



Qs. 1: Why Office TPM? What are its' benefits?

Ans: To improve productivity, efficiency in the administrative functions and identify and eliminate losses. This includes analyzing processes and procedures towards increased office automation. Office TPM addresses seven major losses:

1. Processing loss
2. Cost loss including in areas such as procurement, accounts, marketing, sales leading to high inventories
3. Communication loss
4. Idle loss
5. Set-up loss
6. Accuracy loss
7. Non-value-added loss

Benefits:

Involvement of all people in support functions for focusing on better plant performance
Reduction in administrative costs
Reduced inventory carrying cost
Better utilized work area
Reduce repetitive work
Motivate people in support areas
Multiskilling in support areas

Some evident results are:

- reduced inventory levels in all parts of the supply chain
- reduction in number of files
- reduction of overhead costs(to include cost of non-production/non capital equipment)
- productivity of people in support functions
- Breakdown of office equipment
- Customer complaints due to logistics
- Expenses due to emergency dispatches/purchases
- reduced manpower
- clean and pleasant work environment.

Qs. 2 How to define P Q C D S M in Office TPM?

Ans: Each company will have to define for themselves, looking at all losses, which affect plant performance:

These are some examples:



P – Production output lost due to want of material

Manpower productivity

Production output lost due to want of tools

Q – Mistakes in preparation of cheques, bills, invoices, payroll

Customer returns/warranty attributable to BOPs

Rejection/rework in BOP's/job work

Office area rework

C – Buying cost/unit produced

Cost of logistics – inbound/outbound

Cost of carrying inventory

Cost of communication

Demurrage costs

DEPB benefits – on time

D – Logistics losses(Delay in loading/unloading)

Delay in delivery due to any of the support functions

Delay in payments to suppliers

Delay in information

S – Safety in material handling/stores/logistics

Safety of soft and hard data

M – Number of kaizens in office areas

Qs. 3: At what stage sub-committee should be formed?

After kick-off activate four pillars(JH, KK, QM, PM), then start Office TPM(after about one year).

Qs. 4: Who should head the Sub-Committee ?

A senior person from one of the support functions e.g. Head of Finance, MIS, Purchase etc.

Qs. 5: How to form sub-committee ?

Members representing all support functions and someone from Production & Quality.



Qs. 6 How to form TPM Circles in Office TPM ? Who should be the members ?

All employees from the support functions are to be covered.

Qs. 7 How to start office TPM ?

Steps followed are:

- Providing awareness about office TPM to all support departments
- Helping them to identify P, Q, C, D, S, M in each function in relation to plant performance
- Identify the scope for improvement in each function
- Collect relevant data
- Help them to solve problems in their Circles
- Make up an activity board where progress is monitored on both sides – results and actions along with Kaizens.
- Fan out to cover all employees and circles in all functions.

Qs 8: How to identify losses in office TPM?

In each functional area identify the losses separately and add them up to build up a master plan for Office TPM. For example:

- office equipment breakdown
- communication channel breakdown, telephone and fax lines
- time spent on retrieval of information
- non availability of correct on line stock status
- customer complaints due to logistics
- expenses on emergency dispatches/purchases
- cost reduction on non-production/non capital items

Qs. 9 What is the role of the TPM Coordinator in Office TPM ?

- To initiate the Pillar and then review its progress. This will include activities like:
 1. Plan and guide activities of Office TPM to the sub-committee's members from time to time
 2. Do audits for office Jishu Hozen activities in Office TPM
 3. Do audits for Kobetsu Kaizen of activities in office TPM.



Qs. 10 : How to select Kobetsu Kaizen topics from Office TPM?

Kobetsu Kaizen topics are selected aiming at:

- Inventory reduction
- Lead time reduction of critical processes
- Motion & space losses
- retrieval time reduction.
- reducing or eliminating office work flow stagnation
- equalizing the work load
- analyzing for 'no material areas and improving them
- Improving the office efficiency
 - o By eliminating the time loss on retrieval of information
 - o By achieving zero breakdown of office equipment like telephone and fax lines.

Qs. 11: How to do audit ?

Check items like:

1 's', 2 's'

Time for retrievability of information

Number of files.

Disposal of unwanted records

Dirt and dust free office equipment

Lights switched off when not in use

This is other than the set targets and actions taken up by each function.

Audit of office to be carried out as Jishu Hozen audit in 3 steps:

Autonomous audit(self)

Section chief

Top management audit.

Qs. 12: How to benchmark ?

Benchmarking to be done for various objectives(as on date) like:

- time taken in any manual work
- inventory turnover ratio as on date
- no. of places where duplicate working taking place
- storage space used for documentation
- storage space used for keeping inventory
- no. of suggestions/employees/month as on date
- Money spent on communication



Collect data of each loss and fix the present level as bench mark.(This can be last month or average of last three months – as long as it is a steady trend.)
Data can be averaged only, if the variation between maximum and minimum is not too much and all variation is centered around the average value. In case data indicates downwards trends over the last three months, then take the lowest and latest data point as a benchmark.

Qs. 13: Should office TPM Circle members take part in plant TPM activities in the beginning?

Yes, in JH and KK activities. In some cases companies have trained all office staff on JH activities(steps 1 & 2). Machines are identified where people from office are also involved in the daily cleaning.

TPM circle members should be involved in plant TPM activities, right from the beginning at various stages:

Stage I – Planning

- Setting targets of Office TPM
- Formulating basic improvement concepts

Stage II – Activities

- General cleaning of documents, desks and shelves etc.
- Develop procedure for orderliness and tidiness
- Identify abnormalities
- Doing focused improvements
- Standardisation.

