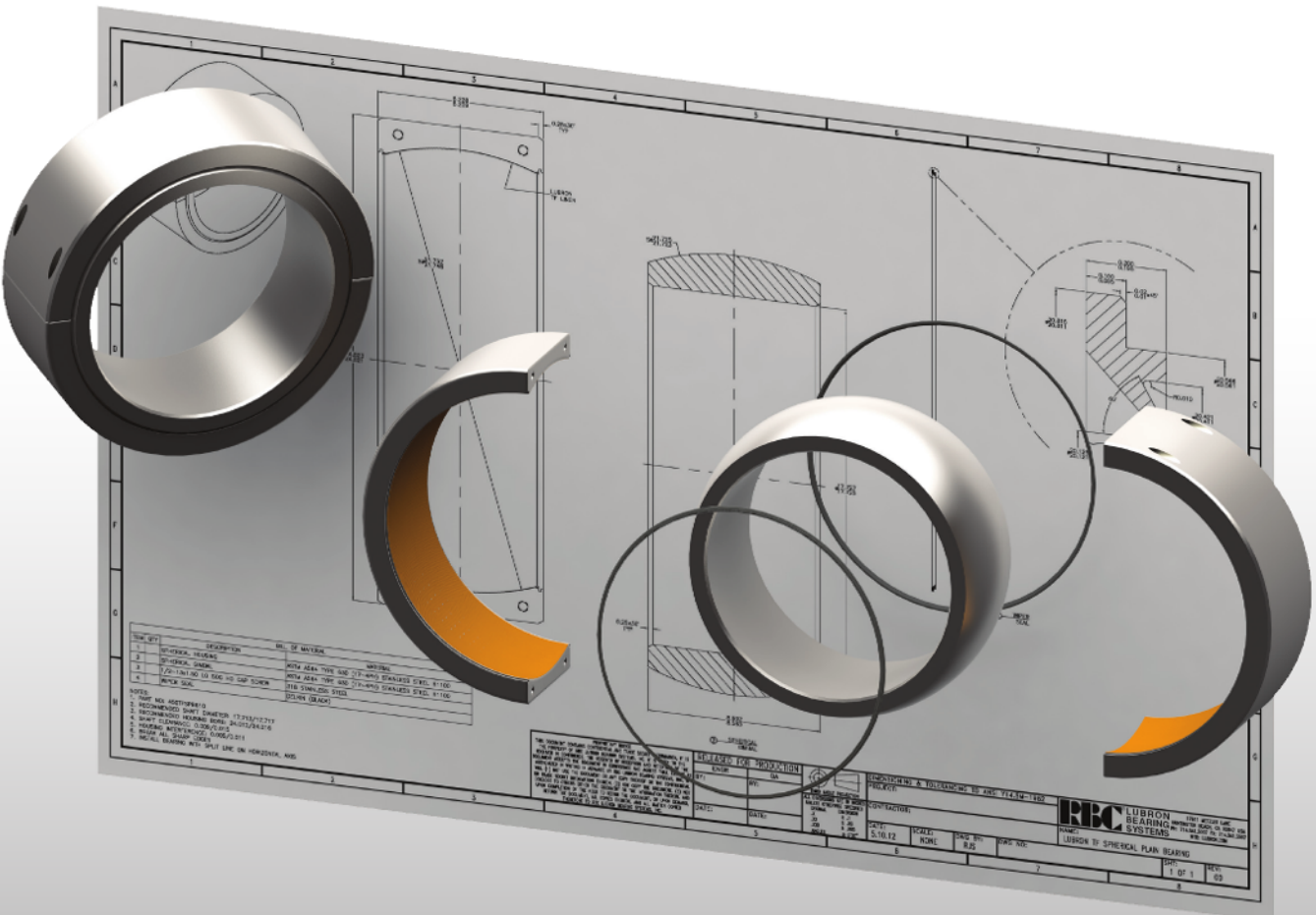


Maintenance-Free Spherical Plain Bearings and Slot Loaders



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	413	275	82	82
	Dynamic	55	55	55	206	206	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 Resistance		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 14 to 70 N/mm ² 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 unequalled for toughness and durability.
SL	LUBRON™ SL bearings are widely used on structural and industrial applications for loads up to 55 N/mm ² and operating temperatures between -184°C and up to 537°C. 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

