

SMED (Single-Minute Exchange Of Die) Checklist

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Preparation & Planning

Focuses on pre-exchange activities to minimize downtime. Includes planning, tool preparation, and setup optimization.

Brief Description of the Die/Tool Being Exchanged

Write something...

Current Exchange Time (in minutes)

Enter a number...



Date of Last Exchange

Enter date...

Frequency of Exchange (e.g., every shift, daily, weekly)

☐ Every Shift

☐ Daily

☐ Weekly

☐ Other

Initial Hypothesis for Potential Improvements

Write something...

Attachment: Current Exchange Process Flowchart (if available)

 Upload File

Target Exchange Time (Initial Goal)

Enter a number...

Potential Areas for Improvement (Select all that apply)

- ☐ Tool/Die Transport
- ☐ Die/Tool Attachment
- ☐ Machine Setup
- ☐ First Piece Inspection
- ☐ Operator Training
- ☐ Ergonomics

Team Members Involved in the S.M.E.D. Review

Write something...

Current State Analysis

Details the existing exchange process, identifying time-consuming steps and bottlenecks. Includes time measurements and activity mapping.

Total Exchange Time (Current)

Enter time...

Number of Steps in Current Exchange Process

Enter a number...

Detailed Description of Current Exchange Procedure (Step-by-Step)

Write something...

Time Spent on Each Step (Record for Representative Exchanges)

Enter a number...

Equipment Involved in Exchange Process (e.g., forklift, crane)

Write something...

Activities Requiring Machine Stop (Select all that apply)

- ☐ Die/Tool Installation
- ☐ Alignment
- ☐ Securing
- ☐ Machine Setting Adjustments
- ☐ Other (Specify in Long Text)

Observations & Challenges Encountered During Current Exchange

Write something...

Process Flow Diagram (Current State)

 Upload File

Internal Activity (While Machine is Still Running)

Focuses on activities that can be performed while the machine continues production. Aims to overlap exchange activities with production.

Time Saved (Minutes) - Pre-Staging Die/Tool

Enter a number...

Detailed Description of Pre-Staging Activities

Write something...

Die/Tool Transport Method

- ☐ Manual Transport
- ☐ Automated Transport (e.g., AGV)
- ☐ Other

Distance Traveled (feet) – Die/Tool Transport

Enter a number...

Observed Issues with Current Transport Method

Write something...

Estimated Time for Pre-Positioning Die/Tool

Enter time...

Resources utilized during internal activity

- ☐ Operator
- ☐ Maintenance
- ☐ Technician
- ☐ Other

Notes on Operator Training Needs Regarding Internal Activities

Write something...

External Activity (Requires Machine Stop)

Activities that *must* be done while the machine is stopped. The goal is to minimize the time spent in this category.

Current External Exchange Time (Minutes)

Detailed Description of External Activities Performed

Number of Operators Required for External Activities

Current Method for Die/Tool Transport

- ☐ Manual
- ☐ Forklift
- ☐ Automated Guided Vehicle (AGV)
- ☐ Other

Potential Causes for Long External Exchange Times

Write something...

Distance Die/Tool Needs to be Moved (meters)

Enter a number...

Current Method of Alignment (if any)

- ☐ Visual
- ☐ Laser
- ☐ Gauge
- ☐ None

Describe any difficulties encountered during alignment

Write something...

Tool/Fixture Preparation

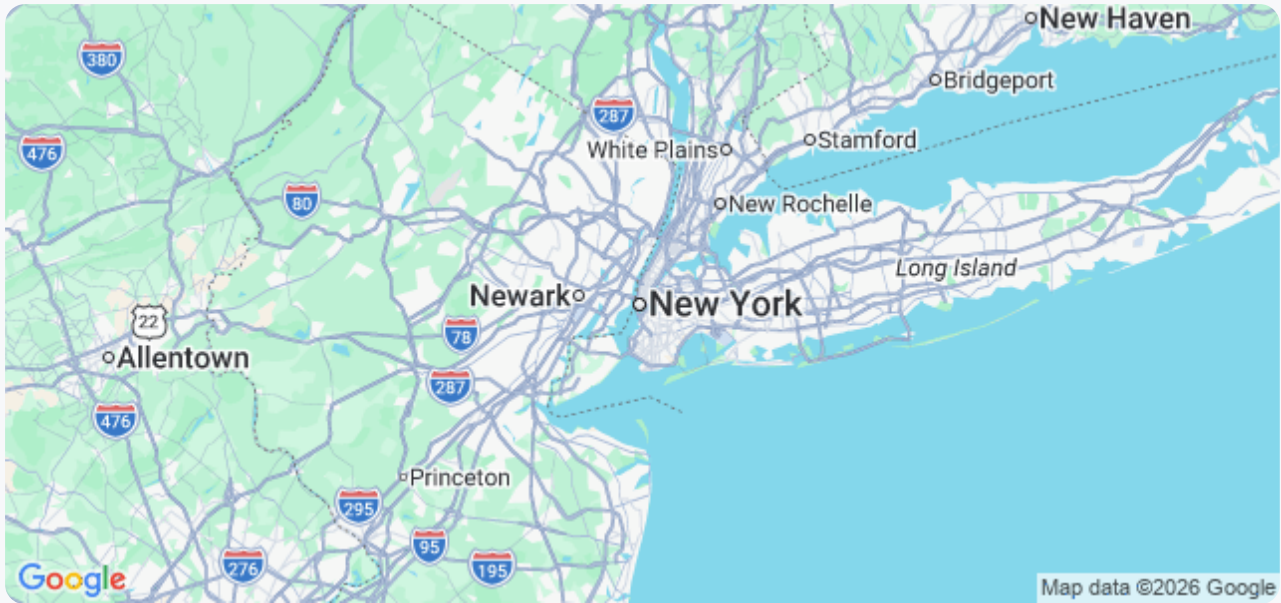
Covers the preparation and movement of dies, tools, and fixtures, including pre-staging and quick-change mechanisms.

