

# Quality control & Quality Assurance of Sanitary ware Products

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# Sanitary ware: Different Patterns

## Manufacturing of Sanitary ware Products :

Madurai Pan 450 and 500 ,580 Box Rim Pan, Foot rest ,  
Traps S and P-trap, EWC P and S, Wall Hung Different  
type of Basins , Pedestals, Cisterns , Auto cisterns,  
Urinals : small and Big Sinks and accessories.

# Quality control :Sanitary ware

## QUALITY CONTROL TOOLS

- Vital Few and Trivial Many : Pareto Analysis
- Path of Continuous Improvement Diagram : Cause & Effect
- Discover Trouble : Stratification
- Organizing Data Collection : Check sheet
- Conformance Quality in its totality : Histogram
- Visual Control : Graphs &
- Control Charts/Run Chart
- Variables related to : Scatter Diagram
- Regression Analysis

# Quality Control of Sanitary ware Products

- For the Customer Satisfaction, the important role is the assured Quality of Products made and controlled in manufacturing , investigation of the level of quality being achieved called **Quality assessment**.
- After assessments, action taken to eliminate unacceptable quality and by periodic inspection ,changes or adjustments whenever necessary called **Quality Control**.

# Norms to control the Quality of Sanitary ware

- Standard Norms of Sanitary ware Products (Surface area wise ):
- A => Operating surface ( Bowl, Rim , Sump)
- B => Visible Non Operative Surface (Body, Sides )
- C => Un Exposed Glazed surface after installation (Back , Underneath )
- Shade variation: Not allowed where the differences is visible and noticeable compared to standard.
- Spangling : Minor spangling where not glaringly visible is allowed.
- Blister ; Allowed in unglazed portion, not allowed in the glazed portion.
- Egg shell/Matt finish: Not allowed. Plucking : Not allowed. Dunting : Not allowed. Cracks : Not allowed. Droppers :Not allowed. Bloating Chipping : Not allowed.
- MAXIMUM 3 PERMISSIBLE DEFECTS ALLOWED IN A POTTERY SQUARE => 50mm X 50mm.
- Other Defects : Pin holes,Dirt,Pits.crawling,stain,glaze streak, thin glaze, specks(scatter),warpage,badfinish, waviness,repair spot, edging.

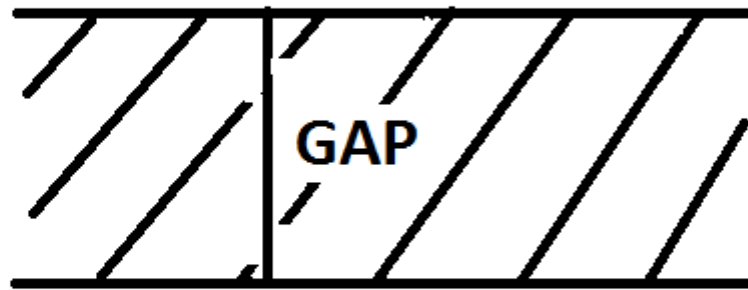
# Control of Quality of Products

- Customer oriented Quality control.
- Acceptance level : Facts and Data for Talking and Discussing.
- Humanitism and Functionally managed Management.

