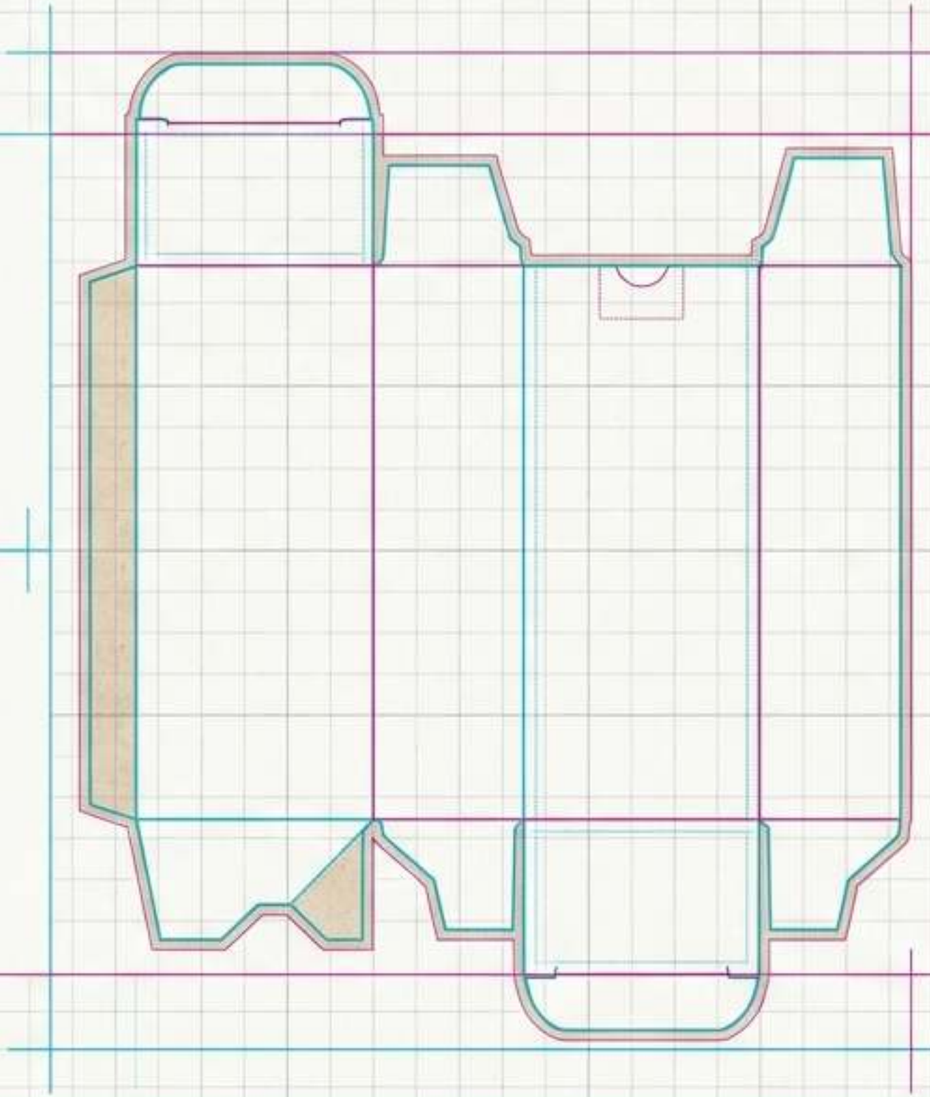
The Folding Carton Sourcing Blueprint

A 6-Step Standardization Framework for B2B Packaging Buyers



Presented by Zigpac | Specifications, MOQs, and Quality Control

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Missing board grade!

Need a printed tuck box, 2 x 2 x 6 inches, 1000 pcs.

What caliper?

Who owns the dieline?

Quote 1: $8.95/unit

Assumed:
Matte-laminated sample run



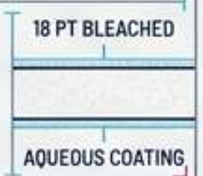
Quote 2: $0.44/unit

Assumed:
14 pt recycled board, grey back



Quote 3: $1.10/unit

Assumed:
18 pt bleached board, aqueous coating



Most carton sourcing problems start before production. Two quotes can only be compared when they describe the exact same board, structure, finish, quantity, and delivery terms.

