

Methods of laying optical cables in ducts



Summary of Content

Optical cables in ducts can be installed using pulling, blowing (jetting), or floating techniques, each suited to specific duct conditions and cable types.

1. Pulling Method

The pulling method is the traditional technique for installing optical fiber cables in ducts. It involves manually or mechanically pulling the cable through the duct using a rope or winch. Key considerations include:

- Tensile load limits: Excessive pulling can damage fibers; maximum tension should follow the cable datasheet specifications, typically under 600 lbf (2,700 N) for standard loose tube or ribbon cables .
- Bend radius: Maintain the minimum bend radius during installation to prevent microbending or fiber breakage. For example, a cable with 0.46 in diameter requires a minimum working bend radius of 6.9 in (17.7 cm) during pulling .
- Coiling and handling: Use figure-eight coiling for lengths over 30 m to prevent twisting and kinking .
- Route planning: Windings in the duct trajectory contribute more to tension than bends, so careful planning of duct layout is essential .

2. Blowing (Jetting) Method

The blowing method uses compressed air to propel the cable through the duct, often combined with a short initial push using a mechanical device:

Article Content

Installation of optical cables in ducts

This book describes and compares several methods for installing cables in ducts. In the past pulling was the most popular technique,

OPTICAL FIBRE CABLES INSTALLATION GUIDE

Cable laying refers to deploying the optical fibre cable between the ends to be connected. There are several laying methods

Duct Installation of Fiber Duct Cable Pulling & Air Blowing Method

Fiber optic cable duct installation methods, optical cable installation preparations, and optical fiber cable installation

HDD Methods for Optical Fibre Cable Laying

This document provides guidelines for laying optical fibre cables using horizontal directional drilling (HDD) and the cable blowing

Pulling and blowing a cable in a duct

Readers of this document are encouraged to seek information on specific matters regarding Optical cables and components from the

Air-Assisted Installation Considerations

Placing optical fiber cables in duct systems using air-assisted installation techniques presents different installation requirements than

Cable jetting

In the 21st century the cable jetting technique is used worldwide, from small optical telecom cables (1.8 mm diameter) in small

Installation of Optical Fiber Cable by Blowing/Jetting

There are two basic methods of cable installation in a preinstalled duct – Pulling method and Blowing method. The cable installation

Duct Installation of Fiber Optic Cable

To ensure all specifications are met, consult the specific cable specification sheet for the cable you are installing. Corning Optical

Contact Us

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