Specifying Custom Stamped & Embossed Tin Magnets

INSPECTOR NOTES:

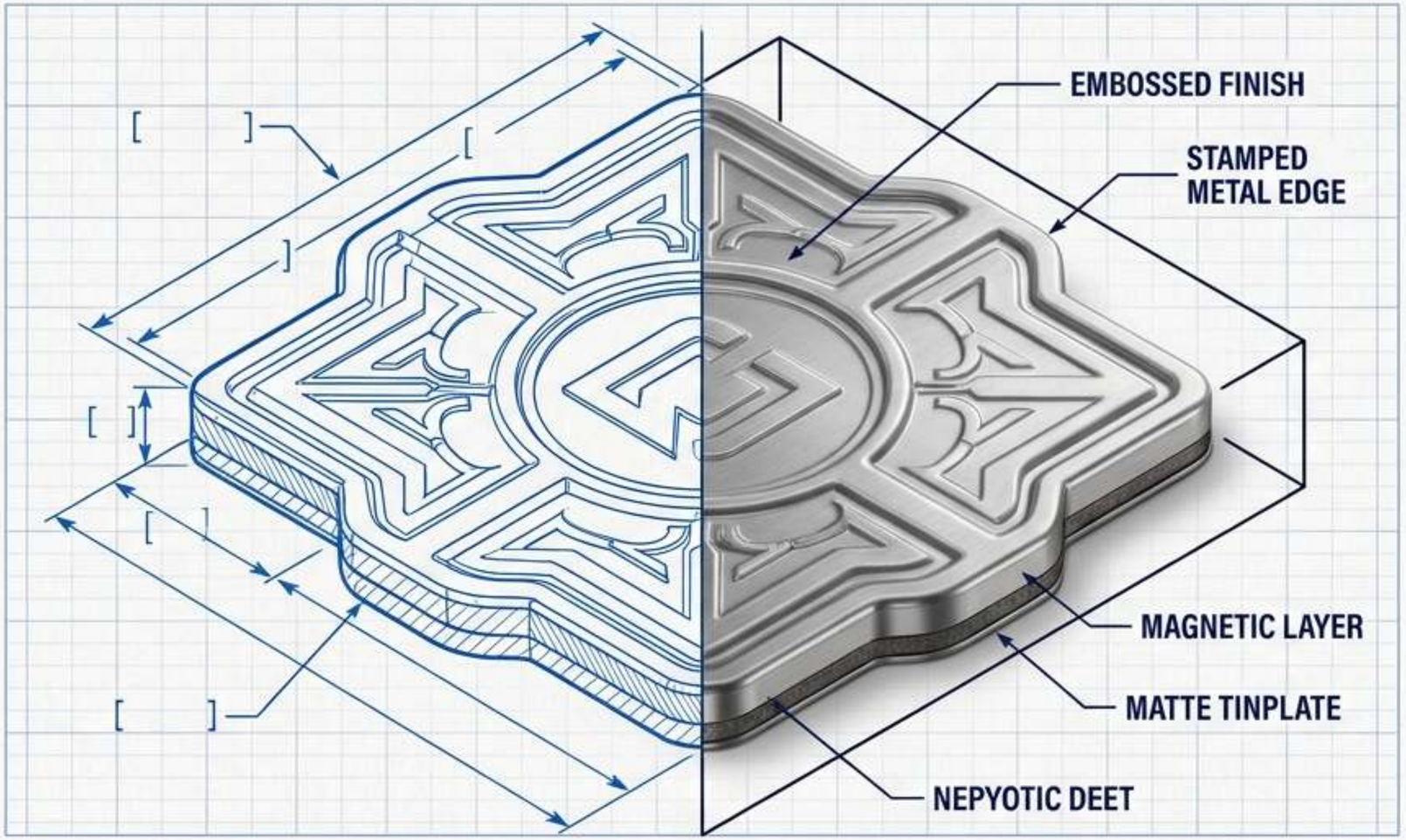
Verify material thickness for optimal stamping definition.

Ensure embossing depth meets tolerance.

Check magnetic pull force against spec ZPCM0006-A.

Coordinate sampling for color match.

Use measurement brackets to define critical dimensions.



QUOTATION REQ'S:

Provide vector files for artwork.

Specify total quantity & delivery schedule.

Confirm packaging specs.

Include cost for prototype mold.

Note minimum order quantities (MOQ).