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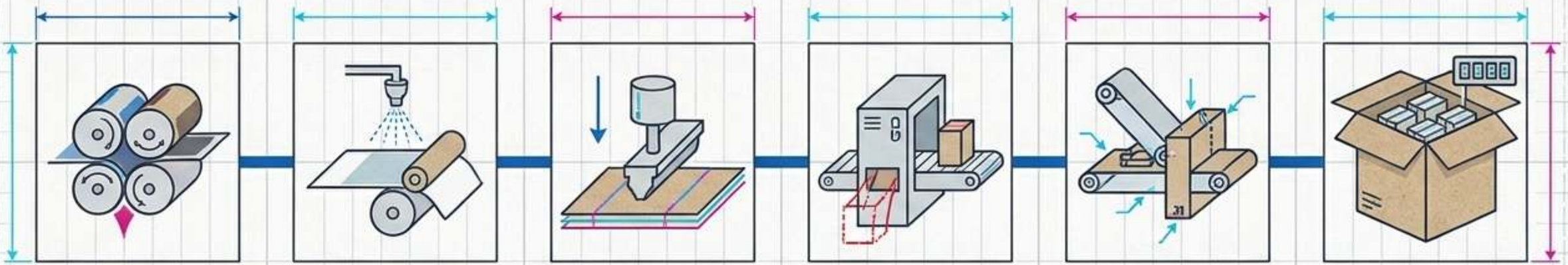
The Factory Floor Flowchart



1. Printing
2. Coating & Lamination
3. Die-Cutting & Creasing
4. Stripping
5. Folding & Gluing
6. Counting & Packing

Folding cartons utilize ECMA codes (e.g., ECMA A20.20), while corrugated cases follow FEFCO codes (e.g., FEFCO 0713). Always check the quoted structure against these published references.

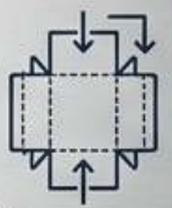
The 6-Pillar Standardization Framework

01 Board & Caliper



Define exact material and thickness.

02 Dieline Ownership



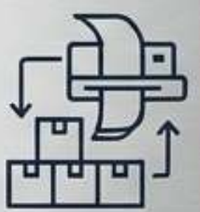
Confirm structural engineering responsibility.

03 Proofing Ladder



Establish the sample approval sequence.

04 MOQ & Print Route



Match volume to press economics.

05 QC Evidence



Require measurable inspection data.

06 Landed Cost



Separate production from transit.

Make every supplier answer the exact same questions, in writing, before you compare prices.

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The Board Grade Swatch Matrix

Grade & Swatch	Surface & Structure	Print Result	Cost Tendency	What to Ask
 SBS (Solid Bleached Sulfate)	Bleached virgin fiber, white throughout	Sharpest images, cleanest whites	Higher	Caliper in pt, coated one side or two?
 CCNB (Clay-Coated News Back)	Recycled fiber, white top, grey back	Good on top, edges show grey	Lower	Recycled %, stiffness vs SBS?
 Kraft (SUS/CUK)	Brown virgin fiber	Muted colors, needs white ink	Mid	Is white ink included?
 FBB (Folding Boxboard)	Mechanical pulp core, stiff	Very good top, cream back	Mid	Basis weight?
 E/F-Flute	Printed liner on small flute	Good, flute lines may show	Higher per unit	Crush/stacking requirements?

Technical Note: Caliper is stated in points (1 pt = 0.001 in = 0.0254 mm). 18 pt = ~0.46 mm. Never compare pt to gsm without a direct conversion.

