

CAMROL[®]

CAM FOLLOWER BEARINGS



EMERSON POWER TRANSMISSION

The Premier Line of Cam Followers



McGILL[®]
PRECISION BEARINGS

Industry Leader...

In 1937, McGILL engineers invented the first needle bearing cam follower. Since that time, McGILL has maintained its leading position through the continuous development of new features and improvements to the product line.

This brochure captures some of the ways that McGILL bearings are differentiated to provide more value to our customers:

- The Broadest Product Line
- Outstanding Performance
- Superior Design Features
- Precision Manufacturing
- Excellent Customer Service
- Expert Engineering Assistance

More Choices From The Industry's Broadest Product Line

McGILL offers the broadest range of cam follower bearings in the market-place... with over 1,400 standard designs. McGILL is the one source solution for all your cam follower needs.

CAMROL inch dimension cam followers are available from 1/2" through 10" diameters and metric CAMROL bearings are available in diameters from 13mm to 90mm and meet ISO standards.

	Inch Dimensions	Metric Dimensions
Basic Type	<ul style="list-style-type: none"> • Standard Stud • Heavy Stud • Yoke 	<ul style="list-style-type: none"> • Standard Stud • European Stud • Asian Stud • Yoke
Internal Construction	<ul style="list-style-type: none"> • Full Complement of Needles • Non-Metallic Bushing 	<ul style="list-style-type: none"> • Full Complement of Needles • Caged Needles • Double Row of Cylindrical Rollers
Standard Options	<ul style="list-style-type: none"> • Sealed or Unsealed • Crowned Outer or Cylindrical Outer • Hex Hole or Screwdriver Slot • Eccentric Stud or Standard Stud 	

McGILL Bearing Selection Program

This user-friendly program saves you time by helping you select the appropriate bearing solution based on your application information. The windows based computer program is part of the EPT-EDGE software package. Contact your authorized McGILL Distributor or customer service for more information.

If your design calls for something special, our experienced engineering staff can help you determine the proper solution.

Follower Bearings

CAMROL

Outstanding Performance

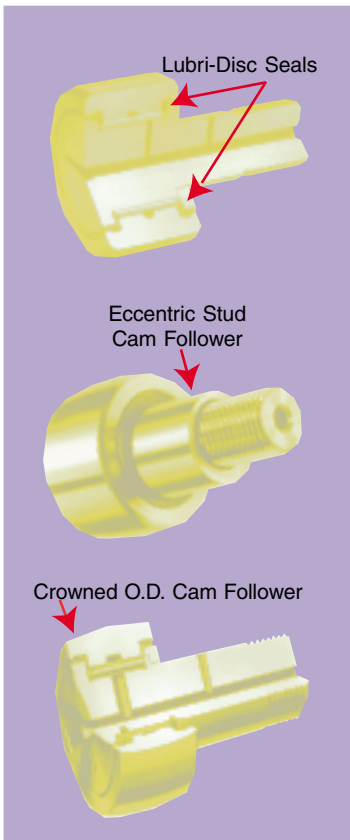
CAMROL bearings outlast the competition in a variety of laboratory and customer tests. Although others have tried to copy the outward appearance of CAMROL bearings, many customers have found vast differences in performance. It is no wonder that so many customers specify "CAMROL bearings from McGill — no substitutions."

Longer Life Means Lower Costs

Manufacturers can reduce downtime due to premature failures and reduce maintenance costs by using McGill bearings. With CAMROL bearings from McGill, you can expect the same high levels of quality and performance that our bearings have provided for years.

Longer Life Options

Choosing the right bearing for your application can make all the difference in getting longer life. In addition to choosing the correct size, some optional features from McGill can improve the life of the bearings beyond standard bearing performance levels.



LUBRI-DISC® Seals help extend bearing life in several ways:

- Helps keep contaminants out — lubrication in
- Vents in the seal help prevent blow-out during relubrication
- The integral backplate reduces internal friction, which helps extend life by lowering operating temperatures

Eccentric Stud Cam Followers can have longer useful life than standard stud bearings in many applications. This option provides a means of easily adjusting the precise radial position of the bearing, which allows for:

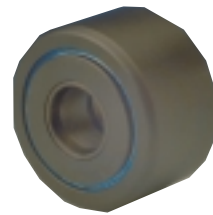
- Improved load sharing of in-line bearing combinations
- Compensation for wear of track or outer ring.
- Reduced tolerance requirements for mounting hole position

Crowned O.D. Cam Followers can improve life in applications because it reduces the possibility of edge loading of rollers.

