

Masterclass

# POKA – YOKE

## OUTCOME BASED APPROACH

by Dr. Martin C Hinckley

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As technology improves, machineries and processes become exceedingly complicated, intricate and prone to error in Assembly and Operations. Added to that, the variability of Parts, Sub Assemblies, and incoming Raw materials from diverse Vendors are of immense proportions, in every manufacturing facility. The concept of Zero Defects ~ seems to be elusive due to possibilities of inadvertent errors in Design or Operations or Usage and across the global manufacturing sectors, it is still a formidable task and a distant pipe dream. In this context, POKA ~ YOKE, the antidote for the human errors, comes as a panacea in prevention and / or detection of errors. The concept of POKA ~ YOKE (mistake proofing), is much too significant to be limited to the premises of Engineering or Design function, and calls for involvement from all functions of manufacturing, across different hierarchical levels.

In a Zero Quality Control (ZQC) system, 100% inspection is achieved through POKA ~ YOKE, and the approach is inexpensive and as well highly effective. POKA YOKE, is one of the decisive tools, in ZQC methodology, for moving towards exceptional Quality Standards. Also, POKA ~ YOKE plays a vital role in ensuring Safety in Operations.

### About the Faculty

## Dr. Martin C Hinckley



Martin C Hinckley, an evangelist of Quality Engineering, has an exceptional career track record spanning more than 4 + decades of experience as an industry player, with a very broad background of design expertise centring around project requirements of highest Quality and Reliability. As a lead mechanical engineer working on mission critical projects, Martin, is directly linked with mission critical projects design involving breakthrough research of Products used in Nuclear and Aircraft industries. His research results, on the link between design concepts and Product Design, stems from his work with Hitachi, Motorola and General Electric Aircraft Engines

### KEY TAKEAWAYS

- ROLE OF MISTAKES in PRODUCT QUALITY
- WorldClass Quality: Pre~requisites
- Six Step Approach ~ Quality and Cost Savings
- Five Basic Mistake Types
- Controlling Complexity
- Controlling Variation and Setting
- Solution Principles
- Concept Selection
- Predicting Effectiveness of Solutions
- Evaluation of deployed Solution

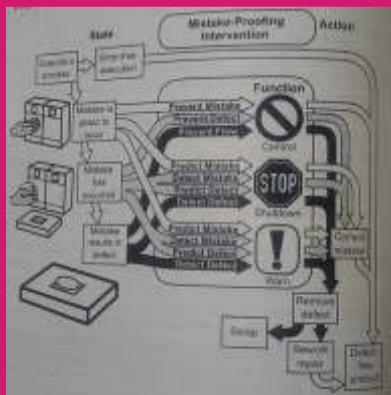
MISTAKE PROOFING EFFECTIVENESS MATRIX ( MEM )

State	Control Function					
	Adjustment	Setting	Warn	Shutdown	Control	Simplify
Complex						
Prevent Mistake					C	
Detect Mistake				B		
Detect Defect			A			
Variation						

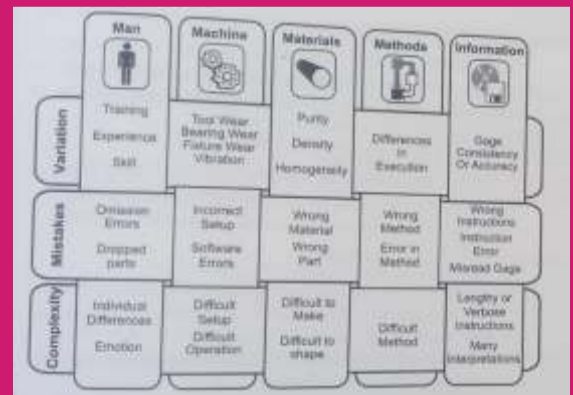
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BASIC FUNCTIONS OF POKAYOKE



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