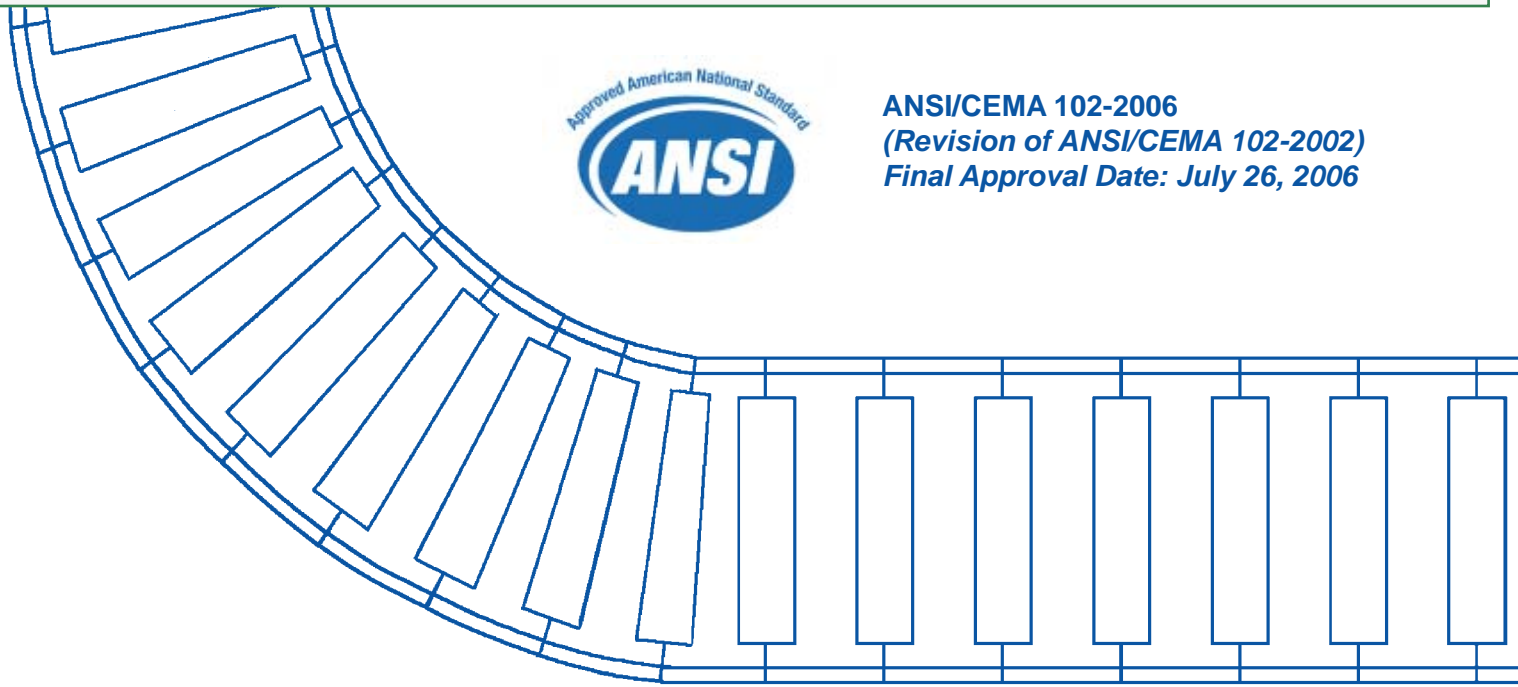




**ANSI/CEMA 102-2006**  
*(Revision of ANSI/CEMA 102-2002)*  
*Final Approval Date: July 26, 2006*



# **CONVEYOR**

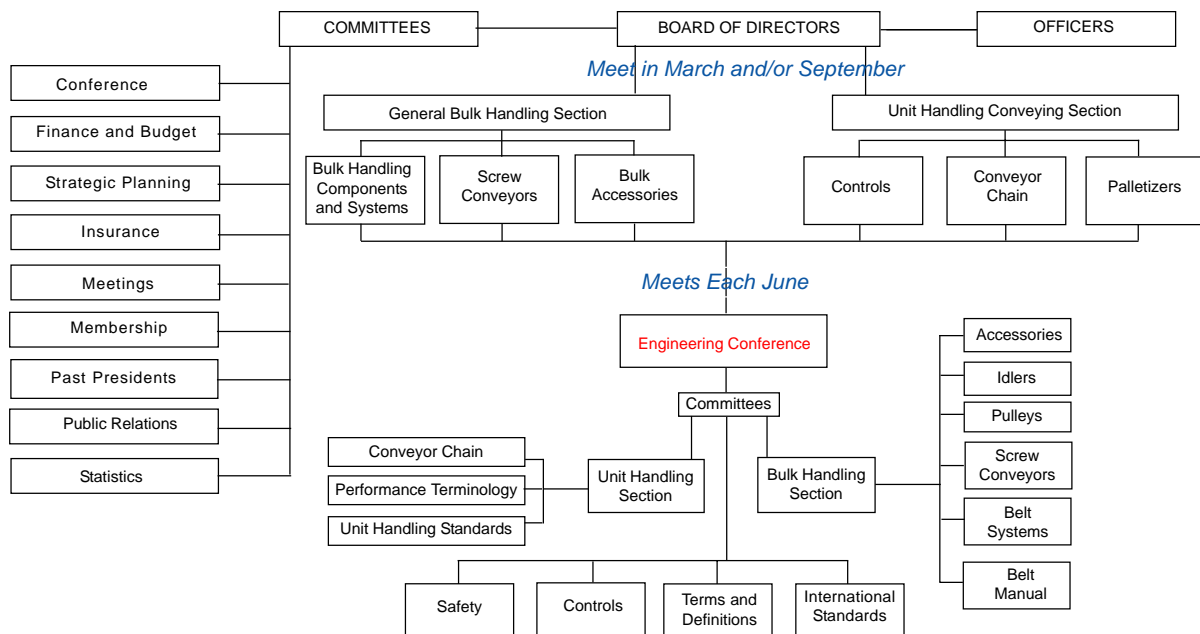
## ***Terms and Definitions***

**CEMA No. 102-2006**



**Conveyor Equipment  
Manufacturers Association**

## CEMA ORGANIZATIONAL CHART



For Information on Company Membership  
visit the CEMA Web Site at  
<http://www.cemanet.org>

### SAFETY NOTICE

The Conveyor Equipment Manufacturers Association has developed Industry Standard Safety Labels for use on the conveying equipment of its member companies.

The purpose of the labels is to identify common and uncommon hazards, conditions, and unsafe practices which can injure, or cause the death of, the unwary or inattentive person who is working at or around conveying equipment.

The labels are available for sale to member companies and non-member companies.

A full description of the labels, their purpose, and guidelines on where to place the labels on typical equipment, has been published in CEMA's *Safety Label Brochure*, Brochure No. 201. The Brochure is available for purchase by members and non-members of the Association. Safety Labels and Safety Label Placement Guidelines, originally published in the Brochure, are also available free on the CEMA Web Site at [http://www.cemanet.org/CEMA\\_Safety\\_Pg.htm](http://www.cemanet.org/CEMA_Safety_Pg.htm)

PLEASE NOTE: Should any of the safety labels supplied by the equipment manufacturer become unreadable for any reason, the equipment USER is then responsible for replacement and location of these safety labels.

Replacement labels and placement guidelines can be obtained by contacting your equipment supplier or CEMA.

# **CONVEYOR TERMS AND DEFINITIONS**

## **DISCLAIMER**

The information provided in this document is advisory only. These recommendations are provided by CEMA in the interest of promoting safety in the work place.

