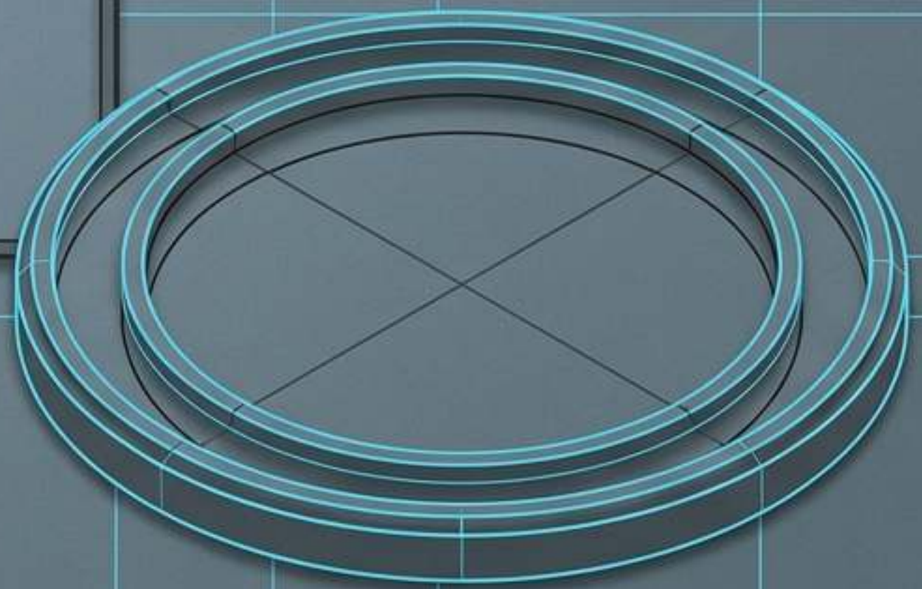
ZIGPAC Formal SKU: ZPCP0001 | Diagnostic Playbook & Procurement Schematic

Translating Pixels to Physical Metal

A Proof-First Buying Guide for Custom Soft Enamel Pins



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SKU FACT DASHBOARD

SKU: ZPCP0001

Verified Minimum Order Quantity (MOQ): 50 pieces

Verified Production Time:
3–10 days

Verified Unit Weight:
0.012 kg/pc

Prices, dimensions, plating, and packaging remain subject to approved design and quotation.

TARGET PURCHASING SCENARIOS

- **Companies/Organizations:** Employee recognition, event giveaways, club identity, fundraising.
- **Independent Artists/Labels:** Testing original designs, limited releases, compact product additions.
- **Collectors:** Visual identity and tactile expression on jackets, hats, bags, and boards.

CRUCIAL DECISION POINT

Before ordering, identify the objective. Free distribution vs. retail resale dictates inventory risk, hardware, and inspection criteria.

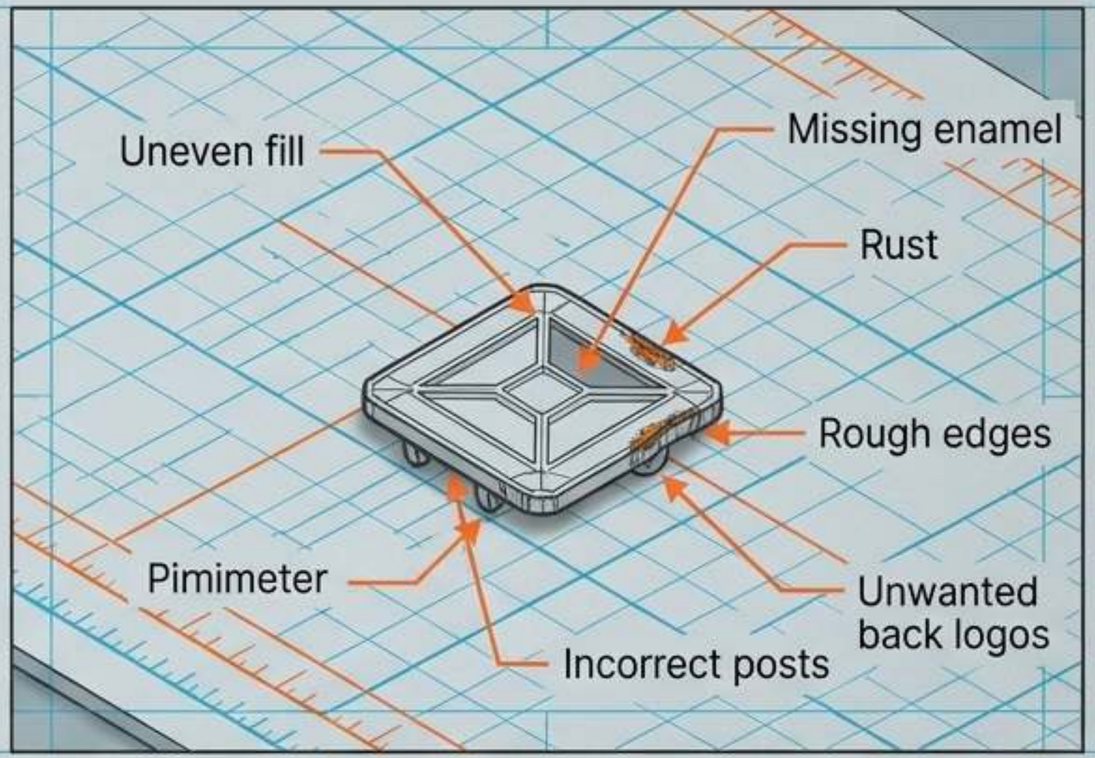
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The Digital Illusion



The Digital Concept: Limitless scale, perfect colors, zero physical constraints.

