

HIGHER TECHNICAL INSTITUTE
MECHANICAL ENGINEERING COURSE

DIPLOMA PROJECT

A REVIEW OF DEVELOPMENTS
IN MANUFACTURING SYSTEMS

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A REVIEW OF DEVELOPMENTS IN MANUFACTURING SYSTEMS.

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Project Report

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Summary.

The subject of this project was to:

- 1.) The student to become aware of what exactly do we mean by a manufacturing system.
- 2.) To make a literature search and find papers, magazines, or books concerning the matter.
- 3.) To make a report (survey) on the development of the Manufacturing System at least the last 30 years.

In the world of manufacturing, significant changes have been taking place the last 100 years. These changes are having a profound impact on the world we live in because we live in a technological society with manufactured goods. In this project you get to investigate the major developments that took place during this 100 years in the manufacturing systems.

INTRODUCTION

A collection of operations and processes used to obtain a desired product(s) or component(s) is called a manufacturing system. The manufacturing system is therefore the design or arrangement of the manufacturing processes. Control of a system applies to overall control of a whole, not merely of the individual processes or equipment. The entire manufacturing system must be controlled to control material movement, inventory levels, product quality, output rates and so on.

Five manufacturing systems can be identified:

1. The job shop.
2. The flow shop.
3. The project shop.
4. The linked-cell shop.
5. The continuous process.

Some examples of manufacturing systems are: rolling of steel plates, manufacturing of automobiles, series of connected operations or processes etc.