AVISTRATA
AVIATION BUSINESS PLATFORM

# Life of a part

## From the certification behind an approval to a signed FAA Form 8130-3 or certificate of conformity, and what happens when something goes wrong, in Avistrata

For accountable managers, quality managers, engineers, planners, machinists and inspectors at STC, PMA, TSOA and production certificate holders · Avistrata 2.2

A Part 21 manufacturer lives on proof: every part that leaves the building has to trace back to approved design data, approved material, qualified people and processes, and an inspection that shows it conforms. Avistrata's **Production** workspace keeps that chain in one place. This brief follows one production order through it, screen by screen, to shipment, then shows the side roads: a deviation agreed before the parts are made, a nonconformance, a gauge found out of tolerance, a change to the design, a design defect found in service with its 24-hour report, and an airworthiness directive against our own STC. Alongside it run the product's risk register, the on-time delivery record and the acknowledgments of each ICA revision. It starts with the certification work behind an approval.

> **The sample.** Leesburg Aviation (sample data) holds PMA PQ4471CE for engine accessory brackets and oil cooler adapters, and STC SA02391NY for an electric cowl flap actuator. Valley Aero Supply orders four LA-2210-3 oil cooler adapters (order MO-2026-0003). Planner T. Nakamura releases the order, machinist D. Alvarez makes the parts, Blue Ridge Heat Treating does the heat treat, inspector M. Okafor buys off the work and finds one O-ring groove undersize, and quality manager R. Whitfield signs the release. Every company, person, approval number, serial number and figure in this brief is fictional. The screenshots are real Avistrata screens showing this sample data, taken on 28 and 31 October and 1 November 2026 (Avistrata 2.2 with the November 2026 production updates); the names on them belong to the sample.

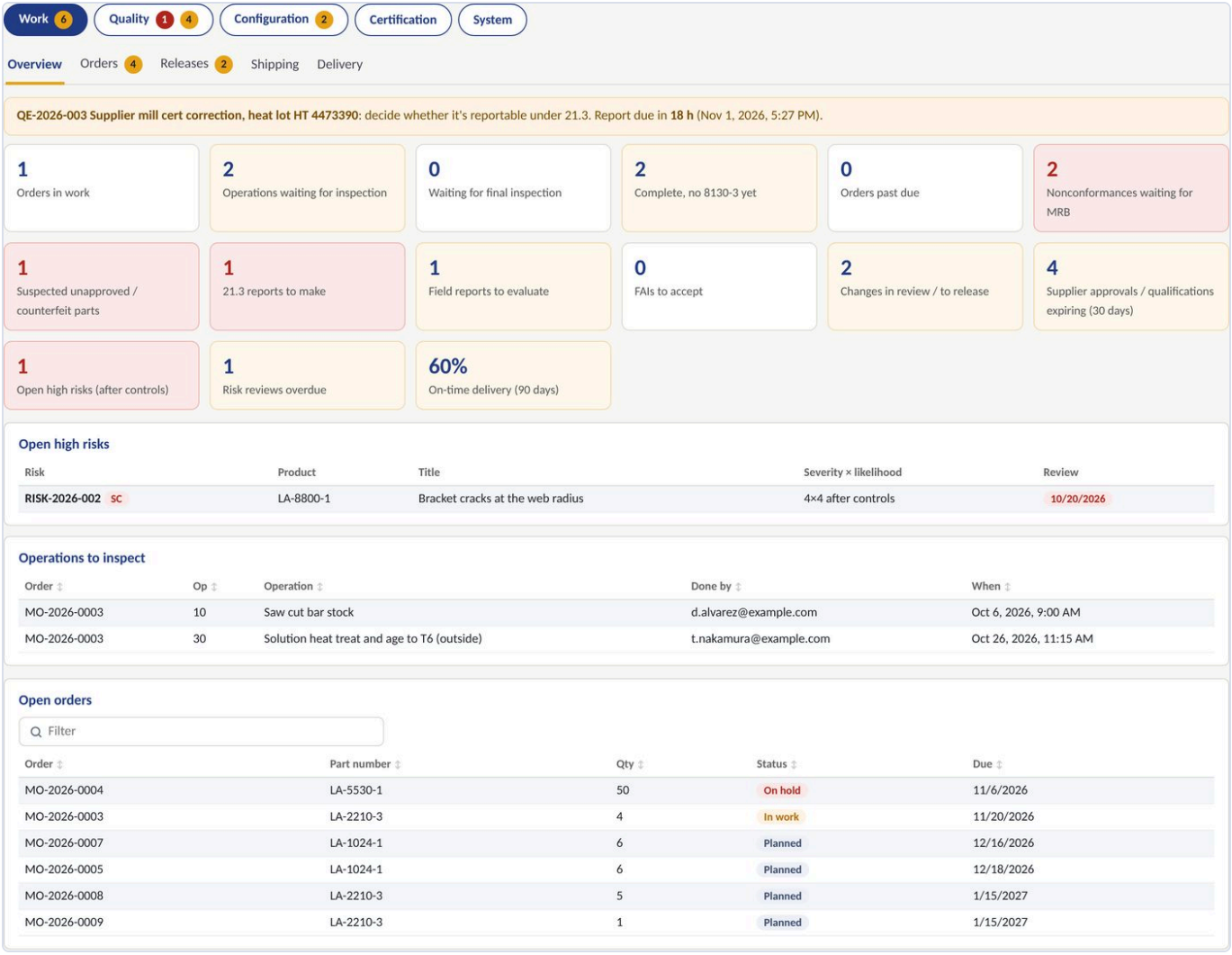
| 1 · Approve | 2 · Plan | 3 · Material | 4 · Make | 5 · Inspect | 6 · Deviate | 7 · Prove | 8 · Release | 9 · Ship | 10 · Listen |
|---|---|---|---|---|---|---|---|---|---|
| Certification, approvals, design data, risks | Contract review, deviations | Issued before any work | Trained, stamped sign-offs | Every part or a sample | NCR and MRB | Final inspection, FAI | 8130-3, Form 1, C of C | Packaging, shelf life, on time | Escapes, design defects, 21.3, ICA |

| When | What happens in the sample |
|---|---|
| Mon 5 Oct, 9:00 | The planner releases MO-2026-0003 for 4 × LA-2210-3 rev A. The traveler is copied from the routing and the parts get serial numbers LA20260024 to 27. A first article inspection is required: it's a new part. |
| Mon 5 Oct | Bar stock AMS 4115 6061-T4 (heat HT 4479015, mill cert) is issued from Stores. It came from Atlantic Aerospace Metals, an approved source. |
| Tue 6 – Fri 9 Oct | Op 10 saw cut and op 20 CNC turn and mill are signed. The inspector measures four characteristics on each serial number with calibrated gauges. Serial LA20260025 has the O-ring groove 0.8615 in against a minimum of 0.863: NCR-2026-005 is raised. |
| Mon 12 Oct | The Material Review Board dispositions NCR-2026-005 *rework*. The planner later asks engineering to widen the groove tolerance; the change arrives from PLM as a new revision. |
| 26 Oct, then | Op 30 heat treat at Blue Ridge Heat Treating (approved source, with its certificate of conformance); then penetrant inspection, anodize, pressure test, 45.15 marking, final inspection, the FAI and the 8130-3. |
| Meanwhile | A deviation lets MO-2026-0006 pass with two bore finishes over the drawing; three of its brackets go out on certificate of conformity COC-2026-001. A new adapter order, MO-2026-0008, has its first article split off as its own order. |

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# 1 Production at a glance

**Production → Overview** is the morning screen for the quality manager and the planner. The red banner at the top is the one nobody can miss: a quality escape whose 14 CFR 21.3 report is due in 18 hours. The tiles count what's waiting: operations to inspect, orders at final inspection, complete orders without a release form, nonconformances waiting for the MRB, suspected counterfeit parts, 21.3 reports to make, FAIs to accept, changes in review, supplier approvals and qualifications expiring in the next 30 days, open high risks, risk reviews overdue and the on-time delivery rate. Below them: the operations waiting for an inspector, and the open orders with their due dates.



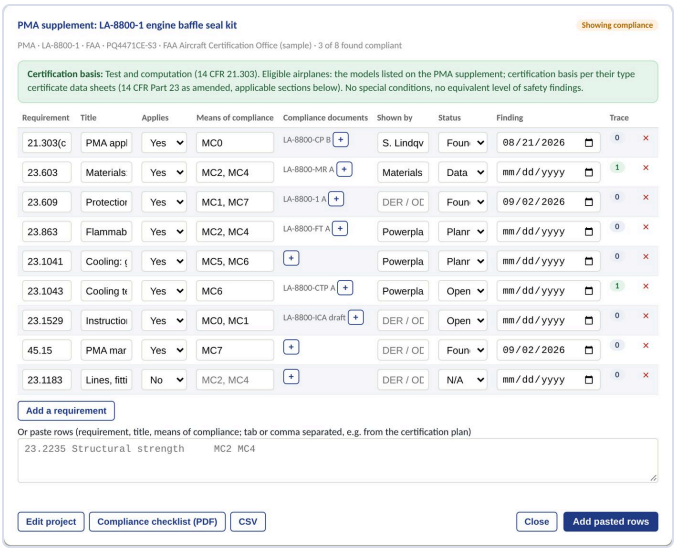

Production → Overview for Leesburg Aviation. New in the bottom row: open high risks, risk reviews overdue and on-time delivery over the last 90 days, with the high risks listed below the tiles.

The same work shows on the Mechanic app's Home: a "Production travelers" box lists the operations waiting for inspection and the orders in work. A machinist signs operations from the phone, and an inspector accepts or rejects them and types in measurements next to the part (section 6). The app also shows the open high risks, the on-time delivery rate and which holders still have to acknowledge an ICA revision.

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# 2 Before the approval: certification LARGER PROGRAMS

A part can only be produced under an approval, and an approval rests on shown compliance, so the story starts here. Before LA-8800-1 can be produced, Leesburg Aviation has to show compliance for its PMA supplement. **Certification** keeps the compliance register: the certification basis, each requirement, its means of compliance (MC0 compliance statement to MC9 equipment qualification), the compliance documents with revisions, who shows it (engineer, DER, ODA unit member), and the finding. It prints as the compliance checklist the FAA asks for.

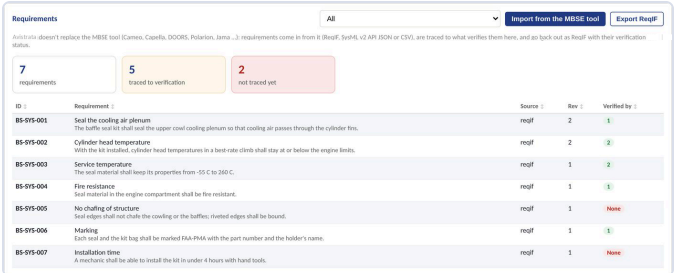



The PMA supplement project: 3 of 8 found compliant.

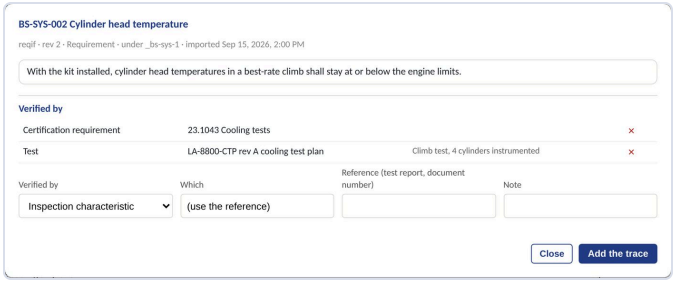



The compliance checklist PDF.

**Requirements from the MBSE tool.** Avistrata doesn't replace Cameo, Capella, DOORS, Polarion or Jama. Their requirements come in as ReqIF, SysML v2 API JSON or CSV; each is traced here to what verifies it (a certification requirement, a test report, an inspection characteristic, a conformity, a change, an FAI), and the set goes back out as ReqIF with its verification status. Untraced requirements show in red.



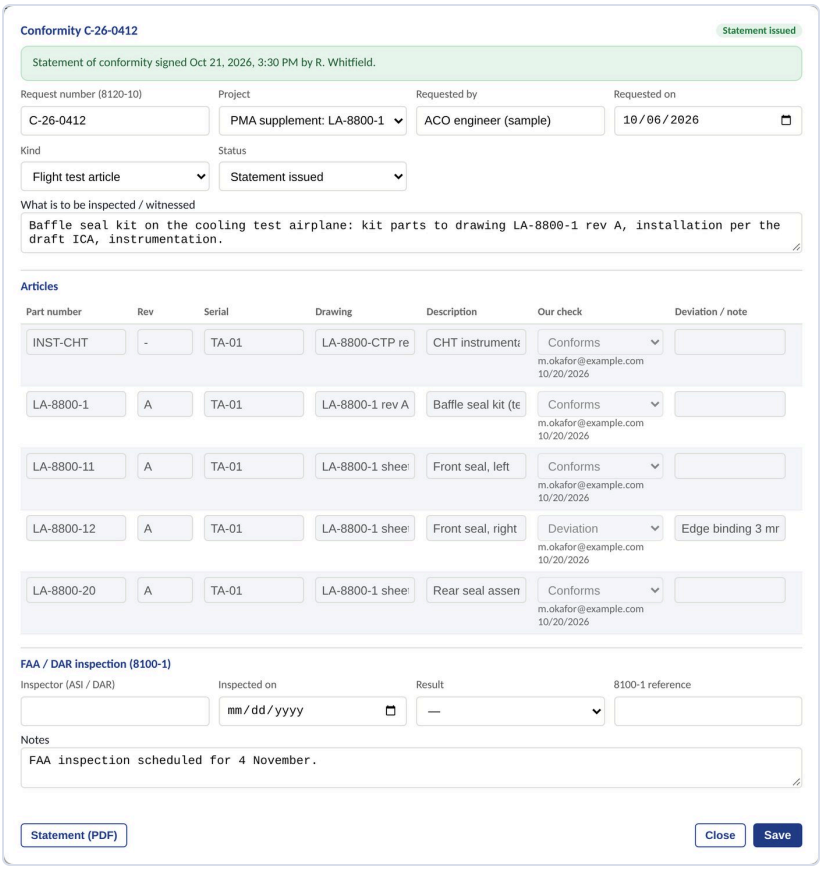

Seven system requirements imported from ReqIF; two not traced yet.




BS-SYS-002 cylinder head temperature: traced to 23.1043 and to the cooling test plan.

**Conformity.** When the FAA asks for conformity of a test article (Request for Conformity, Form 8120-10), the articles are listed and checked against their drawings, deviations described, and the quality manager signs the statement of conformity

(Form 8130-9 information). The FAA inspector's or DAR's result and the 8100-1 reference are recorded with it.

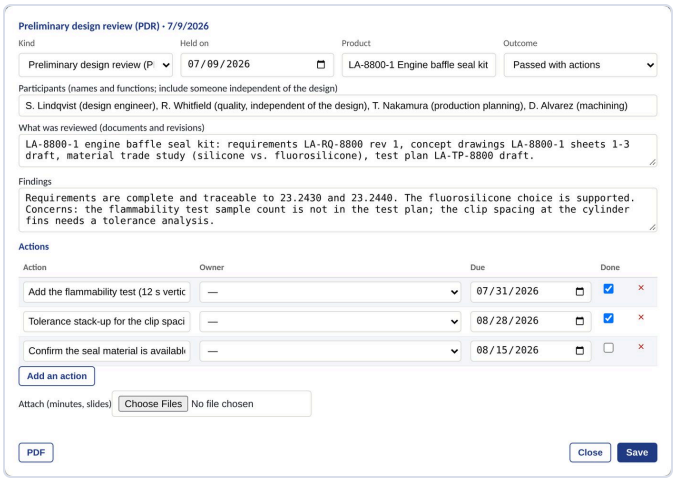



C-26-0412: the baffle seal kit on the cooling test airplane, one deviation accepted for the test only, statement signed.