The Physical Reality



The Production Specification: Uncontrolled details become expensive inventory mistakes.

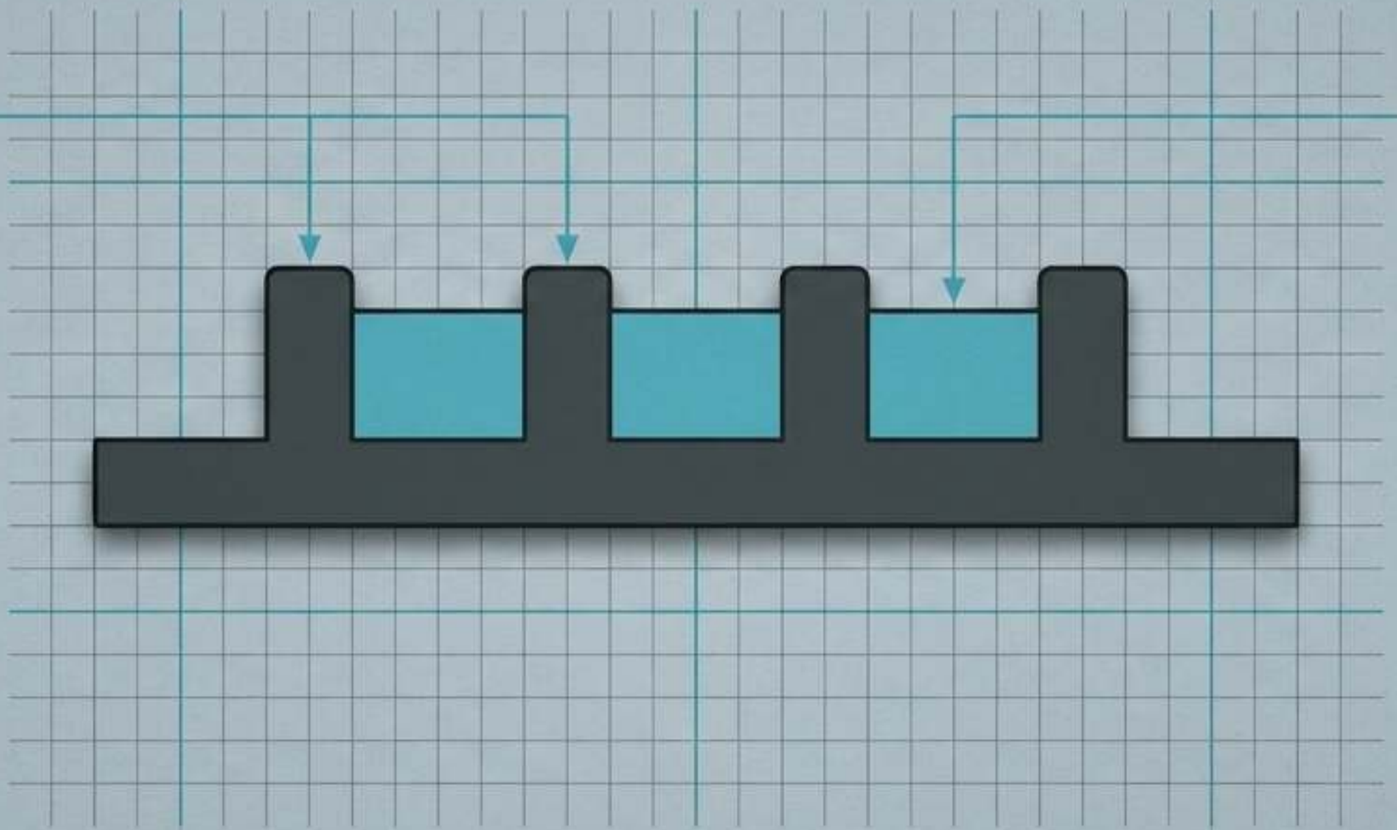
The Bulk Quality Risk

A single omitted detail—actual size, post position, or plating—can ruin an entire batch. One creator reported severe quality problems across a 400-piece order. While not an industry defect rate, it proves the critical need for a controlled specification.

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Raised Metal Boundaries

Separate individual color regions, reinforce outlines, and act as integral artwork.



