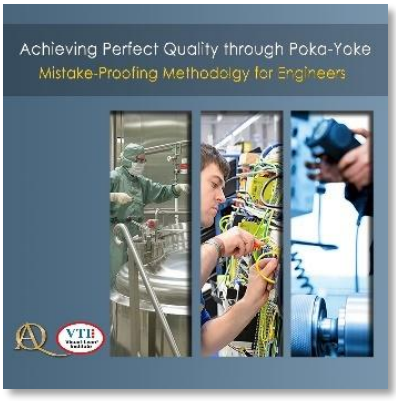
The Mistaking-Proofing Online Training System: The Engineers Course

Learn how to permanently eliminate defects from design and production through our powerful mistake-proofing training system*: Achieving Perfect Quality Through Poka-Yoke/Mistake-Proofing (MP) Methodology for Engineers.*

Co-developed by Dr. Martin Hinckley and Dr. Gwendolyn Galsworth, this eight-module course teaches you and your engineers not only how to prevent defects—but how to eliminate the possibility of defect-risk. Watch your quality KPIs soar!



Contrary to popular thinking, variation is not the source of defects—mistakes are. Rely on statistical methods and you'll be disappointed. Find out why—and find out how to achieve zero defects through our SMS methodology (**S**IMPLIFY, **M**ISTAKE-PROOF, **S**ET SETTINGS). It's time to re-think your approach to quality improvement and realize the success you want, deserve, and need.

Schedule Dr. Hinckley to deliver the training himself—and train-your-trainers. Or purchase our complete on-line system. However you choose to proceed, your purchase includes the MP Resource Folio with exercises, handouts, instructional wall charts, and the MP Participant Manual file you can produce at will—plus two LIVE online coaching sessions with Dr. Hinckley.

Please Note: While this system is designed for engineers, many companies use it to train their operators in the MP method, with outstanding results.

Here is a thumbnail description of each of the eight modules that follows.

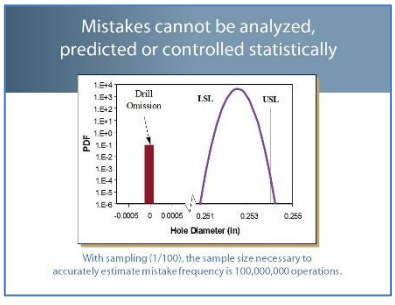
Eight Mistake-Proofing Training Modules

Module 1: Introduction and Why Most Quality Control Fails (38 minutes)

After an introduction to our approach to quality control and mistake-proofing, you and your team learn why Statistical Process Control (SPC) cannot predict or control the most common or serious quality problems. The problem is reliance on the normal distribution. But most functions are not normally distributed, with many defects occurring outside of steps under process control. Plus, outliers are discarded far too frequently, and traditional inspection is imperfect.

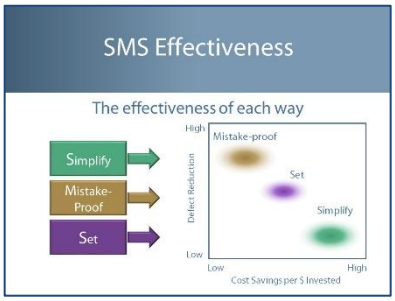
As a result, SPC methods, including 6 Sigma, cannot predict or control defects sufficiently by themselves to achieve world-class quality control.

Module 2: The Exceptional Challenge of Mistakes (61 minutes)



Modern studies demonstrate that virtually all of the significant defects that cause problems in production and for the customer are the result of mistakes, not excessive process variation. Mistakes, however, are rare random events that do not fit the concept of distributions but are best described in terms of probabilities. To achieve outstanding quality control, therefore, you must learn how to control the mistakes that cause defects. In this module, you and your team also learn that the frequency of mistakes is linked to the complexity of the task, underlining the importance of reducing complexity reduction as an early step in quality control. Along the same lines, you learn how and why source inspection is superior to both statistical sampling inspection and judgment inspection. demonstrated.

MODULE 3: THE SMS METHOD TO WORLD CLASS QUALITY (32 MINUTES)



Because mistakes are rare and random events, Deming's PDCA and 6 Sigma's DMAIC problem solving methods are ineffective in achieving World Class Quality. In this module, we introduce a 6 Step +1 steps in our SMS METHOD: **S**IMPLIFY, **M**ISTAKE-PROOF, **S**ET SETTINGS. In company after company, SMS has proven effective in solving all quality problems, while encouraging dramatically superior solutions. You also learn order to quickly get to the source of them.

