



Value Beyond the Part™

About AST® Bearings

AST is a leading supplier of precision bearings and bearing related products across a large spectrum of customers — primarily OEMs and major distributors. We supply a wide range of industries such as aerospace, medical, food processing, green energy, robotics, high tech, industrial products and many more.

Since 1963, AST has been making our customers more competitive. We develop strong partnerships with our customers; these partnerships are based

on understanding our customers' challenges and providing innovative solutions.

AST embraces our role as a true product development partner. As precision bearing experts, AST recommendations go beyond bearing type, size and lubricant. Meticulously focusing on your application from the cutting edge of bearing technology, our engineering team uses custom criteria to ensure your best bearing choice.



The AST Advantage: Value Beyond the Part™

Beyond exceptional product quality, selection and availability, the value-added services at AST are what really set us apart from most other bearing suppliers.

Engineering, Consulting & Design

Professional engineering services to solve challenging design problems.

Bearing Applications Engineering

Selecting exactly the right product and specifications for your application.

Bearing Failure Analysis

Understand why bearings prematurely failed to remediate and prevent future occurrences.

Inspection & Verification

AST has the equipment and experience to provide inspection and product verification services on the bearings we provide and on third party bearings.

Bearing Lubrication & Re-Lubrication

Custom lubrication for optimum performance.

Micro Grade Grease Plating™

Unique AST lubrication process for low startup and consistent running torque.

Custom Packaging

Packaging designed to improve your production and shipping efficiencies.

Inventory Management

Assistance with JIT delivery and numerous other Supply Chain Management issues.



Ball and Roller Bearings, Plain Bearings and Related Products

AST® Bearings maintains a vast selection of miniature bearings and precision ball bearing products ready to ship from one of our Regional Operation Centers. Through our worldwide factory network, we can solve your specific product application needs quickly, cost effectively, and within the highest quality standards.



Miniature Ball Bearings

Miniature ball bearings have an outside diameter of less than 3/8" (<9.525 mm) or are small bearings with an outside diameter less than or equal to 1/2" (≤ 12.7 mm), having a ratio of outside diameter to inside diameter equal to or less than two. AST specializes in miniature bearings of all kinds so if you're looking for "small" bearings, we have them.



Instrument Ball Bearings

Instrument ball bearings are not limited to certain sizes. They are precision ball bearings that must meet two or more of the following conditions: low or uniform starting or running torque; smooth operation or vibration limitations; a definite contact angle or preload or both; high cleanliness standards.



Ball Bearings

Ball bearings can support moderate radial loads and moderate axial loads (parallel to the shaft). They can operate at high speeds. Ball bearings with shields or seals for protection can be lubricated to last for the operating life.



Roller Bearings

Roller bearings have high-radial load capacity. In comparison to ball bearings, tapered roller bearings offer the best combination of radial and axial load capacity. They operate at moderate to high speeds. The lubrication method must be carefully considered during the design phase when using roller bearings.



Bushings

Bushings, or plain bearings, operate with sliding motion between the moving surfaces. Bushings are selected based on the rotating speed and the applied load. Maintenance-free bushings do not require additional lubrication to operate.



Spherical Plain Bearings

Spherical plain bearings are used for applications requiring rotation and oscillation. The rotation takes place on a sliding surface so the limiting speed is slow. Most styles require regular lubrication, but maintenance-free styles are also available.



Pillow Blocks, Flanges, Take Up Units and Bearing Inserts

All are available in a variety of materials, mounting configurations and bearing features. Each mounted unit acts as a system to position the bearing securely for reliable operation.



Linear Bearings

Linear bushing bearings and linear way bearings incorporate several rows of re-circulating balls or rollers for low-friction and precise linear motion. Linear bushing bearings use a round shaft and linear way bearings have a rectangular shaped track.



Thrust Bearings

Thrust bearings are used for axial (parallel to the shaft) loading only. Roller thrust bearings have higher load carrying capacities than equally sized ball thrust bearings. Higher speed applications require oil lubrication.



Rod Ends

Rod ends consist of a spherical ball mounted in a housing, typically with male or female threads. They allow for oscillation/misalignment during slow rotation. Some rod end types require lubrication; other types are maintenance-free.



Sub-Assemblies

AST can conduct design reviews and provide precision mechanical sub-assemblies manufactured to your specifications. Our highly skilled technicians know the correct way to handle and install bearings and can provide you with a more reliable assembly at a significant cost savings.

Custom Bearings

AST can supply special bearings of all types including those with integral shafts that help reduce the tolerance buildup of mating components. Our engineers have designed bearings in a variety of configurations, special geometry, advanced lubrication and high tech materials.

If you need help in selecting the best products for your particular application, remember that design engineering and application assistance are available from AST as part of our **Value Beyond the Part™** services making your job easier.

Tap Into astbearings.com/resource-center

AST's agenda is very simple.

We want ...

- Your products: *performing better.*
- Your company: *more competitive.*
- Your job: *a whole lot easier.*

That's why we created AST's online Resource Center where you can get answers and solutions you need quickly, dependably, and best of all, for free. Including ...

- Over 10,000 Downloadable 3D CAD Models
- Online Product Catalog, Complete Specifications
- White Papers and Technical Information
- Bearing Selector Guide, Bearing Interchange and Cross Reference, Bearing Catalogs and Brochures, Bearing Blog, Bearing FAQs

Bearing Solutions: Industries & Applications

From the challenging to the mundane to the extreme, AST® Bearings provides bearing solutions for a wide range of industries and applications. A partial list of the industry applications where AST has the most experience includes:

- Aerospace & Defense
- Agricultural & Forestry
- Alternative Energy
- Anemometers
- ATMs & Card Readers
- Aviation Cargo Systems
- Bicycles
- Commercial Blenders
- Construction & Mining
- Dental Hand Tools
- Electrical Motors
- Engines
- Escalators & Elevators
- Fishing Reels
- Flight Support Systems
- Flow Meters
- Food Processing Equipment
- Galvanometers
- Gas Powered Motors
- Hydraulic Cylinders
- Industrial Blowers
- Industrial Mixers & Shakers
- Intrusion Detection Systems
- Lawn & Garden
- Material Handling Rollers
- Medical Diagnostic Equipment
- Medical Imaging Equipment
- Medical Surgical Tools
- Off Highway Cranes
- Optical Encoders
- Plastic Card Printers
- Power Hand Tools
- Printing Rollers
- Robotics
- Roller Doors
- Scissor & Platform Lifts
- Sensors & Potentiometers
- Solar Panel Actuators
- Stage Lighting
- Surveillance Systems
- Thermal Imaging Cameras
- Transportation Turnstile Gates



Going to Extremes

AST specializes in bearings that must function flawlessly in extreme performance conditions, including ...

- Miniature Applications
- High Heat
- Cryogenic
- Chemicals
- Salt
- Blood
- Sterilization
- Radiation
- High Speed
- Vibration
- Vacuum Environment



Quality Management Systems & Certifications

AST® Bearings enforces a rigorous quality control program to insure that each bearing shipped is made to the highest quality standard. Our goal is to meet and exceed application requirements and customer demands. Our quality management systems conform to and are certified ISO 9001:2008.

Many of AST's global customers face a variety of compliance issues and operate in a regulated environment. In addition to complying with the AS9100 quality standards, AST also maintains compliance programs for:

- Exports
- DFAR
- ITAR
- RoHS 2
- REACH
- WEEE
- Conflict Minerals





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To learn more, visit astbearings.com

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