**Design reviews.** Each review (requirements, PDR, CDR, test or production readiness) is recorded with who took part, what was reviewed, the outcome and the actions with owners and due dates (AS9100 8.3.4), and prints as a PDF.




Design reviews in the sample: the baffle seal kit's PDR and CDR, and the AD change.

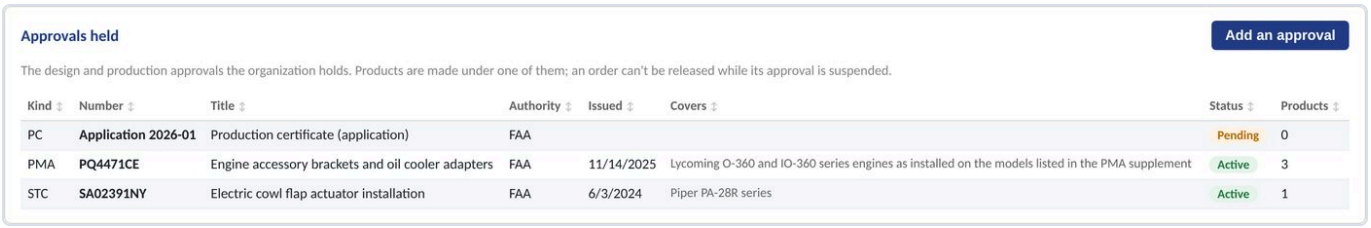



The PDR, passed with actions; one still open.

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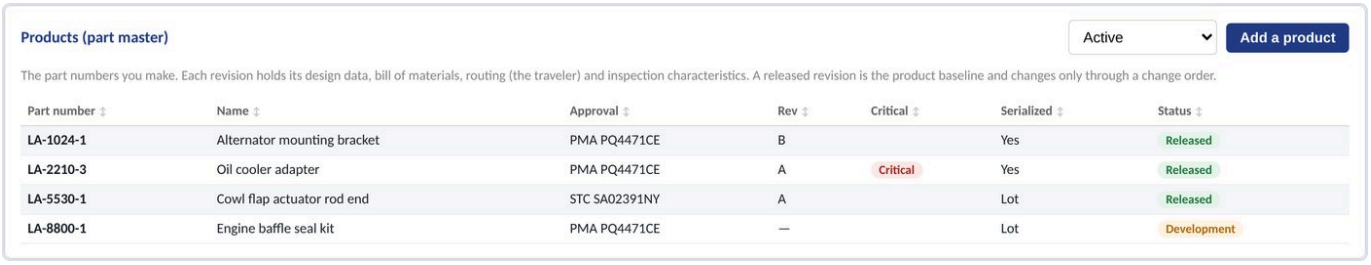
# 3 What you're approved to make

**Approvals** is the register of what the organization holds: the PMA, the STC, the production certificate application, with eligibility, limitations and the approval documents. A product is made under one of them, and the database refuses to release an order while its approval is suspended.

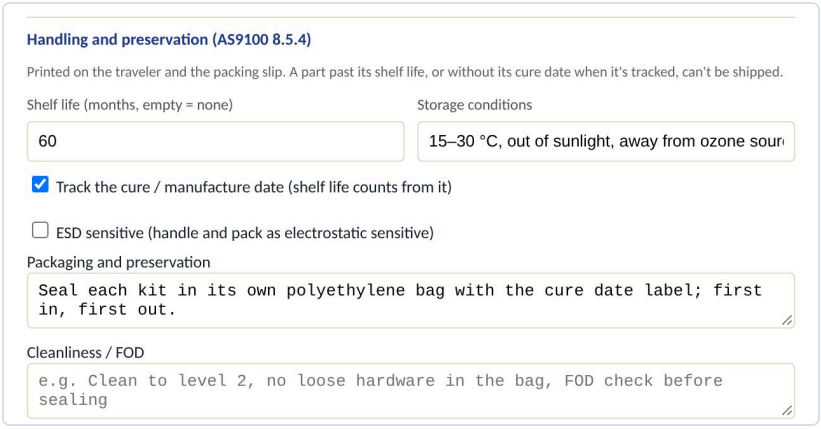



Approvals: PMA PQ4471CE, STC SA02391NY and the production certificate application.

**Products** is the part master: part number, the approval it's made under, the current revision, whether it's critical (kept 10 years and every characteristic inspected), serialized or made in lots, and the 45.15 marking. Each product also carries its **handling and preservation** (AS9100 8.5.4): shelf life, whether the cure or manufacture date is tracked, ESD sensitivity, storage conditions, packaging and cleanliness. They print on the traveler and the packing slip, and a part past its shelf life can't be shipped (section 9).




Products. LA-8800-1 is still in development: no revision released, so nothing can be ordered.

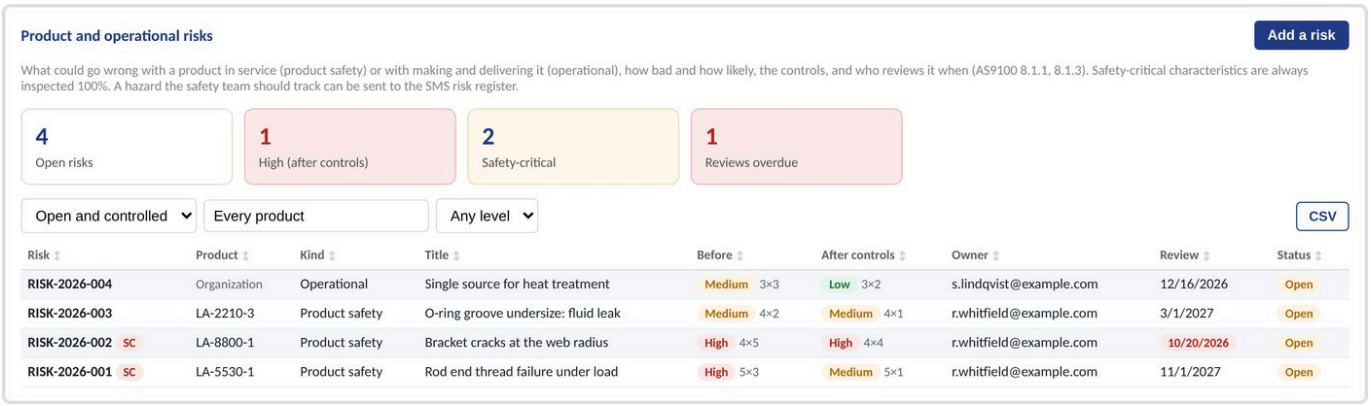



LA-8800-1, the baffle seal kit: silicone rubber with a 60-month shelf life counted from the cure date.

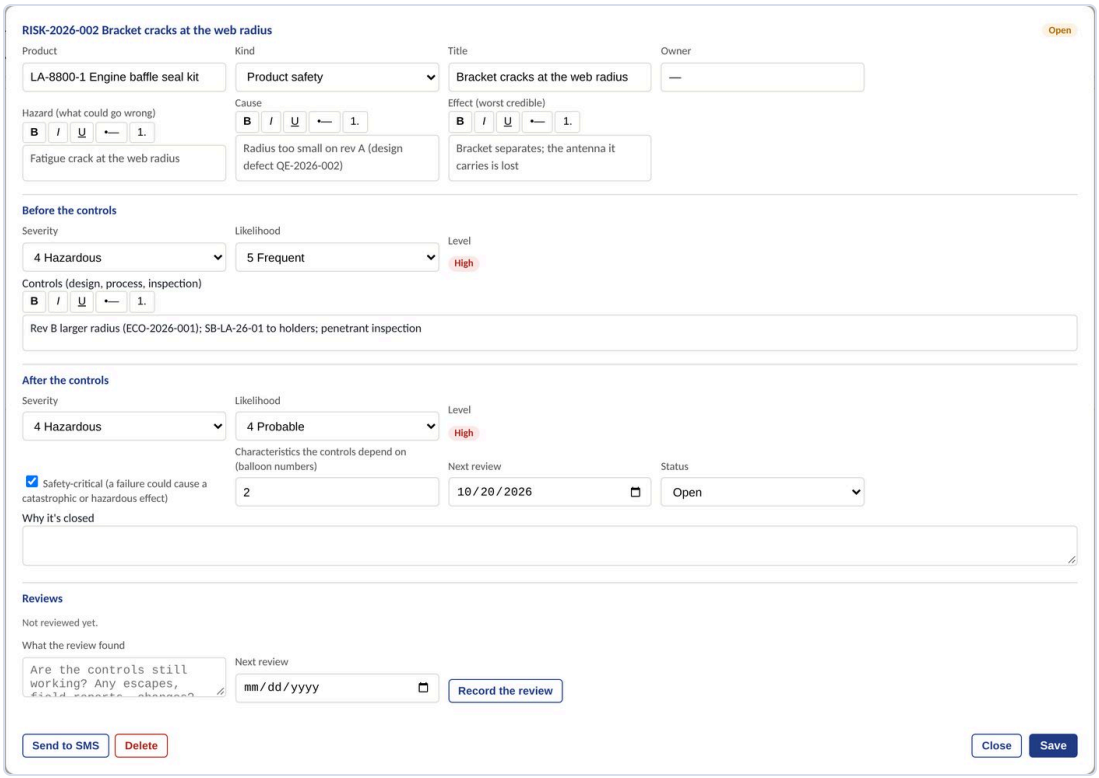
## What could go wrong: product safety and operational risk

**Quality → Product risks** is the risk register AS9100 asks for (8.1.1 operational risk management, 8.1.3 product safety). Each risk belongs to a product, or to the organization for an operational risk such as a single source. It records the hazard, its cause and the worst credible effect, then **severity × likelihood** before and after the controls (design, process and inspection), which gives the level: high, medium or low. A risk whose failure could cause a catastrophic or hazardous effect is marked **safety-critical**, with the balloon numbers of the characteristics its controls depend on; those characteristics are marked safety-critical in the revision and are **always inspected 100%**, never sampled.

Every risk has an owner and a review date (12 months by default). The review records what was found and the next date; reminders go out a week before and when it's overdue. A risk with a history can't be deleted, only closed with the reason. A hazard the safety team should track goes to the **SMS risk register** with **Send to SMS** (once; sending again returns the same hazard), and a field report can do the same.




The risk register: the bracket crack (the rev A design defect, section 11) is still high after the controls because rev A brackets are in service; its review is overdue. The rod end thread is safety-critical and drops to medium with every thread gauged.

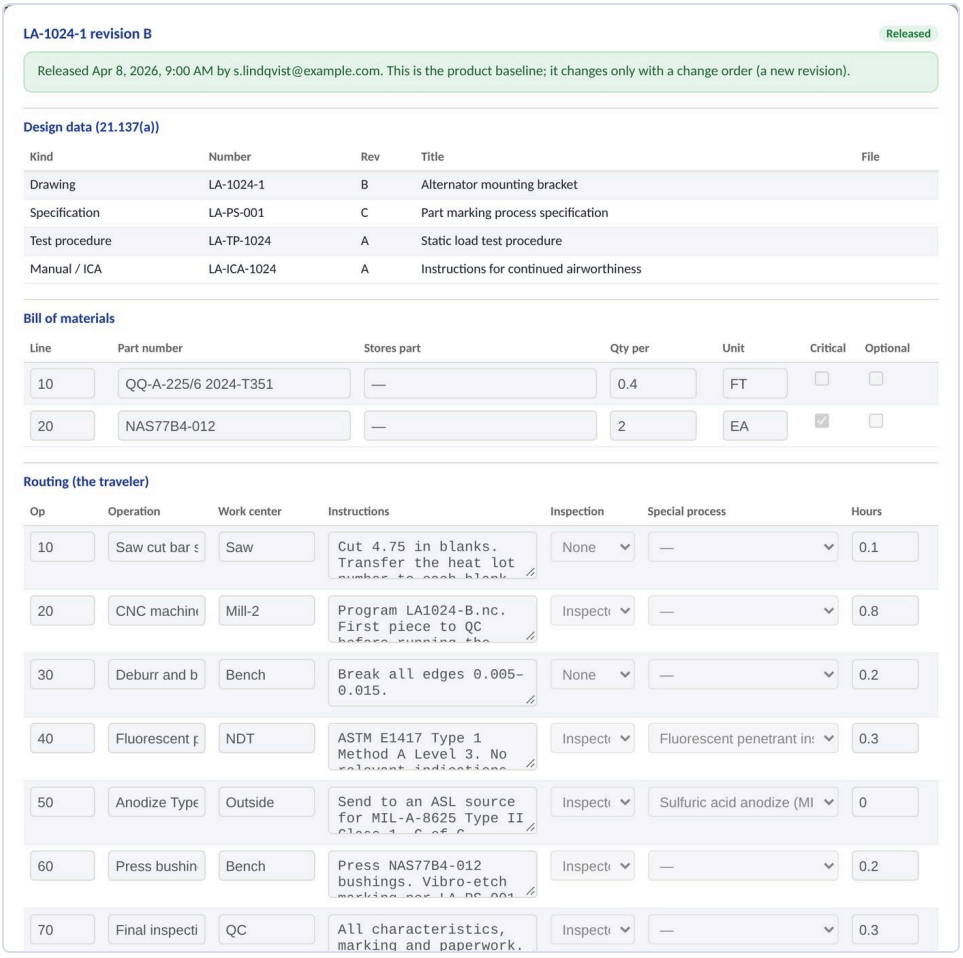



RISK-2026-002: hazard, cause and effect; severity and likelihood before and after the controls; the safety-critical characteristic (balloon 2); the review, and Send to SMS.

## A revision is the design the shop builds to

Each revision holds its **design data** (drawings, specifications, test procedures, files), the **bill of materials**, the **routing** (the operations that become the traveler, with work center, instructions, inspection point and special process) and the **inspection characteristics** with their limits, the balloon numbers of AS9102 form 3. An operation can name the **training** it needs, and a characteristic can be inspected on a **sample** of a lot instead of every part (section 6). While it's a draft, engineering edits it; once released it is the **product baseline** and is locked: the only way to change it is a change order and a new revision (section 10).

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**LA-1024-1 revision B** — Released

Released Apr 8, 2026, 9:00 AM by s.lindqvist@example.com. This is the product baseline; it changes only with a change order (a new revision).

