

# Emerson Power Transmission

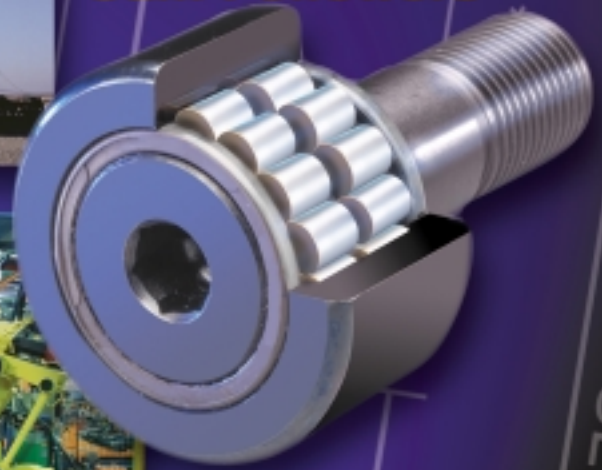
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# McGILL®

## Heavy-Duty CAMROL® Bearings

### Cylindrical-Roller Cam Followers



  
**EMERSON™**  
Industrial Automation

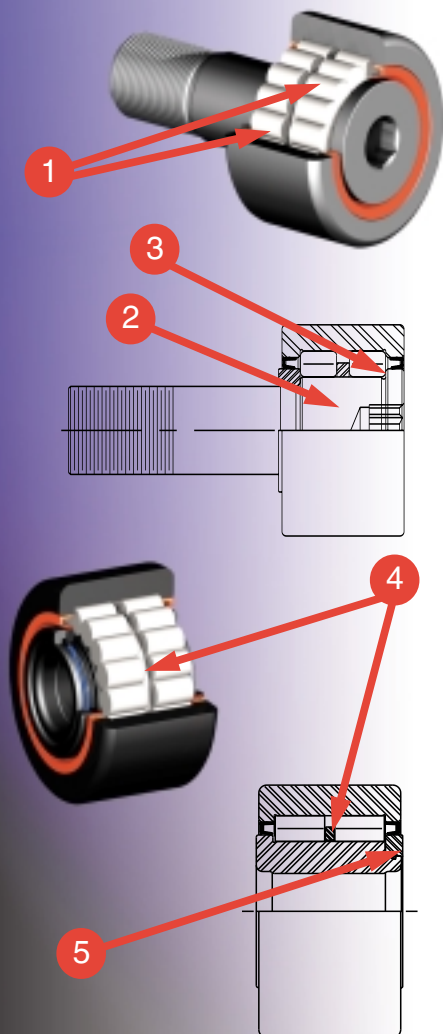
# Heavy-Duty CAMROL® Bearings

## The Industry Leader...

In 1937, McGILL engineers invented the first needle bearing cam follower. Since that time the McGILL® CAMROL® Bearing line has maintained its leadership position through development of innovative solutions to the problems faced by industry.

## The Problem Solver...Heavy-Duty

McGILL® Heavy-Duty CAMROL® bearings are designed to help solve some of the toughest problems in your cam follower applications. Utilizing Heavy-Duty CAMROL® Bearings in situations involving incidental thrust loads, higher speeds, contamination, or maintenance-free operation can provide significant operational life increases over standard cam followers.



### *Improved Thrust Capability*

Standard needle bearing cam followers are designed to handle heavy radial loads, however, thrust loads can cause early failure.

1. **Double Rows of Cylindrical Rollers** are designed in the bearing to help it take incidental thrust sometimes associated with cam follower operation. The double row of cylindrical rollers also allows for high speeds and a high dynamic rating for extended fatigue life.

### *Maintains McGILL Quality Features*

The Heavy-Duty CAMROL® Bearing was designed with tough applications in mind, and maintains a quality, robust design unique to McGILL.

