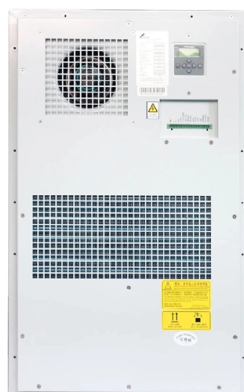


RIVO MULTITRADE OPTICAL SYSTEMS

How to handle fiber optic cable pulling



Overview

This document provides a work method statement for fiber optic cable pulling that outlines 33 steps to safely pull cable.

Key Takeaways

Fiber optic cable pulling requires careful planning, proper handling of strength members, controlled tension, and adherence to bend radius limits to ensure cable integrity and optimal performance.

1. Pre-Installation Planning

Before pulling any fiber optic cable, conduct a comprehensive route survey to identify potential obstacles, confirm pathway readiness, and plan the pull strategy . Determine the cable type, pull length, and manufacturer's specifications, including maximum pulling tension and minimum bend radius . For longer or complex runs, calculate estimated pulling tension and compare it to the cable's rated limits to prevent damage .

2. Preparing the Cable

Expose the strength members (typically aramid yarn or Kevlar) by carefully stripping a small portion of the outer jacket . Never pull the cable by the outer jacket alone, as this can stretch or damage the fiber. Attach the strength member to a pulling eye or pull sock, securing it with tape or knots to ensure the pulling force is applied correctly . For multi-strand or pre-terminated cables, use specialized pulling kits like SSF-PULLEYED or SSF-PULLEYEM to reduce twisting and protect connectors .

3. Pathway Preparation

Clean the conduit or duct thoroughly and remove any debris or obstructions . Apply cable-compatible lubricant evenly along the cable for long runs, multiple bends, or high-friction pathways to reduce tension and prevent jacket damage . Ensure pulleys or rollers are positioned at bends to maintain the minimum bend radius and prevent kinking .

4. Pulling Techniques

- Manual Pulling: Suitable for short runs; maintain steady, controlled tension and avoid sudden jerks .
- Mechanical Pulling: Used for longer runs; employ winches or cable-pulling machines with tension monitoring to prevent exceeding the cable's rated pull force .
- Always monitor the tension gauge and ensure the cable does not exceed its maximum pulling force (e.g., 600 lbs for outdoor cables, 50 lbs for premises cables), .
- Avoid pushing the cable through the conduit, as this can cause buckling or kinking .

5. Handling Bends and Obstacles

Respect the minimum bend radius specified by the manufacturer. Modern bend-insensitive fibers may allow tighter bends, but older fibers require larger radii to prevent breakage . Use pulleys or rollers at corners and avoid sharp turns. For multi-cable bundles, ensure the pull sock or mesh sleeve keeps all cables secure and evenly tensioned .

6. Post-Pull Inspection

After installation, inspect the cable for jacket damage, kinks, or excessive tension marks . Clean all connectors and optical ports using fiber alcohol wipes or pen-style cleaners to remove dust or contaminants . Perform optical testing such as OTDR or insertion loss measurements to verify signal integrity and confirm the installation meets performance standards .

7. Safety and Best Practices

- Always wear appropriate personal protective equipment.
- Avoid exceeding the cable's tensile limits.
- Keep dust caps on connectors until final termination to prevent contamination .
- Use proper lubricants and pulling equipment compatible with the cable type .
- Document the pull, including tension readings, bend radii, and pathway conditions for future maintenance . By following these steps, fiber optic cable pulling can be performed efficiently, safely, and without compromising the cable's performance or longevity.

Article Content

Fiber Optic Cable Duct Pulling Techniques 2025

Use the right lubricant. Follow the rules for tension and bend radius. This makes sure the cable pull is smooth and

How to Install Pulling Grip for Fiber Optic Cable Pulling?

This post will illustrate why we need pulling grips in pulling fiber optic cables and how to install pulling grip correctly for

The FOA Reference For Fiber Optics-Installing Fiber Optic Cable

The normal recommendation for fiber optic cable bend radius is the minimum bend radius under tension during pulling is 20 times the

Pulling Fiber Optic Cable

Fiber optic cable is surprisingly strong, durable and pliable; however, several best practices should be followed to

Pulling fiber-optic cable | Oil & Gas Journal

Pulling fiber-optic cable Even though fiber-optic cable is advertised as being more robust than Category 5 unshielded

Safety Procedure copy

Optical fiber cables are designed for particular pulling tension and tensile strength. Exceeding the Cable Pulling Tension above the

FO Cable Pulling Method Statement

This document provides a work method statement for fiber optic cable pulling that outlines 33 steps to safely pull cable. Safety

Tips for installing fiber optic cable

Handle fiber properly and consider length! Never pull on the fiber. Fiber optic cables have Kevlar aramid yard or a fiberglass rod as

Proper Installation (Pulling) of Fiber Optic Cable

Roll fiber optic cable off the spool: Rolling, as opposed to pulling, prevents putting twists in the cable. When preparing the fiber optic

Pulling Fiber Optic Cable in Conduit

AEN 136, Revision 2 This Applications Engineering Note (AE Note) addresses key points for planning cable pulls in conduit.

Installing Wire Mesh pulling Grips on Fiber Optic Cables

1. General 1.1 This procedure provides general instructions for installing a wire mesh pulling grip (Figure 1) on AITOS® ribbon, and

How to Install Pulling Grip for Fiber Optic Cable Pulling?

There are many fiber optic cable installation tips, such as confirming the quality of a fiber optic cable before and after

The Wrong Way to Pull Cable

It involved pulling a fiber optic cable through underground ducts under one city block, which is a total distance of around 500 feet, or

Pulling Installation of Fiber Optic Cable

Route plan to ensure the duct run maintains the minimum bend diameter of the cable. For more information and all

Cable Placing Checklist and Handling: Squirting, Tangling

AEN165, Revision 5 This Applications Engineering Note (AE Note) addresses common issues regarding cable pay-off during outside

Fiber Optic Cable Pulling Advice

Also, use a tension meter to monitor the tension being applied to the fiber cable during the pull. Step 5: After pulling

The Process of Pulling Fiber Optic Cable

Since fibre optic cables are designed with additional strength members, they can be pulled with much greater force

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

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