These recommendations are general in nature and are not intended as a substitute for a thorough safety program. Users should seek the advise, supervision or consultation of qualified engineers or other safety professionals.

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**CEMA No. 102-2006**

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## Foreword and Acknowledgments

This, the eighth (2006) edition of the industry dictionary, CONVEYOR TERMS AND DEFINITIONS revises the seventh edition of ANSI-CEMA 102-2002.

The first edition was a successful attempt by the members of the Conveyor Equipment Manufacturers Association (CEMA) to introduce order into varying terminology and definitions as an aid to users of conveyor equipment and systems, to manufacturers, educators and the many others whose work or interests may bring them in contact with material handling equipment.

In due course, this dictionary was approved as an "American National Standard" under the voluntary standards procedure of the American National Standards Institute in 1956, and has been reaffirmed or revised regularly since then.

This standard of nomenclature and definition has been adopted by conveyor manufacturers in the United States, Canada, and in many countries of the world. It has found a place in the U.S. information libraries throughout the world and in the offices of many embassies and consulates of the United States.

Throughout the book, an effort has been made to define a conveyor or related equipment by what it "is" rather than what it "does." Preferred terms are followed by their definitions. Other terms in common use are listed, but cross-indexed back to the preferred term in each case. Trade names have been avoided in all instances except those where long established use by the public has given them the status of common property.

