PVC Raceway for HDD Applications

SceptaCon™

ELECTRICAL & TELECOMMUNICATION SYSTEMS

TRENCHLESS RACEWAY FOR ELECTRICAL AND TELECOMMUNICATION CABLES

78mm – 155mm
3" – 6"

IPEX

We build tough products for tough environments®

THE MISSING LINK IN YOUR PVC SYSTEM

Until now, there have been few choices for electrical conduit in trenchless applications. Non-PVC conduit systems require transition couplings or adapters to connect to existing PVC conduit infrastructure and often a proper transition method does not exist. While existing PVC products are compatible they require set up time and can lack the joint pull-strength needed for directional drilling applications.

SceptaCon™ is one of the first PVC systems designed for the rigors of trenchless applications. It links seamlessly to existing PVC conduit infrastructure and allows utilities to standardize on PVC throughout their entire electrical system.

NO CEMENTING OR LUBRICATION REQUIRED

SceptaCon's slide-in locking system and pre-installed, pre-lubricated gaskets allow contractors to create a water-tight seal by hand in seconds – in all temperatures without having to worry about solvents or chemicals freezing or drying too quickly.

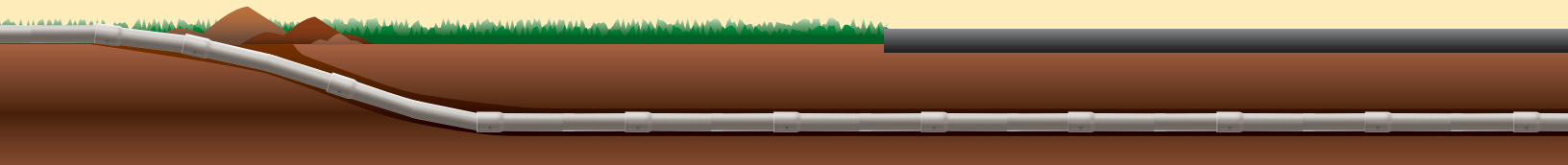
OUTPERFORMS OTHER PVC PRODUCTS

SceptaCon's spline-lock snaps into place in a recessed opening, ensuring the spline won't get snagged during pull-through. SceptaCon's rounded bell shoulders slide easily past roots, rocks and other debris in the borehole, ensuring a smooth, easy installation. And because SceptaCon is made to the same high standards as our Scepter Rigid PVC Conduit, contractors and electrical utilities can be assured of the same level of quality – above ground and below. SceptaCon delivers the performance, reliability and long life you expect from IPEX.

A proven mechanical spline-locking system ensures SceptaCon won't pull apart in the borehole.

"We used the 4" SceptaCon raceway and found it joined together with ease, was very lightweight and simple to use. With the fixed (stopper) ring, you knew when the pipe was fully inserted, lining up the locking spline grooves perfectly. The spline slid in easily and connected the two lengths together without difficulty. SceptaCon was a pleasure to use."

Ron Stang, Foreman, EPCOR Technologies



FAST AND EASY JOINT ASSEMBLY

SceptaCon needs no special equipment or training like polyethylene fusion. The best part of all is it joins quickly, creating a water-tight seal literally in seconds.

STEP 1

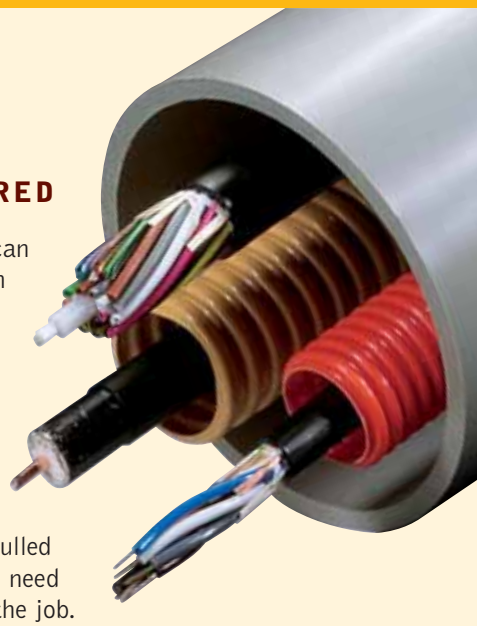
Simply remove the red protective plugs and locking spline included inside every length. Slide the spigot end of a pipe into the bell end past the pre-lubricated gasket to the positive stop alignment ring.

STEP 2

Push the locking spline into the insertion hole at the top of the joint and feed it into the opening. When the spline is completely inserted into the pipe's inner groove, it will lock the lengths together.

