

Technical Guide “Visual Management”



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1. Disclaimer

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2. Introduction to SMEDA

The Small and Medium Enterprises Development Authority (SMEDA) was established in October 1998 with an objective to provide fresh impetus to the economy through development of Small and Medium Enterprises (SMEs).

With a mission "to assist in Employment Generation and Value Addition to the national income, through development of SME sectors, by helping increase the number, scale and competitiveness of SMEs", SMEDA has carried out 'sectoral research' to identify Policy, Access to Finance, Business Development Services, strategic initiatives and institutional collaboration & networking initiatives.

Preparation and dissemination of prefeasibility studies in key areas of investment has been a successful hallmark of SME facilitation by SMEDA.

Concurrent to the prefeasibility studies, a broad spectrum of Business Development Services is also offered to the SMEs by SMEDA. These services include identification of experts and consultants and delivery of need-based capacity building programs of different types in addition to business guidance through help desk services.

2.1 Industry Support Program

In order to enhance competitiveness of SMEs and achieve operational excellence, SMEDA established an Industry Support Cell (ISC) for provision of foreign technical support and knowledge transfer in collaboration with International Development Organizations. SMEDA's Industry Support Program (ISP) initially launched with Japan International Cooperation Agency (JICA) and actively engaged in reducing energy inefficiencies and improving production and quality of products with the support of Japanese Experts. Later on, similar activities with other international partner organizations like German Corporation for International Cooperation (GIZ), Training and Development Centers of the Bavarian Employers' Association (bfz), Germany, and United Nations Industrial Development Organization (UNIDO) were also successfully implemented.

3. What is Visual Management ?

Visual management is a way to visually communicate vision, mission, expectations, performance, standards or warnings in a way that requires little or no prior training to interpret.

In other simple words, visual management is technique and a system of information display, visual controls, labels and signs, color coding and marking.

Studies reveal that people tend to learn and process information more visually. Therefore, effective visual communications can have impact on productivity, cost shrinkages, safety, quality, on-time delivery, inventory and equipment reliability. Workplace visuals can play an important role in job training which will eliminate the need for persistent supervision. Employees will rapidly identify and react to safety, quality, efficiency complications.

Visual Management categories includes sharing of information, sharing of standards, build in standards, warn about abnormalities and then stop those abnormalities.

4. Benefits of Visual Management

- Reduction in Errors and Mistakes
- Reduction in downtime and maintenance cost
- Enhancement in Productivity
- Awareness creation about waste and waste management
- Improvement in communication
- Elimination the need for constant supervision

5. Types of Visual Management

Following are the types of Visual management:

1. Visual Displays
2. Visual Metrics
3. Visual Controls

5.1. Visual Displays

It includes labels, tags, marking, info boards and color coding for various purposes that includes:

- To identify the waste Waste identification
- To identify Working area , aisles , storage area and inventory movement lines
- To turn the work area into the workplace where everyone can see what goes were
- To avoid accident and keep the workplace safe

Following are the most common examples of visual display:

Red Tagging

For sorting, tagging the objects according to their usage is the most common technique. Usually, red color for discarded or not in use items, yellow color for those item about which you are not sure and green color which is used in routine. After tagging , remove the red tagged items from the area.

Repeat the tagging process after specific period to keep the place clean and free from unwanted items.

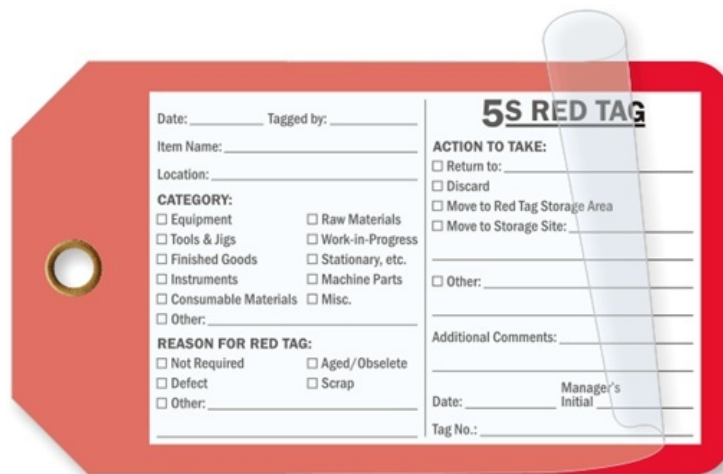


Figure 1: Red Tag Sample

Sign boards

It is used to turn the work area into the workplace where everyone can see what goes were. Use colors to distinguish, Inventory numbers allocated to assets, mark the machines with names and numbers are the few steps usually taken.



