

Key Points for Air-blown Optical Cable Laying



Overview

Installation of Optical Fiber Cable by Blowing/Jetting Cable blowing is the process of installation of optical fiber cable into a pre-installed duct. Compre.

Key Takeaways

Air-blown optical cables are installed by combining mechanical pushing with high-speed airflow to efficiently propel the cable through pre-installed ducts. 1.

Planning and Preparation

Begin by carefully planning the cable route, considering existing infrastructure, obstacles, and access points. Clear the pathway of debris, sharp edges, or moisture that could damage the cable. Gather all necessary equipment, including the blowing machine, compressed air source, fiber optic cables, connectors, and lubricants if needed.

2.

Cable Pathway Preparation

Inspect and clean the duct or microduct to ensure smooth airflow. Remove dust, moisture, or obstructions that could increase friction or cause cable damage. Ensure the conduit diameter is slightly larger than the cable to facilitate easier blowing and reduce required air pressure.

3.



Cable Preparation

Prepare the fiber optic cable by stripping the outer sheath and buffer tubes as required, exposing the fibers for connection. Select the appropriate cable type (single-mode, multi-mode, armored, or unarmored) based on the network requirements. Check the cable flexibility and stiffness, as stiffer cables perform better in straight ducts, while flexible cables handle multiple bends more effectively.

4. Crash Test (Optional but Recommended) Perform a crash test to determine the maximum pushing force. Push the cable into a short, sealed duct section to ensure the cable does not buckle or the jacket does not get damaged.

Gradually increase the pushing force until the maximum safe limit is identified. 5.

Cable Blowing

Attach the cable to the blowing head, which has seals to grip the cable. Connect the air source (compressor or nitrogen cylinder) to the duct inlet. Begin by mechanically pushing the cable a few hundred meters using the tractor mechanism or rollers.

Then, gradually introduce compressed air to create a high-speed airflow that propels the cable through the duct. Maintain minimal air pressure to avoid damaging the cable. 6.

Cable Installation and Route Control

Monitor the cable as it moves through the duct, ensuring it remains in a floating condition to reduce friction. Adjust air pressure and pushing force as needed, especially around bends or undulations. Use lubricants if necessary to further reduce friction.

7.

Post-

Installation Checks

After the cable is fully installed, inspect it for any damage, kinks, or excessive tension. Verify that the cable length and routing match the planned design. Ensure connectors and terminations are properly installed and tested for signal integrity.

Key Considerations

Avoid excessive air pressure to prevent cable damage. Temperature affects cable flexibility; avoid installing in extremely cold conditions. Use low-friction cables and lubricants to improve blowing efficiency.

Stiffer cables are preferable for long, straight ducts; flexible cables are better for complex routes. Following these steps ensures a safe, efficient, and reliable installation of air-blown optical cables.

Article Content

Installation of Optical Fiber Cable by Blowing/Jetting

Cable blowing is the process of installation of optical fiber cable into a pre-installed duct. Compressed air is injected in the duct inlet after few hundred meters of cable is pushed into the duct. Compressed air

Installation of Optical Fiber Cable by Blowing/Jetting

Abstract This application note discusses fiber optic cable installation by blowing technique, the factors effecting blowing performance and best practices.

Air-Assisted Installation Considerations

Placing optical fiber cables in duct systems using air-assisted installation techniques presents different installation requirements than traditional pulling. In return, these techniques enable installation of

Technical Points Of Cable Jetting Project

The two key equipment for laying air blown fiber optic cable by cable jetting are cable blowing machine and air compressor. The air compressor generates compressed air and sends it to

Blown Fiber Installation: Essential Guide & Expert Tips

Blown fiber involves inserting fiber optic cables into pre-installed micro ducts using compressed air. This method is highly efficient for covering long distances within buildings or across

Fiber Optic Cable Blowing Procedure: Full Guide (2024)

Learn the fiber optic cable blowing procedure with our detailed guide, covering essential steps, equipment, and best practices for efficient installation.

Blown Fiber Installation: Essential Guide & Expert Tips

Preparation is key to a successful blown fiber installation. Before the process begins, it is crucial to plan the layout of your microducts carefully. Consider factors such as the length of runs, the

How To Blow Fiber Optic Cable

Blowing fiber optic cable, also known as air-blown fiber installation, is an efficient and effective method of installing fiber optic cables in ducts over long distances.

Fiber Blowing Technology Explained

Discover how air blown fiber installation works and why it's revolutionizing fiber optic network deployments. Learn the step-by-step process, technical tips, and advantages of this efficient

Whitepaper Guide to air blown cabling systems

Overall, blown fiber cable systems, particularly blown micro cable systems, deliver the lowest total cost of ownership to system operators, both CAPEX and OPEX.

Fibre Optic Cable Blowing – SFPcables Blog | SFP

What is cable blowing? How it works? With the rapid development of modern science and technology, optical communication technology in all aspects of life

Air Blowing Micro fiber Optic Cable

The Air Blowing Micro fiber Optic Cable product line is a complete solution with designs suitable for many applications and needs from backbone networks to FTTx.

Introduction to Air Blown Optical Cable

Air Blown Optical Cable offers a revolutionary approach to optical fiber installation, providing numerous advantages over traditional cables. In this article, we will explore the concept of

Fiber Optic Cable Blowing Procedure: Full Guide (2024)

One of two methods in a fiber optic network installation is to lay the cable into place: blowing or pulling. In this article, we'll guide you through the

How To Blow Fiber Optic Cable

Key Considerations Cable Bend Radius: Always maintain the minimum bend radius of the fiber optic cable to avoid damage. Blowing Distance: Air-blown cable systems can typically

Installation of Optical Fiber Cable by Blowing/Jetting

Standard optical fiber cables (like uni-tube, multi-tube, unarmored & armored), microduct cables, and micro-ducts can be installed by using this method. It is possible to install microduct cable using

Air Blown Fiber Optic Cable Solution And Manufacturer

Air blown micro fiber optic cable is generally used in FTTH network as a feeder section, using air blowing laying to connect the optical branch point and user

What is Air Blown Cable?

Air blown cable is an innovative solution designed for dynamic and scalable fiber optic networks, this blog tells the details.

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