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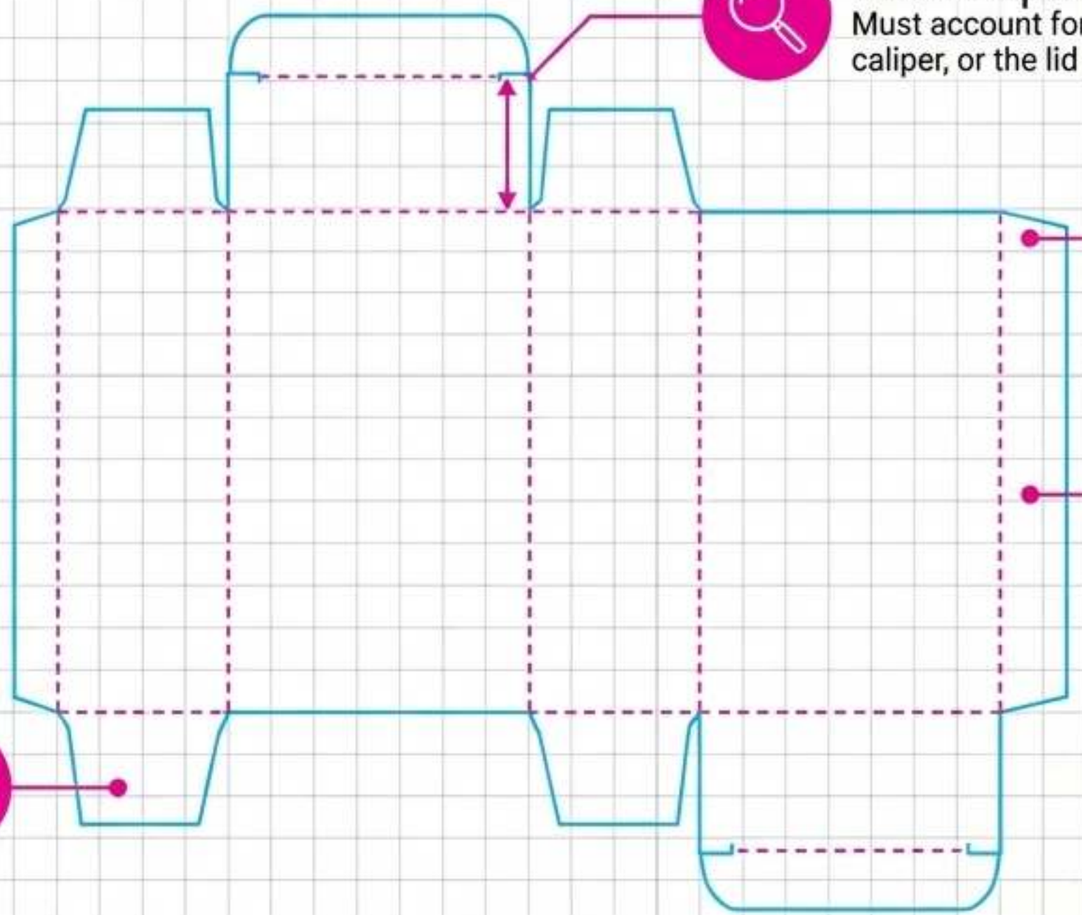
The Dieline Ownership Diagram



Tuck Depth
Must account for board caliper, or the lid pops open.

Glue Flap
Width dictates the strength of the side-seam.

Main Score Lines
Must run parallel to the paper grain direction to prevent bowed panels and cracked folds.

Dust Flaps
Require precise clearance to prevent internal collision.

Rule of Thumb:
The supplier must build the dieline from your internal dimensions and product weight. If you provide a generic dieline and it doesn't fit the specified board caliper, the revision costs fall on you.

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The Proofing Ladder

Key Insight:
A $30 printed sample is cheap insurance compared to reprinting a full run of failed cartons.

eProof (Digital)

- Proves: Artwork placement, bleed, barcodes
- Unproven: Physical fit, real-world color

White Structural Sample

- Proves: Product fit, tuck tension, bottom lock
- Unproven: Print finish, crease cracking

Zigpac Baseline: Free with order

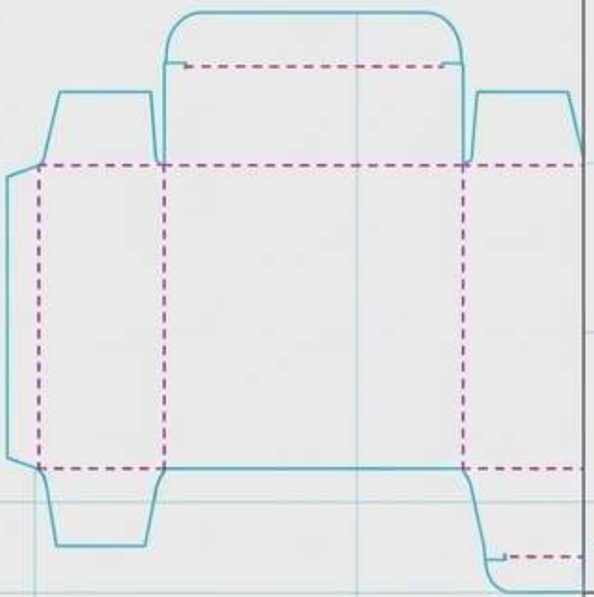
Printed Sample

- Proves: Color on real board, shelf look
- Unproven: Full-run press consistency

Zigpac Baseline: US$5–30

Press Check (ISO 12647-2)

