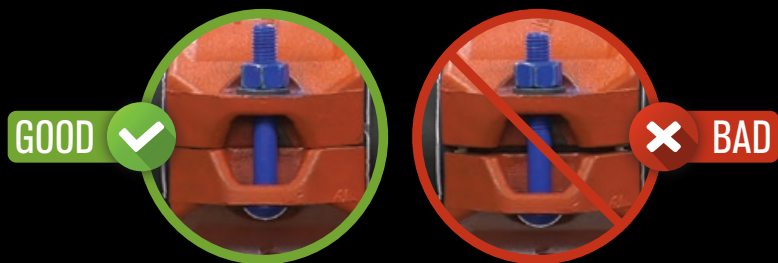


RISK MITIGATION FOR BURIED SERVICES AND HDPE PIPE



# DESIGNED TO BE BURIED





## VISUAL VERIFICATION OF CORRECTLY INSTALLED JOINTS PROVIDES CONFIDENCE OVER ALTERNATIVE METHODS

**OFF-THE-SHELF, VICTAULIC® COUPLINGS FOR HDPE PIPE CAN BE DIRECT BURIED WITHOUT COMPROMISING PERFORMANCE.**

Manufactured from ductile iron conforming to ASTM A536, Grade 65-45-12, *Victaulic* couplings have been buried for more than 80 years and continue to stand the test of time.

**VICTAULIC® SOLUTIONS PROVIDE FULLY-RESTRAINED, VISUALLY VERIFIABLE JOINTS. NO ADDITIONAL RESTRAINTS OR ANCHORS REQUIRED.**

Manufactured from Type 316 Stainless Steel, retaining rings provide a fully restrained joint that meets the pressure rating of the pipe itself. When joining pipe 16" | 400 mm and larger, coupling keys engage with a cut groove to provide restraint and pressure performance.

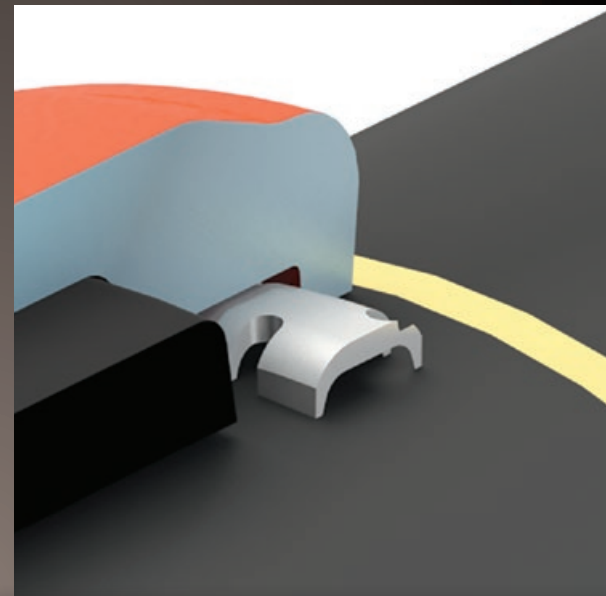
**WITH THE ADDITION OF FLUOROPOLYMER-COATED HARDWARE, WE HAVE TAKEN OUR DESIGN TO THE NEXT LEVEL TO BRING YOU UNPARALLELED PROTECTION, OUT-OF-THE-BOX.**

Fluoropolymer top-coat over zinc-electroplating provides unparalleled hardware protection. Want to understand the science behind it? Review our technical white paper available at [victaulic.com](http://victaulic.com) with details and test standards.

