# What are the production bases for butterfly-shaped optical cables



## Overview

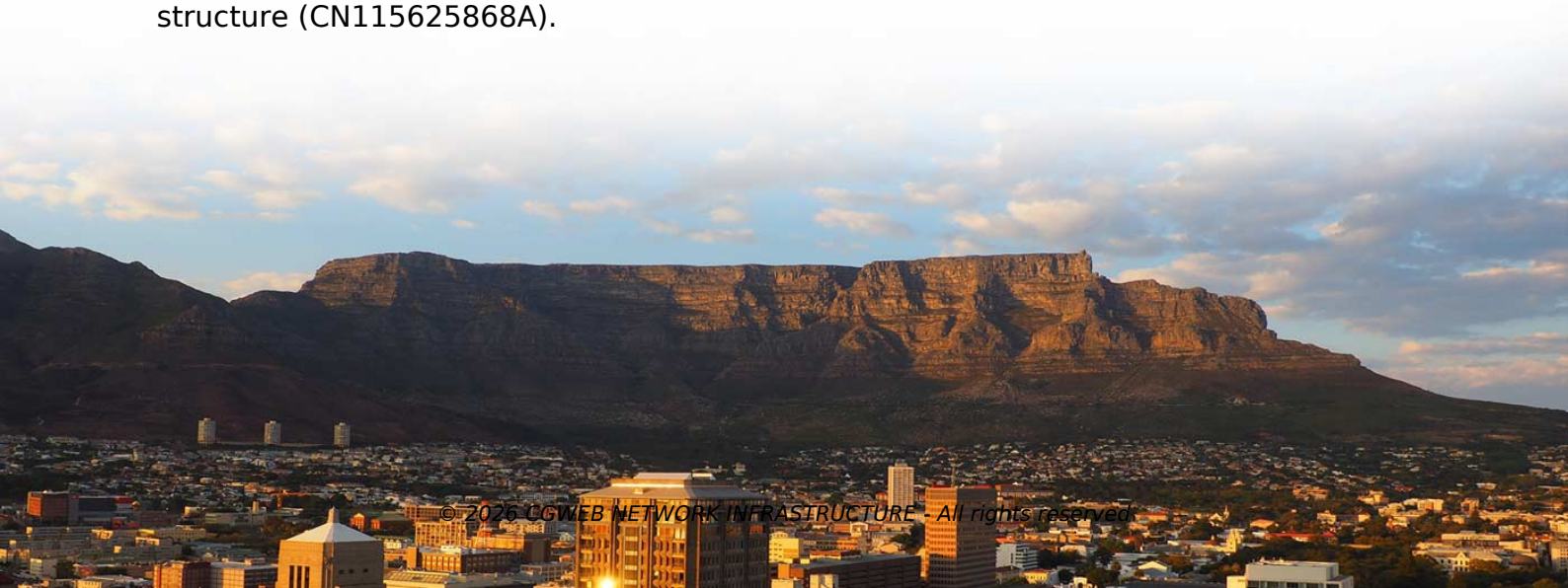
CN117452578A In a second aspect, the present application provides a process for producing a butterfly-shaped optical cable, for producing a butterfly-shape.

## Key Takeaways

A butterfly-shaped optical cable production base involves specialized extrusion, cooling, and traction equipment to manufacture compact, high-performance optical cables with a butterfly cross-section.

### Production Equipment and Process

The production of butterfly-shaped optical cables typically uses a sequentially arranged system including a pay-off mechanism, extrusion mechanism, cooling and drying mechanism, and traction device. The extrusion mechanism consists of an extruder and a specialized die, where the die core is wedge-shaped at the front and rectangular at the rear. Multiple wire outlet holes allow simultaneous production of several butterfly-shaped cables, and an extrusion control device regulates the number of cables produced at once, ensuring precision and uniformity in the cable structure (CN115625868A).



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Cable StructureButterfly-shaped optical cables feature a central communication unit flanked by two parallel non-metallic strength members (FRP) and an additional steel wire for tensile strength. The cable is encased in a low-smoke zero-halogen (LSZH) sheath, often reinforced with a steel tape moisture-proof layer and a PE outer sheath for UV resistance and durability. Specialized bend-resistant optical fibers enhance bandwidth and network performance, while the simple, lightweight design facilitates easy installation and maintenance (GJYXFHS pipeline cable).

