

Maintenance-Free Spherical Plain Bearings and Slot Loaders



LUBRON™ MAINTENANCE-FREE SPHERICAL PLAIN BEARING SELECTION GUIDE

SI Units		AE40	AQ30	AQ100	TF	Fabroid	Fiberglide	SL30	SL40
Max. Load (N/mm ²)	Static	82	82	82	413	262	275	82	82
	Dynamic	55	55	55	206	140	140	55	55
Coeff. of Friction	μ	0.10	0.15	0.10	0.01	0.03	0.04	0.15	0.10
Max. Temp.	°C	450	150	150	225	150	150	125	425
Operation in water		Average	Excellent	Excellent	Good	Good	Good	Average	Average
Debris		Excellent	Excellent	Good	Sensitive	Sensitive	Sensitive	Excellent	Excellent
Inch		✓	✓	✓	✓	✓	✓	✓	✓
Metric		✓	✓	✓	✓	✓	✓	✓	✓

SELECTING A LUBRICANT

TF	LUBRON™ TF bearings are widely used in structural applications to accommodate thermal, seismic and mechanical expansion rotation. TF bearings provide exceptionally low coefficient of friction and high load capabilities. Constructed of woven PTFE fabric liners permanently bonded and mechanically locked to metal.
G	LUBRON™ Fabroid® is designed to carry higher loads with improved wear life in comparison to Fiberglide®. Fabroid® liner types are woven PTFE glass fabrics utilizing various thermoset resins depending on product type.
F	LUBRON™ Fiberglide® is ideal for oscillation, vibration, full rotation and linear applications. Fiberglide excels in the 2,000 to 10,000 psi load spectrum and has a low coefficient of friction. It is recommended where high loads are combined with low surface speeds.
AQ	Suitable for long-term immersion in flowing water, LUBRON™ AQ bearings are the proven choice for offshore, marine, hydro pump-turbine, and dam gate applications. LUBRON™ AQ bearings are constructed of high strength bronze alloys permanently embedded with PTFE solid lubricants, and are unequaled for toughness and durability.
SL	LUBRON™ SL bearings are widely used on structural and industrial applications for loads up to 8000 PSI and operating temperatures between -300 F and up to 1000 F. LUBRON SL bearings are available in variety of bronze, copper nickel, and Meehanite alloys.
AE	LUBRON™ AE bearings are designed for use in commercial grade nuclear power plants and nuclear powered vessels. Capable of withstanding high radiation and high temperatures.

MAINTENANCE-FREE SPHERICAL PLAIN BEARINGS

Maintenance-free spherical plain bearings are bearings that do not require any additional lubrication throughout the life span of the bearing. Our products are used in some of the largest projects and most critical applications on the planet, including: power generation, bridge building, sub-sea oil production, missile defense systems, and earthquake seismic isolation.

LUBRICANT COMPATIBILITY CHART

This lubricant compatibility chart is a short hand tool for describing the suitability of Lubron™ lubricants and a variety of materials. Use this chart to help guide your component selection.

Inner/Outer Ring Material		Corrosion Resistant	TF	G	F	AQ 30	AQ 100	SL 30	SL 40	AE 40
17-4PH	Stainless Steel	Excellent	X	X	X					
15-5PH	Stainless Steel	Excellent	X	X	X					
316L	Stainless Steel	Excellent	X	X	X					
52-100	Alloy Steel	Average	X	X	X					
862	Manganese Bronze	Good	X	X	X	X	X	X	X	X
863	Manganese Bronze	Good	X	X	X	X	X	X	X	X
954	Aluminum Bronze	Good	X	X	X	X	X	X	X	X
955	Nickel Aluminum Bronze	Good	X	X	X	X	X	X	X	X
958	Alpha Nickel Aluminum Bronze	Good	X	X	X	X	X	X	X	X
729/969	ToughMet®	Excellent	X	X	X	X	X	X	X	X

If you are interested in other materials not listed , please contact the Lubron Engineering Department to check for compatibility.

Lubron™ Spherical Plain Bearing Overview

17-4PH Stainless Steel Ring Material

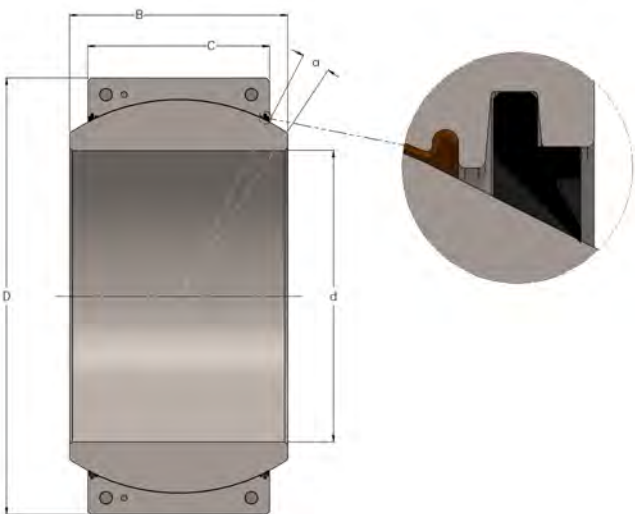
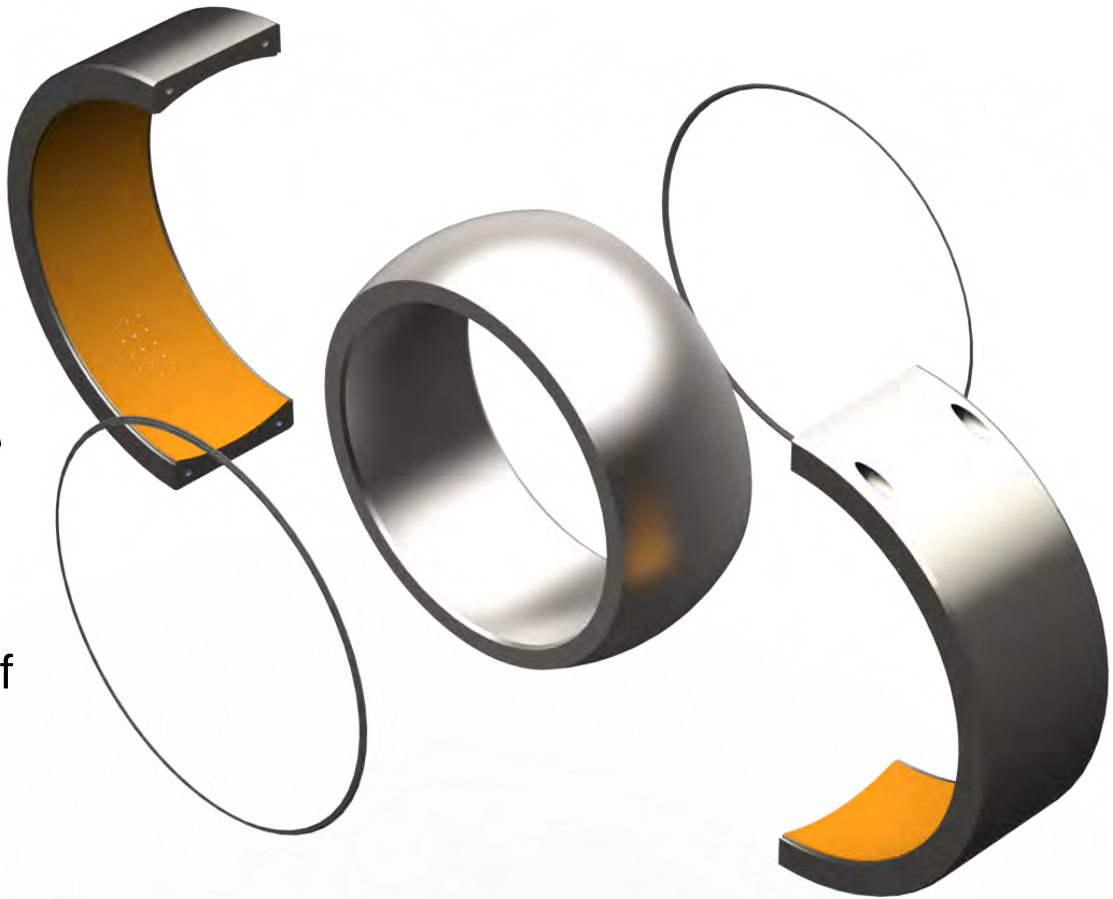
This aerospace grade backing material offers impressive strength and corrosion resistance. These characteristics are important to long term duration use.