STEP 3

You're done! Now that your raceway lengths are locked securely, they're ready to be pulled into the borehole. Our spline locking system ensures they'll stay together during pull-through and over their life underground.



NO FUSION REQUIRED

Because SceptaCon joints can be quickly joined by hand in seconds, crews don't need large, expensive fusion equipment or special training to create water-tight joints.

In addition, SceptaCon can be assembled one pipe length at a time, then pulled underground, eliminating the need for long strings of pipe on the job. In this way, SceptaCon is ideal for short haul applications in cramped urban areas.

SUPERIOR PERFORMANCE

SceptaCon is made from durable schedule 40 PVC that's resistant to creasing, scoring or flattening when pulled past obstructions in the borehole, yet flexible enough to bend with underground twists and turns. SceptaCon remains round, unlike HDPE which can stretch and become oval. And with PVC's proven 70-year history in underground piping, it's no surprise telecommunication contractors are turning to SceptaCon PVC raceway for reliable performance – now and over the long term.

EASIER TO HANDLE

SceptaCon saves crews all the hassles of working with HDPE. As any crew knows, cumbersome HDPE reels are heavy and awkward to transport and work with, and the material is notoriously rigid in cold temperatures. On the other hand, SceptaCon is available in convenient 10' and 20' lengths that are lightweight, easy to handle and no problem to work with in all types of weather.

SceptaCon is available in a wide range of sizes and lengths to fit the needs of any HDD project. Every length is delivered with protective plugs in either end of the pipe to keep the conduit free of dirt and debris during shipping and job site handling.

Nominal Size		Product		O.D.		I.D.		Min. Wall	
inches	mm	Code		inches	mm	inches	mm	inches	mm
3	78	(10′)	106330	3.500	88.9	3.068	77.9	0.216	5.5
		(20′)	106331						
4	103	(10′)	106340	4.500	114.3	4.026	102.3	0.237	6.0
		(20′)	106341						
5	129	(10′)	106350	5.563	141.3	5.047	128.2	0.258	6.6
		(20′)	106351						
6	155	(10′)	106360	6.625	168.3	6.065	154.1	0.280	7.1
		(20′)	106361						

SUGGESTED SPECIFICATIONS

1.0 GENERAL

Installation of conduit in defined areas (such as environmentally sensitive areas, existing roadways and high traffic pedestrian areas) shall be accomplished using trenchless horizontal directional drilling methods.

2.0 PRODUCT

The trenchless raceway system shall be manufactured of schedule 40 PVC and to PVC conduit specifications providing for a seamless transition to rigid nonmetallic conduit, duct or other approved conduit systems. Each length of conduit shall be supplied with end caps, a locking spline, a factory installed pre-lubricated o-ring seal and a positive stop alignment ring. Each length shall incorporate dimensionally precise machined grooves (internal on the bell and external on the spigot) whereby the connection of the raceway lengths creates a cavity for the locking spline. The bell end of each length shall have a label affixed by the manufacturer that provides installation instructions while clearly identifying and protecting the spline insertion opening.

Acceptable manufacturers are: SceptaCon Trenchless Raceway by IPEX.

3.0 APPROVALS

The Trenchless Raceway System shall be third party certified to UL651 and CSA C22.2 No.211.2.

PERFORMANCE SPECIFICATIONS

SceptaCon is made for fast installation, creating a water-tight seal in seconds with no special fusion equipment or training needed. SceptaCon is manufactured to UL651 and CSA C22.2 no. 211.2 standards and meets all testing requirements of Rigid PVC Conduit (PVC).

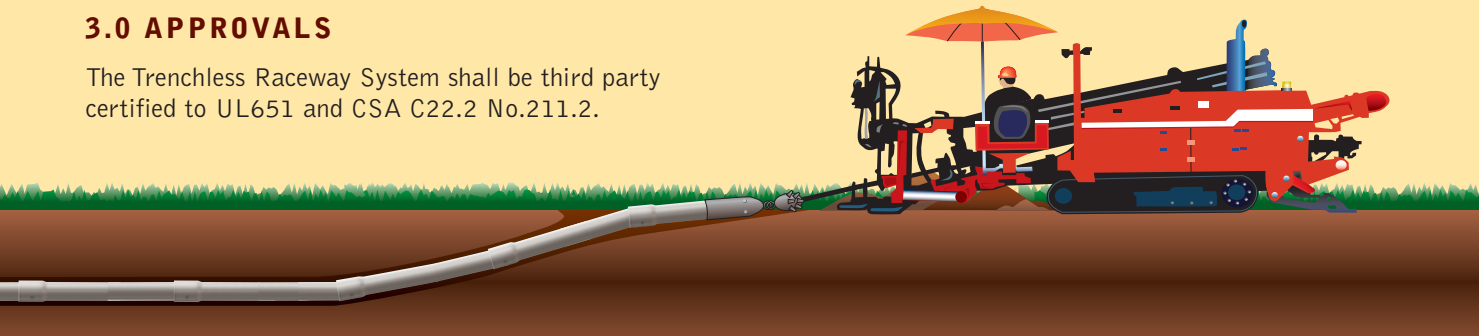
- SceptaCon's rated bend radius is sixty five (65) feet
- Rated Pulling Force