Figure 2: Sign Board of Various Colors

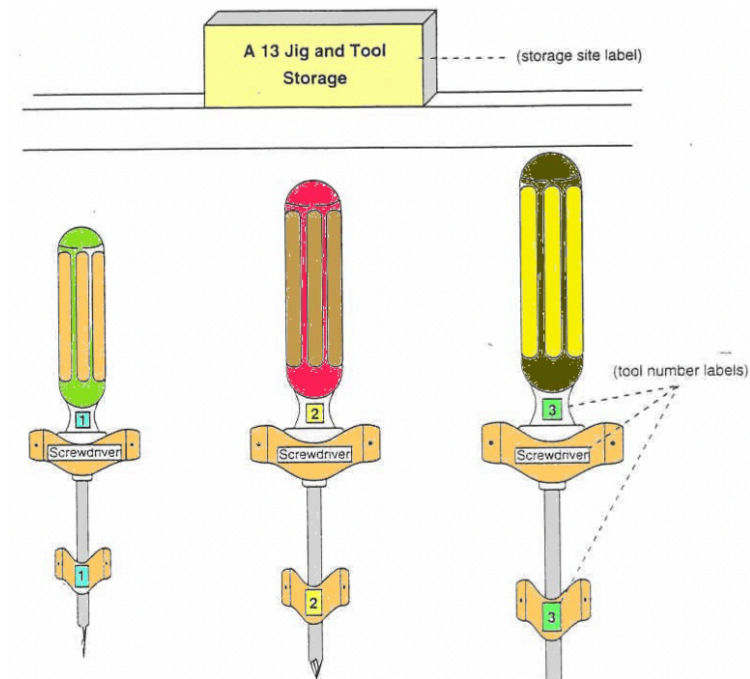


Figure 3: Signboard of Tools Mentioning Storage Site Label and Tool Numbers Labels

Floor marking

It is done to identify the working area , aisles , storage area and inventory movement lines.



Figure 4: Floor Marking of Walking Path

Tiger Pattern/Mark

These kind of marks are used where anything is sticking out or crossing the walking area, opening on the floor or there is any uneven step.

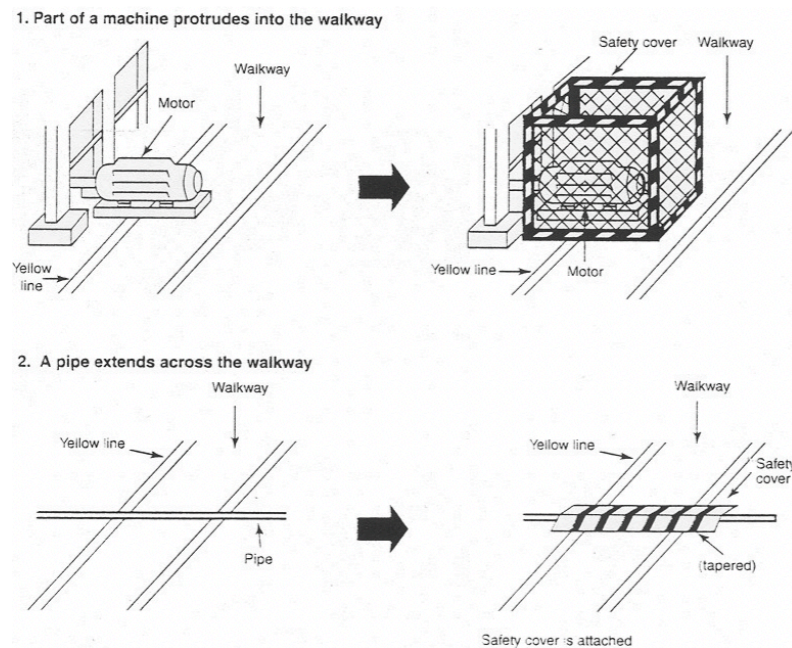


Figure 5: Use of Tiger Pattern on Production Floor

Garbage Bin Strategy

It is used where different color bins are used for different waste and placed them at regular distance to encourage workers to use them.