Chrome Plated Inner Ring

Hard and smooth surface finish on the inner ring allows for a lower coefficient of friction and longer wear life.

Custom Designed Seals

Seals are custom designed to fit any size spherical plain bearing. These seals are used to minimize the number of contaminants allowed to enter the bearing rotating surface and lubricant.



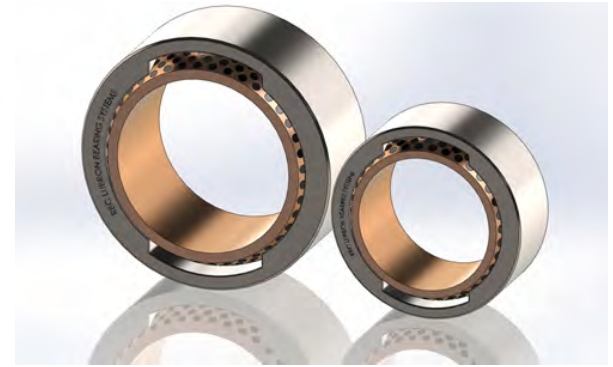
Lubron™ TF Liner

TF is the only woven PTFE fabric liner that is integrally bonded and mechanically locked to the bearing. Unlike other fabric liners they are not susceptible to delamination.

Reasons to Replace the Competition

1 Custom Designed Spherical Plain Bearings

RBC Lubron™ prides itself on designing optimized solutions for any and all issues related to service and construction of spherical plain bearings. Spherical plain bearings can be customized to meet the customer's specific application service requirements.



2 Corrosion Resistant Materials Available

RBC Lubron™ uses an Aerospace Grade 17-4 PH Stainless steel material for the inner and outer race that offers impressive strength and corrosion resistance that is extremely important to long duration usage. On the contrary, other spherical plain bearing manufacturers are known to use chrome plated bearing steel, as shown in Figure 1.



Figure 1 Materials shown were subjected to an aggressive test procedure intended to showcase years of exposure to the elements. All materials were tested simultaneously through the same exposure protocol to eliminate possibilities for testing variance.

Figure 1 Competitor's Chrome Plated Bearing Steel Pre and Post Test

3 Competitive Lead Time

Our technical team provides quick turn around for short deliveries and emergency situations. We have an advantage over our competition with the ability to expedite orders on demand.

RBC LUBRON™ INTERCHANGE TABLE

SKF®		LUBRON™	*Dimensions are expressed in millimeters		
Bearing Alloy	Stainless Steel	Stainless Steel	ID	OD	WIDTH
GE100TXA-2LS	GE100TXG3A-2LS	SPB100-TF	100	150	70
GE110TXA-2LS	GE110TXG3A-2LS	SPB110-TF	110	160	70
GE120TXA-2LS	GE120TXG3A-2LS	SPB120-TF	120	180	85
GE140TXA-2LS	GE140TXG3A-2LS	SPB140-TF	140	210	90
GE160TXA-2LS	GE160TXG3A-2LS	SPB160-TF	160	230	105
GE180TXA-2LS	GE180TXG3A-2LS	SPB180-TF	180	260	105
GE200TXA-2LS	GE200TXG3A-2LS	SPB200-TF	200	290	130
GE220TXA-2LS	-	SPB220-TF	220	320	135
GE240TXA-2LS	-	SPB240-TF	240	340	140
GE260TXA-2LS	-	SPB260-TF	260	370	150
GE280TXA-2LS	-	SPB280-TF	280	400	155
GE300TXA-2LS	-	SPB300-TF	300	430	165

SKF®		LUBRON™			
Bearing Alloy	Stainless Steel	Stainless Steel	ID	OD	WIDTH
GEC320TXA-2RS	-	SPB320-TF	320	440	160
GEC340TXA-2RS	-	SPB340-TF	340	460	160
GEC360TXA-2RS	-	SPB360-TF	360	480	160
GEC380TXA-2RS	-	SPB380-TF	380	520	190
GEC400TXA-2RS	-	SPB400-TF	400	540	190
GEC420TXA-2RS	-	SPB420-TF	420	560	190
GEC440TXA-2RS	-	SPB440-TF	440	600	218
GEC460TXA-2RS	-	SPB460-TF	460	620	218
GEC480TXA-2RS	-	SPB480-TF	480	650	230
GEC500TXA-2RS	-	SPB500-TF	500	670	230
GEC530TXA-2RS	-	SPB530-TF	530	710	243
GEC560TXA-2RS	-	SPB560-TF	560	750	258
GEC600TXA-2RS	-	SPB600-TF	600	800	272
GEC630TXA-2RS	-	SPB630-TF	630	850	300
GEC670TXA-2RS	-	SPB670-TF	670	900	308
GEC710TXA-2RS	-	SPB710-TF	710	950	325
GEC800TXA-2RS	-	SPB800-TF	800	1060	335

RBC LUBRON™ PART NUMBER DESIGNATION

Example:	SPBA320-AQMB (Axial Split SPB with AQ30 Manganese Bronze Outer Ring)					
	SPB	XXX	XX	X	XX	XX
Nomenclature	Type	I.D.	Outer Ring Lube- (optional)	Outer Ring Material- (optional)	Inner Ring Lube- (optional)	Inner Ring Material- (optional)
Position	1	2	Suffix	Suffix	Suffix	Suffix

Position 1-Type

SPB	Axial Split Spherical Plain Bearing
SPBR	Radial Split Spherical Plain Bearing
SPBS	Slot Loader Spherical Plain Bearing

Position 2 - Inner Diameter of Inner Ring

XX0 is expressed in millimeters
OR
Z+XXXX is expressed in inches
XXXX is expressed in 1/16 of an inch increments

Suffix- Outer Ring Lubricant

TF	Lubron TF
G	Fabroid® G
F	Fiberglide®
AQ	Lubron AQ30/AQ100
SL	Lubron SL
AE	Lubron AE40

