

NICE®

ER Series

Precision Ground Radial Bearings with Extended Inner Ring and Metric Outside Diameter with Black Oxide Coating



RBC[®]
BEARINGS

Smoother. Faster. Longer.
Because That's How We Roll.

NICE® ER Series

Precision Ground Radial Bearings with Extended Inner Ring and Metric Outside Diameter Non-Coated or with Black Oxide Coating

NICE offers dependable **ER-Style** ball bearings with inner ring that provides extra shaft support. These versatile bearings are locked to shaft with setscrews. **NICE ER-Style** ball bearings are manufactured to meet common general-duty applications. All units assembled with careful attention to tolerance and specifications in order to ensure reliable service and superior value in economy-priced ball bearings.



ER Coated

- ✓ Exclusive, heavy duty "DL" seals— Permanently sealed and pre-lubricated for long life. Steel trash guard and inner ring labyrinth groove provide superior protection of sealing member
- ✓ Better protection in wet/moist environments—Two lubrication holes allow for re-greasing
- ✓ Two knurled cup point set screws offer excellent resistance to loosening under vibratory conditions
- ✓ Fully ground, SAE 52100 chrome alloy steel races
- ✓ Black oxide finish provides added corrosion resistance
- ✓ Interchanges with Sealmaster®, Fafnir, and MB/Rexnord ER series

SFR "Low Torque" Coated

- ✓ Lower torque means less drag on the bearing, reducing heat buildup/energy loss
- ✓ "SFR" seals run at higher RPMs without compromising seal integrity or performance
- ✓ Less friction and better grease retention contribute to longer service life and reduced maintenance
- ✓ Ideal for applications where energy efficiency is critical, such as electric motors and precision machinery
- ✓ Reduced contact pressure leads to smoother and quieter performance, beneficial in noise-sensitive environments
- ✓ Despite being low-torque, SFR seals still offer robust protection against ingress of dust and moisture



ER Non-Coated

- ✓ Heavy Duty Seal with Steel trash guard
- ✓ Two Lubrication holes allow for re-greasing
- ✓ Two Knurled Cup point set screws offer excellent resistance to loosening under vibratory conditions
- ✓ Fully ground, SAE 52100 chrome alloy steel races

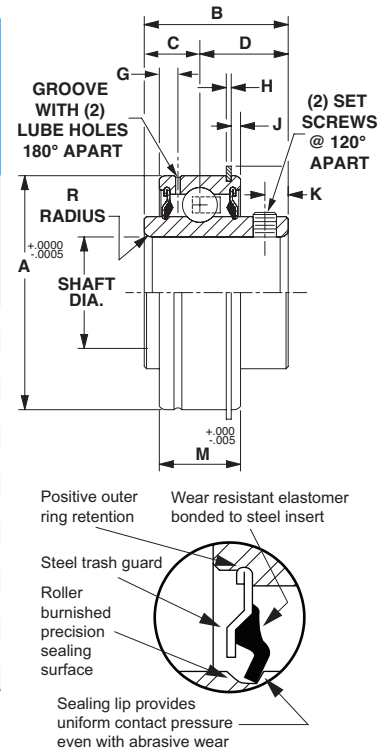
ER Series ball bearings, an industry standard, are used in demanding applications such as:

- Ink Rollers
- Plate Cylinders
- Dampening Rollers
- Blanket Cylinders
- Forming Rollers
- Collecting Cylinders
- Calendar Rolls
- Nip Roll
- Live Rolls
- Printing Webs
- Spindles
- Veneers
- Winders
- Bulk Material Handling
- Unit Material Handling
- Agricultural Processing Equipment
- Metal Slitting & Winding
- Plastic Film Transfer
- Packaging Equipment

NICE® ER Series

Precision Ground Radial Bearings with Extended Inner Ring and Metric Outside Diameter with Black Oxide Coating