  3" – 7,000 lbs

  4" – 8,700 lbs

  5" – 11,300 lbs

  6" – 14,000 lbs
- SceptaCon's water tightness using the joint immersion test.
  - 80psi pressure without a bending force applied
  - 80psi pressure when subjected to a 65 foot bend radius



THE SceptaCon™ SOLUTION

The perfect solution to your most challenging installation...

If you're running electrical and telecommunication cable conduit under a busy road or highway, then you need SceptaCon. SceptaCon is a water-tight PVC raceway system designed specifically for horizontal directional drilling (HDD) applications.

With SceptaCon, you no longer have to worry about digging long trenches, interrupting traffic or causing costly damage to roads and sidewalks.

Choose SceptaCon for your next job that calls for installing PVC raceway under a road or highway and you'll know you've found the right solution.

APPLICATIONS

ENVIRONMENTALLY SENSITIVE AREAS

Projects using SceptaCon require no open-trenching, therefore are less invasive and disruptive to environmentally sensitive areas such as parks and conservation areas.

HISTORICAL LANDMARKS

Requiring less workspace and causing little interruption to surface traffic, SceptaCon jobs are perfect for sensitive historical sites.

ROAD & HIGHWAY CROSSINGS

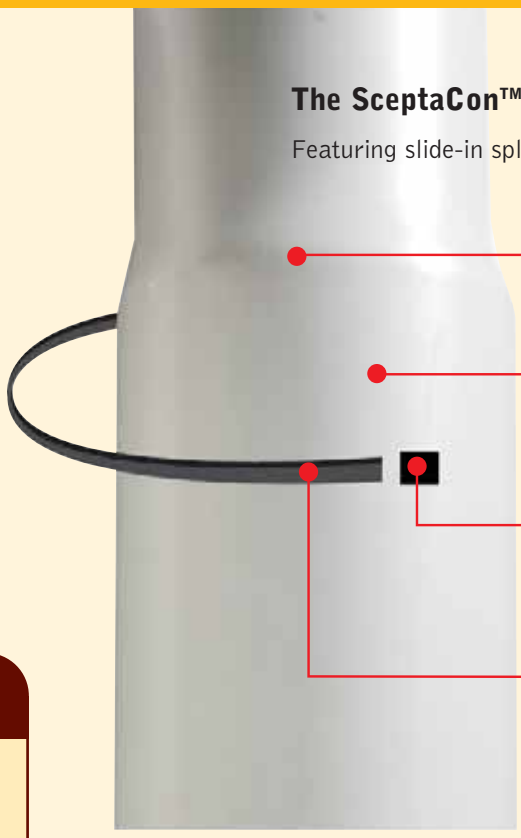
SceptaCon is ideal for short drilling projects where existing structures – such as busy highways, roads and intersections – cannot be disturbed.

URBAN AREAS

Because SceptaCon can be assembled a piece at a time before entering the borehole, SceptaCon projects take up less space in cramped urban areas.

The SceptaCon™ Joint

Featuring slide-in spline locking system.



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About the IPEX Group of Companies

As leading suppliers of thermoplastic piping systems, the IPEX Group of Companies provides our customers with some of the world's largest and most comprehensive product lines. All IPEX products are backed by more than 50 years of experience. With state-of-the-art manufacturing facilities and distribution centers across North America, we have established a reputation for product innovation, quality, end-user focus and performance.

Markets served by IPEX group products are:

- Electrical systems
- Telecommunications and utility piping systems
- PVC, CPVC, PP, ABS, PEX, FR-PVDF and PE pipe and fittings (1/4" to 48")
- Industrial process piping systems
- Municipal pressure and gravity piping systems
- Plumbing and mechanical piping systems
- PE Electrofusion systems for gas and water
- Industrial, plumbing and electrical cements
- Irrigation systems

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