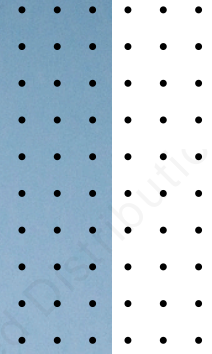




**Ecosteel
Source**



COILS & SHEETS
Z-A-M COATED STEEL
CATALOGUE

www.ecosteel.com

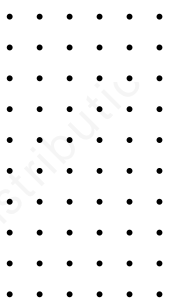
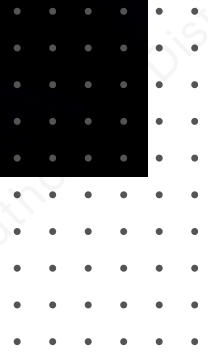


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WHO ARE WE

Ecosteel Source is a professional supplier of steel materials, offering Zinc-Aluminum-Magnesium (Z-A-M) coated steel, Galvalume (GL), pre-painted steel coils, and steel construction product made from that like Floor Decks, Steel Truss Floor Deck, Sandwich Panels (Hand-made & Machine-made), C/Z/U purlins, steel Studs, Tracks & Furring Channels, and Steel Accessories like Steel Strapping Seal.

With advanced processing equipment and strict quality control, we deliver durable, eco-friendly, and customized solutions for construction, industrial facilities, infrastructure, and cleanroom systems.

OUR STORY

Rooted in Nature. Committed to the Future.

Ecosteel Source was founded in Sichuan, a region known not only for its emerging industrial base, but also as the native home of the giant panda – a global symbol of ecological harmony. Inspired by this unique environment, we are deeply aware of the responsibility to balance industrial progress with environmental sustainability.

In today's fast-evolving steel industry, we believe that strength and sustainability should go hand in hand. Drawing from the panda's symbolism of balance and resilience, Ecosteel is committed to delivering steel solutions that combine durability with environmental responsibility.

Born in Sichuan – a place of strength and serenity – we carry the spirit of the giant panda into everything we build.



OUR STORY

Inspired by the panda. Built for a greener world.

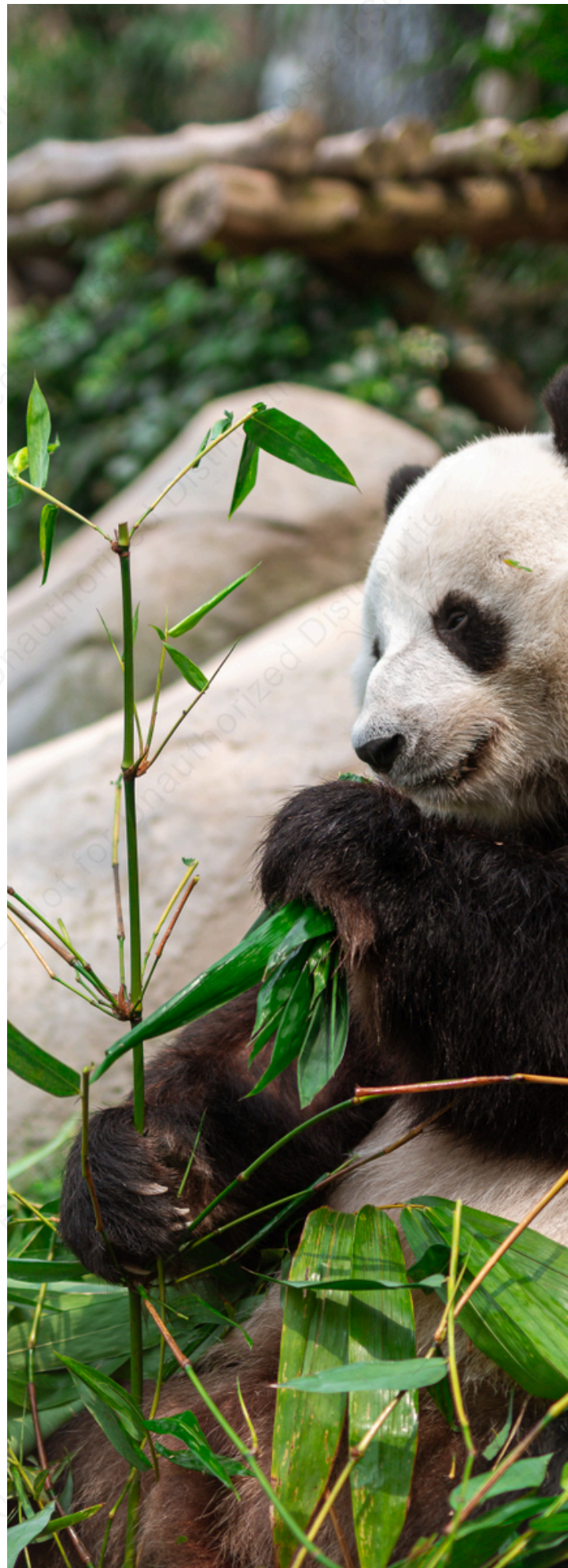
As both a materials supplier and a finished product manufacturer, we serve a wide range of industries — from industrial construction and cold chain logistics, to coastal projects and cleanroom environments. Whether it's floor decking, roofing panels, or structural components, we aim to reduce maintenance, extend service life, and minimize the carbon footprint of every building.