**Design data (21.137(a))**

| Kind | Number | Rev | Title | File |
|---|---|---|---|---|
| Drawing | LA-1024-1 | B | Alternator mounting bracket | |
| Specification | LA-PS-001 | C | Part marking process specification | |
| Test procedure | LA-TP-1024 | A | Static load test procedure | |
| Manual / ICA | LA-ICA-1024 | A | Instructions for continued airworthiness | |

**Bill of materials**

| Line | Part number | Stores part | Qty per | Unit | Critical | Optional |
|---|---|---|---|---|---|---|
| 10 | QQ-A-225/6 2024-T351 | — | 0.4 | FT | ☐ | ☐ |
| 20 | NAS77B4-012 | — | 2 | EA | ☑ | ☐ |

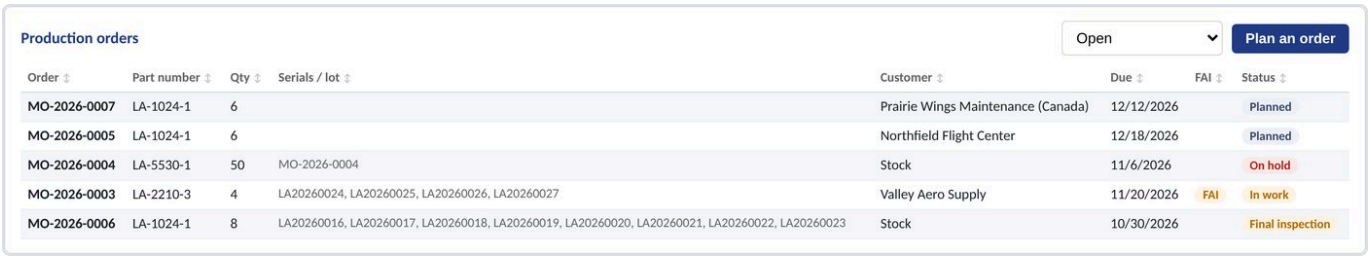
**Routing (the traveler)**

| Op | Operation | Work center | Instructions | Inspection | Special process | Hours |
|---|---|---|---|---|---|---|
| 10 | Saw cut bar s | Saw | Cut 4.75 in blanks. Transfer the heat lot | None | — | 0.1 |
| 20 | CNC machine | Mill-2 | Program LA1024-B.nc. First piece to QC | Inspect | — | 0.8 |
| 30 | Deburr and b | Bench | Break all edges 0.005–0.015. | None | — | 0.2 |
| 40 | Fluorescent p | NDT | ASTM E1417 Type 1 Method A Level 3. No | Inspect | Fluorescent penetrant in: | 0.3 |
| 50 | Anodize Type | Outside | Send to an ASL source for MIL-A-8625 Type II | Inspect | Sulfuric acid anodize (MI | 0 |
| 60 | Press bushin | Bench | Press NAS77B4-012 bushings. Vibro-etch | Inspect | — | 0.2 |
| 70 | Final inspecti | QC | All characteristics, marking and paperwork. | Inspect | — | 0.3 |

LA-1024-1 revision B, released by ECO-2026-001: design data, bill of materials, routing and characteristics, all fixed.

# 4 Planning the order

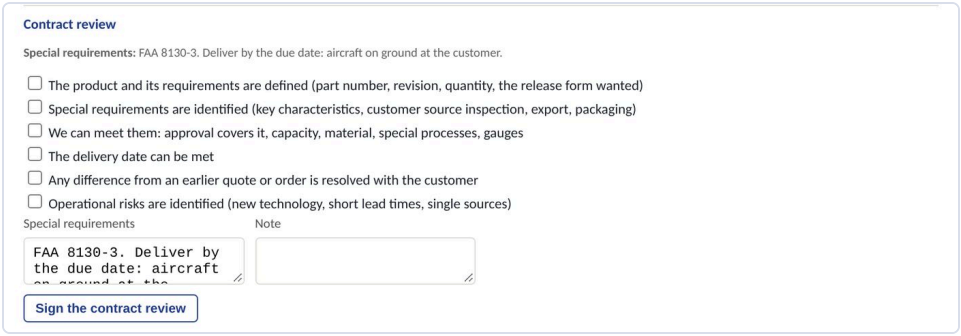
The planner plans an order from a product's released revision: quantity, due date, customer and the customer's order number (it goes into block 5 of the 8130-3). **Release the order** copies the routing into the traveler, numbers the serials (or gives the lot number), and checks whether a first article inspection is due: a new part, a design change, or two years without making it.




Orders: planned, in work, on hold, at final inspection, complete and closed. The FAI flag shows which orders carry a first article.

## Contract review

Before an order goes to the floor, the planner or quality reviews the contract (AS9100 8.2.3): the product and its requirements are defined, special requirements are identified (key characteristics, source inspection, export, packaging), we can meet them, the date can be met, differences from the quote are resolved, and operational risks are known. Every point has to be yes before it's signed, and **an order can't be released until it is**. That's the default for every organization; one that reviews contracts elsewhere can turn it off in Settings.

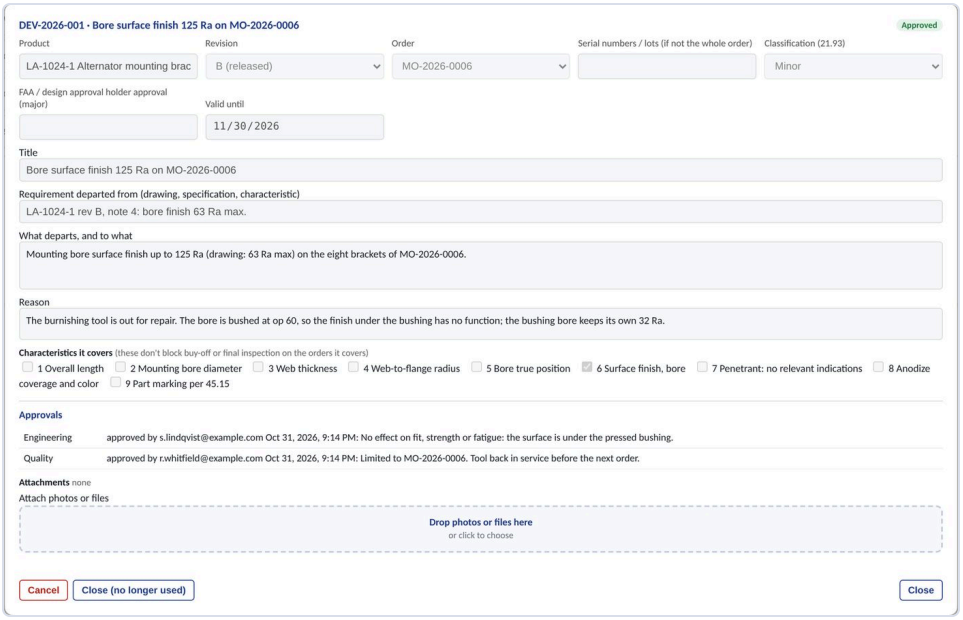



MO-2026-0005 for Northfield Flight Center, planned, with its contract review waiting.

## Deviation permits: agreed before the parts are made

Sometimes the shop knows in advance that parts won't meet one requirement: a tool is out for repair, a fixture is worn, a material is late. A **deviation permit** (AS9100 8.7, 21.137(h)) records that departure before production: the product and revision, one order or every order while it's valid, the serial numbers, the characteristics it covers, what departs and to what, and why. It's classified minor or major under 21.93. Engineering and quality both approve it, and **a major deviation can't be approved without the FAA's (or the design approval holder's) approval reference**. Once approved its content is fixed: a change means a new permit. On the orders it covers, the characteristics it names don't block buy-off or final inspection, and the permit goes into the as-built record and the release remarks. After the fact, the route is a nonconformance report instead.

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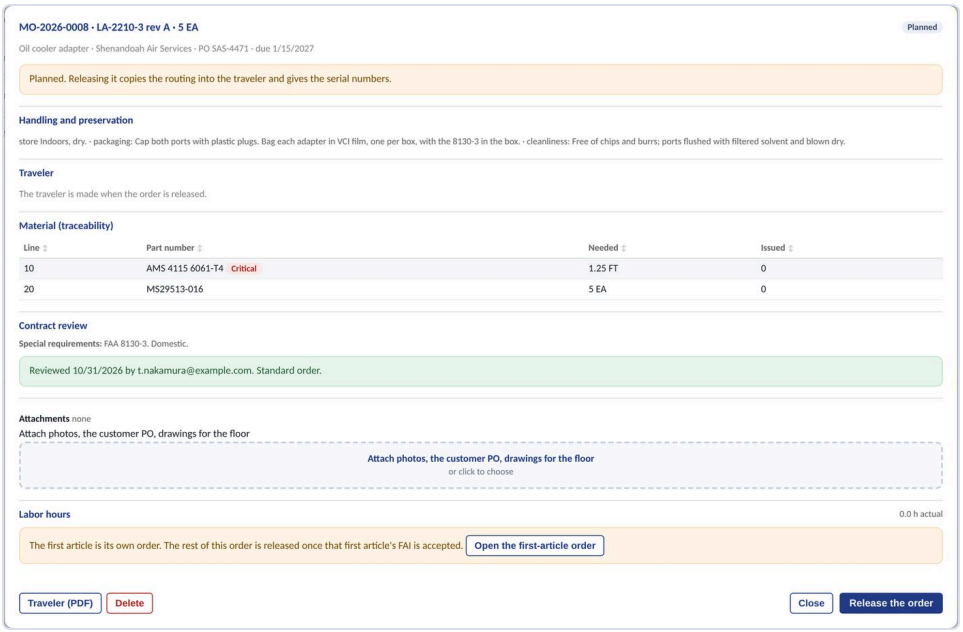

DEV-2026-001: bore finish up to 125 Ra on MO-2026-0006 while the burnishing tool is repaired. Minor; engineering and quality approved.




Deviations: DEV-2026-002 is major and waits in review: engineering can't approve it until the FAA's approval reference is entered.

## The first article as its own order

When an order needs a first article inspection, the planner can **split the first article off** into its own one-piece order before release. The first piece goes through the floor and the AS9102 FAI on its own; the rest of the order **can't be released until that FAI is accepted**, so a wrong program or fixture costs one part, not a batch.




MO-2026-0008 for Shenandoah Air Services: five adapters waiting, the first article split off as MO-2026-0009. Contract review signed; handling and packaging shown before release.

### Material from Stores, only from where it should come from

**Issue from Stores** on a BOM line picks the stock and takes it out of Stores against the order, keeping the serial or heat lot, the certificate and the source with the order for traceability. The database refuses material that

- wasn't accepted at receiving inspection, or is flagged as a suspected unapproved or counterfeit part;
- has no verified certificate when the part needs one;
- came from a supplier that isn't approved in Stores, or is disapproved on the production approved supplier list;
- isn't the part number on the BOM (unless it's an approved alternate).

A quality manager can override with a reason, which is printed on the traveler next to the material. **Material comes first:** on an order with a bill of materials, no operation can be signed until material has been issued to it.

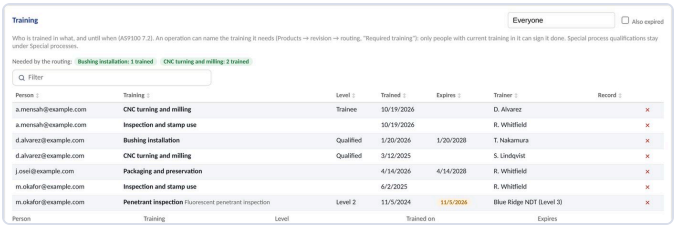
## 5 The traveler

Each operation is signed in order: the operator can't sign op 30 while op 20 is open. After the operator signs **done**, the operation waits for the inspector's buy-off, and the inspector can't be the person who did the work. Operations marked "no buy-off" are accepted when they're signed. A planner or engineer can mark one N/A, with the reason.

### Trained people, with their stamp

**Training** keeps who is trained in what, by whom, at what level and until when (AS9100 7.2), with the record attached. When the routing says an operation needs a training ("CNC turning and milling"), **only someone with current training in it can sign it done**. Special-process qualifications stay with the special processes (section 6). Thirty days before a training expires, and again when it has, the person and the quality and production managers get an email, so nobody finds out at the moment they try to sign.

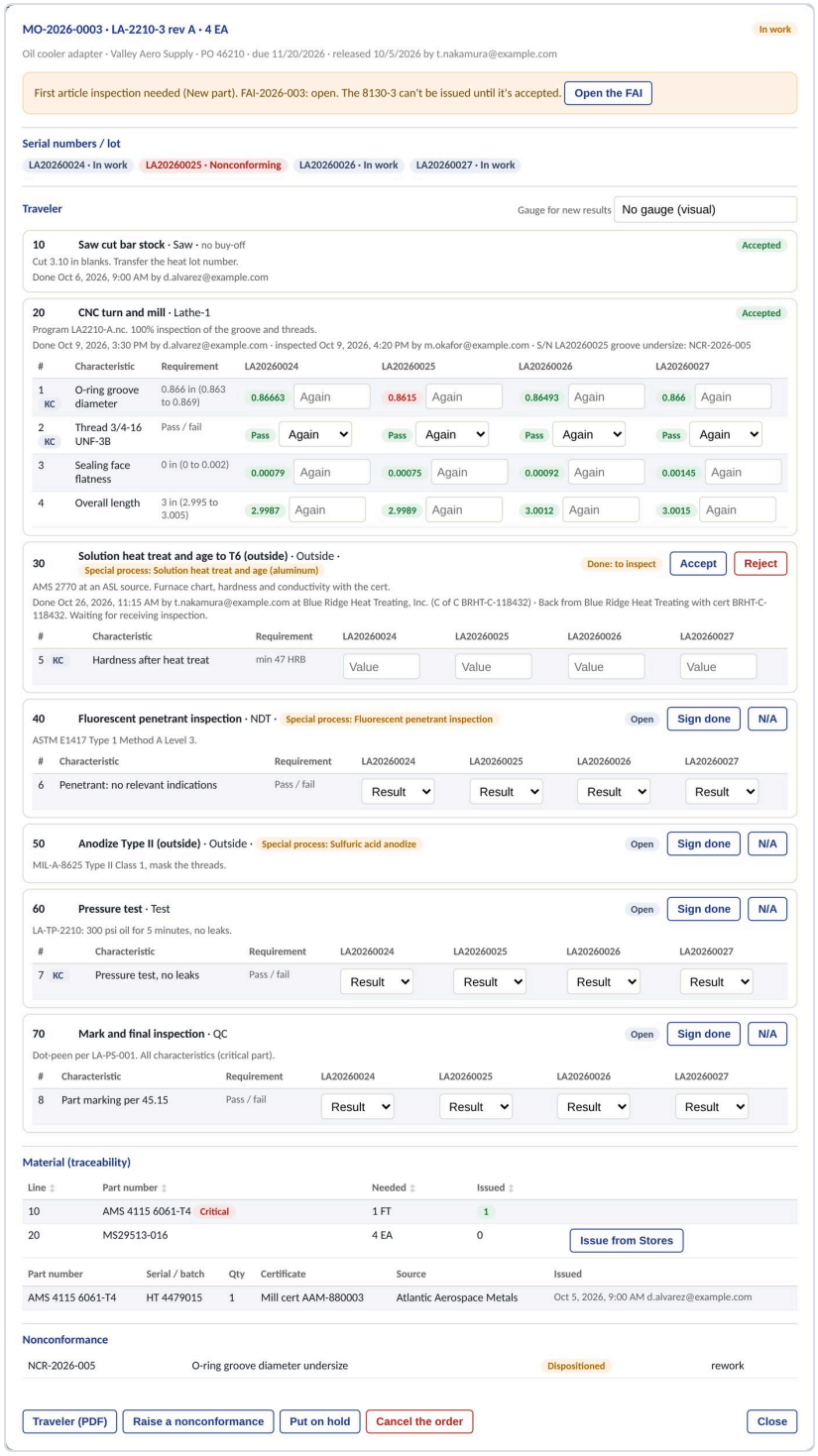
**Stamps** are the inspection and work stamps of AS9100 8.5.2. A stamp number is given to one person and **never reissued**, even after it's returned or lost, and stamps can't be deleted. The holder's stamp is recorded on every operation they sign and in the as-built record. With "stamps required" on in Settings, an inspector without an issued inspection stamp can't buy off work or do the final inspection.




System → Training & stamps: the training the routing asks for, and who holds it. M. Okafor's penetrant certification is due.




The stamp register: QC-04 was returned when its holder left and stays on file; the number won't be used again.




MO-2026-0003 on the website (taken 28 October). Op 10 needs no buy-off, op 20 is accepted with its measurements per serial (the red 0.8615 is the undersize groove), op 30 was done outside at Blue Ridge Heat Treating with their certificate and waits for receiving inspection, op 40 onward is open. The material issued and the NCR on this order are at the bottom.

