

MANUFACTURING TECHNOLOGY-II

Dr. S. Balamurugan

Professor and Head – Mechanical Engineering Department

Mahendra College of Engineering

Salem, Tamil Nadu, INDIA.

MANUFACTURING TECHNOLOGY – II

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A Division of Visual Soft India Pvt. Ltd.

ISBN-13: 978-93-86258-54-0
FIRST EDITION, MAY 2017, INDIA

Typeset, Printed & Published by:
VSRD Academic Publishing
(A Division of Visual Soft India Pvt. Ltd.)

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Printed & Bound in India

VSRD ACADEMIC PUBLISHING
A Division of Visual Soft India Pvt. Ltd.

REGISTERED OFFICE

154, Tezabmill Campus, Anwarganj, KANPUR–208003 (UP) (IN)
Mb: 99561 27040, Web: www.vsrdpublishing.com, Email: vsrdpublishing@gmail.com

MARKETING OFFICE (NORTH INDIA)

Basement-2, Villa-10, Block-V, Charmwood Village, FARIDABAD–121009 (HY)(IN)
Mb: 98999 36803, Web: www.vsrdpublishing.com, Email: vsrdpublishing@gmail.com

MARKETING OFFICE (SOUTH INDIA)

340, FF, Adarsh Nagar, Oshiwara, Andheri(W), MUMBAI–400053 (MH)(IN)
Mb: 99561 27040, Web: www.vsrdpublishing.com, Email: vsrdpublishing@gmail.com

P R E F A C E

This book is written for the students who wish to understand the basics about the manufacturing process. It is primarily designed for the use of students of Mechanical, production, automobile and Mechatronics Engineering. The main objective of writing this book has been to provide a clear understanding of the basic concept of traditional machining process and machining programs. The parameter kept in mind while developing the content was that the coverage of the text should be in a simple language that should be understandable to everyone. This will make the learning as a joy full one. At the end of the learning the reader will understand all the basic principle behind the machining process.

This book contains five chapters. Chapter 1 deals with theory of metal cutting, cutting fluids, tool life etc. Chapter 2 deals about the turning process. Chapter 3 deals about special machines and its operations. Chapter 4 deals about broaching and grinding. Chapter 5 deals with CNC machining and programming. All the efforts were taken to make this book that makes understanding of subject clear and make more interesting. Suggestions, modifications and correction for the improvement of the book from the readers are welcome.

 *Dr. S. Balamurugan*

ACKNOWLEDGEMENT

I take the privilege to record my sincere gratitude to the founder and *Chairman* of Mahendra Educational Trust, **Shri. M.G. Bharath Kumar** and *Managing Directors* **Er. Ba. Mahendhiran** and **Er. B. Maha Ajay Prasath**, for their constant encouragement and kind support in all endeavors.

I deem it a proud privilege to extend my greatest sense of gratitude to **Dr. R Samson Ravindran**, *Executive Director* Mahendra Engineering Colleges for the inspiring guidance and valuable suggestions throughout the pursuance of this book.

I express my profound thanks to **Dr. R Asokan**, *Principal*, Mahendra College of Engineering, for his great enthusiasm and inspiration which enabled me to bring this venture to fruition.

I express my sincere thanks to **Dr. N. Malmurugan**, *Dean Academics*, Mahendra College of Engineering who extended his whole hearted cooperation and moral support for completion of this book.

I would like to express a special note of gratitude to the fantastic editing team of **VSRD Academic Publishing (A Division of Visual Soft India Private Limited)** in releasing this book.

Finally, this work would not have been possible without the love and support of **our colleagues, family members and friends**. I am extremely grateful to one and all.

 *Dr. S. Balamurugan*



Thirumigu. M.G.BHARATHKUMAR
Founder & Chairman, Mahendra Educational Trust

Forward

"Computing in their capacity as a tool, computers will be but a ripple on the surface of our culture. In their capacity as intellectual challenge, they are without precedent in the cultural history of mankind".

-Edsger Dijkstra, 1972 Turing Award Lecture

Mechanical Engineering as an academic discipline has evolved to embrace a set of intellectual challenges on par with other sciences. This fact, combined with the undeniable impact of computer science on the modern world, demands an introductory college text book comparable with commonly-used textbooks in physics, chemistry, or biology. Accordingly, this book is intended to meet the need for an introductory college text in Mechanical Engineering. The distinctive feature of the book is that it has broader coverage of the field than found in many texts that are currently in use.

