

## Chapter 9- Kaizen

**Kaizen**-What is 5s and why do we want to do it? 5S represents five disciplines for maintaining a visual workplace.

5S is the starting point for improvement activities that ensure our company's survival. The five disciplines are:

1. Sort -Remove all items from the workplace that are not needed for current operations. Leave only the bare essentials. • Target excess inventory, obsolete items, quality defects, unneeded tools/equipment • Will use red tags, local and central red tag holding areas • Account for discarded items • Take before and after pictures
2. Set in Order -Arrange needed items so that they are easy to find, use and put away. • Consider motion economy • Use painting, outlining and signboard strategies, Visual 5S
3. Shine -Sweeping, wiping-off equipment, painting and assuring everything stays clean. • Create 5S schedules for painting • Should create cleaning inspection checklists • Create current and future shine targets
4. Standardize -Method to maintain the first three disciplines (sort, set-in-order, shine) • Prevention steps for clutter-suspension, incorporation, elimination • Integrate 3S duties into regular work with 5S job cycle charts, five minute 5S, visual 5S activities
5. Sustain- A top-down support of the ongoing 5S process should: • Create the conditions to support 5S • Allocate time • Create awareness • Provide a structure • Show support • Offer rewards and recognition

### **Benefits of Kaizen**

5S was developed by *Hiroiyuki Hirano* within his overall approach to production systems.

Hirano identified a range of benefits from improved housekeeping, all of which can be regarded as falling within the Lean portfolio – that is, they are all based around the elimination of waste in one form or another.

1. The most obvious benefit from items being organized in such a way (i.e. that they are always readily available) is that of improved productivity. Production workers being diverted from production to look for tools, gauges, production paperwork, fasteners, and so on is the most frustrating form of lost time in any plant.

2. Another element of Hirano's improved housekeeping is improved plant maintenance – workers 'owning' a piece of plant, responsible for keeping it clean and tidy, can take ownership for highlighting potential problems before they have an impact on performance.

3. Quality- Even if it is only in the form of soiled documentation accompanying the goods to the customer this can send a very negative message about the company and its culture.

4. 5S does more than address dirt, an inappropriate layout can result, for example, in product damaged through excessive movement or through the use of tooling other than that defined as the standard. A Standard Operating Procedure for tool certification is much easier to achieve if the tool to be certified is always in a clearly-marked location.

5. Improved Health & Safety- Clear pathways between workbenches and storage racks can minimise accidents, as can properly-swept floors. As with Quality, a well-organised, clean and tidy facility lends itself more readily to standard practice.

6. Hirano also described how an environment in which the workforce has pride in their workplace can contribute to a considerable extent in a number of ways including customer service. Improving the layout of the facility merges with the concept of visual management; if workers can see the status of plant and of work in the facility, thus removing the need for complex tracking and communication systems, then benefits will accrue.