

Assembly of optical cable reel



Overview

Fiber optic reels are engineered specifically with the protection and deployment of fragile fiber strands in mind.

Key Takeaways

Assembling an optical cable reel involves mounting the drum, securing the fiber optic slip ring or FORJ, aligning the reel, and properly routing the cable to ensure smooth deployment and retrieval.

Step 1: Prepare the Reel Components

- Identify the drum, side plates, bearings, and drive mechanism (hand crank or spring rewind) according to your reel model .
- Ensure all fasteners, handles, and cable guides are available and in good condition.
- If using a modular system like OCC MARS, confirm optional accessories such as flip-out handles, connector cradles, or divider plates are ready .

Step 2: Mount the Drum and Bearings

- Attach the drum to the side plates using the provided stainless-steel fasteners .
- Install the bearings (Delrin or ball bearings) to allow smooth rotation.
- For motorized reels, ensure the drive unit is properly aligned with the drum axis .

Step 3: Install the Fiber Optic Slip Ring or FORJ

- Place the fiber optic rotary joint (FORJ) or slip ring inside the drum housing, ensuring it is protected from mechanical stress .
- Connect the input and output fiber ends carefully, avoiding sharp bends or twists.

- Verify that the rotary joint is securely fastened and aligned with the drum rotation axis.

Step 4: Align and Secure the Reel

- Position the reel so the axis is horizontal and perpendicular to the cable run .
- Check that the cable path is free from twisting and that strain reliefs are in place.
- If the reel has a drag brake or tension adjustment, set it to prevent uncontrolled unwinding .

Step 5: Load and Route the Cable

- Begin winding the fiber optic cable onto the drum, maintaining the minimum bend radius to prevent damage .
- Use passive cable guides or dividers to evenly distribute the cable across the drum width .
- For tactical or field reels, ensure connector storage and protective covers are in place .

Step 6: Test Deployment and Retrieval

- Rotate the drum manually or with the drive unit to check smooth cable payout and rewind .
- Confirm that the optical signal remains uninterrupted through the slip ring or FORJ.
- Adjust tension, guides, or drum alignment as needed to ensure reliable operation.

Additional Tips

- Always handle fiber optic cables carefully to avoid microbends or kinks.
- For modular reels, consider transport cases or backpacks for field deployment .
- Regularly inspect the reel for wear, loose fasteners, or damaged bearings before use. By following these steps, you can assemble an optical cable reel that ensures safe, efficient, and reliable fiber optic deployment in both laboratory and field environments .

Article Content

Cable Reels| Cable Storage | Cable Deployment

Our selection of cable reels are perfect for storing and easily deploying fiber optic and Ethernet cables and

Unraveling the World of Fiber Optic Cable Reels: A High-Performance ...

Fiber optic reels are engineered specifically with the protection and deployment of fragile fiber strands in mind. Their

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The RFO-2-3000 is the ideal cable reel solution for Tactical Fiber Optic Cable Assemblies, Indoor/Outdoor

Fiber Optic Cable Reel User Manual

Connect the cable to be wound (AKA the deployment cable) on the reel to the connectors or pigtail in the drum exit port as required.

Steps in Fiber Optic Cable Manufacturing Process

Explore the intricate steps and materials in fiber optic cable manufacturing process. Learn

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The best way to care for fiber optic assemblies to store and move them on deployable cable reels. Options

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An educational article for America & Europe. Cable reels are essential for storing, transporting, and handling cables,

GENERAL FIBRE OPTIC CABLE INSTALLATION

1.Transport, Storage, FO Cable Protection and Reel Handling All optical cables are sensitive to damage during shipping, handling,

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American Cable Assemblies

American Cable Assemblies, is a privately-owned, US-based manufacturer of both standard and custom, high-quality fiber optic

Installation of Solo® ADSS All-Dielectric Self-Supporting Fiber

General .1 . This procedure provides general information for installing all Corning Optical Communications Solo® ADSS All-Dielectric

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Standard for Installing and Testing Fiber Optics

Safety in fiber optic installations specifically includes avoiding exposure to light radiation carried in the fiber; disposal of fiber scraps

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This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

