Thin Section Bearings

Kaydon infinite® bearing solutions for Commercial Aerospace Applications

www.kaydonbearings.com
High-performance bearings that save weight

Real-film™ thin section bearings not only meet the demanding performance requirements of the commercial aviation industry, they help you save weight and improve fuel economy. Designed with a cross-section that stays constant as bore diameter increases, these precision components from Kaydon Bearings give you the dynamic capabilities of heavier bearings in a smaller envelope. Key benefits include:

- Weight savings
- Space savings
- Long life and reduced maintenance
- Excellent stiffness
- Reduced friction and low torque (even in extreme temperatures)

Over the past six decades or so, many thin section bearings have helped designers overcome countless challenges. They can help you, too. For one-on-one consultation with one of our expert application engineers, call Kaydon Bearings today.

Bears designed with your needs in mind

Many styles and sizes

Kaydon offers the industry’s most comprehensive range of thin section bearings, with bore sizes from 3/8” to 40” (9.53 mm to 1,016 mm) and cross sections from 0.02” to 1” (0.508 mm to 25.4 mm). Here is a summary of available styles, you’ll find full details in Kaydon’s Catalog 500, available in print or pdf format at www.kaydonbearings.com.

- Radial
- Angular
- 4-point contact
- Metric
- Open
- Sealed

Materials and options

Every Kaydon bearing is designed to meet or exceed specific requirements, then precision-manufactured for top performance and long life. Racings are typically made of AISI 52100 steel or 440C stainless steel with steel or ceramic race balls. We also make them of high temperature alloys, like IN718 steel, “Preosaic” and “Biac” (trademarks of Carpenter Technology Corp.). A variety of seals, shields and separators can be specified, as well as coatings and lubricants to meet specific customer requirements.

Duplex mountings

Duplex mounted bearings provide the best combination of high stiffness and high load capacity in demanding applications. Kaydon Super Duplex bearings have a single common race (inner or outer) with two ball paths, both ground in the same operation to maintain roundness and torque. This maximizes precision, assures alignment between the races despite load conditions or thermal cycling. Kaydon Cartridge bearings go a step further, with a single inner and single outer race for optimal performance.

Aircraft and aviation applications where high precision bearings are custom engineered to meet specific needs.

Openings — heavy-duty low and mid-speed

- Radial
- Angular
- 4-point contact
- Metric
- Open
- Sealed

- Radial
- Angular
- 4-point contact
- Metric
- Open
- Sealed

- Steel
- Ceramic
- Endurance® plating

- Ultra-Lite® bearings
- Extra-light weapons
- Stainless steel
- Corrosion resistance

- Duplex face-to-face
- Duplex back-to-back
- Ground for universal duplexing

Typical Applications

1. Flight control systems
2. Fan-gas and actuators
3. Landing gear
4. Rotors and transmissions
5. Radar and antenna

Advanced engineering and manufacturing capabilities

Custom designs

When it comes to bearing design, you’ll be hard pressed to find a more qualified source than Kaydon Bearings. With an average of over 20 years of experience in each of its six engineering and manufacturing divisions, our team is armed with the latest design software. Kaydon product engineers have what it takes to solve the toughest design problems. Custom solutions are a specialty.

AS9100C certification

Kaydon’s strategically located manufacturing and testing facilities have earned AS9100C certification, and assembly departments are ISO-certified. So, you can be assured of consistency. Manufacturing and other proven methodologies assure that customers get the quality and attention to detail they deserve.

Inspection and Analysis

Kaydon technicians conduct comprehensive bearing inspections with state-of-the-art equipment. They analyze everything from standard dimensions to runout shape, geometry and surface topography, and apply decades of real-world experience to interpret the results.

Customer support

Kaydon customers are supported by a dedicated service team from design through delivery, and beyond. Field service engineers are available globally from our Michigan headquarters and a network of qualified local distributors.

Kaydon Bearings: a proven partner

Kaydon Bearings, an SKF Group company, has been the foremost global manufacturer of standard and custom thin section bearings since introducing the thin section concept in the 1950s. We are also a leading manufacturer of high-level bearing assemblies and slewing ring bearings, and a major supplier of remanufactured and new replacement bearings.

Kaydon's history of innovation began when the fledgling Kaydon Engineering Corporation took on the challenge of designing and manufacturing large gun mount bearings for the U.S. Navy in World War II. We've been solving customers' problems — in a wide range of markets — ever since.

Engineered solutions proved a very successful strategy, and the company grew steadily through expansion and acquisitions. In 1984 it went public as Kaydon Corporation, producing a variety of performance-critical products for aerospace, industrial, energy, medical, and electronics customers.

Today Kaydon Bearings supplies leading companies in aerospace and other industries with high-precision bearings and assemblies they can count on, cycle after cycle. For more information, we invite you to visit www.kaydonbearings.com.

Visit www.kaydonbearings.com for the latest releases, newest features, and downloads of catalogs, white papers, software, and CAD drawings.

For 3-D CAD drawings, register/log in and click on the “Products” tab:
1. Choose a bearing type (e.g. Slewing ring bearing) from the drop-down menu, then a Series (e.g., RK slewing ring bearings)
2. Scroll to the bottom and click on a part number (e.g., RK6-25PIZ)
3. In the new screen, click the “Download” tab

Kaydon Bearings
2860 McCracken Street
Muskegon, Michigan 49441 U.S.A.
231.755.3741 tel
800.514.3066
231.759.4102 fax
bearings@kaydon.com
www.kaydonbearings.com

©2014 Kaydon Bearings Printed in USA, 3K 14-05-01 CAS