



**Prime Conduit Inc.**

**Bore-Gard®**  
**Trenchless Raceway**

## Technical Data – Bore-Gard® Trenchless Raceway

Part Number	Wall Type	Trade Size	<sup>4</sup> OD (in.)	<sup>4</sup> Min. Wall Thickness (in.)	<sup>1</sup> Pull Test (lb <sub>f</sub> )	<sup>2</sup> Bend & Pull (lb <sub>f</sub> )	<sup>3</sup> Min. Crush (lbs)	Listings
BG340SP	Sch 40	3"	3.5	0.216	7,500	7,000	1,000	ETL, CSA
BG440SP	Sch 40	4"	4.5	0.237	9,200	8,700	900	ETL, CSA
BG540SP	Sch 40	5"	5.56	0.258	11,800	11,300	900	ETL, CSA
BG640SP	Sch 40	6"	6.63	0.280	14,500	14,000	850	ETL, CSA
BG840SP	Sch 40	8"	8.63	0.322	18,500	*18,000	850	N/A
BG280SP	Sch 80	2"	2.38	0.218	3,150	3,000	2,000	ETL
BG380SP	Sch 80	3"	3.5	0.300	9,800	9,300	2,000	ETL
BG480SP	Sch 80	4"	4.5	0.337	12,500	12,000	2,000	ETL

<sup>1</sup>Pull Test UL651 6.12.2.1 - @ 80 PSI

<sup>2</sup>Bend & Pull UL651 6.12.2.2 - 65' Bend Radius @ 80 PSI

\*8" Bend & Pull tested at 60 PSI/72' Bend Radius

The Bend & Pull and Pull test results are recorded in lbf (pounds-force). This is NOT equivalent to PSI (lbf/in<sup>2</sup>). It is the responsibility of the customer to make that conversion (if needed) based on installation/equipment conditions.

<sup>3</sup>Schedule 40 - Meets UL651 6.9, NEMA TC-2, & CSA C22.2 No.211.2 6.3 ; Schedule 80 – Meets UL651 6.9

<sup>4</sup>Average OD & Minimum Wall Thickness per UL651 & NEMA TC-2.

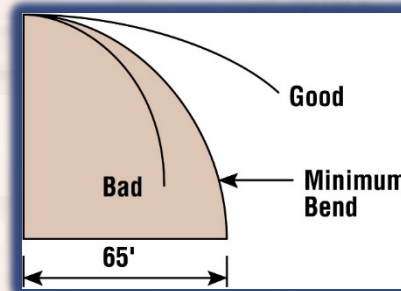
US Patent 6,789,629

ETL listed Bore-Gard is equal to or exceeds the minimum cell classification specified in UL651 (4.1.1) 12123 as described in Standard Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds in ASTM D1784. The cell classification specifies the properties of base resin, impact resistance, tensile strength, modulus of elasticity, and deflection temperature under load. Refer to UL651 and ASTM D1784 for additional information.



**Minimum Bend Radius:** Turns in a bore path should be made gradually. Bore-Gard has a minimum bend radius of 65'. Bending more than this recommended limit will stress the joint. The drawing illustrates the 65' bend radius. To obtain a 90° turn you will require 65' of forward distance in any directional plane.

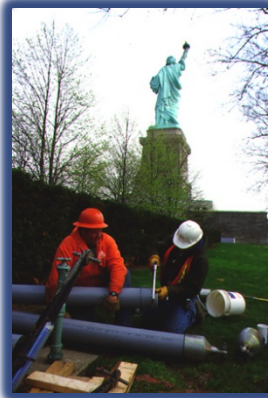
**Note:** Successful directional drilling, reaming and pipe installation are influenced by numerous factors including the reamed diameter, pull rate, fluid chemistry, fluid flow rate, drill rod diameter, soil conditions, equipment performance and condition, and operator experience. All manufacturers' equipment recommendations and training should be followed for successful drilling results.