Suffix-Inner Ring Lubricant

TF	Lubron TF
G	Fabroid® G
F	Fiberglide®
AQ	Lubron AQ30/AQ100
SL	Lubron SL
AE	Lubron AE40

Suffix-Outer Ring Material

SS	Stainless Steel
AS	52-100 Alloy Steel
TM	Toughmet®
MB	Manganese Bronze
AB	Aluminum Bronze
NAB	Nickel Aluminum Bronze
ANAB	Alpha Nickel Aluminum Bronze

Suffix-Inner Ring Material

SS	Stainless Steel
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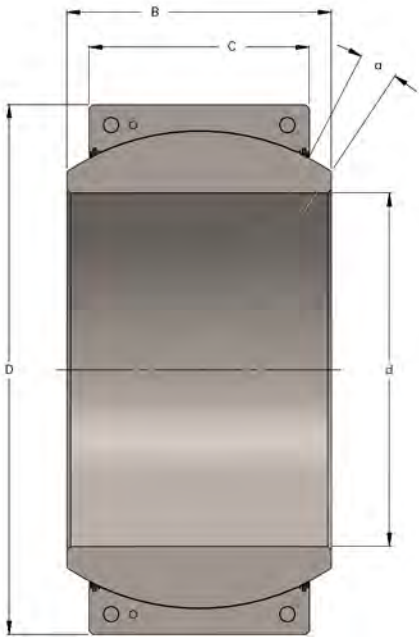


Please contact the Lubron™ Sales Department for any custom designed spherical plain bearings.

STANDARD MAINTENANCE-FREE
SPHERICAL PLAIN BEARINGS

Designation-
SPB(XX0)-TF

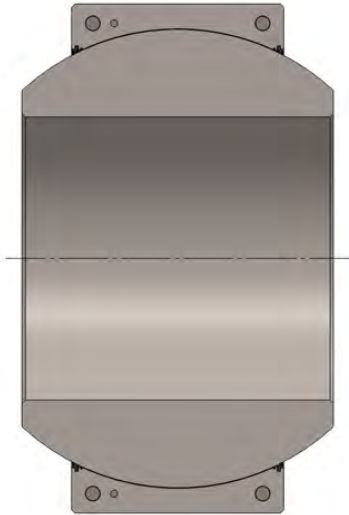
Corrosion Resistant



Custom sizes available

RBC Part Number	d Inside Diameter	D Outside Diameter	B Inner Ring Width	C Outer Ring Width	Inner Ring Outside Diameter	Angle of Tilt	Maximum Dynamic Load (kN)	Maximum Static Load (kN)	
SPB100-TF SPBH100-TF	100	150 160	70 85	55 55	130 140	6 13	1730 1860	2850 3100	
SPB110-TF SPBH110-TF	110	160 180	70 100	55 70	140 160	6 12	1860 2700	3100 4500	
SPB120-TF SPBH120-TF	120	180 210	85 115	70 70	160 180	6 16	2700 3000	4500 5000	
SPB140-TF SPBH140-TF	140	210	90	70	180	7	3000	5000	
SPB160-TF SPBH160-TF	160	230	105	80	200	8	3800	6400	
SPB200-TF SPBH200-TF	200	290	130	100	250	7	6000	10000	
SPB240-TF	240	340	140	100	300	8	7200	12000	
SPB260-TF	260	370	150	110	325	7	8650	14299	
SPB280-TF	280	400	155	120	350	6	10000	16599	
SPB300-TF	300	430	165	120	375	7	10800	17999	

Characteristics:



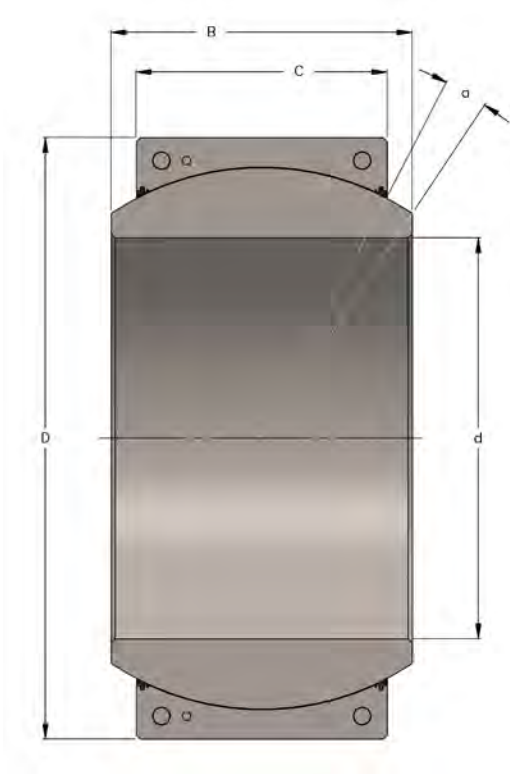
- Metric units
- Axial split
- Two-piece 17-4PH stainless steel outer ring
- One-piece 17-4PH stainless steel inner ring
- Lubron™ TF permanently bonded and mechanically locked to the outer ring inner diameter surface
- Heavy duty seals on both sides

	Recommended Dynamic Load (kN)	Recommended Static Load (kN)	Approximate Weight (kg) 17-4	Approximate Weight (kg) Alloy Steel	Equivalent to SKF® Part Number Stainless Steel	Equivalent to SKF® Part Number Bearing Steel
	336 362	1457 1569	4.50 6.20	4.40 5.90	GE 100 TXG3A-2LS GEH 100 TXG3A-2LS	GE 100 TXA-2LS GEH 100 TXA-2LS
	362 538	1569 2330	4.90 9.80	4.80 9.00	GE 110 TXG3A-2LS GEH 110 TXG3A-2LS	GE 110 TXA-2LS GEH 110 TXA-2LS
	538 605	2330 2622	8.10 16.00	8.25 14.90	GE 120 TXG3A-2LS GEH 120 TXG3A-2LS	GE 120 TXA-2LS GEH 120 TXA-2LS
	605	2622	11.50	11.00	GE 140 TXG3A-2LS	GE 140 TXA-2LS GEH 140 TXA-2LS
	776	3361	14.60	14.00	GE 160 TXG3A-2LS	GE 160 TXA-2LS GEH 160 TXA-2LS
	1163	5042	30.00	28.00	GE 200 TXG3A-2LS	GE 200 TXA-2LS GEH 200 TXA-2LS
	1396	6050	40.70	40.00	-	GE 240 TXA-2LS
	1681	7283	53.00	51.50	-	GE 260 TXA-2LS
	1991	9627	66.70	65.00	-	GE 280 TXA-2LS
	2133	9243	77.00	78.50	-	GE 300 TXA-2LS

