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"Kaizen Blitz at Dana Philosophy, Practice, and Results "
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A Kaizen Blitz is a continuous improvement initiative performed rapidly over a short period of time. The term is derived from Kaizen meaning continuous improvement, and Blitz meaning a series of lightning fast moves. A Kaizen Blitz is an intensive 3-1/2 day event utilizing cross-functional teams to solve problems in existing facilities. The initiative makes changes and challenges management, and can be applied in both production and support areas. The event is based on reducing waste from eight sources in the Toyota production system (overproduction, waiting, transportation, processing, inventories, motion, defective products, and loss of people's creativity).

There are five general types of Kaizen Blitzes. (1) Setup Reduction. Reduce setup time to improve capacity constraints resulting from small quantity lots and many different models. Customer demands for mass-customization increase product mixes requiring more frequent production changes. (2) Quality Improvement. Target high scrap and rework arising from process, people, and equipment. (3) Maintenance Issues. Focus on solving problems resulting from high unplanned downtime and out of specification parts. (4) Productivity Issues. Improve productivity problems due to inefficient processes including the actions and movements of people. (5) Safety and Ergonomics. Reduce the high cost of accidents resulting from poor methods and design.

A successful Kaizen Blitz requires thorough and specific planning. Detailed pre-work is required due to the short nature of the actual Blitz. Good team leaders are necessary to make things happen. Support of plant manager and staff is required for plant-wide acceptance of the project. The involvement and commitment of maintenance ensures that physical changes will be made on a timely basis. Team members need to have open-minded attitudes and be willing to try new ideas and make changes. Proper support structures are needed to continue Blitz changes into the future. In addition, the support of top management is required to follow-up on work list items not completed during the three-day event. Finally, a plant culture that permits trial-and-error methods is necessary to allow experimentation for improvements.

The pre-work stage of a Kaizen Blitz involves thorough preparation prior to the actual event. A detailed four-page checklist needs to be sent to the plant four to six weeks before the actual Blitz. First, the area of focus must be selected, usually trouble-prone or bottleneck functions. A cross-functional team of five to ten members needs to be formed. Team members should consist of the people who will do the actual work, and can include operators, supervisors, engineers, purchasing, maintenance, sales, and other internal or external personnel. Work materials need to be identified and assembled including general office supplies, forms, measurement devices, cameras, and team T-shirts.

A Kaizen Blitz requires detailed information on the plant and department. Data should include plant layouts, process flowcharts, number of employees, historical and forecast sales, support personnel, and shift timing including scheduled breaks. Measurement data must include performance information specific to the target area of the Blitz. The plant manager and staff must attend the kick-off of the Blitz, and attend daily status checks as a show of their commitment to the project. Team leaders should be chosen who have strong leadership characteristics, especially an open-minded willingness to listen to new ideas, and the ability to make things happen. Specific number-oriented goals must be identified and communicated to all team members. Notification of team plans and goals should be sent to all team members to prepare for the multiple day event.

Ideas are one of the most important tools that drive a Kaizen Blitz. All team members are required to generate a minimum of ten ideas, and have at least 50% of them implemented by the end of the Blitz. Ideas are grouped by category and posted on the wall for general viewing. Ideas that have been implemented are highlighted for identification and tracking. Additional tools important to a KB include flow diagrams, standard work sheets, time observation forms, standard work combination sheet, and pictures and videos.

Several time factors relating to production must be determined during a Kaizen Blitz. First, operation time is determined by reducing each operation down to its basic elements, then timing each function to determine how long it takes to perform the task. Standard times then should be set for each operation. The standard times then should be combined to determine the operations for an entire cell. This determines the time required to complete a product from start to finish, and identifies opportunities for improvement. Finally, "takt times" should be calculated to determine how quickly a product must be manufactured in order to satisfy customer requirements. Takt time is a function of dividing the total daily operating time by the total daily requirements. The total daily operating time is the time available for actual work minus scheduled breaks and machine shutdowns. The total daily requirement is the amount of time required to fulfill the production demand. The daily requirement is derived from a MRP system or production planning schedule. Since production is a dynamic situation, takt time will vary and manufacturing must adjust to accommodate the fluctuations.

Kaizen Blitzes can fail for a variety of reasons with some of the most prominent causes as follows: (1) Lack of commitment at any level, especially the plant management level, can cause a serious disruption and failure of the Blitz. (2) Environments where the workers do not trust the management will prevent the Kaizen Blitz from reaching its fullest potential. Workers feel that they will be required to work harder, but the management will receive the rewards. (3) Successful Kaizen Blitzes in the past where the displaced workers were eventually laid off. Prior to the actual Blitz, management must determine where displaced workers will be placed or the workers will fear that their efforts will cost them their jobs. (4) No follow through with homework items. Items that can not be completed during the actual event should have a complete description of what is required, who is responsible, when it is to be completed, and expected results. (5) Management that is unwilling to change the systems that support production. Changes to production often require changes to the support systems in order to maximize benefits.

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