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Nota di contenuto	Rules of Thumb in Engineering Practice; Contents; Preface; 1 Rules of Thumb; 1.1 Rules of Thumb about Process Equipment; 1.2 Rules of Thumb about the Context for a Chemical Process: Physical and Thermal Properties; 1.3 Rules of Thumb about the Context for a Chemical Process: Corrosion; 1.4 Rules of Thumb about the Context for a Chemical Process: Process Control (based on communication from T.E. Marlin, McMaster University, 2001); 1.5 Rules of Thumb about the Context for a Chemical Process: Batch versus Continuous 1.6 Rules of Thumb about the Context for a Chemical Process: Heterogenous Phase contacting1.6.1 GL Systems; 1.6.2 LL Systems; 1.6.3 GLS Systems; 1.6.4 Particulate Systems; 1.7 Rules of Thumb about the Context for a Chemical Process: Economics; 1.8 Rules of Thumb about the Thinking Process: Problem Solving and Creativity; 1.9 Rules of Thumb about the Thinking Process: Goal Setting; 1.10 Rules of Thumb about the Thinking Process: Decision Making; 1.11 Rules of Thumb about the Thinking Process: Thermal Pinch; 1.12 Rules of

Thumb about the Thinking Process: "Systems" Thinking

1.13 Rules of Thumb about the Thinking Process: Design  
1.14 Rules of Thumb about the Thinking Process: Process Improvement;  
1.15 Rules of Thumb about the Thinking Process: Trouble Shooting;  
1.16 Rules of Thumb about the Thinking Process: Environment, Waste Minimization, Safety;  
1.17 Rules of Thumb about the People Part of Engineering: Communication;  
1.18 Rules of Thumb about the People Part of Engineering: Listening;  
1.19 Rules of Thumb about the People Part of Engineering: People Skills;  
1.20 Rules of Thumb about the People Part of Engineering: Team and Group Skills

1.21 Rules of Thumb about the Context in Which We Function:

Performance Review  
1.22 Rules of Thumb about the Context in Which We Function: Leadership;  
1.23 Rules of Thumb about the Context in Which We Function: Entrepreneurship (based on Valikangas, 2003 and Cooper, 1987);  
1.24 Rules of Thumb about the Context in Which We Function: Entrepreneurship;

1.25 Rules of Thumb about the Context in Which We Function: e-Business;  
1.26 Rules of Thumb about Mentoring and Self-management;  
1.27 Summary;

2 Transportation; 2.1 Gas Moving: Pressure Service;

2.2 Gas Moving: Vacuum Service; 2.3 Liquid

2.4 Gas-Liquid (Two-phase Flow) 2.5 Pumping Slurries: Liquid-Solid

Systems; 2.6 Solids; 2.7 Ducts and Pipes; 3 Energy Exchange; 3.1

Drives; 3.2 Thermal Energy: Furnaces; 3.3 Thermal Energy: Fluid Heat

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(Coils in Bed); 3.5 Thermal Energy: Static Mixers; 3.6 Thermal Energy:

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Contact G-L Cooling Towers; 3.8 Thermal Energy: Direct Contact G-L

Quenchers; 3.9 Thermal Energy: Direct Contact G-L Condensers

3.10 Thermal Energy: G-G Thermal Wheels and Pebble Regenerators

and Regenerators

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## Sommario/riassunto

An immense treasure trove containing hundreds of equipment symptoms, arranged so as to allow swift identification and elimination of the causes. These rules of thumb are the result of preserving and structuring the immense knowledge of experienced engineers collected and compiled by the author - an experienced engineer himself - into an invaluable book that helps younger engineers find their way from symptoms to causes. This sourcebook is unrivalled in its depth and breadth of coverage, listing five important aspects for each piece of equipment: \* area of application \* sizing guideli

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