

# Circuit board fabricators case study

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This case study is about Circuit Board Fabricators, Inc. Which manufactures circuit boards for several companies Like Apple Computer and Hewlett-Packard to name a few. Circuit Board Fabricators, Inc. Plant was designed to produce 1000 boards per day but they cannot meet such production levels as their process engineer insists.

On a good day, Circuit Board Fabricators, Inc. Is able to produce around 700 boards. One will analyze and see how Circuit Board Fabricators, Inc. Can meet the 1000 board requirements of the process engineer. (Aquiline, Chase, Jacobs, 2006).

As a small manufacturer, Circuit Board Fabricators, Inc. Assembles and builds circuit boards for many different companies. Circuit Board Fabricators, Inc. Is used by companies such as Apple Computer and Hewlett-Packard to make boards for prototypes of new products. An important element for Circuit Board Fabricators, Inc. Is to be able to deliver high quality service at a fast and efficient level.

In an effort to meet such challenges, Circuit Board Fabricators, Inc. Adheres to strict quality standards. The shipments of the circuit boards are delivered on a timely basis to their customers.

In order for Circuit Board Fabricators, Inc. To meet their 1000 board ere day level, they have to produce more circuit boards then what a company has ordered.

The production of more circuit boards Is done to cover variables in their quality Issues with the production of the occult boards. The type of process

flow structure that Circuit Board Fabricators, Inc. Uses is called a batch shop flow process. The batch shop flow process is used in manufacturing to produce heavy equipment, electronic devices and specialty chemicals.

Circuit Board Fabricators, Inc.

Uses the batch shop flow process because they have a relatively stable line of products such as the circuit boards. The production of 1000 boards per day has yet to be achieved as the process engineer has stated that the 1000 boards per day can be completed (Aquiline, Chase, Jacobs, 2006). The diagram is an operation and route sheet that specifies operations and process routing for a particular part. This diagram shows information required to complete a particular part such as the type of equipment and operations.

The company has a production increase of 25% to account for losses in these two areas. With just a 5% margin for error, Circuit Board Fabricators, Inc.

Reduction of boards has to be perfectly made or there will be losses in the inspection process and final inspection. The recommendation for the short term process solution to Circuit Board Fabricators, Inc. ' s problems would be to increase the work day hours to get a better production on the boards. Another recommendation would be to raise the level of quality of blank boards coming into Circuit Board Fabricators, Inc. ' s manufacturing facility.

Increasing of manpower should be added to help in accelerating the process until the issues can be rectified. For the long-term Circuit Board Fabricators, Inc. Should purchase more machines to speed up the production process.

Another consideration for Circuit Board Fabricators, Inc. Would be the possibility of automation to replace the manual labor. With automation, this would decrease the errors and increase the overall turn around time to produce the boards.

Circuit Board Fabricators, Inc. Should also have monthly training and evaluations to see where the deficiencies are within the production line.

With this type of report, the company can pinpoint the problem areas and try to correct them. The data in the case shows that CB should have the capacity to make 1000 boards per day, but can only produce a maximum of 700 boards per day. An increase of 25% is added to each customer's order to account for the losses in the inspection and final process which leaves just a 5% margin for error.

CB needs to decrease the number of circuit boards that get rejected in the initial inspection process in order to give the company higher production results in the final inspection process (Aquiline, Chase, Jacobs, 2006).

The production of quality circuit boards should be they key goal for the benefit of the many as well as for the satisfaction of the customer. Fewer boards wasted will save the company time and money. Labor hours may increase to improve the process times but the increase will assist in the goal of the production of the boards to help the company achieve their goal of a 1000 boards per day according to their process engineer. The top three processes for improvement in Circuit Board Fabricators, Inc.

's manufacturing process are effectiveness, efficiency and quality. The addition of machines will laminate manual ladder and reduce human errors.

Continuous training at Taft will also assist in having fewer errors; this in turn will be more hours worked by each employee. With changes in the layout of the stations, this should prevent future problems. Circuit Board Fabricators, Inc. Uses a process that is supposed to be able to produce a certain amount of boards per day to satisfy the customer's request but has not been able to fulfill such request.

In order for Circuit Board Fabricators, Inc. To stay in business and be competitive, Circuit Board Fabricators, Inc. Has to instill more efficient and effective ways in producing their boards to be at the best quality for the customer.