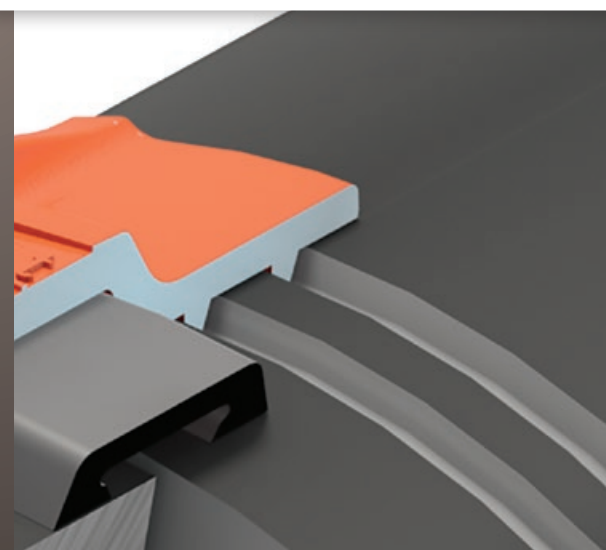
Dual rows of stainless steel teeth engage into the outside diameter of plain end HDPE as coupling housing halves are tightened bolt pad to bolt pad, allowing for visual confirmation of correct assembly.

2–14" IPS | 63–355mm ISO

SMALL DIAMETER



### HOW DOES IT WORK?



LARGE DIAMETER

16–36" IPS | 400–900mm ISO

Coupling “keys” engage into double grooved HDPE pipe as coupling housing halves are tightened bolt pad to bolt pad, allowing for visual confirmation of correct assembly.

# PROVEN PERFORMANCE



TYPE OF FACILITY

**POWER GENERATOR**

VICTAULIC® SOLUTIONS

**BURIED HDPE**

APPLICATION

**WATER SUPPLY**

COMPLETION DATE

**2018**

When this generator needed to make an urgent repair to a 18" | 450 mm HDPE water supply line, they needed a solution that could guarantee a fast return to service, regardless of site conditions or weather.

Completed in just over an hour, this site required continuous vacuum pumping to limit the standing water to 2–3 feet, as flowing water challenged the pump capacity and threatened to swamp the ditch.

Victaulic solutions can be installed in wet conditions, with simple tools, up to 10 times faster than traditional methods.

# ENGINEERS HAVE CHOSEN VICTAULIC IN BURIED SERVICES FOR MORE THAN 80 YEARS



When considering a pipe joining method for their 2.5 mile | 4 kilometer long, 24" | 630 mm OD HDPE tailings pipeline at Husab Uranium Mine, the Husab Joint Venture sought a solution that would allow for ease of future maintenance and a fast initial installation.

Due to a tight project schedule, installation time was a critical consideration that led to the selection of Victaulic solutions. Visual inspection of each joint provided confidence before burying the line for service.

TYPE OF FACILITY

**MINE PROCESSING**

VICTAULIC® SOLUTIONS

**BURIED HDPE**

APPLICATION

**TAILINGS**

COMPLETION DATE

**2016**

# PROVEN PERFORMANCE



TYPE OF FACILITY

**LANDFILL**

VICTAULIC® SOLUTIONS

**BURIED HDPE**

APPLICATION

**GAS EXTRACTION**

COMPLETION DATE

**2019**

In a recent landfill project — a high-density polyethylene (HDPE) methane gas extraction line modification — owners sought a solution that would offer a guaranteed full seal and prevent oxygen from increasing volatility.

Victaulic's System Solution for HDPE Pipe thrives in adverse and extreme conditions, boasts visual verification of proper installation, and offers a way to mechanically join HDPE that is safe in a landfill environment. Given the presence of methane gas, mechanical joints for HDPE minimize the risk of combustion as little to no electricity is required for installation.



INSTALLS UP TO  
**10× FASTER**



**MEETS OR EXCEEDS  
PRESSURE RATINGS  
OF HDPE PIPE**



INSTALLATION  
IS **WEATHER  
INDEPENDENT**



INSTALLS WITH  
**SIMPLE TOOLS**



With classes in session, this tier one university gave the contractor a very strict time frame for completing the project. Victaulic's HDPE mechanical joining solutions proved to be the ideal solution, as they could be installed in any weather condition, including the heavy rain that was faced during the project. In addition, using couplings and flange adapters for HDPE pipe proved to be a more cost-effective option when compared with steel or copper piping, as it was able to be assembled right in the ditch.

