

**AMERICAN NATIONAL STANDARD**

**ANSI/ISA-75.08.05-2016**

Formerly ANSI/ISA-75.15-1994

**Face-to-Face Dimensions for  
Buttweld-End Globe-Style Control  
Valves (Class 150, 300, 600, 900,  
1500, and 2500)**

Approved 28 July 2016

ANSI/ISA-75.08.05-2016  
Face-to-Face Dimensions for Butt-weld-End Globe-Style Control Valves  
(Classes 150, 300, 600, 900, 1500, and 2500)

ISBN: 978-1-945541-01-8

Copyright © 2016 by the International Society of Automation (ISA). All rights reserved. Not for resale. Printed in the United States of America. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means (electronic mechanical, photocopying, recording, or otherwise), without the prior written permission of the Publisher.

ISA  
67 Alexander Drive  
P.O. Box 12277  
Research Triangle Park, North Carolina 27709

## Preface

This preface, as well as all footnotes and annexes, is included for information purposes and is not part of ANSI/ISA-75.08.05-2016.

The standards referenced within this document may contain provisions which, through reference in this text, constitute requirements of this document. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this document are encouraged to investigate the possibility of applying the most recent editions of the standards indicated within this document. Members of IEC and ISO maintain registers of currently valid International Standards. ANSI maintains registers of currently valid U.S. National Standards.

This document has been prepared as part of the service of ISA toward a goal of uniformity in the field of instrumentation. To be of real value, this document should not be static but should be subject to periodic review. Toward this end, the Society welcomes all comments and criticisms and asks that they be addressed to the Secretary, Standards and Practices Board; ISA; 67 Alexander Drive; P. O. Box 12277; Research Triangle Park, NC 27709; Telephone (919) 549-8411; Fax (919) 549-8288; E-mail: standards@isa.org.

The ISA Standards and Practices Department is aware of the growing need for attention to the metric system of units in general, and the International System of Units (SI) in particular, in the preparation of instrumentation standards. The Department is further aware of the benefits to USA users of ISA standards of incorporating suitable references to the SI (and the metric system) in their business and professional dealings with other countries. Toward this end, this Department will endeavor to introduce SI-acceptable metric units in all new and revised standards, recommended practices, and technical reports to the greatest extent possible. *Standard for Use of the International System of Units (SI): The Modern Metric System*, published by the American Society for Testing & Materials as IEEE/ASTM SI 10-97, and future revisions, will be the reference guide for definitions, symbols, abbreviations, and conversion factors.

It is the policy of ISA to encourage and welcome the participation of all concerned individuals and interests in the development of ISA standards, recommended practices, and technical reports. Participation in the ISA standards-making process by an individual in no way constitutes endorsement by the employer of that individual, of ISA, or of any of the standards, recommended practices, and technical reports that ISA develops.

**CAUTION — ISA DOES NOT TAKE ANY POSITION WITH RESPECT TO THE EXISTENCE OR VALIDITY OF ANY PATENT RIGHTS ASSERTED IN CONNECTION WITH THIS DOCUMENT, AND ISA DISCLAIMS LIABILITY FOR THE INFRINGEMENT OF ANY PATENT RESULTING FROM THE USE OF THIS DOCUMENT. USERS ARE ADVISED THAT DETERMINATION OF THE VALIDITY OF ANY PATENT RIGHTS, AND THE RISK OF INFRINGEMENT OF SUCH RIGHTS, IS ENTIRELY THEIR OWN RESPONSIBILITY.**

**PURSUANT TO ISA'S PATENT POLICY, ONE OR MORE PATENT HOLDERS OR PATENT APPLICANTS MAY HAVE DISCLOSED PATENTS THAT COULD BE INFRINGED BY USE OF THIS DOCUMENT AND EXECUTED A LETTER OF ASSURANCE COMMITTING TO THE GRANTING OF A LICENSE ON A WORLDWIDE, NON-DISCRIMINATORY BASIS, WITH A FAIR AND REASONABLE ROYALTY RATE AND FAIR AND REASONABLE TERMS AND CONDITIONS. FOR MORE INFORMATION ON SUCH DISCLOSURES AND LETTERS OF ASSURANCE, CONTACT ISA OR VISIT WWW.ISA.ORG/STANDARDSPATENTS.**