**Labor hours.** Operators log their hours against the operation (a planner can log them for others). The order shows actual against the routing's estimate per operation, and flags an operation more than 20% over.



**Contract review**

**Special requirements:** FAA 8130-3 with each part. Pack each part separately, VCI bag.

Reviewed 1/18/2026 by t.nakamura@example.com. Repeat order, same terms as PO 41190.

**Labor hours** — 11.0 h actual of 9.5 h estimated (116%)

| Op | Operation | Estimated | Actual |
|---|---|---|---|
| 10 | Saw cut bar stock | 0.5 | 0.5 |
| 20 | CNC machine complete | 4.0 | 5.0 |
| 30 | Deburr and break edges | 1.0 | 1.0 |
| 40 | Fluorescent penetrant inspection | 1.5 | 1.8 |
| 50 | Anodize Type II (outside) | 0.0 | |
| 60 | Press bushings and mark | 1.0 | 1.0 |
| 70 | Final inspection | 1.5 | 1.8 |

MO-2026-0001: contract review done before release, and 11.0 hours actual against 9.5 estimated; op 20 ran over.

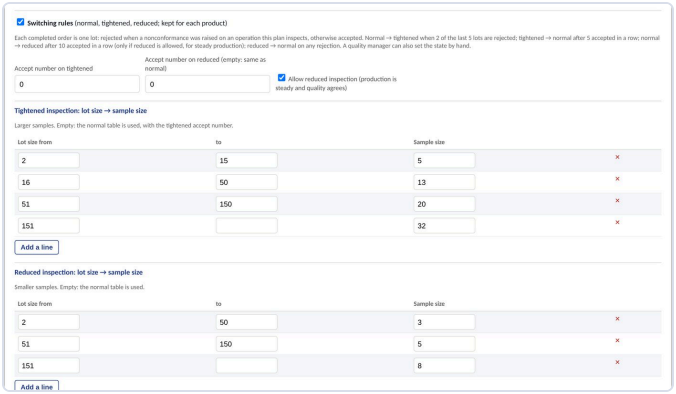
# 6 Inspection

Every characteristic gets a result for each serial number: a value against the limits, or pass / fail for an attribute (thread gauge, visual, penetrant). Pass or fail is worked out by the database from the drawing limits, not typed. The inspector picks the gauge, and **a gauge overdue for calibration is refused** (21.137(f)). Re-measuring after rework keeps the first result as superseded. An operation can't be accepted until each of its characteristics has a passing result for every serial; a failing value offers to raise a nonconformance report at once.

## Sampling a lot

Parts made in lots don't always need every piece measured. A **sampling plan** (AS9138 style, c=0 by default) sets the sample size for each lot size and the accept number. A characteristic can use one: buy-off and final inspection then need passing results on the sample only, entered piece by piece. Any reject in the sample rejects the lot: the operation goes back, a nonconformance is raised and that characteristic goes to **100%**. Key characteristics, safety-critical characteristics, critical parts and characteristics on an operation with a nonconformance are always inspected 100%.

**Switching rules.** A plan can switch between **normal, tightened and reduced** inspection (ANSI Z1.4 style), each with its own lot-size table and accept number. The state is kept per plan and product, and each completed order counts as one lot: rejected when a nonconformance was raised on an operation the plan inspects. Two rejected lots out of the last five switch to tightened; five accepted in a row on tightened switch back to normal; ten accepted in a row on normal can move to reduced when the plan allows it; any rejected lot on reduced goes back to normal. A quality manager can also set the state by hand, with the reason. The order's sampling note and the traveler show when a characteristic is on tightened or reduced inspection.



**Switching rules** (normal, tightened, reduced; kept for each product)

Each completed order is one lot: rejected when a nonconformance was raised on an operation this plan inspects, otherwise accepted. Normal → tightened when 2 of the last 5 lots are rejected; tightened → normal after 5 accepted in a row; normal → reduced after 10 accepted in a row (only if reduced is allowed, for steady production); reduced → normal on any rejection. A quality manager can also set the state by hand.

Accept number on tightened: 0 — Accept number on reduced (empty: same as normal): 0 — Allow reduced inspection (production is steady and quality agrees)

**Tightened inspection: lot size → sample size**

Larger samples. Empty: the normal table is used, with the tightened accept number.

| Lot size from | to | Sample size |
|---|---|---|
| 2 | 15 | 5 |
| 16 | 50 | 13 |
| 51 | 150 | 20 |
| 151 | | 32 |

Add a line

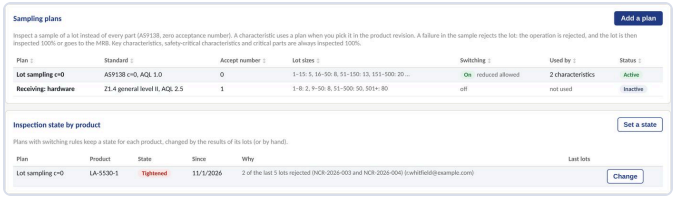
**Reduced inspection: lot size → sample size**

Smaller samples. Empty: the normal table is used.

| Lot size from | to | Sample size |
|---|---|---|
| 2 | 50 | 3 |
| 51 | 150 | 5 |
| 151 | | 8 |

Add a line

"Lot sampling c=0" with switching on: the tightened and reduced tables, and reduced allowed.



**Sampling plans** — Add a plan

Inspect a sample of a lot instead of every part (AS9138, zero acceptance number). A characteristic uses a plan when you pick it in the product revision. A failure in the sample rejects the lot: the operation is rejected, and the lot is then inspected 100% or goes to the MRB. Key characteristics, safety-critical characteristics and critical parts are always inspected 100%.

| Plan | Standard | Accept number | Lot sizes | Switching | Used by | Status |
|---|---|---|---|---|---|---|
| Lot sampling c=0 | AS9138 c=0, AQL 1.0 | 0 | 1–15: 5, 16–50: 8, 51–150: 13, 151–500: 20 … | On · reduced allowed | 2 characteristics | Active |
| Receiving: hardware | Z1.4 general level II, AQL 2.5 | 1 | 1–8: 2, 9–50: 8, 51–500: 50, 501+: 80 | off | not used | Inactive |

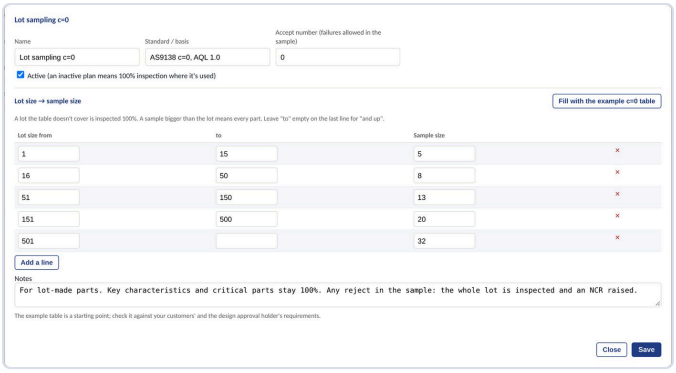
**Inspection state by product** — Set a state

Plans with switching rules keep a state for each product, changed by the results of its lots (or by hand).

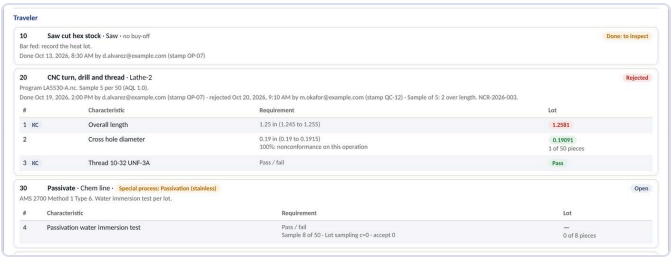
| Plan | Product | State | Since | Why | Last lots |
|---|---|---|---|---|---|
| Lot sampling c=0 | LA-5530-1 | Tightened | 11/1/2026 | 2 of the last 5 lots rejected (NCR-2026-003 and NCR-2026-004) (cwhitfield@example.com) | Change |

Sampling plans, and the inspection state by product: the rod end is on tightened inspection after two rejected lots.

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"Lot sampling c=0": sample size by lot size, accept number 0.



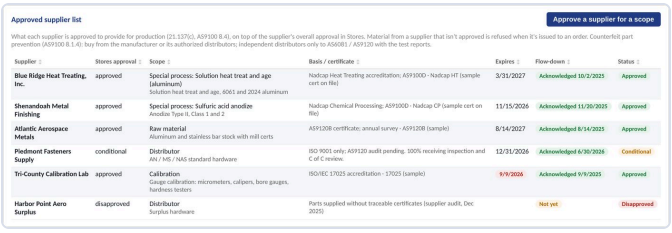

MO-2026-0004, a lot of 50 rod ends: the cross hole went to 100% after the sample found two lengths over (NCR-2026-003); the passivation test needs 8 of 50.

## Special processes

Heat treat, penetrant inspection, anodize, passivation: processes whose result can't be fully checked afterwards. When an operation has one, signing it asks **who did it**. In house, the person signing must hold a current qualification for that process (Special processes → qualified people, with level and expiry). Outside, the source must be on the approved supplier list for that process, and its certificate of conformance number is recorded.




Special processes with specification, Nadcap flag, qualified people and approved sources.

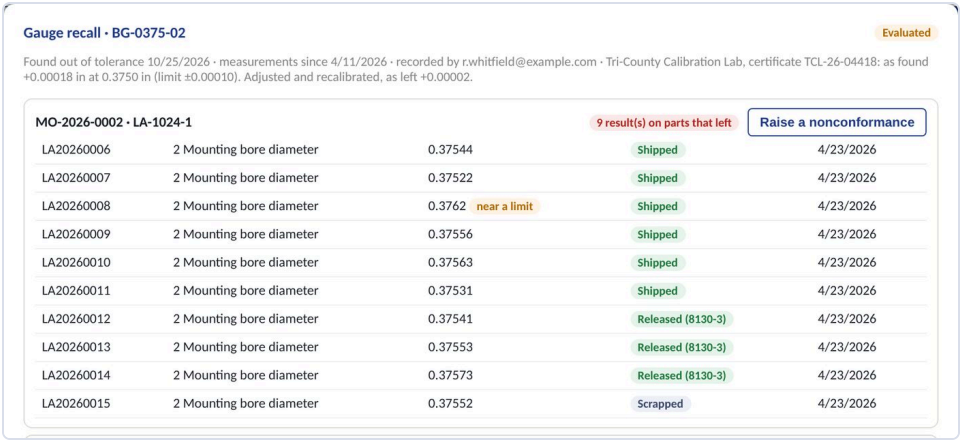



Approved supplier list by scope: what each supplier may provide, its basis and certificate, expiry and flow-down acknowledgment.

A purchase order to a supplier on this list prints the organization's **production requirements** (right of access, notification of nonconforming product, changes need approval, record retention, counterfeit prevention) after the Stores quality clauses, on the PO PDF and on the supplier's portal.

## When a gauge turns out to be wrong

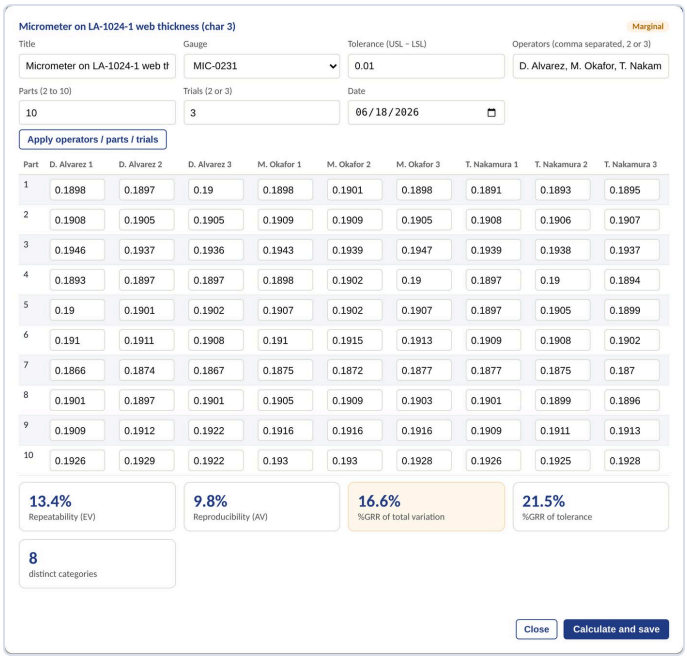
If calibration finds a gauge out of tolerance, everything it measured since its last good calibration is suspect (21.137(f)). **Gauges → A gauge was found out of tolerance** lists those measurements by order and serial, flags parts that are already released or shipped and results close to a limit, and raises a nonconformance report per order from there. The evaluation (how far out, what was re-measured, who was told) is recorded before the recall closes.




Bore gauge BG-0375-02 read 0.00018 in high at calibration: 18 measurements since April, 9 on parts that already shipped. The lowest still clears the limit.

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**Gauge R&R.** A measurement system analysis by the AIAG average and range method (2 or 3 operators, up to 10 parts, 2 or 3 trials) gives repeatability, reproducibility, %GRR of the total variation and of the tolerance, and the number of distinct categories, with a verdict.




The micrometer on the web thickness: 16.6% of the variation, 21.5% of the tolerance, 8 categories: marginal.

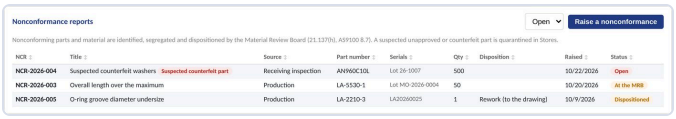
## On the shop floor

The Mechanic app (iPhone, iPad, Android) has the same traveler: **Sign done**, **Accept**, **Reject** with a note (which raises the NCR), N/A, the special-process question, and a value box per characteristic and serial with the gauge picker. The database applies the same rules as on the website: sequence, independent inspection, qualification, training, stamps, material first and calibrated gauges. Sampled lots are measured on the website, where each sample piece is entered.

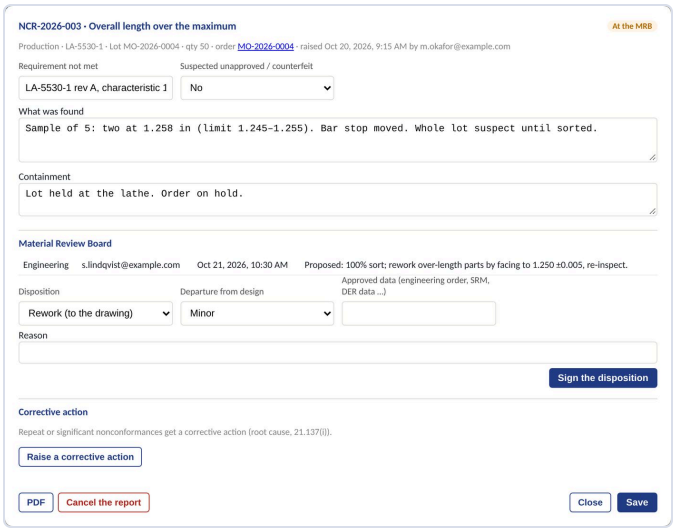
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# 7 When it doesn't conform

A rejected operation, a failing measurement, a receiving inspection or a customer report raises a **nonconformance report**. It records what was found, the requirement it misses, the containment, and evidence photos. The **Material Review Board** then dispositions it. Scrap, return to vendor and rework (back to the drawing) need one MRB member. **Use as is, repair and regrade** don't meet the drawing, so they need the departure classified minor or major, the approved data the part is accepted to, and two signatures, one of them engineering. A **major** departure also needs the FAA's (or the design approval holder's) approval reference before it can be accepted (21.93, 21.137(h)): the MRB alone can't accept it. Rework and repair are closed only after the re-inspection is recorded, and the operation reopens for it.

