

UAE Aluminum Alloy Cable Management Frame Specifications



Overview

C Channels Also called the C channel, UAE or the U channel, UAE, these framing systems are manufactured and produced according to the Cable Management System.

Key Takeaways

Aluminum alloy cable management frames in the UAE are lightweight, corrosion-resistant, and customizable systems designed for industrial, commercial, and infrastructure applications.

Material and Composition
Aluminum cable management frames are typically made from aluminum alloys containing magnesium, silicon, and manganese, which enhance tensile strength, toughness, and corrosion resistance. These alloys are lightweight yet strong, making them suitable for structural and load-bearing applications in construction, industrial machinery, and electrical installations. The low density of aluminum allows for easier handling and installation, while its thermal conductivity supports safe electrical routing.

Types of Cable Management Systems

- Cable Trays
- Perforated Trays: Lightweight, allow airflow, reduce dust accumulation, ideal for general cabling.
- Ladder Trays: Heavy-duty, support long cable runs, high mechanical strength.
- Solid Bottom Trays: Provide full coverage for sensitive data and fiber optic cables.

- Cable Ladders
- Designed for high load capacity and long spans with minimal support.
- Available in galvanized, hot-dip galvanized, stainless steel, and epoxy-coated finishes .
- Wire Mesh Trays
- Lightweight, highly ventilated, suitable for IT, telecom, and data centers.
- Allow quick modifications and tool-free cable tie-downs .
- Aluminum Channels
- Used for support structures, machinery frameworks, and protective enclosures.
- Customizable sizes and profiles for specific project requirements .

Mechanical and Structural Specifications

- Load-bearing capacity: Engineered to support light, medium, and heavy electrical loads depending on tray type and alloy thickness .
- Dimensional accuracy: Manufactured to precise widths, side rail heights, and thicknesses for project-specific requirements .
- Structural stability: Designed to withstand long spans and real-world site conditions, including indoor, outdoor, and coastal environments .
- Corrosion resistance: Aluminum alloys naturally resist corrosion; additional finishes like powder coating or anodizing enhance durability in harsh environments .

Accessories and Customization

- Bends, elbows, tees, reducers, covers, couplers, and end plates are available for complex layouts .
- Custom sizes and profiles can be fabricated to meet specific project needs, including precision bending, punching, and finishing .
- Modular frameworks like Unistrut channels allow flexible support for mechanical and electrical systems .

Compliance and Applications

- Systems are designed to meet international standards for load, corrosion, and structural performance .
- Suitable for construction, infrastructure, data centers, oil and gas, and industrial projects .

- Aluminum frames are ideal for coastal and marine environments due to their corrosion resistance . In summary, UAE aluminum alloy cable management frames offer a combination of lightweight construction, high strength, corrosion resistance, and customizable design, making them suitable for a wide range of industrial and commercial applications. Suppliers like Vidit Aluminium, Metar, and West Port provide tailored solutions with detailed specifications, finishes, and accessories to meet project-specific requirements .

Article Content

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Made from GI, stainless steel (SS 304/316), and aluminum, with powder coatings. Sizes range from 50mm to 900mm width with

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Aluminum cable ladders and trays prevent cable overheating thanks to their high thermal conductivity, enhancing safety and offering

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ALUMINIUM CLEATS ALUMINIUM CLEATS View Pdf Product Specification CERTA brand aluminium cable cleats are made of LM-6

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

