Standard thickness of trough-type cable trays

Article Overview

The standard thickness of perforated (trough-type) cable trays typically ranges from 1.2 mm to 3.0 mm, depending on duty class and material.

Overview

Perforated or trough-type cable trays provide continuous bottom support with ventilation openings, making them suitable for installations where uniform cable support and containment are important. The material thickness directly affects the tray's load capacity, allowable span, and long-term durability, so selecting the correct thickness is critical for safety and performance .

Typical Thickness Ranges

o Light Duty: Approximately 1.2 mm to 1.5 mm; suitable for small control or instrumentation cables with minimal load requirements .
o Medium Duty: Around 1.5 mm to 2.0 mm; commonly used for moderate cable loads in commercial or industrial settings .
o Heavy Duty: Typically 2.0 mm to 3.0 mm; designed for large power cables, longer spans, or environments requiring higher mechanical strength . The exact thickness may vary depending on the manufacturer, material (steel, stainless steel, or aluminum), and coating (galvanized, powder-coated, or stainless finish) to meet corrosion resistance and structural requirements .

Considerations for Selection
o Duty Class: Heavier loads or longer spans require thicker material to prevent deflection and maintain structural integrity.
o Tray Width and Sidewall Height: Wider trays or taller sidewalls may require increased thickness to maintain rigidity.
o Environmental Factors: Corrosive or outdoor environments may necessitate thicker or specially coated trays to ensure longevity.
o Standards Compliance: Ensure the tray meets IEC 61537, NEMA, or UL standards for mechanical strength and load capacity .

Summary

For perforated (trough-type) cable trays, 1.2-3.0 mm is the standard thickness range, with the specific value chosen based on duty class, cable load, span, and environmental conditions. Always consult the manufacturer's specifications and relevant standards to ensure compliance and safety .

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Standard thickness of trough-type cable trays

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The thickness of the trough cable tray includes the thickness of the tray, the thickness of the cover plate and the

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