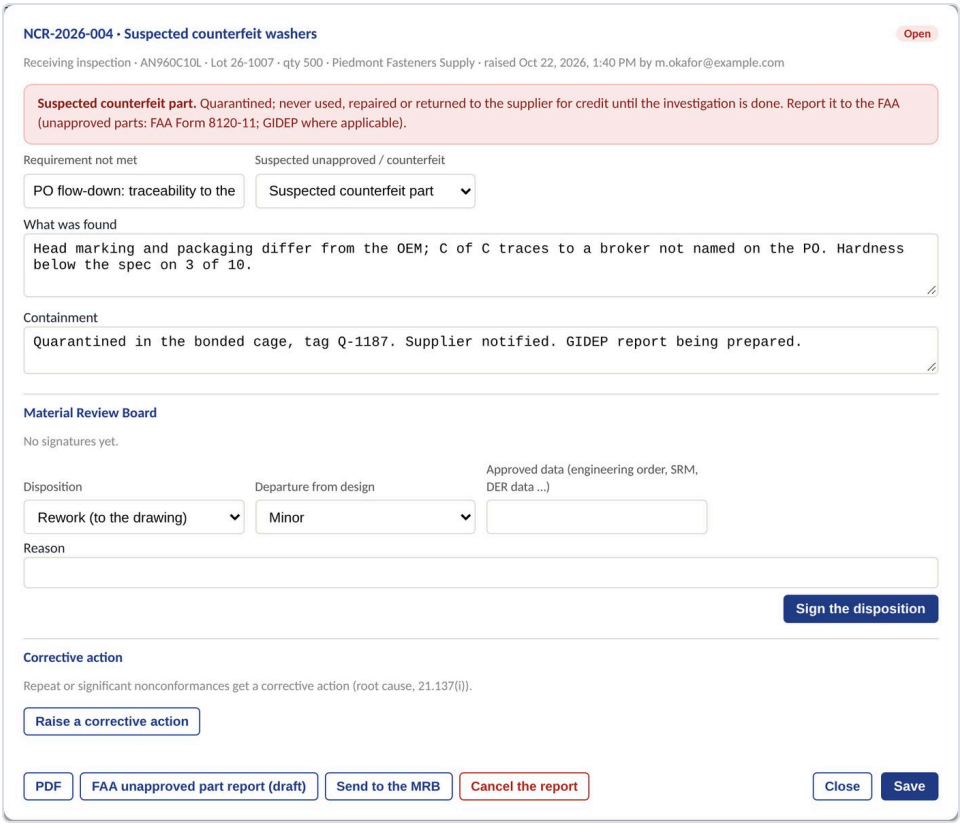



Nonconformance reports in the sample, from production, receiving and the field.




NCR-2026-003 at the MRB: one signature so far.

**Suspected unapproved or counterfeit parts.** Marking a report as a suspected unapproved or counterfeit part quarantines the stock in Stores at once and flags it, so it can't be issued to an order. Such a part can't be used, repaired or reworked; the screen offers the draft of the FAA unapproved part report (Form 8120-11).




NCR-2026-004: washers with head marking and packaging that differ from the OEM's, from a conditionally approved distributor. Quarantined in the bonded cage.

Any report can raise a **corrective action** in Quality → Findings (root cause, actions, effectiveness check), and a part that had already left becomes a **quality escape** (section 11).

## 8 Final inspection and the first article

When every operation is bought off, the order goes to **final inspection**. The inspector's "conforms" is refused while any characteristic lacks a passing result for any serial, the BOM isn't fully issued, or a nonconformance on the order is still open. Completing it writes the **as-built record**: the revision built to, every operation with who signed it and when, every material with its serial or lot and certificate, the NCRs and their dispositions, the approved deviations, the stamps, the sampling and the handling. It also sets how long the records are kept. A characteristic covered by an approved deviation doesn't hold it up.

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**MO-2026-0006 · LA-1024-1 rev B · 8 EA** — Complete

Alternator mounting bracket · Stock · due 10/30/2026 · released 9/15/2026 by t.nakamura@example.com · final inspection 10/31/2026 by m.okafor@example.com · kept until 10/31/2031

**Serial numbers / lot**

LA20260016 · Released (8130-3) · LA20260017 · Released (8130-3) · LA20260018 · Released (8130-3) · LA20260019 · Conforming · LA20260020 · Conforming · LA20260021 · Conforming · LA20260022 · Conforming · LA20260023 · Conforming

**Handling and preservation**

store Indoors, dry. · packaging: Bag individually, foam between parts, 10 per carton.

**Traveler**

**10 Saw cut bar stock** · Saw · no buy-off — Accepted

Cut 4.75 in blanks. Transfer the heat lot number to each blank.

Done Sep 16, 2026, 2:00 PM by d.alvarez@example.com (stamp OP-07) · inspected Oct 29, 2026, 3:00 PM by m.okafor@example.com (stamp QC-12)

**20 CNC machine complete** · Mill-2 — Accepted

Program LA1024-B.nc. First piece to QC before running the order.

Done Sep 17, 2026, 8:00 PM by d.alvarez@example.com (stamp OP-07) · inspected Sep 17, 2026, 10:00 PM by m.okafor@example.com (stamp QC-12)

| # | | Characteristic | Requirement | LA20260016 | LA20260017 | LA20260018 | LA20260019 | LA20260020 | LA20260021 | LA20260022 | LA20260023 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | Overall length | 4.5 in (4.49 to 4.51) | 4.4971 | 4.4979 | 4.4997 | 4.5046 | 4.4994 | 4.498 | 4.4971 | 4.5033 |
| 2 | KC | Mounting bore diameter | 0.375 in (0.375 to 0.376) | 0.37539 | 0.37549 | 0.3757 | 0.37573 | 0.37547 | 0.37549 | 0.37559 | 0.37586 |
| 3 | | Web thickness | 0.19 in (0.185 to 0.195) | 0.1891 | 0.19 | 0.1921 | 0.1899 | 0.1886 | 0.1891 | 0.1912 | 0.1915 |
| 4 | | Web-to-flange radius | 0.09 in (0.08 to 0.1) | 0.0897 | 0.0918 | 0.0936 | 0.0869 | 0.088 | 0.0896 | 0.0944 | 0.0899 |
| 5 | KC | Bore true position | 0 in dia (0 to 0.005) | 0.00277 | 0.00329 | 0.00267 | 0.00151 | 0.00233 | 0.00291 | 0.00343 | 0.00179 |
| 6 | | Surface finish, bore | max 63 µin Ra | 39.5 | 42.6 | 27.7 | 96 | 36.1 | 118 | 36.7 | 25.3 |

**30 Deburr and break edges** · Bench · no buy-off — Accepted

Break all edges 0.005–0.015.

Done Sep 19, 2026, 2:00 AM by d.alvarez@example.com (stamp OP-07) · inspected Oct 29, 2026, 3:00 PM by m.okafor@example.com (stamp QC-12)

MO-2026-0006 after final inspection: every signature with its stamp, and two bore finishes (96 and 118 Ra) over the drawing but covered by DEV-2026-001.

**Approved deviations**

| | | | |
|---|---|---|---|
| DEV-2026-001 | Bore surface finish 125 Ra on MO-2026-0006 | Char 6 | minor |

**Releases**

| | | | |
|---|---|---|---|
| Draft | LA20260016, LA20260017, LA20260018, LA20260019, LA20260020, LA20260021, LA20260022, LA20260023 | | Draft |
| COC-2026-001 | LA20260016, LA20260017, LA20260018 | 10/31/2026 | Issued |

The same order: the approved deviation, and certificate of conformity COC-2026-001 for three of the brackets.

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## Production traveler

MO-2026-0006

| | |
|---|---|
| **Order** | MO-2026-0006 |
| **Part number** | LA-1024-1 rev B - Alternator mounting bracket |
| **Quantity** | 8 EA |
| **Serial numbers / lot** | LA20260016, LA20260017, LA20260018, LA20260019, LA20260020, LA20260021, LA20260022, LA20260023 |
| **Customer** | Stock |
| **Design data** | LA-1024-1 B, LA-PS-001 C, LA-TP-1024 A, LA-ICA-1024 A |
| **Status** | Complete |
| **Released** | Sep 15, 2026, 8:00 AM by t.nakamura@example.com |
| **Final inspection** | Oct 31, 2026, 9:14 PM by m.okafor@example.com [QC-12] |

### Handling and preservation

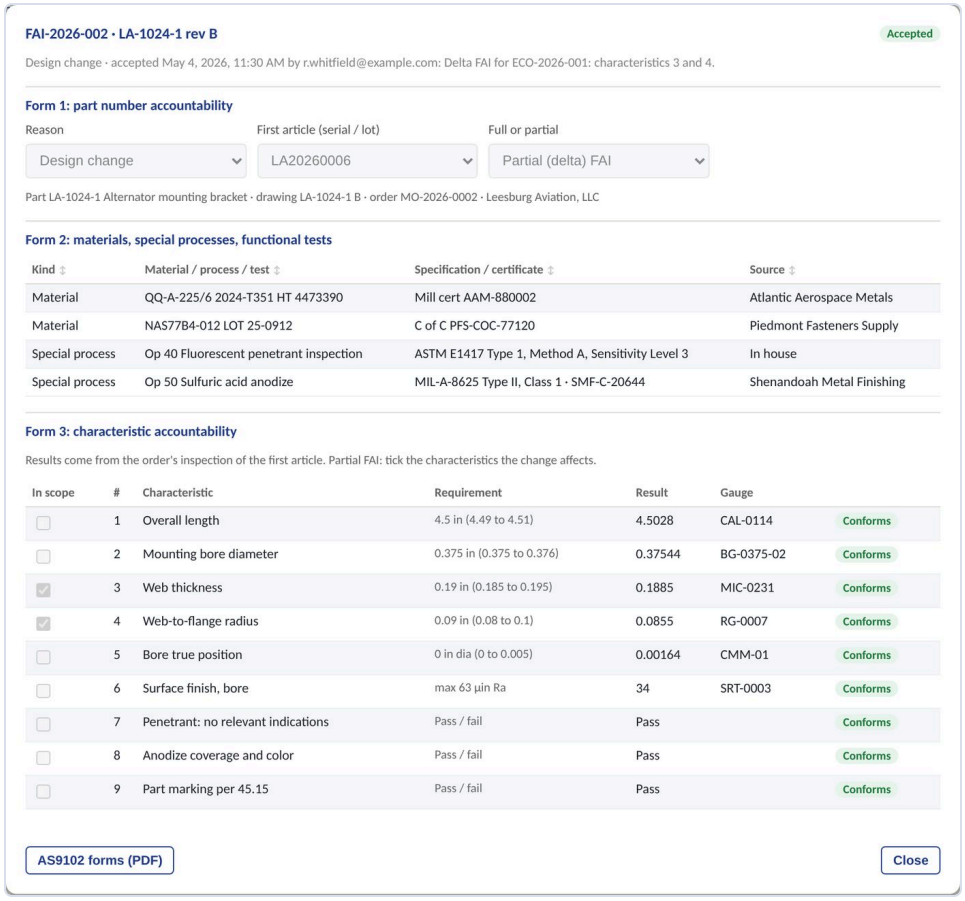
Storage: Indoors, dry.
Packaging and preservation: Bag individually, foam between parts, 10 per carton.

### Operations

| Op | Operation | Done | Inspected | Status |
|---|---|---|---|---|
| 10 | Saw cut bar stock (Saw)<br>Cut 4.75 in blanks. Transfer the heat lot number to each blank. | d.alvarez@example.com<br>[OP-07]<br>Sep 16, 2026, 2:00 PM | m.okafor@example.com<br>[QC-12]<br>Oct 29, 2026, 3:00 PM | Accepted |
| 20 | CNC machine complete (Mill-2)<br>Program LA1024-B.nc. First piece to QC before running the order. | d.alvarez@example.com<br>[OP-07]<br>Sep 17, 2026, 8:00 PM | m.okafor@example.com<br>[QC-12]<br>Sep 17, 2026, 10:00 PM | Accepted |
| 30 | Deburr and break edges (Bench)<br>Break all edges 0.005-0.015. | d.alvarez@example.com<br>[OP-07]<br>Sep 19, 2026, 2:00 AM | m.okafor@example.com<br>[QC-12]<br>Oct 29, 2026, 3:00 PM | Accepted |
| 40 | Fluorescent penetrant inspection (NDT)<br>Special process: Fluorescent penetrant inspection ASTM E1417 Type 1, Method A, Sensitivity Level 3<br>ASTM E1417 Type 1 Method A Level 3. No relevant indications. | d.alvarez@example.com<br>[OP-07]<br>Sep 20, 2026, 8:00 AM | m.okafor@example.com<br>[QC-12]<br>Sep 20, 2026, 10:00 AM | Accepted |
| 50 | Anodize Type II (outside) (Outside)<br>Special process: Sulfuric acid anodize MIL-A-8625 Type II, Class 1<br>Send to an ASL source for MIL-A-8625 Type II Class 1. C of C required. | Sep 21, 2026, 2:00 PM<br>Shenandoah Metal Finishing C of C SMF-C-20741 | m.okafor@example.com<br>[QC-12]<br>Sep 21, 2026, 4:00 PM | Accepted |
| 60 | Press bushings and mark (Bench)<br>Press NAS77B4-012 bushings. Vibro-etch marking per LA-PS-001. | d.alvarez@example.com<br>[OP-07]<br>Sep 22, 2026, 8:00 PM | m.okafor@example.com<br>[QC-12]<br>Sep 22, 2026, 10:00 PM | Accepted |
| 70 | Final inspection (QC)<br>All characteristics, marking and paperwork. | m.okafor@example.com<br>[QC-12]<br>Oct 30, 2026, 10:00 AM | r.whitfield@example.com<br>[QA-01]<br>Oct 30, 2026, 10:20 AM | Accepted |

The traveler PDF: handling and preservation, and each operation with who signed it, their stamp and when.

**First article inspection (AS9102).** Form 1 (part number accountability) and form 2 (materials, special processes, functional tests) are filled from the order's own records; form 3 (characteristic accountability) comes from the first article's measurements. A delta FAI after a change covers only the characteristics the change affects. Accepting it is the quality manager's, and the database checks that form 3 is complete and passing. The 8130-3 can't be signed until the FAI for the revision is accepted.



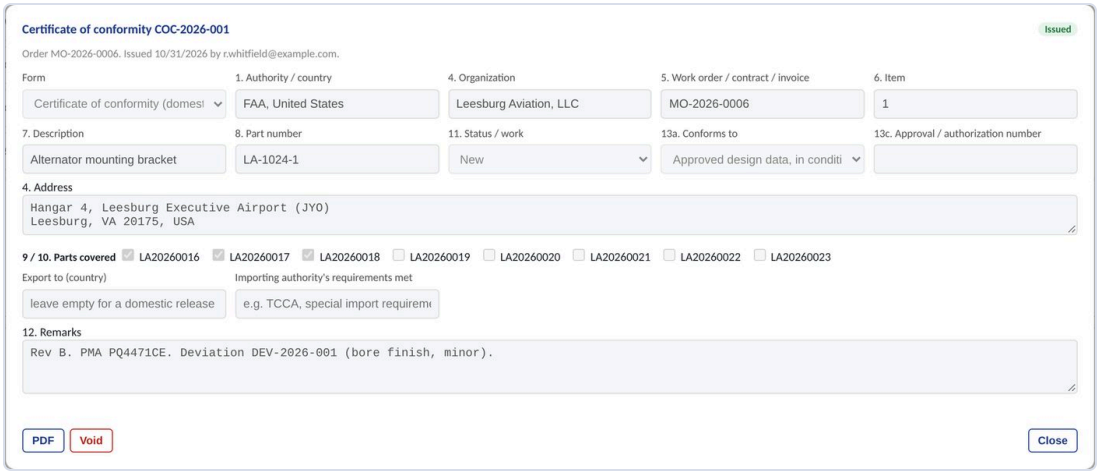

FAI-2026-002, the delta FAI for LA-1024-1 rev B: characteristics 3 and 4 changed with the larger radius.

