

Connecting Customers Worldwide



 **PYRAMID
INDUSTRIES**
LAMSON & SESSIONS



Pyramid Industries, Inc.

is an ISO 9000 registered leading manufacturer of High Density Polyethylene (HDPE) used as conduit to protect and deliver your transmission needs.

Commonly known as innerduct, when placed within a larger conduit, it houses fiber optic and copper cable/wire for use in Telecommunications, Data, MSO, Broadcast, Signal Control, LAN, Security, and Utilities.

Pyramid offers a variety of continuous length conduit systems as well as UL[®] listed premise and OSP conduit systems. Innerduct types include smoothwall, ribbed, corrugated and specialty duct which meet and exceed industry standards for installation and protection of cable.

We look forward to helping you connect your customers to the World.



6" SDR 13.5 HDPE
on a Steel Reel



INSTALLATION

Outside and Inside Conduit Systems

are completed using a variety of methods and products. A secure connection is made from your door to your customer's desk, and will provide permanent protection of your cabling system. The success of your conduit and cable installation depends on what type of product you choose. Keeping current and future installations in mind, Pyramid will assist you in making the best decision.

OUTSIDE PLANT



Plowing

Several ducts can be installed economically along railroad tracks, or other areas using a specially equipped bulldozer. 1-1/4" to 2" SDR 11 Smoothwall is typically used.

1-1/4"

2"



Directional Boring

The least invasive method of duct installation, usually used in suburban areas, with a variety of products. 1-1/4" to 6" Smoothwall is typically used.

1-1/4"

6"



Trenching

Multiple innerduct lines are commonly buried using different colored duct and or stripes. Proper back tension and filling are required. 1-1/2" to 2" Smoothwall is typically used.

1-1/2"

2"

INSIDE PLANT



Aerial Lashing

Aerial Duct is lashed to existing cable support wire using cable lashing equipment. 1" to 2" Aerial Duct is typically used.

1"

2"



Aerial Hanging

Figure-8 Duct has a choice of two integrated mounting strands that attach directly to poles using 3-bolt mounting clamps, and Pyramid stripping/cutting tools. Figure-8 Duct is 1-1/4" with 6.6M or 10M strand.

1-1/4"

1-1/4"



Interior Raceways

UL' listed Fire-Flex Corrugated Plenum or Riser Duct is placed throughout building interiors to provide fiber optic connectivity. (See page 8 for installation details). 1" to 2" Plenum or Riser Duct is typically used.

1"

2"

Fiber Optic Innerduct for OUTSIDE PLANT

Fiber Optic Innerduct

is manufactured in three basic shapes: **Smoothwall**, **Corrugated**, and **Ribbed Duct**. Smoothwall and Ribbed can be placed In-Conduit or installed directly in the ground, while Corrugated is typically installed In-Conduit. Innerduct is available in a wide range of **sizes, colors and wall thicknesses**. HDPE conduit materials meet or exceed PPI and all Telecommunication requirements. Products are manufactured with U.V. stabilizers and antioxidants to ensure optimum performance and environmental stress crack resistance. Innerduct options include Pre-lubricated Duct, Silicone UltraGlide, Innerglide, Pre-installed Rope/Tape, and or Fiber. Delivered in long continuous lengths on a variety of reel sizes.

Smoothwall Speed Duct

The interior wall of Speed Duct features a smooth finish which provides a low coefficient of friction. Available in standard O.D. Controlled ASTM D-3035 and I.D. Controlled D-2239 specifications. Custom sizes are available.

Sizes from 1/2" to 6".



Schedule 40/80 PE Duct

Pyramid supplies a complete range of PE conduits to serve the needs of Power, Telephone, and Cable TV industries. Both share standard ASTM D-3035 O.D.'s with varying wall thicknesses.

Sizes from 1/2" to 6".



Corrugated

innerduct offers maximum flexibility without sacrificing integrity. This lightweight duct is typically installed In-Conduit. Standard color is orange, and other colors are available with or without ID stripes.

Sizes from 1" to 2".