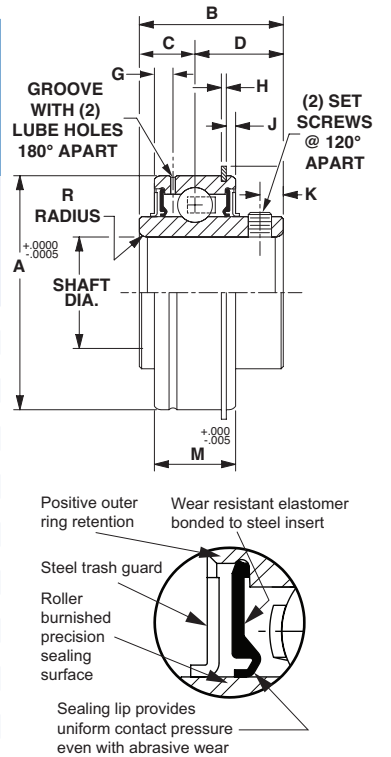
BASIC BEARING NUMBER	SHAFT DIAMETER	PRINCIPLE DIMENSIONS										2 SET SCREWS	LOAD RATINGS		WEIGHT
		O.D.		WIDTH						RADIUS			DYNAMIC	STATIC	
		in	mm	in	mm	in	mm	in	mm	in	mm				
		A	B	C	D	G	H	J	K	M	R		C	C ₀	
ER10	5/8	1.850	1.219	0.406	0.813	0.141	0.047	0.094	3/16	0.625	0.040	10-32	2860	1480	0.56
ER10SFR		47	30.96	10.32	20.65	3.57	1.19	2.38	4.76	15.88	1.02		12727	6586	0.25
ER12	3/4	1.850	1.219	0.406	0.813	0.141	0.047	0.094	3/16	0.625	0.040	10-32	2860	1480	0.56
ER12SFR		47	30.96	10.32	20.65	3.57	1.19	2.38	4.76	15.88	1.02		12727	6586	0.25
ER16	1	2.047	1.375	0.516	0.859	0.188	0.047	0.094	7/32	0.75	0.040	1/4-28	3145	1770	0.68
ER16SFR		52	34.93	13.1	21.83	4.76	1.19	2.38	5.56	19.05	1.02		13995	7877	0.31
ER19	1-3/16	2.441	1.5	0.625	0.875	0.219	0.063	0.125	7/32	0.875	0.040	1/4-28	4360	2535	0.93
ER19SFR		62	38.1	15.88	22.23	5.56	1.59	3.18	5.56	22.23	1.02		19402	11281	0.42
ER20	1-1/4	2.835	1.688	0.688	1	0.219	0.063	0.125	1/4	0.938	0.040	1/4-28	5755	3450	0.93
ER20SFR		72	42.86	17.46	25.4	5.56	1.59	3.18	6.35	23.81	1.02		25610	15353	0.42
ER23	1-7/16	2.835	1.688	0.688	1	0.219	0.063	0.125	1/4	0.938	0.040	1/4-28	5755	3450	1.37
ER23SFR		72	42.86	17.46	25.4	5.56	1.59	3.18	6.35	23.81	1.02		25610	15353	0.62
ER24	1-1/2	3.150	1.938	0.75	1.188	0.25	0.063	0.125	5/16	1.094	0.062	5/16-24	6535	4025	2.00
ER24SFR		80	49.21	19.05	30.16	6.35	1.59	3.18	7.94	27.78	1.57		29081	17911	0.91
ER31	1-15/16	3.543	2.031	0.75	1.281	0.294	0.094	0.125	3/8	1.125	0.062	3/8-24	7900	5250	2.43
ER31SFR		90	51.59	19.05	32.54	7.47	2.38	3.18	9.53	28.58	1.57		35155	23363	1.10



NICE® ER Series Non-Coated

Precision Ground Radial Bearings with Extended Inner Ring and Metric Outside Diameter

BASIC BEARING NUMBER	SHAFT DIAMETER	PRINCIPLE DIMENSIONS										2 SET SCREWS	LOAD RATINGS		WEIGHT
		O.D.		WIDTH						RADIUS			DYNAMIC	STATIC	
		in	mm	in	mm	in	mm	in	mm	in	mm				
		A	B	C	D	G	H	J	K	M	R		C	C ₀	
ER12NCRLC [†]	3/4	1.850	1.219	0.406	0.813	0.15	0.042	0.094	0.177	0.625	0.040	1/4-28	2860	1480	0.56
		47	30.96	10.32	20.65	3.81	1.07	2.38	4.5	15.88	1.02		12727	6586	0.25
ER16NCRLC [†]	1	2.047	1.375	0.516	0.859	0.203	0.042	0.094	0.197	0.75	0.040	1/4-28	3145	1770	0.68
		52	34.93	13.1	21.83	5.16	1.07	2.38	5	19.05	1.02		13995	7877	0.31
ER19NCRLC [†]	1-3/16	2.441	1.5	0.625	0.875	0.219	0.065	0.125	0.197	0.875	0.040	1/4-28	4360	2535	0.93
		62	38.1	15.88	22.23	5.56	1.65	3.18	5	22.23	1.02		19402	11281	0.42
ER20NCRLC [†]	1-1/4	2.835	1.688	0.688	1	0.219	0.065	0.125	0.236	0.938	0.040	5/16-24	5755	3450	0.93
		72	42.86	17.48	25.4	5.56	1.65	3.18	5.99	23.83	1.02		25610	15353	0.42
ER23NCRLC [†]	1-7/16	2.835	1.688	0.688	1	0.219	0.065	0.125	0.236	0.938	0.040	5/16-24	5755	3450	1.37
		72	42.86	17.48	25.4	5.56	1.65	3.18	5.99	23.83	1.02		25610	15353	0.62
ER24NCRLC [†]	1-1/2	3.150	1.938	0.75	1.188	0.25	0.065	0.125	0.315	1.094	0.062	5/16-24	6535	4025	2.00
		80	49.21	19.05	30.16	6.35	1.65	3.18	8	27.78	1.57		29081	17911	0.91
ER31NCRLC [†]	1-15/16	3.543	2.031	0.75	1.281	0.297	0.095	0.125	0.354	1.125	0.062	3/8-24	7900	5250	2.43
		90	51.59	19.05	32.54	7.54	2.41	3.18	8.99	28.58	1.57		35155	23363	1.10
ER35NCRLC [†]	2-3/16	3.937	2.189	0.874	1.315	0.295	0.095	0.125	0.354	1.189	0.08	3/8-24	7531	6564	2.42
		100	55.6	22.2	33.4	7.5	2.41	3.18	9	30.2	2		33500	29198	1.1
ER39NCRLC [†]	2-7/16	4.331	2.563	1	1.563	0.295	0.095	0.125	0.394	1.25	0.06	3/8-24	9040	6940	3.41
		110	65.1	25.4	39.7	7.5	2.41	3.18	10	31.8	1.5		40211	30871	1.55
ER47NCRLC [†]	2-15/16	5.118*	3.063	1.311	1.752	0.376	0.109	0.156	0.472	1.5	0.08	7/16-20	11420	11128	5.62
		130*	77.8	33.3	44.5	9.55	2.77	3.96	12	38.1	2		50798	49500	2.55



