Journal and Thrust Bearings

The bearings that you choose for your rotating equipment can mean the difference between reliable operation and costly repairs. Bearing design, style, size, material, fit, and manufacturing processes all play an important role in the overall performance of your equipment.

At Elliott Group, we work with you to ensure you make the right bearing choice to increase the reliability of your machines. For nearly 100 years, we have been designing and manufacturing high-quality journal and thrust bearings that improve the operational performance and reliability of axial compressors, centrifugal compressors, steam turbines, and expanders used throughout the world. Our design and engineering expertise allows us to produce bearings that fit perfectly and work flawlessly. This results in lower maintenance costs, extended operating life, and fewer unplanned outages.

Our full-range of bearing services includes:

- Fabrication of new journal and thrust bearings
- Bearing repair and babbitt services
- Reverse engineering
- On-demand emergency services
- 24/7 support

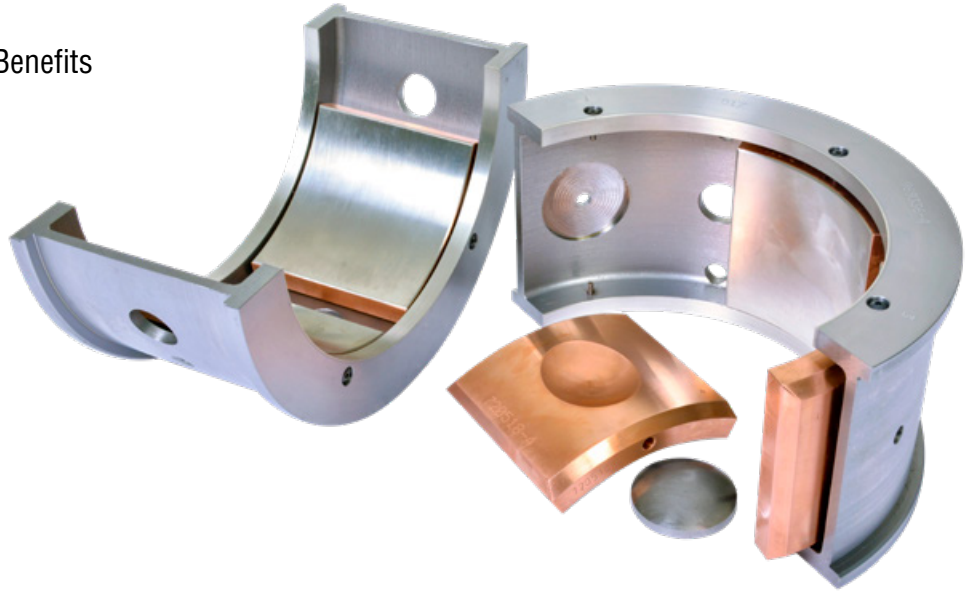
Journal Bearings

Elliott's spherical seat journal bearings are developed based on years of experience, testing, and application in the field. Each bearing is skillfully designed to follow and absorb movement for increased reliability, improved wear resistance, and reduced mechanical losses. We also offer a copper-backed option for high-speed applications to reduce bearing pad temperatures. Our journal bearings can also be instrumented with resistance temperature detectors (RTDs) or thermocouples (TCs) to monitor bearing temperature and equipment health.

Although Elliott recommends that older-style journal bearings be upgraded to spherical seat, Elliott also manufactures fixed profile (liner-type) and other styles of tilting pad journal bearings when the modern spherical seat design is not an option.

Spherical Seat Journal Bearing Benefits

- Improved rotor dynamics
- Streamlined maintenance
- Reduced maintenance costs
- Improved reliability
- Reduced bearing temperature and improved heat dissipation (copper-backed)

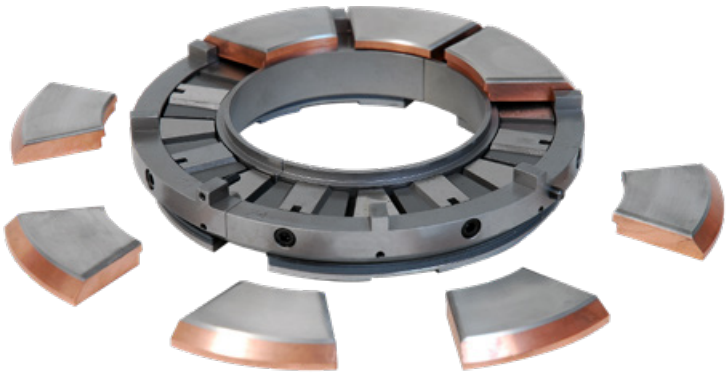


Thrust Bearings

Elliott's modern self-leveling thrust bearings have superior wear resistance, improved flexibility, and can carry a higher load than older style non-equalized or non-self-leveling thrust bearings. We also offer an offset pivot option to further increase load-carrying capabilities.

In addition to self-leveling, Elliott offers a directed lube design that consumes less oil, has low mechanical loss, and has the highest load-carrying capability.

Both styles can also be instrumented with RTDs or TCs to monitor bearing temperature, and both have copper-backed options for high-speed applications to reduce bearing pad temperatures.



Self-Leveling and Directed Lube Thrust Bearing Benefits

- Improved wear resistance
- Even load distribution to all pads
- Improved reliability
- Reduced oil requirements (directed lube)
- Reduced bearing temperature and improved heat dissipation (copper-backed)

Modern Manufacturing

Elliott is at the forefront of bearing design. We use modern manufacturing techniques and innovative equipment at our state-of-the art bearing manufacturing facility to produce steel and copper-backed journal and thrust bearings of all sizes. Our skilled technicians focus on building the highest-quality bearings that meet your exact specifications.

Our bearing manufacturing facility includes:

- 5-axis CNC machining to fabricate bearings of any size from start to finish
- Centrifugal casting machine to ensure the strongest bond integrity and safeguard the babbitt against impurities, gases, or imperfections
- Coordinate measuring machine to measure and inspect with extreme accuracy
- Environmentally controlled clean room for final dimensional inspection and bearing assembly

At Elliott, we specialize in manufacturing both journal and thrust bearings for your rotating equipment. We have the bearing manufacturing facility, engineering expertise, and technical know-how to design and manufacture the bearings that you need for your axial compressors, centrifugal compressors, steam turbines, and expanders. Contact Elliott today at info@elliott-turbo.com to learn more about bearing upgrades and other component upgrades that can improve the reliability of your turbomachinery.

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