

**ANSI/ASA S2.28-2009**  
**(Revision of ANSI S2.28-2003)**

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**AMERICAN NATIONAL STANDARD**

**Guide for the Measurement and Evaluation of Broadband  
Vibration of Surface Ship Auxiliary Rotating Machinery**

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**ANSI/ASA S2.28-2009**

**Accredited Standards Committee S2, Mechanical Vibration and Shock**

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Standards Secretariat  
Acoustical Society of America  
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**ANSI/ASA S2.28-2009**  
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AMERICAN NATIONAL STANDARD

**Guide for the Measurement and Evaluation of  
Broadband Vibration of Surface Ship  
Auxiliary Rotating Machinery**

**Secretariat:**

**Acoustical Society of America**

**Approved April 1, 2009 by:**

**American National Standards Institute, Inc.**

**Abstract**

This Standard contains procedures for the measurement and evaluation of broadband mechanical vibration of non-reciprocating auxiliary machines on surface ships, as measured on non-rotating parts. It applies to acceptance tests on new machinery (shop tests or on-board tests) and to *in-situ* tests on existing machinery on board ship. This American National Standard is related to the ISO 10816 series that provides guidelines for the evaluation of different types of machines.

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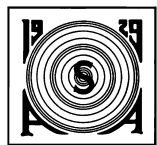
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## Foreword

[This Foreword is for information only, and is not a part of the American National Standard ANSI/ASA S2.28-2009 American National Standard Guide for the Measurement and Evaluation of Broadband Vibration of Surface Ship Auxiliary Rotating Machinery.]

This standard comprises a part of a group of definitions, standards, and specifications for use in mechanical vibration and shock. It was developed and approved by Accredited Standards Committee S2, Mechanical Vibration and Shock, under its approved operating procedures. Those procedures have been accredited by the American National Standards Institute (ANSI). The scope of Accredited Standards Committee S2 is as follows:

*Standards, specification, methods of measurement and test, and terminology in the field of mechanical vibration and shock, and condition monitoring and diagnostics of machines, including the effects of exposure to mechanical vibration and shock on humans, including those aspects which pertain to biological safety, tolerance and comfort.*

This standard is a revision of ANSI S2.28-2003, which has been technically and editorially revised. The major changes in this edition include revised zone limits based on statistical analysis and the addition of limits for continuous and periodic monitoring.

This standard is not comparable to any existing ISO Standard, but it is related to the ISO 10816 series.

At the time this Standard was submitted to Accredited Standards Committee S2, Mechanical Vibration and Shock for approval, the membership was as follows:

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Suggestions for improvements to this standard will be welcomed. They should be sent to Accredited Standards Committee S2, Mechanical Vibration and Shock, in care of the Standards Secretariat of the Acoustical Society of America, 35 Pinelawn Road, Suite 114E, Melville, New York 11747-3177. Telephone: +1 631 390-0215; Fax: +1 631 390-0217; E-mail: [asastds@aip.org](mailto:asastds@aip.org).