I am delighted to note that the HOD of Mechanical Engineering, Mahendra College of Engineering, Dr. S BALAMURUGAN has written this book on "MANUFACTURING TECHNOLOGY – II" nicely, for the benefit of student community. He has accomplished this goal and I trust his work will encourage and enlighten all who have an interest in Machines, Mechanical Engineering and the growing role on its technology in the modern world.

M.G.BHARATHKUMAR

Founder & Chairman, Mahendra Educational Trust

**This book is dedicated to
My Teachers, Friends,
Family members
&
Students**

CONTENTS

| | |
|---|-----------|
| CHAPTER 1 : THEORY OF METAL CUTTING..... | 1 |
| 1.1 INTRODUCTION | 3 |
| 1.2 MATERIAL REMOVAL PROCESSES | 3 |
| 1.3 TYPE OF MACHINE TOOLS | 4 |
| 1.4 THEORY OF METAL CUTTING | 5 |
| 1.5 CHIP FORMATION | 6 |
| 1.6 TYPES OF CHIP | 6 |
| 1.7 DISCONTINUOUS OR SEGMENTAL CHIPS | 7 |
| 1.8 CONTINUOUS CHIPS | 7 |
| 1.9 THE TERM BUILT-UP | 8 |
| 1.10 CHIP BREAKERS | 9 |
| 1.11 THE ORTHOGONAL OR TWO-DIMENSIONAL METAL CUTTING..... | 9 |
| 1.12 CUTTING TOOL MATERIAL | 10 |
| 1.13 TYPE OF TOOL MATERIALS | 11 |
| 1.13.1 CARBON STEELS..... | 11 |
| 1.13.2 MEDIUM ALLOY STEELS..... | 11 |
| 1.13.3 HIGH-SPEED STEEL | 12 |
| 1.13.4 STELLITES..... | 13 |
| 1.13.5 CEMENTED CARBIDES | 14 |
| 1.13.6 CERAMICS..... | 15 |
| 1.13.7 DIAMOND..... | 15 |
| 1.13.8 ABRASIVE..... | 15 |
| 1.13.9 CUBIC BORON NITRIDE (CBN) | 16 |
| 1.14 TOOLWEAR | 16 |
| 1.14.1 WEAR ON THE FLANK OF THE TOOL..... | 16 |
| 1.14.2 WEAR AT THE TOOL-CHIP INTERFACE | 17 |
| 1.14.3 THE <i>SPALLING</i> OR <i>CRUMBLING</i> OF THE CUTTING EDGE .. | 17 |
| 1.14.4 THE LOSS OF HARDNESS..... | 17 |
| 1.14.5 FRACTURE BY A PROCESS OF MECHANICAL BREAKAGE... | 18 |
| 1.15 FACTORS AFFECTING TOOL LIFE..... | 18 |
| 1.16 TOOL –LIFE | 19 |

| | | |
|------|--------------------------------------|----|
| 1.17 | SURFACE FINISH (MACHINABILITY) | 20 |
| 1.18 | CUTTING FLUID | 20 |
| 1.19 | PURPOSE OF CUTTING FLUIDS..... | 21 |
| 1.20 | PROPERTIES OF CUTTING FLUIDS | 23 |
| | UNIVERSITY QUESTIONS | 24 |

CHAPTER 2 : TURNING MACHINES..... 25

| | | |
|------|---|----|
| 2.1 | INTRODUCTION: FUNCTION OF THE CENTRE LATHE | 27 |
| 2.2 | TYPES OF LATHE | 28 |
| 2.3 | THE SIZE OF A LATHE | 32 |
| 2.4 | FEED MECHANISM | 32 |
| 2.5 | THREAD CUTTING MECHANISM | 33 |
| 2.6 | LATHE ACCESSORIES AND ATTACHMENTS..... | 35 |
| 2.7 | LATHE OPERATIONS | 35 |
| 2.8 | CENTERING | 37 |
| 2.9 | TURNING..... | 38 |
| 2.10 | CAPSTAN AND TURRET LATHE..... | 42 |
| 2.11 | DIFFERENCE BETWEEN A CAPSTAN AND TURRET AND AN ENGINE LATHE..... | 43 |
| 2.12 | TYPES OF MACHINE..... | 45 |
| 2.13 | DIFFERENCE BETWEEN A CAPSTAN AND A TURRET LATHE | 46 |
| 2.14 | TOOL HOLDING DEVICES | 49 |
| | UNIVERSITY QUESTIONS | 52 |