STANDARD MAINTENANCE-FREE
SPHERICAL PLAIN BEARINGS

Designation-
SPBZ(XXXX)-TF

Corrosion Resistant



Custom sizes available

RBC Part Number	d Inside Diameter	D Outside Diameter	B Inner Ring Width	C Outer Ring Width	Inner Ring Outside Diameter	Angle of Tilt	Maximum Dynamic Load (kip)	
SPBZ0300-TF	3.00	4.75	2.63	2.25	4.32	6	168.75	
SPBZ0304-TF	3.25	5.13	2.85	2.44	4.68	6	198.00	
SPBZ0308-TF	3.50	5.50	3.07	2.66	5.04	6	229.50	
SPBZ0312-TF	3.75	5.88	3.29	2.82	5.39	6	265.50	
SPBZ0400-TF	4.00	6.25	3.50	3.00	5.75	6	301.50	
SPBZ0408-TF	4.50	7.00	3.94	3.38	6.48	6	382.50	
SPBZ0412-TF	4.75	7.38	4.16	3.57	6.83	6	427.50	
SPBZ0500-TF	5.00	7.75	4.38	3.75	7.19	6	468.00	
SPBZ0560-TF	6.00	8.75	4.75	4.13	8.16	6	585.00	
SPBZ0700TF	7.00	10.50	6.13	5.00	9.80	6	826.88	
SPBZ1000-TF	10.00	15.00	8.75	7.25	14.00	6	17771.88	
SPBZ2500-TF	25.00	38.00	21.88	18.25	35.00	6	11320.31	

Characteristics:

- Imperial units
- Axial split
- Two-piece 17-4PH stainless steel outer ring
- One-piece 17-4PH stainless steel inner ring
- Lubron™ TF permanently bonded and mechanically locked to the outer ring inner diameter surface
- Heavy duty seals on both sides



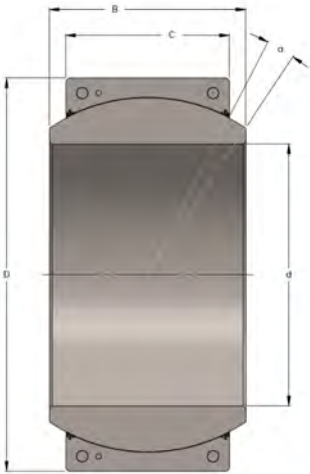
	Maximum Static Load (kip)	Recommended Dynamic Load (kip)	Recommended Static Load (kip)	Approx. Weight (lbs) 17-4PH	Equivalent to SKF® Part Number
	337.50	64.68	280.28	6.95	GEZ300TXA-2LS
	396.00	76.68	332.29	8.73	GEZ304TXA-2LS
	459.00	90.80	393.45	11.00	GEZ308TXA-2LS
	531.00	103.57	448.80	13.10	GEZ312TXA-2LS
	596.25	118.59	513.91	15.85	GEZ400TXA-2LS
	765.00	151.76	657.62	22.29	GEZ408TXA-2LS
	843.75	156.74	679.19	25.90	GEZ412TXA-2LS
	933.75	175.26	759.44	30.09	GEZ500TXA-2LS
	1170.00	221.74	960.88	38.05	GEZ560TXA-2LS
	1717.90	330.75	1433.25	71.12	-
	3685.50	708.75	3071.25	210.01	-
	23546.25	4528.13	19621.88	3458.70	-

STANDARD MAINTENANCE-FREE
SPHERICAL PLAIN BEARINGS

Designation-

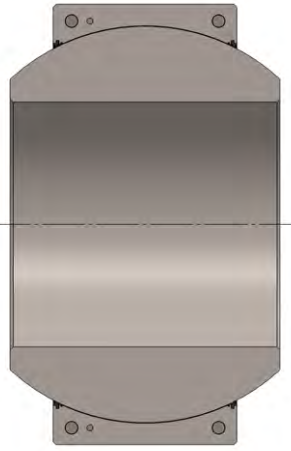
SPB (XX0)-TF

Heavy Loads



Custom sizes available

RBC Part Number	d Inside Diameter	D Outside Diameter	B Inner Ring Width	C Outer Ring Width	Inner Ring Outer Diameter	Angle of Tilt	Maximum Dynamic Load (kN)	
SPB320-TF	320	440	160	135	380	4	14000	
SPB340-TF	340	460	160	135	400	3	14600	
SPB360-TF	360	480	160	135	420	3	15300	
SPB380-TF	380	520	190	160	450	4	19300	
SPB400-TF	400	540	190	160	470	3	20400	
SPB420-TF	420	560	190	160	490	3	21200	
SPB440-TF	440	600	218	185	520	3	26000	
SPB460-TF	460	620	218	185	540	3	27000	
SPB480-TF	480	650	230	195	565	3	30000	
SPB500-TF	500	670	230	195	585	3	31000	
SPB530-TF	530	710	243	205	620	3	345000	
SPB560-TF	560	750	258	215	655	3	38000	
SPB600-TF	600	800	272	230	700	3	43000	
SPB630-TF	630	850	300	260	740	3	52000	
SPB670-TF	670	900	308	260	785	3	55000	
SPB710-TF	710	950	325	275	830	3	62000	
SPB750-TF	750	1 000	335	280	875	3	65500	
SPB800-TF	800	1 060	335	300	930	3	75000	



Characteristics-

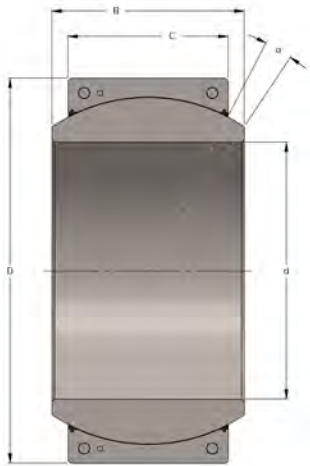
- Metric units
- Axial Split
- Two-piece 17-4PH stainless steel outer ring
- One-piece 17-4PH stainless steel inner ring
- Lubron™ TF permanently bonded and mechanically locked to the outer ring inner diameter
- Heavy duty seals on both sides

	Maximum Static Load (kN)	Recommended Dynamic Load (kN)	Recommended Static Load (kN)	Approximate Weight (kg) 17-4PH	Equivalent to SKF® Part Number
	23200	2259.85	9792.67	76	GEC 320 TXA-2RS
	24500	2378.79	10308.07	80	GEC 340 TXA-2RS
	25500	2497.73	10823.48	84	GEC 360 TXA-2RS
	32500	3257.90	14117.58	124	GEC 380 TXA-2RS
	34000	3402.70	14745.03	130	GEC 400 TXA-2RS
	35500	3574.50	15372.47	136	GEC 420 TXA-2RS
	43000	4436.95	19226.80	189	GEC 440 TXA-2RS
	45000	4607.61	19966.29	197	GEC 460 TXA-2RS
	50000	5113.10	22156.75	231	GEC 480 TXA-2RS
	51000	5294.10	22941.06	239	GEC 500 TXA-2RS
	57000	5931.45	25702.95	283	GEC 530 TXA-2RS
	63000	6605.00	28621.71	332	GEC 560 TXA-2RS
	72000	7601.77	32941.01	398	GEC 600 TXA-2RS
	86500	9184.18	39798.12	519	GEC 630 TXA-2RS
	91500	9742.78	42218.28	581	GEC 670 TXA-2RS
	102000	10945	47428.34	678	GEC 710 TXA-2RS
	110000	11765.65	50980.14	762	GEC 750 TXA-2RS
	125000	13466	58352.65	886	GEC 800 TXA-2RS

