ChecklistGuro

Process Capability Study Checklist

Show only Checklist

Display Style
Default

Planning & Scope Definition

Ensures the study is properly planned and the scope is clearly defined to ensure relevant data is collected and analyzed.

Process Name

Write something...

Process Description

Write something...

Study Objective

- [ ] Identify Capability
- [ ] Assess Improvement
- [ ] Meet Specification

Sample Size (Planned)

Enter a number...

Study Start Date

Enter date...

Specification Limits (USL, LSL)

Write something...

Critical to Quality (CTQ) Attribute?

- [ ] Yes
- [ ] No

Potential Sources of Variation

- [ ] Material
- [ ] Equipment
- [ ] Method
- [ ] Manpower
- [ ] Environment

Data Collection & Preparation

Focuses on the collection and initial preparation of data, including sampling methods and data cleaning.

Sample Size (n)

Enter a number...

Sampling Method

- [ ] Random
- [ ] Systematic
- [ ] Stratified
- [ ] Convenience

Rationale for Sample Size

Write something...

Data Collection Start Date

Enter date...

Data Collection End Date

Enter date...

Number of Subgroups (if applicable)

Enter a number...

Data Points/Variables Measured

- [ ] Length
- [ ] Diameter
- [ ] Weight
- [ ] Surface Finish
- [ ] Other (Specify in Long Text)

Detailed Description of Measurement System & Equipment Used

Write something...

Description of any Data Cleaning Steps Performed (e.g., outlier removal)

Write something...

Statistical Analysis & Calculations

Covers the actual statistical analysis performed to determine process capability, including calculating key metrics.

Sample Size (n)

Enter a number...

Mean ($\bar{X}$)

Enter a number...

Standard Deviation (s)

Enter a number...

Upper Specification Limit (USL)

Enter a number...

Lower Specification Limit (LSL)

Enter a number...

Cp Calculation

Enter a number...

Cpk Calculation

Enter a number...

Pp Calculation

Enter a number...

Ppk Calculation

Enter a number...

Distribution Type Assumed (e.g., Normal)

- [ ] Normal
- [ ] Non-Normal - Further Analysis Required

Interpretation & Reporting

Addresses the interpretation of results and the creation of a clear and actionable report.

Executive Summary of Findings

Write something...

Cp (Process Capability Index)

Enter a number...

Cpk (Process Capability Index - Lower)

Enter a number...

Cpm (Process Capability Index - Adjusted)

Enter a number...

Process Meets Capability Requirements?

- [ ] Yes
- [ ] No
- [ ] Needs Further Investigation

Explanation of Capability Index Results & Trends

Write something...

Recommendations for Process Improvement

Write something...

Control Chart Image

Upload File

Potential Risks Identified during the Study

Write something...

Corrective Action & Follow-Up

Focuses on the steps taken to improve process capability and ensures follow-up actions are tracked.

Describe the identified root cause(s) of the process capability deficiency.

Write something...

Outline the proposed corrective actions to address the root cause(s).

Write something...

Estimated Cost of Corrective Actions (USD)

Enter a number...

Target Completion Date for Corrective Actions

Enter date...

Assigned Responsibility for Corrective Actions

- [ ] Production Engineer
- [ ] Maintenance Technician
- [ ] Quality Engineer
- [ ] Process Owner

Which departments will be involved in the corrective action?

- [ ] Production
- [ ] Engineering
- [ ] Quality
- [ ] Maintenance

Describe the specific metrics used to verify the effectiveness of corrective actions.

Write something...

Date of First Verification Measurement

Enter date...

Status of Corrective Action

- [ ] Not Started
- [ ] In Progress
- [ ] Completed
- [ ] Delayed

Documentation & Record Keeping

Covers the documentation of the entire process capability study for future reference and auditing.

Study Start Date

Enter date...

Study Completion Date

Enter date...

Study Objective and Scope Description

Write something...

Raw Data File(s)

Upload File

Statistical Analysis Output (e.g., Minitab, Excel)

Upload File

Summary of Findings & Conclusions

Write something...

Description of Corrective Actions Taken (if any)

Write something...

Revision Number of Document

Enter a number...

Document Status (e.g., Draft, Approved, Obsolete)

- [ ] Draft
- [ ] Approved
- [ ] Obsolete

Reviewer Signature