# Present status

Hindrance to Goal

**DESIRED LEVEL/GOAL**



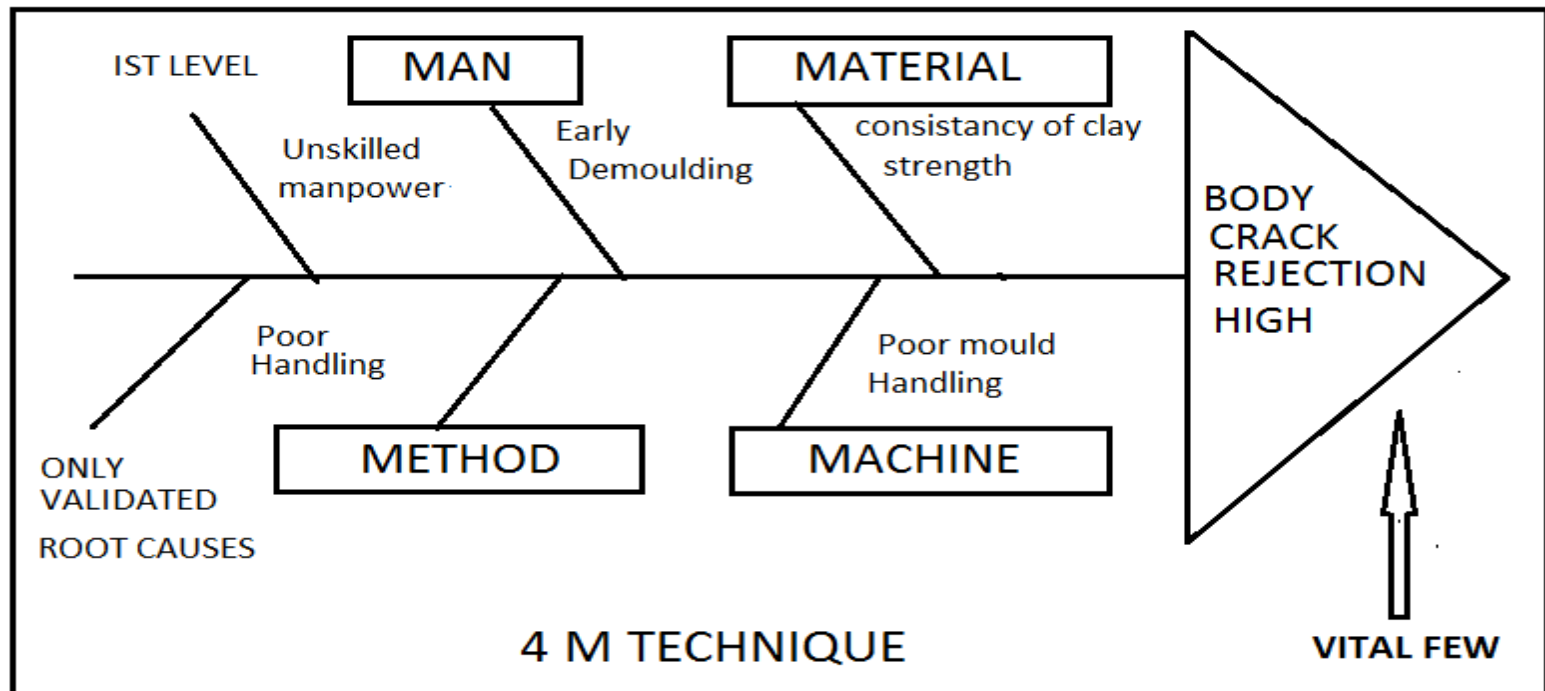
**PRESENT STATUS**

Existing where we are

**Cause and Effect** :Pareto charts/Diagram (Ref. :Mr. wilfred Pareto

This 20% => VITAL FEW and

80% => TRIVIAL MANY



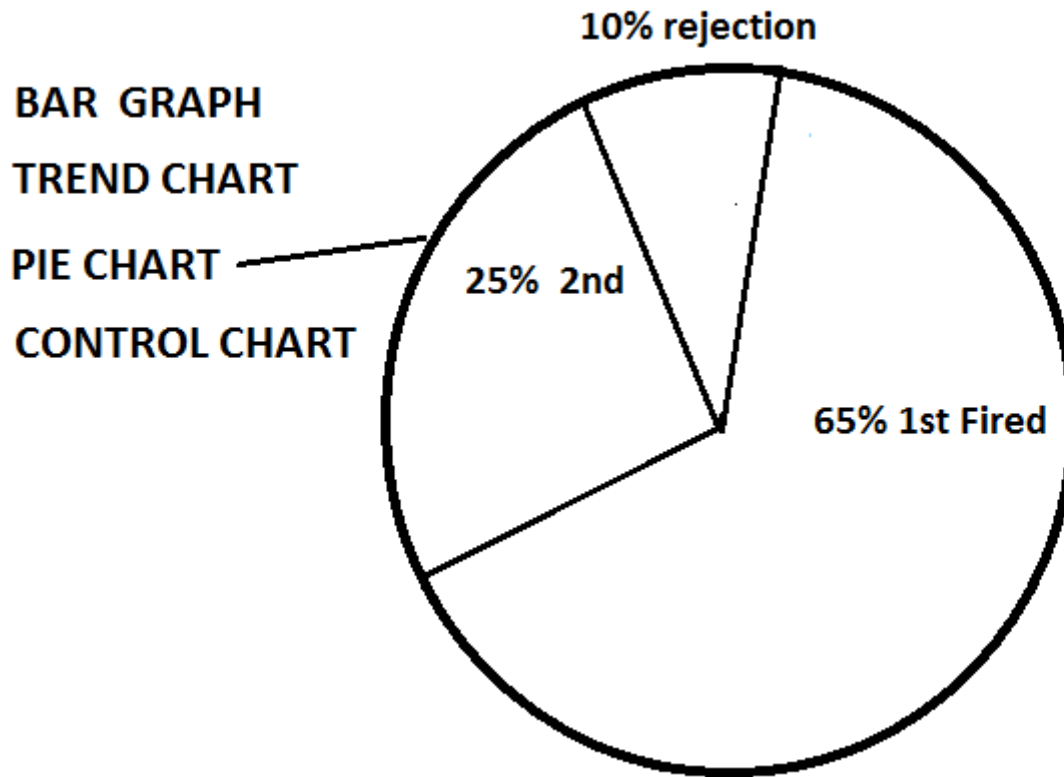


# Quality control

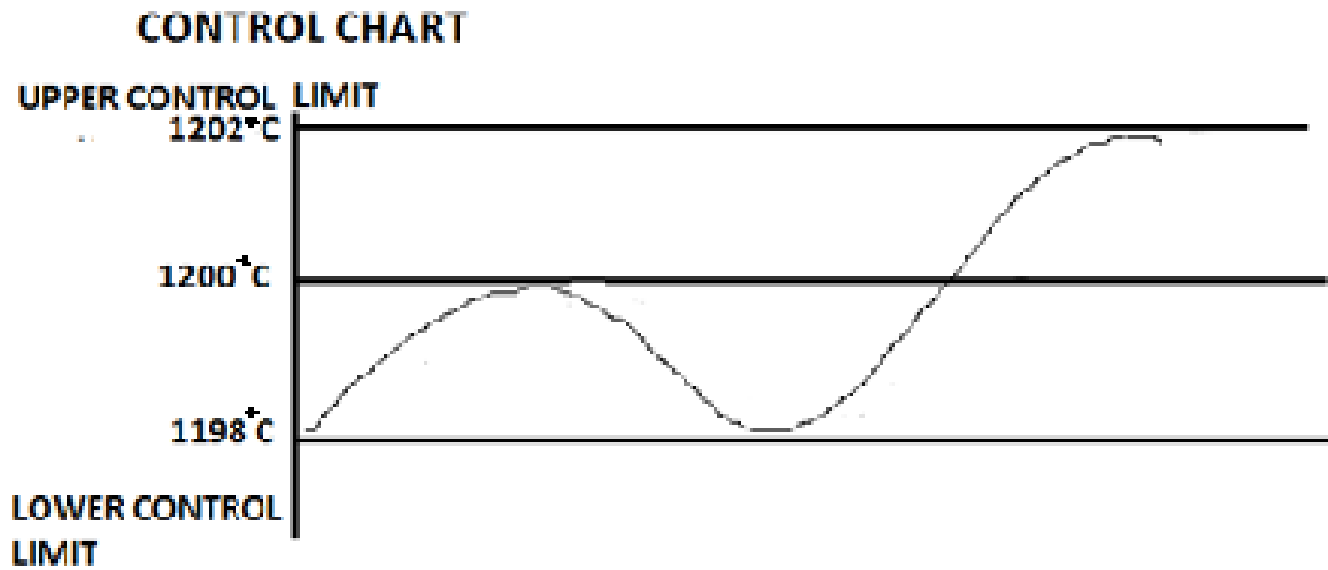
## **Graphs are widely used in:**

- Explanation – Defect Ratio, Productivity, increase in ratio of Sales turnover.
- Understanding – Past and Present analysis
- Control - Production level, defect ratio, weight, temperature, measurements
- Calculations – Control limits etc.

# Control chart



# Contd.



## Quality assurance

- Control of the Design of Products, Processes and jobs also to impart Training by the Personnel.
- Preventive activity required to be systematically planned in advance. The activity includes identification and planning of the checks, inspection and control. It provides confidence internally to the Management and externally to the Customer.