STANDARD MAINTENANCE-FREE
SPHERICAL PLAIN BEARINGS

Designation-
SPBZ(XXXX)-TF

Heavy Loads



Custom sizes available

RBC Part Number*	d Inside Diameter (rounded nearest 1/16")	D Outside Diameter	B Inner Ring Width	C Outer Ring Width	Inner Ring Outer Diameter	Angle of Tilt	
SPBZ1210-TF	12.63	17.32	6.30	5.31	14.96	4	
SPBZ1308-TF	13.50	18.11	6.30	5.31	15.75	3	
SPBZ1413-TF	14.13	18.90	6.30	5.31	16.54	3	
SPBZ1500-TF	15.00	20.47	7.48	6.30	17.72	4	
SPBZ1512-TF	15.75	21.26	7.48	6.30	18.50	3	
SPBZ1608-TF	16.50	22.05	7.48	6.30	19.29	3	
SPBZ1704-TF	17.25	23.62	8.58	7.28	20.47	3	
SPBZ1802-TF	18.13	24.41	8.58	7.28	21.26	3	
SPBZ1900-TF	19.00	25.59	9.06	7.68	22.24	3	
SPBZ1912-TF	19.75	26.38	9.06	7.68	23.03	3	
SPBZ2014-TF	20.88	27.95	9.57	8.07	24.41	3	
SPBZ2200-TF	22.00	29.53	10.16	8.46	25.79	3	
SPBZ2310-TF	23.63	31.50	10.71	9.06	27.56	3	
SPBZ2412-TF	24.75	33.46	11.81	10.24	29.13	3	
SPBZ2606-TF	26.38	35.43	12.13	10.24	30.91	3	
SPBZ2800-TF	28.00	37.40	12.80	10.83	32.68	3	
SPBZ2908-TF	29.50	39.37	13.19	11.02	34.45	3	
SPBZ3108-TF	31.50	41.73	13.19	11.81	36.61	3	



Characteristics-

- Imperial Units
- Axial Split
- Two-piece 17-4PH stainless steel outer ring
- One-piece 17-4PH stainless steel inner ring
- Lubron™ TF permanently bonded and mechanically locked to the outer ring inner diameter
- Heavy duty seals on both sides

	Maximum Dynamic Load (kip)	Maximum Static Load (kip)	Recommended Dynamic Load (kip)	Recommended Static Load (kip)	Approximate Weight (lbs) 17-4PH
	3147.20	5215.36	508.01	2201.39	166.71
	3282.08	5507.60	534.75	2317.25	176.02
	3439.44	5732.40	561.49	2433.12	185.32
	4338.64	7306.00	732.38	3173.63	273.33
	4585.92	7634.20	764.93	3314.68	286.20
	4765.76	7980.40	797.48	3455.73	299.10
	5844.80	9666.40	997.43	4322.18	416.94
	6067.60	10116.00	1035.79	4488.42	433.89
	6744.00	11240.00	1149.42	4980.84	508.67
	6968.80	11464.80	1190.11	5157.15	527.68
	7755.60	12813.60	1333.39	5778.02	623.89
	8542.40	14162.40	1484.81	6434.16	732.44
	9666.40	16185.60	1708.88	7405.14	878.10
	11689.60	19445.20	2064.60	8946.62	1143.41
	12364.00	20569.20	2190.15	9490.67	1281.64
	13937.60	22929.60	2460.44	10661.89	1494.29
	14724.40	24729.00	2644.69	11460.34	1680.43
	16860.00	28100.00	3027.16	13117.68	1953.63

STANDARD MAINTENANCE-FREE
SLOT LOADER SPHERICAL PLAIN BEARING

Designation:
SPBS (XX0)-TF



Thin Section Outer Race

Custom sizes available

RBC Part Number	d Inside Diameter	D Outside Diameter	B Inner Ring Width	C Outer Ring Width	Inner Ring Outer Diameter	Angle of Tilt	
SPBS100-TF	100	150	70	55	134	6	
SPBS110-TF	110	160	70	55	143	6	
SPBS120-TF	120	180	85	70	160	6	
SPBS140-TF	140	210	90	70	187	7	
SPBS160-TF	160	230	105	80	206	8	
SPBS200-TF	200	290	130	100	265	7	
SPBS240-TF	240	340	140	100	305	8	
SPBS260-TF	260	370	150	110	333	7	
SPBS280-TF	280	400	155	120	360	6	
SPBS300-TF	300	430	165	120	375	7	



Characteristics:

- Metric units
- One-piece 17-4PH stainless steel outer ring with loading slots
- One-piece 17-4PH stainless steel inner ring
- Lubron™ TF is permanently bonded and mechanically locked to the outer ring inner diameter surface

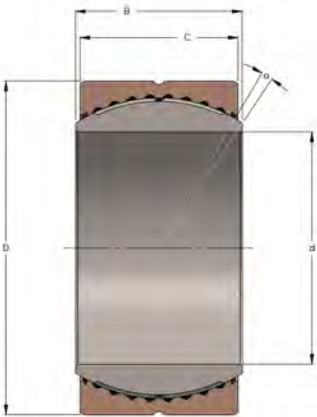
	Maximum Dynamic Load (kN)	Maximum Static Load (kN)	Recommended Dynamic Load (kN)	Recommended Static Load (kN)	Approximate Weight (kg) 17-4PH
	1730	3002	346	1501	4.47
	1850	3204	370	1602	4.84
	2480	4302	496	2151	7.97
	2900	5028	580	2514	11.38
	3730	6462	746	3231	14.33
	6165	10688	1233	5344	29.60
	7120	12342	1424	6171	40.28
	8610	14922	1722	7461	52.48
	10240	17746	2048	8873	66.10
	10665	18486	2133	9243	77.27

STANDARD MAINTENANCE-FREE
AQ30-BRONZE SPHERICAL PLAIN BEARING

Designation:

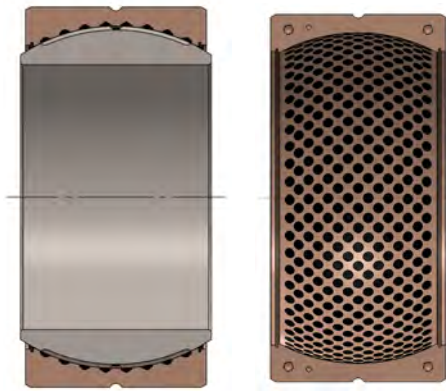
SPB(XX0)-AQB

Submersible



Custom sizes available

RBC Part Number	d Inside Diameter	D Outside Diameter	B Inner Ring Width	C Outer Ring Width	Inner Ring Outer Diameter	
SPB320-AQB	320	440	160	135	380	
SPB340-AQB	340	460	160	135	400	
SPB360-AQB	360	480	160	135	420	
SPB380-AQB	380	520	190	160	450	
SPB400-AQB	400	540	190	160	470	
SPB420-AQB	420	560	190	160	490	
SPB440-AQB	440	600	218	185	520	
SPB460-AQB	460	620	218	185	540	
SPB480-AQB	480	650	230	195	565	
SPB500-AQB	500	670	230	195	585	
SPB530-AQB	530	710	243	205	620	
SPB560-AQB	560	750	258	215	655	
SPB600-AQB	600	800	272	230	700	
SPB630-AQB	630	850	300	260	740	
SPB670-AQB	670	900	308	260	785	
SPB710-AQB	710	950	325	275	830	
SPB750-AQB	750	1000	335	280	875	
SPB800-AQB	800	1060	335	300	930	



