Formula 1

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Formula 2

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Formula 3

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Related Content

Title	Type	Slug
CNC Optimization Parameter Matrix (Aluminum/Ti/Inconel/Steel)	resource	cnc-parameter-matrix
GD&T Warpage Compensation Checklist	resource	gd-t-warpage-compensation-checklist
CNC Machine Rigidity Mapping Template (Excel + MATLAB script)	resource	machine-rigidity-mapping-template
CNC Cost-Per-Part Breakdown Dashboard (Power BI)	resource	cnc-cost-dashboard
Tool Path Strategy Decision Tree PDF	resource	tool-path-decision-tree

Detailed Explanation

Standard Minute Value (SMV) is the foundational metric for labor costing, capacity planning, and performance evaluation in lean garment manufacturing. The SMV Development Field Kit provides a field-tested methodology to derive SMVs through systematic time study, motion analysis (e.g., MODAPTS or MTM-2 adaptations), and allowances calibration—accounting for fatigue, personal needs, delay, and machine interference. Unlike theoretical textbooks, this kit emphasizes contextual validity: it includes pre-built Excel calculators that auto-compute base time, performance rating adjustments, and total SMV with embedded logic for common anomalies (e.g., inconsistent cycle times, outlier rejection via IQR or 3-sigma rules). The companion PDF delivers procedural guidance—including how to select representative operators, conduct stopwatch vs. video-based studies, apply learning curve corrections, and reconcile SMVs across similar styles or operations. Critically, the kit supports continuous improvement by enabling SMV audits, gap analysis against historical benchmarks, and root-cause diagnosis of labor inefficiencies (e.g., high observed time due to poor layout vs. skill gaps). Its modular design allows customization per factory maturity level—from startups adopting basic SMV practices to Tier-1 suppliers maintaining SA8000 or WRAP compliance through auditable labor standards.

Key Components

#	Component
1	SMV Calculation Workflow Guide (PDF)
2	Dynamic Excel SMV Calculator with Validation Rules
3	SMV Audit & Gap Analysis Template

Applications

#	Application
1	Establishing accurate labor standards for costing and quotation
2	Identifying and eliminating non-value-added motions in sewing operations
3	Training IE staff and line supervisors in standardized time study protocols

Related Concepts

#	Concept
1	Time Study
2	Predetermined Motion Time Systems (PMTS)
3	Labor Costing Accuracy
4	Lean Manufacturing KPIs
5	Capacity Utilization

Tags

> apparel manufacturing, industrial engineering, labor efficiency, time study, SMV