2. **Zone Hardened** raceways provide high load ratings, and the ductile stem gives strength for absorbing shocks.
3. **Integral Flange** in the stud type prevents disassembly in thrust load situations.
4. **Center Thrust Ring** provides a smooth surface for thrust load carrying and roller guidance.
5. **Endplate Retention Ring** in the yoke-type is an innovative method for securing endplates, eliminating the need for endplate backup in certain applications.

# Heavy-Duty CAMROL® Bearings

## Resists Contamination

Even a small amount of contamination can significantly reduce bearing life. Dust can wick oil out of the bearing, water can wash grease out, and particulate matter or contamination can dent raceways.

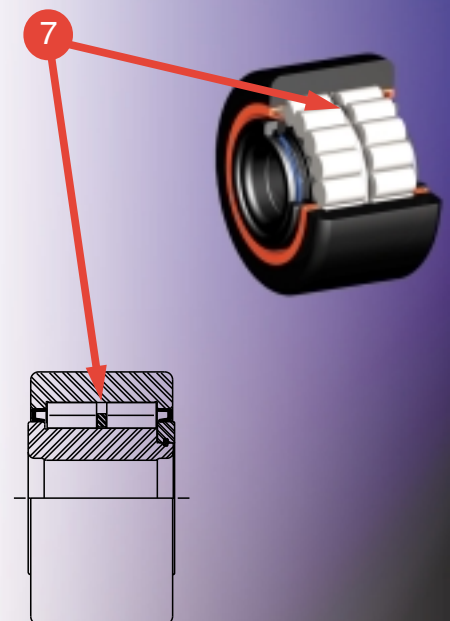
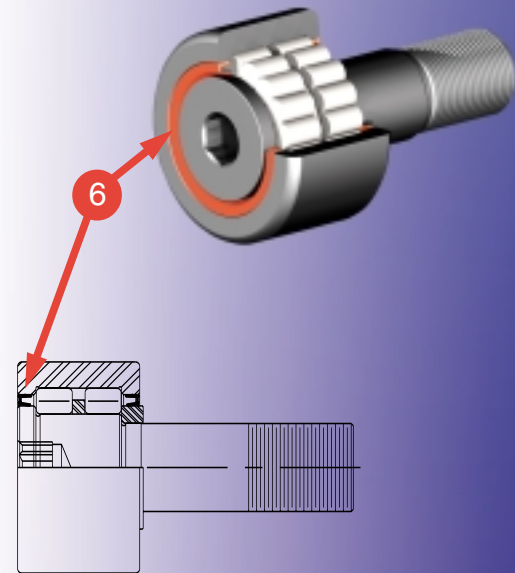
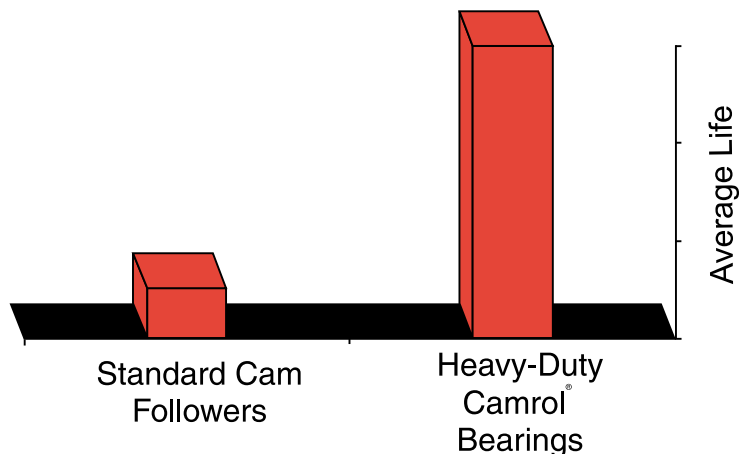
- 6. Rubber Lip Seals** are standard in the Heavy-Duty CAMROL® Bearings. Although standard cam followers do well in most situations, at times, seals such as those in the Heavy-Duty CAMROL® Bearing are needed for increased protection against contamination. The rubber lip seals are pointed inward for improved grease retention.