Characteristics:

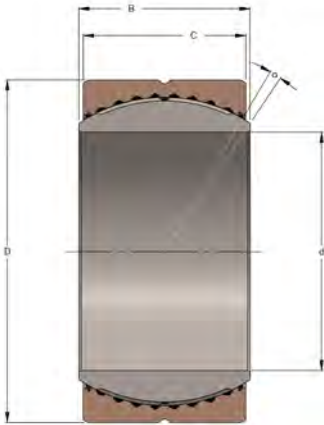
- Metric units
- Axial split
- Two-piece bronze outer ring
- One-piece stainless steel inner ring
- Bronze outer ring is lubricated with Lubron™ AQ30 on the inner diameter
- Heavy duty seals on both sides

	Angle of Tilt	Dynamic Load (kN)	Static Load (kN)	Approximate Weight (kg)
	4	1205	4821	75.62
	3	1269	5075	79.84
	3	1332	5328	84.06
	4	1737	6950	123.98
	3	1815	7259	129.82
	3	1892	7568	135.67
	3	2366	9465	189.12
	3	2457	9829	196.81
	3	2727	10907	230.73
	3	2823	11294	239.35
	3	3163	12653	282.99
	3	3523	14090	332.23
	3	4054	16216	398.30
	3	4898	19592	518.64
	3	5196	20783	581.34
	3	5837	23348	677.80
	3	6274	25097	762.23
	3	7182	28726	886.15

STANDARD MAINTENANCE-FREE
SL-BRONZE SPHERICAL PLAIN BEARING

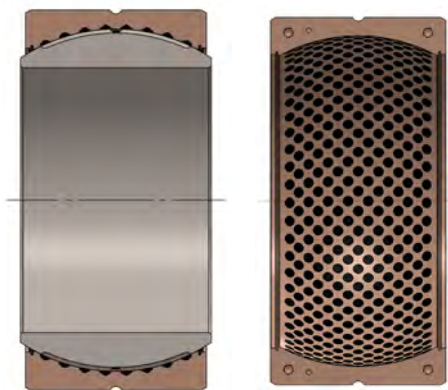
Designation:
SPBA (XX0)-SLB

Grease Compatible



Custom sizes available

RBC Part Number	d Inside Diameter	D Outside Diameter	B Inner Ring Width	C Outer Ring Width	Inner Ring Outer Diameter	
SPB320-SLB	320	440	160	135	380	
SPB340-SLB	340	460	160	135	400	
SPB360-SLB	360	480	160	135	420	
SPB380-SLB	380	520	190	160	450	
SPB400-SLB	400	540	190	160	470	
SPB420-SLB	420	560	190	160	490	
SPB440-SLB	440	600	218	185	520	
SPB460-SLB	460	620	218	185	540	
SPB480-SLB	480	650	230	195	565	
SPB500-SLB	500	670	230	195	585	
SPB530-SLB	530	710	243	205	620	
SPB560-SLB	560	750	258	215	655	
SPB600-SLB	600	800	272	230	700	
SPB630-SLB	630	850	300	260	740	
SPB670-SLB	670	900	308	260	785	
SPB710-SLB	710	950	325	275	830	
SPB750-SLB	750	1000	335	280	875	
SPB800-SLB	800	1060	335	300	930	



Characteristics:

- Metric units
- Axial split
- Two-piece bronze outer ring
- One-piece stainless steel inner ring
- Bronze outer ring is lubricated with Lubron™ SL on the inner diameter
- Heavy duty seals on both sides

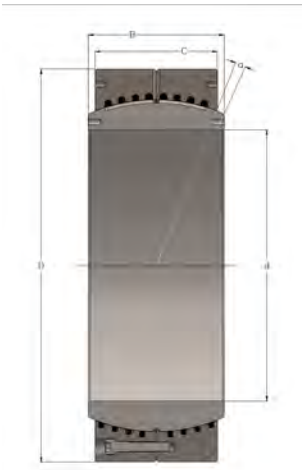
	Angle of Tilt	Dynamic Load (kN)	Static Load (kN)	Approximate Weight (kg)
	4	1205	4821	75.62
	3	1269	5075	79.84
	3	1332	5328	84.06
	4	1737	6950	123.98
	3	1815	7259	129.82
	3	1892	7568	135.67
	3	2366	9465	189.12
	3	2457	9829	196.81
	3	2727	10907	230.73
	3	2823	11294	239.35
	3	3163	12653	282.99
	3	3523	14090	332.23
	3	4054	16216	398.30
	3	4898	19592	518.64
	3	5196	20783	581.34
	3	5837	23348	677.80
	3	6274	25097	762.23
	3	7182	28726	886.15

STANDARD MAINTENANCE-FREE
SL-BRONZE SPHERICAL PLAIN BEARING

Designation:

SPBR (XX0)-SLB

Grease Compatible



Custom sizes available

RBC Part Number	d Inside Diameter	D Outside Diameter	B Inner Ring Width	C Outer Ring Width	Inner Ring Outer Diameter	
SPBR320-SLB	320	510	140	120	430	
SPBR340-SLB	340	530	140	120	450	
SPBR360-SLB	360	550	140	120	470	
SPBR380-SLB	380	600	150	130	490	
SPBR400-SLB	400	610	150	130	510	
SPBR420-SLB	420	630	150	130	530	
SPBR440-SLB	440	650	150	130	550	
SPBR460-SLB	460	670	170	150	570	
SPBR480-SLB	480	690	170	150	590	
SPBR500-SLB	500	710	170	150	610	
SPBR530-SLB	530	750	170	150	640	
SPBR560-SLB	560	810	210	180	670	
SPBR600-SLB	600	850	210	180	710	
SPBR630-SLB	630	910	210	180	770	
SPBR670-SLB	670	950	210	180	810	
SPBR710-SLB	710	990	210	180	860	
SPBR750-SLB	750	1030	210	180	910	
SPBR800-SLB	800	1150	210	180	980	

Characteristics:

- Metric units
- Radial split
- Two-piece bronze outer ring
- One-piece stainless steel inner ring
- Bronze outer ring is lubricated with Lubron™ SL on the inner diameter

	Angle of Tilt	Dynamic Load (kN)	Static Load (kN)	Approximate Weight (kg)
	6	1205	4820	250.93
	6	1268	5074	263.03
	5	1332	5328	277.14
	5	1737	6949	352.13
	4	1814	7258	362.04
	4	1891	7567	375.87
	4	2366	9464	387.20
	4	2457	9828	450.34
	4	2762	10906	467.31
	3	2823	11293	485.10
	3	3163	12652	537.71
	4	3522	14089	768.21
	4	4053	16215	819.27
	3	4897	19591	999.88
	3	5195	20782	1057.48
	3	5836	23347	1117.71
	3	6273	25095	1181.34
	3	7181	28724	1630.17