# 9 The release

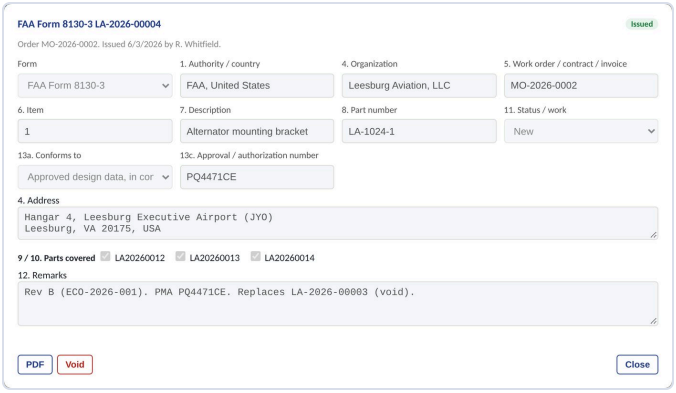
From a complete order, **Prepare the release** fills the form: authority, organization and address, the customer's order number, description, part number, the serial numbers or lot, NEW in block 11, remarks with the approval and marking, and the approval number. Only an **authorized signatory** can sign it, and the database checks the order is complete, the parts are conforming, the FAI is accepted and no nonconformance is open. Signing gives the form tracking number, puts the signatory's name in block 13d and the date in 13e, and marks the serial numbers released. A void form puts the parts back to conforming without a release, and stays on file.

For an organization producing under an EASA production organisation approval, the same screen issues an **EASA Form 1** with the POA reference in block 13c. For an **export**, the importing country and its special requirements are entered on the draft and stated in block 12 (21.331 to 21.335).

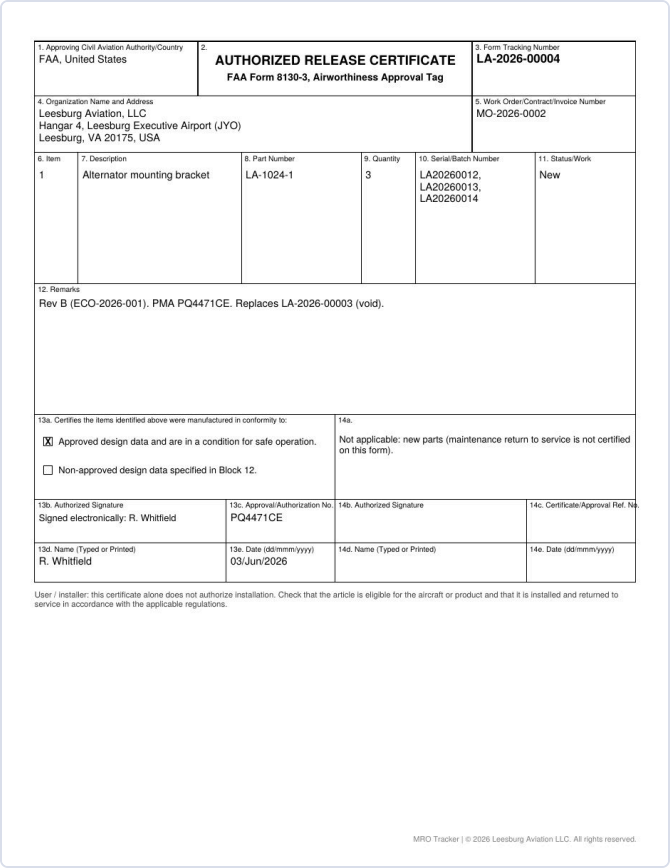
**Certificate of conformity.** Not every customer needs an airworthiness approval with the part. A domestic customer can get a **certificate of conformity** (COC- numbers) instead, signed by a signatory, the quality manager or an inspector, after the same checks: complete order, conforming parts, FAI accepted, nothing open. It needs no block 13c, and **it's refused for an export**: exports still need the 8130-3 or EASA Form 1. Approved deviations are stated in its remarks.




COC-2026-001: three brackets from MO-2026-0006, with the deviation in the remarks.




LA-2026-00004 issued for MO-2026-0002.



1. Approving Civil Aviation Authority/Country: FAA, United States

2. **AUTHORIZED RELEASE CERTIFICATE**
**FAA Form 8130-3, Airworthiness Approval Tag**

3. Form Tracking Number: **LA-2026-00004**

4. Organization Name and Address: Leesburg Aviation, LLC, Hangar 4, Leesburg Executive Airport (JYO), Leesburg, VA 20175, USA

5. Work Order/Contract/Invoice Number: MO-2026-0002

| 6. Item | 7. Description | 8. Part Number | 9. Quantity | 10. Serial/Batch Number | 11. Status/Work |
|---|---|---|---|---|---|
| 1 | Alternator mounting bracket | LA-1024-1 | 3 | LA20260012, LA20260013, LA20260014 | New |

12. Remarks: Rev B (ECO-2026-001). PMA PQ4471CE. Replaces LA-2026-00003 (void).

13a. Certifies the items identified above were manufactured in conformity to:
- [X] Approved design data and are in a condition for safe operation.
- [ ] Non-approved design data specified in Block 12.

14a. Not applicable: new parts (maintenance return to service is not certified on this form).

| 13b. Authorized Signature | 13c. Approval/Authorization No. | 14b. Authorized Signature | 14c. Certificate/Approval Ref. No. |
|---|---|---|---|
| Signed electronically: R. Whitfield | PQ4471CE | | |

| 13d. Name (Typed or Printed) | 13e. Date (dd/mmm/yyyy) | 14d. Name (Typed or Printed) | 14e. Date (dd/mmm/yyyy) |
|---|---|---|---|
| R. Whitfield | 03/Jun/2026 | | |

User / installer: this certificate alone does not authorize installation. Check that the article is eligible for the aircraft or product and that it is installed and returned to service in accordance with the applicable regulations.

MRO Tracker | © 2026 Leesburg Aviation LLC. All rights reserved.

The PDF in the Form 8130-3 block layout. Maintenance blocks 14a to 14e are left blank for new parts.



**9 / 10. Parts covered** ☑ LA20260016 ☑ LA20260017 ☑ LA20260018 ☑ LA20260019 ☑ LA20260020 ☑ LA20260021 ☑ LA20260022 ☑ LA20260023

Export to (country): Canada

Importing authority's requirements met: TCCA, Canada-US BASA implem

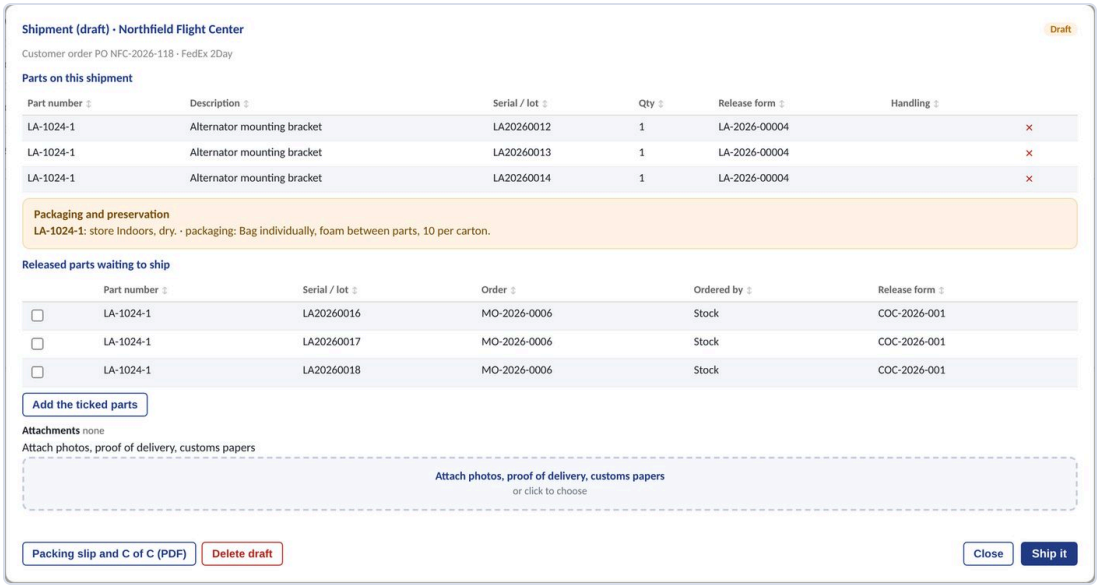
12. Remarks:

```
Rev B. PMA PQ4471CE.
Export approval: this part conforms to its approved design and meets the special import requirements of
Canada (TCCA, Canada-US BASA implementation procedures).
```

The draft release for MO-2026-0006 with the export line for Canada in block 12.

## Shipping

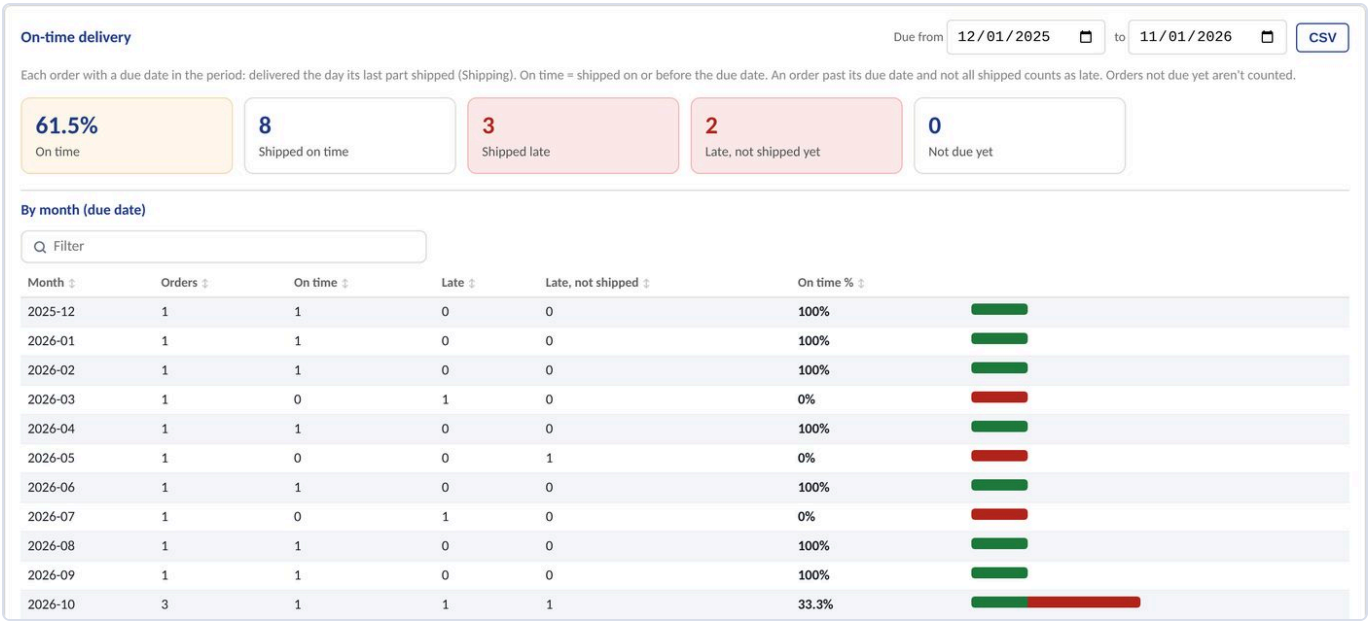
Released parts go out on a **shipment**: the customer and their order, the address, carrier and tracking. Only parts with a release form can be added. **Ship it** numbers the shipment and marks each serial shipped to that customer, so a field report or an escape finds who holds which part. The packing slip prints with the **certificate of conformance** in the organization's own words (Settings). After shipping, only carrier and tracking can still be added. The shipment shows each product's **packaging and preservation** instructions, the packing slip prints them with the shelf life, and **a part past its shelf life, or without its cure date when the product tracks it, isn't shipped**.



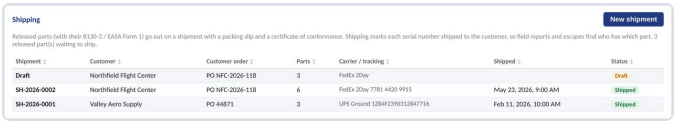

The draft shipment for Northfield Flight Center: packaging instructions above the parts waiting to ship.

## On time?

**Work → Delivery** measures on-time delivery (AS9100 8.2 and 9.1.1): each order due in the period is delivered on the day its last part shipped, and is on time when that's on or before the due date. An order past its due date with parts still to ship counts as late. It shows the rate, by month and by customer, and each order with the days late, with a CSV for the customer scorecard. The Overview shows the last 90 days.




On-time delivery for the sample year: 61.5%, three shipped late and two late and not yet shipped.




Shipments: two shipped, the balance of Northfield's order in draft.

## Packing slip and certificate of conformance

SH-2026-0002

| | |
|---|---|
| **Shipment** | SH-2026-0002 |
| **From** | Leesburg Aviation, LLC<br>Hangar 4, Leesburg Executive Airport (JYO)<br>Leesburg, VA 20175, USA |
| **Customer** | Northfield Flight Center |
| **Customer order** | PO NFC-2026-118 |
| **Ship to** | Northfield Flight Center, Maintenance<br>Hangar 2, 410 Aviation Way<br>Lancaster, PA 17601 |
| **Carrier / tracking** | FedEx 2Day 7781 4420 9915 |
| **Shipped** | May 23, 2026, 9:00 AM |

### Contents

| Part number | Description | Serial / lot | Qty | Release form |
|---|---|---|---|---|
| LA-1024-1 | Alternator mounting bracket | LA20260006 | 1 | LA-2026-00002 |
| LA-1024-1 | Alternator mounting bracket | LA20260007 | 1 | LA-2026-00002 |
| LA-1024-1 | Alternator mounting bracket | LA20260008 | 1 | LA-2026-00002 |
| LA-1024-1 | Alternator mounting bracket | LA20260009 | 1 | LA-2026-00002 |
| LA-1024-1 | Alternator mounting bracket | LA20260010 | 1 | LA-2026-00002 |
| LA-1024-1 | Alternator mounting bracket | LA20260011 | 1 | LA-2026-00002 |

### Certificate of conformance

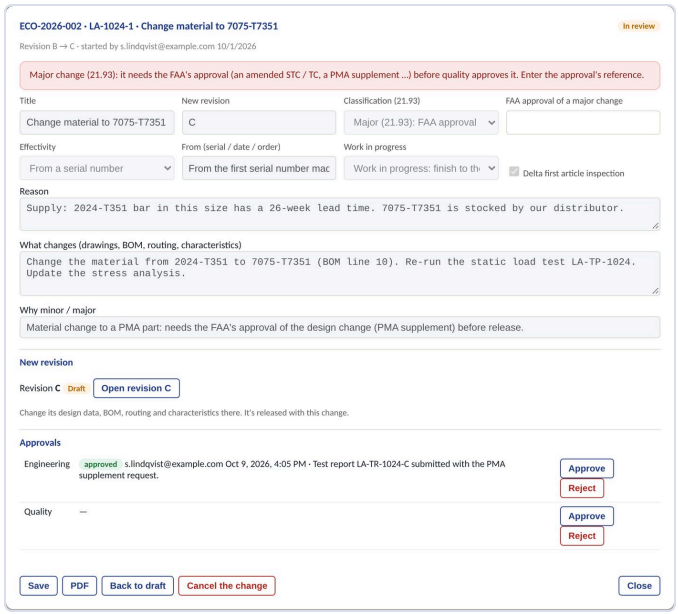
Leesburg Aviation, LLC certifies that the parts listed above were manufactured and inspected under PMA PQ4471CE / STC SA02391NY in conformity with the approved design data and the requirements of the purchase order, and that each is accompanied by the FAA Form 8130-3 listed. Inspection and test records are on file and available for review for 10 years.

| | |
|---|---|
| **Approval** | PQ4471CE |
| **Certified by** | j.osei@example.com (electronically), 5/23/2026 |

SH-2026-0002: packing slip and certificate of conformance.