## Provides Lube-For-Life Operation

Heavy-Duty CAMROL® Bearings last up to 5 times longer than standard needle bearing cam followers in lube-for-life tests.

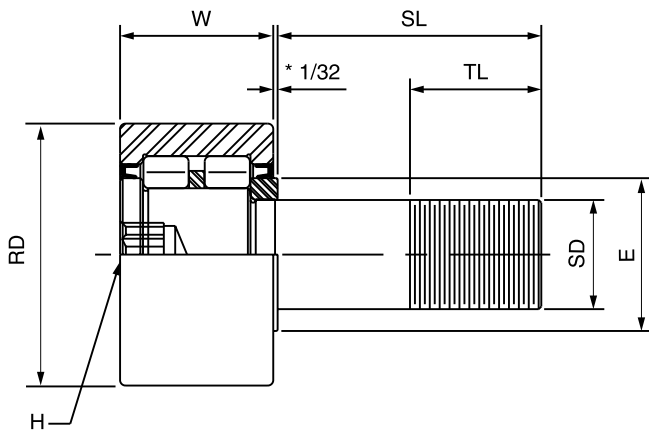
- 7. Large Lubricant Reservoirs** and rubber lip seals help keep more grease in the bearing for maintenance-free operation.

## Up to Five Times Longer Life

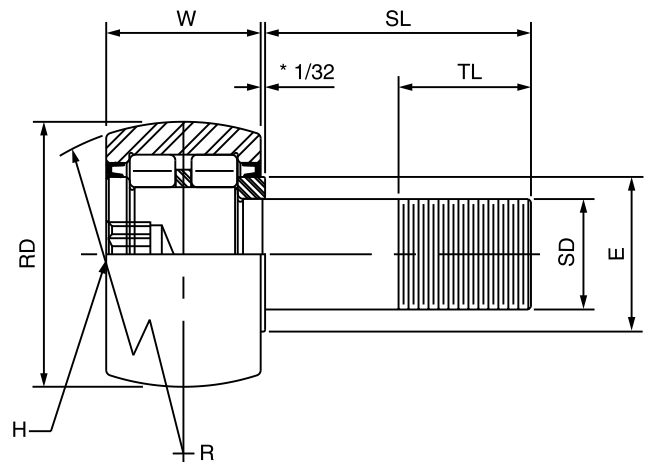


# Heavy-Duty CAMROL® Bearings

## CFD Series



## CCFD Series



CFD and CCFD STUD SERIES - Dimensions in Inches

Bearing Number	Roller Diameter RD +.000 -.001	Roller Width W +.000 -.005	Stud Diameter SD +.001 -.000	Stud Length SL	Min. Thread Length TL	Fine Threads Class 2A	Hex Hole Size H	Endplate OD E	Crown Radius R (CCFD)	Rec'd Hsg. Bore +.0002 -.0003	Max. Rec'd Torque** In.-Lbs.	ISO/ABMA Load Rating***		Track Roller Load Rating Dynamic Lbs.	
												Dynamic Lbs.	Static Lbs.		
CFD-1 1/4	CCFD-1 1/4	1.250	.750	.500	1 1/4	5/8	1/2-20	1/4	45/64	14	.5003	350	4000	4260	3300
CFD-1 3/8	CCFD-1 3/8	1.375	.750	.500	1 1/4	5/8	1/2-20	1/4	45/64	14	.5003	350	4000	4260	3600
CFD-1 1/2	CCFD-1 1/2	1.500	.875	.625	1 1/2	3/4	5/8-18	5/16	55/64	20	.6253	650	6150	6910	5000
CFD-1 5/8	CCFD-1 5/8	1.625	.875	.625	1 1/2	3/4	5/8-18	5/16	55/64	20	.6253	650	6150	6910	5400
CFD-1 3/4	CCFD-1 3/4	1.750	1.000	.750	1 3/4	7/8	3/4-16	5/16	15/16	20	.7503	1250	7900	9190	6650
