

Equipment for producing galvanized cable trays



Overview

This machine is engineered to convert metal coils into finished cable trays through a continuous roll forming process combined with automatic punching and cutting.

Key Takeaways

Galvanized cable trays are manufactured by forming metal sheets into tray structures, followed by surface treatment and zinc coating to ensure corrosion resistance and durability.

Material Selection and Preparation

Cable trays are predominantly made from steel, stainless steel, or aluminum sheets and coils, chosen based on load requirements and corrosion resistance. The metal coils are first slit and trimmed to ensure compatibility with automated forming machines. Proper edge preparation is essential for smooth feeding and accurate shaping during production.

Forming the Tray

The prepared metal sheets are fed into a cable tray making machine or roll former, which progressively bends, punches, and cuts the metal into the desired tray shape. Common tray types include: Ladder trays: Side rails connected by rungs for ventilation and high-load support. Perforated trays: Small holes for heat dissipation and cable support.

Solid bottom trays: Full coverage for protection against dust and debris. Trough trays: Solid structure for secure cable storage in outdoor or equipment-heavy areas.

Welding and Assembly

After forming, tray components are welded or mechanically joined to create a rigid structure. This step ensures strength and stability while maintaining precise dimensions.

Surface Treatment and Galvanization

To protect against corrosion, trays undergo surface treatment, primarily galvanization. Methods include: Hot-dip galvanizing: Trays are immersed in molten zinc at approximately 450°C, coating all surfaces evenly. The zinc layer thickness is carefully measured (typically 65–85 micrometers for heavy-duty applications) to prevent rust or brittleness.

Spray zinc coating, cold zinc dipping, nickel-zinc plating, or alloy coatings may also be applied depending on environmental conditions and customer requirements. Powder coating or passivation can be added to smooth the zinc surface and prevent zinc whiskers, which are tiny zinc fragments that can damage sensitive electronics.

Quality Control

Manufacturers perform coating thickness checks, load tests, and traceability documentation to ensure safety and compliance. Load tests may involve applying 1.5 times the expected weight to verify structural integrity.

Traceability ensures that the steel and zinc used meet specifications and can be tracked from production to installation.

Customization and Final Inspection

Cable trays can be custom-sized and shaped to fit complex architectural designs. Smooth edges, proper coating, and adherence to standards ensure that trays are safe for cable installation and long-lasting in various environments. This comprehensive process—from material selection to galvanization and quality control—ensures that galvanized cable trays provide durable, corrosion-resistant, and structurally sound support for electrical cables in industrial and commercial applications.

Article Content

Galvanized Cable Tray Making Machine

This machine is engineered to convert metal coils into finished cable trays through a continuous roll forming process combined with automatic punching and cutting. It provides a stable, efficient, and

Galvanized Cable Tray Making Machine for Efficient Production

Our galvanized cable tray making machine is suitable for producing solid cable trays, perforated cable trays, and customized tray profiles. It is widely used in electrical installations, data centers, solar

Galvanized cable Tray Making Machine for Perforated

HOPEX galvanized cable tray making machine produces perforated cable trays with widths 50-300 mm and side height 50 mm, speed 5-12 m/min, ensuring precise,

HOPEX galvanized cable tray making machine

HOPEX galvanized cable tray making machine features an ergonomic, lightweight design that allows for effortless installation and flexible on-site modifications, significantly reducing labor costs and

machine for producing galvanized cable trays efficiently and effectively

One such solution is the galvanized cable tray, which offers an efficient way to manage electrical and communication cables. The manufacturing of these cable trays is facilitated by specialized equipment

Machine for Producing Galvanized Steel Cable Trays Efficiently and ...

Cable tray making machines are specialized equipment designed to manufacture these galvanized trays efficiently. The machines produce trays in various sizes and shapes to meet the diverse needs of

Cable Tray Roll Forming Machine | Cable Tray Making Machine

Cable Tray Roll Forming Machine can produce cable trays with different sizes, thickness, and from different materials, SS, CR, GI, Check it out!

Galvanized cable tray making machine automatic roll former

Galvanized cable tray making machine belong to fully automatic making multi sizes in one pre galvanized cable tray rolling forming cable tray making machine.

Galvanized Cable Tray Making Machines

Find galvanized cable tray making machines for efficient metalwork. Sihua offers reliable, high-quality machines for various cable tray needs. Perfect for any project.

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