OpsAuditHub opsauditihub.com	DOC ID: **SAF-0125**	REVISION: **Rev 2.4 (2026)**
	STANDARD: **ISO 9001:2015 & OSHA 29 CFR 1910.212**	AUDIT FREQUENCY: **Per Shift & Daily Pre-Operation**

Assembly Line Quality Control Sop Template

Operational Scope: Establishes a standardized operating procedure for assembly line quality control to ensure zero-defect production and hazard mitigation. Mandates strict compliance across all manufacturing workstations to meet regulatory quality benchmarks.

MANDATORY PPE:	Safety Glasses with Side Shields (ANSI Z87.1), Steel-Toe Safety Footwear (ASTM F2413), Cut-Resistant Nitrile-Coated Gloves, High-Visibility Safety Vest, ESD Grounding Strap (where applicable)
PREREQUISITES:	Verify calibration status of all inline measurement and torque tools. | Ensure workstation lighting meets the minimum operational lux requirement of 500 lux. | Confirm that the previous shift quality log is signed off and cleared.

VISUAL AND DIMENSIONAL VERIFICATION

#	COMPONENT / ITEM	VERIFICATION CRITERIA & ACCEPTANCE STANDARD	SEVERITY	STATUS
1	**Incoming Raw Material Sourced Parts**	Inspect for surface defects, burrs, corrosion, or dimensional variance against current engineering blueprints.	**Critical (Immediate Out of Service)**	[ ] PASS [ ] FAIL [ ] N/A
2	**Component Alignment and Seating**	Verify structural components align within +/- 0.5mm tolerance without forced fitting.	**Warning**	[ ] PASS [ ] FAIL [ ] N/A
3	**Fastener and Torque Compliance**	Check all threaded fasteners against torque spec sheets using a calibrated pneumatic or digital torque wrench.	**Critical (Immediate Out of Service)**	[ ] PASS [ ] FAIL [ ] N/A
4	**Surface Finish and Coating Integrity**	Ensure paint, anodizing, or plating is uniform, free of runs, bubbles, or exposed substrate.	**Standard**	[ ] PASS [ ] FAIL [ ] N/A

FUNCTIONAL AND SAFETY INTERLOCK TESTING

#	COMPONENT / ITEM	VERIFICATION CRITERIA & ACCEPTANCE STANDARD	SEVERITY	STATUS
5	**Emergency Stop (E-Stop) Pushbuttons**	Activate each line E-stop to verify immediate power interruption and mechanical braking within 2 seconds.	**Critical (Immediate Out of Service)**	[ ] PASS [ ] FAIL [ ] N/A
6	**Light Curtains and Safety Scanners**	Break optical plane with test rod to confirm line halts immediately and trips visual alarm indicator.	**Critical (Immediate Out of Service)**	[ ] PASS [ ] FAIL [ ] N/A
7	**Pneumatic Pressure Regulators**	Verify main line air pressure reads between 90-100 PSI with zero noticeable line leaks or pressure drop.	**Warning**	[ ] PASS [ ] FAIL [ ] N/A
8	**Conveyor Belt Tracking and Tension**	Inspect belt alignment along the bed frame; ensure no excessive slack, fraying, or erratic tracking.	**Standard**	[ ] PASS [ ] FAIL [ ] N/A

DOCUMENTATION AND TRACEABILITY

#	COMPONENT / ITEM	VERIFICATION CRITERIA & ACCEPTANCE STANDARD	SEVERITY	STATUS
9	**Workstation Traveler Sheet**	Confirm every unit passing through has a stamped, initialed traveler sheet corresponding to correct serial numbers.	**Warning**	[ ] PASS [ ] FAIL [ ] N/A
10	**Non-Conformance Quarantine Bin**	Ensure red-tagged defective items are physically segregated into locked quarantine bins to prevent mixing.	**Critical (Immediate Out of Service)**	[ ] PASS [ ] FAIL [ ] N/A

Certified Quality Control Inspector Signature: _____	**Date / Time:** _____	**Badge / Cert #:** _____
Plant Operations Manager / Quality Assurance Lead Sign-off: _____	**Review Date:** _____	**Audit Status:** [ ] Approved [ ] Rectify

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