

SOP Template: Packaging Equipment Setup and Calibration

This SOP details the procedures for **packaging equipment setup and calibration**, including initial equipment assembly, adjustment of operational parameters, calibration of sensors and scales, verification of packaging accuracy, and routine maintenance checks. The objective is to ensure that packaging machinery operates efficiently and consistently, maintaining product quality and compliance with industry standards.

1. Purpose

To outline standardized procedures for setup and calibration of packaging equipment to guarantee reliable operation and product quality.

2. Scope

This procedure applies to all personnel responsible for operating, maintaining, or calibrating packaging equipment within the facility.

3. Responsibilities

- **Operators:** Assemble, set up, and perform basic calibrations as per SOP.
- **Maintenance Staff:** Perform advanced calibrations and routine maintenance.
- **Supervisors/Quality Assurance:** Verify records, review calibrations, and ensure compliance.

4. Definitions

- **Calibration:** The process of adjusting equipment to ensure accuracy against a known standard.
- **Operational Parameters:** Set values or ranges for speed, temperature, pressure, etc., required for packaging operation.

5. Materials and Equipment

- Packaging equipment (fillers, cappers, labelers, sealers, etc.)
- Calibration weights and standards
- Tools for adjustments (wrenches, screwdrivers, etc.)
- Maintenance logbook or calibration record sheets
- Personal protective equipment (PPE)

6. Procedure

1. **Initial Equipment Assembly**
 - Verify all components are present and undamaged.
 - Assemble equipment as per manufacturer's instructions.
 - Ensure all safety guards and emergency stops are functional.
2. **Adjustment of Operational Parameters**
 - Set machine parameters including speed, temperature, pressure, and fill volume to batch specifications.
 - Document all settings in the setup log.
3. **Calibration of Sensors and Scales**
 - Use certified weights/standards to calibrate scales and sensors.
 - Follow manufacturer's calibration procedure for each device.
 - Record date, method, and result of calibration.
4. **Verification of Packaging Accuracy**
 - Run test packages through equipment.
 - Check filled weight/volume of sample packages against specification.
 - Adjust settings if deviations are detected; repeat verification.
5. **Routine Maintenance Checks**
 - Inspect moving parts for wear or damage.
 - Lubricate as required.
 - Replace or repair faulty parts before operation.
6. **Documentation**
 - Complete all setup and calibration records.
 - Report and resolve any discrepancies before production start.

7. Documentation and Records

Record	Responsible	Retention Period
Setup Log Sheet	Operator	1 year
Calibration Certificates	Maintenance Staff	3 years
Maintenance Log	Maintenance Staff	3 years

8. References

- Manufacturer's equipment manuals
- Industry and regulatory standards (e.g., ISO, GMP)

9. Revision History

Version	Date	Description	Author
1.0	2024-06-12	Initial release	SOP Team