MATERIAL:
[TINPLATE (0.25-0.40MM)]

FINISH:
[MATTE/GLOSS/BRUSHED]

EMBOSSING HEIGHT:
[0.1MM +/- 0.02MM]

MAGNETIC TYPE:
[FLEXIBLE PVC / FERRITE]

DOCUMENT REF:
ZPCM0006-SPEC-V1.2

DATE: [YYYY-MM-DD]

APPROVED BY:
[ENGINEERING / QC]

A Buyer's Guide to Specification, Sampling, and Quotation for ZPCM0006

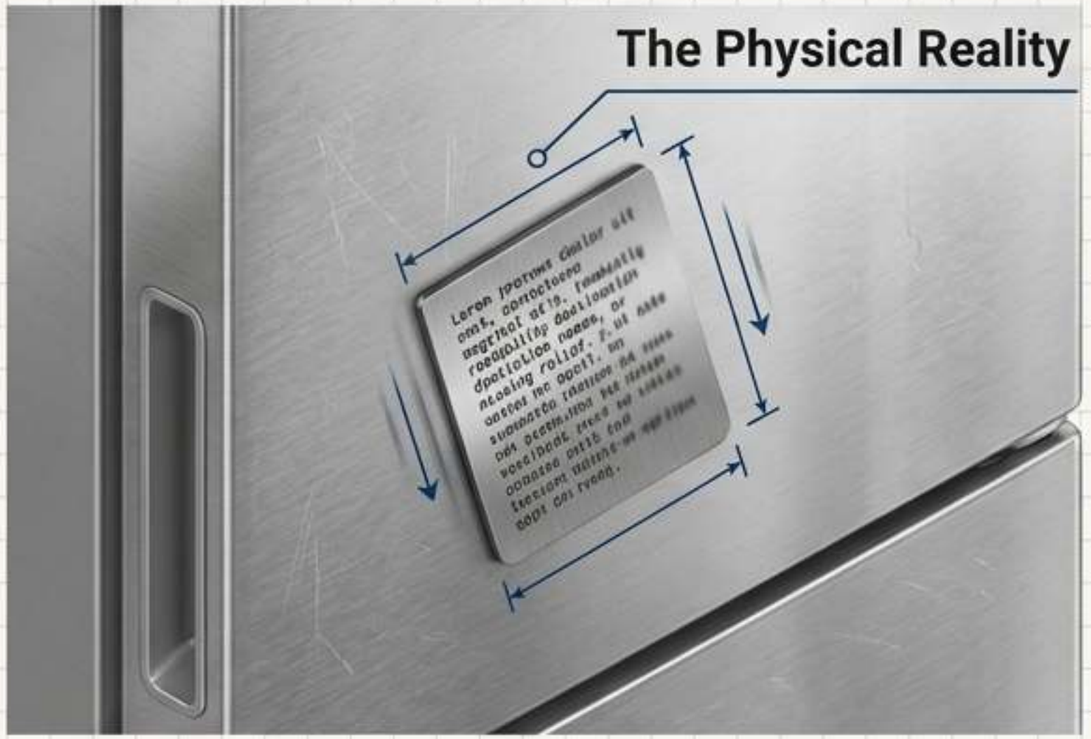
ZIGPAC

Approving a Construction, Not a Picture

The Digital Illusion



The Physical Reality



The Problem

Online previews cannot simulate **physical scale**, **readability limits**, or **target-surface compatibility**.

The Result

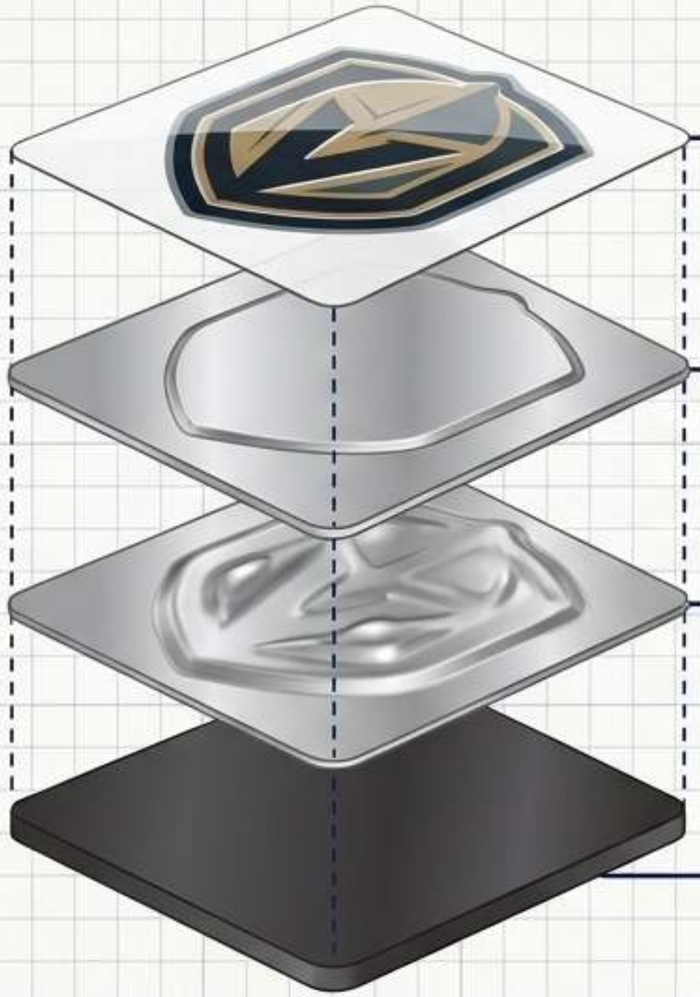
Retailers **handle complaints** about **sliding magnets**, **unreadable destination** names, or missing relief.