- Proves: Offset color targets
- Unproven: Final gluing and packing quality



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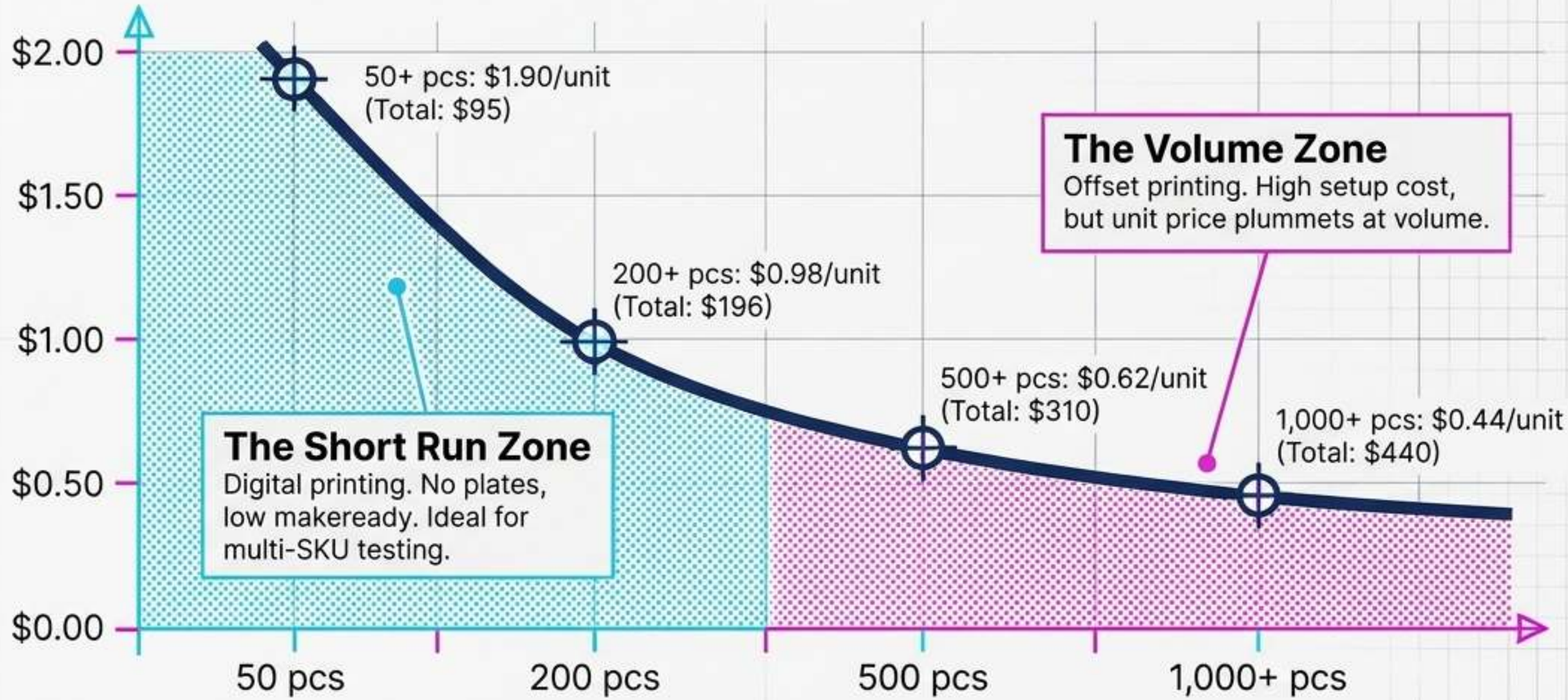
Economies of Scale



Moving from **50 to 1,000** pieces cuts unit price by **77%**, while total spend rises only **4.6×**.
Always request matched quotes at **3 or 4 identical quantity tiers.**

