POKA-YOKE MISTAKE PROOFING MANUFACTURING
(PUBLIC / IN-HOUSE TRAINING PROGRAMME)

Introduction

It was a Japanese manufacturing engineer named “Shigeo Shingo” who developed the concept that revolutionized the quality profession in Japan. Originally called "fool proofing" and later changed to "mistake proofing" and "fail safing" so employees weren't offended, poka yoke (pronounced "poh-kah yoh-kay") translates into English as to avoid (yokeru) inadvertent errors (poka). The result is a business that wastes less energy, time and resources doing things wrong in the future.

Poka yoke is one of the main components of Shingo's Zero Quality Control (ZQC) system -- the idea being to produce zero defective products. One way this was achieved is through the use of poka yoke; a bunch of small devices that are used to either detect or prevent defects from occurring in the first place. These poka yoke methods are simple ways to help achieve zero defects.

In today manufacturing, processes were set-up by engineers and quality controllers monitored the output quality, tracked down problem areas and worked together with the engineering and production departments to solve them. This is an expensive method of fixing the processes after the defects has occurred. A more proactive method will be to detect defects in the processes itself, but self inspection by the production staff is often inconsistent. Therefore, defect detection needs to be automated, and this can easily be done by the jigs, fixtures and tools used in the processes through Poka Yoke Methodology.

Objective

After attending the course, participants should be able to:-

✓ Understand the meaning of Poka Yoke (Mistake Proofing)
✓ Apply the principles of non-detection of defects
✓ Distinguish the different types of Quality Control System such as Yesterday, Real-time and Breakthrough Approach. i.e. Inspection, SPC, Poka Yoke and etc…
✓ Determine the features of a product that can be automatically detected by processes as non-conforming
✓ Design jigs, fixtures and tools to detect such non-conformities
✓ Implement Poka-Yoke effectively in work place and shop floor
Program Contents

- Challenges for Today’s Business Organization
  * Survival Environments
  * Voice of Customers and Critical to Quality – QCD Requirements
  * Yesterday (Inspection), Real-Time (SPC) and Breakthrough (Poka Yoke) Approaches

- A Successful Modern Manufacturing Factory
  * What is Poka-Yoke
  * Definition of Poka Yoke, Defects and Characteristics of Poka Yoke
  * Types of Defects and Errors
  * Workshop – Design Poka-Yoke Tools

- Functions of Poka-Yoke
  * Basic Poka-Yoke Methods
  * Case Studies
  * Workshop – Design Poka-Yoke Tools

- Consideration for Poka-Yoke
  * Detection Devices for Poka-Yoke
  * Case Studies
  * Workshop – Design Poka-Yoke Tools

- Source of Errors and Defects
  * Strategies for Zero Defects
  * Elements of Production

Who Should Attend

Production and Operation Executives, Engineers and Supervisors, Quality, Technical, Engineering and those involved in Project Improvement activities in any organization.

Duration

1 day

Training Methodology

The program would be conducted by using the following materials / aids:

- Course Note
- OHP / LCD
- Group Activities
- Lecturettes
Developing Problem Solving Skills