

Carlton® Bore-Gard®

PVC Trenchless Raceway ***Top 10 Reasons to Use Bore-Gard***

1. Lower Overall Installed Cost:

Bore-Gard® is the lowest cost solution for installing conduit in directionally drilled applications. When considering all of the advantages that Bore-Gard offers, it is obvious why so many have standardized on Bore-Gard. Leading contractors, Regional Bell Operating Companies, Independent Telcos, and Electrical Utilities are using Bore-Gard instead of HDPE to lower their costs when installing telecommunications and electrical conduit via directional drilling. Simpler handling, faster assembly, and lower labor cost all lead to increased productivity and lower overall costs as detailed in this document. Some contractors that use Bore-Gard have claimed to be able to do 2 to 3 bores in a day (versus only 1 bore per day with HDPE pipe) because of the time and labor savings Bore-Gard offers. Shouldn't you benefit from all of the advantages of Bore-Gard?

2. Lower Freight Cost:

A Truckload of 4" SDR 13.5 HDPE typically consists of ten 625 ft., 8 ft. diameter reels rendering only 6,250 ft. per truckload. A truckload of 4" Bore-Gard is 12,480 ft., twice that of HDPE, cutting the freight charges in half. For example, at a \$900 cost per flatbed truckload, the freight cost per foot for HDPE is \$0.14/ft. Bore-Gard is only \$0.07/ft. HDPE in a 6" diameter is typically offered in either 300 ft. or 500 ft. reels with a maximum truckload qty. of 1,800 to 2,000 feet. Bore-Gard 6" diameter is offered in 200 ft. and 400 ft. convenient bundles with a maximum truckload qty. of 8,000 ft. At a \$900 cost per flatbed truckload, the freight cost per foot for HDPE 6" is from \$0.45/ft to \$0.50/ft. Bore-Gard's 6" diameter is only \$0.11/ft., 75% lower than HDPE's freight cost.

3. Greater Internal Fill Capacity:

When wound on a reel, HDPE's cross-section is distorted into an oval. This reduces the internal capacity for innerducts or cable. In turn, this increases the overall installed cost because the capacity is lower than a truly circular duct. Further reducing the capacity of HDPE SDR 13.5 is the small 3.8inch inside diameter for the 4" nominal diameter, and 5.6 inches for the 6" diameter. Bore-Gard is superior in circularity and inside diameter. Bore-Gard is packaged in bundles, not wound on reels, so it does not collapse into an oval shape - it stays circular. In addition, the inside diameter is a true 3.0", 4.0", 5.0", and 6.0" inch size offering that enables more innerducts and cables to be placed. This results in lower installed costs and a more efficient conduit system.

4. No Wasted Product:

When using HDPE, the last several wraps are usually scrapped. This is because material closest to the core of the reel is oval in cross section due to it being wrapped so tightly. Once the HDPE conduit is no longer held in place by the metal bands, it is very difficult to remove from the reel. Bore-Gard is offered in convenient 10 ft. and 20 ft. lengths in standard conduit bundles. Combined with the ability to solvent cement Bore-Gard to other PVC systems, there is no wasted product.

5. Easier to Transport:

Offered in 10 ft. and 20 ft. lengths, Bore-Gard is easy to transport to and around the job site. One length of Bore-Gard can be carried by one person over the toughest terrain. This solves problems created by varied-terrain job sites for which a large, heavy reel of HDPE could not be used. Because fewer people and less time are required to move the product around, overall costs are reduced. This translates to getting more done in a day.

6. Strong and Flexible for Directional Drilling:

Bore-Gard's highly engineered and field-proven joint design provides the strength required of the tightest bends in the toughest directional bore paths. It has been field proven for bores of 1,000 feet and longer. Single-, Double-, Triple-, even 30-pipe bores have been successfully installed using Bore-Gard. This strength is complemented by the pipe's unique flexibility that enables it to bend without compromising the internal diameter shape, size, or load bearing ability. This combination of strength and flexibility offers unparalleled performance for directional drilling installations.

7. Easily Adapts to PVC Fittings:

Unlike HDPE pipe that has to be fusion welded together using expensive equipment, Bore-Gard can be cemented to standard Schedule 40 PVC products. Bore-Gard is manufactured from PVC to Schedule 40 dimensions allowing sections to be easily solvent cemented to standard PVC fittings. This enables it to work economically and seamlessly with *Carlson's P&C Flex® Corrugated Flexible PVC Conduit*, Standard Sweeps, and Transition Adapters. No other system is as easily adaptable as Bore-Gard.

8. No Reel-Handling Equipment:

HDPE is shipped wound on large reels. For example, 4" SDR 13.5 HDPE comes on 8 ft. diameter, 1,400 lb. reels. 6" SDR 13.5 HDPE comes on 10 ft. diameter, 1,500 lb. and 2,300 lb. reels. These large and heavy reels require the use of expensive reel handling trailers and other power equipment, such as backhoes, to transport the reels to and from the job site. Bore-Gard comes in convenient bundles in 10 ft. and 20 ft. lengths that can fit onto the horizontal drill rig trucks and trailers, keeping equipment and transportation costs to a minimum. Once at the job site, individual sticks can be unloaded by hand without any power equipment, minimizing labor and equipment costs.

9. No Fusion Splicing Equipment:

HDPE requires use of either a butt-fusion welder or an electro-fusion welder and special couplings to join two pipe sections. Fusion welder machines cost from \$14,000 to \$40,000 dependent on the range of pipe sizes they can weld. Bore-Gard is much more convenient as it does not require any fusion splicing equipment. Sections are joined together by one person's hand assembly. Tools or expensive equipment are not required. No other conduit system is simpler or faster.

10. No Costly Reels to Return:

The reels for HDPE pipe are large, heavy, and difficult to handle. After the pipe is used, the reels must be returned to the original manufacturer for reuse. First, the reels must be disassembled before return shipment, which requires expensive labor and transportation charges to be incurred by the contractor. Bore-Gard eliminates all of these problems. Packaged in convenient bundles, there are no extraordinary labor and reel return charges. Simplify your trenchless conduit installations by using Bore-Gard PVC Trenchless conduit.



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