CHAPTER 3 : SHAPER, MILLING& GEAR CUTTING MACHINES..... 55

| | | |
|-------|--|----|
| 2.1 | SHAPER | 57 |
| 2.1.1 | INTRODUCTION | 57 |
| 2.1.2 | TYPES OF SHAPERS | 57 |
| 2.1.3 | CRANK SHAPER..... | 58 |
| 2.1.4 | SHAPER SIZE | 58 |
| 2.1.5 | SHAPER MECHANISM | 59 |
| 2.1.6 | CRANK AND SLOTTED LINK MECHANISM | 59 |
| 2.1.7 | WHITWORTH QUICK RETURN MECHANISM..... | 60 |

| | | |
|------------|--|-----------|
| 2.1.8 | HYDRAULIC SHAPER MECHANISM | 60 |
| 2.1.9 | FEED MECHANISM | 61 |
| 2.2 | PLANER MACHINE | 62 |
| 2.2.1 | INTRODUCTION | 62 |
| 2.2.2 | TYPES OF PLANING MACHINE | 62 |
| 2.2.3 | STANDARD OR DOUBLE HOUSING PLANER..... | 63 |
| 2.2.4 | OPENSIDE PLANER..... | 63 |
| 2.2.5 | PIT PLANER | 63 |
| 2.2.6 | EDGE OR PLATE PLANER | 64 |
| 2.2.7 | DIVIDED TABLE PLANER..... | 64 |
| 2.2.8 | SIZE OF A PLANER..... | 65 |
| 2.2.9 | PLANER MECHANISMS | 65 |
| 2.2.10 | OPEN AND CROSS BELT DRIVE | 66 |
| 2.3 | MILLING MACHINES | 66 |
| 2.3.1 | INTRODUCTION | 66 |
| 2.3.2 | TYPES OF MILLING MACHINE | 67 |
| 2.3.3 | HAND MILLING MACHINE | 68 |
| 2.3.4 | PLAIN MILLING MACHINE..... | 68 |
| 2.3.5 | UNIVERSAL MILLING MACHINE | 69 |
| 2.3.6 | OMNIVERSAL MILLING MACHINE | 69 |
| 2.3.7 | VERTICAL MILLING MACHINE..... | 70 |
| 2.3.8 | PARTS OF A MILLING MACHINE | 70 |
| 2.3.9 | MILLING MACHINE MECHANISM | 71 |
| 2.3.10 | SIZE OF MILLING MACHINE | 72 |
| 2.4 | MILLING CUTTERS | 72 |
| 2.4.1 | MILLING CUTTER MATERIAL..... | 76 |
| 2.4.2 | FUNDAMENTALS OF THE MILLING PROCESSES..... | 77 |
| 2.4.3 | CUTTING SPEED AND FEED..... | 78 |
| 2.5 | DRILLING MACHINE..... | 78 |
| 2.5.1 | TYPES OF DRILLING MACHINE | 78 |
| 2.5.2 | FEED MECHANISM | 79 |
| 2.5.3 | RADIAL DRILLING MACHINE PARTS..... | 79 |
| 2.5.4 | WORK HOLDING DEVICES..... | 80 |
| 2.5.5 | DRILLING MACHINE OPERATIONS..... | 80 |
| 2.6 | BORING MACHINES | 84 |
| 2.6.1 | TYPES OF BORING MACHINES | 84 |
| 2.6.2 | BORING MACHINE MECHANISM | 85 |
| 2.6.3 | TAPPING | 85 |

UNIVERSITY QUESTIONS 87

CHAPTER 4 : ABRASIVE PROCESS AND BROACHING 89

4.1 ABRASIVE PROCESS 91

- 4.1.1 GRINDING MACHINES: INTRODUCTION 91
- 4.1.2 KINDS OF GRINDING 91
- 4.1.3 FLOOR-STAND AND BENCH GRINDERS..... 94
- 4.1.4 CENTRE LESSS GRINDERS..... 95
- 4.1.5 SURFACE GRINDERS 96
- 4.1.6 TOOL AND CUTTER GRINDERS..... 99
- 4.1.7 MOUNTED WHEELS 100
- 4.1.8 SELECTION OF GRINDING WHEELS..... 100
- 4.1.9 GRINDING WHEEL SELECTION FACTORS 100
- 4.1.10 MOUNTING THE GRINDING WHEELS 103
- 4.1.11 BALANCING GRINDING WHEELS..... 103