STANDARD MAINTENANCE-FREE
SL-BRONZE SPHERICAL PLAIN BEARING

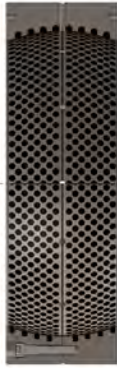
Designation:
SPBRZ (XXXX)-SLB

Grease Compatible



Custom sizes available

RBC Part Number	d Inside Diameter	D Outside Diameter	B Inner Ring Width	C Outer Ring Width	Inner Ring Outer Diameter	Outer Ring Inner Diameter
SPBRZ0400-SLB	4	12	3.50	3	8.75	11.75
SPBRZ0500-SLB	5	13	3.50	3	9.75	12.75
SPBRZ0600-SLB	6	14	3.50	3	10.75	13.75
SPBRZ0700-SLB	7	15	4.50	4	11.75	14.75
SBRZ0800-SLB	8	16	4.50	4	12.75	15.75
SPBRZ0900-SLB	9	17	4.50	4	13.75	16.75
SPBRZ1000-SLB	10	18	5.50	5	14.75	17.75
SPBRZ1500-SLB	15	23	5.50	5	19.25	22.25
SPBRZ1800-SLB	18	26.50	6.50	6	22.50	25.50
SPBRZ2000-SLB	20	29	6.50	6	24	27
SPBRZ2200-SLB	22	31.50	7.75	7	26.25	29.25
SPBRZ2400Z-SLB	24	33.50	7.75	7	28	31
SPBRZ2600-SLB	26	36.50	7.75	7	31.50	34.50
SPBRZ2800-SLB	28	39	7.75	7	33.88	36.88
SPBRZ3000-SLB	30	41.50	7.75	7	33.88	36.88
SPBRZ3200-SLB	32	44	7.75	7	38.75	41.75
SPBRZ3400-SLB	34	46.50	8	7.25	41.50	43.50
SPBRZ3600-SLB	36	49	8	7.25	43.50	46.50



Characteristics:

- Imperial units
- Radial split
- Two-piece bronze outer ring
- One-piece stainless steel inner ring
- Bronze outer ring is lubricated with Lubron™ SL on the inner diameter

	Angle of Tilt	Dynamic Load (kip)	Static Load (kip)	Approximate Weight (lbs)
	8	200	800	78.70
	7	250	875	90.10
	6	300	950	102
	6	350	1025	144.65
	5	400	1100	160
	5	450	1175	174.50
	5	500	1250	228.40
	3	550	1800	315.40
	3	600	2200	463.10
	3	650	2800	538.40
	3	780	3150	724.50
	3	900	3600	776.30
	2	1100	4380	959.80
	2	1320	5250	1080.60
	2	1420	5650	1211.70
	2	1650	6460	1361.05
	2	1850	7200	1563.80
	2	2000	7950	1716.70

RBC LUBRON™ APPLICATIONS

Spherical Plain Bearings

LUBRON™ spherical plain bearing applications have satisfied demanding applications and tough operating conditions for nearly 30 years. Projects around the world include highway bridges, railroad bridges, offshore oil platform bridges, sports arenas, airports, convention centers, power generation, processing plants, vessels, heavy equipment and machinery.



HUMBER BRIDGE

EAST YORKSHIRE, UK

Customer Problem: The customer needed to replace the original bearings that had become worn out.

Lubron Solution: We custom designed a total of (8) 450 mm Lubron TF spherical plain bearings for the main tower upper and lower linkage pendels. Lubron was able to provide compressive load testing to its maximum Serviceability Limit State (SLS) 2,744,000 lbf/12205 kN on our in-house 4,000,000 lbf/17792 kN test rig.



US NAVY AIRCRAFT CARRIER

VIRGINIA, USA

Customer Problem: The customer needed a corrosion resistant spherical plain bearing with unique installation requirements.

Lubron Solution: We custom designed a slot loading spherical plain bearing where the inner ring and outer ring are able to be separate during installation. To avoid any corrosion of these bearings the inner and outer rings were manufactured out of 17-4PH Stainless Steel.



LAS VEGAS HIGH ROLLER

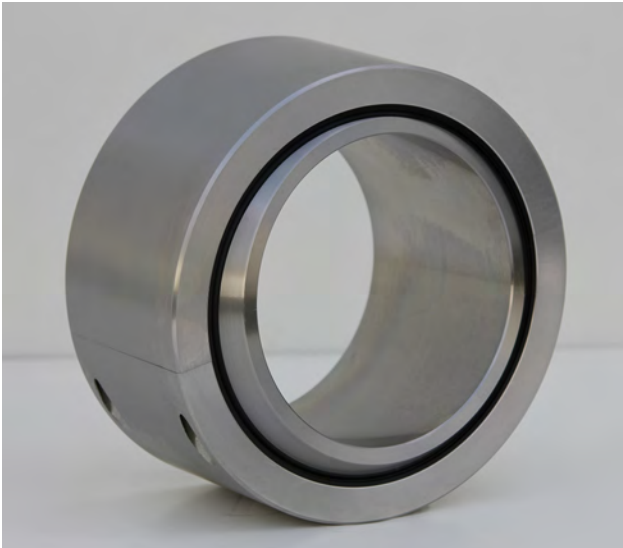
NEVADA, USA

Customer Problem: The customer needed a spherical plain bearing for a service life of 50 years and operating loads of up to 140,000 lbf/622 kN. They also required that testing data be provided to back up these claims.

Lubron Solution: Lubron was able to simulate an in-house test within two days, which was favorable to our bearings design. In the end, we manufactured a total of (230) Lubron TF spherical plain bearings to meet the life span and operating loads specified by the customer.

RBC LUBRON™ APPLICATIONS

Spherical Plain Bearings



LAS VEGAS RAIDER STADIUM NEVADA, USA

Customer Problem: The customer needed a corrosion resistant alternative to our competitors spherical plain bearings.

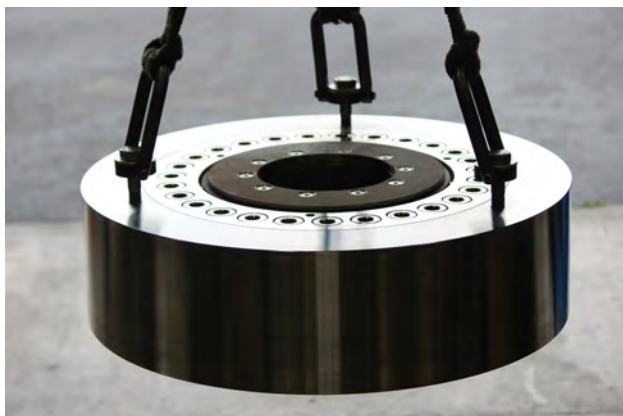
Lubron Solution: We custom designed (3) different sizes of corrosion resistant spherical plain bearings. Working closely with the engineering firm and construction company, we were able to get our Lubron TF spherical plain bearings specified on this project.



THAMES FLOOD BARRIER LONDON, UK

Customer Problem: The customer needed to replace the old spherical plain bearings (not Lubron's design) for the rising sector gates latch mechanism.

Lubron Solution: We were able to custom design spherical plain bearings that were equivalent to the original bearings. Lubron ended up supplying (10) 240 mm AQ30 spherical plain bearings for the rising sector gate.