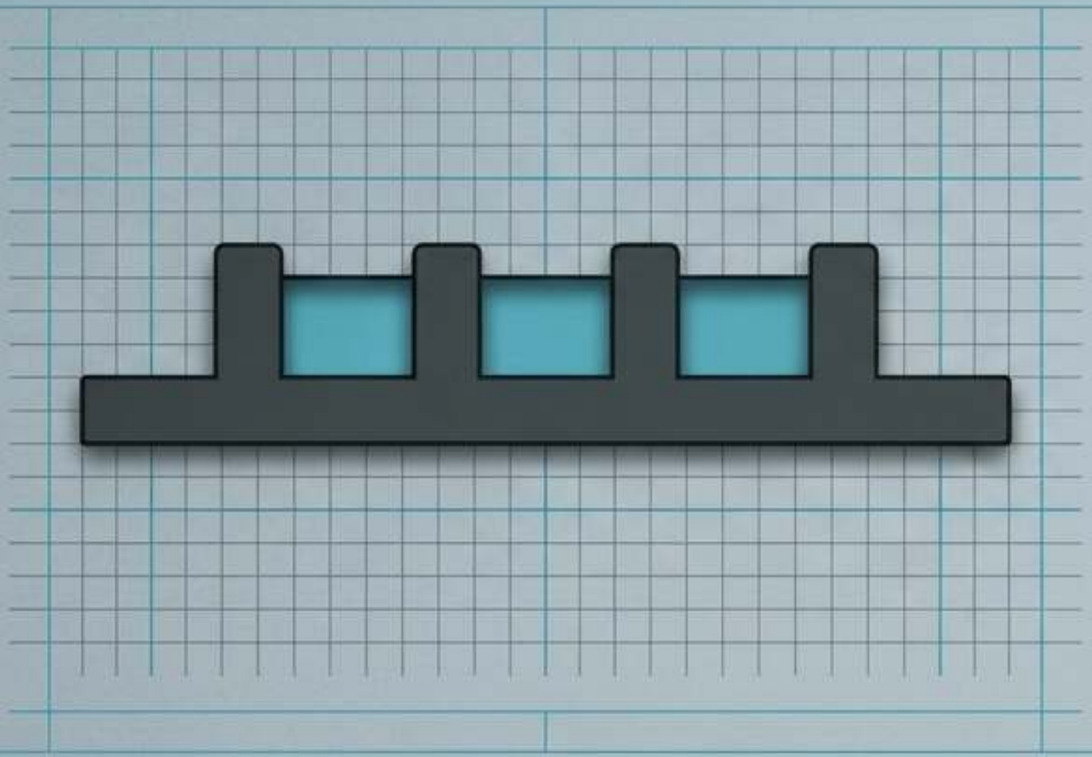
Recessed Color Areas

Enamel deposited into lower regions, creating the characteristic dimensional finish.

Key Takeaway: This construction thrives on solid color blocks and expressive outlines. A community discussion notes this tactile surface is a defining attraction for collectors—not a lower-grade substitute for smooth pins.

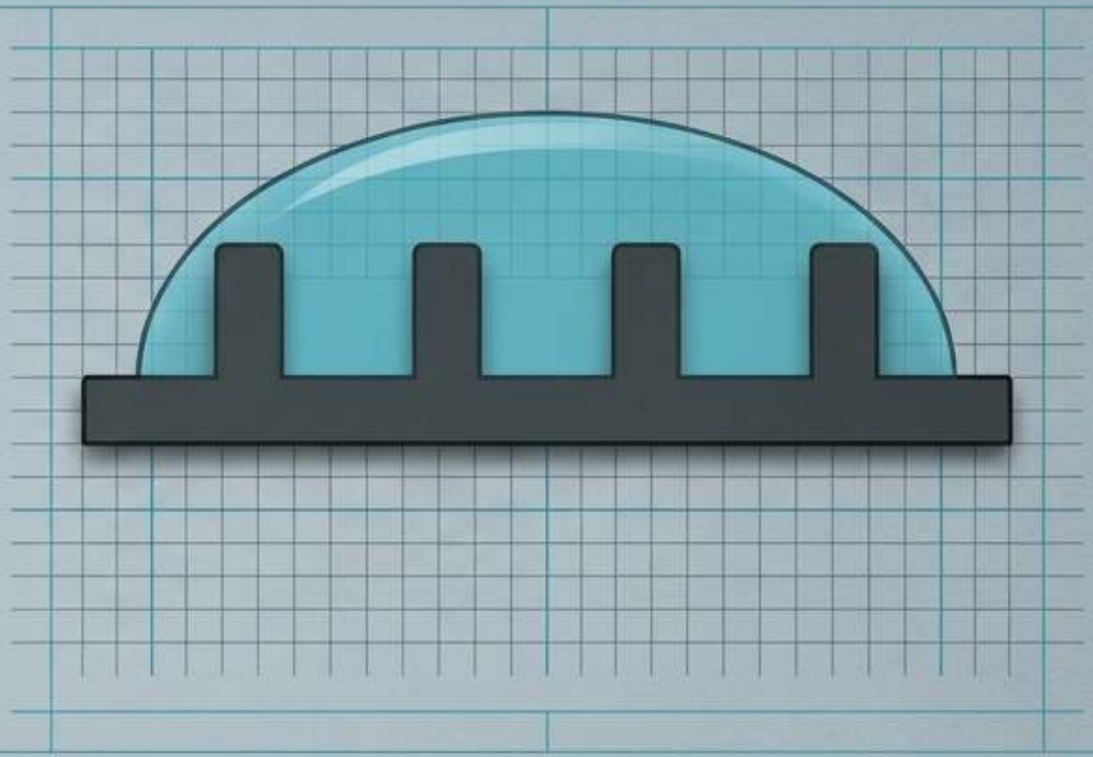
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Standard Soft Enamel



Maximum tactile contrast. Exposed metal boundaries.

Optional Epoxy Dome



Covers recessed areas, modifies the tactile surface, and adds a protective layer.

The Aging Caveat

Epoxy is not the soft enamel itself. Community reports note risks of yellowing, cracking, or coating deterioration over extended use. This identifies a risk, not a uniform lifespan prediction. Validate through material information if long-term appearance is critical.

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CONSTRUCTION TYPE	VISUAL RESULT	BEST-FIT USE	DECISION BOUNDARY
Soft Enamel	Raised metal, recessed solid color.	Art merch, texture-led designs.	Choose for tactile relief.
Hard Enamel	Color filled to metal height, polished smooth.	Formal recognition, frequent wear.	Choose for flat surface and scratch resistance.
Die-Struck	Metal relief, little/no color.	Heritage designs, formal emblems.	Choose for pure metal texture.
Printed Pin	Printed imagery, gradients.	Complex, un-dividable artwork.	Choose for photographic detail.
PVC/Rubber	Lightweight, flexible, molded.	Soft promo items.	Choose for flexibility over metal character.

ANALYTICAL NOTE: This is not a universal quality ranking. Collector preference is divided between tactile detail and smooth consistency. Compare constructions using identical dimensions, finishes, and quantities.