**OTHER PATENTS OR PATENT CLAIMS MAY EXIST FOR WHICH A DISCLOSURE OR LETTER OF ASSURANCE HAS NOT BEEN RECEIVED. ISA IS NOT RESPONSIBLE FOR IDENTIFYING PATENTS OR PATENT APPLICATIONS FOR WHICH A LICENSE MAY BE REQUIRED, FOR**

**CONDUCTING INQUIRIES INTO THE LEGAL VALIDITY OR SCOPE OF PATENTS, OR DETERMINING WHETHER ANY LICENSING TERMS OR CONDITIONS PROVIDED IN CONNECTION WITH SUBMISSION OF A LETTER OF ASSURANCE, IF ANY, OR IN ANY LICENSING AGREEMENTS ARE REASONABLE OR NON-DISCRIMINATORY.**

**ISA REQUESTS THAT ANYONE REVIEWING THIS DOCUMENT WHO IS AWARE OF ANY PATENTS THAT MAY IMPACT IMPLEMENTATION OF THE DOCUMENT NOTIFY THE ISA STANDARDS AND PRACTICES DEPARTMENT OF THE PATENT AND ITS OWNER.**

**ADDITIONALLY, THE USE OF THIS DOCUMENT MAY INVOLVE HAZARDOUS MATERIALS, OPERATIONS OR EQUIPMENT. THE DOCUMENT CANNOT ANTICIPATE ALL POSSIBLE APPLICATIONS OR ADDRESS ALL POSSIBLE SAFETY ISSUES ASSOCIATED WITH USE IN HAZARDOUS CONDITIONS. THE USER OF THIS DOCUMENT MUST EXERCISE SOUND PROFESSIONAL JUDGMENT CONCERNING ITS USE AND APPLICABILITY UNDER THE USER'S PARTICULAR CIRCUMSTANCES. THE USER MUST ALSO CONSIDER THE APPLICABILITY OF ANY GOVERNMENTAL REGULATORY LIMITATIONS AND ESTABLISHED SAFETY AND HEALTH PRACTICES BEFORE IMPLEMENTING THIS DOCUMENT.**

**THE USER OF THIS DOCUMENT SHOULD BE AWARE THAT THIS DOCUMENT MAY BE IMPACTED BY ELECTRONIC SECURITY ISSUES. THE COMMITTEE HAS NOT YET ADDRESSED THE POTENTIAL ISSUES IN THIS VERSION.**

ISA ([www.isa.org](http://www.isa.org)) is a nonprofit professional association that sets the standard for those who apply engineering and technology to improve the management, safety, and cybersecurity of modern automation and control systems used across industry and critical infrastructure. Founded in 1945, ISA develops widely used global standards; certifies industry professionals; provides education and training; publishes books and technical articles; hosts conferences and exhibits; and provides networking and career development programs for its 40,000 members and 400,000 customers around the world.

ISA owns [Automation.com](http://Automation.com), a leading online publisher of automation-related content, and is the founding sponsor of The Automation Federation ([www.automationfederation.org](http://www.automationfederation.org)), an association of non-profit organizations serving as "The Voice of Automation." Through a wholly owned subsidiary, ISA bridges the gap between standards and their implementation with the ISA Security Compliance Institute ([www.isasecure.org](http://www.isasecure.org)) and the ISA Wireless Compliance Institute ([www.isa100wci.org](http://www.isa100wci.org)).

