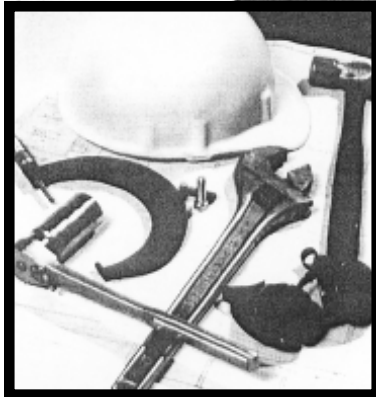
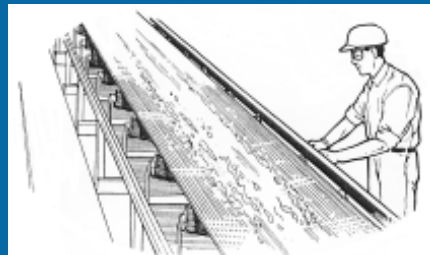
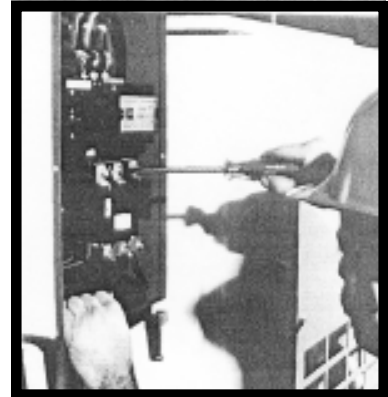


# CONVEYOR INSTALLATION STANDARDS 2005

FOR BELT CONVEYORS HANDLING BULK MATERIALS



THIS PUBLICATION IS  
APPENDIX D OF THE  
SIXTH EDITION OF THE  
CEMA BELT BOOK  
"BELT CONVEYORS FOR  
BULK MATERIALS"

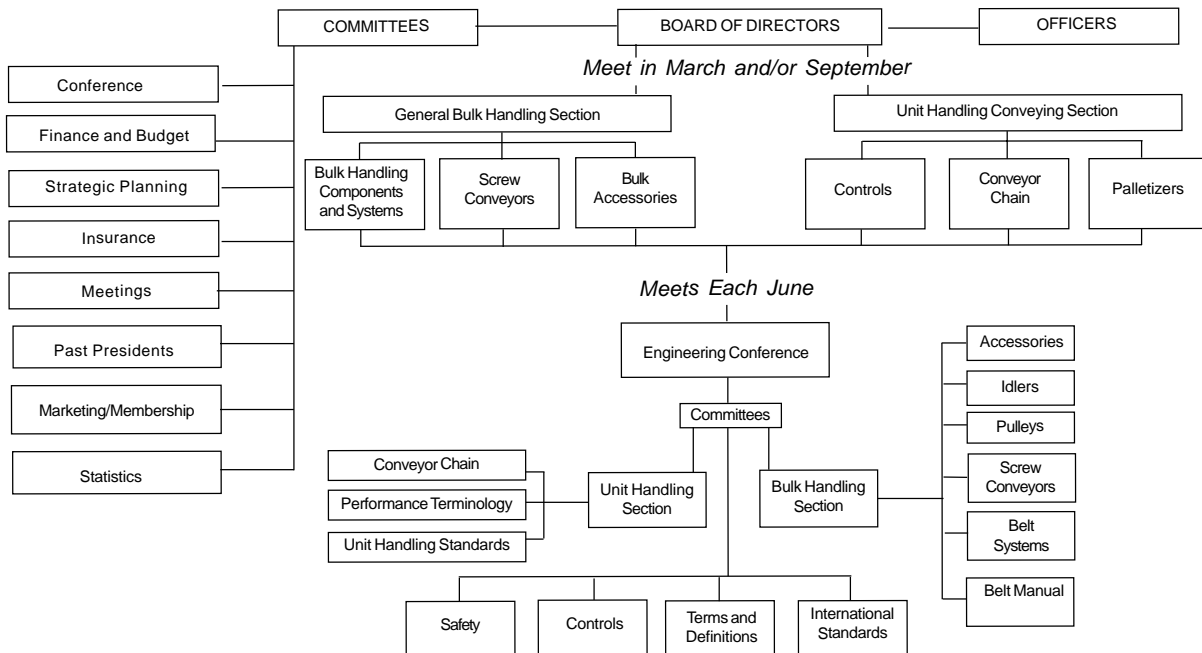


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CONVEYOR EQUIPMENT MANUFACTURERS ASSOCIATION

## CEMA ORGANIZATIONAL CHART



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### 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* 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.

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## CONVEYOR INSTALLATION STANDARDS FOR BELT CONVEYORS HANDLING BULK MATERIALS

ALSO, APPENDIX D, SIXTH EDITION, BELT CONVEYORS FOR BULK MATERIALS

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*PREPARED BY*  
THE BELT BOOK COMMITTEE  
*OF THE*  
*BULK HANDLING SECTION*  
*OF THE*  
CEMA ENGINEERING CONFERENCE

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### INTRODUCTION

A trouble-free belt conveyor operation is the product of three properly executed stages of development followed by an effective maintenance program.

1. Design
2. Manufacturing
3. Installation

Less than satisfactory performance in any of these developmental stages will negatively impact all others, resulting in unanticipated operating problems.

CEMA Standards and Belt Conveyors for Bulk Materials already addressed many of the design and maintenance considerations critical to proper operation. It is not our intent to specify minimum levels of manufacturing quality. Indeed, it is the responsibility of each manufacturer to produce a product of which he and the user agree are suitable for the intended use.

This document will specify minimum standards for acceptable tolerances for structural and mechanical erection and installation of belt conveyors. In addition, it will provide helpful suggestions that can be utilized to meet or exceed these standards. Each item will be addressed in the sequence in which it is encountered in the field.

### NOTES

- It is important that ANSI lockout procedures be followed when making adjustments to bring conveyor machinery into tolerance (ref: ASME B15.1, B20.1, and ANSI Z244.1).
- All mechanical tolerances and benchmarks should be documented by millwrights.

### CONVEYOR STRINGER ALIGNMENT

Trusses and channel frame conveyor stringers must be installed parallel, straight, square, and level to allow proper belt training. During installation, dimensional checks shall be made to insure that the following tolerances in the idler carrying chords are not exceeded.

Note: These tolerances are guidelines for design / manufacture to facilitate proper idler and belt alignment in accordance with the Idler Alignment section of this standard. The overriding issue is idler and belt alignment as opposed to structural alignment.

### PARALLEL

A maximum tolerance of  $\pm 1/8$ " inch shall be allowed for the "back to back" dimension in channel frame or angle stringers. Similarly,  $\pm 1/8$ " inch shall be allowed between webs of I-beams, wide flange beams, or tees when used as truss chords (Figure 1).

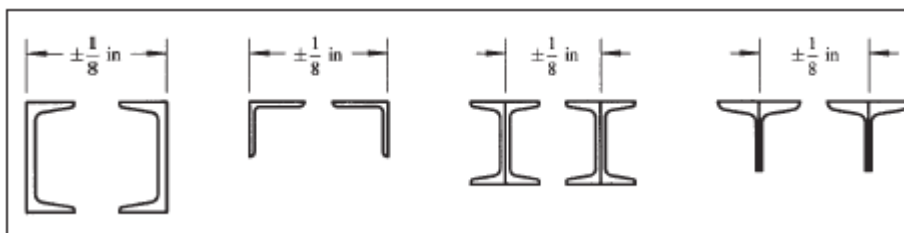


FIGURE 1

Maximum tolerance for back to back parallel dimension