Quality Engineering

? What is It

Methods and principles to improve business processes and achieve a certain level of quality for products or services. Quality engineering offers a way forward with a proactive, preventive approach to implementing quality systems that solves the business quality challenges.
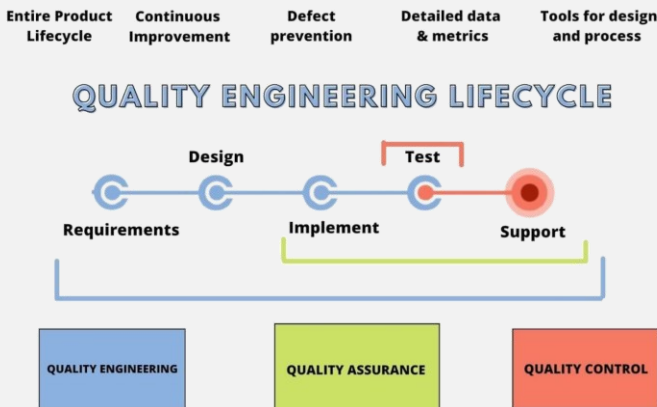
When

- Product and Process **development**.
- Reduce business **costs**.
- To improve **time** to deliver.

Goals

- **Preventive** methods rather that reactive.
- **Control** variation in processes.
- Implement robust **Risk Management**.

How

Quality Engineering Life Cycle.

Entire Product Lifecycle — Continuous Improvement — Defect prevention — Detailed data & metrics — Tools for design and process

QUALITY ENGINEERING LIFECYCLE

Requirements — Design — Implement — Test — Support

QUALITY ENGINEERING | QUALITY ASSURANCE | QUALITY CONTROL

Risk Management

Risk Management Process

- 1. Identify the Risks
- 2. Analyze the Risk
- 3. Evaluate or Rank the Risk
- 4. Treat the Risk
- 5. Monitor and Review the Risk

The QMS

Quality Engineering
- Customer Requirements
- Customer Audit Coordination
- Customer Quality System
- Customer SPEC / Document Control

Continuous Improvement
- CIP/6S
- Quality Training
- Lesson Learn
- Problem Solving/8D
- Internal Audit
- Automotive Quality System

Robust Design
- APQP/PPAP/FMEA
- Process Design and Development
- Process and Product Validation

Manufacturing & Quality Control
- Control Plan/SPC/MSA
- Automation System/MES
- Process Change Control
- Non-Conforming Management
- Defect Reduction
- Outgoing Quality Control

Supplier Quality Engineering
- Material Quality Management
- Supplier Management

Quality System Management
- Quality Engineering
- Robust Design
- Manufacturing & Quality Control
- Supplier Quality Engineering
- Continuous Improvement