Handbook of Pneumatic Conveying Engineering

David Mills 2004-01-21 Pneumatic conveying systems offer many advantages: flexibility in plant layout, automatic operation, easy control and monitoring, and the ability to handle diverse materials, especially dangerous, toxic, or explosive materials. The Handbook of Pneumatic Conveying Engineering provides the most complete, comprehensive reference on all types and sizes of systems, conveying materials, methods of conveying, design, optimization, and troubleshooting. It covers all aspects of pneumatic conveying, from the basics to the most advanced techniques, making it essential for engineers and scientists involved in the design, development, operation, and maintenance of pneumatic conveying systems.

Chapter 1: Pneumatic Conveying Systems
- Examination of the basics of pneumatic conveying
- Identification of different types of pneumatic conveying systems
- Comparison of different conveying systems

Chapter 2: Pneumatic Conveying Materials
- Examination of the characteristics of different materials
- Discussion of the impact of material properties on the design of conveying systems

Chapter 3: Pneumatic Conveying Design
- Explanation of the design process
- Consideration of the factors that affect the design of conveying systems

Chapter 4: Pneumatic Conveying Applications
- Examination of the applications of pneumatic conveying
- Discussion of the advantages and disadvantages of different applications

Chapter 5: Pneumatic Conveying Maintenance
- Explanation of the maintenance process
- Consideration of the factors that affect the maintenance of conveying systems

Chapter 6: Pneumatic Conveying Troubleshooting
- Examination of common problems encountered in conveying systems
- Discussion of the causes and solutions of different problems

Chapter 7: Pneumatic Conveying Safety
- Explanation of the safety measures necessary for conveying systems
- Consideration of the safety regulations and standards

Chapter 8: Pneumatic Conveying Case Studies
- Examination of real-world examples of pneumatic conveying systems
- Discussion of the challenges and solutions encountered in different applications

Appendices
- Examination of the mathematical models used in conveying systems
- Discussion of the software tools used in conveying systems

Handbook of Pneumatic Conveying Engineering is simply the most authoritative guide to pneumatic conveying available and a critical tool for your everyday work.
Mechanical Properties of Engineered Materials - Wole Soyode

Rules of Thumb for Mechanical Engineers - Edward Pope

Handbook of Pneumatic Actuating Systems for Automatic Equipment: Structure and Design - Neil Sclater

For more information, refer to the full text of the book. The book covers a wide range of topics, including:

- Theoretical and practical aspects of pneumatic systems
- Design and application of pneumatic systems
- Advanced topics in pneumatic systems

The book is a valuable resource for mechanical engineers and technicians involved in pneumatic actuating systems.
and engineers to solve complex ventilation and contaminant control problems using state-of-the-art design equations. Includes an expanded section on modeling and its practical applications based on recent advances in research. Features a new chapter on best practices for specific industrial sectors.