Silicone UltraGlide

This OPTION is available in all sizes and styles of innerduct. UltraGlide integrates silicone polymers with high density polyethylene throughout the HDPE conduit, this produces a low coefficient of friction while maintaining an excellent burn-through resistance.



Ribbed Duct

is available in Type 1 and Type 2 Thicknesses.

Selected because of its pulling ability. Ribbed Duct styles include:

- Ribbed In and Out
- Smooth Out/Ribbed In
- Ribbed Out/Smooth In

Sizes from 1" to 2".



OSP INNERDUCT

Common Features

- Long service life with excellent chemical resistance.
- Sequential footage markings.
- Minimum friction resistance.
- Excellent environmental stress crack resistance.
- U.V. stabilizers standard.

Options

- Pre-installed pull tape/rope or cable.
- Permanent co-extruded ID stripes in a choice of colors.
- Multiple lengths per reel.
- Interior Ribbed Surface on smoothwall products.

Aerial Duct

Aerial Duct is engineered to provide excellent protection for fiber optic cable. Duct is manufactured using aerial grade U.V. stabilized HDPE. Aerial Duct is excellent for blowing-in fiber, and is available with internal ribs, in rodent-resistant medium, heavy, or other wall thicknesses. Aerial Duct is lashed to existing support cable. Sizes from 1" to 2".



Figure-8 Aerial Duct

Figure-8 Duct reduces installation time and cost with its integrated strand. Available in standard 1-1/4" smooth or ribbed interior, with 6.6 M or 10.0 M flooded/galvanized strand. Unlike other manufacturers, Pyramid's Figure-8 is a truly round conduit, which assures airtight connections for optimum cable placement. Available with pre-installed pull tape, web slitters/cutters and expansion couplers. Standard Size 1-1/4".



In-Conduit for OUTSIDE PLANT

Smoothwall & Corrugated

Duct is often installed into existing conduits of HDPE, Steel, or PVC. Combinations of three 1-1/4" ducts, or four 1" ducts are commonly placed inside a 4" conduit. The choice of innerduct depends upon the length of each run and the complexity of the conduit system.



Corrugated Combinations

Corrugated Innerduct is typically used for short/ straight runs of 1,000 feet or less. Multiple diameters can be run within a 4" conduit.



Smoothwall Combinations

Smoothwall innerduct is recommended for runs greater than 1,000 feet, or more challenging pulls where greater tensile strength is required.



** Ask about our custom size innerducts for your in-conduit system.*

Directional Boring Duct for OUTSIDE PLANT

Directional Boring Duct

Large Diameter HDPE has revolutionized the Direct Bore industry. HDPE's physical properties, high tensile strength-to-weight ratio, excellent crush resistance, low coefficient of friction, and continuous length configurations make this product ideal for direct boring.

UL® Listed Non-Metallic Continuous Length HDPE

Pyramid's UL Listed Nonmetallic Conduit is used as a protective pathway for cables and wires in compliance with NEC Articles 343 and 347. Available in Schedule 40, 80 and SDR 13.5 conduit in continuous lengths on reels or coils, with sequential footmarks every two feet. Standard color is black.

Sizes from 1-1/4" to 4".



NEMA TC-7 PE Duct

TC-7 O.D.'s are compatible with ASTM D-3035 and schedule 40/80 rated conduit. These specifications have unique wall thicknesses as determined by NEMA guidelines. Pyramid can provide unique grades of HDPE to meet special electrical specifications.

Sizes from 1/2" to 3".

Power Utility Duct Common Features

- Long service life with excellent chemical resistance.
- Pre-installed pull tape/rope or cable.
- Permanent co-extruded ID stripes in a choice of colors.
- Sequential footage markings.
- Moisture-proof and water tight
- Customized continuous lengths to suit construction needs.



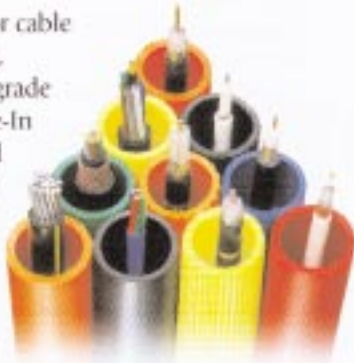
Specialty Duct/ (Innerduct Options)

Cable-In Conduit, Innerglide, & Toneable

Pyramid Specialty Duct was developed to answer customer needs. These options are available in a variety of our standard products for any type of Outside Plant application.