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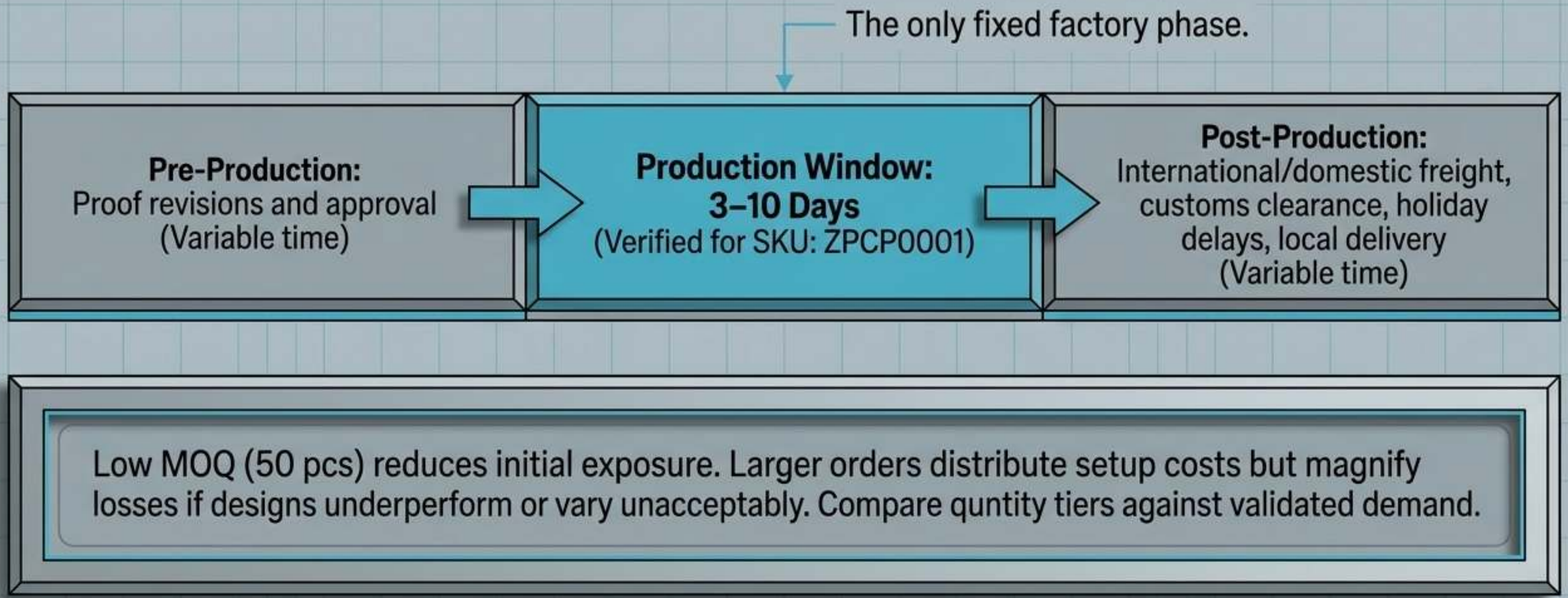
The Proof-First Protocol



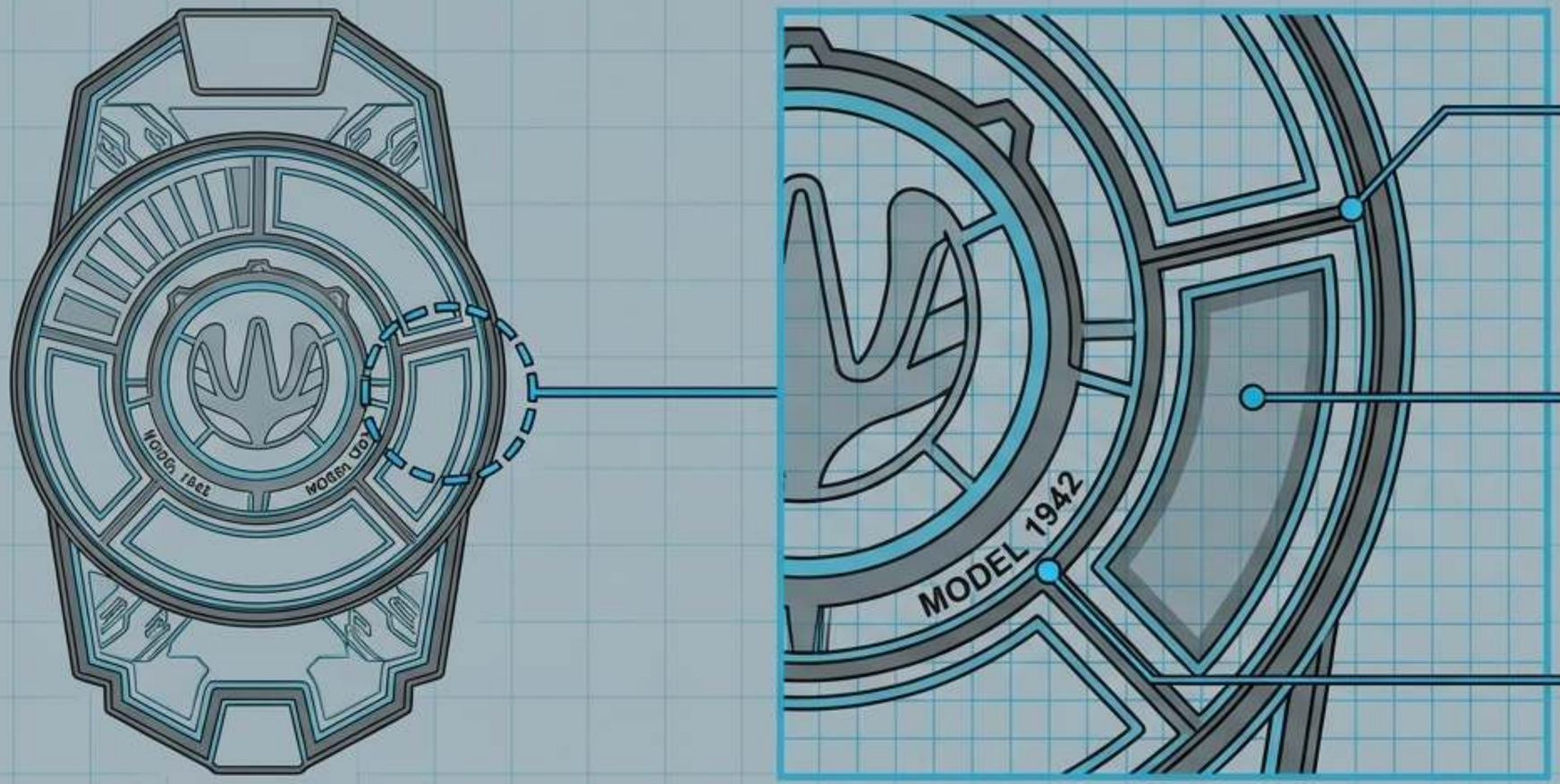
Core Philosophy: Low unit cost cannot compensate for illegible artwork, unauthorized IP, or missed event dates. Secure the specification before funding production.

