



Manufacturing Technology Academy

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January 3, 2011

Mr. Ben Nelson
Electro-Optics Technology, Inc.
5835 Shugart Lane
Traverse City, MI 49686

Dear Mr. Nelson,

We would like to thank you for allowing us to come and analyze your company. You and your knowledgeable staff provided us with the opportunity to gain insight into the workings of a successful company. From the data we gathered, we were able to apply skills from our Teams Training Seminar to produce recommendations for the improvement of the process flow in your company.

Attached is a copy of the technical report that we have compiled. The report demonstrates the process we used to produce our recommendations. It includes all of the computerized charts, as well as an explanation of each tool and how it helped throughout the process. We will also be sending computerized copies of the blueprints we created via email. Again, we would like to thank you and your staff for assisting us in gathering the data necessary to produce this report.

If you have any questions or comments regarding our process or recommendations please contact us via email at tnye@tbaisd.gaggle.net or by phone at (231)-995-1304.

Thank you again for allowing us to analyze your company and providing us with this wonderful opportunity.

Sincerely,

Taylor Nye

Corrie Noah

Rachel Omerza

Marika Grabowski

Tyler Bridgman

Travis Smith

Electro-Optics Technology

Improvement of Process Flow



Prepared for:
Mr. Ben Nelson
President of EOT



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MTA Students

Executive Summary

Upon arrival at the host company, the MTA students were presented with a problem within the company. The problem was that the company was not maximizing production and profit. Within the company different stations or processes were lacking the room to optimize their production with the increase of sales. The first step in solving this problem was for the team to understand the company and its components. The team took a tour of the building and interviewed and surveyed the employees. The team used the current blueprints and their observation skills to get a better understanding of the layout and flow of the company. Once most of the data had been collected, the team was ready to start the problem solving process in order to identify the root cause and create a suggested solution.

Using the Plan Do Study Act or PDSA process as outlined in the Langford Tool Time book the team began their problem solving. The team took all of the information which they previously gathered and the problem statement which included the problem as the company viewed it. The first step in the problem solving process was brainstorming of positives, negatives, and possible causes of the problem. After the brainstorming the team completed a series of graphs and charts to dig deeper into the current problem and closer to the root cause.

The team used current blueprints and observation skills to get an understanding of the layout and flow of the company. Flow charts, pie charts, system analyses, and various other graphs were also created to help solve the problem. With all the information collected displayed in charts and graphs the team was able to identify the root causes of the issue. The team determined that two closely related causes were creating the problem. Both layout and limited space were pinpointed as the root causes.

Both of these root causes had to be incorporated into the final solution. The team had to first figure out how much more space each production area should receive and which processes should be in close proximity to each other. With this knowledge, a proposed layout for the new building was designed and the current building layout was redesigned. All areas of production were greatly expanded. Located in the new building are most of the areas of production and assembly. In addition the fiber isolator production line has been laid out for a synchronized style of production. This will allow for continuous flow in the fiber isolator production line. A loading dock was added to the new building at the request of the company and the research and development areas in the old building were greatly expanded. Implementing these recommendations will create more space and a more effective layout, needed for company expansions.

Table of Contents

| | |
|---|----|
| Background Information..... | 1 |
| Purpose..... | 2 |
| Parking Lot..... | 2 |
| Systems Analysis- Whole Company..... | 3 |
| Systems Analysis- Company Production..... | 4 |
| Initial Problem Statement | 4 |
| Venn Diagram Current vs New Building..... | 5 |
| Plus Delta..... | 6 |
| Pie Chart: Current Building Usage | 7 |
| Operational Definitions..... | 8 |
| Brainstorming: Desired State..... | 9 |
| Official Flow Chart of Process Production..... | 10 |
| Survey..... | 11 |
| Bar Chart: Survey Responses..... | 11 |
| Force Field Analysis..... | 12 |
| Revised Problem Statement..... | 13 |
| Brainstorming: Possible Causes..... | 13 |
| List of Potential Causes..... | 14 |
| Interrelationship Diagram..... | 15 |
| 5 Why..... | 15 |
| Venn Diagram of Recommended Current vs. New Building..... | 16 |
| Bone Diagram..... | 17 |
| If...Then..... | 18 |
| Matrix: Potential Improvement..... | 19 |
| Morphing..... | 19 |
| New Layout of Current Building..... | 20 |
| New Building Layout..... | 21 |
| Conclusion..... | 22 |