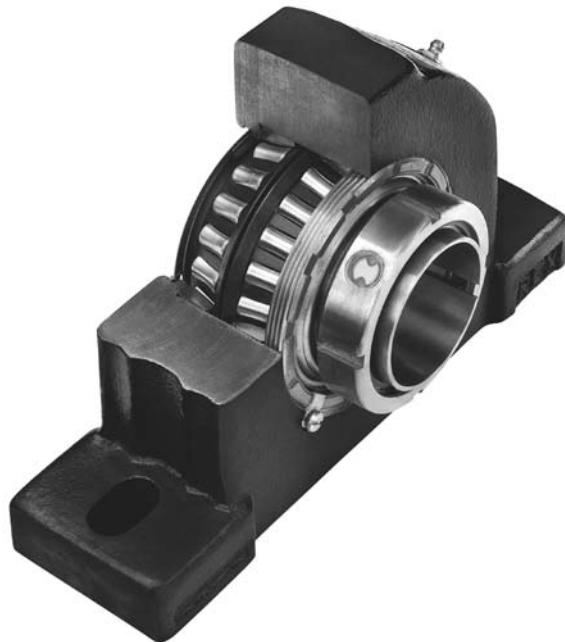


Rexnord® Spherical Roller Bearing



Rexnord® Roller Bearings represent the continuation of 80 years of bearing technology and experience.

Rexnord Spherical Roller Bearings

**Easy Bearing Clearance Adjustment**

Can be field adjusted to meet application needs.

Replaceable Bearing

Available in single set collar, double set collar, eccentric lock and Adapter mounting to suit load and installation requirements.

Shaft Ready

Pre lubricated with our standard grease for normal operation; other lubricants available for special conditions.

Superfinished Raceways

Super-finished raceways provide a cool running, quiet, high speed and high load capacity bearing

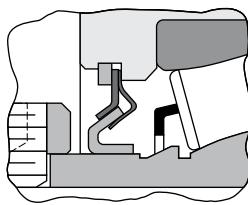
Rugged Housing

Standard material — cast iron. Steel or ductile iron available on request.

Multiple Housing Styles

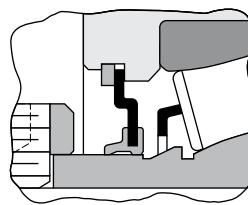
Providing mounting features to match the operational and structural requirements.

Interchangeable Seals – Seal Types

"Z" Seal Clearance

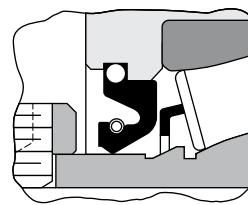
Denoted with a "Z" prefix in the model number. The standard seal used in the majority of applications.

- No frictional drag — generates no heat
- No speed limitations
- All metal — no temperature limitations

"K" Seal Light Contact

Substitute prefix "K" for "Z" in model number. Molded nitrile rubber lip seals out contaminants.

- Protects against contaminants
- Handles high speeds
- Less drag and heat generation than heavy contact seals

"M" Seal Heavy Contact

Substitute prefix "M" for "Z" in model number. Premium elastomer, spring loaded contact lip.

- Protects against liquids and grit
- Spring loaded lip assures constant contact—even during misalignment
- Molded-in garter spring retains seal in housing
- Seals in lubricant on horizontal and vertical shafts
- Available in viton material

Auxiliary Cap Seals

Closed End Shield

Use C Suffix in model number

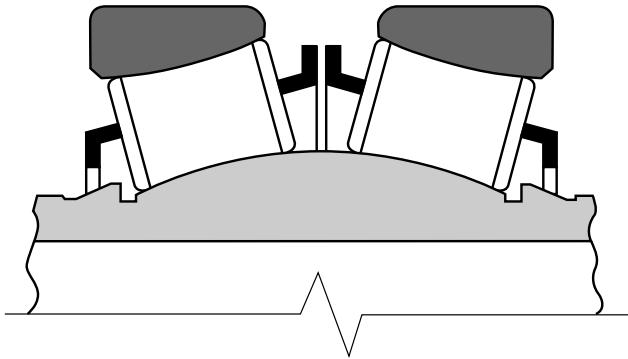
- Protects from rotating shaft exposure
- Protects from foreign material penetration

Auxiliary Cap Seals

Recommended for severe environments – they provide supplemental protection for the primary seal.

