



M E T A L M A G U S

Full Production Specification

The 10-Step Master Production Flow & Engineering Standards

Hangzhou, China · Since 2001

Stainless Steel Architectural Systems Manufacturer

Doc. Ref: MM-PROD-SPEC-2026-001

01 Document Information

Document Title	MetalMagus Full Production Specification
Reference	MM-PROD-SPEC-2026-001
Revision	Rev. 1.0
Issued By	Project Management Office — MetalMagus
Applicable Standards	ISO 9001 · ASTM A240 · EN 10088
Scope	Decorative stainless steel panels for architectural application (0.5–3.0mm)

02 Production Flow Overview

Ten controlled stages from design to global delivery. Every stage is documented, measured, and traceable — eliminating the uncertainty of fragmented multi-vendor supply chains.

01 Design

Drawing detailing, process feasibility assessment, effect confirmation.

Parameter	Standard
3D Pre-Validation	Installation conflict & V-Grooving corner precision modeled before production
Drawing Review	DFM audit on tolerances, bend radii, A-Face designation within 48h

02 Raw Materials

First-tier steel mill sourcing; chemical composition and mechanical properties controlled at source.

Parameter	Standard
Grades	SUS 201 / 304 / 316L / 430 / Super-Pure
Thickness Tolerance	±0.01mm
Composition Control	Mill Test Certificate (MTC) per ASTM / EN for every coil
Batch Consistency	Eliminates batch-to-batch color variation

03 Slitting

Digital on-demand slitting with dimensional precision control.

Parameter	Standard
Width Tolerance	±0.1mm per project specifications
Edge Quality	Burr-free, consistent strip width across full coil length

04 Leveling

Stress leveling and precision cutting.

Parameter	Standard
Internal Stress	Eliminated to prevent warping and optical distortion
Length Tolerance	±0.2mm
Flatness	Max 2mm over 1000mm span

05 Surface Lab

Embossing, 8K mirror, PVD, etching, sandblasting, anti-fingerprint.

Parameter	Standard
Surface Options	Hairline (HL) · Satin (No.4) · Vibration · 8K Mirror · PVD Color · Etched · Embossed · Nano-AF
Color Difference	Delta E < 0.5 (in-house closed loop)
Ra Control	Ra ≤ 0.3μm for optical consistency
Defect Control	Surface scratch & multi-process color issues resolved in-house

06 Synergy

Destructive testing of combined processes in the lab.

Parameter	Standard
Combined Processes	e.g. etching + sandblasting + PVD validated for long-term weatherability
Test Regime	Accelerated weathering per ASTM standard before production release

07 Fabrication

Punching, CNC bending, laser cutting, welding.

Parameter	Standard
Protective Film	100µm high-adhesion laser film prevents mold & machine surface damage
V-Grooving	CNC precision grooving with R-angle compensation — no crease marks
Forming Tolerance	Micron-level positioning accuracy

08 Final QC

Dimensional, surface, color difference, and finish inspection.

Parameter	Standard
Inspection Points	Dimensional · Surface · Color (Delta E) · Finish consistency
Light Source	Multi-angle lighting inspection eliminates invisible color difference
Documentation	OQC report with multi-point data per shipment

09 Packing

Inner protective film + outer reinforced export wooden pallet.

Parameter	Standard
Corrosion Protection	VCI anti-rust paper + desiccants for ocean freight
Export Crate	Fumigated reinforced pallets prevent transport damage

Identification	Serial-numbered placement maps per crate
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10 Shipping

Cargo tracking and global logistics.

Parameter	Standard
Trade Terms	FOB · CIF · DDU · DDP
Installation Support	Floor-categorized numbering reduces on-site lifting confusion
Tracking	Real-time cargo tracking across 60+ countries

03 Certifications & Compliance

ISO 9001 Quality Management System	ASTM American Standard Compliance	EN 10088 European Stainless Standard
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Every shipment includes MTC (Mill Test Certificate) and OQC (Outgoing Quality Control) reports. Third-party inspection available per project requirement.

04 Contact

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