Our mission is to bring harmony between industry and ecology.

With every coil, panel, or beam we deliver, we take a step toward a greener construction future.

When you choose Ecosteel, you are not only choosing reliable steel products —

you are choosing a future where performance and sustainability work together.



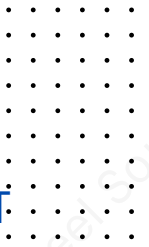


PRODUCT OVERVIEW

- Steel Building Materials:** Floor Deck System; Roofing & Wall Panels; Metal Studs & Purlins
- Coils & Sheets:** Galvanized Steel (GI); Galvalume Steel (GL); **Zinc-Aluminum-Magnesium (Z-A-M) coated steel**, Pre-painted color coated steel (PPGI, PPGL)
- Steel Accessories:** Steel Strapping Seal


PRODUCT SERIES

FROM **PREMIUM** TO **VALUE** — TAILORED FOR EVERY PROJECT




 **ES Prime Series**
Premium · Innovative · Exceptional



 **ES Standard Series: Balanced · Versatile · Durable**



 **ES Value Series: Affordable · Practical · Reliable**

HOW TO CHOOSE?

At Ecosteel Source, every series delivers the same reliable foundation—what sets them apart is the **material grade** and **performance level**.

- **Unified Standards:** All series follow the same specifications in size, thickness, and structure.
- **Tailored Performance:** Differences lie in the raw materials and durability enhancements.
- **Worry-Free Choice:** Select the series that matches your budget and project goals with full compatibility assurance.

PRODUCT SERIES

FROM **PREMIUM** TO **VALUE** — TAILORED FOR EVERY PROJECT

ES Prime - Flagship Performance

- Top-tier quality
- Advanced coatings
- Extended lifespan
- Premium applications

Typical materials: High-grade ZAM steel (Zinc-Aluminum-Magnesium), premium Galvalume (like AZ120, AZ150), High zinc coat Galvanized steel (GI) (from 150 to 900g/m²), fluorocarbon (PVDF) coated steel etc.

ES Standard - Balanced Reliability

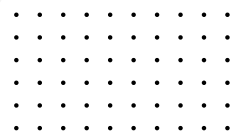
- Solid performance
- Good corrosion resistance
- Cost-performance balance
- Versatile use

Typical materials: Galvanized steel (GI) (Zinc 60g-120g/m²), Galvalume (GL)(less than AZ120), basic ZAM steel, HDP&SMP Pre-painted Steel etc.

ES Value - Smart Affordability

- Economical solution
- Essential quality
- Simplified specs
- Budget-focused use

Typical materials: Basic Galvanized steel (GI) (Zinc 30g-60g/m²), economical PE Pre-painted Steel etc.



Z-A-M COATED STEEL

Zinc-Aluminum-Magnesium (usually called zam coated) steel is a high-performance steel product coated with a zinc-aluminum-magnesium alloy. The typical coating composition contains approximately 85%–96% zinc (Zn), 5%–11% aluminum (Al), and 1%–3% magnesium (Mg), with proportions adjustable for specific applications.

