

Quality Control Checklist

Document ID: OS-QC-CHK | Version: v1.0 | Applicable to: Solar mounting systems, rails, clamps, fasteners and accessories

Purpose: Provide a repeatable inspection checklist for inbound materials, in-process controls, and pre-shipment inspections to reduce non-conformance and improve traceability.

Disposition Rules: Any Critical defect = Reject. Any Major defect above AQL = Rework/Reject. Record evidence (photos, measurements) for all rejects.

1. Job Information

Customer / Project _____

PO / Contract No. _____

Supplier / Factory _____

Product / SKU _____

Material / Finish _____

Lot / Batch No. _____

Quantity (pcs/sets) _____ Sample Size: _____

Inspection Date _____ Inspector: _____

Applicable Standard(s) AS/NZS 1170 / ASCE 7 / Eurocode / ISO 9001 / Customer spec:

2. Inbound Material Verification

- COA / Mill Test Certificate provided and matches lot/batch (if applicable).
- Alloy/grade verified (e.g., AL6005-T5 / stainless 304/316) and marked correctly.
- Surface condition acceptable: no pitting, deep scratches, contamination, oil residue.
- Fasteners: thread gauge check passed; plating/coating intact; no rust.
- Elastomers (EPDM): no cracking, deformation; hardness within spec (if provided).
- Packaging integrity on arrival: no water damage, crushing, missing labels.

3. Dimensional & Fit Checks (record key measurements)

Item	Characteristic	Spec	Measured	Pass/Fail	Notes
Rail profile	Overall height / width	_____	_____	_____	
Rail slot	Slot width / throat	_____	_____	_____	

3. Dimensional & Fit Checks (continued)

Item	Characteristic	Spec	Measured	Pass/Fail	Notes
Clamp	Jaw width / height	_____	_____	_____	
Clamp	Bolt length / thread	_____	_____	_____	
Splice	Insertion depth / alignment	_____	_____	_____	
L-foot / Hook	Hole pattern / offset	_____	_____	_____	

Tools Used: Caliper / Micrometer / Go/No-Go gauge / Torque wrench / Angle gauge (circle):

4. Visual & Workmanship Inspection

- Anodized surface uniform; no color banding, burns, peeling, or severe scratches.
- No sharp edges/burrs that can cut installers or damage cables/modules.
- All holes deburred; no cracks, deformation, or incomplete punching.
- Welds (if any): continuous, no undercut/porosity; spatter removed.
- Laser marking/labels are legible and correct (SKU, lot, length).
- Hardware pre-assembly (if sold as kits) complete: correct washers/nuts included.

5. Functional Checks (as applicable)

- Clamp engages rail slot correctly; no slippage at recommended torque.
- Splice fit: smooth insertion; rail alignment within spec; no binding.
- Grounding components: teeth/pins contact bare metal where designed.
- EPDM gasket sits flat; compression creates continuous seal line.
- Torque verification: clamp bolt achieves target torque without stripping.

6. Packaging, Labeling & Traceability

- Outer cartons are double-wall or as specified; no re-used damaged cartons.
- Internal protection: separators/bubble/foam to prevent metal-to-metal abrasion.
- Pallets are heat-treated/ISPM-15 marked (if required for destination).
- Carton labels include: SKU, description, qty, gross/net weight, lot, country of origin.
- Moisture control: desiccant + humidity indicator card for sea freight (if required).
- Packing list matches actual packed quantity; over/short recorded.

7. Evidence & Non-Conformance Record

Attach photos and detailed notes for any defect. Use the table below to record issues and corrective actions.

No.	Defect Description	Severity (C/M/m)	Qty	Action (Rework/Replace/Reject)	Owner	Close Date
1						
2						
3						
4						

8. Sign-off

Inspection Result (circle) PASS / CONDITIONAL PASS / FAIL

Inspector Signature _____ Date: _____

Supplier Representative _____ Date: _____

OmniSol Approval _____ Date: _____