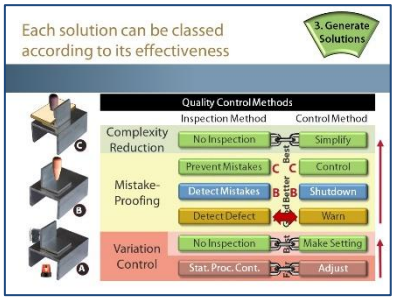
MODULE 4: PREVENTING MISTAKES THROUGH SIMPLICITY (42 MINUTES)

The time it takes to complete any task (working at a standard rate) is the best measure of the complexity of that task. Using this principle, you and your team quickly identify which task elements make it difficult to perform—even as you identify ways to make the task easier. This can be done for the design of tools and equipment, the use of equipment, the product, product assembly, testing, process planning or improving processes that are already in production. The link between task complexity and defects rates also validates the importance of lean production methods in reducing defect rates.

MODULE 5.A: THE SECRETS OF MISTAKE-PROOFING/PART ONE (35 MINUTES)

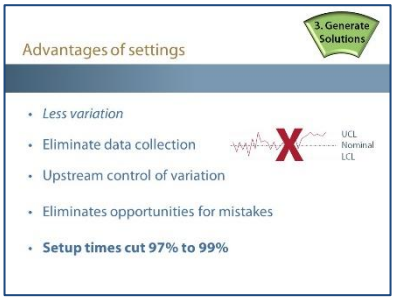
After learning about the attributes of effective mistake-proofing, you and your team learn how to identify the root causes of mistakes through two new MP tools: 5MS + E, and 5WHYS. Then you learn diagnostic framework called THE 5 DEFECT TYPES, a key tool for facilitating the rapid and efficient development of mistake-proofing concepts. This is anchored as you study examples of the first two of the five defect types: 1) *Information Defects*, and 2) *Material Defects.*

MODULE 5.B: THE SECRETS OF MISTAKE-PROOFING/PART TWO (48 MINUTES)



The training continues as you and your team examine the remaining three defect types: 3) *Misaligned, Misadjusted, and Mistimed Operations*, 4) *Omission and Commission Defects*, and 5) *Selection Defects*. As part of this you learn how to classify defects caused by mistakes. Then you learn how to use defect type classifications to quickly search and find effective solutions. We have clustered hundreds of solutions into logical sets (called SOLUTION SETS) so you can study relevant examples on your way to creating robust mistake-proofing answers of your own—with the emphasis always on building self-inspection into each such solution. As the module conclude, you learn how to evaluate the effectiveness of each solution.

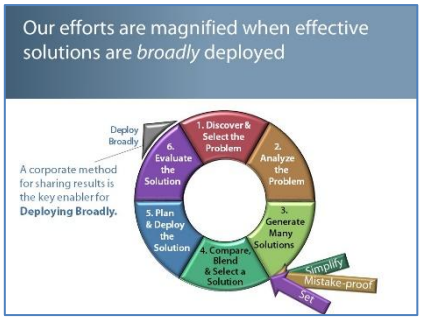
MODULE 6: PERFECT SETTINGS EVERY TIME (28 MINUTES)



Traditional quality control uses SPC to identify when corrective adjustments must be made in a process. World-class quality leaders completely eliminate adjustments by converting adjustments to settings. This approach simplifies production setups, and adjustment errors, while achieving less variation in processes than 6 Sigma. At the same time, settings also eliminate the need for data collection and tracking, and many unnecessary process decisions that waste time and effort. All this is the content of Module 6.

MODULE 7: GREAT SOLUTIONS DEPLOYED EVERY TIME (33 MINUTES)

A common weakness of most quality and design efforts is that we accept one solution before understanding whether or not it is a great one. Great, simple, and effective solutions can only be found by comparing several alternatives, understanding their strengths and weaknesses, and blending concepts to improve the solution. In this module, you and your team learn and apply the HINCKLEY CONCEPT SELECTION METHOD. In that way, you can consistently find great solutions that can be deployed in half the time. You will also learn about the importance of sharing one-page reports, and essential elements of rapid and efficient solution deployments.



FOR MORE INFORMATION, PLEASE CONTACT US:

Visual Thinking Inc. & Visual Thinking Europe
WhatsApp: +1-503-449-3774
Email: contact@visualworkplace.com
Website: www.visualworkplace.com

(Nov/2023)