

Manufacturing SOP

1. Title Block & Document Control

SOP Title	{{SOP Title}}
SOP ID	{{SOP ID}}
Version	{{Version}}
Effective Date	{{Effective Date}}
Review Date	{{Review Date}}
Document Owner	{{Document Owner}}
Approver	{{Approver}}

Keep this block on page one so anyone can audit the document at a glance. Set a Review Date 6–12 months out and assign a single Document Owner who is accountable for keeping it current.

2. Purpose

State in one or two sentences why this procedure exists and what result it delivers when followed correctly.

Write the “why”, not the steps. Example: “This SOP ensures every customer refund is processed accurately, within policy, and within two business days.”

3. Scope

Define which teams, locations, systems, and situations this SOP applies to — and explicitly note what it does not cover.

Naming the boundaries prevents the procedure from being applied to the wrong cases. List any exclusions on their own line.

4. Definitions & Abbreviations

Term	Definition
{{Term}}	{{Plain-language definition}}
{{Abbreviation}}	{{What it stands for}}

Only define terms that could be misread by someone new to the process. If there are none, keep this section and write “None” — auditors expect it to exist.

5. Roles & Responsibilities

Role	Responsibility
{{Role}}	{{What this role is accountable for in this procedure}}
{{Role}}	{{What this role is accountable for in this procedure}}

Assign responsibilities to roles, not named individuals, so the SOP survives staff changes. Keep each role to one or two lines.

Process Parameters & Setpoints

Parameter	Setpoint (target)	Tolerance	How to verify
{{Critical parameter}}	{{Target value + unit}}	{{± range}}	{{Gauge / readout / SPC}}
{{Parameter}}	{{Target value}}	{{± range}}	{{How it is checked}}
{{Cycle time / rate}}	{{Target}}	{{± range}}	{{Counter / timer}}

List only the critical-to-quality parameters an operator must set and hold — temperatures, pressures, speeds, torque, cycle time. Give each a target, a tolerance, and how it is verified. Vague setup notes are the most common source of scrap.

6. Prerequisites, Materials & Equipment

- ☐ {{Access or permission required before starting}}
- ☐ {{Tool, system, or login needed}}
- ☐ {{Material or document that must be on hand}}

List everything that must be ready before step one. A short checklist here prevents half-finished runs.

7. Safety & Compliance

Note any safety precautions and the regulations or internal policies this procedure must comply with.

If this procedure has no safety or compliance angle, keep the section and write “N/A”. Reference the specific policy or regulation by name where one applies.

Before any setup, cleaning, clearing a jam, or maintenance, apply lockout/tagout (LOTO): de-energize the machine, lock the energy source, and verify zero energy before reaching into the point of operation. Follow OSHA 29 CFR 1910.147 and your site's energy-control procedure. Only trained, authorized operators run powered equipment, and machine guards must be in place before start-up.

8. Procedure (Step-by-Step)

Step	Action	Owner	Expected Result
1	{{Start with a verb — one action per step}}	{{Role}}	{{What "done right" looks like}}
2	{{Next action}}	{{Role}}	{{Expected result}}
3	{{Next action}}	{{Role}}	{{Expected result}}

Aim for roughly 5–15 numbered steps. Begin each with a verb, keep it to one action, and make the Expected Result observable so anyone can confirm the step is complete.

9. Quality Checks & Acceptance Criteria

- {{Measurable check that confirms the work was done correctly}}
- {{Second acceptance criterion}}

Write 2–4 checks that are measurable — a reviewer should be able to answer each with a clear yes or no.

10. Troubleshooting & Exceptions

Failure scenario	What to do	Escalate to
{{Common thing that goes wrong}}	{{Corrective action}}	{{Role / contact}}
{{Edge case}}	{{How to handle it}}	{{Role / contact}}

Capture the failures you have actually seen. Naming the escalation point keeps exceptions from stalling.

11. Related Documents & References

- {{Form, checklist, or policy this SOP relies on}}
- {{Upstream or downstream SOP}}

Link the forms, policies, and adjacent SOPs a reader will need next.

12. Revision History

Version	Date	Author	Summary of change
1.0	{{Effective Date}}	{{Document Owner}}	Initial release
{{Version}}	{{Date}}	{{Author}}	{{What changed}}

Update this table every time the SOP changes. The v1.0 row is pre-filled as an example.

13. Approval

Document Owner Name: _____ Signature: _____ Date: _____	Approver Name: _____ Signature: _____ Date: _____
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Both sign-offs confirm the procedure is accurate and authorised for use.