

## Visual Factory White Paper

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“Visual Factory” is a term to describe how data and information are conveyed in a lean manufacturing environment. Visual methods such as LED Andon Boards and LCD Displays convey information that is easily accessible to those who need it, the stakeholders on the plant floor. The current status of all processes is immediately apparent.

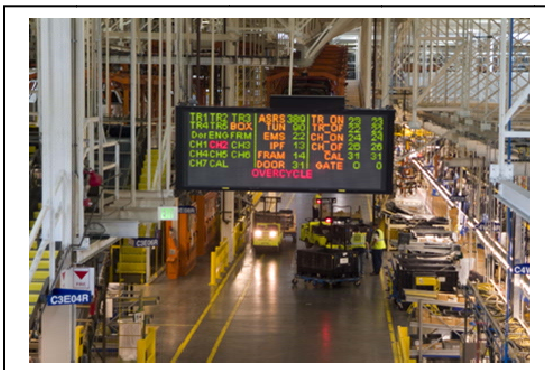


Fig. 1 - LED Andon Display



Fig. 2 – LCD Andon Display

The more complex any process becomes, the more critical information exchange is to the process. Visual Factory is a set of tools that allow for accurate and efficient information conveyance. Visual Factory is implemented in two stages – determining what needs to be measured and how to communicate this information.

Measuring means nothing unless that which is measured is communicated so multiple stakeholders can act on the information. Determining what information needs to be conveyed is the starting point of Visual Factory. How the information is conveyed depends on the desired end result. The location and method of information delivery also depends on the relevancy of the information. Typically this data includes:

- Process metrics
- Work instructions
- General plant information

Process metrics are typically displayed at the machine or cell. This information is most effective when it is delivered in real time. Immediate feedback facilitates immediate improvement. When a display incorporating signal lights is used to indicate information it is referred to as an Andon. Andons are often the centerpiece of the visual factory because of the tremendous real-time process information that they convey. Stakeholders on the plant floor can be empowered to stop production if there is a quality or process problem and the issue can be corrected.



*Fig. 3 – LED Andon Boards*

Work instructions are typically posted in the production areas. Highly visual instructions with photographs and graphics will generally minimize production errors. The more information can be conveyed visually the more it will improve communication. 42" and larger industrial LCD Displays are now being deployed in many plants to provide this type of information.



*Fig. 4 – Industrial 42" LCD Display*



*Fig. 5 – Industrial LCD Panel Displays*

General plant information is typically posted in a central location where everyone has access to it. Lean manufacturing relies on bi-directional information exchange throughout the organization. In a Visual Factory environment information is delivered to inform, alert and motivate.



*Fig. 6 – LED Information Display*

Can a Visual Factory help my organization?

Efficient timely communication allows organizations to function at their full potential and:

- Reduce Errors
- Increase Employee Moral
- Increase Machine Uptime
- Increase Machine Run Rates
- Decrease WIP (Work in Progress)

A “Visual Factory” allows companies to communicate and provide world class performance.