The addition of magnesium significantly enhances coating density and self-healing capability, providing approximately 2–10 times better corrosion resistance compared to conventional galvanized and galvalume coated products. Zam material steel coil offers outstanding protection in acidic, alkaline, and chloride-rich environments, which help in making it an ideal choice for high-salinity, high-humidity, and severe industrial conditions.

Specifications

Thickness: 0.3mm–6.0mm, depends on orders

Width: 150mm–1500mm, depends on orders

Grades: S250GD+ZM / S350GD+ZM / S550GD+ZM (Structural high-strength steel with a yield strength range of 250–550 MPa), etc (depends on orders).



Z-A-M coated Steel Surface detail

Z-A-M COATED STEEL

What are the differences among these materials

Item	Galvanized (GI)	Galvalume (GL)	Zinc-Aluminum-Magnesium (ZAM)
Coating Composition	Pure zinc (Zn)	Al-Zn-Si alloy (Approx. Al 55%, Zn 43.4%, Si 1.6%)	Zn-Al-Mg alloy (Zn 85–96%, Al 5–11%, Mg 1–3%)
Corrosion Resistance	Basic protection, suitable for general environments	2–6× better than GI	2–10× better than GI, with self-healing at cut edges
Weather Resistance	Fair, needs maintenance for long-term exposure	Good, withstands temperatures up to 315°C	Excellent, suitable for marine and chemical environments
Surface Appearance	Available in spangle/non-spangle	Silvery metallic luster with snowflake spangle	Uniform fine silver-white or light gray
Reflectivity	Moderate	High reflectivity, reduces heat absorption	Medium to high reflectivity
Formability	Good for stamping and bending	Good	Excellent ductility and adhesion
Cost	Lowest	Medium	Slightly higher
Typical Applications	Roofing, ventilation ducts, cladding panels, appliance base sheets	High-temp roofing, wall panels, appliance housings, exhaust systems	Coastal warehouses, solar mounts, guardrails, seaside plants

CORROSION RESISTANCE

Advanced Protective Mechanism

ZAM coating combines zinc (Zn), aluminum (Al), and magnesium (Mg) to form a dense, self-healing protective film on the steel surface.

When exposed to moisture or scratches, the magnesium component reacts to create a stable, compact layer of magnesium hydroxide and zinc carbonate, effectively sealing cut edges and preventing rust propagation.

Corrosion Resistance Performance

Test Type	ZAM (Zn-Al-Mg)	Hot-Dip Galvanized (GI)	Alu-Zinc (GL / AZ)	Improvement
Salt Spray Test (JIS Z 2371)	> 3,000 hours (no red rust)	240–480 hours	1,000–1,500 hours	6–10× better than GI
Outdoor Exposure (Coastal Area)	25+ years	5–8 years	15–20 years	Up to 3× longer life
Edge Corrosion Resistance	Excellent (self-healing)	Poor	Medium	Best in class
Coating Density	90–120 g/m ²	275 g/m ² (typical GI)	150 g/m ²	Thinner coating, stronger protection

Performance Summary

- Z-A-M = Triple Protection
- Zinc → Sacrificial protection
- Aluminum → Barrier protection
- Magnesium → Self-healing film formation

SUSTAINABILITY & GREEN

Smarter Materials for a Sustainable Future

1. Low Carbon Footprint

Advanced Z-A-M coatings offer superior corrosion resistance with thinner layers—using less zinc, less energy, and achieving up to 3–10× longer life than conventional galvanizing.

2. 100% Recyclable

Steel is fully recyclable and reusable without losing performance, supporting LEED / BREEAM green building goals and reducing landfill waste.

3. Extended Lifecycle

The self-healing effect of magnesium and aluminum ensures long-term protection, cutting maintenance and replacement needs for decades.

4. Energy Efficient Surface

Reflective ZAM panels reduce heat absorption, helping lower building energy consumption—ideal for hot and coastal regions.

