

HIGHER TECHNICAL INSTITUTE  
NICOSIA - CYPRUS

MECHANICAL ENGINEERING DEPARTMENT

DIPLOMA PROJECT

DESIGN OF AN AIR  
OPERATED CONTROL  
VALVE

M/842

PETROS CHRISTOPHOROU

JUNE 1999

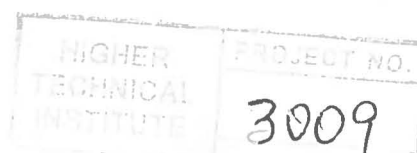
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**DIPLOMA PROJECT  
BY**

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1999**



Design of an  
Air Operated Control Valve

by  
Petros Christophorou

Project Report  
Submitted to  
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## **Contents:**

1. Acknowledgements	II
2. Summary	III
3. Introduction	1-3
4. Definition of the problem and selection of an actuator	4-9
5. Design calculations and manufacturing processes for the pneumatic actuator and the scotch yoke mechanism	10-35
6. Definition of the problem and selection of valve	36-39
7. Definition of the problem and selection of controls	40-41
8. Cost Estimate	42
9. Conclusions	43
10. Appendix 1	44-65
11. Appendix 2	66-80
12. References	81
13. Design drawings	

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Petros Christophorou  
3<sup>rd</sup> year Mechanical Engineering student  
Higher Technical Institute

## **Summary:**

### *Design of an air operated control valve*

The purpose of the work is to design a pneumatic actuator, an industrial valve, and means of controls for the whole system. The approach followed was to select the appropriate type of actuator through a selection procedure, select all materials, calculate all necessary dimensions and thickness of each component actuator, a cost estimate of the actuator and sketch the technical drawings for the actuator. Also the mounting dimensions and dimensions of the driving components are specified through the ISO Standards for interchangeability of the system.

Next a general approach of the valves and valve types, designations, and an example of a selected ball valve. 'How to order instructions' and different variations of a specific valve type are shown in the appendices. All necessary information are stated or referred.

Then a controller is defined, explained and selected as also the principle of operation of the selected controller is stated.

Finally the drawings are presented.

***Petros Christophorou***