



An Overview: Total Productive Maintenance

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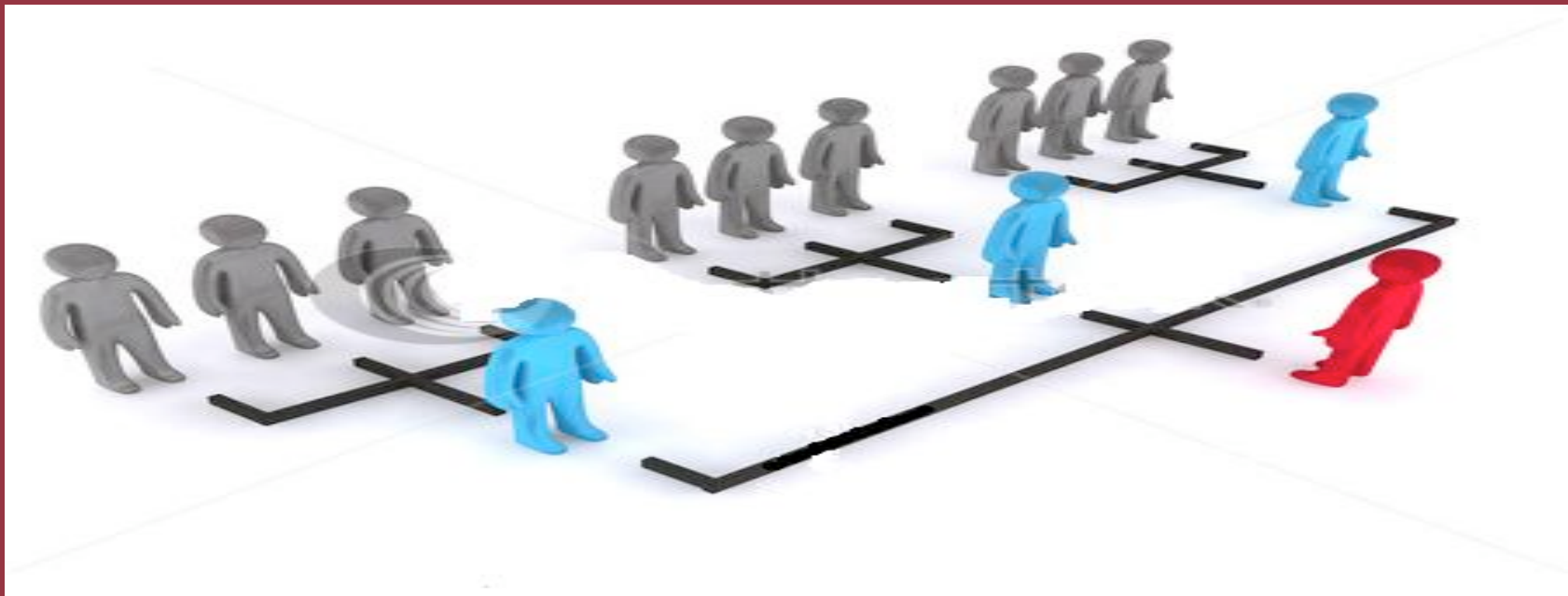
Overview:



- **TPM-Terminology**
- **TPM-Necessity**
- **TPM-Implementation**
- **TPM BASE and PILLARS**
- **TPM-Results and Future**

TPM -Terminology

- Originated in Japan in 1971
- All maintenance activities that are productive and implemented by all employees refers to definition of TPM.
- Involves every stage of employees within the organization from operators to senior management.