Meets the rigorous requirements of horizontal directional drilling for electrical and datacom applications. Bore-Gard is ETL Listed and conforms to UL651, therefore it is approved and intended for use with 90°C (194°F) wiring per UL651 1.2 & 6.15 or optical fiber/communications cabling.

## Assembly – Bore-Gard® Trenchless Raceway

1. Position Bore-Gard with the print line facing up.
2. Remove plastic locking strap and set it aside.
3. Remove end caps. On first stick only, trim spigot end of Bore-Gard at the groove before attaching the pulling eye/gripping attachment.
4. Insert pulling eye into spigot end of Bore-Gard.
5. Tighten pulling eye so that it expands against the interior of the conduit. Use of sleeve over O.D. of conduit is recommended.
6. The installer should use appropriate instrumentation to insure that maximum pull rating is not exceeded.
7. Take next piece of Bore-Gard (10' or 20') and insert spigot end into belled end of the first piece until the insertion line is no longer visible.
8. Slide the plastic locking strap into slot on the side of the bell. Push the strap in completely. It is not necessary to remove or cover the handle on the strap.
9. Repeat with remaining sections as space allows.
10. Bore-Gard is now ready for installation.



Trim spigot end before attaching pulling eye.



Tighten pulling eye so that it expands against the interior of the conduit.



Attached the next piece of Bore-Gard.

## Packaging – Bore-Gard® Trenchless Raceway



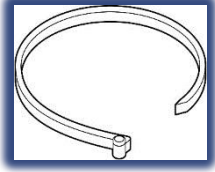
ETL except where noted by ♦  
CSA except where noted by \*

Part Number		Wall Type	Trade Size	Package Quantity (ft./bundle)		Bundles per Truckload		Feet per Truckload	Approx. Wt. per 100 ft. (lbs)
10'	20'			10'	20'	10'	20'		
BG340SP-010	BG340SP-020	Sch 40	3"	350	700	56	28	19,600	164
BG440SP-010	BG440SP-020	Sch 40	4"	260	520	56	28	14,560	234
BG540SP-010	BG540SP-020	Sch 40	5"	230	460	40	20	9,200	317
BG640SP-010	BG640SP-020	Sch 40	6"	200	400	40	20	8,000	418
*♦BG840SP-010	*♦BG840SP-020	Sch 40	8"	140	280	32	16	4,480	647
-	*BG280SP-020	Sch 80	2"	-	2800	-	15	42,000	101
*BG380SP-010	*BG380SP-020	Sch 80	3"	350	700	56	28	19,600	210
*BG480SP-010	*BG480SP-020	Sch 80	4"	260	520	56	28	14,560	308



Easy to handle 10 and 20 foot lengths promotes fast, easy assembly, eliminates wasted product, makes it ideal for tight/confined spaces, easy to transport (10 foot fits in a pick-up truck), and no reel handling/costly reel returns

## Accessories – Bore-Gard® Trenchless Raceway



Size	Locking Straps
2"	GSUP2
3"	GSUP3
4"	GSUP
5"	GSUP5
6"	GSUP6
8"	GSUP8

Rectangular Locking Strap w/No-slip Barbs and Crush Rib – made of Nylon material.

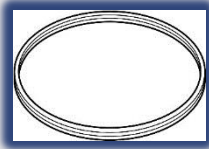
Fast, easy, secure connection. No cementing/tools required. Eliminates costly fusion welding.

Shipped installed with product - always have the right size when you need it.

Barbs prevent strap from slipping or being pulled out during installation.

Crush rib provides a frictional fit. Prevents roll-out from locking groove.

Size	Gaskets
2"	HBOR2
3"	HBOR3
4"	HBOR
5"	HBOR5
6"	HBOR6
8"	HBOR8



Factory-installed Triple-Lobed Gasket – made of Nitrile Material

Provides a watertight seal to keep out ground water and drilling fluid.

Can contain air pressure up to 80 PSI during cable installation.