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SEPARATE THE PRODUCTION DEADLINE FROM THE DELIVERY DEADLINE



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Metal Lines:
~0.2–0.3 mm
(separating colors).

Color Fill Areas:
~0.3 mm minimum.

Typography:
At least 6 pt
reference.

Wox: Scale Reality Check: These are supplier-side references, not universal guarantees. A design clear on a monitor may blur when reduced to pin size. Review actual-size physical printouts. Ensure color areas are closed and separated by metal.

Preferred formats: AI, EPS, or vector PDF.

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A manufacturer's willingness to produce an image does not grant the buyer permission to sell it.

The Cascading Risks of Unauthorized IP

- Order refusal by ethical suppliers.
- Marketplace removal (e.g., Etsy takedowns).
- Unsellable, stranded inventory.
- Direct legal claims.

Checklist Item

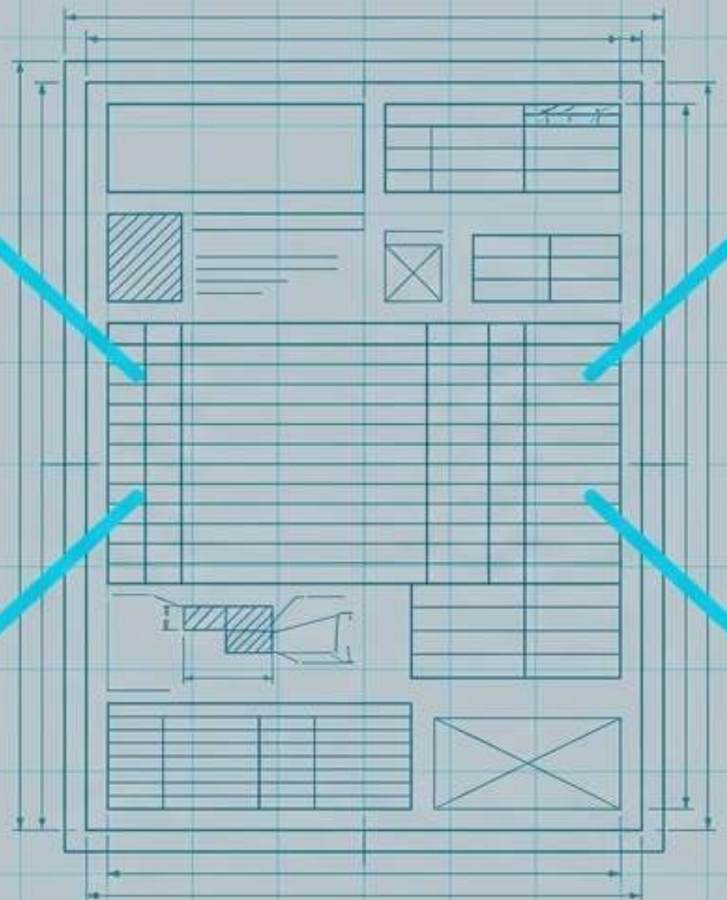
Verify ownership of all entertainment characters, games, films, music identities, trademarks, logos, illustrations, and fonts before requesting production.

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Step 3: Approve a Complete Production Proof

Visuals: Finished dimensions, Pantone/PMS references, raised/recessed mapping.

Materials: Plating finishes (Gold, silver, black nickel, etc. - availability must be confirmed).



Hardware: Post quantity/position, clutch type, reverse markings (logos/copyright).

Economics: Mold/setup fees, individual packaging, rush fees, import variables.

The Golden Rule: **Freeze the design. Print the proof at physical scale. Screen color is not a physical reference. Any later change to dimensions, plating, or back markings must trigger a revised proof.**