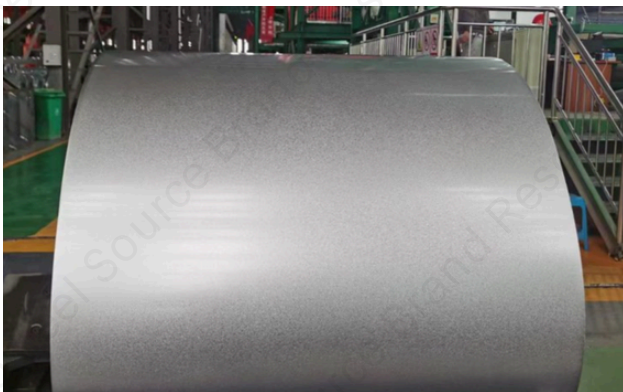
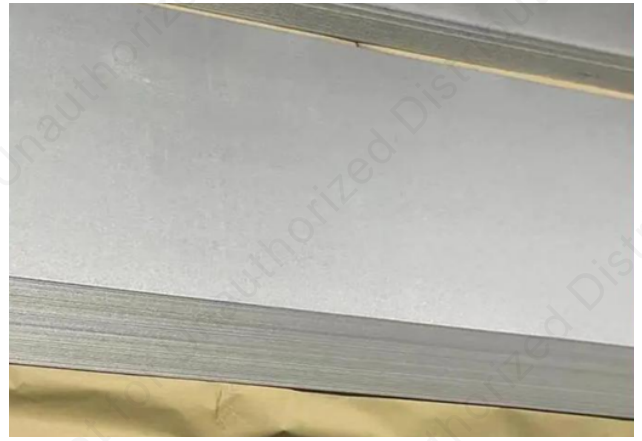
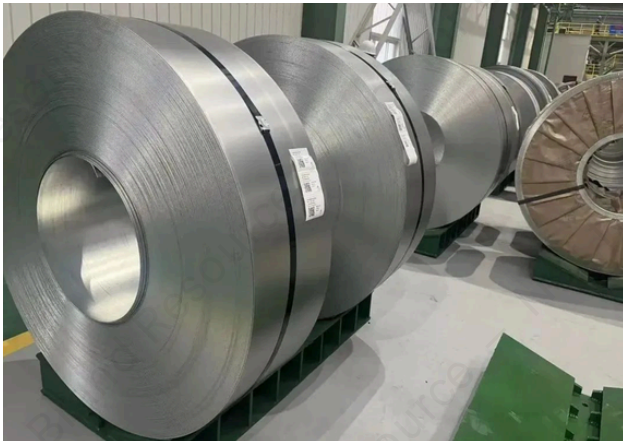
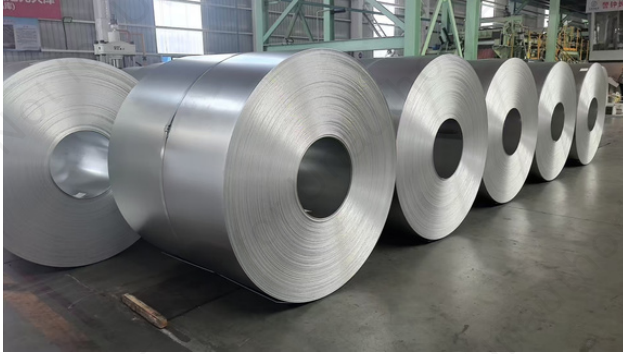
5. Sustainable by Design

Lightweight, durable, and low-maintenance steel solutions mean fewer resources, less waste, and cleaner production.

Green Steel in Practice

ZAM and GL combine strength, durability, and recyclability, creating long-lasting, eco-efficient buildings that meet global sustainability standards.

Z-A-M COATED STEEL COILS&SHEETS



CASE STUDY 1: COASTAL WAREHOUSE ROOFING SYSTEM



Project Overview

A coastal logistics warehouse required a roofing system resistant to humidity, salt spray, and strong winds. Traditional galvanized steel rusted within a few years, causing frequent maintenance.

Ecosteel Source Solution

Ecosteel Source supplied Zinc-Aluminum-Magnesium (ZAM) coated steel as panels' core materials which featuring self-healing corrosion protection and long-term surface durability for these products.

