

# Supplier RFQ checklist

Reference for assembling an RFQ package that returns comparable quotes, qualifying suppliers, scoring offers, and writing the contract clauses that prevent the disputes that surface later.

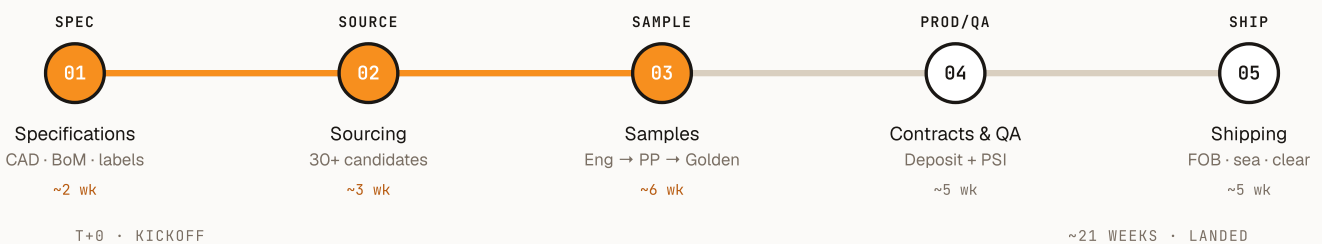
REVISION <b>2.0</b>	ISSUED <b>May 2026</b>	OWNER <b>Ideambox engineering</b>	COMPANION <b>XLSX quote comparison template</b>
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## ABSTRACT

The lowest unit price in a stack of supplier quotes is rarely the lowest total cost. The supplier who quoted it usually interpreted a different problem than the one described — different finish, different tolerance, excluded tooling, excluded inspection, excluded packaging.

This document covers the RFQ package contents, supplier qualification questions, the warning signs in responses, the apples-to-apples comparison framework, tooling cost references, and the contract clauses that prevent disputes during production. Companion XLSX (supplier-rfq-comparison.xlsx) normalises responses.

## FIVE-PART IMPORT WORKFLOW — SPEC TO LANDED-IN-MARKET



THIS DOCUMENT COVERS STAGE 02 (SOURCING) OF THE IMPORT WORKFLOW — THE RFQ PHASE BEFORE SAMPLE ITERATION.

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# 1. RFQ package

Suppliers can only quote what they understand. The RFQ package is the only thing between you and ambiguous quotes; over-document, not under-document.

## 1.1 Design intent (mandatory)

### – 3D CAD

STEP (preferred), IGES (fallback). Native (SolidWorks, Fusion) as bonus. Lock the revision.

### – PDF drawings

Critical dimensions, tolerances, finish callouts. Title block matches the CAD revision.

### – Bill of materials

Every line item with MPN, manufacturer, qty, target cost. Mark factory-sourced vs. customer-supplied.

### – Critical dimensions

Tolerances flagged on the drawing per ISO 8015 (independence principle).

### – Materials and finish

Plastic grade, colour (Pantone + sample chip), surface finish (SPI / VDI codes), paint or print spec.

## 1.2 Order intent

### Volume + timing

- Annual volume (estimated, year 1 + 2)
- First-order quantity
- Re-order quantity (typical batch)
- Required start date
- Required delivery date

### Assembly + packaging

- Sub-assembly vs. full assembly
- Retail vs. bulk packaging
- Country of destination
- Certification needs (CE / FCC / UKCA)
- Sample stages requested

## 1.3 Quality + compliance intent

TOPIC	WHAT TO SPECIFY
Inspection plan	IQC + IPQC + FQC + PSI scope
AQL levels	Critical 0 %, Major 2.5 %, Minor 4.0 %
Test requirements	Hi-pot, drop, ESD, functional, environmental
Certifications	RoHS evidence, REACH SVHC, ISO 9001
Traceability	Lot codes, date codes, batch numbers
Defect catalogue	Photo + classification per known defect
Warranty terms	Defect rate, rework, RMA process

### WATCH OUT – NAKED CAD

Emailing a single zipped CAD file with no drawings is the most common RFQ mistake. Drawings carry the intent that the CAD geometry doesn't — tolerances, finish, critical dimensions, colour, weld symbols, surface treatment callouts. Always send PDFs alongside.

Engineering rule: if your design intent is not on a drawing, it's not on the part. Suppliers build to the loosest interpretation the documents permit.

