# SSTEPS BOLLET STATEST WAY TO JOIN HDPE PIPE - NO IFS, ANDS, OR BUTTS.









## VICTAULIC® HDPE PIPE JOINING TECHNOLOGY

#### HOW DOES IT WORK?



#### SMALL DIAMETER

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.



#### LARGE DIAMETER

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.





DESIGNED FOR BURIED, SUBMERGED, OR ABOVE GROUND APPLICATIONS

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# FORGET FUSION





#### INSTALLS UP TO 10× FASTER

Join HDPE pipe in half the time it takes to fuse a joint. Forget the fusion equipment. Gone are the days of waiting for plastic to heat up just to cool down. Installing in tight or vertical spaces has never been easier; Victaulic's system solution for HDPE pipe goes where no fusion machine has gone before. That's time savings you've never seen before.



#### INSTALLATION IS WEATHER INDEPENDENT

Whether it's rain, shine, or just downright frigid and fierce, Victaulic<sup>®</sup> products for HDPE pipe can be installed. No need to check the weather forecast and worry about protection for fusion equipment or project delays any longer.





#### HDPE joints completed per hour on 4" SDR 11 HDPE pipe



"WITH THIS COUPLING, IT'S SO EASY... JUST MARK THE DEPTH, SLIDE THE PIPE IN AND TIGHTEN IT UP... MUCH FASTER THAN FUSING."

Dave, Stone Hill Contracting





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

If you thought your fused joint was tough, check out *Victaulic* HDPE product performance. Small diameter solutions call for dual rows of razor-sharp teeth that sink into the O.D. of HDPE pipe, forming a sealed hold that never lets go. Bringing out the big guns? Large diameter solutions enlist a rugged double groove to seal the deal. Push it, pull it, and drag it to the max; treat it the same way you would treat fused pipe.



#### INSTALLS WITH SIMPLE TOOLS

No need to set up your fancy fusion machine because all you will need with Victaulic's system solution for HDPE pipe is a simple socket wrench. If you want to get crazy, a cordless impact driver will do the job, too!

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Don't worry about training certificates or learning how to use fusion equipment, just stick with the basics.

#### Victaulic® System Solution for HDPE Pipe













#### Coupling for Plain End HDPE Pipe STYLE 905

#### Download publication 19.07 for complete information

- Designed for plain end HDPE pipe (SDR 7–SDR 21)
- Sizes from 2–14" IPS and 63–355 mm ISO





Download publication 10.01 for Fire Protection Certifications/Listings Download publication 02.06 for ANSI/NSF Potable Water Approvals/Listings







#### Victaulic® System Solution for HDPE Pipe



## Transition Coupling for HDPE-to-Steel Pipe

STYLE 907 and STYLE W907

#### Download publication 19.10 for complete information

- Designed to provide a single transition from plain end HDPE pipe (SDR 7 – SDR 21) to grooved steel sized piping system components
- Sizes from 2–14" IPS HDPE to 2–14" | DN50–DN350 grooved steel
- Sizes from 63–355 mm ISO HDPE to 2–14" DN50–DN350 grooved steel



#### Flange Adapter for HDPE-to-Flanged Pipe

#### Download publication 19.12 for complete information

- Designed to provide a single transition from plain end HDPE pipe (SDR 7–SDR 21) to flanged piping system components
- Sizes from 3–8" IPS HDPE to 3–8" IPS ANSI Class 150 Flange



#### Coupling for Double Grooved HDPE Pipe

STYLE 908

#### Download publication 19.09 for complete information

- Designed for double grooved HDPE (SDR 7 SDR 21)
- Sizes from 8–36" IPS and 250–900 mm ISO
- Larger diameter couplings have lifting lugs for easy maneuvering around the job site
- Standard Victaulic coupling assembly procedure used for installation







Download publication 10.01 for Fire Protection Certifications/Listings Download publication 02.06 for ANSI/NSF Potable Water Approvals/Listings



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# FITINGS, OUTLETS AND TOOLS



#### Victaulic<sup>®</sup> System Solution for HDPE Pipe



#### **Fittings for HDPE Pipe**

#### Download publication 19.11 for complete information

- Available in SDR 7, SDR 9, SDR 11, and SDR 17
- Sizes from 2–8" IPS and 63–225mm ISO
- Full flow fittings
- Compatible for use with Styles 905, 907, and 904



90° Elbow





No. H50 Reducer



### Mechanical-T Spigot Outlet

45° Elbow

#### Download publication 11.07 for complete information

- Designed to provide an outlet connection on HDPE, steel, and ductile iron pipe materials in IPS, ISO, and AWWA pipe sizes
- 4" outlets available for 10–32" IPS pipe diameters
- 114.3 mm outlets available for 250–800 mm ISO pipe diameters
- 6" outlets available for 16 48" IPS pipe diameters
- 168.3 mm outlets available for 400–1200 mm ISO pipe diameters



