What size of steel strand is suitable for hanging optical cables

Overview

Choosing Steel Wire Strand for Optical Cable ApplicationsChoosing the right steel wire strand for optical cable applications is essential for a wide range.

Key Takeaways

The standard steel strand for hanging optical cables is typically a 7-wire strand with diameters ranging from 1. 8 mm to 2. 2 mm, commonly galvanized for corrosion protection.

Typical Specifications

Wire Count: Most messenger strands consist of 7 wires—six wires wrapped around a central core wire (1x7 configuration) for flexibility and strength. Diameter: Common diameters for aerial fiber optic suspension wires are 2. 2 mm for standard cables, and 2.

0 mm or 1. 8 mm for armored cables. Material: Galvanized carbon steel is standard, providing corrosion resistance.

Zinc or zinc-aluminum coatings are often applied to extend outdoor durability. Stainless steel may be used in highly corrosive environments. Tensile Strength: Strands are engineered to support the weight of the cable and withstand environmental loads, with tensile strength typically ranging from 1770 N/mm² for standard galvanized steel.

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Additional Considerations

Coating Classes: Zinc coatings are categorized as Class A, B, or C, with higher classes providing greater corrosion protection. Installation Factors: The strand diameter affects sag, elongation, and the choice of clamps or hooks. Proper tensioning ensures long-term stability and prevents cable damage.

Special Configurations: Some suppliers offer strands with 3, 7, or 19 wires depending on load requirements and installation conditions. In summary, for most aerial fiber optic installations, a 7-wire galvanized steel strand with a diameter of 2. 2 mm is standard, while armored cables may use slightly smaller diameters.

Material choice and coating type should be selected based on environmental exposure and expected service life.

Article Content

Choosing Steel Wire Strand for Optical Cable Applications

Choosing the right steel wire strand for optical cable applications is essential for a wide range of industries. By understanding the characteristics and benefits of steel wire strands, manufacturers can

Key Factors for Choosing Steel Wire Strand for Optical Cables

Choosing the right steel wire strand for optical cable is a multifaceted decision that requires careful consideration of various factors, including material composition, tensile strength, stranding

Messenger Wire/Strand Manufacturer & Supplier

Our specifications include ASTM 475, which covers metallic-coated steel wire strands, and ASTM A228 (music wire) for optical cables. We also offer customized specifications upon request to meet specific

Aerial Fiber Deployment: Messenger Strand and Lashing Wire

How tightly it is wound can vary from location to location based on environmental conditions, the type of lashing wire, corrosion requirements of the lashing wire, and the size of fiber cable being installed.

messenger strands

Messenger Strands Datasheet Provide reliable support to telecommunication lines with Bekaert steel messenger strand. Bekaert o ers a variety of strengths and coatings and specifications include ASTM

Wire strands made of galvanized steel or stainless steel

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Wire strands are made from individual high-strength wires that are laid spirally around a core. They are used as thin stranded rope or as a basis for stranding into wire ropes. Steel wire strands are

Wire Rope & Steel Cable Sizes | Diameter Reference Guide

Explore standard wire rope and steel cable sizes with our easy-to-use diameter chart. Compare specifications to find the right fit for your application.

Aerial Fiber Cable Placing Methods copy

Aerial optical cable is suspended in the air from poles and/or support structures. Most often it is supported between poles by being lashed to a wire rope messenger strand with a small gauge wire.

Strands & Wire Rope

The following table contains a partial list of common cables offered for use in assemblies by Strand Products. The tensile values presented here are intended for baseline design purposes only, actual

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Aerial Cable Placing Procedure

Pole line construction and strand installation are not covered in this document. A working familiarity with aerial cable requirements, practices, and work operations is necessary as this guide does not cover

Aerial Fiber Deployment: Messenger Strand and Lashing Wire

A steel messenger is a stranded steel cable that acts as a support structure to which fiber optic cable is tied (lashed) by way of steel lashing wire. The steel messenger acts as a structure that supports the

Overhead Fiber Optic Cable Installation Requirements And 2 Cable

Installation There are 2 main laying types for overhead fiber optic cables, hanging under steel strands and self-supporting. And basically both adopt the steel wire strand supporting. The

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Messenger Wire/Strand Manufacturer & Supplier

Messenger Wire Specifications for Aerial Fiber Optic Drop Cable Our telecom wire, including steel messenger wire, meets the strict specifications set by ASTM International, a global leader in

Aerial Fiber Cable Placing Methods copy

Pole line construction and strand installation are not covered in this document. A working familiarity with aerial cable requirements, practices, and work operations is necessary as this guide does not cover

The FOA Reference For Fiber Optics -Outside Plant Construction

Aerial Cable Installation Aerial Cable Installation Deploying fiber above ground on poles or towers removes the need for underground digging and is particularly useful when the ground is uneven,

Galvanized strand products

Galvanized strand products O ur galvanized strand products meet or exceed ASTM Specifications A475 and ASTM A363. Strands are tested for:

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

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