



BEARING SPECIALISTS ASSOCIATION

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BEARING SPECIFIC TOPICS

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Linear Bearings
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Bearing Standards

ABMA/ANSI/ISO: A summary of each organization as they relate to the development of bearing standards.

ABMA: American Bearing Manufacturers Association

The American Bearing Manufacturers Association (ABMA), formerly the Anti Friction Bearing Manufacturers Association, plays an important leadership role in an important industry. ABMA is the only U.S. trade organization representing manufacturers of bearings and bearing components. Through its headquarters in Washington, D.C., the ABMA defines national and international standards for bearing products; compiles market statistics; offers targeted educational programs; conducts industry conferences; and maintains contacts with elected officials and representatives from key government agencies.

Membership in the ABMA is open to any firm in which a substantial part of its business includes the manufacture, in the United States, of bearings and major components used in those products.

ABMA: National and International Standards

ABMA cooperates with the American National Standards Institute (ANSI) in the development of bearing related standards. ABMA is an accredited standards developer through ANSI. ABMA develops industry standards, which are submitted to ANSI for approval as American National Standards. ABMA, as many other standards developers, have begun to adopt ISO standards as ANSI standards. Once adopted, they become ABMA/ANSI/ISO standards.

The ABMA is also responsible for developing and conveying the United States' position on all proposals for the ISO's Technical Committee 4 (TC4) concerning bearings. The U.S. Technical Advisory Committee (TAG) reviews all materials and submits a vote to ANSI which, in turn, is sent to the Secretariat of TC4.

ABMA is the Secretariat of:

- The ANSI Accredited National Standards Committee on Rolling Elements Bearings which is responsible for approval of bearing standards.
- Three subcommittees of ISO's Technical Committee 4 on Rolling Bearings and Spherical Plane Bearings, SC6, SC9, SC11.
- The subcommittee on airframe bearings for ISO Technical Committee 20.

ABMA has published a complete set of bearing standards for ball and roller bearings and balls. More information on ABMA and their standards can be found at www.abma-dc.org.

ANSI: American National Standards Institute

Headquartered in Washington, D.C., ANSI is a private, non-profit organization that administers and coordinates the U.S. voluntary standardization and conformity assessment system. The institute's mission is to enhance both the global competitiveness of U.S. business and the U.S. quality of life by promoting and facilitating voluntary consensus standards and conformity assessment systems, and safeguarding their integrity.

ANSI: National Standardization

ANSI does not itself develop American National Standards; rather it facilitates the development by establishing consensus among qualifying groups. Today there are approximately 14,650 American National Standards.

ANSI: International Standardization

ANSI promotes the use of U.S. standards internationally, advocates U.S. policy and technical positions in international and regional standards organizations. ANSI is the sole U.S. representative and dues paying member of the ISO. ANSI was a founding member of the ISO and plays an active role in its governance. ANSI participates in almost the entire technical program of the ISO (78%).

In many instances, U.S. standards are taken forward, through ANSI, to the ISO where they are adopted as international standards.

ISO: International Organization for Standardization

The ISO is a worldwide federation of national standards bodies from some 130 countries. The ISO's mission is to promote the development of standardization and related activities in the world with a view to facilitating the international exchange of goods and services, and to developing cooperation in the spheres of intellectual, scientific, technological and economic activity.

ISO: Who does the work?

The technical work of ISO is highly decentralized, carried out in a hierarchy of some 2,850 technical committees and working groups. The major responsibility for administering a standards committee is accepted by one of the national standards bodies that make up the ISO membership. ANSI is one such member.

The technical committee for bearings is "TC 4 Roller Bearings." The scope of the committee is the standardization of all types and all sizes of bearing elements based on the principle of rolling motion, their accessories, application and identification and standardization of spherical plain bearings.

One of the standards committees SC's for TC 4 is "TC4/SC 9 Tapered rolling bearings." The Secretariat for this committee is ANSI. The number of published ISO standards under the direct responsibility of the SC Secretariat is 4. One of them, for example, is ISO 10317:1992 Rolling bearings – Metric tapered roller bearings – Designation system.