Flexible Duct in a Trench

In any application where a flexible duct is placed in a trench, product selection and proper installation is critical to successful cable pulls. All flexible conduit products, including smoothwall and corrugated types can undulate, which will result in excessive friction and difficult cable pulls even for distances as short as 100 feet. Key points to remember when using flexible duct in a trench;

- **Only larger diameters such as 1 1/2" or 2" ID duct should be employed;** a larger diameter provides less surface contact (and therefore lower friction) and is more likely to provide a successful installation. Small diameter conduit undulates more easily and with sharper bends resulting in difficult or impossible cable installation.
- **Flexible duct must have tension applied to it during backfilling** to prevent the duct from being moved by the backfill material. It is recommended that the conduit be placed under tension by tying it to stakes at both ends and in long trenches at intermediate points. This will prevent the conduit from moving during the backfill process thus reducing undulation of the conduit.
- **Fine backfill materials must be used.** To prevent cutting or crushing the duct, large rocks or backfill containing heavy or sharp material should never be used.

ENDUCT Smoothwall (or ENDUCT Ribbed) duct is very strong relative to crush resistance, but it has a great deal of memory and can be difficult to embed in a trench in cold weather. All smoothwall-type products will attempt to re-coil after removal from their packaging reel. However, when care is taken to keep it straight during backfill, ENDUCT can provide a satisfactory installation. Large diameter (1 1/2" or 2" ID) is strongly recommended. SDR 11 or 13.5 is recommended to provide a strong conduit that will not ovalize under load.

ENDOCOR, Standard Corrugated innerduct, is not recommended for trench applications; it is too flexible and has limited crush resistance. If ENDOCOR is used in a trench, it is critical that careful installation procedures be followed including:

- Fine backfill materials only to prevent crushing or puncture of the duct
- Conduit is under tension during backfill to prevent undulation
- Large diameter 1 1/2" or 2" conduit is used

NOTE: Selection of the appropriate product and proper installation is the user's responsibility. Endot assumes no responsibility for improper installation that results in high pull tensions or duct restrictions due to crushing of the duct during trench backfilling.

CORPORATE HEADQUARTERS
60 Green Pond Road
Rockaway, NJ 07866
800-443-6368 • FAX 973-625-4087

ENDOT INDUSTRIES, INC.
www.endot.com • e-mail: info@endot.com

PLANT LOCATIONS
Greeneville, TN
Pryor Creek, OK

5/07 1.5M