Cable-In Conduit

Pre-installing your fiber or cable offers superior protection, time/cost savings and upgrade efficiency. Electrical Cable-In Conduit is UL® listed and compliant to NEC Article 343 and available in Schedule 40, 80, or SDR 13.5 conduit for use in outdoor applications. Sizes from 1-1/4" to 6".



Toneable Duct

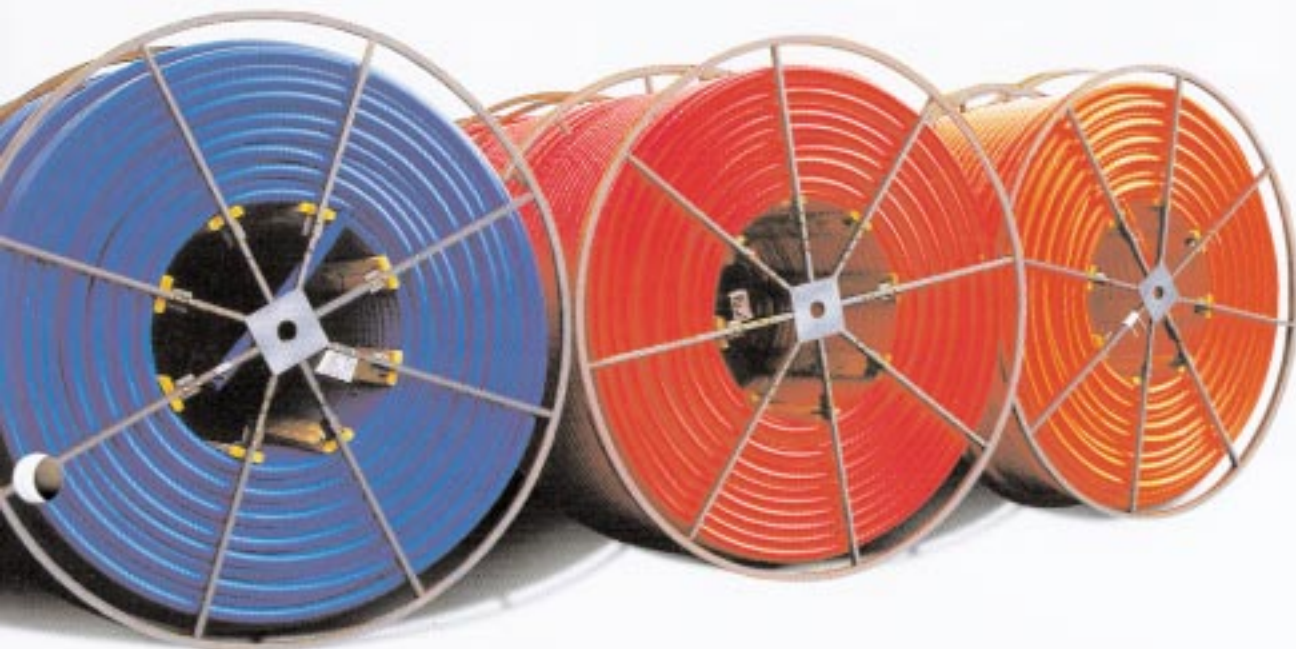
Locating your duct once it is buried is done easily by using Toneable Duct. A copper strand is extruded within the wall of smoothwall duct and located using conventional transmission/receiving and toning equipment. Available in a variety of diameters and wall thicknesses.



Innerglide

Innerglide is an extremely low coefficient of friction HDPE conduit, recommended for long cable installations of difficult geometries. Contact us directly for more facts and information.

Available in a variety of smooth exterior wall styles and sizes.

