



## 25 accessible, high-impact tools

<b>Define &amp; Scope</b>	
SIPOC	Frames scope at a glance: suppliers/inputs → process → outputs/customers.
Process Flowchart (swimlane)	Exposes steps, handoffs, decisions, loops; shows how work really flows.
CTQ Tree	Translates customer needs into specific, measurable requirements.
Problem & Goal Statement	Locks the defect definition, baseline, target, and timeline.
CTQ Prioritization Matrix	Weighs CTQs to focus on what matters most now.
<b>Measure &amp; Data</b>	
Operational Definitions	Removes ambiguity so everyone measures the same thing the same way.
Data & Stratification Plan	Decides what to capture and how you'll slice it (shift, product, line...).
Check Sheet	Simple tally-at-source to turn recurring issues into trusted counts.
Sampling Plan	Sets sensible sample size/frequency to get enough signal without waste.
MSA Lite (Gage R&R screen)	Quick sanity check that the measurement system is usable.
<b>Analyze &amp; Prioritize</b>	
5 Whys	Pushes past symptoms to a controllable root cause.
Ishikawa / Fishbone	Structures causes (People, Method, Machine, Materials, Measurement, Environment).
Pareto Chart	Ranks issues by frequency/impact to reveal the vital few.
Cause & Effect (X-Y) Matrix	Scores which inputs likely drive the critical outputs.
Scatter Plot	Visual test for correlation between an input and the result.
FMEA / FMECA	Anticipates failure modes and prioritizes risk with actions.
<b>Variation, Stability &amp; Capability</b>	
Run Chart	Shows trends, shifts, and early signals over time.
Control Charts (I-MR, X-R, p/np/u/c)	Monitors stability; flags special-cause variation fast.
Histogram + Normality Check	Reveals distribution shape, clusters, and outliers.
Capability (Cp/Cpk) Baseline	Compares process spread vs. spec (for stable processes).
<b>Improve &amp; Sustain</b>	
Impact/Effort Matrix	Prioritizes improvements into quick wins, majors, and park-laters.
Pugh / Decision Matrix	Compares solution options against weighted criteria objectively.
Pilot / DOE-lite Trial Matrix	Plans small, disciplined tests to prove cause and effect.
Error-Proofing (Poka-Yoke)	Designs checks or guides so mistakes can't happen or pass.
Control Plan	Defines what to monitor, how often, and the reaction plan to hold gains.