#### Cut Grooving Tool for HDPE Pipe

CG3100 8–18" IPS | 250–450mm ISO CG3300 16–26" IPS | 400–630mm ISO CG3500 24–36" IPS | 630–900mm ISO

#### Download publication 24.06 for complete information

- Designed for cut grooving HDPE (SDR 7-SDR 21) pipe
- Provides the only grooved joining solution for large diameter HDPE pipe
- Faces and cuts parallel grooves into the end of the pipe

WEATHER INDEPENDENT

ENDENT | LIGHTWEIGHT

PORTABLE

E | SMALL FOOTPRINT



#### Victaulic® System Solution for HDPE Pipe

## **SERIES 906** KNIFE GATE VALVE FOR PLAIN END HDPE PIPE

#### **One-piece Replacement Cartridge**

Eliminates the need for a second "maintenance" valve, significant reduction of inventory costs

Eliminates need to rebuild worn out valves – reduce maintenance risk

#### **Integrated Coupling Design**

No additional couplings needed

Simple hand tools such as a cordless drill or socket wrench can install the valve in any position, reducing capital needs



#### Bolt Pad to Bolt Pad Assembly

Valve is Installation-Ready<sup>™</sup> with no loose parts

#### Type 316 Stainless Steel Gate

Up to 4× thickness of a "push-through" designed knife gate – increases valve life expectancy



#### Type 316 Stainless Steel Teeth

Connect to plain end pipe to eliminate the need for flanging and provide a fully restrained joint







#### PNEUMATIC, HYDRAULIC, AND MANUAL ACTUATION AVAILABLE

- Sizes from
  3–8" IPS HDPE
- Pressures up to 150 psi | 1034 kPa | 10 bar



 $10\times$  more resistant to abrasive wear than nitrile elastomer



Self-clearing Seat All wear parts are in the cartridge kit, no metal in the flow path

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#### **CASE STUDY**

#### Type of Project:

Storm Drainage System Victaulic Solutions: Ease and Speed of Installation Corrosion Resistance Labor Savings Space Constraints Reliability Visual Verification of Correct Installation Owner: Port of Baltimore Contractor: Marine Technologies, Inc. Engineer/Consultant: Whitney Bailey Cox & Magnani, LLC



#### DUNDALK MARINE TERMINAL STORM DRAIN DISCHARGE PIPING

Dundalk Marine Terminal in Baltimore, Maryland was in dire need of a drainage overhaul after a series of heavy rains flooded hundreds of new auto imports, rendering them totaled and jeopardizing autohandling business for the Port of Baltimore. A new drainage system designed to handle large amounts of water – even those that would come with a 500-year flood – was built during the summer of 2017. The discharge piping on the storm drain project, which would transfer storm water several thousand feet away from the port and into the nearby Colgate Creek, needed to be durable and meant to last, even in a corrosive, buried environment. During construction, the port placed restrictions on the contractor with regard to the length of time each trench section could remain open, along with the size of each section, so installation efficiency and minimizing trench size were key.

Due to its resilient, corrosion-resistant composition, HDPE was specified as the pipe material for the 3,700' | 1,128 m, 36" IPS buried discharge line. Victaulic's designed-to-be-buried Style 908 couplings were chosen to join (37) 100' | 112.8m lengths of pipe because they could be installed in minutes with no downtime and in a narrower trench than would be required to accommodate a fusion machine, both of which provided cost savings. In choosing to use the combination of HDPE pipe with Style 908 couplings, there was no post-joining

corrosion protection work to be completed as there would have been if welded steel pipe had been chosen.

The HDPE pipe was grooved prior to it arriving onsite, which provided additional time savings, allowing the contractor, Marine Technologies, Inc., to drop the pipe into the trench as soon as the trench was prepared. The contractor was also able to have confidence in correct installation using "bolt pad-to-bolt pad" visual confirmation, allowing for a quick move to the next joint. Luke Browning, Project Manager, noted that he works on a lot of projects and felt like the Dundalk project opened his eyes to mechanically joining HDPE: **"I will be more likely to use HDPE on future projects, given that reliable mechanical joining technology is available."** 

On this project, Victaulic's simple and durable system solution for HDPE pipe allowed contractors to bypass the limitations of butt fusion and electrofusion couplings, including space, cost, the need for a heat source, downtime, time scraping and cleaning pipe ends, and weather conditions. This project illustrates the many benefits of using mechanically joined HDPE pipe. Ultimately, the contractor enjoyed the benefits and reliability of Victaulic's mechanical solution and the Port of Baltimore saw less of an opportunity cost in terms of lost auto-handling revenue during construction.



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