



Monograph Series

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*Distillation
Columns*

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Distillation Columns



INSTRUMENT SOCIETY OF AMERICA

*This book is dedicated
to the principles of our country
which have nurtured our professional development
and made us capable of writing this book*

*Distillation Columns
An ISA Monograph*

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The Instrument Society of America
67 Alexander Drive
P.O. Box 12277
Research Triangle Park, NC 27709

Library of Congress Catalog Number: 80-85271
ISBN: 0-87764-500-7

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2

Preface

Control engineering is a discipline which embraces segments of many engineering and scientific specialties. But almost every book written on the subject concentrates on only one discipline, reducing the audience—and the value—of the book to a small segment of the engineering community performing the control engineering function. One extreme is the multitude of books that concentrate on control theory and the mathematics of control. Occasionally this type book mentions a process. To engineers knowledgeable in the process, such a book may have some value, providing they have the background to make the transition from the process world to the control-theory world. On the other hand, most textbooks describing a process or a unit operation such as distillation place their emphasis on the theory of the operations and the design of the process. Process control is given little more than lip service in such texts.

This book blends a reasonable discussion on the process into a comprehensive discussion on control considerations, problems,

(xvii)

and practices. The control engineer without a chemical engineering or distillation column background will find a discussion on distillation theory, operation, and equipment which will give an understanding of distillation basics and develops the discussion of distillation into a comprehensive process control discussion. The transition is complete, allowing the control engineer to visualize a distillation column in terms with which he is familiar.

Conversely, the engineer knowledgeable in distillation will find that the discussions on control are logical extensions of the discussion on distillation principles. The control of distillation columns is the area of greatest activity and concern in improving operations. By its comprehensive approach to the entire subject of distillation and control, this book will increase the number of people qualified to understand and solve problems of distillation control.

The publication of this book has given us great satisfaction in the knowledge we have made a major contribution in solving one of the process-control problems which has drained millions of dollars of profit from industry.

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Contents

Preface	xix
Chapter I—Principles of Distillation	3
The Concept of Vapor Pressure	3
The Boiling-Point Diagram	6
Derivation of the Equilibrium Diagram for an Ideal Binary System	8
Nonideal Systems	11
The Concept of Relative Volatility	11
Vapor-Liquid Equilibrium Diagram	13
McCabe–Thiele Diagram	14
Bibliography	21
Chapter II—Classification of Distillation Columns	23
Two-Product Distillation Columns	23
Multiproduct Distillation Columns	26
Absorption	36
Extractive Distillation	41
Azeotropic Distillation	42

Chapter III—Distillation Equipment	49
Column Construction	49
Determining Column Diameter	50
Determining Column Height	50
Feed Tray Location	52
Internal Configurations	52
Trayed Columns	53
Packed Columns	58
Condensers	59
Reboilers	65
Reboilers—Heating Mediums	68
Reboilers—Mechanical	68
Side-Stream Strippers	72
Bibliography	73
Chapter IV—Measurement of Controlled Variables	75
Flow Measurement	76
Level Measurement	78
Pressure Measurement	79
Column Differential Pressure Measurement	81
Temperature Measurement	85
Dynamic Considerations	89
Column Differential Temperature	91
Other Inferential Measurements	95
Direct Analysis of Composition	96
Bibliography	99
Chapter V—Basic Control Requirements in Distillation	101
Minimum Automatic Control Requirements	103
Product-Composition Control—The Tools Available	109
Material-Balance Regulation	109
Energy-Balance Regulation	111
Classification of Composition-Control Schemes	113
Analysis of Control-Loop Performance	118
Steady-State Sensitivity	120
Dynamic Responsiveness	122
Four Schemes for Composition Control	123
Results of the Analysis of Control Scheme Performance	125
Two-Point-Product Composition Control	126
Bibliography	126

Chapter VI—Basic Control Loops	129
Feed-Rate and Feed-Temperature Control	129
Feed Preheat from Process Streams	131
Feed Preheat Using a Trim Exchanger	135
Reboilers and Their Control	139
Steam Reboilers	139
Fluid Reboilers	143
Direct-Fired Reboilers	144
Condensers and Pressure Control	149
Flooded Condensers	149
Hot-Vapor-Bypass Pressure Control	153
Manipulation of Noncondensables	155
Level Control	155
Accumulator-Level Control	156
Sump- or Reboiler-Level Control	160
Reflux Control	161
Internal Reflux Flow Control on Pasteurization	
Columns	164
Internal Vapor-Flow Control	168
Internal Vapor Control on a Pasteurization	
Column	170
Bibliography	175
 Chapter VII—Advanced Control Systems	 177
Justification for Advanced Control	177
Feedforward Control	179
Application of Feedforward Control	182
Binary Column Example	183
Decoupling	190
Override Control	196
Bibliography	199
 Chapter VIII—Digital Techniques for	
Distillation Column Control	201
Advantages of Digital Control	203
Velocity-Control Algorithms	204
Advanced Control Techniques Possible with a	
Digital Control	209
Dead-Time Dynamic Compensation	209
Dead-time Control Algorithms	210