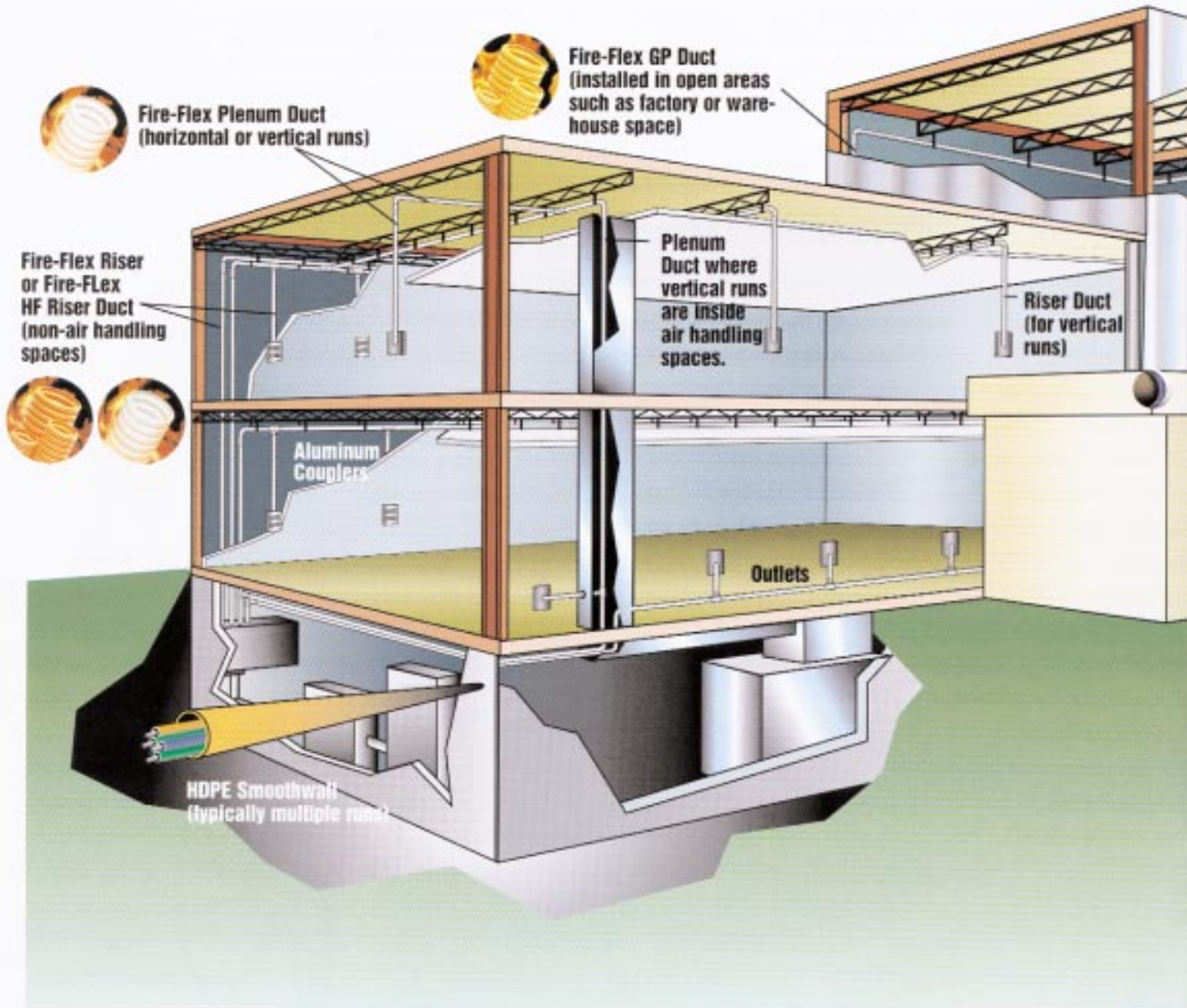


Fiber Optic Innerduct for INSIDE PLANT



Fire-Flex Plenum, Riser, and GP Duct

Once fiber and cable reach your building Pyramid is there to complete your communication system's connectivity. Pyramid offers four types of innerduct to meet specific building installation requirements. Plenum, Riser and GP Duct are UL® listed. Custom lengths and Slit Duct are available upon request. NOTE: HDPE Corrugated products are not approved for interior installation.