The illustrations throughout this book are schematic in nature and represent the general nature of a particular device. *The illustrations are not intended to represent the recommended safety standards, as guarding has been omitted for clarity of the operational characteristics of the device. Refer to the current editions of American National Standards ASME/ANSI B20.1, "Safety Standard for Conveyors and Related Equipment; ANSI/ASME B 15.1, "Safety Standard for Mechanical Power Transmission Apparatus"; and ANSI Z244.1, "Safety Requirements for the Lockout/Tagout of Energy Sources."*

Many technical and engineering terms commonly used in the conveyor industry have been included with the recognition that these same terms may be used extensively by other groups. This edition reflects the interrelationship between the machines of materials movement and processing machinery to a point where the dividing line between the two becomes almost indistinguishable at times; and the trend of the "systems" approach to planning conveyor design and application.

The Conveyor Equipment Manufacturers Association gives its special thanks to the engineers of the member companies and to the other interested members of the conveying community who gave freely of their own time over the years in a dedicated effort to make this publication as complete and accurate as possible at any given time and, all the while, realizing that such a book can never be completed since it is a part of a dynamic and expanding culture.

*ANSI/CEMA Standard 102 - Conveyor Terms and Definitions (Eighth Edition) - 2006  
Non-Normative Pages*

## **Eighth Edition - Summary of Changes**

As with any standard, the Eighth Edition of CEMA's Conveyor Terms and Definitions contains normative and non-normative sections. Normative items are part of the standard. Non-normative items are informational. (Introduction, Foreword, and Appendixes).

The Normative portion of this Standard contains 77 new terms and 10 modified terms and definitions when compared to the Seventh Edition. (See list on page iv)

The Two Column format has been replaced with a Single Line Entry format to facilitate viewing and searching in PDF and other electronic viewing modes.

Graphics associated with a term or definition have been placed, dictionary style, in a column to the right on the same page as the entry.

Additionally, the Eighth Edition contains Four Non-Normative Appendixes that contain specialized sets of terms and definitions that CEMA has previously published as either CEMA Standards or Pamphlets.

They are included in this edition to capture them in one place as a service to the conveying industry. It is hoped that users will provide CEMA suggested modifications or changes to these definitions over the life of the Eighth Edition. It is CEMA's intention to then include some or all of them as part of the normative section of the standard in the Ninth Edition.

### **LIST OF APPENDIXES**

1. Palletizer Terms and Definitions
2. Pneumatic Conveying Terms and Definitions
3. Vibrating Equipment Terms and Definitions
4. Conveyor Electrical Terms and Definitions

**Prepared and Coordinated by the**

**CONVEYOR TERMS AND DEFINITIONS COMMITTEE  
of the  
CEMA ENGINEERING CONFERENCE**

**Standard No. 102-2006 - Copyright 2006**

**EIGHTH EDITION**

## NEW TERMS AND DEFINITIONS IN EIGHTH EDITION

**NOTE: All of these terms and definitions will be in this color in the normative pages for ease of identification.**

Angle of slide	Indexing conveyor	Positioner
Automated electric monorail	Induction conveyor	Pre-start alarm
Automatic electrical monorail	Insert section	Production rate conveyor
	Intermediate trolley	Push across transfer
Beaver tail		Pusher drive
Bias banking	King pin	
Blocked chute detector		Quick rise
	Leading trolley	
Carrier	Line full sensing	Rear trolley
Carrier chain conveyor	Load bar	Retractable
Center drive	Load bar axle	Return belt plow
Chute plugging safety switch	Load pin	
Conveyor accessory	Load sharing conveyor	Singulator
Cross belt sorter	Load switch	Ski bar
	Loading zone	Skirtboard system
Diagonal banking		Slider bed
Diverge switch	Magnetic detector	Standard track
	Material discharge plow	Stop
Electrical conveyor accessories	Merge switch	Stop blade
End drive	Metal bar code	Surge
Entrance switch	Metering conveyor	Suspended tramp iron
Exit switch	Misalignment switch	removal magnet
	Motor brake	Switch blade
Free track		
Front trolley	Normal track	Tandem banking
		Tight bite track
Gapping conveyor	Open track	Tongue
	Outbound idler	Track drop
Hockey puck		Trailing trolley
	Parasitic drive	Tramp metal detector
Impact cradle	Plugged chute detector	Transition distance
Inbound idler	Pork chop	Transition idler

## REVISED TERMS AND DEFINITIONS IN EIGHTH EDITION

Automated monorail system	Carousel conveyor	Zero speed switch
Backstop	Flat-top chain	
Belt cleaner	Flat-top conveyor	
Belt plow		
Belt tear or rip detector	Impact bed	