[†]Increased Radial Clearance. *O.D. Tolerance +0/-0.007 in. +0/-0.18 mm

RBC Bearings® has been producing bearings in the USA since 1919. In addition to unique custom bearings, RBC Bearings® offers a full line of standard industrial and aerospace bearings, including:



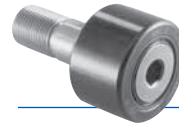
Tapered Roller Thrust Bearings

Case-hardened tapered roller thrust bearings for oilfield top drives and swivels. Available in full complement, maximum capacity versions.



Thin Section Ball Bearings

Standard cross sections to one inch. Bore sizes to 40 inches. Stainless steel and other materials are available. Seals are available on all sizes and standard cross sections. Super duplex configurations.



Cam Followers

Standard stud, heavy stud, yoke type, caged roller followers. Patented RBC Roller® cylindrical roller cam followers, HexLube® universal cam followers, airframe track rollers.



Cylindrical Roller Bearings

Cylindrical roller bearings designed for mud pump pinion and eccentric positions. Fully interchangeable to industry standards.



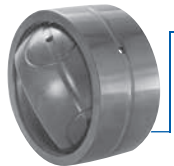
Needle Roller Bearings

Pitchline® caged heavy duty needle roller bearings ideal for cross head bearings applications. These double row bearings are available in single row and TandemRoller® versions.



Commercial Rod Ends

Commercial and industrial, precision, Mil-Spec series, self-lubricating, and aircraft. Sold under the Heim®, Unibal®, and Spherco® names. Available in inch and metric sizes.



Spherical Plain Bearings

Radial, angular contact, extended inner ring, high misalignment. QuadLube®, ImpactTuff®, SpreadLock® Seal, CrossLube®, DuraLube™, and self-lubricating bearings. Available in inch and metric sizes.



Tapered Roller Bearings

Single, double, & multi row versions available for main bearing positions in mud pumps, gear boxes, etc. Bearings are constructed of case hardened steel washers and rollers with bore size of 11" or greater.



TP Series Bearings

RBC Bearings® TP Series cylindrical roller thrust bearings ideal for crane hooks, oil well swivels, winch systems, and gear boxes. Fully interchangeable with industry standard offering.



Keyless Locking Devices

Mechanical bushings used to connect power transmission components onto rotating shafts. Without the use of keyways, KLDs eliminate the problems associated with backlash including fretting, corroding, and wallowing.



Lubron® Bearings

Lubron® self-lubricating bearings designed and custom manufactured in most any size, material and bearing configuration. Applications include hydro power and water control, nuclear power generation, infrastructure, architecture, offshore marine, industrial, machinery and heavy equipment.



Shaft Collars

Used to position or locate a component on a shaft. Made from mild steel, type 303 or 316 stainless steel, aluminum, or acetal. Available in inch and metric sizes.



Self-Lubricating Bearings

Radial, thrust, rod ends, spherical bearings, high temperature, high loads. Available in inch and metric sizes. Fiberglide® self-lubricating bearings.



Rigid Couplings

Shaft couplings serve as components to time, join, or align shafts at lower speeds and torque, especially when zero backlash is desired. Made from mild steel with a black oxide finish type 303 stainless steel, or aluminum. Available in inch and metric sizes.



Specials

RBC Bearings® manufactures many specialty bearings for the aerospace, oil and energy, semiconductor equipment, packaging, transportation, and other industries.



Ball Bearings

Precision ground, semiground, unground. High loads, long life, smooth operation. Nice® branded products are offered in caged and full complement configurations.



PIC Design®

Complete line of precision gears, precision hardware, timing belts, pulleys, and linear motion systems. Industries served include industrial, aerospace, defense, medical, robotics and automation, material handling, and assembly. Custom design support for unique applications.