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1. Mold Preparation



2. Metal Forming



3. Outline Cutting



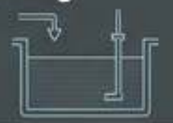
4. Post Installation



5. Deburring



6. Plating



7. Color Filling



8. Curing



9. Inspection



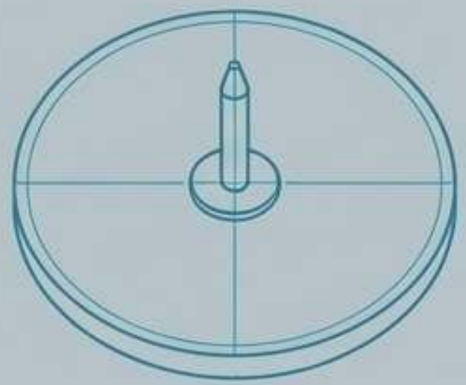
10. Fitting & Packaging



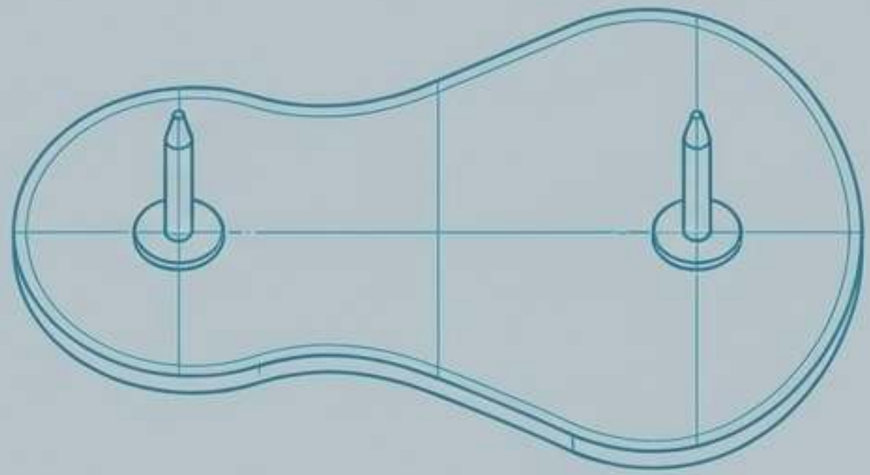
Material Insights Panel

- Common Bases: Iron and Zinc Alloy.
- Zinc Alloy Advantage: Often required for complex outlines, cutouts, or cast structures.
- Status: Final material and process remain design-dependent quotation items.

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Single Post: Suitable for small, balanced designs.



Double Post: Larger or unbalanced designs require two posts to resist rotation.

Clutch Options:

- Butterfly, rubber, locking clutches, magnets, safety-pin fittings.

Engineering Note:
The correct choice depends on physical dimensions, weight distribution, wearing orientation, and expected use. Capacity and load must be determined by sample validation, not assumption.

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Step 5: Establish Inspection & Remedy Criteria

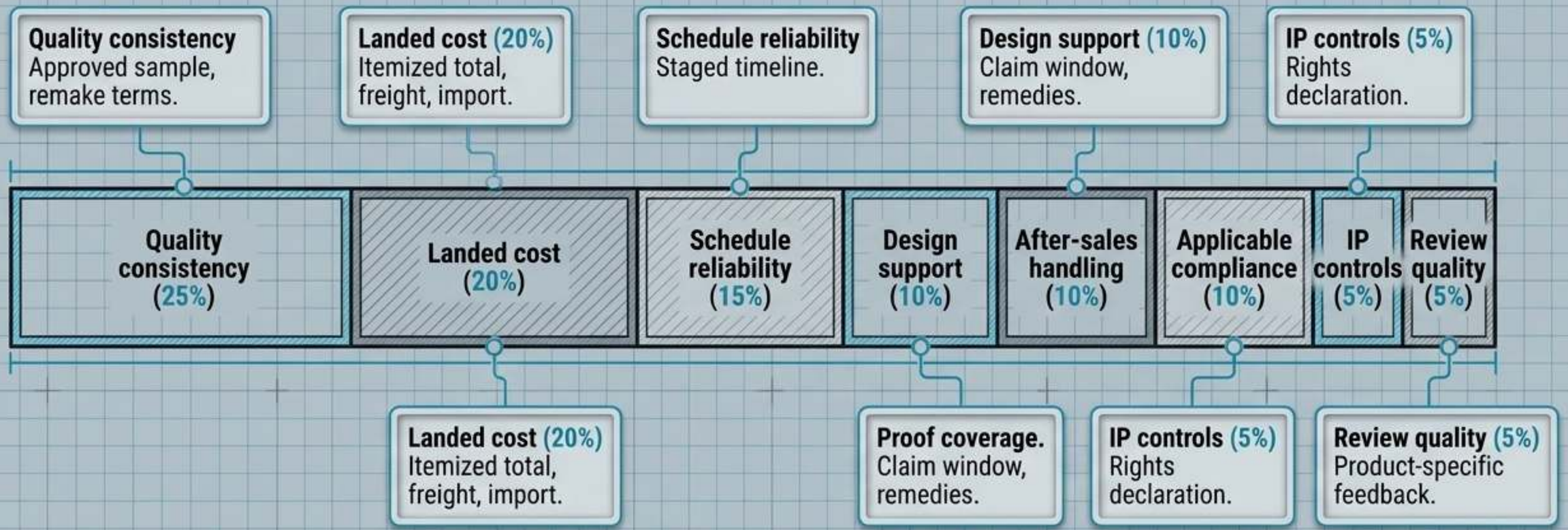
Classify defects before production, not after delivery.

Inspection Scope	Defining a “Major Defect”
Color placement, fill height, exposed metal, bubbles, missing enamel, stains, scratches, burrs, plating coverage, post security, security, clutch engagement, consistency.	**1. Prevents intended use.** **2. Materially changes approved artwork.** **3. Creates an attachment failure.** **4. Makes the item commercially unacceptable.**

Bottom Rule: Exact definitions, tolerances, sample sizes, and remedies must be agreed upon in written order terms.