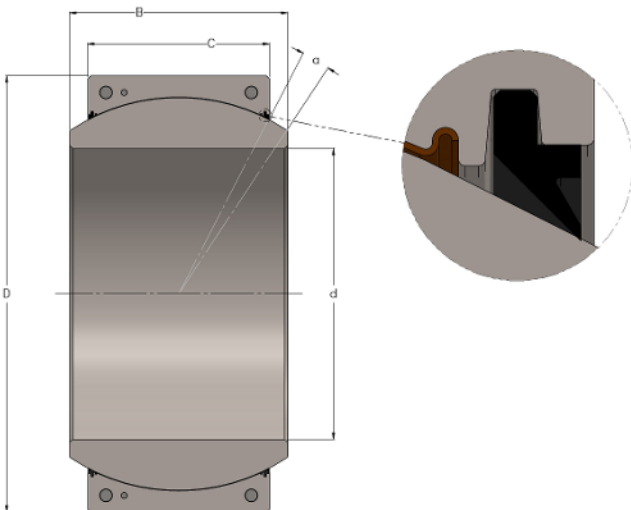
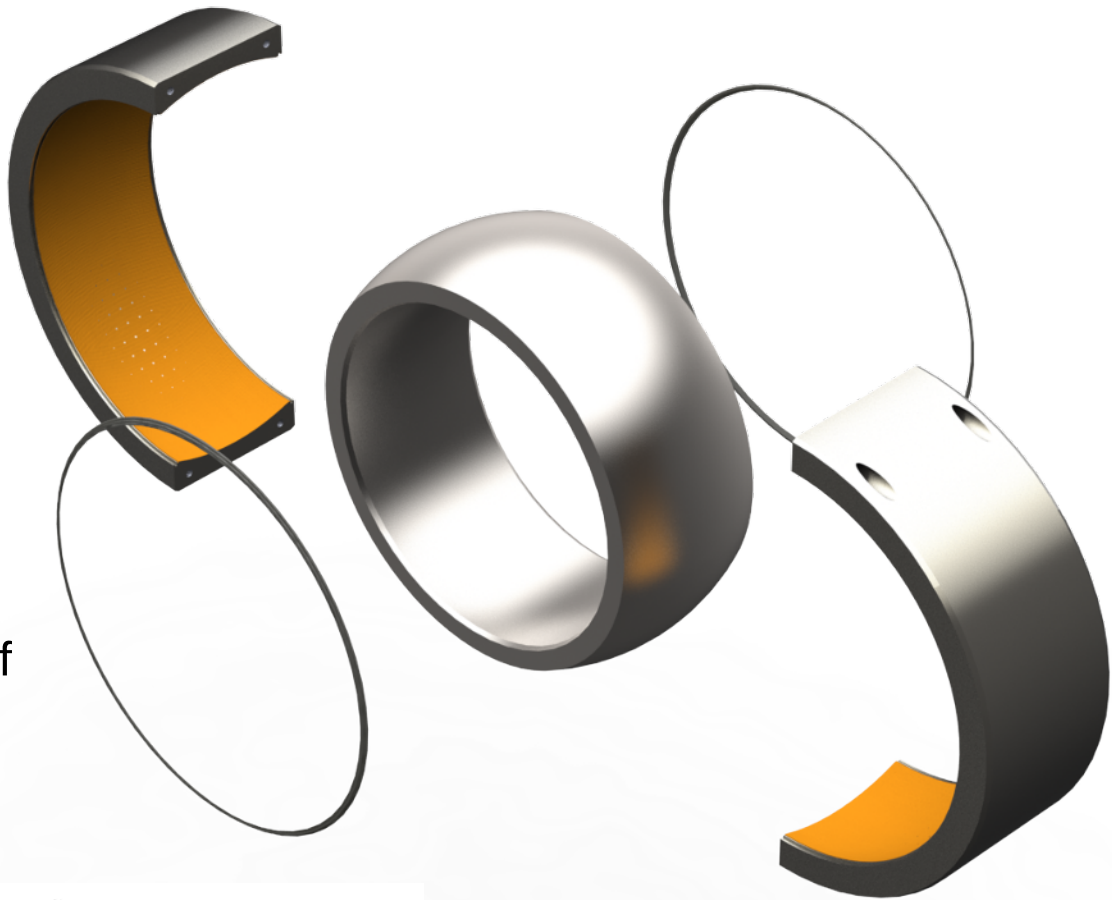
This aerospace grade backing material offers impressive strength and corrosion resistance. These characteristics are important to long term duration use.