- Seals against liquids and gritty contaminants. Particularly effective against water washdown, taconite, cement, sand or caking build-up
- Provides safety, encloses rotating mounting hardware
- Protects primary seal from physical damage
- May be filled with grease to provide purging action
- Available as open or closed end cap



Self-Alignment**Integral Self-Alignment**

Rexnord® Roller Bearings represent the continuation of 80 years of bearing technology and experience. This design allows the inner race to misalign freely in any direction up to 3° of total misalignment.

By design, Rexnord Bearings accept both radial and thrust loads under static, oscillatory, or dynamic conditions. The load is taken on the roller raceways, not the roller ends. This means that when thrust loaded up to their allowable limit, **Rexnord Bearings do not exhibit roller end wear.**

Featuring Rexnord's NEW SHÜRLock® Adapter Mounts – Taking the Mystery Out of Mounting

Auxiliary end caps & three field interchangeable seal options ensures long bearing life through a full range of applications

Super-finished raceways provide a cool running, quiet, high speed and high load capacity bearing

Hour Glass Roller elements are precision ground and super finished to provide longer bearing life

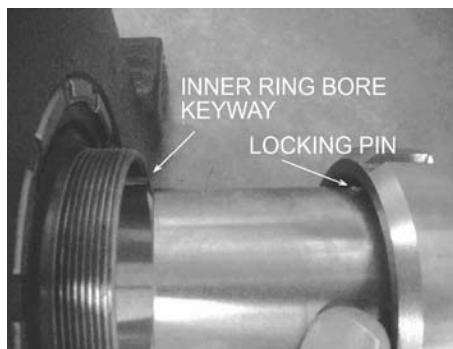


Self aligning spherical roller bearing provides a total of 3 degrees static and dynamic misalignment

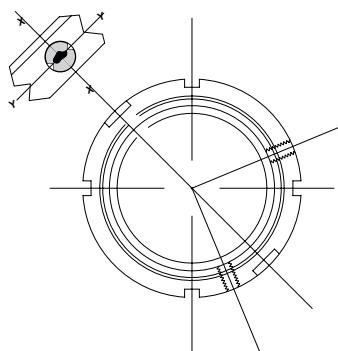
Adapter sleeve assembly allows easy installation/removal, plus enables use of commercial grade shafts

Positive Locking System allows minimal vibration during operation, therefore not requiring scheduled inspections for snugness of mountings

Spyglass® Optical Strain Sensor (OSS) Technology reduces installation errors by changing color when tight

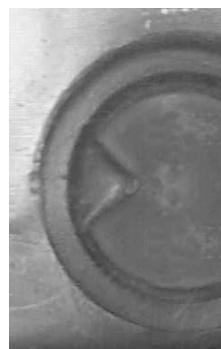


Positive Locking System



Mounting lockout utilizing Spyglass OSS

Not Installed



Installed



Easy Installation: Simply tighten the locknut until the Spyglass® shows proper indication

Rexnord 6000 Series SHÜRLOK Roller Bearings are Also Available With These Housings

