SceptaCon™

Performance, Reliability and Long Life

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. 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.

Discover 16 reasons to use SceptaCon for your HDD Projects

1. TRANSPORTATION

SceptaCon is manufactured in 10 and 20 foot lengths that can be carried by hand and placed onto the same truck or trailer as the HDD drilling machine and driven to the jobsite. Alternatively, if HDPE is used the contractor would need heavy power equipment to load a second truck or trailer with the large and awkward HDPE reels. Eliminating the unnecessary lifting equipment and second truck considerably cuts down on the overall labour, operating costs, and liability when using SceptaCon in comparison to HDPE.

2. NO FUSION

Fusing HDPE together requires expensive machinery, trained operators, is susceptible to operator error, takes several minutes, and results in a rib on the pipe ID that causes the pull tape and cable to get caught while pulling them into the pipe. In comparison, SceptaCon is assembled by hand in the matter of seconds without any tools.

3. JOB-SITE HANDLING

SceptaCon is produced in 10 and 20 foot straight lengths, which make it easy for one person to carry around the job site, as well as, work on hill sides, embankments or environmentally delicate areas. In congested metropolitan areas, storing HDPE reel trailers and reels, as well as, unreeling or “stringing out” HDPE can be difficult, if not impossible, because in most cases there is not enough space. The convenient lengths of SceptaCon means that the conduit can be carried from the trailer to the drilling rig by one person when it is time to be installed; where as, HDPE reels need to be lifted off the trailer by power machines such as a backhoe or forklift.

4. NO REEL TO RETURN

When using HDPE, the contractor must pay a deposit for the HDPE reel; own special handling equipment; own a special trailer for transportation, and return the reel to the manufacturer for future use. In most cases, either the manufacturer or logistics company will require that the contractor collapse or disassemble the reel first before it can be returned. All of these extra steps and equipment add unnecessary cost and labour to the contractor. With SceptaCon all of these issues are avoided because SceptaCon is shipped within wood crates instead of on a reel.

5. NO UNUSABLE SECTIONS

The process of coiling HDPE pipe onto the reel renders the last several coiled sections of pipe unusable because they become severely compressed into an oval or flat cross section. SceptaCon is made from less ductile and more rigid PVC, which does not oval or flatten – making every foot of conduit useful.

6. APPROVED RACEWAY

SceptaCon is listed to UL 651 and CSA C22.2 No. 211.2 as an approved electrical cable raceway intended for directional boring.

7. SAFER WORK ZONE

A primary focus among contractors and municipalities is to ensure a safe work zone for both pedestrian and workers in the area. SceptaCon can easily be stacked in a crate or left on the truck until the very last moment before it is installed. Where as, HDPE needs to be strung out for sometimes blocks at a time – creating trip hazards for pedestrians and a work zone that is nearly impossible to safely manage.

8. LARGER INTERNAL DIAMETER

SceptaCon is Sch40 electrical conduit that has a larger internal diameter than HDPE, which makes it easier to pull cable through. For example, 4" SceptaCon has an internal diameter of 4"; where as, HDPE SDR 13.5 internal diameter is 3.8".

9. STRONG AND FLEXIBLE

The internal SceptaCon gasket is lubricated to allow for easy field insertion of the spigot into the bell; however, once the spline is inserted SceptaCon is an extremely strong joint that has been proved in the field to withstand very high pull forces. As well, SceptaCon is made from PVC, which is very resilient to crush or impacts from backhoes or dropping it on the jobsite. Consider the incredible strength of PVC, SceptaCon is approved for a 65 foot bend radius, which is tighter (smaller) than drilling rig manufacturers' suggested minimum bend radius for their drill rods.

10. FULL PVC SYSTEM

The majority of existing underground electrical raceways are rigid PVC conduit or DB-II duct. SceptaCon can be connected to the existing infrastructure using regular solvent cement practices. Connecting HDPE to PVC conduit or DB-II duct requires special listed transition couplings and adapters that do not offer as solid a connection as a solvent cemented PVC connection. If an installed section of SceptaCon is ever broken (i.e. accidental contact from a backhoe), it can be repaired with a standard PVC schedule 40 coupling and a section of conduit that is likely already found in the contractor's truck.

11. NO PIPE KICK BACK

When cutting HDPE the contractor must be very careful because it often "kicks back" and can strike the worker. This is especially true in colder temperatures when HDPE pipe is more rigid and difficult to work with.

12. DOES NOT OVAL

SceptaCon is made from high quality rigid PVC that retains its internal diameter throughout the directional pull. HDPE is much more ductile such that it will stretch and oval during installation if pulled above its yield strength. Even in normal soil conditions, during high temperatures 2" HDPE can flatten completely during installation; rendering it useless because no cables will fit within the raceway.

13. UNDERGROUND CONDUCTORS

Contractors can save thousands of dollars by installing wet location listed conductors, and cabling within a listed electrical raceway such as SceptaCon instead of installing the heavy, robust, and expensive underground listed cabling.

14. PRESSURE RATING

To avoid ingress of water, moisture, or bentonite (HDD pulling mud), SceptaCon is pressure rated to 80 psi while subject to a 65 foot bending radius.

15. SCEPTER RIGID PVC

SceptaCon is manufactured from Scepter Rigid PVC, which makes it resistant to creasing, scoring or flattening when pulled past obstructions in the borehole, yet flexible enough to bend along the drill path.

16. TRUCK LOAD QUANTITIES

A standard 53 foot flat bed truck can hold up to 7,800 feet of HDPE on 12 reels. The same flat bed truck can handle up to 14,400 feet of SceptaCon because it is produced as a straight length of conduit. SceptaCon is shipped in easy to handle, convenient crates that can be safely stacked on a truck, on a job-site or in a storage yard.