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.



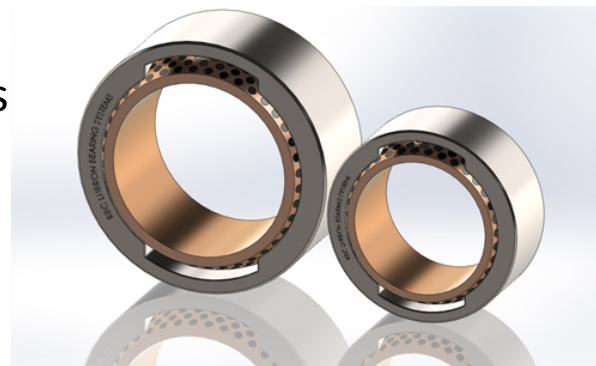
Lubron™ TF Liner

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

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

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.

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	1,060	335

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

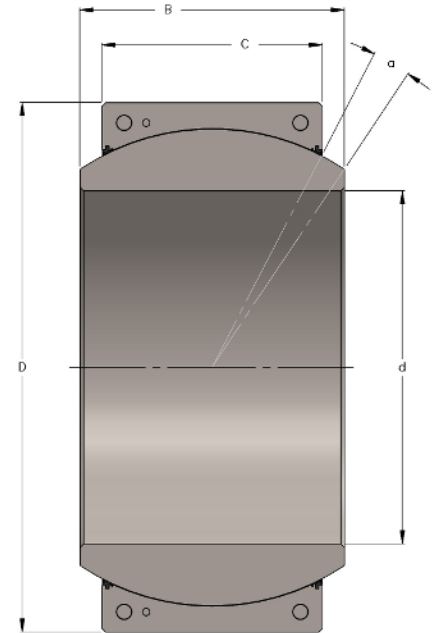


Please contact the Lubron™ Sales Department for any custom designed spherical plain bearings.

STANDARD MAINTENANCE-FREE SPHERICAL PLAIN BEARINGS

Designation-
SPB(XX0)-TF

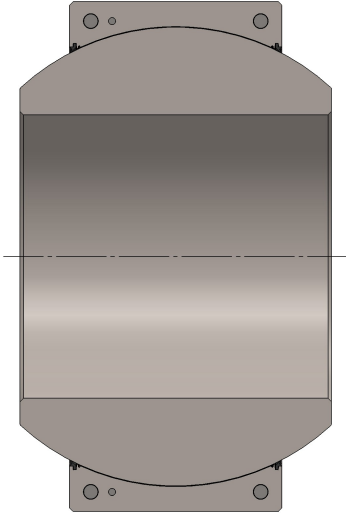
Corrosion Resistant



Custom sizes available

Lubron™ 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	1,730 1,860	2,850 3,100
SPB110-TF SPBH110-TF	110	160 180	70 100	55 70	140 160	6 12	1,860 2,700	3,100 4,500
SPB120-TF SPBH120-TF	120	180 210	85 115	70 70	160 180	6 16	2,700 3,000	4,500 5,000
SPB140-TF SPBH140-TF	140	210	90	70	180	7	3,000	5,000
SPB160-TF SPBH160-TF	160	230	105	80	200	8	3,800	6,400
SPB200-TF SPBH200-TF	200	290	130	100	250	7	6,000	10,000
SPB240-TF	240	340	140	100	300	8	7,200	12,000
SPB260-TF	260	370	150	110	325	7	8,650	14,299
SPB280-TF	280	400	155	120	350	6	10,000	16,599
SPB300-TF	300	430	165	120	375	7	10,800	17,999