Key Benefits

- **10× higher corrosion resistance than galvanized steel**
- **Over 25 years of service life in marine conditions**
- **Lower maintenance costs and better cost-performance**
- **Eco-friendly coating with reduced zinc use and recyclability**

Result

After 3 years of exposure, the roof remains bright and rust-free. The client has adopted ZAM coated steel as their standard roofing core material for all coastal facilities.

CASE STUDY 2: SOLAR MOUNTING STRUCTURE IN ARID CLIMATE



Project Overview

A 50 MW solar plant in a desert region needed high-strength, corrosion-resistant structures to withstand UV, temperature swings, and sandstorms.

Ecosteel Source Solution

Ecosteel Source provided ZAM-coated steel profiles with self-protective film formation and superior weather resistance.

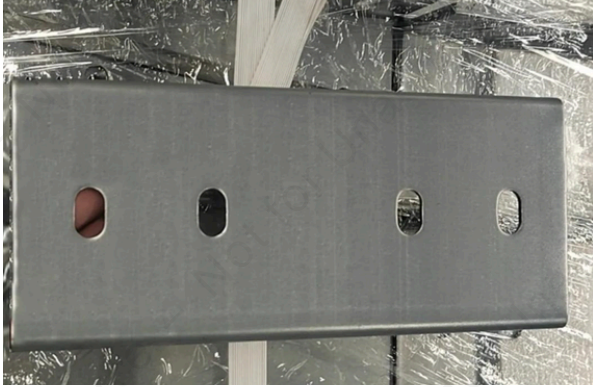
Key Benefits

- **15× longer lifespan than standard galvanized steel**
- **High strength-to-weight ratio, ideal for large installations**
- **Maintenance-free throughout the service period**
- **Environmentally sustainable with reduced zinc consumption**

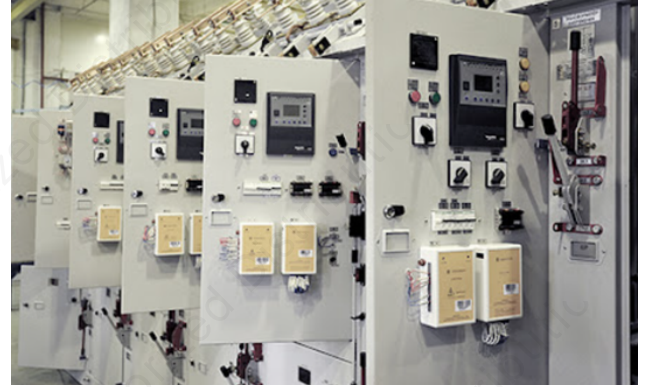
Result

After two years, on-site tests show zero corrosion and coating loss. Maintenance costs dropped by 30%, boosting long-term returns.

Z-A-M COATED STEEL APPLICATION



Accessories



Home Appliances and Equipment Casings



Roofing and Wall Cladding Systems



Solar Mounting Structures



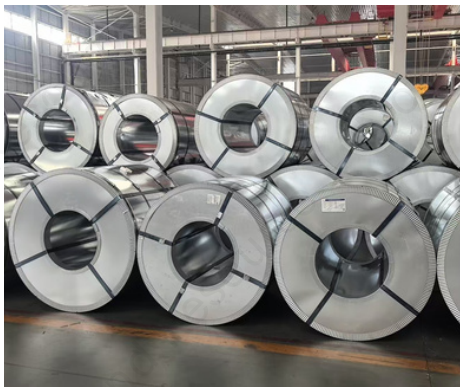
Guardrails and Highway Barriers



Agricultural Greenhouse Structures

Z-A-M COATED STEEL SERVICES

We offer a range of processing services tailored to customer requirements. These include **filming color/transparent coats, slitting large coils into smaller coils, cutting into narrow strips or flattening into sheets**, and providing further fabrication into finished products such as C/Z/U purlins, light steel furring channel keels, and other customized items in our product catalogue.