CFD-1 7/8	CCFD-1 7/8	1.875	1.000	.750	1 3/4	7/8	3/4-16	5/16	15/16	20	.7503	1250	7900	9190	7100
CFD-2	CCFD-2	2.000	1.250	.875	2	1	7/8-14	7/16	1 5/32	24	.8753	1500	12100	14600	9500
CFD-2 1/4	CCFD-2 1/4	2.250	1.250	.875	2	1	7/8-14	7/16	1 5/32	24	.8753	1500	12100	14600	10500
CFD-2 1/2	CCFD-2 1/2	2.500	1.500	1.000	2 1/4	1 1/8	1-14	1/2	1 5/16	30	1.0003	2250	16600	22600	14000
CFD-2 3/4	CCFD-2 3/4	2.750	1.500	1.000	2 1/4	1 1/8	1-14	1/2	1 5/16	30	1.0003	2250	16600	22600	15000
CFD-3	CCFD-3	3.000	1.750	1.250	2 1/2	1 1/4	1 1/4-12	3/4	1 27/32	30	1.2503	3450	25100	36500	18300
CFD-3 1/4	CCFD-3 1/4	3.250	1.750	1.250	2 1/2	1 1/4	1 1/4-12	3/4	1 27/32	30	1.2503	3450	25100	36500	20300
CFD-3 1/2	CCFD-3 1/2	3.500	2.000	1.375	2 3/4	1 3/8	1 3/8-12	3/4	2 3/16	30	1.3753	4200	34200	52500	23700
CFD-4	CCFD-4	4.000	2.250	1.500	3 1/2	1 1/2	1 1/2-12	3/4	2 27/64	30	1.5003	5000	44100	67900	32500
CFD-5	CCFD-5	5.000	2.750	2.000	5 1/16	2 9/16	2-12	7/8	2 61/64	48	2.0003	5000	67800	109500	50500
CFD-6	CCFD-6	6.000	3.250	2.500	6	3	2 1/2-12	1	3 11/16	56	2.5003	5000	101900	169900	71500

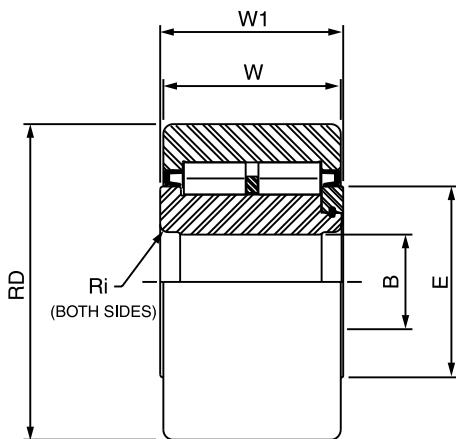
\*1/16 for CFD/CCFD 5 and 6

\*\*Clamping torque is based on dry threads. If threads are lubricated, use half of values shown.

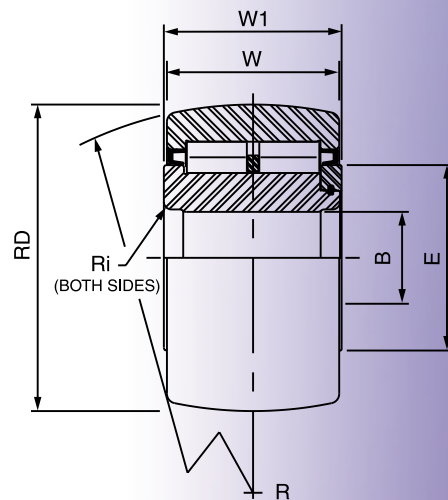
\*\*\*Ratings for comparison purposes only.

