

ANSI/CEMA 300-2009
A Revision of ANSI/CEMA 300-2003
Approved: April 1, 2009



Conveyor Equipment Manufacturers Association



Screw Conveyor Dimensional Standards

CEMA Standard #300

Fourth Edition

ISBN # 978-1891171-39-0

This is a preview. [Click here to purchase the full publication.](#)

DISCLAIMER

The information provided herein is advisory only.

These recommendations provided by CEMA are general in nature and are not intended as a substitute for professional advice. Users should seek the advice, supervision and/or consultation of qualified engineers, safety consultants, and other qualified professionals.

Any use of this publication, or any information contained herein, or any other CEMA publication is made with agreement and understanding that the user and the user's company assume full responsibility for the designs, safety, specifications, suitability and adequacy of any conveyor system, system component, mechanical or electrical device designed or manufactured using this information.

The user and user's company understand and agree that CEMA, its member companies, its officers, agents and employees are not and shall not be liable in any manner under any theory of liability to anyone for reliance on or use of these recommendations. The user and the user's companies agree to release, hold harmless and indemnify and defend CEMA, its member companies, successors, assigns, officers, agents and employees from any and all claims of liability, costs, fees (including attorney's fees), or damages arising in any way out of the use of this information.

CEMA and its member companies, successors, assigns, officers, agents and employees make no representations or warranties whatsoever, either expressed or implied, about the information contained herein, including, but not limited to, representations or warranties that the information and recommendations contained herein conform to any federal, state or local laws, regulations, guidelines or ordinances.

Conveyor Equipment Manufacturers Association

5672 Strand Ct, Suite 2
Naples, Florida 34110-3314

www.cemanet.org

Copyright © 2019

FOREWORD

This publication, CEMA Standard No. 300 “Screw Conveyor Dimensional Standards”, provides recommended dimensional sub-standards for major screw conveyor components. All dimensions and tolerances are based on Carbon Steel Fabrication.

These recommended sub-standards are issued in conjunction with CEMA Standard No. 350 “Screw Conveyors”. “Screw Conveyors” is a comprehensive manual of engineering and application practice for screw conveyors.

Both publications are also American National Standards.

SUMMARY OF CHANGES

In 1999 Edition, all drawings were redrawn to provide greater clarity and ease of interpretation; the need for Safety Labeling has been emphasized in the “Safety Notice”; trough tolerances were changed from $\pm 1/32$ ” to $\pm 1/16$ ”; hex head bolts replaced countersunk bolts in sub-standards 300-013 and 300-014. In sub-standard 300-033, note has been modified to allow the manufacturer the option of having the flush end discharge the same dimension as U-Trough End Plates.

The 2003 Edition had no changes made to it, however, the 2009 Edition was revised by adding a 34th Standard called “Shaftless Conveyor Screws”.

The 2015 Edition, the Screw Conveyor Section revised and modified sub-standards 300-001 (18-inch dimensions were added to the table), 300-020 (CEMA 216 hanger bearings dimensions and tolerances were added), 300-021 (CEMA 226 hanger bearings dimensions and tolerances were added), 300-022 (some data was modified)

In 2019 Edition, it was reviewed and modified sub-standards: 300-001 (Dimension B should read “Nominal Thickness” after determining that everyone's machine will vary in the thickness based on the quality of the machine), 300-019 was separate in two sub-standards, 300-019A 2-Bolts Coupling Shafts and 300-019B 3-Bolts Coupling Shafts and dimensions for 3 15/16”, 4 7/16” and 4 15/16” were added; a balance of dimension on the 300-013 and 300-014 were added and review of the “J and “K” dimension in 300-013. Some sub-standards were reviewed to add the dimensions for 30 and 36” including the hangers.

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, CEMA 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 www.cemanet.org/safety-labels-2/

