

ASME B89.7.3.3-2002

GUIDELINES FOR ASSESSING THE RELIABILITY OF DIMENSIONAL MEASUREMENT UNCERTAINTY STATEMENTS

AN AMERICAN NATIONAL STANDARD



**The American Society of
Mechanical Engineers**

Intentionally left blank



The American Society of
Mechanical Engineers

A N A M E R I C A N N A T I O N A L S T A N D A R D

GUIDELINES FOR ASSESSING THE RELIABILITY OF DIMENSIONAL MEASUREMENT UNCERTAINTY STATEMENTS

ASME B89.7.3.3-2002

Date of Issuance: February 21, 2003

This Standard will be revised when the Society approves the issuance of a new edition. There will be no addenda issued to this edition.

ASME will issue written replies to inquiries concerning interpretation of technical aspects of this Standard.

ASME is the registered trademark of The American Society of Mechanical Engineers.

This code or standard was developed under procedures accredited as meeting the criteria for American National Standards. The Standards Committee that approved the code or standard was balanced to assure that individuals from competent and concerned interests have had an opportunity to participate. The proposed code or standard was made available for public review and comment that provides an opportunity for additional public input from industry, academia, regulatory agencies, and the public-at-large.

ASME does not "approve," "rate," or "endorse" any item, construction, proprietary device, or activity.

ASME does not take any position with respect to the validity of any patent rights asserted in connection with any items mentioned in this document, and does not undertake to insure anyone utilizing a standard against liability for infringement of any applicable letters patent, nor assume any such liability. Users of a code or standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, is entirely their own responsibility.

Participation by federal agency representative(s) or person(s) affiliated with industry is not to be interpreted as government or industry endorsement of this code or standard.

ASME accepts responsibility for only those interpretations of this document issued in accordance with the established ASME procedures and policies, which precludes the issuance of interpretations by individuals.

No part of this document may be reproduced in any form,
in an electronic retrieval system or otherwise,
without the prior written permission of the publisher.

The American Society of Mechanical Engineers
Three Park Avenue, New York, NY 10016-5990

Copyright © 2003 by
THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS
All Rights Reserved
Printed in U.S.A.

CONTENTS

Foreword		iv
Committee Roster		v
Correspondence With the B89 Committee		vi
Abstract		1
1	Scope	1
	1.1 Objective	1
	1.2 Applicability	1
	1.3 Purpose	1
2	Definitions	1
3	The Nature of Disagreements in Uncertainty Statements	2
	3.1 General	2
	3.2 Disagreements Involving Single Measurement Systems	2
	3.3 Disagreements Involving Multiple Measurement Systems	2
4	Causes of Disagreement in Measurement Results Having Uncertainty Statements	4
	4.1 General	4
	4.2 Blunders	4
	4.3 GUM Noncompliance and Uncorrected Systematic Errors	4
	4.4 Poorly Realized or Incompletely Define Measurand	4
	4.5 Statistically Rare Measurement Results	5
	4.6 Incomplete Uncertainty Statements	5
5	Methods of Resolution	5
	5.1 General	5
	5.2 Significance of Disagreement	5
	5.3 Comparison of Uncertainty Budgets	6
	5.4 Direct Measurement of the Measurand	8
6	References	10
Figures		
	1 Examples of Measurement Agreement and Disagreement	3
	2 Example of Product Conformance Disagreement	3

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-