The Antidote

Purchasing decisions must be based on a **verified physical construction**, not competing descriptions of premium quality.

ZIGPAC

The Anatomy of ZPCM0006



Layer 1: The Artwork
The printed visual detail and color application. Gloss or matte effects are specific requests, not assumptions.

Layer 2: The Tinplate Face
Tin-coated steel stamped into the outer shape boundary.

Layer 3: The Embossed Relief
Physical variations in height permanently pressed into the tinplate.

Layer 4: Magnetic Backing
The attachment method. Full-area sheets and localized components require different testing.

Inspector Note

Pin posts, badge hardware, or paper-wrapped tin are entirely different constructions and do not apply to this specific specification.

ZIGPAC

Material Selection Diagnostic Matrix

Format	Visual Characteristics	Key Sampling Questions
Stamped & Embossed Tinplate (ZPCM0006)	Metal face with raised graphic detail	Is the relief clear, artwork aligned, and edges acceptable?
Flexible Printed Magnet	Flat graphic, schedule, or card	Does the complete construction stay flat and attach adequately?
Soft PVC / Rubber	Molded character shapes, colored relief	Are fine details, material feel, and backing retention suitable?
Acrylic Magnet	Clear-layer or cut-shape visuals	Are edge quality and breakage risks addressed?
Resin / Epoxy	Sculpted decoration, domed surface	Is the finish consistent; does packaging protect the shape?
Wooden Magnet	Visible grain, engraved engraved artwork	Are appearance variation and surface finishing acceptable?

ZIGPAC

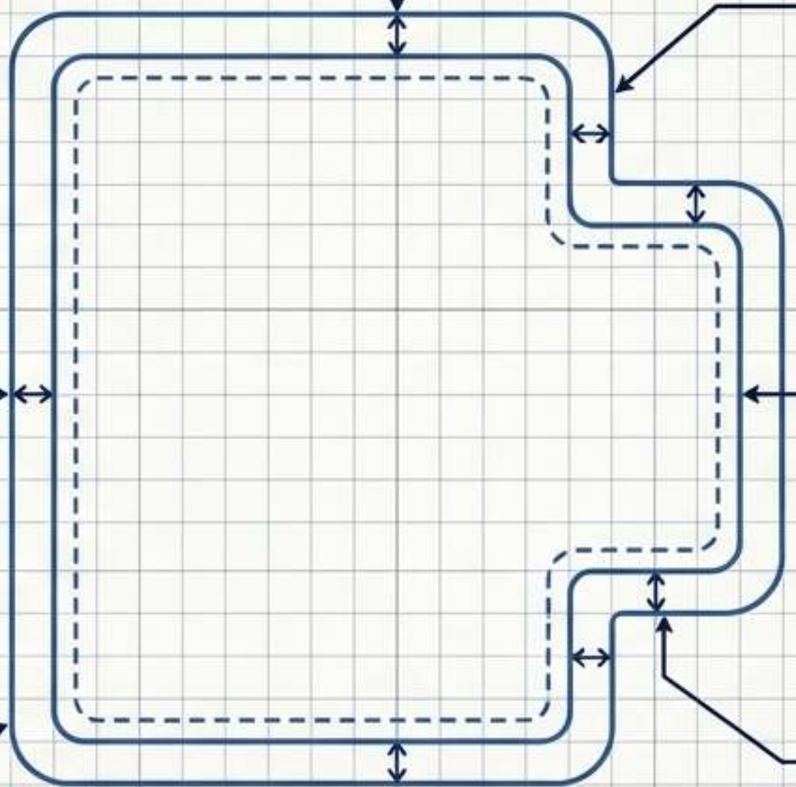
Designing for the Physical Boundary

Scale for Readability

Record finished dimensions in millimeters. Review artwork at exact physical size, not zoomed in on a screen.

Require a Custom Template

Do not assume another supplier's bleed or safe-area settings apply to a new stamped shape.