Fire-Flex Plenum Duct

LISTED
E-143102

Fire-Flex Plenum Duct is a flexible, nonmetallic corrugated raceway for installation in ducts, plenums, risers or other environmental air spaces in accordance with NEC Article 770-51(e). Standard color is white. (Other colors are available).

Sizes from 1" to 2".



Fire-Flex HF Riser Duct

LISTED
E-143102

Pyramid Industries offers a raceway that is low smoke and halogen free. Riser Duct is a flexible non-metallic raceway installed in riser spaces in compliance with NEC Article 770-51(f). Standard color is white. Sizes from 1" to 2".



Fire-Flex Riser Duct

LISTED
E-143102

Pyramid Fire-Flex Riser Duct is a flexible, non-metallic raceway installed in vertical runs or in shafts, and capable of preventing the spread of fire between floors. This product is compliant to NEC Article 770-51(f). Standard color is orange. (Other colors are available). Sizes from 1" to 2".

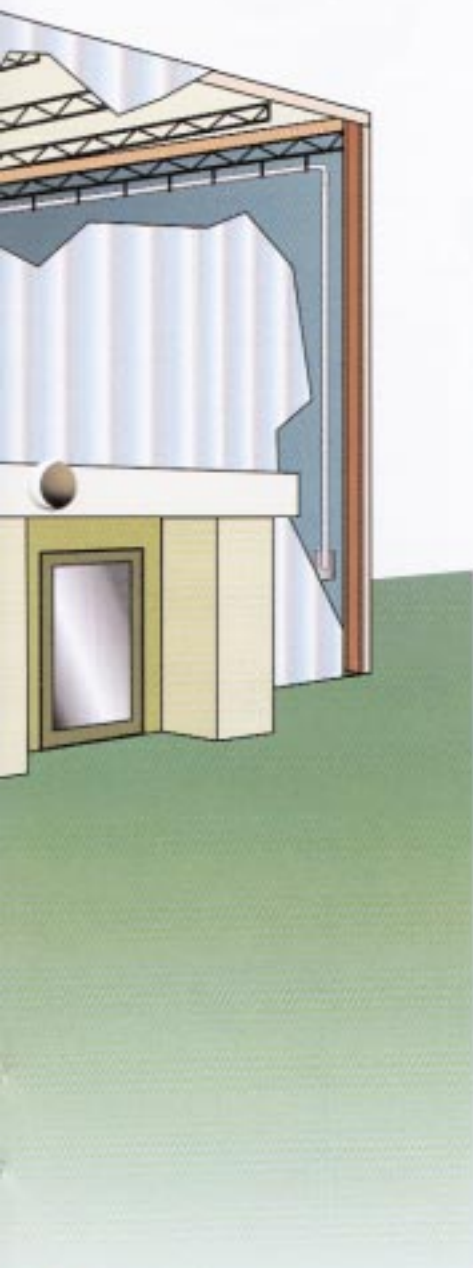


Fire-Flex GP Duct

LISTED
E-143102

Pyramid General Purpose Fire-Flex is a pliable, nonmetallic fire-resistant raceway for installation in general purpose applications, in accordance with NEC Article 770-51(g). Standard color is orange. (Other colors are available). Sizes from 1" to 2".

Custom lengths and Slit Duct are available upon request with all Fire-Flex products.



Accessories for Innerduct

Couplers

Pyramid carries a complete line of couplers to meet your conduit system needs.

* Fusing equipment available for rent or purchase.



Aluminum Coupler



E-Loc Coupler



Airtight Compression Coupler



Internal Plastic Coupler



Stainless Steel Coupler



Barbed Coupler



Spanner Couplers



*Electrofusion Coupler



Terminating Coupler

Cutters and More

Cutters for all size duct along with end caps, duct plugs, pull tape and rope are supplied in different types.



Pull Rope



Kevlar Pull Tape



Polyester Pull Tape



Duct Plug



BC1 Scissor Shear



RS 1 Ratchet Shear



RS 2 Cutter



End Cap



Figure-8 Web Sitter



Figure-8 Jacket Sitter



Marker Tape

Pulling Systems

Connectors, harnesses, swivels, pulling eyes, and u-joints for direct drilling, in-conduit and other installations. Lubricants are also available in 1/2 and 5 gallon containers.