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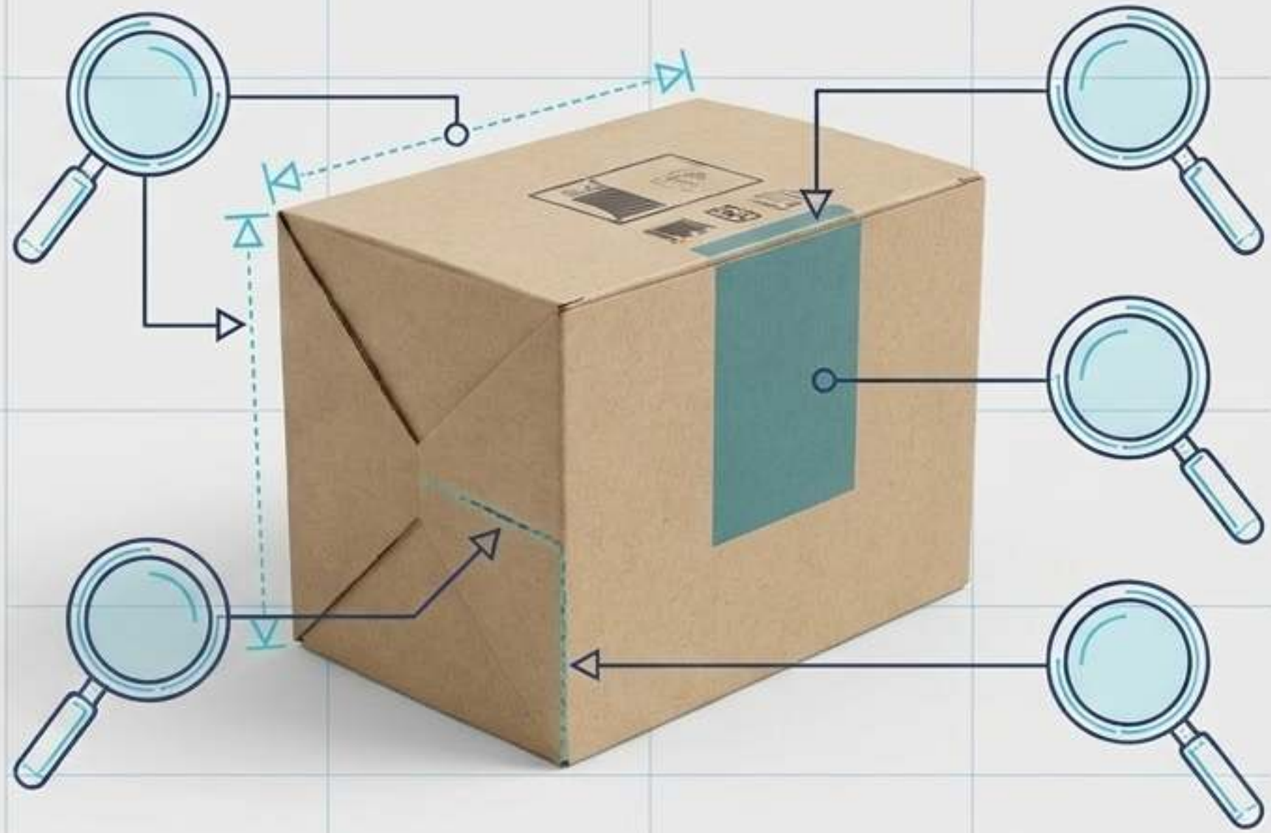
The QC Evidence Magnifying Glass

Dimensions

Measure L×W×D against the approved dieline tolerances. Prevents loose/unpackable goods.

Score Cracking

Inspect folds on coated/laminated areas. Prevents weak hinges and exposed fibers.



Registration

Check print-to-cut alignment on sheet edges. Prevents shifted logos.

Color

Compare production batch against approved sample under standard lighting.

Glue Joint

Perform peel/fiber-tear check on side seams. Prevents pop-open bottoms.

Standard to Demand: Require AQL (Acceptance Quality Limit) sampling documentation under **ISO 2859-1** before production begins.

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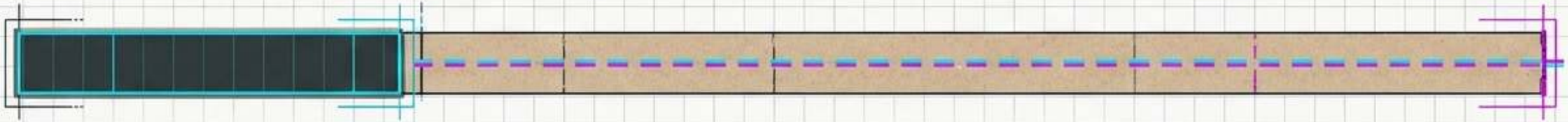
Production vs. Transit Timeline

Production
(Fast & Predictable)

Transit
(Slow & Variable)



3–10 days
Starts within 2 hours of payment confirmation.

