

Chameleon Color Cards, Ltd.

Firm Benefits

- 85% reduction in machine idle time— machine down-time due to changeover decreased, on average, from 457 minutes to 70 minutes
- Operator changeover time reduced from 457 minutes, using a single operator, to 140 minutes using two operators
- Averaging three setups per week, the total machine capacity is increased by 967.5 hours
- Setup time reduction allows flexibility in scheduling these limited resources
- Utilizing new, two operator setup procedure enhances ability to cross train operators in change-over best practices
- The facilitation & training of Insyte Consulting allowed for transfer of setup reduction skills for other equipment

Setup Reduction

Chameleon Color Cards, Ltd., located in Lockport NY, is a manufacturer of color chips for the paint, automotive and related industries. Established in 1992, the company operates two shifts in a relatively modern facility, with 47 employees.

Situation

Chameleon Color Cards, Ltd. receives raw material in the form of printed cards and coated paper. The coated paper is cut to precise sizes and is then adhered to specific locations on the printed card by means of a semi-automatic machine. Chameleon currently has a limited number of these application machines. The capacity of these limited resources is constrained by the amount of time spent changing the tooling of these machines between orders. Recognizing the importance of improving its competitive position, Chameleon participated in a Value Stream Mapping exercise with Insyte Consulting to identify areas for improvement. The exercise demonstrated that an effective setup reduction program would help to both increase throughput and improve overall operational efficiency.



Utilizing two setup operators significantly reduced the changeover time on these machines.

Solution

Chameleon Color Cards, Ltd. contracted with Insyte Consulting to assist in the setup reduction project through formalized training and facilitation of the implementation of changeover improvements on the application machines.

A formal setup reduction training workshop, focusing on the application machines, was conducted by Insyte Consulting on site. Next, a team consisting of a cross-section of Chameleon staff and headed by Insyte Consulting was established. The

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Insyte Consulting was instrumental in facilitating the setup reduction project. We fully intend to rely on Insyte Consulting for further training as we continue our journey to lean."

Cathy Lattanzio, Operations Manager

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goal and responsibility of this team was to significantly reduce the time spent in changing the machines from one order to the next.

Once the goals were established, the team started to define the current situation both in terms of procedures used and time spent on the "average" setup. Changeover observation charts that categorized elements into three areas (preparation, removal and installation, trial run and adjustments), were generated. The charts were used to prioritize the improvement suggestions. The team then developed a detailed setup analysis chart and identified potential improvements. A goal of 42% improvement was established (Note: the actual improvement was 85%). Team members prioritized improvements and revised the current procedure allowing for some changeover elements to be completed while the machine is running. They also consolidated and rewrote the procedures incorporating two operators. Then the new procedures were implemented, measured and standardized.

The team identified the need for additional changes that are being pursued. These include: modification of the application machines to further reduce the setup time and make the operation of the equipment more reliable; revision to plates and fixtures for high volume orders; changes to grinding equipment that is used on the tooling after the order has been filled, in order to insure the tooling is within specification; utilizing a more exact method of modifying tooling once it has been mounted on the application machine.

The successful completion of this project, within an eleven week time frame, was accomplished by 1) Insyte Consulting's facilitation of weekly team meetings, 2) management's role of focusing the team's attention on the details and goals of the project and 3) Enhancing communication both within the team as well as with outside operators.