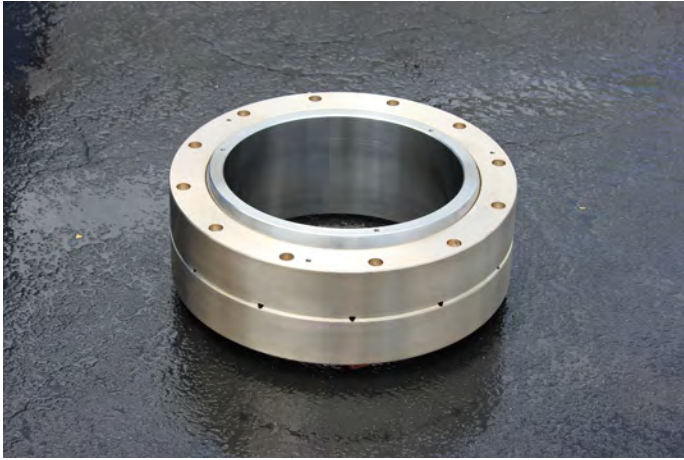
FOLSOM DAM BULKHEAD GATES CALIFORNIA, USA

Customer Problem: The customer needed a bearing that could withstand a dynamic load of 500,000 lbf/2224 kN with a maximum static load capacity in excess of 2,000,000 lbf/8896 kN

Lubron Solution: We custom designed corrosion resistant TF spherical track rollers that allow for smoother operation of the dam axillary spillway bulkhead gates.

RBC LUBRON™ APPLICATIONS

Spherical Plain Bearings



FORT STREET BASCULE BRIDGE MICHIGAN, USA

Customer Problem: During the refurbishment of this bridge the customer had a previous specifications the bearings had to adhere to regarding loads and speeds.

Lubron™ Solution: We custom designed (2) 20" ID Lubron SL30 spherical plain bearings that adhere to the original specifications. These bearings were custom designed to be corrosion resistant, permanently lubricated, and designed for a 1,200,000 lbf/ 5337 kN radial load.



OFFSHORE PLATFORM GULF OF MEXICO

Customer Problem: The customer needed spherical plain bearings that could operate in water depths of 3,000 feet / 914 meters and handle up to 100,000 barrels of crude oil per day. The composite bearing they were originally using was unsuccessful.

Lubron™ Solution: We custom designed and manufactured a total of (112) Lubron AQ spherical plain bearings. The bearings were designed to accommodate loads up to 1,112,000 lbf/4982 kN and manufactured out of high strength corrosion resistant materials.



NUCLEAR STEAM GENERATOR USA AND CHINA

Customer Problem: The customer needed a self-lubricating bearing that could withstand a high radiation environment.

Lubron™ Solution: As the only company that offers a self-lubricating, nuclear-grade bearing we were able to custom design a spherical plain bearing. The custom designed AE40 spherical plain bearings are currently used as lateral snubber supports for a steam generator.

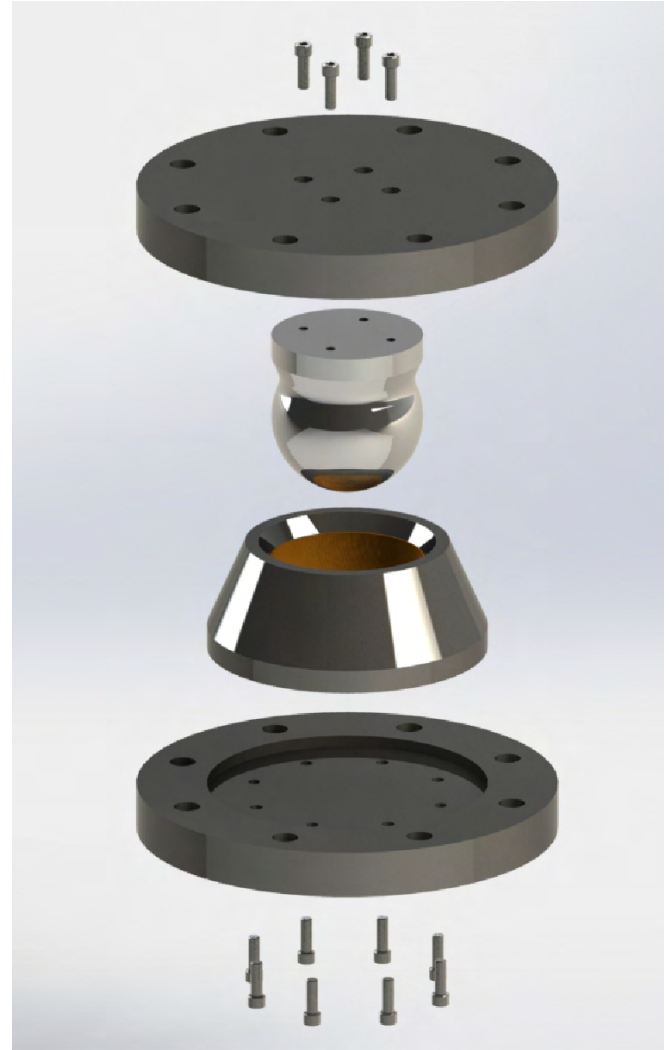
RBC BEARINGS PATENTED CUSTOM SOLUTION

Lubron™ TF High Articulation Spherical Joint Assemblies

At Lubron™, we custom design and manufacture TF ball and socket bearings that are installed in tuned mass dampers and viscous damping devices.



#US9926972B2



Applications: High Rise Buildings & Skyscrapers

Highlights

- 432 Park Avenue, NYC
- 100 East 53rd Street, NYC
- 220 Central Park South, NYC
- 138 East 50th Street, NYC
- 217 West 57th Street, NYC
- One Vanderbilt, NYC
- 111 West 57th Street, NYC



432 Park Ave in New York is currently one of the tallest residential buildings in the world.

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:

Specialty Cam Followers and Bearings:



Ball Transfer Unit for Transfer Decks on Terminals

Unique one-piece cup & hardened bearing-quality steel ensures unrivaled performance & wear. Increased cross section places more mass in load zone & improves load-carrying capability.



ER Series for Conveyor Pulleys

Metric OD, radial extended inner ID & OD bore, faces bore range: 5/8" to 1-15/16". Also available non-coded.



Necker Bearing for Can Making Neckers

Extends life 2x of standard Necker Cam Followers. Eliminates the need to lubricate the bearing and saves the plant on maintenance, grease and energy.



Ball Bearing Track Runner for Guard Rail Systems

Full complement Track Runner recommended for moderate loads. Full complement of balls with zinc plating for corrosion protection and hex head for ease of mounting.



1600™ Ball Bearing with Polyurethane Tire for Bottle Inspection Machinery

Ground precision ball bearing with molded polyurethane tire, greased for life. High speeds—up to 5,000 rpm. Easy-to-use inch dimension.



U Shape Ball Bearing for Braiding Machines

Ground precision ball bearing with u-shape pulley design. Recommended for up to 5,000 rpm and low friction PTFE Seals.



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.



Needle Roller Bearings

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



Self-Lubricating Bearings

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



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.



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.



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.



Ball Bearings

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



Cylindrical Roller Bearings

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



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.



Specials

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