# 10 Changing the design

A released revision changes only through an **engineering change order**: why, what changes, the classification under 14 CFR 21.93 (minor, or major with an appreciable effect on weight, balance, strength, reliability or other airworthiness characteristics), effectivity (from the next order, immediately, from a serial or a date), what happens to work in progress, and whether a delta FAI is needed. Engineering drafts the new revision from the current one and makes the change there. Engineering and quality both approve; a **major change can't be approved by quality without the FAA's approval reference** (an amended STC, a PMA supplement). Releasing it makes the new revision current, supersedes the old one and records a new product baseline.




ECO-2026-002: the material change to 7075-T7351, classified major, approved by engineering, waiting for the FAA's approval of the PMA supplement.

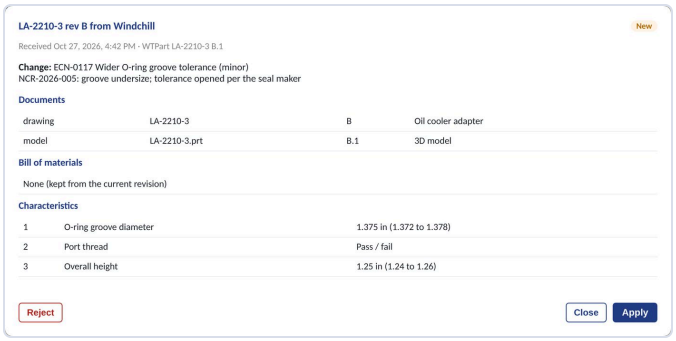



Changes in the sample: released, in review, draft.

**From the PLM.** Engineering organizations that run Teamcenter, Windchill or 3DEXPERIENCE send released item revisions to Avistrata's partner API; they wait in **PLM** until an engineer applies them. A first revision becomes a draft revision; a later one becomes a change order with the new revision drafted from the PLM's drawings, BOM and characteristics (the routing stays as planned here). A small shop can upload a JSON or a BOM spreadsheet instead.




PLM inbox: LA-2210-3 rev B from Windchill (ECN-0117, the wider groove tolerance after NCR-2026-005).




What Apply turns into a change order.

**Baselines.** Besides the product baseline, engineering keeps the functional baseline (what the product must do) and the allocated baseline (what each item and supplier must meet), with requirement IDs, sources and how each is verified, per EIA-649.

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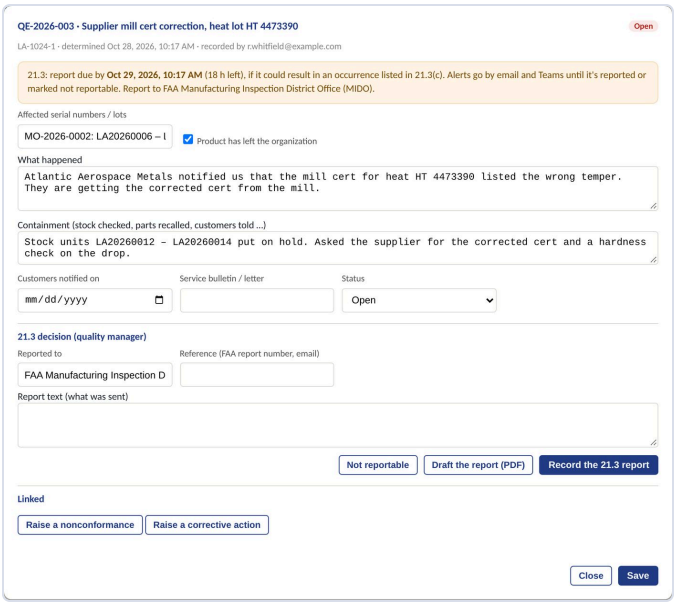
# 11 After delivery: field reports, escapes and 21.3

**Field reports** log what operators, customers and repair stations report: a failure, malfunction or defect, with the part and serial number, aircraft and hours (21.137(m)). Each is evaluated: a nonconformance, a quality escape, or nothing to act on, with the reason. A report that points to a hazard can be added to the product risks or sent to the SMS risk register.




Field reports in the sample.

A **quality escape** is nonconforming product that already left. It records the affected serial numbers, containment and customer notice, and starts the clock for the **14 CFR 21.3 report**: 24 hours from the determination that a failure, malfunction or defect could result in one of the occurrences listed in 21.3(c) (72 hours for EASA, 21.A.3A). The quality manager decides whether it's reportable, drafts the report from the escape, and records when it went, to whom, and the reference. Until then Avistrata **alerts** the quality and production managers by email and Microsoft Teams when it's recorded, at half the window, at 4 hours and 1 hour left (with a text message), and when it's overdue.

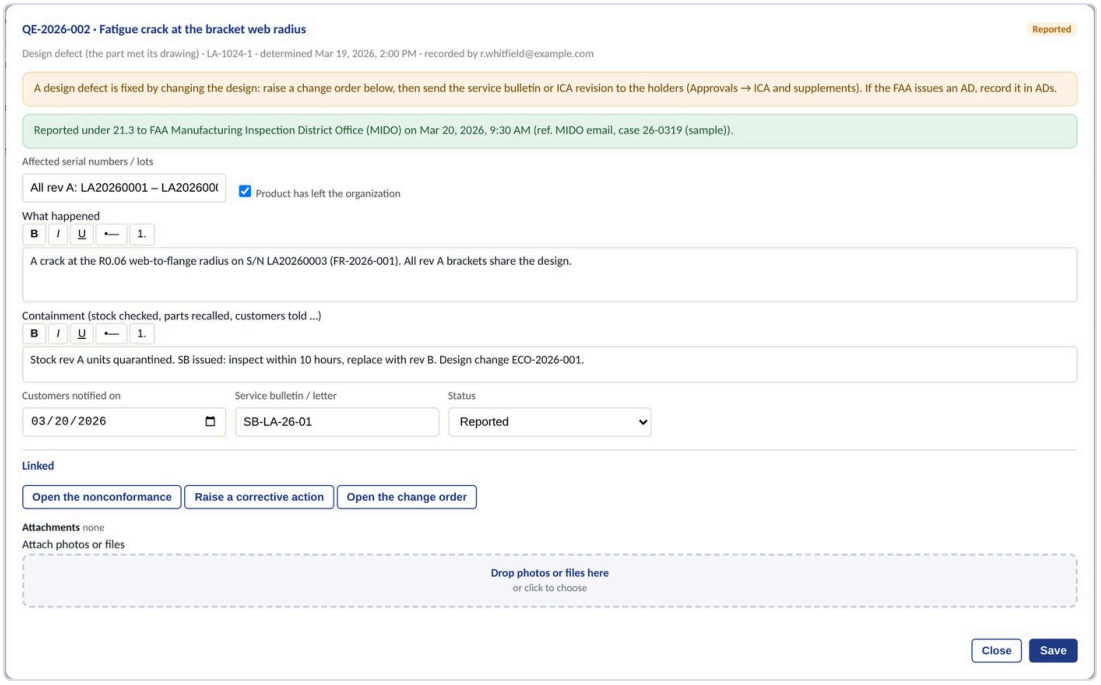



QE-2026-003, a supplier mill cert correction: report due in 18 hours.




Escapes: one closed as not reportable, one reported, one open.

**Design defects.** Not every escape is a part that missed its drawing. When a part that **met** its drawing fails in service, the design is at fault: the escape is recorded as a design defect, starts the same 21.3 clock, and raises the change order that fixes the design. The service bulletin then goes out through ICA distribution.

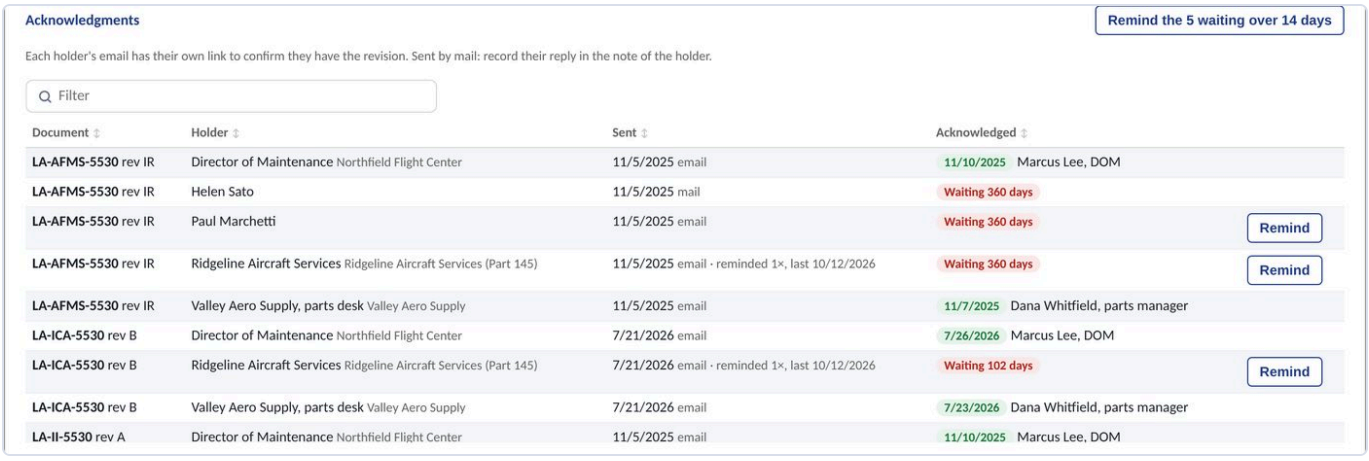



QE-2026-002: the crack at the web radius of the rev A brackets. The parts met the drawing, so it's a design defect: reported under 21.3 the next morning, fixed by ECO-2026-001 (the larger radius of rev B), SB-LA-26-01 to the holders.

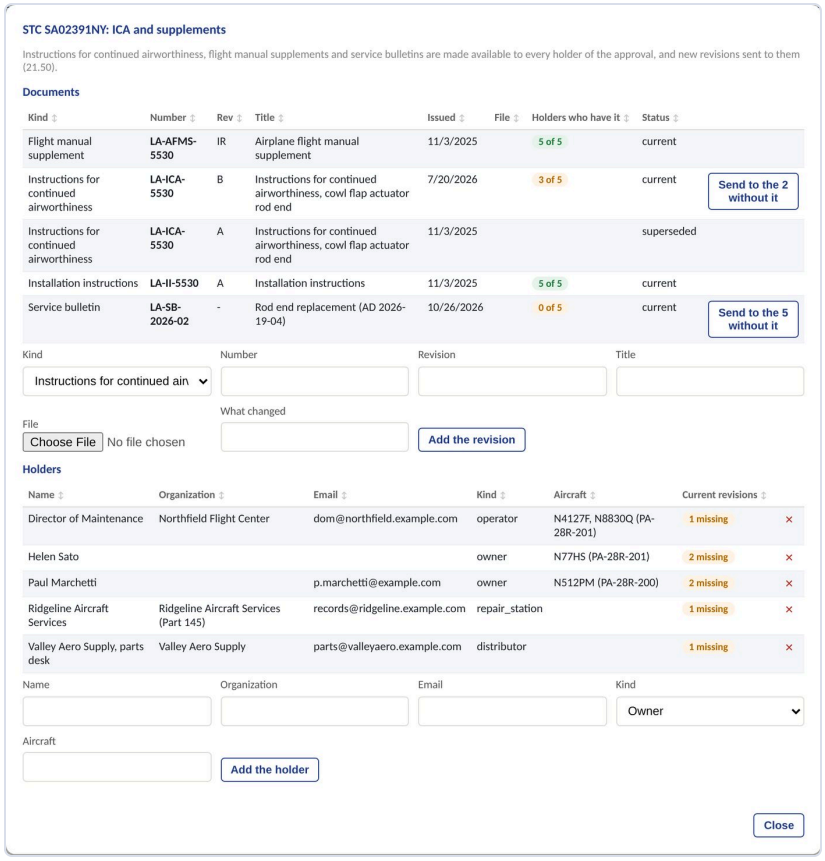
## ICA and service bulletins

For each approval, **ICA and supplements** keeps the instructions for continued airworthiness, flight manual supplements, installation instructions and service bulletins by revision (a new revision supersedes the old), and the holders: owners, operators, repair stations and distributors. It shows who has the current revision and sends it to those without it, by email with a download link, or records it as sent by mail (21.50).

**Acknowledgments.** Each holder's email carries their own link: it opens the revision and records that they have received it, with their name and the date. A holder sent the documents by mail returns a printed acknowledgment form, and quality records it against their send. The ICA window lists who has acknowledged each current revision and who is still waiting, with **Remind** for one holder and for everyone waiting longer than the reminder interval in Settings (14 days by default).




Acknowledgments for STC SA02391NY: two holders have confirmed revision B; Ridgeline was reminded on 12 October and is still waiting; the copy mailed to Helen Sato waits for her printed form.



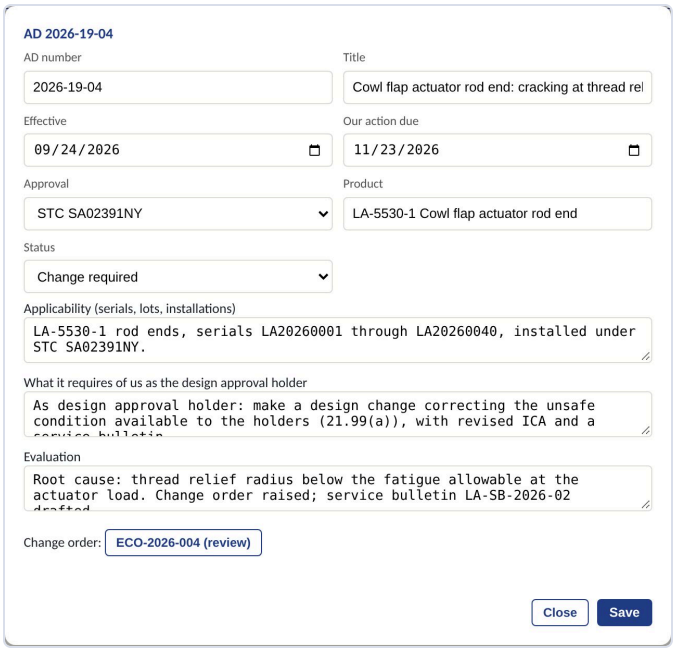

STC SA02391NY: ICA revision B reached 3 of 5 holders; the new service bulletin none yet.

## Airworthiness directives on our own approvals

When the FAA issues an AD against a product we hold the design approval for, the design change is ours to make and make available (21.99). **ADs** records each one with its applicability, what it requires of us, the evaluation and the due date; **Raise the change order** starts the change, and the service bulletin goes out through ICA distribution.



