



Conveyor Installation Standards for Belt Conveyors Handling Bulk Materials

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This publication is Appendix D of the seventh edition of the CEMA Belt Book "Belt Conveyors for Bulk Materials". While the content is identical, it has been re-formatted to conform to CEMA style guidelines for stand-alone documents.

Conveyor Equipment Manufacturers Association

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INTRODUCTION

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

- Design
- Manufacturing
- 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 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 used 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 $\pm 1/8$ in (± 3 mm) shall be allowed for the "back to back" dimension in channel frame or angle stringers. Similarly, $\pm 1/8$ in (± 3 mm) shall be allowed between webs of I-beams, wide flange beams, or tees when used as truss chords, Figure 1.

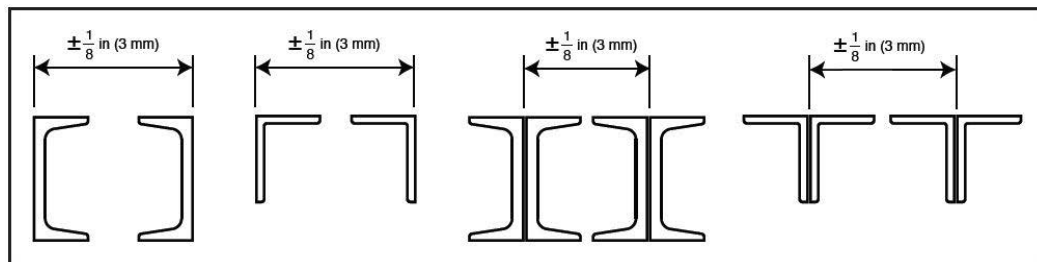


Figure 1. Maximum back to back parallel tolerance