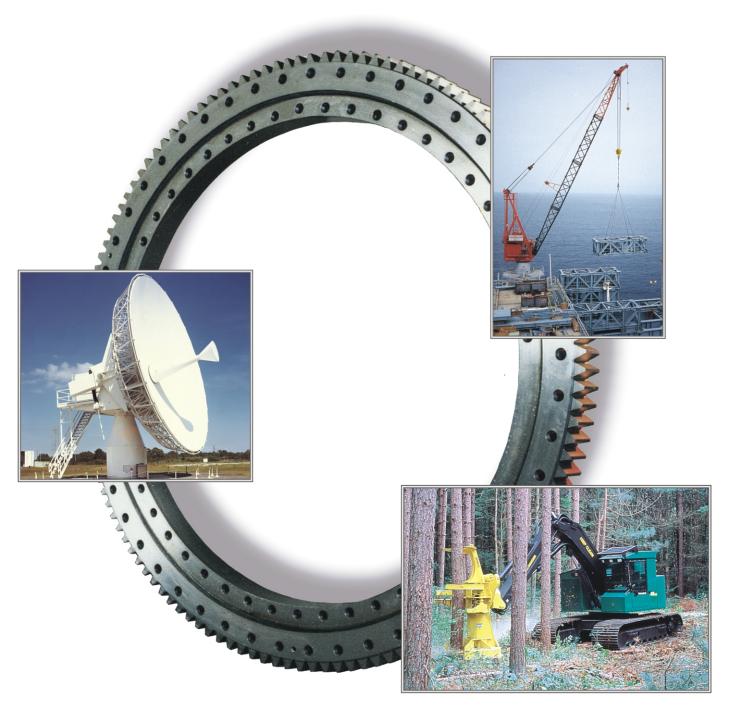
AVON BEARINGS



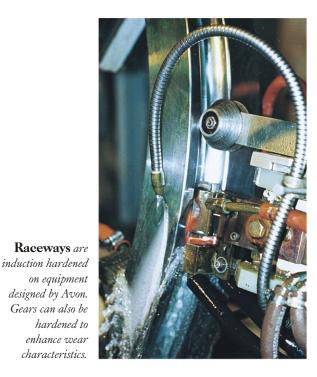
Large Diameter Turntable Bearings



Production...

Continuous development by our production and technical groups has produced a unique, yet very valuable resource: a manufacturing facility flexible enough to accept 1 and 2 piece contracts with regularity...change design characteristics in the midst of production...react quickly to customers' schedule modifications...and the ability to produce construction-grade as well as precision bearings.

Training, capital investments and technical support have allowed us to achieve high efficiencies. Our two cost-effective facilities in Avon, Ohio contain numerous custom designed machine tools supporting our efforts.



Special CNC machining centers drill bolt holes for mounting.



Internal and external gears can be cut to precision levels meeting AGMA Class 10.

Avon's outstanding support... Quality...

Avon's quality program meets the stringent requirement of MIL-I-45208. Additionally, audits are regularly conducted by both industry and government groups. Every characteristic on all bearings is inspected and documented. Individual inspection reports are maintained for every manufacturing operation as well as the final assembly. All inspection is accomplished with modern equipment specifically designed for our products.

100% of all Avon bearings are subject to nondestructive testing. To verify critical characteristics, destructive testing is performed on a sample basis.





Offshore cranes require turntable bearings meeting stringent specifications for design, material and manufacturing. Avon's technical professionals satisfy such demands which usually must comply with authorities such as API, DNV, Lloyd's and ABS.

Technical

Avon turntable bearings are custom designed for a specific application. This design effort is supported by sophisticated CAD software as well as state-of-the-art resources for static and dynamic load analysis. Our experienced technical professionals provide innovative solutions to the most difficult problems, quicker than anyone in the industry.

SERIES D

Description

Double row, angular contact ball, split race.

Typical Cross Section



Typical Applications

- Tower cranes
- Amusement rides
- Search radar
- Gun mounts
- Stacker cranes
- Fire control directors

Sample Application



Tower Cranes

Rolling Elements

Double Row Ball 1/2" to 2" Diameter Angular Contact

Raceway Diameter

20" to 230"

Gearing

Gearless designs as well as internal and external gearing.

<u>Fe</u>atures

Significant internal clearance to provide minimal turning torque.

Increased dynamic capacity over "Series M, H and T" given same unit size.

SERIES TR

Description

Triple row roller, split race.

Typical Cross Section



Typical Applications

- Marine cranes
- Tunnel borers
- Mooring buoys
- Telescopes
- Machine tools
- Stacker reclaimers

Sample Application



Tunnel Borer

Rolling Elements

Triple Row Roller 1/2" to 2" Diameter Axial and Radial Axis

Raceway Diameter

20" to 230"

Gearing

Gearless designs as well as internal and external gearing.

Features

Greatest static capacity given same unit size.

High degree of stiffness and rigidity. Requires stringent mounting structure precision.

EXTRA LARGE BEARINGS

- Outside diameters to 240" or 6.1 meters
- Integral Gearing
- Available in Series M, T, R, D and TR as well as other styles.

METRIC

All Avon bearings can be modified to metric specifications.

- Module Gearing
- Metric Threads
- Manufacture to meet JIS and DIN standards

PRECISION BEARINGS

Virtually any style of **Avon Bearing** can easily be modified to meet higher precision levels...