CAMROL Series



CF Series
Inch standard stud
with full complement
of needles



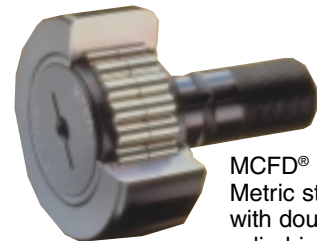
CYR Series
Inch yoke type with
full complement of
needles



MCFR® Series
Metric stud type with
full complement of
needles or caged
needles



MCYRR® Series
Metric yoke type
with full complement of
needles or caged
needles



MCFD® Series
Metric stud type
with double row of
cylindrical rollers

McGILL®

McGILL®
PRECISION BEARINGS

McGILL®

Superior Design

Differentiated Design Features Help McGill Bearings Last Longer Than The Competition

Heavy-Sectioned Outer Race

Withstands shock loading of cam follower operation.

Lubrication Groove

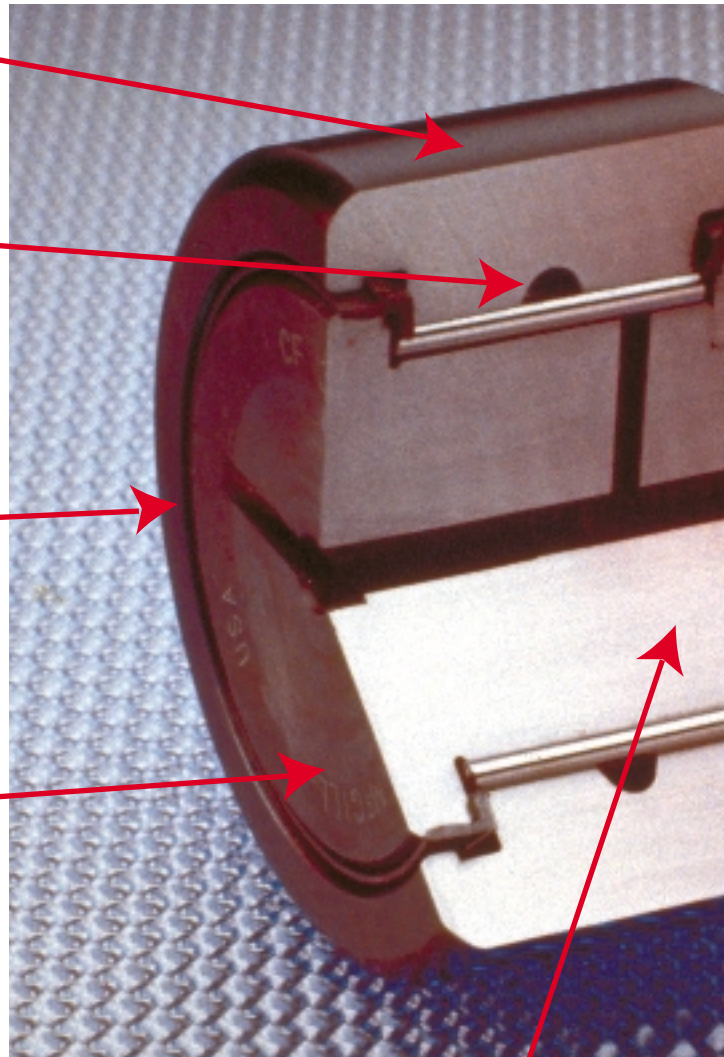
All inch dimension CAMROL bearings with seals have a lubrication groove which helps extend the bearing life. This extra lubrication reservoir helps prolong lubrication intervals and increases the prelubricated life of the bearing.

Black Oxide Finish

This feature extends life by helping inhibit corrosion. CAMROL bearings are protected by black oxide finish on all external surfaces — unmatched by most competitors.

