

Introduction to Basic Quality Tools an 8-Hour Course

Objective

To provide an understanding of quality tools and increase awareness of how individuals and teams could use these tools to reduce waste and improve customer satisfaction. This on-site custom training will focus on company specific processes, and is designed for operators, engineers, managers, supervisors, etc...

Continuous Improvement Philosophy and Speaking with Data

- Check Sheet - A structured, prepared form for collecting and analyzing data; a generic tool that can be adapted for a wide variety of purposes.
- Cause-and-Effect-Diagram (also called Ishikawa or fishbone chart): Identifies many possible causes for an effect or problem and sorts ideas into useful categories.
- Pareto Chart - Shows on a bar graph which factors are more significant.
- Scatter Diagrams - Graphs pairs of numerical data, one variable on each axis, to look for a relationship.
- Histogram - The most commonly used graph for showing frequency distributions, or how often each different value in a set of data occurs.

Theory of Variation and Fundamentals of Statistical Process Control

- Introduction to SPC Control Charts - Xbar and R Charts
- Interpretation of Control Charts – Special Cause Rules
- In Control, but out of Specification!
 - Specifications – The Voice of the Customer
 - Process Capability Understanding Cp & CpK

Tools for Defects and Defective Product

- The p Chart
- The np Chart
- The c Chart

Assignable Causes and Corrective Actions

Gage R & R Studies

Hands-on-Exercises:

- Catapult Variation Team Exercise
- M & M's SPC Exercise
- Normal Distribution Simulation
- Variability Reduction Exercise

Note: A Certificate of Completion is awarded to each participant completing the course.