

HIGHER TECHNICAL INSTITUTE  
MECHANICAL ENGINEERING DEPARTMENT

DIPLOMA PROJECT

CNC PART PROGRAMMING AND MACHINING ON  
THE VERTICAL MILLING MACHINE BRIDGEPORT

INTERACT 1MKII

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M/1039

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**CNC PART PROGRAMMING AND MASHING ON THE  
VERTICAL MILLING MACHINE BRIDGEPORT INTERACT  
1MKII**

By  
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## **ABSTRACT**

This project deals with the manufacturing of various components on the CNC vertical milling machine as well as the design and manufacturing of a milling fixture to ensure location, support and clamping of the component to be manufactured.

First the theory of the project was prepared with the basic principles of Numerical Control following a general study of Bridgeport IMKII milling machine, TNC 155 Heidenhain control. Also a few words about programming, machining forces, trigonometric formulas and relative knowledge about milling.

The main part of this project is the part programming for the manufacture of two complex geometrical components.

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*To my Parents..*

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