

# Fastener Tolerance Checklist — High-Speed Sorter Modules

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*For pre-assembly checks to prevent re-torque events within the first 72 hours.*

## Fit & Location

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**Sleeve OD to Hole ID:** H7/g6 or H8/f7 verified (CMM)

**Dowel Concentricity/Runout:**  $\leq 0.01\text{--}0.02$  mm (CMM)

**Dowels:** Seated; no plating buildup at hole entry (Visual + Pin Gauge)

## Edges & Burrs

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**All edges deburred:** R0.2–0.5; no raised burrs post-plating (Ref. ISO 13715; Glove-snag test + Borescope)

## Surface & CoF

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**Plating per environment:** Zn-Ni / Geomet noted

**Target CoF for torque spec:** 0.12–0.18; lubricity documented (Cert + Spot Check)

## Torque ≠ Preload

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**Torque window:** Set by % of proof load; tools calibrated (Cert  $\leq 30$  days)

**Washer policy:** Serrated/SEMS where applicable; avoid split-lock washers (due to preload decay)

## Quick-Change / Threads

**Captive/shoulder screws:** On frequently changed modules; thread class 6H/6g verified (Gauge)

## Sensors & Cable Clamps

**Slots:** Allow  $\pm 0.3$  mm positional adjustment; strain relief every 200–300 mm; clamp torque recorded (e.g., M6: 6–8 Nm)

## Traceability

**Lot ID:** On sleeve/screw; PPAP/RoHS/REACH docs filed; inspection records linked

## 72-hour Torque Retention Mini-Log

Module	Points checked	Re-torque events /100 modules	Notes