Outer Shape Dimension

Usable Design Area / Safe Zone

Respect the Forming Boundary

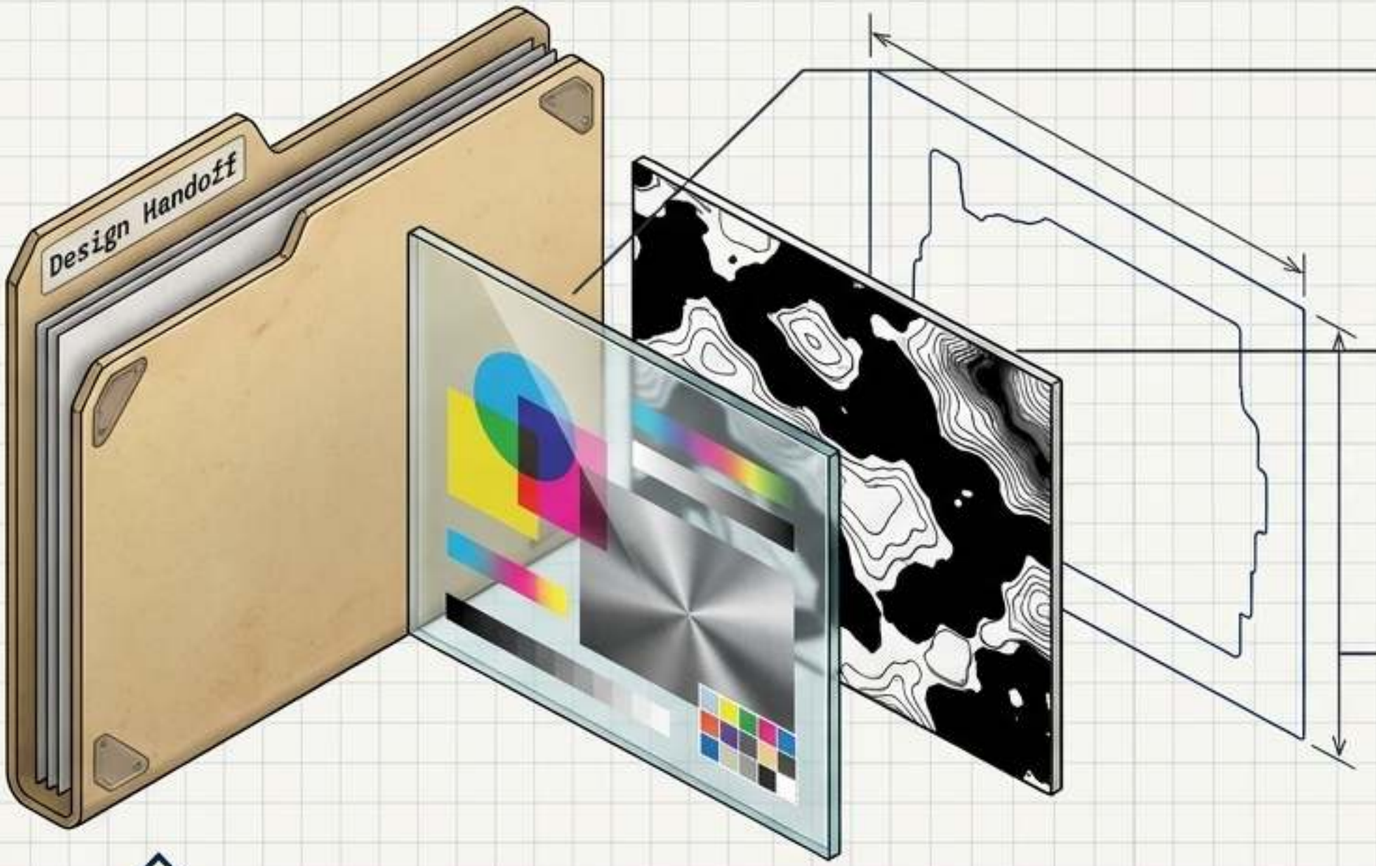
Borders and raised features consume space. Keep critical text and logos away from the edge.

Physical QR Verification

Scanning viability must be assessed on the finished physical sample, never assumed from a digital file.

ZIGPAC

Separating Print, Relief, and Shape Boundaries



Pane 1: The CMYK Print Layer

Visuals, color references, and photographic elements.

Pane 2: The Embossing Mask

A high-contrast mapping defining exactly what is physically raised and what remains flat.

Pane 3: The Die-Line

The physical outer shape boundary defining the cut.

Inspector Note

Supplying a 300 DPI raster file is a preflight starting point, but increasing a file's resolution alone does not repair missing detail or guarantee print quality on metal.