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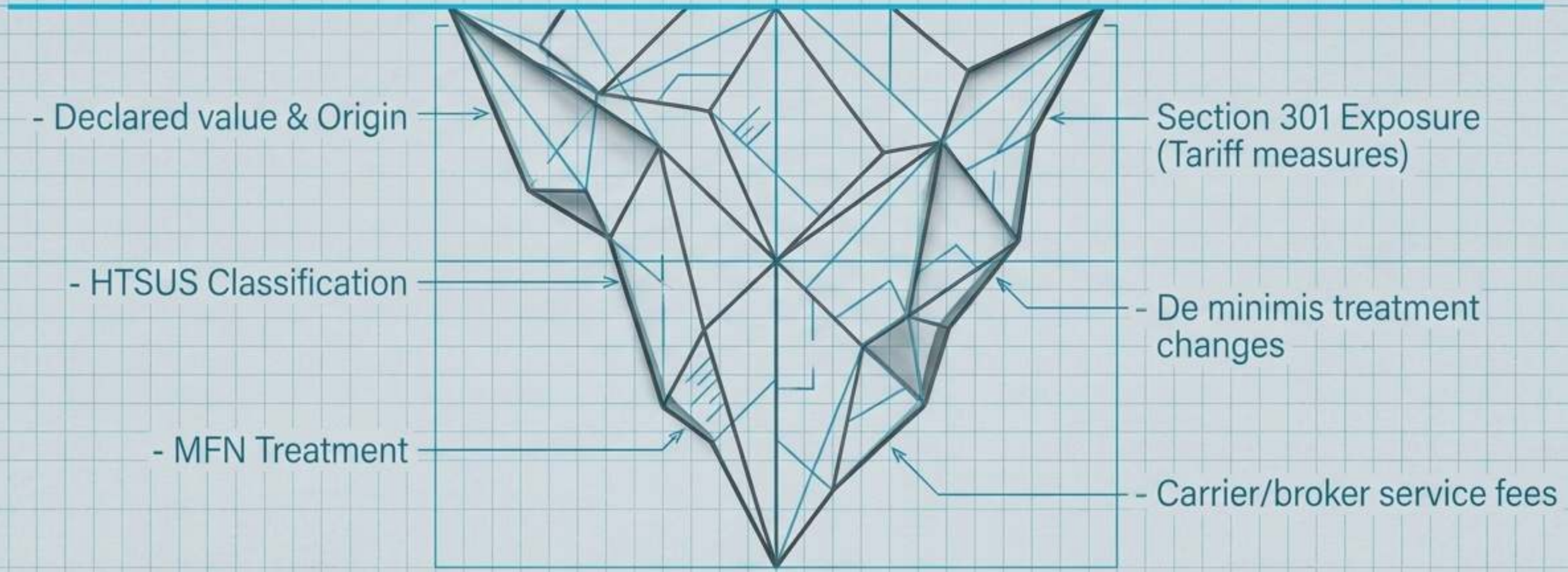
Vendor Evaluation Scorecard



Actionable Insight: Adjust weights by project: Event orders prioritize schedule; retail releases prioritize consistency. "From" pricing is useless unless all suppliers quote the identical specification.

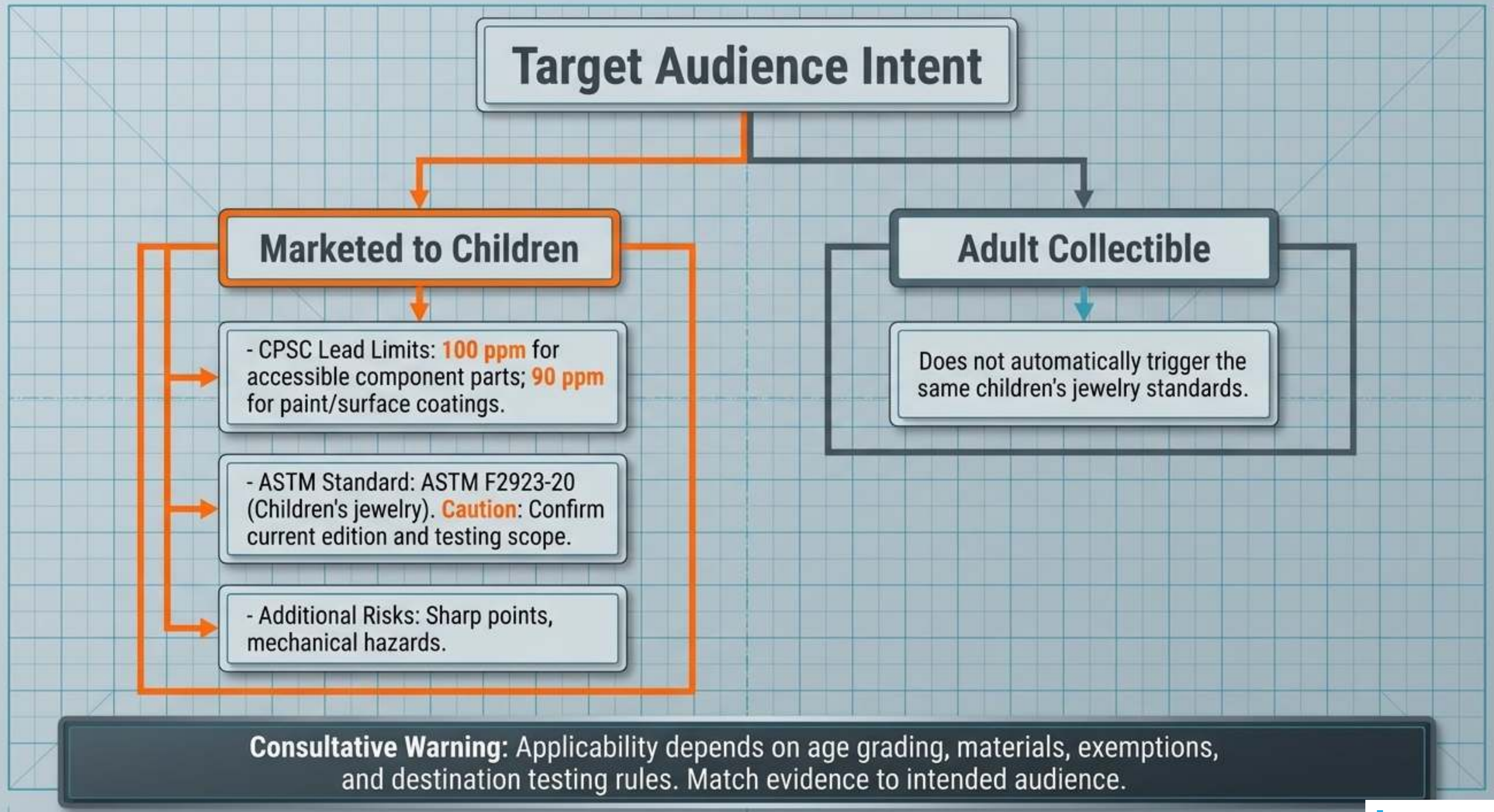
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Advertised per-piece factory cost