Figure 6: Color Coded Bins For Different Waste

Andon Display

A multi colored lighting system that provides a simple and consistent mechanism for communicating information about the condition of the machines and processes.

The alert can be activated manually by a worker using a pullcord or button or may be activated automatically by the production equipment itself.

Three colors are used Red , Yellow and Green . Each color has its own meaning which is mentioned below in the figure.

Color-Code	Condition	Action
Green	Production is normal	Proceed to the next step
Yellow	Problem appeared	The problem cannot be identified and will need further investigation
Red	Production has stopped	An operator needs to have a supervisor check the facility

Figure 7: Color With Meaning in Andon



Figure 8: Andon Light System Applied on Equipment

5.2. Visual Metric

These are used to enable everyone about the business performance, highlight problems, identify deviations from the standards, production status, maintenance schedule and encourages employee's involvement. Visual metrics includes different kind of charts, graphs, defect analysis, results of Key Performance Indicators. Put metric sheets on the board and

placed it on the production floor to let everyone knows about the performances and business direction.



Figure 9: KPI-Operations Board on Production Floor



Figure 10: Example of Visual Metric Board

5.3. Visual Control

Create a mistake-proofed environment to promote easy adherence to standards by using the gauges, indicators and guides.

Following are the few examples of visual control:

Gauge Labels: Adding a simple gauge label enables any worker to easily detect abnormalities. Without the label, only a trained worker would know if the temperature / pressure setting is correct.

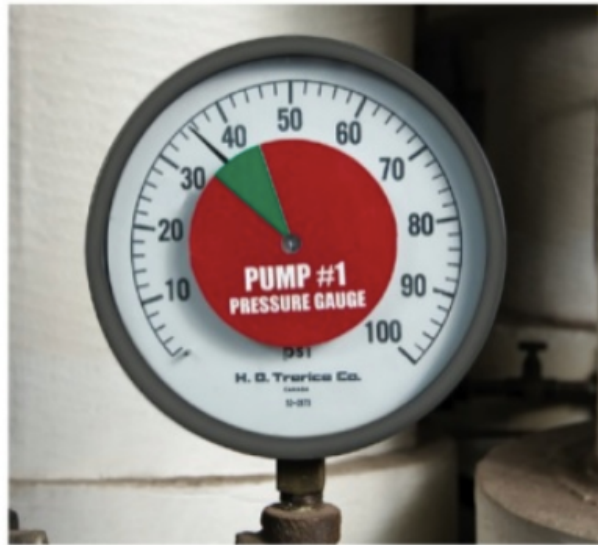


Figure 11: Pressure Gauge with Color Code

Oil Level Indicators: Placing a green and red striped label behind the oil sight tube helps operators quickly detect when oil levels are too high or too low.



Figure 12: Oil Tube with Marks

Drive Tension Guides: Drive tension guides help operators inspect for proper tension of the drive system. Using usually red and green color blocks, to indicate when a chain or belts need to be tightened or replaced.

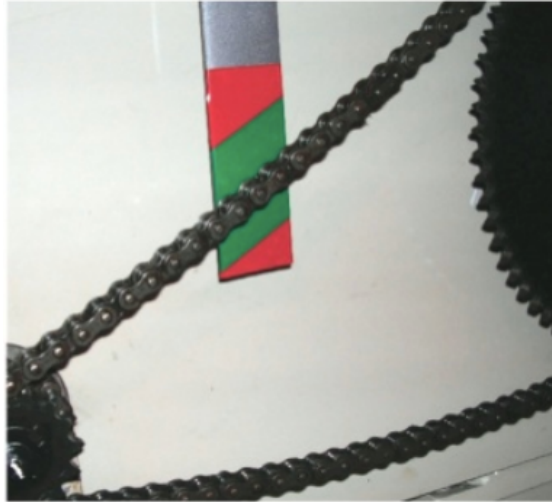


Figure 13: Chain with Color Visual Control

6. Conclusion

In the current global scenario, where markets are seamless and borderless it is imperative to be competitive and productive. To achieve the competitiveness, visual management technique would be first step which is easy to implement and cost effective.

Visual Management technique particularly for small and medium businesses will assist in creating environment where standards are followed, waste is minimum, setup time is low and productivity is enhanced which leads to increase in profits.