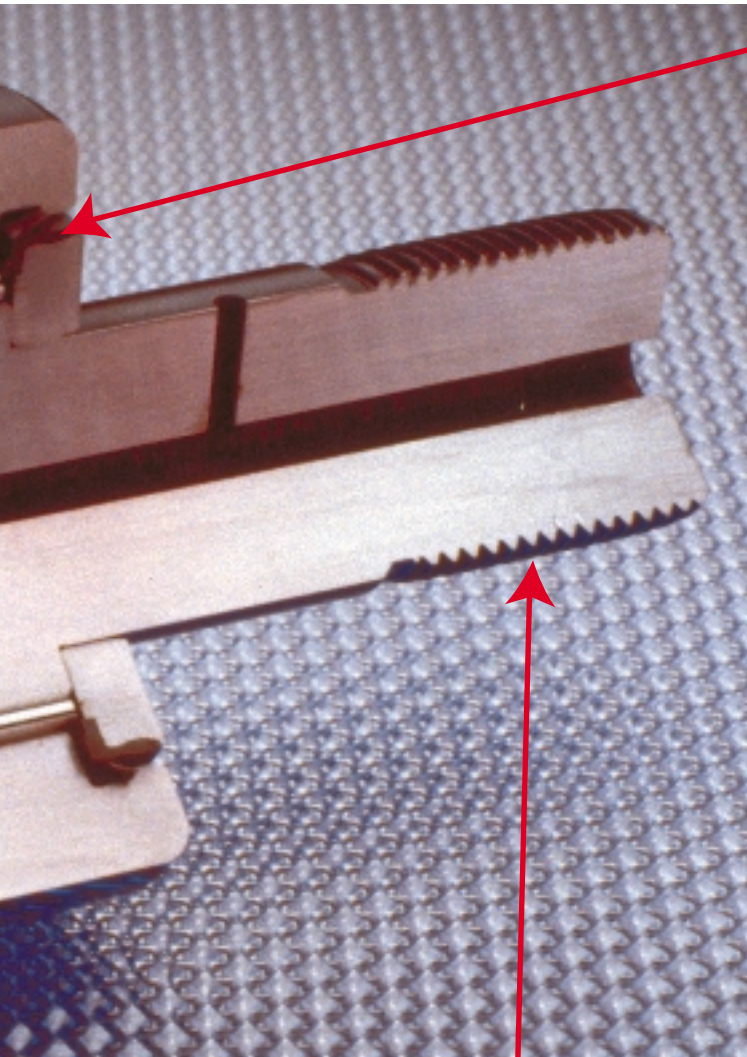
Excellent Quality Materials

Only bearing quality steel is used in CAMROL bearings to help ensure long life. Although other steels may be less expensive to use, McGill only uses high-quality specialty steel to provide customers with the performance and endurance they have come to expect from CAMROL bearings.



Specialized Heat Treatment

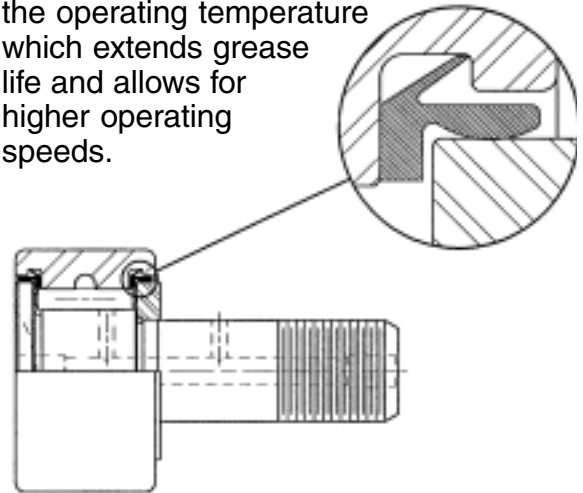
All raceways are heat treated to a minimum of 58 HRC. Inner studs are induction heat treated to McGill's specifications to provide a hardened raceway and a ductile stem that provides toughness for absorbing the shocks of cam follower operations.



The LUBRI-DISC® Seal

Invented by McGill, the LUBRI-DISC seal has been shown to reduce costs by prolonging bearing life. The seal helps extend bearing life in three ways:

1. Labyrinth and contact sealing protect against loss of lubricant and help prevent entrance of contaminants.
2. Vents help prevent seal blow-out during relubrication.
3. Integral backplate design reduces internal friction by eliminating metal-on-metal contact. Less friction lowers the operating temperature which extends grease life and allows for higher operating speeds.