ZIGPAC

The Boundaries of Approval Authority



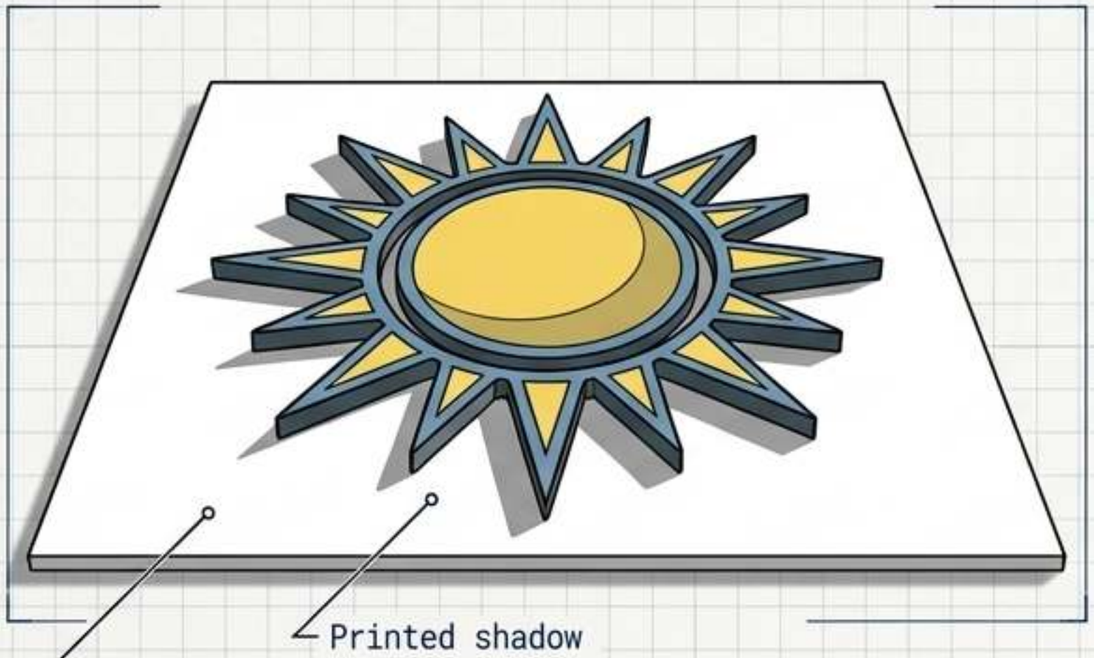


Procurement Axiom: Keep the final approved digital file strictly tied to the approved physical sample reference so later artwork changes cannot silently alter the production order.