Die/Fixture Weight (kg)

Enter a number...

Pre-staging Location of Die/Fixture

 [Set My Current Location](#)



Distance Die/Fixture is Moved (m)

Enter a number...

Material Handling Equipment Used (e.g., hoist, cart, forklift)

- ☐ Hoist
- ☐ Cart
- ☐ Forklift
- ☐ Manual Handling
- ☐ Other

Description of any quick-change mechanisms used

Write something...

Condition of Pre-staging Area (Cleanliness, Organization)

☐ Excellent

☐ Good

☐ Fair

☐ Poor

Photograph of Pre-staging Area

 Upload File

Time to Retrieve Die/Fixture (minutes)

Enter a number...

Setup Procedures - Die/Tool Attachment

Focuses on the actual attachment of the die/tool to the machine, including alignment and securing.

Current Die/Tool Attachment Time (minutes)

Enter a number...

Detailed Description of Current Attachment Procedure

Write something...

Attachment Method (e.g., clamping, hydraulic, pneumatic)

- ☐ Clamping
- ☐ Hydraulic
- ☐ Pneumatic
- ☐ Other (Specify in Long Text)

Number of Hand Tools Used During Attachment

Enter a number...

Description of any alignment aids or fixtures used

Write something...

Photo/Diagram of Current Attachment Setup

 Upload File

Current Alignment Method

- ☐ Visual
- ☐ Gauge
- ☐ Laser
- ☐ Other

Describe any challenges or difficulties encountered during attachment

Write something...

Setup Procedures - Machine Settings & Adjustments

Covers adjustments to machine parameters (e.g., pressure, temperature, speed) following die/tool change.

Target Cycle Time (New Settings)

Enter a number...

Current Cycle Time (Existing Settings)

Enter a number...

Machine Parameter 1: (e.g., Pressure)

- ☐ Increase
- ☐ Decrease
- ☐ No Change

Value Change for Parameter 1

Enter a number...

Machine Parameter 2: (e.g., Temperature)

- ☐ Increase
- ☐ Decrease
- ☐ No Change

Value Change for Parameter 2

Enter a number...

Notes on Parameter Adjustments

Write something...

Calibration Required?

☐ Yes

☐ No

Calibration Date (If Required)

Enter date...

Verification & First Piece Inspection

Details the process for confirming the die/tool is correctly installed and the machine is producing acceptable parts. Includes first piece quality checks.

Target First Piece Cycle Time (seconds)

Enter a number...

Actual First Piece Cycle Time (seconds)

Enter time...

First Piece Quality - Visual Inspection

- ☐ Acceptable
- ☐ Minor Adjustment Needed
- ☐ Major Adjustment Needed
- ☐ Reject

Detailed Observations - Visual Inspection

Write something...

Dimensions Measured (Number of points)

Enter a number...

Dimension Measurement Results

Write something...

First Piece Acceptable?

- ☐ Yes
- ☐ No

Reason for Rejection (if applicable)

Write something...

Date of First Piece Verification

Enter date...

Operator Signature

Write something...

Standardization & Documentation

Ensures the improved exchange process is documented, standardized, and consistently followed. Includes training and visual aids.

Detailed Standard Operating Procedure (SOP) Description

Write something...

Updated Visual Work Instructions (e.g., Photos, Diagrams)

 Upload File

Training Materials Distributed (Check all that apply)

- ☐ SOP Document
- ☐ Visual Work Instructions
- ☐ Video Tutorial
- ☐ Classroom Training
- ☐ On-the-Job Training

Number of Personnel Trained on Updated Procedure

Enter a number...

Date of Last Procedure Review & Update

Enter date...

Name of Person Responsible for Maintaining SOP

Write something...

Documentation Location (Physical/Digital)

- ☐ Physical Binder
- ☐ Shared Drive
- ☐ Cloud Storage

Summary of Change Log / Revision History

Write something...

Continuous Improvement

Addresses ongoing monitoring, data analysis, and refinement of the SMED process for ongoing optimization.

Current Exchange Time (Minutes)

Enter a number...

Target Exchange Time (Minutes)

Enter a number...

Date of Last S.M.E.D. Review

Enter date...

Summary of Recent Improvements/Changes

Write something...

Number of Times Process Has Been Performed Since Last Review

Enter a number...

Areas for Further Investigation/Improvement (Select all that apply)

- ☐ Tool Pre-staging
- ☐ Fixture Design
- ☐ Machine Alignment
- ☐ Operator Training
- ☐ Part Presentation
- ☐ Other - Please Specify

Specific Actions Planned for Next Review Cycle

Write something...

Overall S.M.E.D. Effectiveness (1-5, 1=Poor, 5=Excellent)

- ☐ 1 - Poor
- ☐ 2 - Fair
- ☐ 3 - Average
- ☐ 4 - Good
- ☐ 5 - Excellent

Next Review Date

Write something...