Size	Pulling Eyes
2"	BG2PE
3"	BG3PE
4"	BG4PE
5"	BG5PE
6"	BG6PE
8"	BG8PE

1. Trim spigot end before attaching pulling eye.
2. Insert pulling eye into spigot end of Bore-Gard.
3. Tighten pulling eye so it expands against the interior of the conduit. Use of sleeve over O.D of conduit is recommended.
4. Installer should use appropriate Instrumentation to insure maximum pull rating is NOT exceeded.
5. Attach next stick of Bore-Gard.

Bore-Gard is shipped with caps. The end caps keeps the product clean and clear from debris, making the cable/innerduct installations faster.



## Markings



2" – 6" ETL Listed to UL651



3"-6" Schedule 40 CSA Listed



National Electrical Code



NEMA TC-2



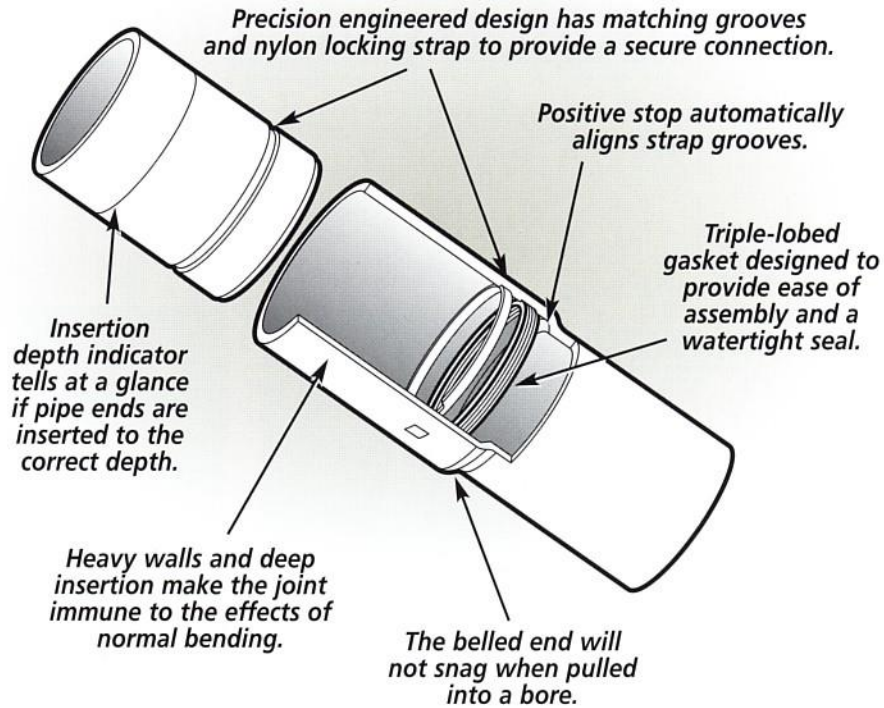
Bore-Gard is Made in the U.S.A.

## Utility & Telecommunication Markets

### Outdoor Horizontal Directional Drilled

- Under Roads, Highways, Airport Runways, Railways & Waterways • Metropolitan/Urban Areas • Rural Areas • or any other buried conduit application....

## Bore-Gard® Trenchless Raceway



## Features



Easy to handle 10 and 20 foot lengths

For bores up to 1000 feet

Fast easy assembly

Strong water-tight joints without cement

Fits standard rigid nonmetallic conduit Fittings

All nonmetallic construction

Superior crush and stiffness over HDPE

Eliminates the need for chains and backing plate installation

Type: Schedule 40 - Heavywall Schedule 80 - Extra Heavywall

Sizes: Schedule 40 - 3", 4", 5", 6", & 8" Schedule 80 - 2", 3" & 4"

