

China FAT/PSI defect patterns

Anonymised pre-release quality-control findings, 2023-2025

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96 inspection packages	30% recorded a documentation gap	49% required corrective action
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In an internal sample of 96 anonymised China-origin inspection packages, documentation gaps were the most common pre-release QC finding. Forty-seven packages required corrective action, additional evidence, hold resolution, rework or retest before final release.

Scope limitation: these findings describe one internal inspection/QC record set. They are not a market-wide defect rate, a supplier ranking or a country-level quality benchmark.

FREE TO READ AND SHARE

Aggregate findings only. No registration or email gate.

01 / OVERVIEW

What this sample covers

Field	Actual value
Window	1 January 2023 to 31 December 2025
Unit of analysis	One inspection package per order
Total sample size	96 inspection packages
Sources	Internal inspection correspondence, FAT reports, PSI reports and document-review records
Publication	Aggregate tables only; no row-level data

02 / METHOD

How the records were classified

Each package was classified once by equipment family, disposition and first stage where a material defect, hold or corrective-action trigger surfaced. Issue categories were multi-select. One package can therefore appear in more than one category.

A defect or hold was recorded only where the source record required correction, additional evidence, waiver, rework, retest, replacement or reconciliation before final release or shipment.

The published figures are limited to aggregate cells with counts of at least 10.

03 / FINDINGS

Issue categories recorded before release

Documentation gap		29 / 30%
Certification mismatch		21 / 22%
Packing / marking		18 / 19%
Dimensional / build non-conformity		16 / 17%
Functional-test failure		13 / 14%
Missing spares		12 / 13%
Quantity discrepancy		10 / 10%

Denominator: 96 packages. Categories are multi-select, so the shares do not add to 100%. Documentation and certificate evidence were frequent release blockers alongside physical findings.

04 / OUTCOMES

What happened before final release

Disposition	Definition	Count	Share
Released	No material corrective action recorded	49	51%
Conditionally released	Evidence, waiver, correction or close-out still required	27	28%
Held	Not released at inspection close	10	10%
Rework / retest	Physical rework, replacement, adjustment or repeat test required	10	10%

05 / EQUIPMENT

Corrective action by equipment family

Equipment family	N	Corrective action	Share
Cleanroom / facility systems	30	17	57%
Process equipment	24	10	42%
Energy / electrical systems	22	10	45%
Healthcare / lab equipment	20	10	50%
Total	96	47	49%

The sample is deliberately broad. Family-by-category cross-tabs are kept qualitative because smaller cells would increase re-identification risk.

06 / CONTROL POINTS

Where issues first surfaced

Document review		20 / 43%
Factory acceptance test (FAT)		17 / 36%
Pre-shipment inspection (PSI)		10 / 21%

Denominator: 47 corrective-action packages. Document review caught the largest share of first-detected issues, before or alongside physical inspection activity.

07 / APPLICATION

What buyers can take from the sample

Buyer action	Why it matters
Define the release pack before production is complete	Documentation and certification gaps are visible before shipment pressure begins
Treat FAT and PSI as linked controls	FAT verifies function; PSI still catches packing, marking, quantity and spares
Specify certificates and revision evidence in the order	Certificate mismatches are easier to prevent than resolve once goods are ready
Build close-out time into the schedule	Conditional release, holds, rework and retest can delay shipment
Require evidence-based close-out	Photos, revised documents and retest records reduce ambiguity

08 / PUBLICATION CONTROLS

Anonymisation and interpretation rules

Rule	Application
No direct identifiers	No client, supplier, factory, project, site, city, brand, model or person names
No row-level publication	Only aggregate tables and narrative summaries are published
Minimum visible cell size	Percentages are published only where the underlying count is at least 10
Prevent back-calculation	Small family-by-category cells are suppressed rather than derived from totals
Fixed taxonomy	Issue categories were set before the records were reviewed

Sinospect applies the same inspection and document-control discipline to live supply orders: requirements are defined before production closes, evidence is reviewed before release, and the factory is paid only after Sinospect's QC/QA passes. Execution-only FAT and PSI are also available for buyers purchasing direct.

Read the live report: sinospect.com/resources/china-fat-defect-patterns

FAT checklist: sinospect.com/resources/factory-acceptance-test-checklist

Contact: sinospect.com/contact