Incoming inspection checklist for fastener deliveries

Use this on any supplier's shipment - ours included. Tick each stage, record the reference document, and keep the file with the goods.

A. Documents on arrival

Check	Acceptance criterion	Record
EN 10204 3.1 mill test certificate	Present, per heat, with test values and independent validation	MTC no. / heat no.
Certificate vs actual marking	Heat number on the label matches the MTC; head marking matches the property class ordered	Photo / note
Dimensional inspection report	Dimensions within the drawing or standard tolerance	Ref no.
Coating report	Thickness in the specified range; salt spray report where agreed	micron / hours
De-embrittlement record (10.9 / 12.9 electroplated)	Plating date, bake start, temperature, duration recorded	Cycle no.
Inspection certificate (third party)	Issued by the appointed body, scope matching the order	Cert no.
Packing list vs physical count	Quantities and carton numbers agree	Variance

B. Sampling

- Select samples from more than one carton, not from the top layer only
- For visual and dimensional checks use a recognised sampling plan (e.g. ISO 2859-1, level II, AQL agreed with the supplier)
- Keep samples of any non-conformity with the carton number and photograph it before returning the consignment to storage
- Retain a reference sample per lot until the goods are consumed or the warranty period ends

C. Dimensional and thread checks

Check	Method
Thread	Go / no-go gauges (6g external, 6H internal) - do not substitute a nut fit test on safety-critical items
Thread length	Full thread vs partial thread per the standard ordered (DIN 933 vs DIN 931 difference)

Check	Method
Head dimensions	Across flats, across corners, head height against the standard table
Length	Under-head length, measured on the shank, not including the head
Straightness (long items)	Roll on a flat surface; record run-out for threaded rod and U-bolts
Marking	Property class and manufacturer mark present from M5 upward

D. Material and mechanical verification

Check	Method	When to insist
Spectrometry (PMI / XRF)	Compare against the certified grade; detects mixed stainless and carbon stock	Stainless and alloy steel orders, mixed-carton deliveries
Hardness	Rockwell or Vickers, converted to the property class band	Class 8.8 and above; the fastest indicator of incorrect heat treatment
Tensile / proof load	Laboratory test to ISO 898-1 / 898-2	High-strength, structural and safety-critical items
Impact test	Charpy, where the standard requires it (class 12.9 from M16)	Low-temperature service
Coating thickness	Magnetic gauge, several readings per sample; coating mass for hot-dip galvanizing	Every coated order; HDG is assessed by mass, not salt spray
Salt spray	Neutral salt spray to ISO 9227 against the agreed hours	When the finish was specified on corrosion performance

E. Visual and condition

- Corrosion, white rust or staining beyond the agreed finish condition
- Burrs, laps, cracks, damaged threads, or signs of forced assembly
- Coating damage from transport; wet or crushed cartons; broken pallet
- For stainless: iron contamination or rust spots indicating contact with carbon steel in processing or storage
- Preservative oil present where the finish requires it

F. Non-conformity handling

Situation	Action
Documentation missing or inconsistent	Hold the goods; do not release to production. Request corrected documents in writing.
Dimensional or thread failure	Quarantine, photograph, record carton numbers, notify the supplier within the agreed notice period. Do not attempt to rework before notifying.
Material grade mismatch	Treat as a serious non-conformity: quarantine the whole heat number, not only the sampled cartons.
Partial quantity use already released	Trace the released quantity by carton, and record where it was installed before accepting a replacement plan.

> Test this checklist against the first shipment from any new supplier. A supplier who welcomes it is using the same discipline internally; a supplier who resists it is telling you something more useful than a certificate would.