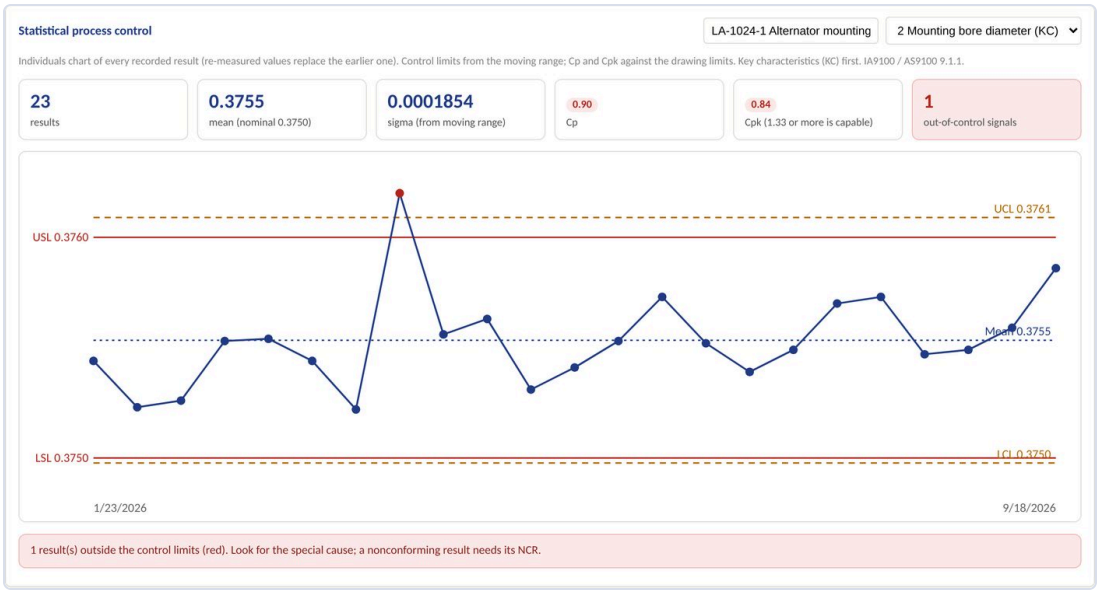

Three ADs: one needs a change, one doesn't apply, one in evaluation.




AD 2026-19-04 on the rod end, with change order ECO-2026-004.

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**SPC.** Every recorded measurement feeds an individuals chart per characteristic with control limits, Cp and Cpk, and out-of-control signals (a point outside the limits, a run of 8 on one side), key characteristics first (AS9100 9.1.1, IA9100).




LA-1024-1 mounting bore: 23 results, Cpk 0.84, one point outside the control limits.

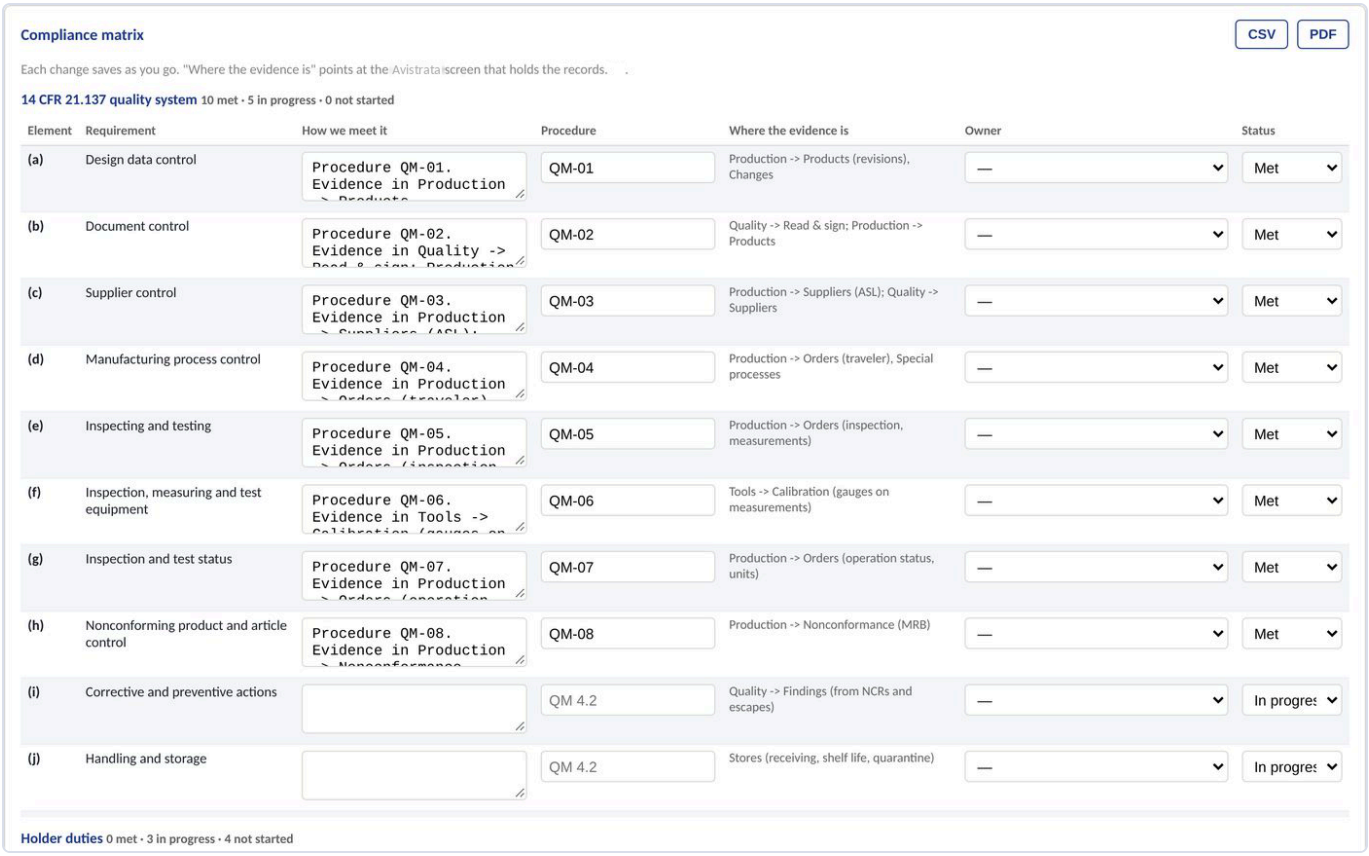
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# 12 The records behind it all

| Record | What Avistrata keeps |
|---|---|
| **Approvals** | Each TC, STC, PMA, TSOA, PC with eligibility, limitations, status and documents. |
| **Revisions and baselines** | Design data, BOM, routing and characteristics (safety-critical marked) per revision; released ones locked; product, allocated and functional baselines. |
| **Orders and as-built** | The traveler with every signature and stamp, every measurement with the gauge (and the sample piece), every material with lot, certificate and source, the NCRs, the final inspection. |
| **Release forms** | 8130-3 / EASA Form 1 / certificate of conformity with number, signatory and date; void forms kept. |
| **Nonconformance and escapes** | NCRs with MRB signatures and re-inspection; escapes with containment, customer notice and the 21.3 report. |
| **Deviations** | Deviation permits with scope, characteristics, classification, the FAA's reference for a major one, and both approvals; fixed once approved. |
| **People** | Training with level, trainer, expiry, record and reminders sent; the stamp register, never reissued; the stamp on every signature. |
| **Risks** | Product safety and operational risks with severity and likelihood before and after the controls, safety-critical characteristics, owner, each review with its findings, and the SMS hazard it was sent to. |
| **Changes and FAIs** | Change orders with classification, approvals and effectivity; AS9102 forms 1 to 3. |
| **Certification** | Compliance register, requirement traces, conformity statements, design reviews. |
| **Shipments** | Contract review per order; shipments with each serial and its release form; the certificate of conformance; on-time delivery per order and customer. |
| **Gauges** | Recalls with the measurements affected and the evaluation; gauge R&R studies with their data. |
| **Continued airworthiness** | ICA and supplement revisions, holders, what was sent to whom and who acknowledged it when; ADs against our approvals. |
| **Authority** | The accountable manager's sign-off of each quality manual revision; changes notified to the FAA; authority delegated to suppliers. |
| **Retention** | Kept at least 5 years after manufacture (10 for critical parts; settable). Records on file can't be deleted: orders, release forms, NCRs and escapes can only be cancelled or voided. |

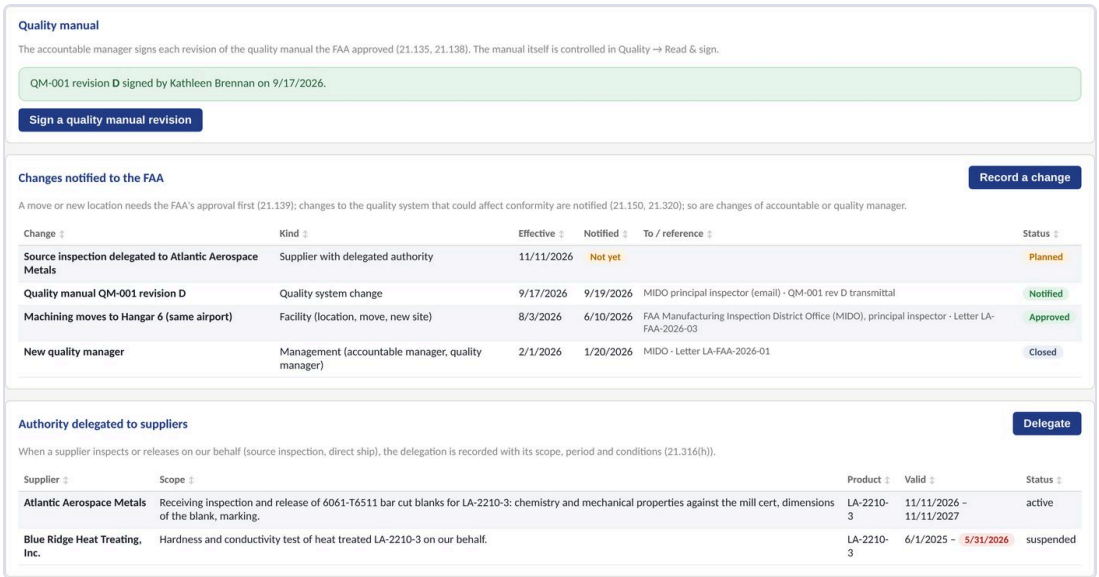
**Compliance matrix.** Each element of 14 CFR 21.137, the holder's other duties (21.3, 21.5, 21.138, 45.15 ...), AS9100 clause 8, IA9100 and EASA Part 21 Subparts G and J, with how it's met, the procedure reference in the quality manual, the owner, status and the Avistrata screen that holds the evidence. It exports to PDF and CSV for the FAA or the registrar.

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The compliance matrix for Leesburg Aviation, 21.137 section.

**Authority.** The accountable manager signs each revision of the quality manual the FAA approved (21.135, 21.138). Changes the FAA has to know about are recorded with when and to whom they were notified, and a facility move with the FAA's approval before it (21.139, 21.150). Authority delegated to a supplier, such as source inspection, is recorded with its scope, period and conditions (21.316(h)).



System → Authority: QM-001 revision D signed, four FAA notifications, two delegations (one suspended).

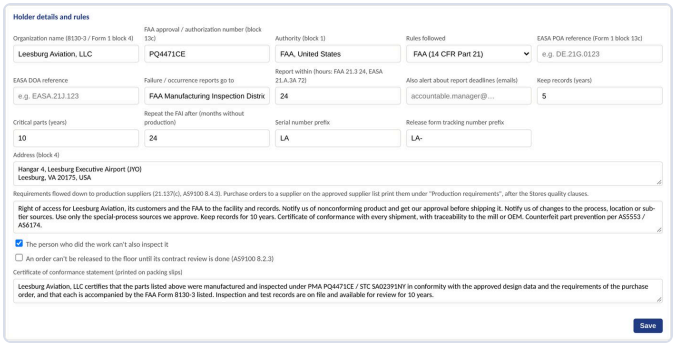
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# 13 Who uses what

| Role | Where they work | What Avistrata does for them |
|---|---|---|
| **Accountable manager** | Overview, Authority, Compliance | Sees the 21.3 clock, open MRB items, high risks, on-time delivery and the compliance status; signs the quality manual revision; records FAA notifications and supplier delegations; gets the 21.3 alerts if set in Settings. |
| **Quality manager** | Overview, Escapes / 21.3, FAI, Suppliers, Compliance | Decides and records 21.3 reports, accepts FAIs, runs gauge recalls and gauge R&R, keeps the approved supplier list and qualifications, overrides material issue with a reason, approves changes and deviations for quality, keeps training, stamps and sampling plans and their inspection state, owns and reviews product risks, follows on-time delivery and ICA acknowledgments. |
| **Engineer** | Products, Changes, ADs, Baselines, Certification, Requirements, Design reviews, PLM, Approvals → ICA | Releases design data, drafts revisions, sets required training and sampling per revision, marks safety-critical characteristics, keeps the product risks and sends hazards to the SMS, approves deviations for engineering, classifies changes, signs engineering dispositions, evaluates ADs, sends ICA revisions, records design reviews, keeps the compliance register and the traces. |
| **Planner** | Orders | Reviews the contract, plans and releases orders, splits off the first article, requests deviations, issues material, holds or cancels orders, marks operations N/A, logs hours for others. |
| **Operator / machinist** | Mechanic app, Orders | Signs operations in order, with their stamp; operations that need a training only with it current; special processes only with a current qualification; logs hours. |
| **Inspector** | Mechanic app, Orders, FAI | Records measurements with calibrated gauges (every part or the sample), buys off or rejects operations with an issued stamp, can sign a certificate of conformity, does final inspection, closes reworked NCRs. |
| **MRB member** | Nonconformance | Dispositions; two signatures with engineering for use as is, repair and regrade. |
| **8130-3 signatory** | Releases | The only person who can issue or void an 8130-3 or EASA Form 1; also signs certificates of conformity. |
| **Shipping** | Shipping | Puts released parts on shipments, packs them per the product's instructions, ships them with the packing slip and certificate of conformance, adds tracking. |

Roles are given in Production → Settings, per person; stamps are issued in System → Training & stamps; group admins hold all of them. The database checks the role on every signature, so the website and the apps can't sign what the rules don't allow.

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Production → Settings: the holder's details for the release form, the reporting office and window, retention, prefixes, the flow-down text, the contract review rule, stamps required and the certificate of conformance wording. Saves in place.

## Getting started

1. In Production → Settings, enter the organization name and address, approval number, rules followed (FAA, EASA or both), the office 21.3 reports go to, the flow-down requirements and the certificate of conformance wording. Give people their roles, including the accountable manager and shipping, record their training and issue their stamps.
2. Add the approvals and products with their handling and preservation. For each product, enter the first revision's design data, BOM, routing (with any required training) and characteristics (with a sampling plan for lot-made parts), and release it. Enter each product's safety risks and mark the safety-critical characteristics.
3. Add the special processes with their qualified people, and the approved supplier list by scope.
4. Plan a first order, sign its contract review, split off the first article if one is due, and release it; issue its material; sign and inspect it on the website or the Mechanic app; do the FAI and the 8130-3 (or a certificate of conformity for a domestic customer); ship it.
5. Add each approval's ICA holders, have the accountable manager sign the quality manual, and fill in the compliance matrix.

Companion briefs: *Life of a maintenance job* and *Life of a flight operation*, and Avistrata and 14 CFR Part 21 (the gap analysis). © 2026 Leesburg Aviation LLC. All rights reserved.