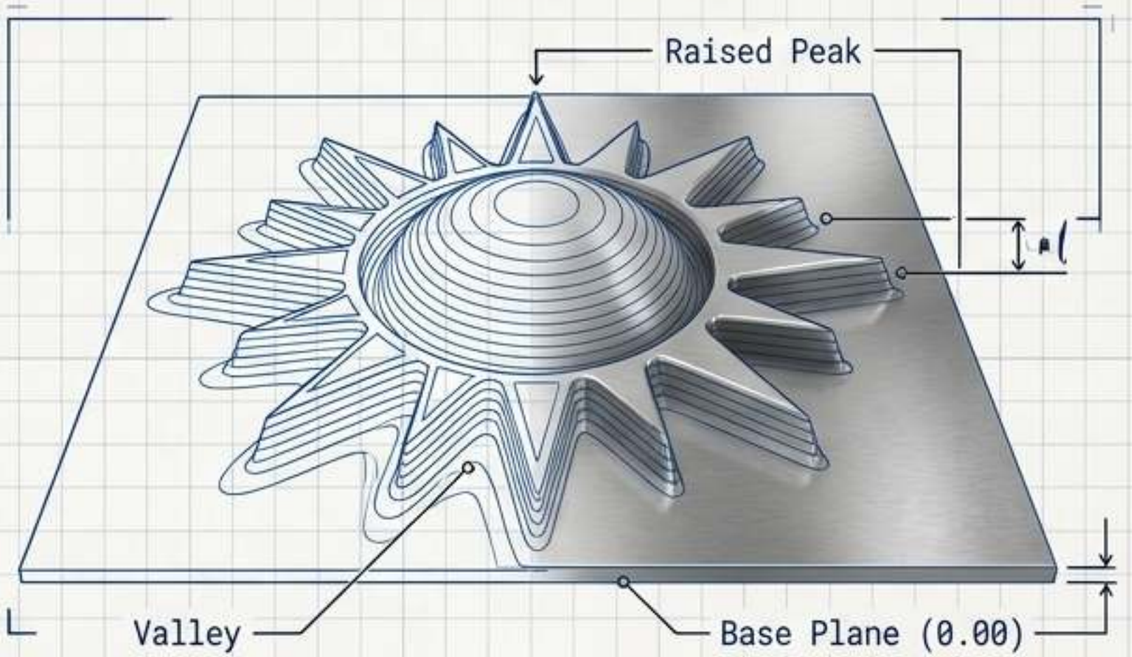
ZIGPAC

Specifying True Physical Relief

Ambiguous / Flat



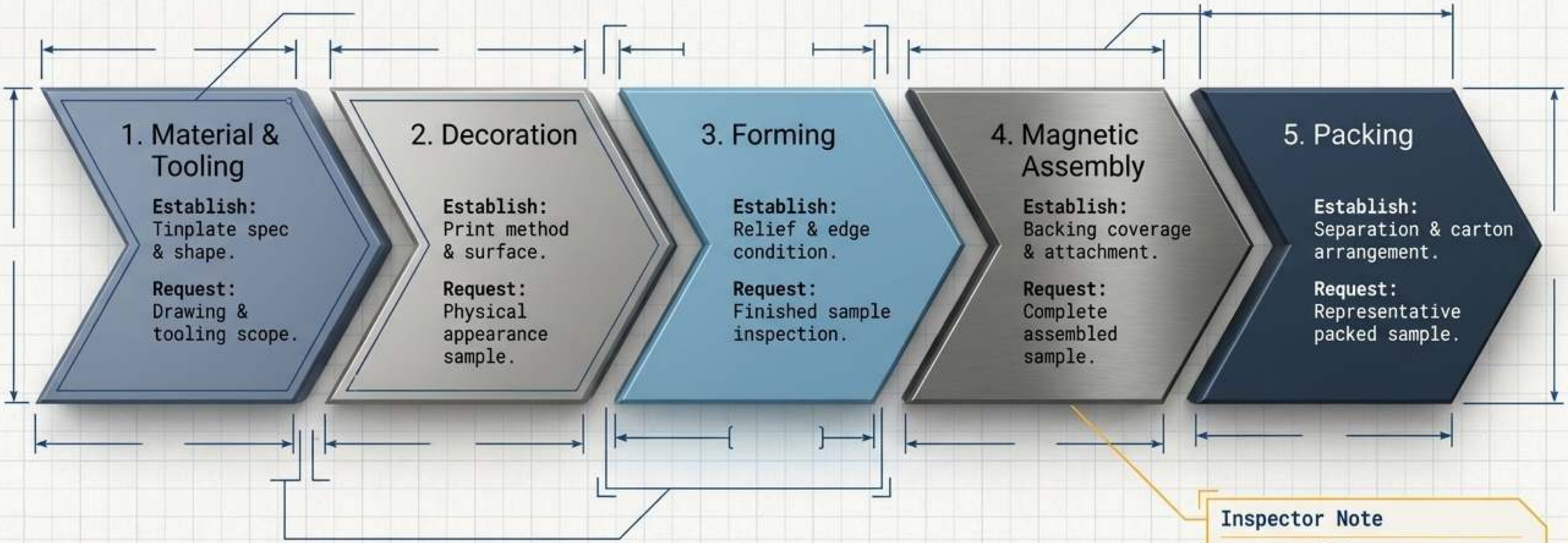
Specified Relief



1. A single **flattened picture** communicates color but leaves embossing ambiguous.
2. Printed **digital shading** is frequently and incorrectly mistaken for a manufacturing request for raised metal.
3. Proposed **physical relief** requires **mandatory physical sample review** to ensure small details survive the forming process.

ZIGPAC

The Five-Stage Production & Approval Pipeline

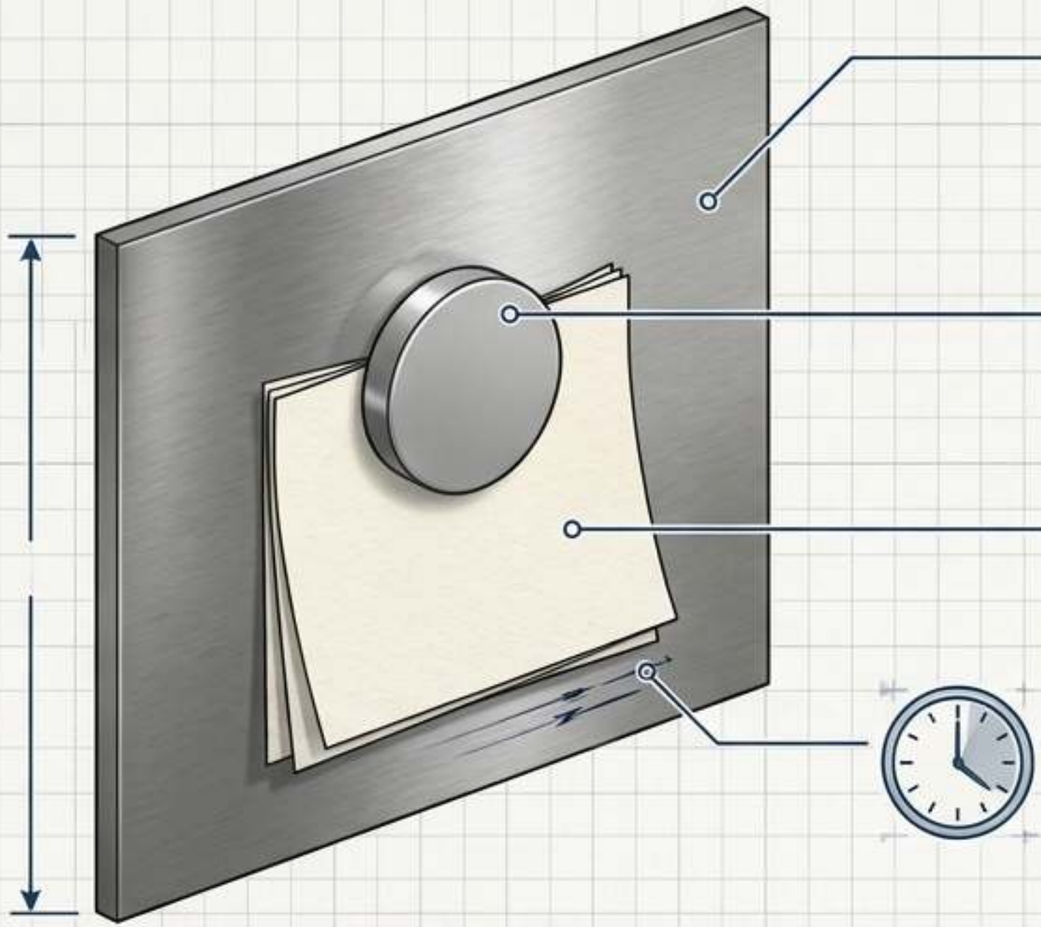


Inspector Note

An approval for one construction is never permission to substitute a different material or assembly.