# Total Quality Management

**Definition:** An integrated effort designed to improve quality performance at every level of the organization.

## **Key aspects of TQM:**

- COST
- RELIABILITY
- EFFICIENCY
- BUSINESS
- QUALITY
- INNOVATION AND
- EFFECTIVENESS

# TQM

## THE CULTURE OF TQM:

- OPENNESS
- VALUE SYSTEM
- TRUST
- STRATEGY
- FAIRNESS COMMUNICATION

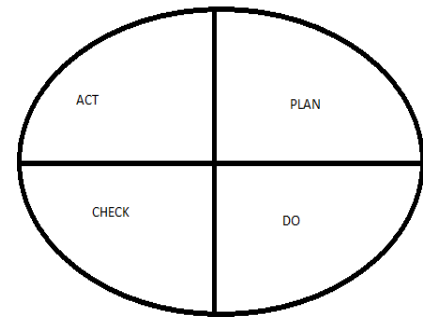
# TQM

## TOTAL EMPLOYEE INVOLVEMENT:

- PARTICIPATION
- REWARD
- RAINING RESPECT
- IMPROVEMENT
- RECOGNITION

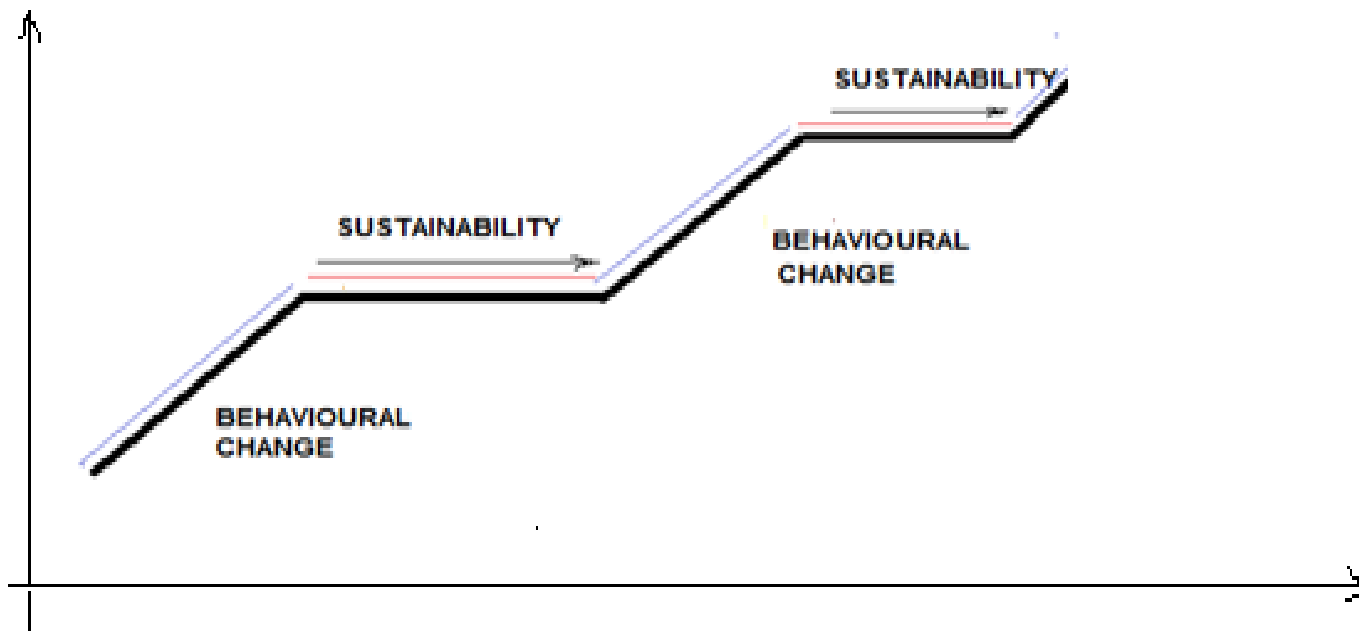
# TQM

- **KAIZEN** => Meaning literally 'Continuous improvement. It is a Japanese word for the Philosophy that defines management's role in continuously encouraging and-implementing small improvements involving everyone..
- **PDCA** => make up the control process.  
plan, do, check and act





we believe that the most effective way for an Organization to improve is to make continual improvement



# TQM

- **J I T => JUST IN TIME**
- **TIGHTENING THE PROCESS (FOR MAKING A PRODUCT)**
- **STREO LINING THE FLOW ALONG THE 'PROCESS' LINE(NOT IDLE BUT ALSO NOT OVERWHELMED)**
- **OVERLAPPING THE OPERATIONS**
- **MINIMISING SET UP TIMES**
- **ACTIVELY INVOLVING THE EMPLOYEES.**

## **THE END RESULT:**

- **PIECE – FOR PIECE PROCESSING:**
- **NO STORAGE**
- **NO BUFFER STOCKS**
- **NO DAMAGES**
- **NO WASTE**
- **NO WORRIES**



THANK YOU