

A REPORT ON FINAL YEAR PROJECT  
DIPLOMA IN MECHANICAL ENGINEERING  
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TO INVESTIGATE THE INTERACTION OF THE VARIABLES IN OXYGEN CUTTING  
AND THEIR EFFECTS ON THE QUALITY OF CUT

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## ABSTRACT

This project involved cutting of mild steel using oxygen flame. Oxygen cutting, being reliable in many ways, had caused a profound change in industrial practices having to do with the shaping of steel, i.e. in its general application.

Its use is now widespread. Many parts in a wide range of sizes and thicknesses can only be done with difficulty by other metal - shaping processes. Since the cut products are generally used "as cut" condition, and the process is completely adaptable to welding and mechanical joining operations of all types, oxygen cutting has resulted in more economical construction and greatly increased production.

The main purpose of this project is to focus on the two variables necessary for high - quality cutting of mild steel. They are :

- i. Travel speed of the cutting torch, and
- ii. Cutting oxygen pressure.

Since the informations and the data concerning the two variables are available in many books, especially books on welding, i.e. under gas cutting, this report might also be of relevance for comparison. The detail of the project is discussed in this report.

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