6–12 weeks
Overseas freight to port. Ensure master shippers are tested to ASTM D4169 standards.

Takeaway: Never accept a generic “lead time” quote without confirming if it means EXW (production only), FOB (to port), or DDP (door-to-door).

The True Landed Cost Equation

(Unit Price × Volume) + Proofing Fees + Freight + Duties + QA Testing = True Landed Cost

Supplier A (The Trap)

$0.35 Unit Price
+ Hidden $500 Setup
+ $150 Proof
+ Uninsured FOB Freight

= High Landed Cost + High Risk

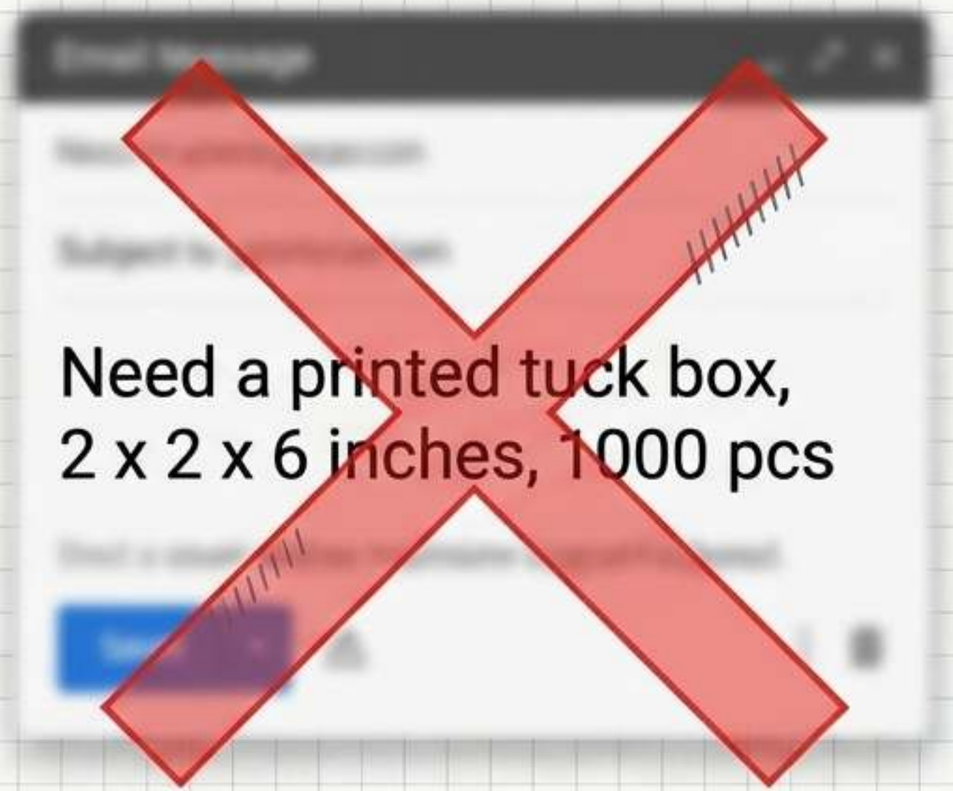
Zigpac Baseline

$0.44 Unit Price
+ Free eProof
+ $30 Sample
+ Transparent Freight

= Lower Landed Cost + Zero Risk

Insight: A supplier offering a marginally cheaper unit price often offsets it with inflated tooling, sample fees, or risky transit terms.

Anatomy of an Optimized RFQ



Optimized Specification Sheet

Structure:	ECMA A20.20 (Straight Tuck End)
Dimensions:	Internal 2 x 2 x 6 inches. (Packed product weight: 14 oz).
Material:	18 pt SBS (Solid Bleached Sulfate), coated one side.
Print:	CMYK + 1 Spot Pantone, Matte lamination.
Quantities to Quote:	500 / 1,000 / 2,500 pcs.
Requirements	Supplier to provide dieline based on caliper. Free eProof + Physical printed sample required.
Incoterm	DDP to Los Angeles, CA.

Footer Note: Sending this precise spec ensures every supplier bids on the exact same reality.