### Prefabricated End Cables

For indoor and FTTH applications, prefabricated end butterfly drop cables are used. These cables combine microcable units with an outer sheath and strength members, allowing easy routing and connection in tight spaces. The prefabricated design improves production efficiency, protects optical fibers during installation, and reduces the required wiring area.

The preparation process includes stripping the outer sheath, threading connectors, fixing microcable lengths, cleaning and curing fiber ends, and assembling the connector components (CN105093454B). AdvantagesSpace-saving: Compact design ideal for indoor environments and crowded conduits. High bandwidth: Supports data transmission up to 100 Gbps.

Easy installation: Flexible and lightweight, simplifying routing and splicing. Durability: Resistant to temperature, moisture, vibration, and UV exposure. Security: Difficult to tap, ensuring data integrity (indoor applications).

ApplicationsButterfly-shaped optical cables are widely used in FTTH networks, indoor wiring, and pipeline conduit entries, providing reliable, high-speed connectivity while minimizing space and installation complexity. Prefabricated end cables are particularly useful for fast deployment in urban optical networks, while pipeline variants offer enhanced tensile and compression resistance for outdoor or conduit applications.

## Article Content

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FTTH Butterfly Optic Cables: Practical Design, Installation, and ...

These cables are widely used in FTTH networks, fiber optic drop cable systems, and building entry solutions where space efficiency and mechanical reliability are required.

Fiber Optic Cable Manufacturing Process: How They Are Made

In this blog, we''ll take a closer look at the step-by-step fiber optic cable manufacturing process, the materials used, and why these cables are so essential for our digital world.

Butterfly -shaped optical fiber optical cable

In conclusion, there are several ways to connect butterfly-shaped optical fiber cables, each with its own advantages and disadvantages. Fusion splicing is a popular choice for permanent

Butterfly Optic Cable Specifications | PDF | Attenuation

This document specifies the construction, materials, performance standards, and testing requirements for butterfly optic cables with 1-4 fibers. The cable types include GJXH, GJXFH, GJYXCH, and

Optical Fibre Manufacturing Process

The optical fibre is cooled in a helium cooling tube and coated with dual layers of ultraviolet radiation cured acrylate resin, which provide protection against mechanical damage and moisture ingress.

machines for fiber optical cable production

We offer complete fiber optic cable (FOC) manufacturing solutions, from fiber to finished cable, as well as individual solutions for the individual process steps of fiber optical cable production.

FTTH Butterfly Optic Cable Specification

The document outlines the specifications for FTTH Butterfly Optic Cable, detailing cable construction, performance parameters, and mechanical and environmental testing criteria.

Optical Cable Manufacturing: A Deep Dive into the Process

Explore the optical cable manufacturing process. Learn about raw materials, fiber drawing, cabling, and quality control in modern optical cable manufacturing.

Butterfly cables, Butterfly fiber optic cables

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Butterfly Fiber optic cables are specifically designed for use in indoor environments, often in confined spaces such as inside buildings or data centers. They are named for their flat, strip-like shape, which

Four -end connection methods of butterfly -shaped optical fiber optic ...

Butterfly-shaped optical fiber cables are a popular type of fiber optic cable that is commonly used for data transmission in telecommunication networks. They are called butterfly

The transmission distance of the butterfly -shaped

Introduction:The butterfly-shaped optical cable is a type of fiber optic cable that is widely used in telecommunications networks, data centers, and

Indoor butterfly -shaped optical cable advantage disadvantage

An indoor butterfly-shaped optical cable is a type of fiber optic cable designed for indoor use. It is named after its unique shape, which resembles that of a butterfly. In this essay, we will examine

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Butterfly Indoor FTTH Drop Cable

Butterfly FTTH drop cable is a popular type of fiber access optical cable, according to the different application environment and laying conditions, it has reasonable design of cable structure and

Butterfly -shaped optical fiber optical cable side connection method

Butterfly-shaped optical fiber cables are a popular type of fiber optic cable that is commonly used for data transmission in telecommunication networks. They are called butterfly-shaped due to their

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The butterfly-shaped optical cable is additionally provided with the foaming filling unit, so that the compression resistance, impact resistance, heat preservation, heat insulation and water resistance

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