ABSTRACT

This project concentrates on how to apply the lean manufacturing concept with Head Gimbal Assembly (HGA) production by eliminating wastes and non-value-added (NVA) activities in the manufacturing process. For lean manufacturing, the wastes elimination concepts are fundamental to operation improvement by eliminating wastes. This project focuses on the work in process (WIP) reduction and elimination of non-value-added activities in production.

Seagate's strategies are geared toward creating world-class manufacturing processes with which lean manufacturing is adopted as part of the improvement endeavor. Currently, Seagate is producing the Head Gimbal Assembly (HGA) in Thailand. The HGA is the heart of hard disk drivers to read, write and transfer signals from the processing unit. To support Seagate's strategies, its production facility in Thailand needs to implement lean manufacturing concepts.

We eliminate wastes to reduce WIP in the production line and apply a statistical tool which is the Six-sigma technique to get rid of non-value-added activities in production. We reduce the unnecessary WIP by conducting a feasibility study and setting up the new standard level for WIP without an impact to capacity per line.

After applying the WIP reduction and elimination of non-value-added activities by a statistical tool, Six-sigma. The WIP can be reduced from 2,155 units to 1,671 units. Furthermore, the tooling costs per cell were slashed by 26,654 US$ or 1,039,526 bahts (1 US$ = 39 bahts). Seagate can also reduce 2 operators per cells at the Autogramer operation.