Pillow Block



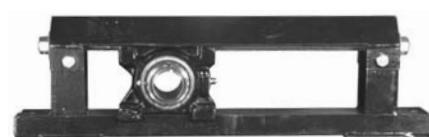
Flanged Units



Flanged Cartridge



Take-up Units



Take-up Assemblies

Nomenclature

Symbol	Description	A	Z	A - 2	207	F
A	Two open auxiliary end caps					
B	Two auxiliary end caps (open on housing side, closed on threaded cover side)					
X	Designates "SPECIAL UNITS", contact Rexnord Industries					
Z	Clearance seal					
K	Light contact seal					
M	Heavy contact seal					
A	Pillow block, fixed					
AS	Pillow block, floating					
AF	Pillow block, fixed SAF interchange					
AFS	Pillow block, floating SAF interchange					
P	Pillow block, fixed					
PS	Pillow block, floating					
EP	Pillow block, fixed Type E interchange					
B	Flanged block, fixed 4 bolt					
EF	Flanged block, fixed 4 bolt Type E interchange					
F	Flanged block, fixed 4 or 6 bolt					
FS	Flanged block, floating 4 or 6 bolt					
BR	Flanged cartridge block, fixed 4 bolt round					
CS	Cartridge block, steel housing					
MC	Cartridge block, cast iron housing					
D	Duplex unit					
N	Take-up block for protected screw frame					
T	Take-up block for center pull frame					
AT	Center pull take-up assembly					
NT	Protected screw take-up assembly					
HT	Center pull take-up assembly					
FT	Elevator boot end take-up assembly					
GT	Elevator head end take-up assembly					
ST	Center pull spring loaded take-up assembly					
11	Size code – only for take-up blocks & assemblies					
2	2000 Series, single set collar					
3	3000 Series, eccentric locking collar					
5	5000 Series, double set collar					
6	6000 Series, SHÜRLOK® tapered adapter sleeve					
9	9000 Series, tapered adapter sleeve					
207	2 7/16" – last two digits in 16 th of an inch					
100MM	100 millimeters					
24	Inches of take-up adjustment – only for take-up assemblies					
A	One open auxiliary end cap (threaded cover side)					
B	One closed auxiliary end cap (threaded cover side)					
C	Closed end cap					
F	Four bolt housing (pillow blocks only)					
G	Face locked threaded cover					
H	Reverse assembly					
S	Machined pilot on face of flanged units					
V	Viton seal material (when M seal suffix is used)					
Y	Redesigned shaft size – not interchangeable					
72	Steel housing					
78	Steel retainers					
82	Anti fretting bore					

Rexnord Spherical Roller Bearings

To select a bearing, determine the applied radial load, the applied thrust load, the desired Rating Life, and applicable operating conditions. The procedure shown here will aid in selecting a bearing to meet an L₁₀ design life. The formulas for calculating life expectancy should be used to determine the Rating Life L₁₀ for the bearing selected.

The selection procedures and rating formulas shown here are in agreement with The American Bearing Manufacturers Association Standards and ANSI/ABMA STD 9-1990. Ratings are based on fatigue life. The Rating Life L₁₀ or fatigue life at 90% reliability is the usual basis for bearing selection.

To assure a satisfactory bearing application, fitting practice, mounting, lubrication, sealing, static rating, housing strength, operating conditions and maintenance must be considered.

Selection

Step 1

Determine an appropriate L₁₀ design life.

Type of service	Operating time, hours per year	Design life, years	L ₁₀ design life, hours
Light seasonal usage	500 to 750	3-5	3,000
Heavy seasonal usage	1,400 to 1,600	4-6	8,000
Industrial—8 hour shift	2,000	10	20,000
Industrial—16 hour shift	4,000	10	40,000
Industrial—continuous	8,700	10	80,000 to 100,000

Step 2

Determine a required $\left(\frac{C}{P}\right)$ from Table 1.

Step 3

Calculate the required C and select a roller bearing.

a For radial load only:

$$P = F_r$$

$$\text{required } C = \left(\frac{C}{P}\right) P \text{ using } \left(\frac{C}{P}\right) \text{ from Step 2}$$

Select a roller bearing from Table 2 with a basic load rating C equal to or greater than the required C.