Adaptive Gain Control	210
Bibliography	213
Chapter IX—Designing and Implementing the Distillation-Column Control System	215
Step 1—Defining the Control Objectives	215
Step 2—Pairing Manipulative Variables with Controlled Variables	216
Step 3—Analysis of Disturbances	216
Step 4—Define Process Constraints That Affect Control	217
Step 5—Develop Control Equations	217
Step 6—Establish Process Dynamic Requirement	218
Step 7—Operator Interface Design	218
Step 8—Equipment Selection	219
Step 9—Implementation	219
Step 10—Operator Training	219
Step 11—Startup and Tuning	220
Step 12—Documentation	220
Conclusion	221
Glossary	223
Bibliography	229
Index	237

Figures

1.1	The Relationship Between Temperature and Vapor Pressure	4
1.2	Vapor Pressure–Temperature Curves for the Benzene and Toluene System	5
1.3	Boiling-Point Diagram for the Benzene and Toluene System	6
1.4	Boiling Point Diagram for the Chloroform and Acetone System	12
1.5	Boiling Point Diagram for the Benzene and Ethanol System	13
1.6	Equilibrium Diagram for the Benzene and Toluene System	14
1.7	Tray-to-tray Material Balance Diagram	15
1.8	McCabe–Thiele Diagram	19
2.1	Two-Product Distillation Column	24
2.2	Reflux Enthalpy Adjusted by Controlling Condenser Duty	26

(ix)

2.3	Reflux Rate and Enthalpy Regulated	27
2.4	Refining or Pasteurizing Column	29
2.5	Multifunctional Column	30
2.6	Separation of Isobutane from Butane Feed and Reactor Product in Separate Columns	31
2.7a	Multiproduct Column: Crude Unit Atmospheric Fractionator	33
2.7b	Crude-Unit Strippers	34
2.7c	Detailed Crude-Unit Stripper	35
2.8	Physical Absorption System	37
2.9	Chemical Absorption System—Gas Sweetening	39
2.10	Chemical Absorption—Nitric Acid Absorber	40
2.11	Extractive Distillation System	41
2.12	Boiling-Point Diagram for the Chloroform and Acetone System	43
2.13	Boiling-Point Diagram for the Benzene and Ethanol System	44
2.14	Boiling-Point Diagram for the Iso-Butanol Water: A Heterogenous Azeotrope	45
2.15	Azeotropic Distillation: Ethanol-Water Separation Using Benzene as an Entrainer	46
3.1	Rectification and Stripping-Section Diameters Vary as a Function of Required Vapor Flow Across Each Section	51
3.2	McCabe–Thiele Diagram Used to Locate the Feed Tray	52
3.3	Typical Sieve Tray	54
3.4	Mechanical Detail of a Bubble Cap	55
3.5	Side and Top View of a Bubble-Plate Column	56
3.6	Bubble-Cap Tray	57
3.7	Valve Trays of Different Designs	57
3.8	Typical Proprietary Tray Combining Valves and Sieves	58
3.9	Typical Tower Packings	60
3.10	Air-Cooled Condenser	61
3.11	Condenser Using Column Vapors to Preheat Feed to Another Process	62
3.12	Vapor Recompression System Condenser— Reboiler System	63
3.13	Trim Condenser in Parallel to Main Condenser	64