Qs. 14: How to do visuals in office TPM ?

- Location of each manufacturing unit, departments through clear boards
- Visual identification of fans, tube-lights and their switches,
- Visuals for filing system. E.g. putting identification tags when files are removed
- Organisation of working table
- Identification of standard instruments for easy to find
- Identification of all materials to enable retrieval within one minute
- Organization in stores – labeling, KANBAN, Maximum and Minimum levels.
- Visualising results and improvement actions on display boards

The objective of visualization is to make any abnormality immediately visible.



Qs. 15: How office TPM supports plant TPM?

Office TPM supports the plant, initially in doing Jishu Hozen of the machines(after getting training of Jishu Hozen), as in Jishu Hozen at the

- Initial stages machines are more and manpower is less, so the help of commercial departments can be taken, for this
- Office TPM can eliminate the lodes on line for
 - o No material
 - o logistics

Qs. 16: Can we extend office TPM to our suppliers and distributors?

Yes. This is essential, but only after we have done as much as possible internally.

With suppliers it will lead to on-time delivery, improved 'in-coming' quality and cost reduction.

With distributors it will lead to accurate demand generation, improved secondary distribution and reduction in damages during storage and handling.

In any case we will have to teach them based on our experience and practice and highlight gaps in the system which affect both sides.

In case of some of the larger companies, they have started to support clusters of suppliers.

Qs. 17: How to apply in system department?

Start with PC's. Do 1 's' activity to identify required files and make up rules to clean up e-mail folders, fix folder size, frequency of back-ups etc.

Then at next step go to the mainframe. Decide frequency at which complete clean up will be done.

Qs. 18: How to measure customer satisfaction(internal and external)?

Internal – reduction of internal losses is a measure of internal customer satisfaction.

External – On time delivery, customer complaints, customer returns, warranty, response times etc.



Qs. 19: What is your company's office TPM ?

Only an example:

P	No material – BOP <ul style="list-style-type: none"> - Data collection - Pareto analysis - Monitoring
	Office equipment breakdown <ul style="list-style-type: none"> - List out all items to be covered - Root cause analysis and countermeasures
	Communication channel breakdown telephone & fax lines <ul style="list-style-type: none"> - List out all items to be covered - Implement systems for recording failures, reasons for failures and corrective action, time taken
	Non-availability of correct on line stock status – production material <ul style="list-style-type: none"> - Introduce system of entry of issues in stock registers before physical - Fix responsibilities for root cause analysis on a continuing basis - One logic in S/W for all stock statement
Q	Time spend on retrieval of information <ul style="list-style-type: none"> - Inventory of all existing files held in all departments (subject, owner, location) - Monitoring
	Customer complaints due to logistics <ul style="list-style-type: none"> - Collection of data - Root cause analysis for all complaints and prioritization - Monitoring
C	Expenses on emergency dispatches <ul style="list-style-type: none"> - Introduce monthly data collection & analysis for all emergency dispatches.
	Communication by costlier means(faxes & STD/ISD calls) <ul style="list-style-type: none"> - Introduce monthly data collection & analysis department-wise - Upgrade facilities for e-mail
D	Delay in settlement of advances and imprests <ul style="list-style-type: none"> - Distribution of responsibility center-wise lists - Fortnightly review of reasons for outstanding and countermeasures for future prevention and making new strategies - Fixing responsibilities for timely adjustment and recoveries
S	Loss of man-hours due to accident <ul style="list-style-type: none"> - identification and listing of potential areas for accidents - Action plans and responsibilities for rectifying visible areas of accidents
M	Suggestions not implemented <ul style="list-style-type: none"> - Compiling list of suggestions - Initiation of actions for implementing



Manual No.5 : OFFICE TPM IMPLEMENTATION

The TPM Club India, CII acknowledges the contribution of all the following 41 companies who added great value in sharing their experience of TPM Implementation.

1	Aditya Cement	22	Mahindra & Mahindra Limited - Auto
2	Bajaj Auto Limited	23	MM Forgings Limited
3	Bharat Seats Limited	24	Mother Dairy
4	Birla Tyres	25	QH Talbros Limited
5	BPL Limited PTI	26	Shriram Pistons & Rings Limited
6	Brakes India Limited, Brakes Div.	27	Sona Koyo Steering Systems Limited
7	Brakes India Limited, Foundry Division	28	Sundaram Brakelinings Limited
8	Brakes India Limited, Padi	29	Sundaram-Clayton Limited
9	Brakes India Limited, Pollambakam	30	Tata Cummins Limited
10	Clutch Auto Limited	31	Tata Metaliks Limited
11	Electrosteel Castings Limited	32	The Tata Iron & Steel Co. Limited - Steel
12	Heavy Alloy Penetrator Project	33	The Tata Iron & Steel Co. Ltd. - Bearings
13	Hindustan Lever Limited	34	Thirumalai Chemicals Limited
14	Hi-Tech Carbon	35	TTK-LIG Limited
15	Indian Oil Corporation Limited	36	Tube Products of India
16	Indo Gulf Corporation Limited (Fertilisers)	37	Usha Beltron Limited - Cable Division
17	Jay Yuhshin Limited	38	Usha Beltron Limited - Alloys & Steel
18	Jindal Strips Limited	39	Usha Martin Industries
19	Lakshmi Auto Components	40	Vikram Cement
20	Lakshmi Machine Works Limited	41	Vikram Ispat, Salow
21	Lucas TVS - FIE Division		

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