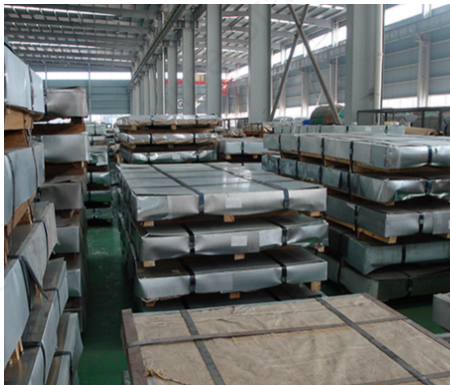
Coils



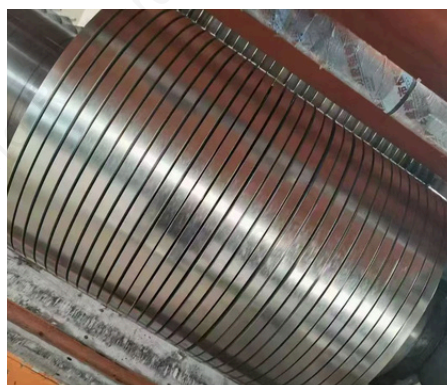
Cut into sheets



Slit into smaller coils



Cut into sheets with package



Cut into narrow strips



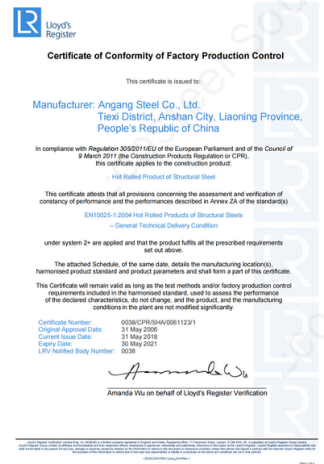
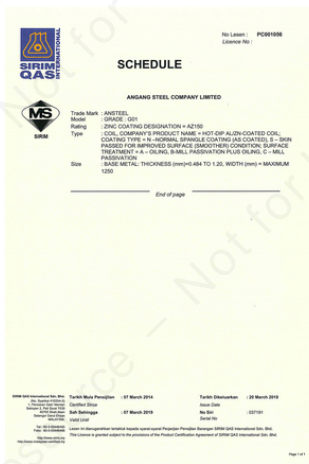
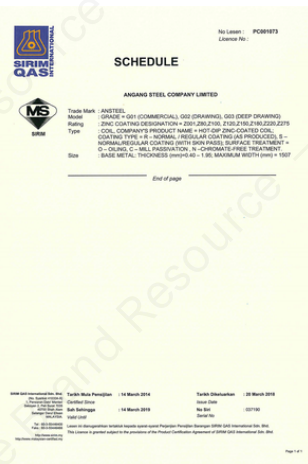
Solar Mounting Structure Fabrication

Z-A-M COATED STEEL SERVICES

Quality Assurance









Ecosteel Source uses high-quality base steel and precise galvalume coating producing technology to ensure uniform composition, strong adhesion, and stable thickness.









We offer various coating weights (commonly AZ50-AZ120, like AZ150, 200, 300 could also be accepted depends on different orders) to meet different requirements. All products comply with ISO, ASTM, and EN international standards, which delivering exceptional protection and decorative performance in diverse use environments.



EASY STEPS TO ORDER

Start Your Order Today

 Inquiry →  Quotation →  Sample → 
Contract & Payments →  Production →  Packing & Balance →  Shipment & Documents →  After-sales

-  **Inquiry** : Provide product specifications (material, size, coating, color, quantity, application).
-  **Quotation** : Get formal quotation with price, lead time, payment, and other details.
-  **Sample & Drawing** : Confirm samples or drawings for customized colors/patterns.
-  **Contract & Payments** : Sign PI/contract and pay deposit to schedule production; Special customized products require full payment in advance.
-  **Production & QC** : Manufacturing with strict quality control, third-party inspection available.
-  **Packing & Balance** : Packed to international standards, and settle balance payment.
-  **Shipment & Documents** : shipment arranged with documents, receive full set of shipping documents.
-  **After-sales** : Technical support, long-term supply and project services.

WHY CHOOSE US

Uncompromising Quality

Strict quality control and testing ensure durability, corrosion resistance, and consistency.

Tailored Solutions

Customized sizes, coatings, and finishes to meet unique project needs.

Competitive Value

Advanced manufacturing and efficient supply chain deliver cost-effective solutions.

Sustainable Commitment

Eco-friendly production and long life cycles support greener construction.

Global Support

Reliable logistics and professional support ensure timely delivery worldwide.





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