Precision Geometries

The threads on all inch CAMROL bearing studs meet class 2 tolerances and metric CAMROL bearing stud threads meet class 6G tolerances. These precise geometries help ensure better holding power.

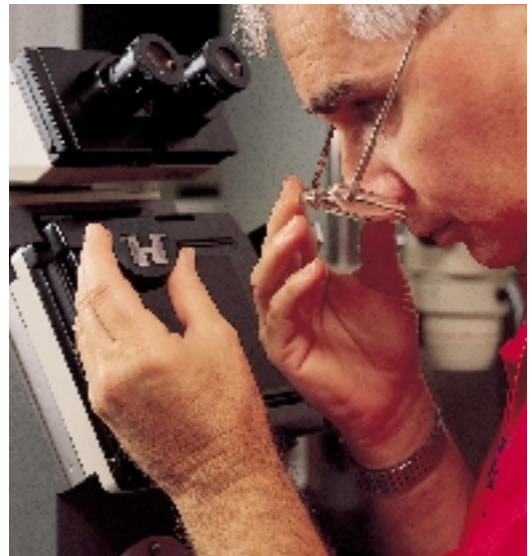
Precision Manufacturing

Because there are no industry-wide standards for tolerances on cam follower bearings, McGill has set its own demanding tolerances for CAMROL bearings. McGill uses Statistical Process Control (SPC) to help ensure CAMROL bearings are manufactured according to these exacting standards. While others have tried to imitate the McGill design, only McGill has the precision and performance that leads the industry.



Quality Certified Manufacturing

McGill was one of the first bearing manufacturers to receive International Standards Organization certification. The coveted ISO 9001 certification, and the process it encompasses, help ensure that McGill bearings are designed and manufactured to uniform quality standards and the precise specifications of our customers.



Outstanding Customer Service Complements Outstanding Product

McGill, the largest and most successful cam follower bearing manufacturer, also offers the best customer service in the industry... at every stage of the buying and selling process.

- Large inventories are maintained which help provide customers with excellent customer service fill rates
- Standard box, bulk and special packaging is available to meet customer requirements
- Personnel are trained to solve problems quickly and successfully



Modified Or Special Bearings Solve Problems

Special stud configurations

- Special threads/no threads
- Longer or shorter stud

Lubrication features

- Threaded lubrication holes
- Grease fittings or plugs installed
- Annular lubrication groove

Extra Precision Requirements

Special outer ring configurations

- Concave/Convex O.D.
- Geared O.D.
- Rubber tire
- V-groove or Flange — also consider TRAKROL® bearings

Special grease

- High/low temperature
- Food grade
- Water/chemical resistant

Plated bearings

- Also consider McGill aircraft cam followers

Special Materials or Hardness

Expert Engineering Assistance For Your Special Applications

Standard CAMROL bearings meet the requirements of numerous applications because of their available features, construction and design flexibility, load and speed capabilities. However, there are times when modifications to a standard product may be needed, or entirely special bearings are required for specific quality, size, life, load carrying characteristics or other mechanical features.

As the industry leader, McGill has made more special cam followers than any other company. If you have a special situation, contact our experienced staff of bearing engineers.



Choose McGill For A Broad Range Of Precision Bearings

SPHERE-ROL® Bearings

For Spherical roller bearing applications involving contamination, consider the SPHERE-ROL bearings. Our 22200 and 22300 series are available with optional seals and fit inside the standard bearing dimensions.



TRAKROL® Special-Duty Cam Follower Bearings are designed and built for longer life under combination radial and thrust loads... special seals extend life in more contaminated applications.



CAGEROL® and GUIDEROL® Needle Bearings offer a wide range of solutions for heavy-duty applications. Available with five different sealing configurations.

For ordering information, contact your authorized McGill Distributor or McGill Customer Service: Telephone: 219-465-2200, FAX: 219-465-2290.

Application Considerations

The proper selection and application of power transmission products and components, including the related area of product safety, is the responsibility of the customer. Operating and performance requirements and potential associated issues will vary appreciably depending upon the use and application of such products and components. The scope of the technical and application information included in this publication is necessarily limited. Unusual operating environments and conditions, lubrication requirements, loading supports, and other factors can materially affect the application and operating results of the products and components, and the customer should carefully review its requirements. Any technical advice or review furnished by Emerson Power Transmission and its divisions with respect to the use of products and components

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