TPM -Necessity

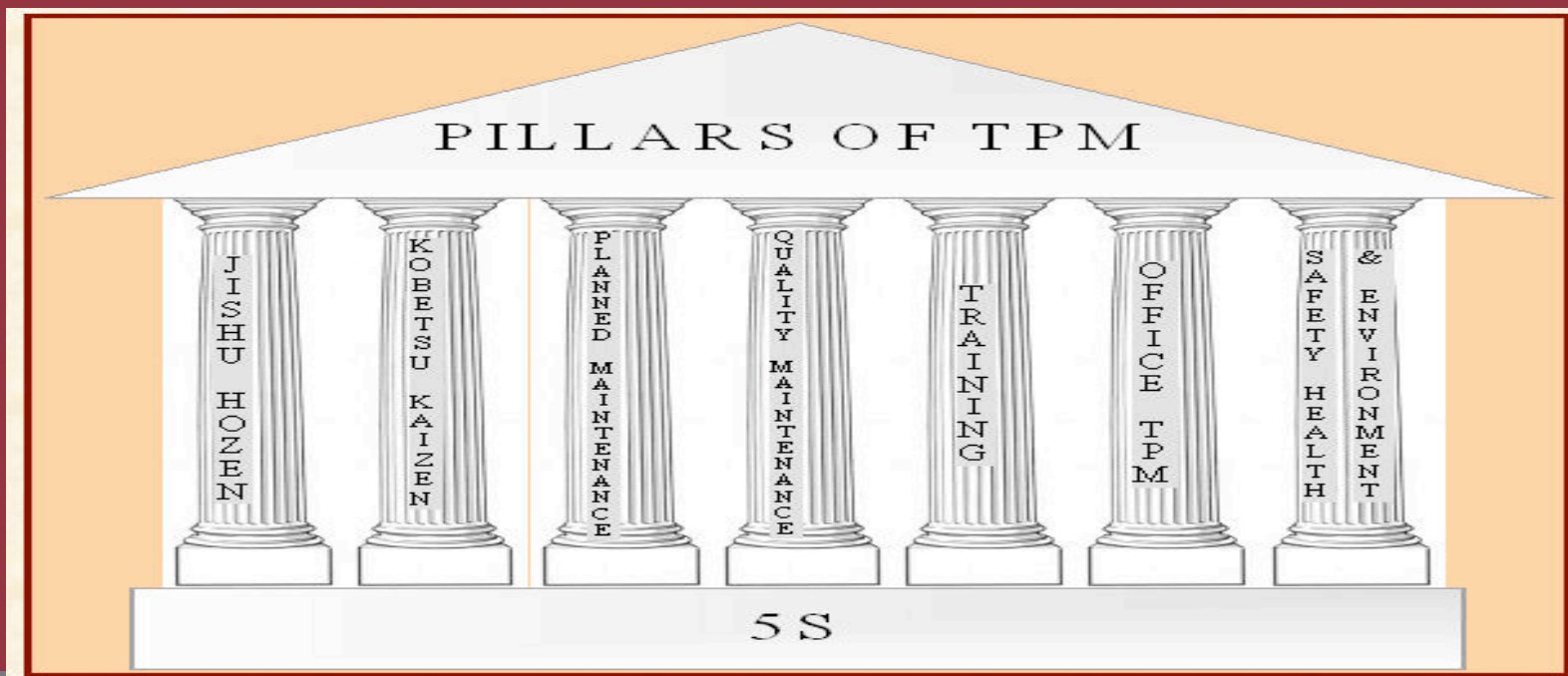


- Improving equipment effectiveness
- Improving maintenance efficiency and effectiveness
- Early equipment management and maintenance prevention
- Training to improve the skills of all people involved
- Involving operators (occupants) in routine maintenance

TPM -Implementation

TPM should always be supported from the top, but driven from the bottom

TPM – BASE & PILLARS



TPM BASE



- **Cleaning and organizing of the work place to identify the problems**
- **Sort (Seiri)**
- **Organize(Seiton)**
- **Sweep(Seiso)**
- **Standardize(Seikestu)**
- **Self –Discipline(Shitsuke)**

TPM ACTIVITIES



1. JISHU HOZEN PILLAR

Refers to autonomous or self maintenance of equipments

- **Flexible operators who can operate and maintain other equipment**
- **Elimination of defects at the source through active employee participation**
- **Stepwise implementation of JHActivities(Clean, Inspect, Adjust, lubricate)**

2. KOBETSU KAIZEN

- **Refers to continuous improvement in activities related to the machines**

3. PLANNED MAINTENANCE PILLAR

- **Trouble free machines and equipments for defect free products.**
- **Evaluate planned maintenance.**

4. QUALITY MAINTENANCE PILLAR

- **Customer satisfaction with defect proof product delivery**
- **Transition from Reactive(QC) to pro-active(QA)**

5. TRAINING PILLAR

- **Zero errors due to lack of knowledge/skills/techniques.**
- **Goal to create factory full of experts by “ know how approach”**

6.OFFICE TPM PILLAR

- **Implemented once above pillars are activity implemented**
- **Improving the office processes and procedures by eliminating the losses**
- **Goal to achieve office automation**

7.SAFETY AND ENVIRONMENTAL PILLAR

- **Zero accidents**
- **Zero health damage**
- **Zero fire accidents**

TPM –Results and Future



- **Proven to be a tool between success and failure of an organization**
- **Can be implemented in various domains other than production**
- **Return on Investment is of exponential nature**
- **Total Commitment and time frame are the hurdles for implementation**
- **The future of TPM depends on**
 - **Management Acceptance**
 - **Technology**
 - **Maintenance Equipments**



- **Thank you**