ZIGPAC

Establishing Attachment Validity



1. Target Surface Material

A metallic appearance does not equal compatibility. Not all stainless-steel accepts a magnet.

2. Assembly Orientation

Direction and placement of the magnet on the surface.

3. Inserted Material / Load

Exact paper count or photo weight intended for the use case.

4. Observation Period & Movement

Time elapsed and any measured downward slippage.

Procurement Axiom: A stronger backing is not a substitute for checking the actual target display surface.

ZIGPAC

Sample Inspection Tolerances

Appearance

Compare color clarity, print-to-relief alignment, and border placement against the approved physical sample.

Dimensions

Measure finished width, height, and specific thicknesses against the agreed schematic tolerances.

Edges & Reverse

Inspect for rough areas, exposed sharp edges, contamination, or tooling damage capable of scratching surfaces.

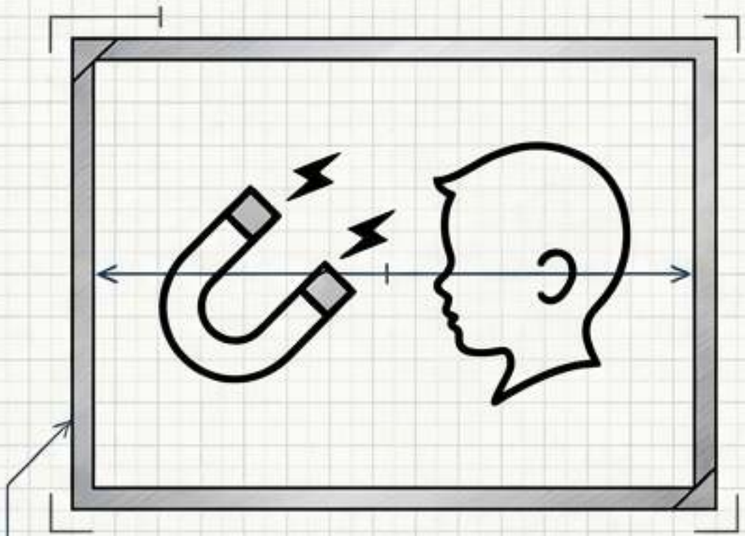
Assembly Integrity

Inspect for lifting corners, loose backing materials, or visible separation after manual handling.

Context Note: Specify standard indoor display unless rigorous environmental testing is explicitly scoped. Avoid unverified waterproof or scratch-proof claims.

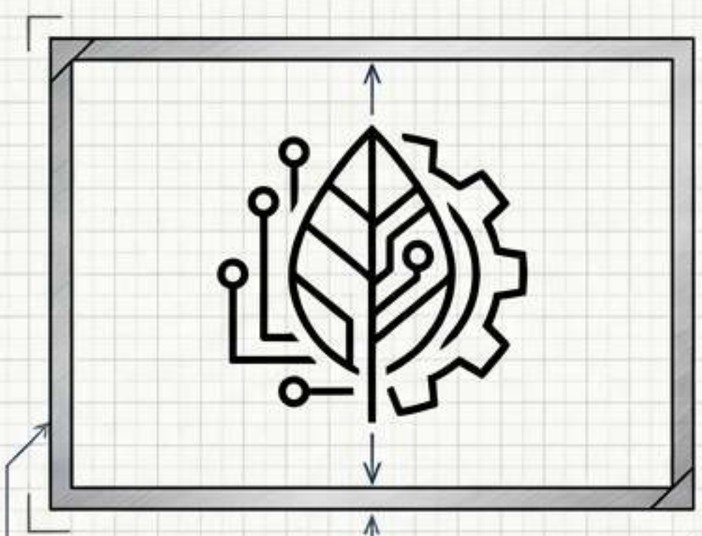
ZIGPAC

Safety, Compliance, and Environmental Claims



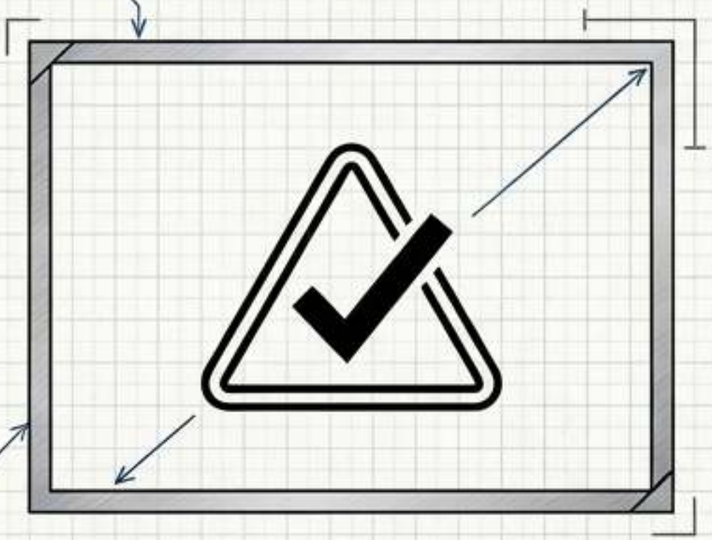
Safety (CPSC Scope)

Decorative purpose does not remove liability. Assess backing retention. Loose magnets fitting inside a small-parts cylinder must have a flux index strictly below 50 $kG^2\ mm^2$.