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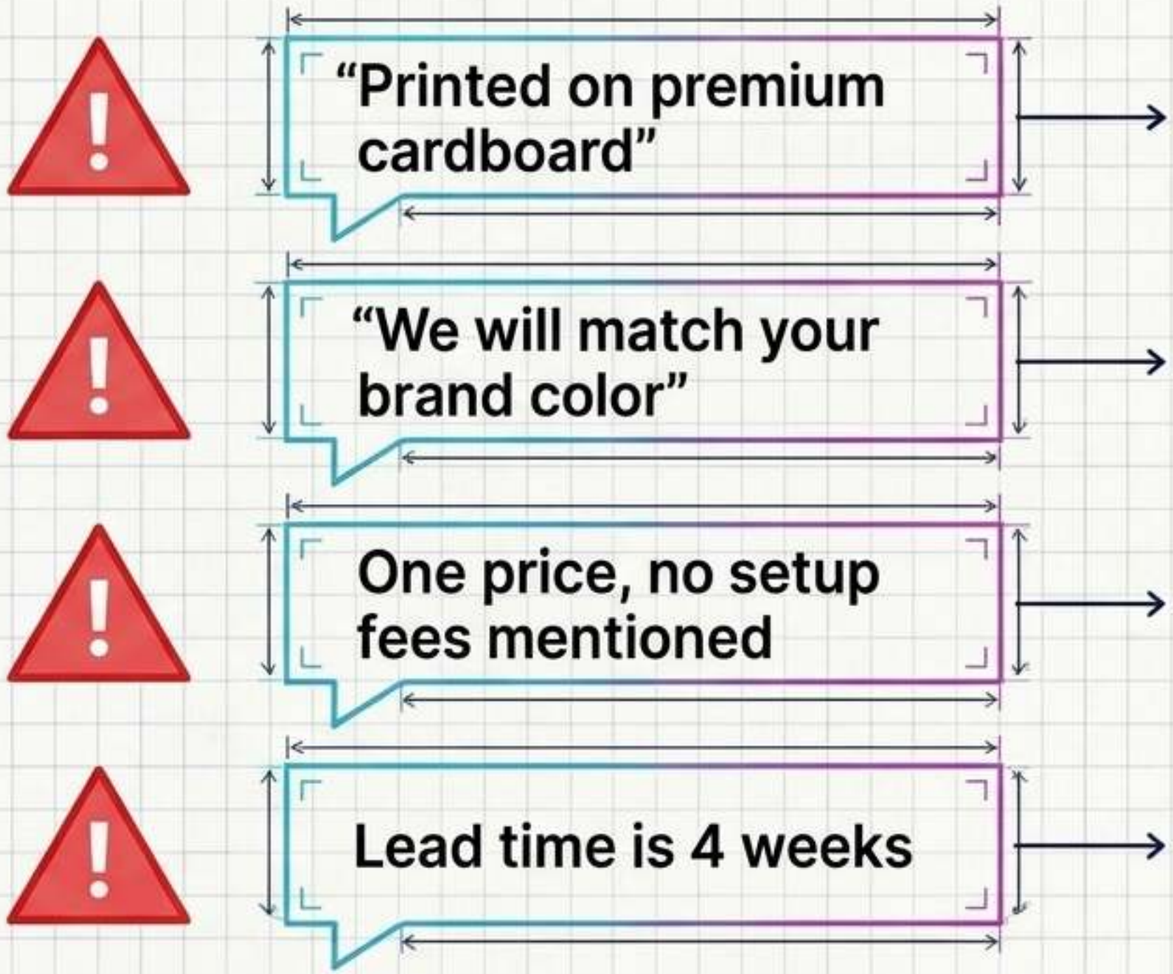
The Master Supplier Comparison Scorecard

Leave a cell blank if the supplier evades the question in writing. Blank cells equal procurement risk.

Evaluation Criteria	Supplier A	Supplier B	Zigpac (Baseline)
Board & Caliper Stated?			Yes, explicitly on quote
Dieline Responsibility?			Built by Zigpac
Proofing Stages?			Free eProof, physical samples $5-$30
Quantity Tiers Provided?			Yes, tiers from 50 pcs
Production Speed?			3-10 days standard
Quality Remedy?			Full refund for quality issues, no return needed

Supplier Red Flags



Translation: The supplier is hiding the actual board grade and caliper. You cannot verify strength or print fidelity.

