



Quality in manufacturing

Quality

- End use of the product
- Definable and measurable characteristics of the product
- Economics of manufacturing
- Manufacturing costs and selling price

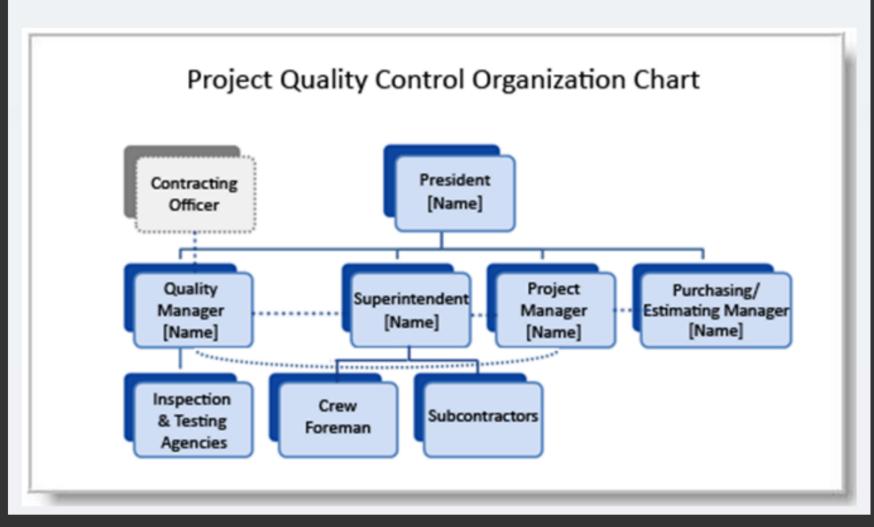
Scope of Quality Control

Four Principal Tools of the Trade

- 1. Standards and specifications
- 2. Inspection
- 3. Statistical techniques
- 4. Measuring instruments



Organization for Quality Control



Standards and Specifications

'Perfection in manufacture is impossible to attain and costly to approach.'

Tolerances

- A product must be
 acceptable to customers
 as regards both quality
 and cost. Somewhere
 along the scales of
 quality and cost there is
 a point of compromise at
 which the quality meets
 the customer's minimum
 requirements and the
 cost fits his pocketbook.
- "Zone of acceptability"

Two Classes of Manufacturing Variables

Chance variables

Assignable variables

The chance variables in a manufacturing process generate what is known as the process of capability.

Interchangeable manufacture

Selective assembly