- Gearing to AGMA Class 10
- Minimal axial and radial runout
- Preloaded to enhance stiffness
- Precision ground mounting surfaces

AVON BEARINGS

SERIES M

Description

4 point contact ball, "L" cross-section one or both races.

Typical Cross Section



Typical Applications

- Stretch wrappers
- Gun turrets
- Welding positioners
- Forklift rotators
- Manlifts
- Industrial turntables

Sample Application



Gun Turret

Rolling Elements

Single Row Ball 3/4" Diameter 4 Point Contact

Raceway Diameter

16" to 43"

Gearing

Gearless designs as well as internal and external gearing.

Features

Pre-engineered with forgings in stock to allow for design changes, quick deliveries.

Machined mounting surfaces and ground raceways.

SERIES H, T

Description

4 point contact ball, rectangular cross-section.

Typical Cross Section



Typical Applications

- Cranes and excavators
- Log loaders
- Steel turnstiles
- Wind turbines
- Amusement rides
- Clarifiers and thickeners

Sample Application



Log Loader

Rolling Elements

Single Row Ball 1/2" to 3" Diameter 4 Point Contact

Raceway Diameter

12" to 230"

Gearing

Gearless designs as well as internal and external gearing.

Features

Most popular design for heavy-duty applications.

Increased static capacity over "Series R and D" given same unit size.

SERIES R

Description

Crossed roller with alternating axis, plug loaded.

Typical Cross Section



Typical Applications

- Radar
- Communication antennae
- Telescopes
- Missile launchers
- Stacker reclaimers
- Military turrets

Sample Application



Radar

Rolling Elements

Single Row Roller 1/2" to 2½" Diameter Alternating Axis

Raceway Diameter

12" to 230"

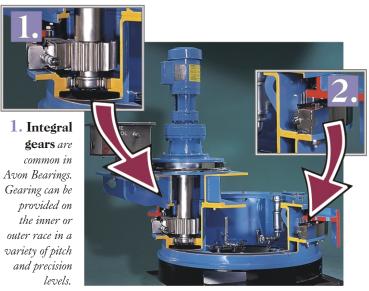
Gearing

Gearless designs as well as internal and external gearing.

Features

Increased dynamic capacity over "Series M, H and T" given same unit size.

High degree of stiffness and rigidity.



2. Avon Bearing races are manufactured from high carbon steel meeting stringent cleanliness specifications. Raceways are induction hardened to meet performance criteria.



The logging industry requires rugged, reliable equipment. Forest equipment such as feller bunchers and log loaders rely on an Avon Bearing. A 4-point contact bearing with an integral gear meets the demands of this application. Bearings are expected to perform virtually continuously in difficult environments and provide years of trouble-free service to the equipment owner.



Wind turbine generators utilize state-of-the-art technology to meet the most stringent cost-effectiveness criteria and plant demands of today's highly competitive electric power markets. An Avon 4-point contact ball bearing is the interface between the rotor and the blade to enable the pitch to be modified. Significant combination loads along with a low angle oscillation are complicating factors Avon has met. A unique seal design created by Avon restricts the flow of grease on the outboard side, further enhancing life.

Custom designed turntable bearings...

Supported by the industry's best service.

Since 1969 Avon Bearings has established mutually beneficial relationships with leading turntable bearing users involved in a wide range of applications. The foundation for these relationships is our outstanding service, unparalleled within the bearing industry.

Our service begins with the initial design process where we will respond with the most economically and technically efficient turntable bearing... and our response will be quicker than anyone else's.

Flexibility best describes our manufacturing facility. We have intentionally designed our production resources to provide maximum flexibility while remaining

cost-effective. Emergency breakdown situations as well as unforeseen changes in one's production schedule can usually be easily accommodated.

Unlike other companies, our service doesn't stop once the product ships. We offer support for many needs... comprehensive quality and inspection data to satisfy stringent standards, assistance with mounting, installation and lubrication issues and performance analysis invaluable for future design projects.

Avon turntable bearings are high quality bearings satisfying demanding needs of special applications and complying with a variety of customer specifications and standards.

Being an Avon customer means more than this, however... it means you'll enjoy the best service in the industry.

Radar and communication antennae often operate in adverse environmental conditions at low rotational speeds.

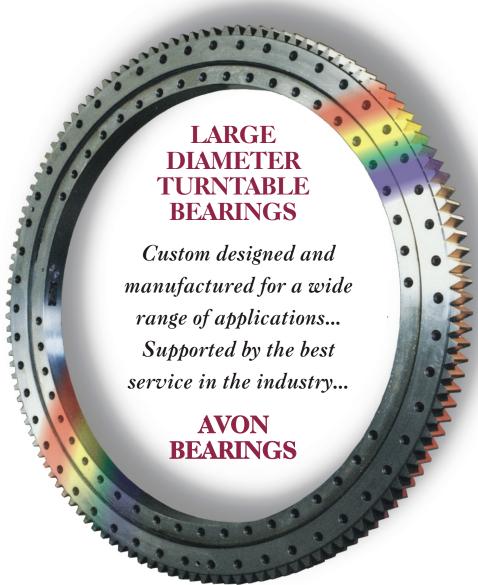
Bearings with a high degree of stiffness, accuracy and precision gearing are required for this demanding application.





Water treatment clarifiers and thickeners must operate continuously in demanding outdoor environments. A geared 4-point contact bearing manufactured by Avon is a major component of the modern drive design. Special emphasis is placed upon the integral gear due to high loads and the dynamic nature of the application.

AVON BEARINGS





AVON BEARINGS

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