Translation: Meaningless without an approved physical reference and a stated tolerance (ISO 12647-2).

Translation: Setup fees are likely baked into a high minimum order quantity, or will appear after proof approval.

Translation: Evades the critical distinction between production time and overseas shipping time.

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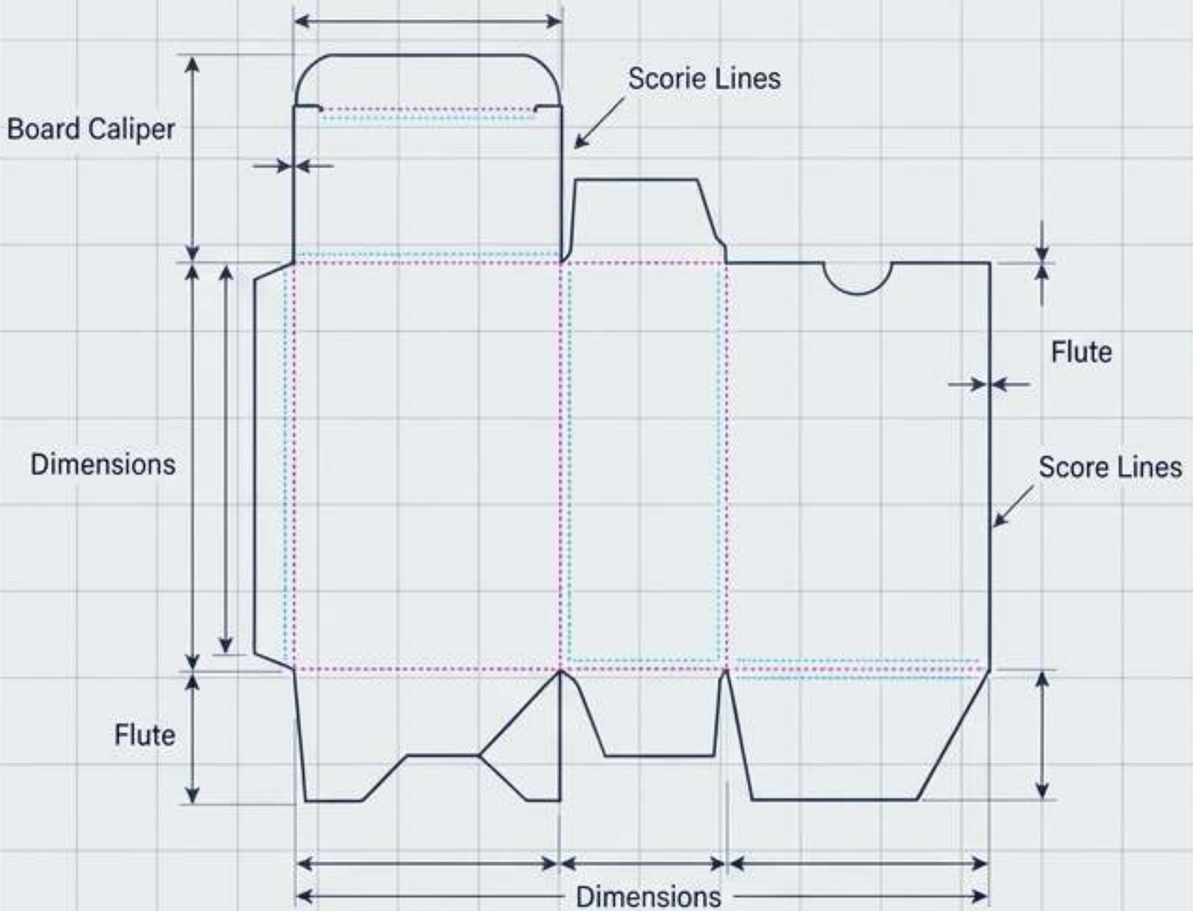
The Final Protocol



1. Standardize the Request

Two quotes are only comparable if they describe the exact same board, dieline, and delivery terms.

2. Demand Physical Proofs

Always approve a physical structural and printed sample before authorizing bulk production.

3. Evaluate Landed Cost

Unit price is only a fraction of the final financial risk.

Choosing a manufacturer comes down to making them commit to the details in writing. Zigpac confirms board, MOQ, unit price, and timelines upfront—setting the transparent standard for custom carton sourcing.