The following people served as members of ISA Subcommittee ISA75.08 and approved ANSI/ISA-75.08.05-2016:

<b>NAME</b>	<b>COMPANY</b>
W. Weidman, Chair	Consultant
V. Mezzano, Managing Director	Fluor Corporation
H. Baumann	H B Services Partners LLC
F. Cain	Flowserve Corporation
R. Duimstra	Fisher Controls International Inc.
J. Young	The Dow Chemical Company

The following people served as members of ISA Committee ISA75 and approved ANSI/ISA-75.08.05-2016:

<b>NAME</b>	<b>COMPANY</b>
J. Young, Chair	The Dow Chemical Company
V. Mezzano, Co-Managing Director	Fluor Corporation
W. Weidman, Co-Managing Director	Consultant

A. Abromaitis	S&T Design
H. Baumann	H B Services Partners LLC
J. Beall	Emerson Process Management
M. Bober	SPX Flow Technology
H. Boger	Consultant
S. Boyle	Consultant
F. Cain	Flowserve Corporation
R. Duimstra	Fisher Controls International Inc.
J. Faramarzi	Control Components Inc.
C. Hergert	Kellogg Brown & Root
H. Hoffmann	Consultant
J. Kiesbauer	Samson Aktiengesellschaft
A. Libke	DeZURIK
G. Liu	Consultant
T. Loudin	Larox Flowsys Inc.
D. Martin	Valve Solutions Ltd.
H. Maxwell	Haines Fluid Dynamics
H. Miller	Consultant
A. Sahraei	Enbridge Pipelines Inc LP
E. Skovgaard	Consultant

This standard was approved by the ISA Standards and Practices Board on 18 July 2016:

<b>NAME</b>	<b>COMPANY</b>
N. Sands, Vice President	DuPont
D. Bartusiak	ExxonMobil Research & Engineering
P. Brett	Honeywell Inc.
E. Cosman	OIT Concepts, LLC
D. Dunn	Phillips 66
J. Federlein	Federlein & Assoc. LLC
B. Fitzpatrick	Wood Group Mustang
J. Gilsinn	Kenexis Consulting
J.-P. Hauet	KB Intelligence
J. Jamison	Encana Corp.
D. Lee	UCDS
K.-P. Lindner	Endress+Hauser Process Solutions AG
T. McAviney	Consultant
V. Mezzano	Fluor Corp.
C. Monchinski	Automated Control Concepts Inc.
D. Reed	Rockwell Automation
H. Sasajima	Fieldcomm Group Inc. Asia-Pacific
T. Schnaare	Rosemount Inc.
J. Tatera	Tatera & Associates Inc.
K. Unger	Consultant
I. Verhappen	Industrial Automation Networks
D. Visnich	Burns & McDonnell
W. Weidman	Consultant
J. Weiss	Applied Control Solutions LLC
M. Wilkins	Yokogawa
D. Zetterberg	Chevron Energy

This page intentionally left blank.

## Contents

1	Scope .....	9
2	Purpose.....	9
3	Definitions .....	9
4	Dimensional data .....	9
5	References.....	11
	Annex A — Dimensions for metrically sized valves .....	13

This is a preview of "ANSI/ISA 75.08.05-20...". [Click here to purchase the full version from the ANSI store.](#)

This page intentionally left blank.



## 1 Scope

This standard applies to buttweld-end globe-style control valves, sizes 15 mm (1/2 inch) through 450 mm (18 inches) for Classes 150 through 2500, having top, top and bottom, port, or cage guiding.

## 2 Purpose

2.1 The purpose of this standard is to aid users in their piping designs by providing buttweld-end globe-style control valve dimensions, without giving special consideration to the equipment manufacturer to be used.

2.2 The short-long dimensions provided in Table 1 clarify 2.1 by consolidating the diversity of existing manufacturers' lengths into two sets of dimensions for each valve size. Before using either the short or long dimensions, the piping designer should confirm with the selected valve manufacturer which dimension is correct for the valve(s) being supplied.

## 3 Definitions

For definitions of terms used in this standard, see ISA-75.05.01, Control Valve Terminology.

## 4 Dimensional data

For face-to-face dimensions for buttweld-end globe-style control valves, see Table 1.