

## Paperless Manufacturing

### The OLD Days Vs Now!

Several Years ago, while working in a Manufacturing company, I used to see a info cartoon Board with Caption "Nothing is complete without paperwork"



But those were the days when there were no computers or had dumb terminals punching the inventory in and Out.

Then came the ERP and the advent of PC's , Companies with bigger budgets installed application over application transformed the way of working.

Manufacturing also changed – adding kaizen, zero defect, Lean manufacturing and ISO 9000 Series of certifications in Systems, processes and Products.

Liabilities increased product recall for even potential defect increased the risk factor of not only having the right quality but also of the right

## Changing Times And Changing Needs – An Introduction To Paperless Manufacturing

- Having encountered newer challenges on manufacturing, Papers are now printed, pre-printed or generated from Excel, Word, SAP and other ERP's etc.
- Thus came the concept of "Glass Paper" physical paper replaced by electronic files. Soon this itself brought in new challenges , technologies were invented for search optimizations.
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- But the "Man in the middle technology" was not fully eliminated. For if not each still many of the papers were still in different Silos and are not linked to the integrated process chain.
- For example a last minute change coming from a customer for this order in line could still be missed if there is not the right man in the right mood is missing. Resulting in the end customer dissatisfaction and frustrations to the manufacturer.
- A lift manufacturer ignored the last minute design changes in the lift due to design changes in the building, the right paper did not reach the right place in time – A complex building takes about 5 years to build and the lift orders are placed 5 years in advance the consequence is left for the imagination of the readers.
- The above is only one factor where a paperless manufacturing technology benefits, In a dynamic Automotive industry there are thousands of changes happening day in and day out with specific instructions going to specific operation centers, most modern companies are using paperless manufacturing modes to ensure compliance, manage changes, and record route cards and trace History