Crucial Rule: Do not rely on a historical per-piece customs estimate. Current tariff measures and clearance requirements must be checked at the time of transaction.

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Target Audience Intent
Marketed to Children
- CPSC Lead Limits: 100 ppm for accessible component parts; 90 ppm for paint/surface coatings.
- ASTM Standard: ASTM F2923-20 (Children's jewelry). Caution: Confirm current edition and testing scope.
- Additional Risks: Sharp points, mechanical hazards.
Adult Collectible
Does not automatically trigger the same children's jewelry standards.
Consultative Warning: Applicability depends on age grading, materials, exemptions, and destination testing rules. Match evidence to intended audience.

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BROAD CONTEXT



US Promo Market: $26.78 billion (up 2.63% in 2024). Excludes lapel pins used as awards.



2025 -> 2034

Pin-Buttons Forecast: $2.8B (2025) -> $4.6B (2034). Covers broader categories.

ANALYTICAL CAVEAT

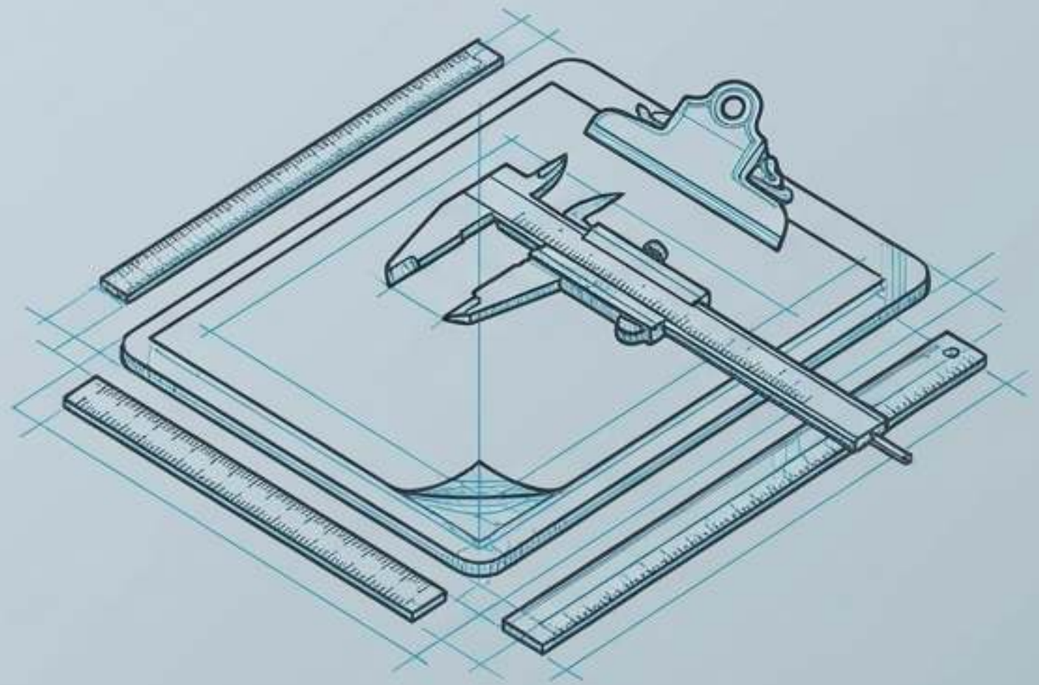
Etsy displays custom pin listings, confirming an active selling environment, not guaranteed sales volume.

These external figures describe context and purchasing intent. They **do not prove specific sales, profitability, defect rates, or market share for SKU ZPCP0001.**

ZPCP0001 Verified Facts: 50 MOQ | 3-10 Days Prod | 0.012 kg/pc

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Post-Delivery Diagnostic



The Checklist Items

- ☐ - Document actual production vs. delivery timing.
- ☐ - Log major vs. minor defect counts against pre-agreed criteria.
- ☐ - Measure color variation and packaging performance.
- ☐ - Track customer reactions and sales velocity.

Mold Retention Policy

Confirm if the factory retains the mold, for how long, ownership terms, and if reuse incurs charges.

Strategic Takeaway

A repeat order must incorporate the first batch's issues into a revised specification rather than relying on memory.

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The Proof-First Pre-Flight Checklist

Cockpit Dashboard

Section 1: The Design

Actual size verified via printout.

Closed color areas (~0.3mm).

Metal lines adequate (~0.2mm).

IP rights secured.

Section 2: The Physical Build

Base metal & plating chosen.

Post layout mapped to weight.

Back markings/logos defined.

Section 3: The Commercial Terms

Inspection criteria & major defect definitions locked.

Landed costs & tariffs calculated.

Production schedule divorced from delivery target.

Submit your artwork, dimensions, finish, backing, and target date to request one project-specific quotation and proof review. Do not substitute low advertised prices for a controlled specification.

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