Product	Specification																																																	
 Schedule 40 PVC Heavy Wall	ETL Certified to UL651, NEMA TC-2, Federal Specification WC1094A ½", ¾", 1", 1¼", 1½", 2, 2½", 3", 3½", 4", 5", 6" Concrete encased & direct burial underground applications; exposed or concealed applications aboveground Rated for use with 90° C conductors																																																	
 Schedule 80 PVC Extra Heavy Wall	ETL Certified to UL651, NEMA TC-2, Federal Specification WC1094A ½", ¾", 1", 1¼", 1½", 2, 2½", 3", 4", 5", 6" Listed for aboveground & belowground applications including areas subject o physical damage [352.12 (C)] Rated for use with 90° C conductors																																																	
 Schedule 40 PVC Heavy Wall	½", ¾", 1", 1¼", 1½", 2, 2½", 3", 3½", 4", 5", 6" Concrete encased & direct burial underground applications; exposed or concealed applications aboveground Rated for use with 75° C conductors																																																	
 Schedule 40 Heavy Wall PVC Utility	Non-UL Listed, Designed for power utility applications 1½", 2, 2½", 3", 4", 5", 6", 8" Concrete encased, direct burial, power utility applications ; Rated for use with 90° C conductors or cable																																																	
 Telephone Duct	NEMA TC-10 & Bellcore CAO8546 (Types B and C) 4" PVC: Type B & Type B Heavy Wall, Type C, Type C Tel-Gard, Type D Concrete encased (Types B & C), Direct Bury (Type C), Exposed Applications (Type D)																																																	
 P&C Duct	<table border="1"> <thead> <tr> <th>Type</th> <th>90° Cable</th> <th>Size</th> <th>TC 6 &amp; 8</th> <th>ASTM F-512</th> <th>Concrete Encased</th> <th>Direct Burial</th> </tr> </thead> <tbody> <tr> <td>*EB-20</td> <td>√</td> <td>2", 3", 4", 5", 6"</td> <td>√</td> <td>√</td> <td>√</td> <td></td> </tr> <tr> <td>EB-35 Heavy Wall</td> <td>√</td> <td>2", 3", 4", 5", 6"</td> <td>√</td> <td>√</td> <td>√</td> <td></td> </tr> <tr> <td>DB-60</td> <td>√</td> <td>2", 3", 3 ½" 4", 5", 6"</td> <td>√</td> <td>√</td> <td>√</td> <td>√</td> </tr> <tr> <td>DB-120 Heavy Wall</td> <td>√</td> <td>1, 1 ½" 2", 3", 4", 5", 6"</td> <td>√</td> <td>√</td> <td>√</td> <td>√</td> </tr> <tr> <td>DB-100</td> <td>√</td> <td>4", 5", 6"</td> <td>√</td> <td>√</td> <td>√</td> <td>√</td> </tr> <tr> <td>DB-100 DWP</td> <td>√</td> <td>3", 4", 5"</td> <td>√</td> <td>√</td> <td>√</td> <td>√</td> </tr> </tbody> </table>	Type	90° Cable	Size	TC 6 & 8	ASTM F-512	Concrete Encased	Direct Burial	*EB-20	√	2", 3", 4", 5", 6"	√	√	√		EB-35 Heavy Wall	√	2", 3", 4", 5", 6"	√	√	√		DB-60	√	2", 3", 3 ½" 4", 5", 6"	√	√	√	√	DB-120 Heavy Wall	√	1, 1 ½" 2", 3", 4", 5", 6"	√	√	√	√	DB-100	√	4", 5", 6"	√	√	√	√	DB-100 DWP	√	3", 4", 5"	√	√	√	√