Environmental Restraints

Do not treat metal face, backing, adhesive, and packaging as a single recyclable material. Prohibit blanket biodegradable claims without specific disposal route documentation.

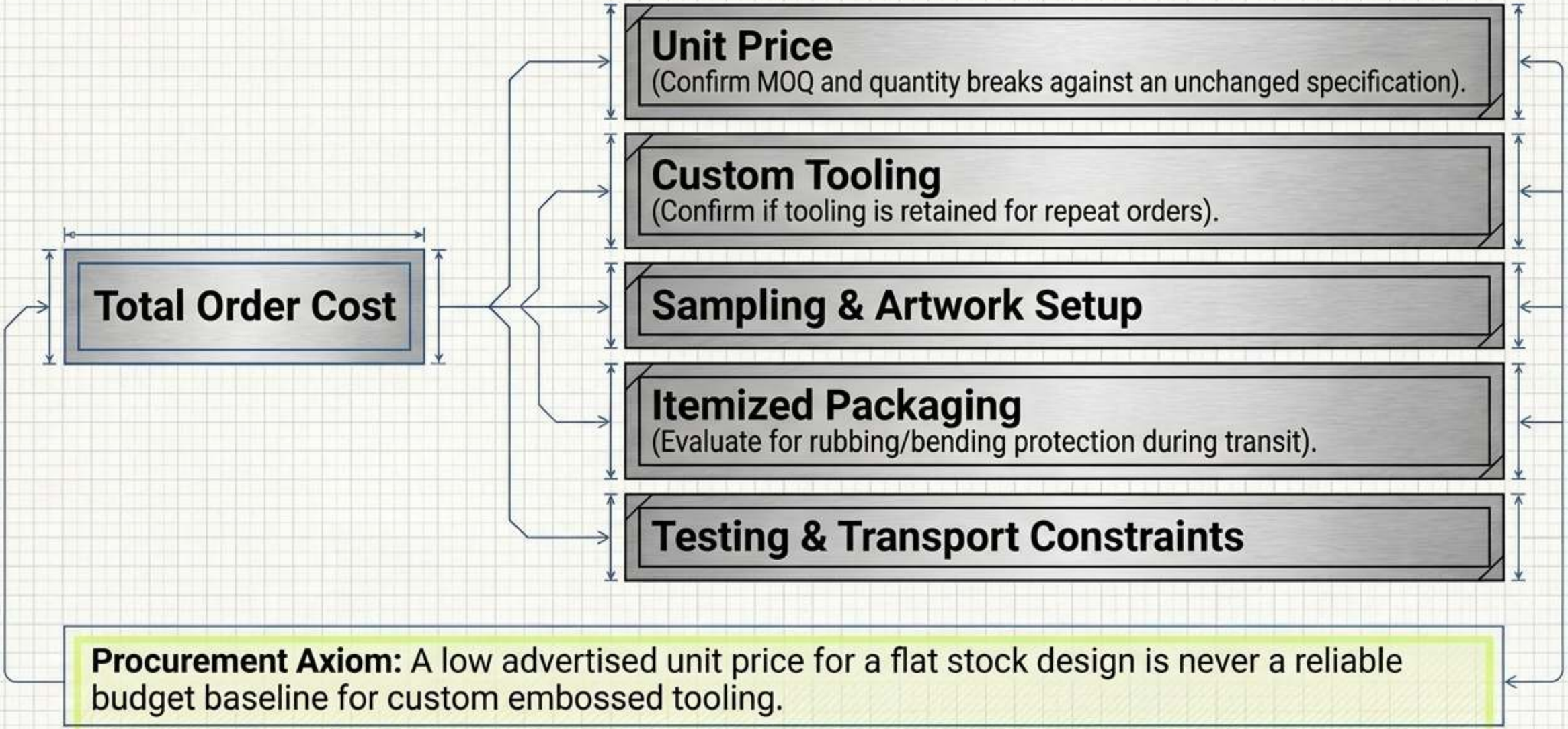


Certification Guardrails

Supplier badges or lab reports for different materials do not serve as acceptable evidence for your specific custom construction.

ZIGPAC

Scoping the Commercial Package



Procurement Axiom: A low advertised unit price for a flat stock design is never a reliable budget baseline for custom embossed tooling.

The Quote-Ready Brief Framework

☑	**Design Handoff:** Separated print layer, relief mask, and die-line supplied?
☑	**Physical Dimensions:** Usable area defined and readable at physical 1:1 scale?
☑	**Surface & Attachment:** Specific target surface identified and physical load tested?
☑	**Sample Review:** Physical sample approved for color, edges, and alignment?
☑	**Itemized Commercials:** Custom tooling, separated packaging, and transport quoted against a locked specification?

Concluding Note: Custom tin fridge magnets are an engineered assembly. Specifying artwork, backing, sample checks, and packaging together protects appearance while making acceptance criteria absolute.

ZIGPAC