# Heavy-Duty CAMROL® Bearings

## CYRD Series



## CCYRD Series



### CYRD and CCYRD YOKE SERIES - Dimensions in Inches

Bearing Number	Roller Diameter RD +.000 -.001	Roller Width W +.000 -.005	Bore Diameter B +.0002 -.0004	Overall Width W1 +.005 -.010	Endplate OD E	Crown Radius R (CCYRD)	Bore Corner Ri** Min	Recommended Shaft Diameter			ISO/ABMA Load Rating*		Track Roller Load Rating Dynamic Lbs.	
								Push Fit +/- .0002	Drive Fit +/- .0002	Press Fit +/- .0002	Dynamic Lbs.	Static Lbs.		
CYRD-1 1/4	CCYRD-1 1/4	1.250	.750	.3750	.8125	45/64	14	.030	.3745	.3751	.3753	4000	4260	3300
CYRD-1 3/8	CCYRD-1 3/8	1.375	.750	.3750	.8125	45/64	14	.030	.3745	.3751	.3753	4000	4260	3600
CYRD-1 1/2	CCYRD-1 1/2	1.500	.875	.4375	.9375	55/64	20	.040	.4370	.4376	.4378	6150	6910	5000
CYRD-1 5/8	CCYRD-1 5/8	1.625	.875	.4375	.9375	55/64	20	.040	.4370	.4376	.4378	6150	6910	5400
CYRD-1 3/4	CCYRD-1 3/4	1.750	1.000	.5000	1.0625	15/16	20	.050	.4995	.5001	.5005	7900	9190	6650
CYRD-1 7/8	CCYRD-1 7/8	1.875	1.000	.5000	1.0625	15/16	20	.050	.4995	.5001	.5005	7900	9190	7100
CYRD-2	CCYRD-2	2.000	1.250	.6250	1.3125	1 5/32	24	.060	.6245	.6251	.6255	12100	14600	9500
CYRD-2 1/4	CCYRD-2 1/4	2.250	1.250	.6250	1.3125	1 5/32	24	.060	.6245	.6251	.6255	12100	14600	10500
CYRD-2 1/2	CCYRD-2 1/2	2.500	1.500	.7500	1.5625	1 5/16	30	.070	.7495	.7501	.7505	16600	22600	14000
CYRD-2 3/4	CCYRD-2 3/4	2.750	1.500	.7500	1.5625	1 5/16	30	.070	.7495	.7501	.7505	16600	22600	15000
CYRD-3	CCYRD-3	3.000	1.750	1.0000	1.8125	1 27/32	30	.080	.9994	1.0002	1.0006	25100	36500	18300
CYRD-3 1/4	CCYRD-3 1/4	3.250	1.750	1.0000	1.8125	1 27/32	30	.080	.9994	1.0002	1.0006	25100	36500	20300
CYRD-3 1/2	CCYRD-3 1/2	3.500	2.000	1.1250	2.0625	2 3/16	30	.09	1.1244	1.1252	1.1256	34200	52500	23700
CYRD-4	CCYRD-4	4.000	2.250	1.2500	2.3125	2 27/64	30	.100	1.2494	1.2502	1.2506	44100	67900	32500
CYRD-5	CCYRD-5	5.000	2.750	1.7500	2.8750	2 61/64	48	.110	1.7494	1.7502	1.7506	67800	109500	50500
CYRD-6	CCYRD-6	6.000	3.250	2.2500	3.3750	3 11/16	56	.120	2.2494	2.2502	2.2506	101900	169900	71500

\*Ratings for comparison purposes only.

\*\*Max. fillet for shaft

## Choose From a Broad Range of Cam Follower Solutions:



**CAMROL® Bearings**



**CRES CAMROL® Bearings**



**Heavy-Duty CAMROL® Bearings**



**Aerospace  
Cam Followers**



**Metric CAMROL®  
Bearings**



**TRAKROL®  
Bearings**



**Special-Duty  
CAMROL® Bearings**

**For ordering information, contact your authorized McGILL Distributor or McGILL Customer Service: Telephone: 219-465-2200; FAX: 219-465-2290**

### APPLICATION CONSIDERATIONS

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