Step 3 (continued)

b For combined radial and thrust loads:

Select a trial roller bearing of the desired shaft size from Table 2.

Calculate the ratio of thrust load F_a to the radial load F_r.

$$\frac{F_a}{F_r}$$

Calculate the equivalent radial load P

$$P = X F_r + Y F_a$$

If $\frac{F_a}{F_r}$ is equal to or less than e, then $P = X_1 F_r + Y_1 F_a$

If $\frac{F_a}{F_r}$ is greater than e, then $P = X_2 F_r + Y_2 F_a$

For values of e, X₁, Y₁, X₂, and Y₂, see Table 2.

Calculate the required C

$$\text{required } C = \left(\frac{C}{P}\right) P \text{ using } \left(\frac{C}{P}\right) \text{ from Step 2.}$$

Consult Table 2, basic load rating. If a smaller bearing meets, or nearly meets, the required C, its life expectancy can be calculated.

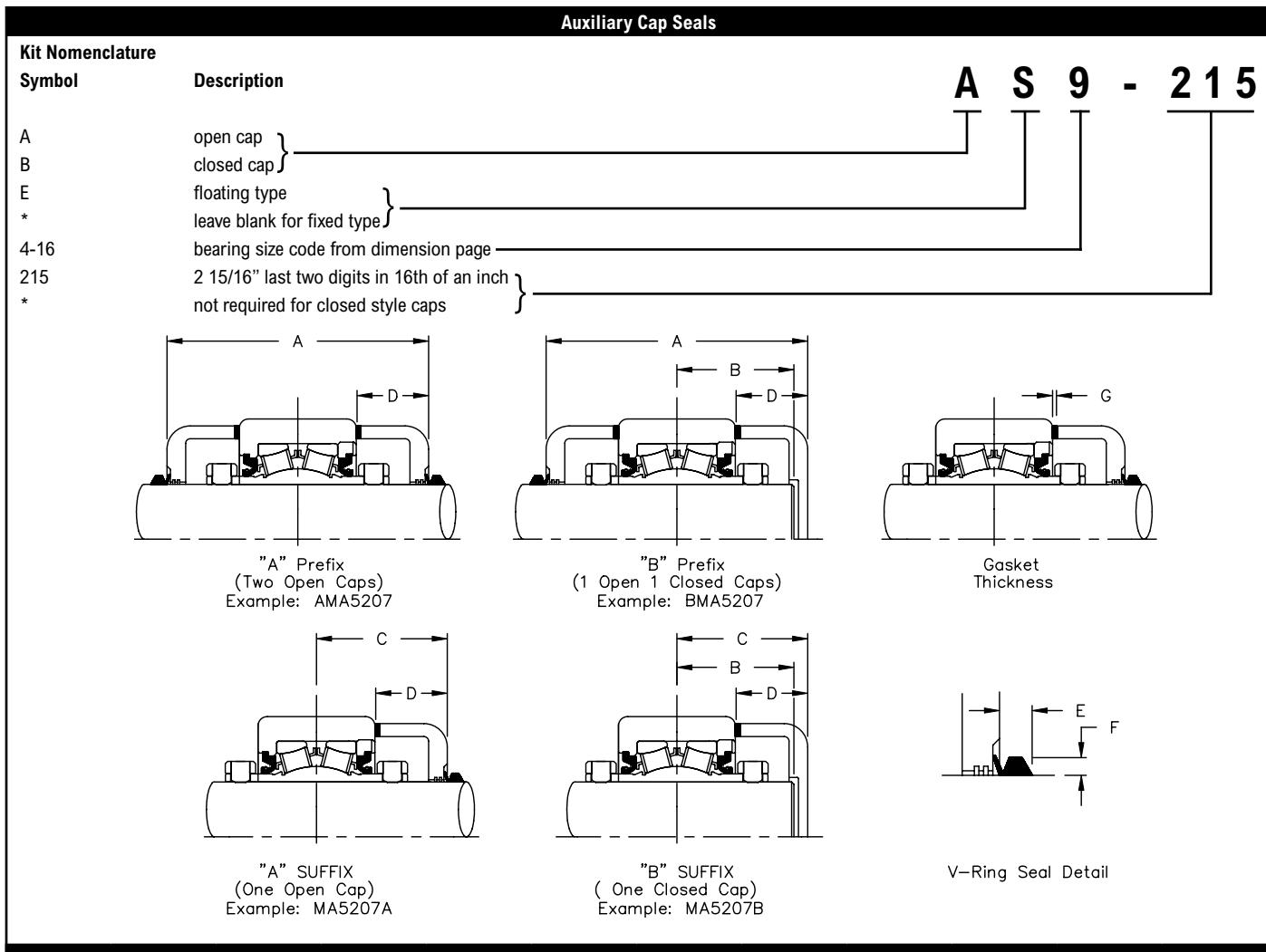
Note: If the load P is greater than .25C, consult Rexnord Bearing Division.