4.2 SAWING 104

- 4.2.1 OPERATIONS PERFORMED 106
- 4.2.2 PRINCIPLE OF CIRCULAR SAW 106

4.3 SURFACE FINISHING PROCESSES 107

- 4.3.1 INTRODUCTION 107
- 4.3.2 LAPPING..... 107
- 4.3.3 HONING 109
- 4.3.4 SUPERFINISHING 112
- 4.3.5 BROACHING MACHINE 113
- 4.3.6 BROACHES 114
- 4.3.7 TYPES OF BROACHES 114
- 4.3.8 BROACH MATERIAL 116
- 4.3.9 BROACHING METHODS 116
- 4.3.10 BROACHING OPERATION..... 118
- 4.3.11 ADVANTAGES AND LIMITATIONS OF BROACHING 118
- 4.3.12 GEAR CUTTING 120
- 4.3.13 FORMING OF GEARS IN MILLING MACHINE..... 122
- 4.3.14 GEAR GENERATING PROCESS 123
- 4.3.15 GEAR HOBGING 125
- 4.3.16 BEVEL GEAR GENERATOR 125
- 4.3.17 STRAIGHT BEVEL GEAR GENERATOR..... 126

UNIVERSITY QUESTIONS 128

| | |
|--|------------|
| CHAPTER 5 : CNC MACHINGING..... | 131 |
| 5.1 COMPUTER NUMERICAL CONTROL (CNC) AND ADVANCED STEPS TO THE AUTOMATED INDUSTRIES..... | 133 |
| 5.2 ADVANTAGES OF NUMERICAL CONTROL MACHINE TOOLS | 134 |
| 5.3 LIMITATIONS OF NUMERICAL CONTROL (NC)..... | 135 |
| 5.4 CNC TECHNOLOGY INTRODUCTION | 136 |
| 5.5 A CNC SYSTEM LAYOUT | 137 |
| 5.6 TYPES OF THE CNC SYSTEM | 138 |
| 5.7 POINT-TO-POINT SYSTEM..... | 138 |
| 5.8 STRAIGHT-CUT CNC SYSTEM..... | 139 |
| 5.9 THE CONTINUOUS-PATH MACHINE SYSTEM (OR) CONTOURING SYSTEM | 139 |
| 5.10 INTERPOLATION | 140 |
| 5.11 LINEAR INTERPOLATION..... | 140 |
| 5.12 CIRCULAR INTERPOIATION | 140 |
| 5.13 VARIOUS TYPES OF CONTROL AND POSITIONING SYSTEMS ... | 141 |
| 5.14 PARABOLIC INTERPOLATION | 142 |
| 5.15 HELICAL INTERPOLATION | 143 |
| 5.16 ANALOG AND DIGITAL CONTROL | 145 |
| 5.17 INCREMENTAL/ABSOLUTE SYSTEM | 145 |
| 5.17.1 INCREMENTAL SYSTEM | 145 |
| 5.17.2 ABSOLUTE SYSTEM..... | 146 |
| 5.18 CONTROL SYSTEMS | 147 |
| 5.18.1 OPEN—LOOP CONTROL SYSTEMS..... | 147 |
| 5.18.2 CLOSED LOOP CONTROL SYSTEM..... | 148 |
| 5.19 ADVANTAGESOF CNC | 149 |
| 5.20 DISADVANTAGES OF' CNC | 149 |
| 5.21 CONSTRUCTIONAL FEATURES..... | 150 |
| 5.22 BALL SCREWS | 151 |
| 5.23 DRIVES | 153 |
| 5.24 SPINDLE DRIVES | 154 |
| 5.25 INTRODUCTION TO PART PROGRMMING..... | 155 |
| 5.26 FUNDAMENTALS OF PART PROGRAMMING | 155 |

| | | |
|-------------|---|------------|
| 5.27 | TECHNIQUES OF THE CNC PART PROGRAMS | 156 |
| 5.28 | CNC PART PROGRAMMING METHODS..... | 156 |
| 5.29 | MANUAL PROGRAMMING | 157 |
| 5.30 | COMPUTER ASSISTED PART PROGRAMMING (CAPP) | 157 |
| 5.31 | COMPUTER NUMERICAL CONTROL CODES..... | 158 |
| 5.32 | ADDRESS CHARACTERS | 159 |
| 5.33 | LIST OF G-CODES FOR TURNING PROGRAMS..... | 160 |
| 5.34 | LIST OF M-.CODES USED IN THE CNC TURNING PROGRAMS... | 163 |
| 5.35 | SAMPLE PROGRAMMES FOR CNC LATHE OPERATION | 164 |
| | UNIVERSITY QUESTIONS | 167 |