## 2. Tooling cost reference

For tooled parts (plastic injection, sheet metal stamping, die cast), tooling is the dominant up-front cost. Benchmarks for budgeting:

### 2.1 Plastic injection mold cost

PART SIZE	CAVITIES	MOLD MATERIAL	MOLD COST (USD)	LIFETIME (SHOTS)
Small (<50 g)	1	P20 steel	\$3 000–8 000	100 k
Small (<50 g)	1	NAK80 / H13	\$6 000–15 000	500 k–1 M
Medium (50–200 g)	1	P20 steel	\$8 000–20 000	100 k
Medium (50–200 g)	1	NAK80 / H13	\$15 000–35 000	500 k+
Medium (50–200 g)	2-up	P20 steel	\$12 000–28 000	100 k
Medium (50–200 g)	4-up	NAK80 / H13	\$25 000–60 000	500 k+
Large (>200 g)	1	P20 steel	\$20 000–50 000	100 k
Large (>200 g)	1	NAK80 / H13	\$40 000–100 000+	500 k+
Family mold (multi-part)	1 each	varies	+ 50–80 % vs single	varies

### 2.2 Sheet metal tooling

– **Progressive die**

\$5 000–30 000 (complex stampings, high volume).

– **Single-stage die**

\$1 000–5 000 (simple stamping, mid volume).

– **Press brake fixturing**

\$200–2 000 (custom bending).

– **Laser cut**

\$0 tooling (file-driven), \$0.30–2.00/cut.

### 2.3 Other tooling

– **Vacuum forming mold**

\$500–5 000 (per part); short lead, lower lifetime.

– **Die casting tool**

\$20 000–80 000 (Al), \$40 000–150 000 (Zn).

– **Silicone overmold**

\$1 000–10 000 per tool.

– **Custom packaging die**

\$300–2 000 (printing setup).

– **PCB SMT stencil**

\$30–150 (single-use, reorder).

### 3. Qualification questions

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Suppliers know more about their process than you do. A few well-chosen questions surface what they actually intend to build.

#### 3.1 Process and capability

– **What process do you recommend, and why?**

A supplier who only says "yes, we can do it" without a recommendation is quoting your spec, not solving your problem.

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– **What tooling is required, and who owns it?**

Most-disputed line in supplier contracts.

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– **What tolerances and finishes are realistic for this process at this volume?**

Production tolerances are looser than prototype tolerances; surface this before you sign.

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– **What test or inspection plan will you use?**

Should map to your spec. Mismatches are early signs of misalignment.

#### 3.2 Commercial and operational

TOPIC	CONFIRM
Lead time	First samples, pre-production, mass production
MOQ	Production MOQ + sample MOQ
Payment terms	Milestones (30/70 standard; 50/50 is negotiation)
Late delivery clause	Per-day or per-week penalty
Rework / rejection policy	Who pays for which defect type
Tooling location	Where the mold lives + access rights
IP terms	Drawings, firmware, tooling ownership

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#### 3.3 Risk and references

– **Two or three similar production cases**

Confirms process capability without exposing other clients.

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– **Failure modes seen on similar products**

A supplier with a clear answer has actually run the process; one who deflects probably hasn't.

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– **Technical contact during production, and language**

Sales contact is fine for RFQ; production needs an engineer.

## 4. Supplier verification (China-specific)

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Many Chinese suppliers can be verified through public + commercial sources.

### 4.1 Free / public verification

- **Business license (营业执照)**  
Search by company name on the local provincial Administration for Market Regulation site or via gsxt.gov.cn (national).

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- **Customs registration**  
Check on Chinese customs site to confirm export rights.

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- **Court records**  
Public court database for litigation history.

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- **TrustPass on Alibaba**  
Paid verification with audit. Tier (Diamond, Gold) signals investment in the platform.

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- **Google search**  
Trade fair appearances, news mentions, social media.

### 4.2 Paid / professional verification

SERVICE	COST (USD)	SCOPE
TÜV / SGS / Intertek factory audit	\$2 000–8 000	On-site audit: capacity, QMS, sample line
Asia Inspection Audit	\$300–1 500	Initial assessment, on-site walk
Dun & Bradstreet report	\$200–800	Financial standing, registration, credit
Sinosure or Coface insurance review	varies	Commercial credit check
Independent consultant on-site (Ideambox-style)	\$1 500–5 000	Process review, sample verification

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## 5. Contract clauses that matter

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The contract is where the disputes get resolved. Cover these.