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 Multi-Gard	<table border="1"> <thead> <tr> <th>Material</th> <th>Application</th> <th>Type</th> <th>Size</th> <th>Approvals</th> </tr> </thead> <tbody> <tr> <td>PVC</td> <td>Outdoor - Direct Bury, Concrete Encased</td> <td>Type C, Type 40, Type 80</td> <td>3-Way 1-1/2", 4-Way 1-1/4"</td> <td>UL Listed, ETL Certified to UL651</td> </tr> <tr> <td>Fiberglass</td> <td>Outdoor (UV Resistant) - Bridge Crossings, Areas Subject to Physical Damage (Bullet-Proof)</td> <td>Heavy or Bullet Resistant</td> <td>3-Way 1-1/2", 4-Way 1-1/4"</td> <td></td> </tr> <tr> <td>Steel</td> <td>Outdoor - Bridge Crossings, Areas Subject to Physical Damage (Vandalism &amp; Crush)</td> <td>Galvanized or PVC Coated Steel</td> <td>3-Way 1-1/2", 4-Way 1-1/4"</td> <td>Conforms to NEC Article 300.22 and NFPA 90A for installation of communication cables inside buildings</td> </tr> <tr> <td>EMT</td> <td>Indoor - Inside Buildings</td> <td>EMT</td> <td>3-Way 1-1/2", 4-Way 1-1/4"</td> <td>UL Listed EMT Outer Shell, Conforms to NFPA 90A for installation of communication cables inside buildings</td> </tr> <tr> <td>Boreable</td> <td>Outdoor - Horizontal Directional Drilled</td> <td>Type 40 PVC Outer Duct</td> <td>3-Way 1-1/2", 4-Way 1-1/4"</td> <td>Minimum Crush per CSA C22.2 No.211.2, UL 651 &amp; NEMA TC-2</td> </tr> </tbody> </table>	Material	Application	Type	Size	Approvals	PVC	Outdoor - Direct Bury, Concrete Encased	Type C, Type 40, Type 80	3-Way 1-1/2", 4-Way 1-1/4"	UL Listed, ETL Certified to UL651	Fiberglass	Outdoor (UV Resistant) - Bridge Crossings, Areas Subject to Physical Damage (Bullet-Proof)	Heavy or Bullet Resistant	3-Way 1-1/2", 4-Way 1-1/4"		Steel	Outdoor - Bridge Crossings, Areas Subject to Physical Damage (Vandalism & Crush)	Galvanized or PVC Coated Steel	3-Way 1-1/2", 4-Way 1-1/4"	Conforms to NEC Article 300.22 and NFPA 90A for installation of communication cables inside buildings	EMT	Indoor - Inside Buildings	EMT	3-Way 1-1/2", 4-Way 1-1/4"	UL Listed EMT Outer Shell, Conforms to NFPA 90A for installation of communication cables inside buildings	Boreable	Outdoor - Horizontal Directional Drilled	Type 40 PVC Outer Duct	3-Way 1-1/2", 4-Way 1-1/4"	Minimum Crush per CSA C22.2 No.211.2, UL 651 & NEMA TC-2																			
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 Intra-Gard	Schedule 40 & Type C: 1-1/4", 1-1/2", 2" 4-Way, 6-Way, and 4-Way Hybrid Direct bury & concrete encased applications; Bellcore GR-356 Core																																																	
 Bore-Gard Trenchless Raceway	ETL Certified to UL651, CSA Certified (Schedule 40) – 3", 4", 5", 6"; 8" Sch 40 No Listing Available ETL Certified to UL651, (Schedule 80) – 2", 3", 4" Horizontal directional drilling for electrical and datacom applications																																																	
 PV Mold	Exceeds NESC requirements, Designed in accordance with NEMA TC-19 Standard Duty: 1, 2", 3", 4", 5" Heavy Duty Schedule 40: 1½", 2", 3", 4", 5", 6" Extra Heavy Duty Schedule 80: 2" – 3" Pole riser system designed to protect communications power cable installed on poles																																																	
 Split Duct & Kits	Schedule 40 Duct & Kits: 2", 2 ½", 3", 3 ½", 4", 5", 6"; Schedule 80 Duct: 2", 4"; C Duct & Kits: 4" Repair broken ductwork																																																	
 Fittings & Accessories	Couplings, adapters, junction boxes, end bells, reducers, clamps, switch boxes, access fittings																																																	
 Elbows & Sweeps	Schedule 40, Schedule 80, DB Sweeps, and Telephone Duct Sweeps																																																	