



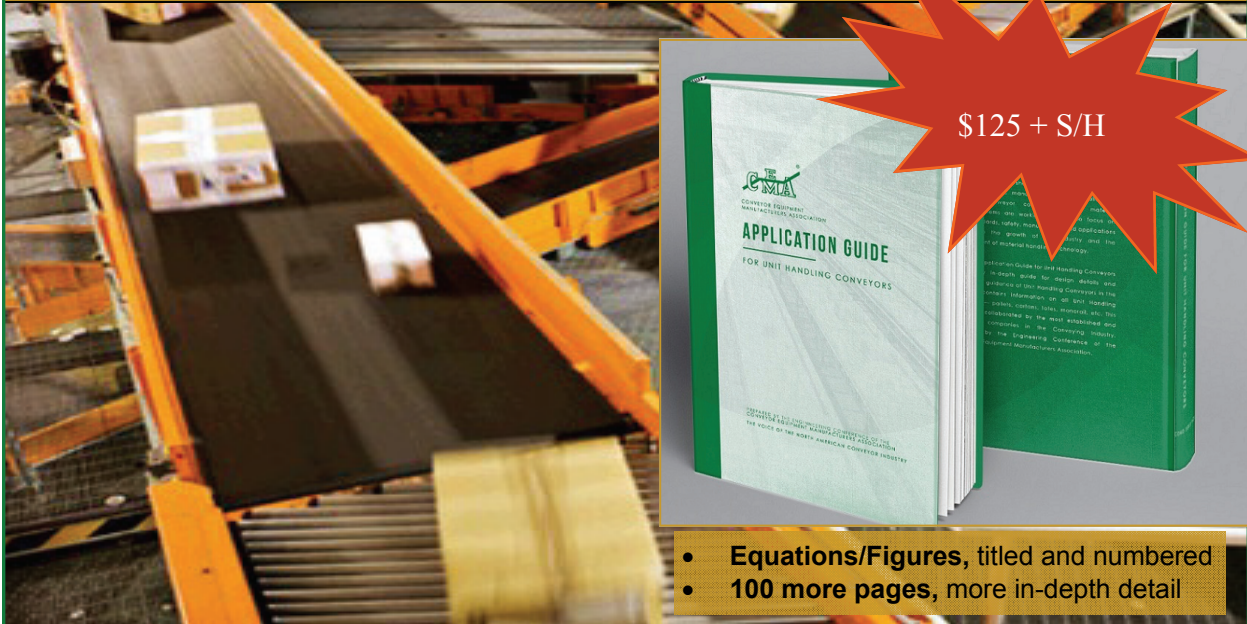
2016 RELEASE!

Conveyor Equipment Manufacturers Association - www.cemanet.org / 239.514.3441

ALL NEW 2nd EDITION

CEMA APPLICATION GUIDE FOR UNIT HANDLING CONVEYORS

"A must-have book for novice and experienced engineers, distributors, OEM's, consultants, and universities."



CHAPTERS

1. Chutes
2. Non-Powered (gravity) Conveyors
3. Belt Conveyors
4. Belt Curve Conveyors
5. Plastic Belt and Chain Conveyors
6. Slat Conveyors
7. Multi-Strand Chain Conveyors
8. Line-Shaft Conveyors
9. Belt Driven Live Roller
10. Chain Drive Live Roller
11. Motor Driven Live Roller (MDR)
12. Powered Roller Curves
13. Roller Accumulation
14. Transfers
15. Truck Loading
16. Sortation
17. Overhead Trolley/Monorail
18. Power & Free Conveyors
19. Towline Conveyors
20. Friction Systems
21. Spill Guarding for Unit Handling
22. Conveyor Controls
23. Rate Calculation
24. Conveyor Symbols
25. Motors
26. Gearing
27. V-Belts and Synchronous Drives
28. Chains and Chain Drives
29. Mounted Bearings
30. Pulleys
31. Belt Technology
32. Flat Top Chains
33. Conveyor Rollers
34. Wire Belting

Summary of some of the chapters:

- **Chapter #4, Belt Curve Conveyors**—This chapter is designed to assist the reader in understanding Belt Curve Conveyors, such as: Learn Pro's and Con's of different drive methods; Size the curve based on package sizes and orientation; Know geometry of a belt curve before you integrate and much more.
- **Chapter #20, Friction Systems**—This chapter is designed to assist the reader in understanding Friction Systems, such as: Learn about types of Friction Drive Systems; Gain insights on benefits and features; Understand design parameters; Basics of Friction Drive Conveyor maintenance; Applications that a Friction Drive Conveyor can fulfill; Safety benefits and considerations of Friction Systems.
- **Chapter #22, Conveyor Controls**—This chapter is designed to assist the reader in understanding Controls, such as: Conveyor Control design concepts including power types, control types, power/control system architectures, and safety systems; Learn design considerations and hardware selection; Learn unit conveyor power and controls referenced industry electrical and safety standards; Application examples.
- **Chapter #25, Motors**—This chapter is designed to assist the reader develop a basic understanding of various types of Motors utilized in the Unit Handling Industries, such as: Learn the latest EISA motor requirements, plus next five years efficiency requirements, Understand various types of motors in Unit Handling Applications and their unique characteristics; Definitions/explanations used within the industry for motors, brakes, clutches, and encoders; Clarify common mounting position types, dimensions, and NEMA insulation classes.
- **Chapter #26, Gearing**—This chapter is designed to assist the reader in understanding Gearing, such as: Learn about common gear unit types and systems; Become familiar with gear unit configurations, mounting options, shaft options, and shaft connection methods; Understand how to make a proper gear unit selection based upon type of application, duty cycle and applied load conditions; Learn about common gear reducer accessories, motor types used and basics of proper gear unit installation and maintenance.
- **Chapter #28, Chains and Chain Drives**—This chapter will assist a reader with the basic understanding of Roller Chains and Engineering Class Chains, such as: Learn how a chain is constructed; Gain insights on chain benefits and features; Demystify the ANSI Chain Numbering System using detailed examples; Understand what is needed to design a drive system; Discover technical aspects of the drive selection process; Examples of sprockets types and bushings; Learn basics of chain maintenance.
- **Chapter #29, Mounted Bearings**—This chapter will assist a reader with the basic understanding of Mounted Bearings, such as: Learn benefits and features of each type; Definition of L10 life and proper method for calculating it; Learn proper commercial shaft tolerances for optimum fit-up into various bearing sizes; Various types of bearing caps utilized are shown, additional safety protocols are requiring limited personnel access to rotating parts of a bearing.

- **Chapter #30, Pulleys**—This chapter will assist a reader with the basic understanding of Pulleys, such as: Learn how a pulley or roller are constructed and basics of shaft design using stress and deflection limits; Gain insights into ANSI/CEMA B105.1 Pulley Standard; Understand the different crown configurations that are commonly available; See examples of typical take-up systems.
- **Chapter #31, Belt Technology**—This chapter will assist a reader with the basic understanding of Belt Technology, such as: Understanding common classifications and terminology of light conveyor belting; Recognize general belt constructions and typical nomenclature; Know what conveyor and application criteria are required to properly select a conveyor belt and be cognizant of various belt fabrication options.
- **Chapter #33, Conveyor Rollers**—This chapter will assist a reader with the basic understanding of Flat Top Chain, such as: Learn how a Conveyor Roller is constructed; Identification of Standard Axles and design, details of bearing styles, materials and uses; Application and considerations in Roller Design; Understanding Conveyor Roller Life and load Ratings, standards definitions; Material, environmental, and safety considerations in conveyor roller selection; Industry Standard Speeds and Noise levels of Conveyor Rollers.
- **Chapter #34, Wire Belting**—This chapter will assist a reader with the basic understanding of Wire Belting, such as: Learn basic nomenclature used to describe and specify wire belts; Typical wire belt construction and standard accessories; Insights on belt applications and belt selection criteria; Chain drive belts using woven metal mesh; Basic belt tension calculations, belt maintenance and installation guidelines; and Belt troubleshooting.