

QUALITY CONTROL IN A METAL WORKING INDUSTRY

Project Report submitted by

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ABSTRACT

The object of this project is to study statistical quality control theory, to investigate the quality control procedures used in a metal working industry and to design quality control practices by selecting a specific production line. Also the effectiveness of the methods should be tested by sampling measurements and the process capability of the processes should be measured. The industry was specified to be Metalco Heaters Ltd. The main products that this industry produce are solar water heaters and storage tanks.

The whole content of the project is divided into six main chapters.

In the first chapter the meaning of the quality control is explained, also its object and policies.

In the following chapter a study is carried out on statistical quality control.

An investigation of the quality control procedures and techniques already used at the factory is carried out in chapter 3.

In chapter 4 a specific production line is selected and described in detail, and also suggestions for improvements are given.

Chapter 5 includes methods and plans that are suggested to be used in the factory for inspection and testing by attribute and variable sampling.

Finally in chapter 6 the processes are tested to determine whether they are in a state of statistical control and their process capability is measured by variable and attribute data to find out the degree at which the products meet specifications.

Tables, figures of the products, and Standard Specifications for solar water heaters, are included in the Appendix and reference to them is given within the main content.

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