TYPE OF FACILITY

**UNIVERSITY**

VICTAULIC® SOLUTIONS

**BURIED HDPE**

APPLICATION

**HVAC WATER**

COMPLETION DATE

**2017**

# DEMANDING APPLICATIONS



TYPE OF FACILITY

**POWER DISTRIBUTION**

VICTAULIC® SOLUTIONS

**BURIED HDPE**

APPLICATION

**FIRE PROTECTION**

COMPLETION DATE

**2017**

When this power generator needed to replace a hydrant tie-in as part of its fire protection strategy, *Victaulic* Style 908 couplings were selected for their ease of installation and high performance. Excavation revealed a high water table, making conditions wet and messy for the duration of the repair. *Victaulic* solutions can be installed on wet pipe, with simple tools, and faster than alternative methods, all while delivering uncompromising performance.



## IF YOUR PROJECT SPECIFICATION CALLS FOR ADDITIONAL ASSURANCES... VICTAULIC IS UP TO THE TASK!

Is your project in an aggressive soil zone? If you are proceeding with an excess of caution, industry accepted mitigation measures are easily applied to provide enhanced durability. Hot dip galvanized, liquid or fusion bonded epoxy, and other time-tested coatings and stainless steel hardware can be applied to provide increased assurance.



*Victaulic* Style 905 couplings were selected by this university for their plain-end installation method. Pipes were laid pre-insulated and easily joined together directly in the trench, making the process extremely simple and efficient.

In fact, the contractors estimate they reduced joint installation time to 5 minutes per joint.

TYPE OF FACILITY

**SCHOOL**

VICTAULIC® SOLUTIONS

**BURIED HDPE**

APPLICATION

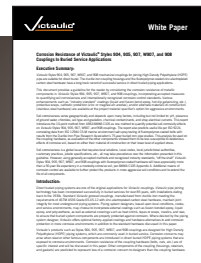
**CHILLED WATER**

COMPLETION DATE

**2018**

# CODE COMPLIANT FIELD WRAPS AND CATHODIC PROTECTION

Soil corrosiveness varies geographically and depends upon many factors, including but not limited to: pH, ground water, chlorides, soil type and gradation, chemical contaminants, and stray electrical currents. Victaulic introduces the 10-point method from ANSI/AWWA C105 as one method to quantify potential soil corrosivity effects.



Read White Paper  
[“Corrosion Resistance of Victaulic Mechanical Solutions for HDPE in Buried Applications”](#)  
to learn more.

Heat shrinkable cross-linked polyolefin coatings

AWWA C216



Petrolatum and petroleum wax tape coatings

AWWA C217



AWWA D104

Automatically controlled, impressed current cathodic protection



AWWA C213

Fusion-bonded epoxy coating

# NO CHALLENGE IS TOO EXTREME.

From the world's tallest skyscrapers to its deepest mines, Victaulic system solutions are engineered to ensure reliability and durability in every condition, no matter how extreme.

# EXTREME INNOVATION



Do you have an impossible challenge? When a coastal municipality faced the impossible, they called Victaulic. Victaulic modified traditional grooving and installation processes to allow for both to take place 50 feet | 15 meters below the water's surface on this salt water intake line. Having been in place for nearly 25 years, this line was cut and grooved by a certified underwater diving team. One 36" | 900 mm fusion bonded epoxy-coated Style 908 coupling with super duplex stainless steel hardware was installed, playing a key role in getting this California desalination plant back to an operational status.

Victaulic's Sales and Application Engineering teams were onsite every step of the way to ensure a smooth and proper installation.

TYPE OF FACILITY

**DESALINATION PLANT**

VICTAULIC® SOLUTIONS

**SUBMERGED HDPE**

APPLICATION

**SALTWATER INTAKE**

COMPLETION DATE

**2017**

# ADDITIONAL RESOURCES



**HDPE Product Details**





**HDPE Applications**





**Locate HDPE Product**





## U.S./World Headquarters

4901 Kesslersville Road  
Easton, PA 18040 USA

[victauliclocations.com](http://victauliclocations.com)

## EMEA1

Prijkelstraat 36  
9810 Nazareth, Belgium

## Asia Pacific

Unit 808, Building B  
Hongwell International Plaza  
No.1602 West Zhongshan Road  
Shanghai, China 200235



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