Swivel Connector



Pulling Harness



Breakaway Swivel



Innerduct Pulling Eye



Swivel Pulling Eye



PE Pulling Eye



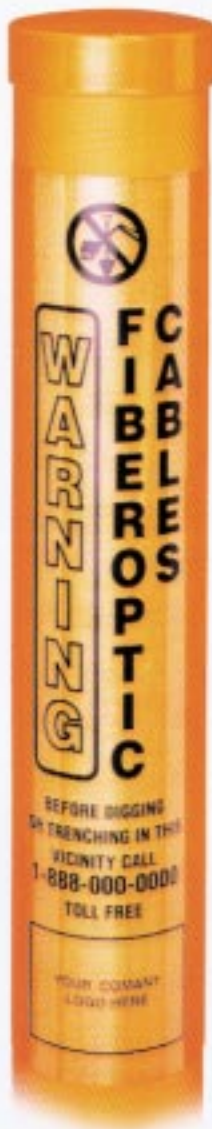
Direct Drill Swivels



Direct Drill U-Joints



Lubricants

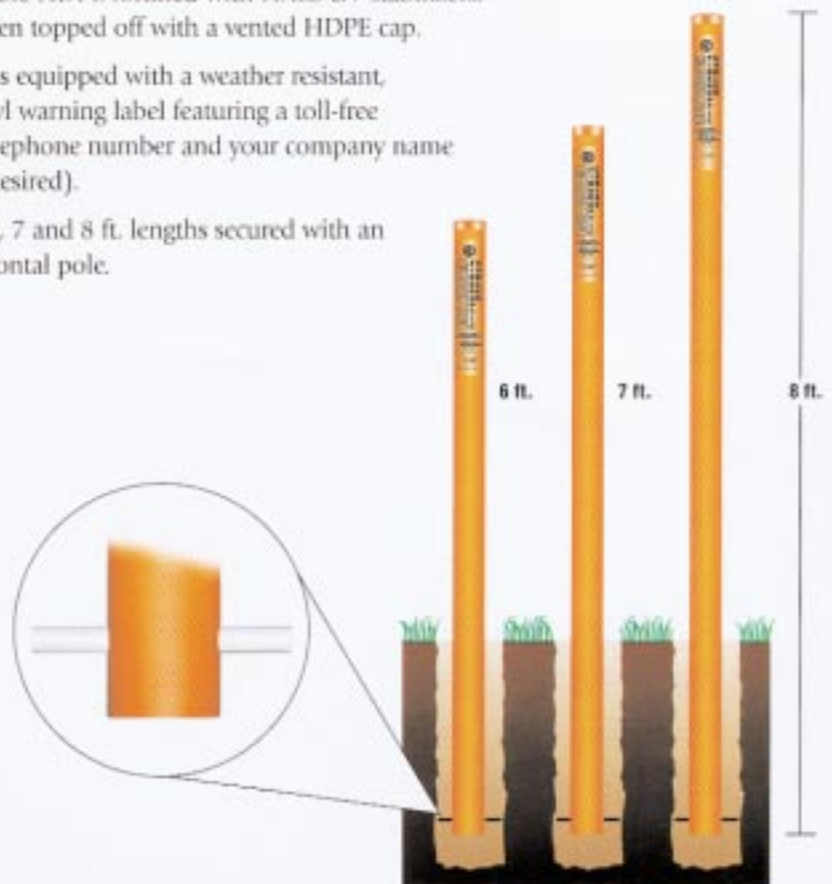


PM35 Fiber Markers

Pyramid Industries PM 35 Fiber Markers indicate the presence of underground telephone and fiber optic cable. Made of durable HDPE fortified with HALS UV stabilizers. The post is then topped off with a vented HDPE cap.

Each marker is equipped with a weather resistant, premium vinyl warning label featuring a toll-free emergency telephone number and your company name and logo (if desired).

Available in 6, 7 and 8 ft. lengths secured with an 8" long horizontal pole.



Manufacturing Locations



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