Table 2 • Load Ratings and Speed Limits

Size Code	Co Static load rating		C Basic load rating		Approximate speed limit RPM			e	$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
	newtons	pounds	newtons	pounds	Z seal	K seal	M seal		X ₁	Y ₁	X ₂	Y ₂
2	44433	9900	44433	9900	6500	4500	4400	0.46	1.00	1.47	0.67	2.20
3	63732	14200	64181	14300	5750	4000	3700	0.46	1.00	1.47	0.67	2.20
4	71811	16000	71362	15900	5250	3600	3300	0.46	1.00	1.47	0.67	2.20
5	95598	21300	90661	20200	4450	3100	2800	0.46	1.00	1.47	0.67	2.20
6	117590	26200	105023	23400	4050	2800	2500	0.39	1.00	1.75	0.67	2.60
7	142724	31800	122078	27200	3650	2500	2200	0.39	1.00	1.75	0.67	2.60
8	210046	46800	171448	38200	3300	2300	2000	0.39	1.00	1.75	0.67	2.60
9	249991	55700	210046	46800	2800	1900	1700	0.39	1.00	1.75	0.67	2.60
10	412462	91900	368029	82000	2400	1700	1400	0.39	1.00	1.75	0.67	2.60
11	572241	127500	529603	118000	2050	1400	1200	0.39	1.00	1.75	0.67	2.60
12	649886	144800	630138	140400	1850	-	1100	0.33	1.00	2.00	0.67	3.00
13	995026	221700	717657	159900	1600	-	1000	0.33	1.00	2.00	0.67	3.00
14	1267458	282400	852751	190000	1000	-	900	0.33	1.00	2.00	0.67	3.00
15	1394024	310600	954632	212700	900	-	800	0.33	1.00	2.00	0.67	3.00
16	1622471	361500	1056065	235300	800	-	700	0.33	1.00	2.00	0.67	3.00