3.14	Series Trim Condenser Completes Condensation of the Partial Condenser in Process-Cooled Condensers	65
3.15	Refrigeration Loop Provides Low-Temperature Cooling Medium	66
3.16	Fired-Heater Reboiler System	67
3.17	Hot-Oil Reboiler System Including Hot-Oil Heater	69
3.18	Illustrations of Typical Reboiler Designs	70, 71
3.19	Forced-Circulation Reboiler	73
4.1	Flow Measurements Around a Distillation Column	77
4.2	Control of Total Overhead Product	78
4.3	Common Location of Pressure Transmitters	80
4.4	Column Pressure Controller Resets Accumulator Pressure Controller	81
4.5	Column Differential Pressure Measurement	82
4.6	Column Differential Pressure as a Function of Load	83
4.7	Installing the Column Differential Pressure Transmitter	84
4.8	Composition and Temperature Profiles in a Distillation Column	86
4.9	Temperature Versus Concentration of a Binary Mixture at Constant Pressure	87
4.10	Temperature Versus Concentration of a Three-Component Mixture at Constant Pressure	87
4.11	Product Composition Versus Tray Temperature for Varying L/V Ratios	89
4.12	Temperature Measurement Location Near Entry of Manipulative Variable Improves Dynamic Response	90
4.13	Temperature Measurement Made Near Feed Tray Detects Disturbance Early	92
4.14	Differential Temperature Between Two Trays Used for Control	93
4.15	Differential Temperature Versus Composition Curve Has a Point of Inflection	95
4.16	Analyzer Sample-Probe Locations	98
5.1	Minimum Controls Required on a Column	104-105
5.2	Typical Column Flow Diagram	110
5.3	Refrigerant Condensing System	112

5.4	Air-Cooled Condenser with Hot Vapor Bypass	113
5.5	Distillation Column Showing Typical Controlled and Manipulated Variables	114
5.6	Indirect Material-Balance Control System (Case 12)	117
5.7	Direct Material-Balance Control System (Case 5)	119
6.1	Nonlinear Controller Output Characteristics for Proportional Mode Only	130
6.2	Control System to Solve the Exchanger Bypass Problem	132
6.3	Control Systems on Steam-Heat Exchangers	134
6.4	Temperature Control: Mass Flow Control Cascade on a Steam-Heat Exchanger	138
6.5	Steam-Flow Control to a Reboiler and Steam-Condensing Pressure Control to a Reboiler	140
6.6	Steam Flow Controlled by Condensate-Valve Manipulation	143
6.7	Energy-Balance Control System on a Hot-Liquid-Heated Reboiler	145
6.8	Wobbe Index for Light Hydrocarbon Gases	147
6.9	Direct-Fired Reboiler with Energy-Input Control	148
6.10	Flooded Condenser with Direct-Condensate Manipulation and Flooded Condenser with Indirect-Condensate Manipulation	150
6.11	Condensate Temperature Control on an Air-Cooled Condenser	153
6.12	Hot Vapor Bypass Pressure Control System	154
6.13	Pressure Control Through Manipulation of Noncondensables	155
6.14	Reflux Control of Accumulator Level	157
6.15	Feed-Forward Compensation of Reflux Flow for Distillate Flow Changes to Minimize the Effect of Accumulator Dynamics	159
6.16	Internal Reflux Calculator and Control Scheme	163
6.17	Pasteurization Column with Distillate Purge Stream	165
6.18	Internal Reflux Control on Pasteurization Column with Total Liquid Draw	167
6.19	Internal Reflux Control on Pasteurization Column with Partial Liquid Draw	169
6.20	Differential-Pressure Override Control Scheme	170

6.21	Pasteurization Column with Bottoms-Purge Stream	171
6.22	Internal Vapor Control on Pasteurization Column	173
6.23	Internal Vapor Control on Pasteurization Column with Feed Forward on Reboiler Vapor Flow	174
7.1	Gain and Bias Compensation of Feed-Forward Models	181
7.2	Typical Feed-Forward Control Scheme	187
7.3	Open-Loop Responses to Feed Flow Rate and Distillate Flow Rate Changes	188
7.4	Responses to Steady-State Feed-Forward Control Action	189
7.5	Dynamically Compensated Distillate Flow	191
7.6	Generalized Interaction Decoupling Network	193
7.7	Simplified Decoupling Network	195
7.8	Override Control System for Column Differential Pressure	197
8.1	Supervising/Control	202
8.2	Block Diagram of a Smith Predictor Dead-time Compensation Algorithm	211

Tables

5.1	Specifications for Products and a Typical Feed Analysis	106
5.2	Classification of Composition-Control Schemes	115
5.3a	De-ethanizer Sensitivity	120
5.3b	Sensitivity of Ethanol-Isopropanol-Water System	121
5.3c	Benzene-Toluene Column Sensitivity	121
6.1	Steam Properties as a Function of Steam Temperature and Pressure	136
7.1	Variable Pairings for Binary Column Example	183

*Distillation
Columns*