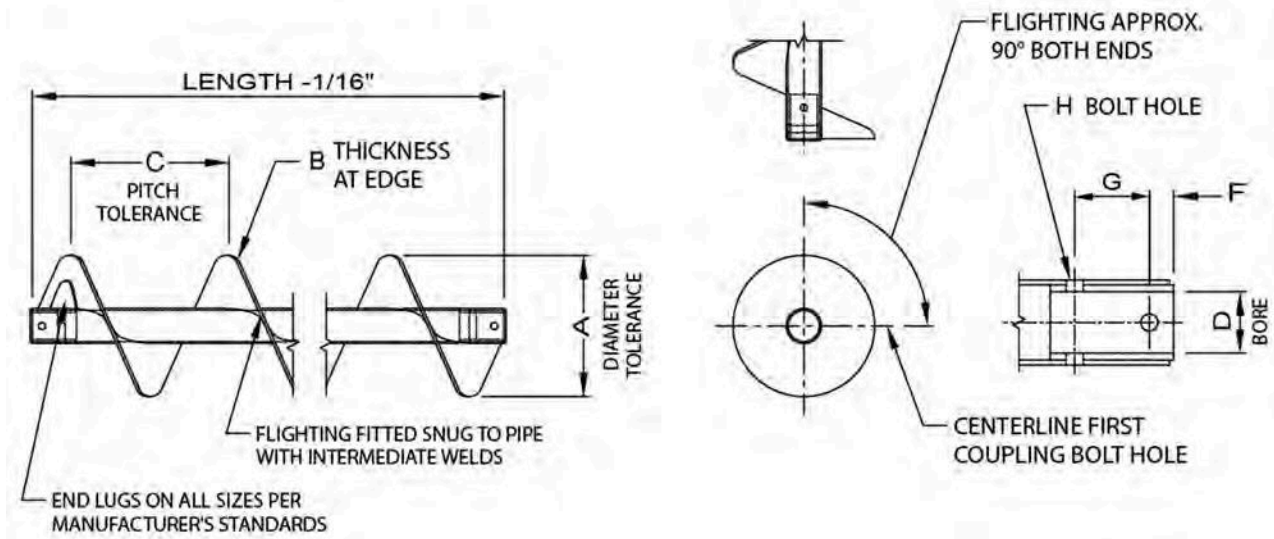
PLEASE NOTE: Should any of the safety labels supplied by the equipment manufacturer become unreadable for any reason, the equipment USER is then responsible for replacement and location of these safety labels.

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

TABLE OF CONTENTS

Sub-Standard	Description
300-001	Helicoid Conveyor Screws
300-002	Sectional Flight Conveyor Screws
300-003	Cut-and-Folded Flight Conveyor Screw
300-004	Cut Flight Conveyor Screw
300-005	Conveyor Screws with Paddles
300-006	Ribbon Flight Conveyor Screws
300-007	Paddle Conveyor Screws
300-008	Paddles
300-009	Angle U-Trough
300-010	Flared Trough
300-011	Conveyor Discharge Spouts, Plain
300-012	Hand Slides for Conveyor Discharge Spouts
300-013	U-Trough End Plates
300-014	Flared Trough End Plates
300-015	U-Trough Flange Bolt Hole Patterns
300-016	Flared Trough Flange Bolt Hole Patterns
300-017	Drive Shafts
300-018	End Shafts
300-019A	2-Bolts Coupling Shafts
300-019B	3-Bolts Coupling Shafts
300-020	Type 216 Hangers
300-021	Type 226 Hangers
300-022	Coupling Bolts with Nuts
300-023	U-Trough Flanged Covers
300-024	U-Trough Semi-Flanged Covers

Sub-Standard	Description
300-025	U-Trough Flat Covers
300-026	Double Flanged U-Troughs
300-027	Type 270 Ball Bearing Hangers
300-028	Type 326 Hangers
300-029	Type 316 Hangers
300-030	Packing Seal Housing
300-031	Shrouds
300-032	Conveyor Inlet Spout Flanged
300-033	Conveyor Discharge Spouts
300-034	Shaftless Conveyor Screws

Sub-Standard 300-001**Helicoid Conveyor Screws**

Listed Screw Diameter and Pitch (in)	Coupling Diameter (in)	Size Designation	Pipe Size SCH 40 (in)	Length (in)	A		B		C		D		F	G	H						
					Diameter Tolerance (in)		Thickness (in)		Pitch Tolerance (in)		Bushing Bore Inside Diameter (in)										
					Plus	Minus	Inner Edge	Nominal Outer Edge	Plus	Minus	Min.	Max.									
6	1 1/2	6H304	2	118	1/16	3/16	1/8	1/16	1/2	1/4	1.505	1.516	7/8	3	17/32						
		6H308					1/4	1/8	3/4												
		6H312					3/8	3/16	3/4												
9	1 1/2	9H306	2	118	1/16	3/16	3/16	3/32	3/4	1/4	1.505	1.516	7/8	3	17/32						
		9H312					3/8	3/16				2.016			21/32						
		9H406					3/16	3/32													
	2	9H412	2 1/2			1/4	3/8	3/16				2.016			21/32						
		9H414					7/16	7/32													
12	2	12H408	2 1/2	142	1/8	5/16	1/4	1/8	1	1/4	2.005	2.016	7/8	3	21/32						
		12H412					3/8	3/16													
		12H508					1/4	1/8			2.443	2.458									
	2 7/16	12H512	3			141	5/16	3/8			3/16	3.005	3.025			15/16	1	25/32			
		12H614						3 1/2			141								3/8	7/16	7/32
		3																			
14	2 7/16	14H508	3	141	1/8	5/16	1/4	1/8	1	1/4	2.443	2.458	15/16	3	21/32						
	3	14H614	3 1/2			3/8	7/16	7/32			3.005	3.025			1	25/32					
16	3	16H610	3 1/2	141	1/8	3/8	5/16	5/32	1 1/2	1/4	3.005	3.025	1	3	25/32						
		16H416					7/16	7/32													
18	3	18H610	3 1/2	141	3/16	3/8	5/16	5/32	1 1/2	1/4	3.005	3.025	1	3	25/32						

NEW IMAGES – 300-001