Table 3 • Rexnord Size Code Interchange Table

Shaft Size	REX 2000 Single Set Collar Bearing Number	REX 3000 Twist Lock Eccentric Lock Bearing Number	REX 5000 Double Set Collar Bearing Number	REX 6000 SHURLOK® Tapered Adapter Bearing Number	REX 9000 Tapered Adapter Bearing Number	Size Code	Approx Outer Race Dia.
3/4	2012						
15/16	2015						
25mm	2025MM						
1	2100						
1-1/8	2102						
30mm	2030MM						
1-3/16	2103						
1-1/4	2104						
35mm	2035MM						
1-7/16	2107	3107	5107				
1-1/2	2108		5108				
40mm	2040MM		5040MM				
1-11/16	2111	3111	5111				
1-3/4	2112						
45mm	2045MM						
1-15/16	2115	3115	5115	6115			
50mm	2050MM		5050MM				
2	2200						
50mm				9050MM			
1-15/16				9115			
2			5200		9200		
55mm	2055MM		5055MM				
2-3/16	2203	3203	5203	6203			
2-1/4	2204						
55mm				9055MM			
2-3-16				9203			
60mm	2060MM		5060MM				
2-3/8	2206			6206			
2-7/16	2207	3207	5207	6207			
2-1/2	2208	3208					
65mm	2065MM		5065MM				
2-7/16				9207			
2-1/2			5208		9208		
2-11/16	2211	3211	5211	6211			
2/3/4	2212			6212			
70mm	2070MM		5070MM				
2-15/16	2215	3215	5215	6215			
75mm	2075MM		5075MM				
3	2300						
2-11/16				9211			
2-15/16				9215			
75mm				9075MM			
80mm	2080MM		5080MM				
3-3/16	2303		5303	6303			
85mm	2085MM		5085MM				
3-7/16	2307	3307	5307	6307			
3-1/2	2308	3308					
90mm	2090MM		5090MM				
80mm				9080MM			
3-3/16				9303			
3-7/16				9307			
3-11/16	2311		5311	6311			
100mm	2100MM		5100MM				
3-15/16	2315	3315	5315	6315			
4	2400		5400				
3-11/16				9311Y			
100mm				9100MM			
3-15/16				9315Y			
4				9400Y			
4-3-16			5403Y	6403Y			
110mm			5110MM				
4-7/16			5407Y	6407Y			
4-1/2			5408Y				
115mm			5115MM				
4-3/16				9403			
4-7/16				9407			
125mm			5125MM				
4-15/16			5415	6415			
5			5500				
130mm			5130MM				
4-15/16				9415			
5				9500			
5-7/16			5507				
140mm			5140MM				
5-3-16				9503			
5-7/16				9507			
150mm			5150MM				
5-15/16			5515				
6			5600				
160mm			5160MM				
5-15/16				9515			
6				9600			
6-7/16			5607		9607		
6-15/16			5615				
7			5700				
180mm			5180MM				



Cast Iron Auxiliary Cap											
Size Code	Fixed Bearings Only				Floating (Expansion) Bearings Only				V-Ring Seal		Gasket
	A	B	C	D*	A	B	C	D*	E	F	
4	5 5/16	2 5/16	2 11/16	1 9/16	5 1/2	2 3/8	2 3/4	1 17/32	5/16	3/16	
5	5 1/2	2 7/16	2 3/4	1 17/32	5 3/4	2 1/2	2 7/8	1 15/32			
6	5 9/16	2 7/16	2 13/16	1 9/16	5 3/4	2 1/2	2 7/8	1 17/32			
7	5 3/4	2 1/2	2 7/8	1 19/32	6 1/16	2 5/8	31/16	1 21/32			
8	6 1/16	2 3/4	3 1/16	1 23/32	6 5/16	2 3/4	3 3/16	1 23/32			
9	7	3 1/8	3 1/2	1 15/16	6 15/16	3 1/16	3 1/2	1 25/32			
10	6 15/16	3 1/16	3 1/2	1 13/16	7 3/8	3 5/8	3 11/16	1 29/32	7/16	1/4	3/16
11	8 5/16	3 5/8	4 3/16	2 5/32	8 9/16	3 3/4	4 5/16	2 5/32			
12	8 1/2	3 3/4	4 1/4	2 3/16	9 3/8	4 5/16	4 11/16	2 1/2			
13	10 1/8	4 1/2	5 1/16	2 9/32	10 9/16	4 3/4	5 5/16	2 9/32			
14	10 1/8	4 1/2	5 1/16	2 9/32	11 1/16	5	5 9/16	2 5/8			
15	11 1/16	4 15/16	5 9/16	2 5/8	11 1/2	4 15/16	5 3/4	2 3/4			
16	11 3/16	5	5 5/8	2 1/2	11 5/8	5 1/4	5 13/16	2 5/8	5/8	3/8	