### 5.1 IP and tooling ownership

“ 1. All product designs, drawings, firmware, source code, trademarks, brand assets, and tooling created by the Buyer or paid for by the Buyer remain the exclusive property of the Buyer. 2. The Supplier shall not use, sell, or distribute the Buyer's designs to any third party. 3. Upon termination of this agreement, the Supplier shall, at the Buyer's option, deliver or destroy all tooling, fixtures, and drawings, with proof of destruction. 4. Tooling is buyer's property regardless of physical location. ”

### 5.2 Sample approval and golden sample

“ Sample stages: Engineering Sample (ES) → Pre-Production Sample (PPS) → Golden Sample (GS, signed by both parties) Production must match the signed Golden Sample. Disputes resolved by reference to GS. Supplier maintains GS on production floor. ”

### 5.3 Payment terms

“ Standard: 30% deposit on PO; 70% balance on successful pre-shipment inspection (PSI) per AQL agreed in QC Plan. Tooling: 50% on tooling order; 50% on T1 sample acceptance. Late delivery: 0.3% of order value per calendar day, capped at 10%. ”

### 5.4 Quality

“ Defect rate threshold: ≤1% major defects on PSI sample. Above threshold: full re-inspection at supplier's cost; rework or replace at supplier's cost; if not resolvable, refund of full deposit + shipping cost. ”

### 5.5 Confidentiality (NDA)

“ Supplier shall maintain all Buyer's product information, drawings, firmware, and commercial terms in confidence. Disclosure to sub-suppliers requires written Buyer approval. NDA survives termination by 3 years. ”

## 6. Red flags

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Most bad supplier choices show their signs during the RFQ.

1

TOO CHEAP

excludes tooling, testing, or rejects

2

DEFLECTS QUESTIONS

"we'll handle it" without specifics

3

NO REFS

no proof of similar work

### 6.1 Quote shape

- **Much cheaper but excludes tooling, testing, assembly, or rejects**  
Missing costs are deferred, not absent.
- **Suspiciously round numbers**  
\$1.00 per unit, \$20 000 tooling. Real costs aren't round. Ask for the breakdown.
- **Quote arrives much faster than competitors**  
Sometimes capability, often a templated number with no engineering review.
- **Excludes shipping or import documents**  
Standard at FOB, but make it explicit.

### 6.2 Conversation shape

- **Avoids technical questions**  
"Don't worry, we'll handle it" is the most expensive sentence in sourcing.
- **No clear sample approval path**  
If "samples" don't have a definition, the supplier and buyer are about to disagree.
- **No evidence of similar products**  
Especially dangerous for tooled parts.
- **No willingness to sign NDA or IP clause**  
A signed NDA is a low bar; reluctance is significant.

### 6.3 Documentation shape

- **Certificates are scans of scans, undated, or refer to a different product**  
Verify with the issuing lab.
- **ISO 9001 expired more than a year ago**  
Renewed and forgotten, or lapsed.
- **Material declarations are templated, not product-specific**  
Common in trade-only suppliers reselling someone else's parts.

## 7. Comparing offers — scoring matrix

Apples-to-apples is a discipline. Force every quote into the same shape before scoring.

### 7.1 Build the comparison sheet

- **Same units across suppliers**

Per-piece price at the same volume, tooling cost amortised over annual volume, MOQ, lead time in weeks.

- **Same scope across suppliers**

Strip what one supplier included that another excluded, then compare. Add the excluded line back to whichever supplier missed it.

- **Same risk profile**

Note who has ISO 9001, US/EU certs, similar products.

### 7.2 Scoring matrix (weights × 1–5 score)

DIMENSION	WEIGHT	NOTES
Per-piece price at target volume	30 %	Most weight
Tooling cost amortised	15 %	Spread over annual volume
Lead time	15 %	Quoting and production
Quality / certifications	15 %	ISO 9001, similar product evidence
Communication quality	10 %	Response time, fluency, hard-question willingness
Risk profile	10 %	Capacity headroom, single-customer dependence
Compliance maturity	5 %	RoHS / REACH evidence depth

Total weighted score 1–5. Pick top 2; final selection by on-site visit or paid trial.

### 7.3 Total landed cost (TLC) formula

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`` TLC per unit = Per-piece price + (Tooling cost / annual volume) + Per-unit freight + Per-unit duties + Per-unit inspection + Per-unit defect allowance (~1-3% of unit cost) ``
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### 7.4 Before signing

- **Visit the factory**

In person or via video walkthrough of the line that would make your product.

- **Run a small paid trial**

A sample run or first-order pilot before committing to tooling.

- **Lock tooling and IP in writing**

Drawings, molds, fixtures, firmware, brand assets.

**FINAL NOTE.** low-price quotes are sales tools, not engineering documents. The lowest-cost supplier in your shortlist is the one whose total landed cost over the first year of production is lowest — including the ones who quoted cheaper.