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

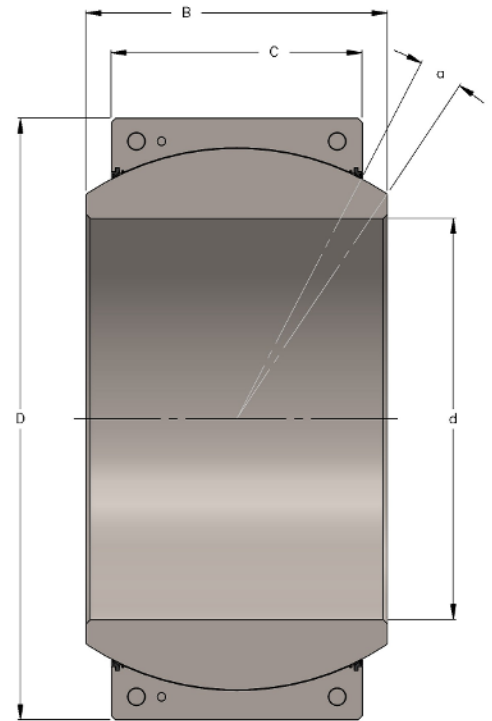
Recommended Dynamic Load (kN)	Recommended Static Load (kN)	Approximate Weight (kg) 17-4	Approximate Weight (kg) Alloy Steel	Equivalent to SKF® Part Number Stainless Steel	Equivalent to SKF® Part Number Bearing Steel
336 362	1,457 1,569	4.50 6.50	4.00 6.00	GE 100 TXG3A-2LS GEH 100 TXG3A-2LS	GE 100 TXA-2LS GEH 100 TXA-2LS
362 538	1,569 2,330	5.00 9.80	4.80 9.00	GE 110 TXG3A-2LS GEH 110 TXG3A-2LS	GE 110 TXA-2LS GEH 110 TXA-2LS
538 605	2,330 2,622	8.25 16.00	8.00 15.00	GE 120 TXG3A-2LS GEH 120 TXG3A-2LS	GE 120 TXA-2LS GEH 120 TXA-2LS
605	2,622	11.50	11.00	GE 140 TXG3A-2LS	GE 140 TXA-2LS GEH 140 TXA-2LS
776	3,361	15.00	14.00	GE 160 TXG3A-2LS	GE 160 TXA-2LS GEH 160 TXA-2LS
1,163	5,042	30.00	28.00	GE 200 TXG3A-2LS	GE 200 TXA-2LS GEH 200 TXA-2LS
1,396	6,050	41.00	40.00	-	GE 240 TXA-2LS
1,681	7,283	53.00	51.00	-	GE 260 TXA-2LS
1,991	9,627	67.00	65.00	-	GE 280 TXA-2LS
2,133	9,243	79.00	77.00	-	GE 300 TXA-2LS

STANDARD MAINTENANCE-FREE SPHERICAL PLAIN BEARINGS

Designation-

SPBZ(XXXX)-TF

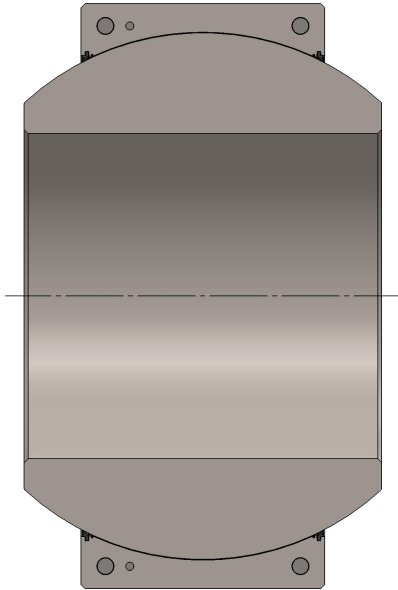
Corrosion Resistant



Custom sizes available

Lubron™ 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	169
SPBZ0304-TF	3.25	5.13	2.85	2.44	4.68	6	198
SPBZ0308-TF	3.50	5.50	3.07	2.66	5.04	6	230
SPBZ0312-TF	3.75	5.88	3.29	2.82	5.39	6	265
SPBZ0400-TF	4.00	6.25	3.50	3.00	5.75	6	302
SPBZ0408-TF	4.50	7.00	3.94	3.38	6.48	6	383
SPBZ0412-TF	4.75	7.38	4.16	3.57	6.83	6	428
SPBZ0500-TF	5.00	7.75	4.38	3.75	7.19	6	468
SPBZ0560-TF	6.00	8.75	4.75	4.13	8.16	6	585
SPBZ0700TF	7.00	10.50	6.13	5.00	9.80	6	827
SPBZ1000-TF	10.00	15.00	8.75	7.25	14.00	6	1,778
SPBZ2500-TF	25.00	38.00	21.88	18.25	35.00	6	11,320

Characteristics:



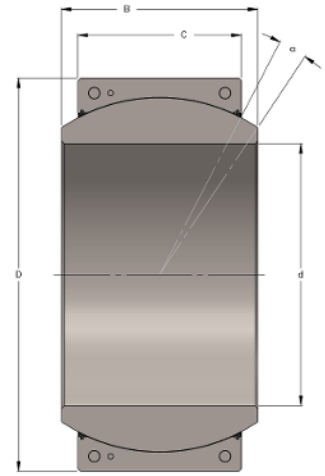
- Imperial units
- Axial split
- Two-piece 17-4PH stainless steel outer ring
- One-piece 17-4PH stainless steel inner ring
- Lubron™ TF permanently bonded and mechanically locked to the outer ring inner diameter surface
- Heavy duty seals on both sides

Maximum Static Load (kip)	Recommended Dynamic Load (kip)	Recommended Static Load (kip)	Approx. Weight (lbs) 17-4PH	Equivalent to SKF® Part Number
338	65	280	8	GEZ300TXA-2LS
396	77	332	10	GEZ304TXA-2LS
459	91	393	11	GEZ308TXA-2LS
531	104	44	13	GEZ312TXA-2LS
596	119	514	15	GEZ400TXA-2LS
765	152	658	20	GEZ408TXA-2LS
844	157	679	25	GEZ412TXA-2LS
934	175	759	30	GEZ500TXA-2LS
1,170	222	961	40	GEZ560TXA-2LS
1,718	331	1,433	70	-
3,686	709	3,071	210	-
23,546	4,528	19,622	3,460	-

STANDARD MAINTENANCE-FREE SPHERICAL PLAIN BEARINGS

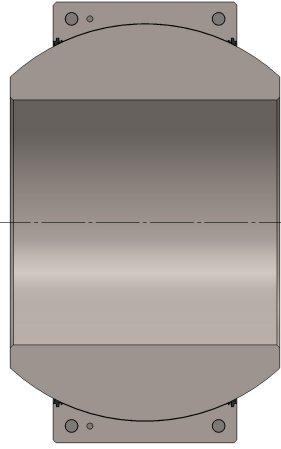
Designation-
SPB (XX0)-TF

Heavy Loads



Custom sizes available

Lubron™ 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	14,000
SPB340-TF	340	460	160	135	400	3	14,600
SPB360-TF	360	480	160	135	420	3	15,300
SPB380-TF	380	520	190	160	450	4	19,300
SPB400-TF	400	540	190	160	470	3	20,400
SPB420-TF	420	560	190	160	490	3	21,200
SPB440-TF	440	600	218	185	520	3	26,000
SPB460-TF	460	620	218	185	540	3	27,000
SPB480-TF	480	650	230	195	565	3	30,000
SPB500-TF	500	670	230	195	585	3	31,000
SPB530-TF	530	710	243	205	620	3	34,500
SPB560-TF	560	750	258	215	655	3	38,000
SPB600-TF	600	800	272	230	700	3	43,000
SPB630-TF	630	850	300	260	740	3	52,000
SPB670-TF	670	900	308	260	785	3	55,000
SPB710-TF	710	950	325	275	830	3	62,000
SPB750-TF	750	1,000	335	280	875	3	65,500
SPB800-TF	800	1,060	335	300	930	3	75,000



Characteristics-

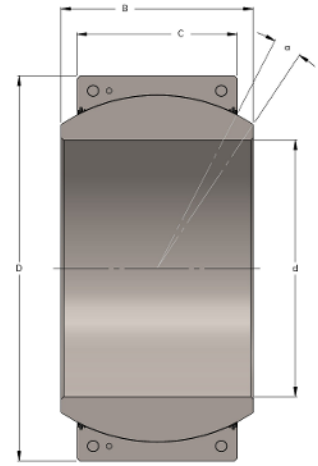
- Metric units
- Axial Split
- Two-piece 17-4PH stainless steel outer ring
- One-piece 17-4PH stainless steel inner ring
- Lubron™ TF permanently bonded and mechanically locked to the outer ring inner diameter
- Heavy duty seals on both sides

Maximum Static Load (kN)	Recommended Dynamic Load (kN)	Recommended Static Load (kN)	Approximate Weight (kg) 17-4PH	Equivalent to SKF® Part Number
23,200	2,260	9,793	75	GEC 320 TXA-2RS
24,500	2,379	10,308	80	GEC 340 TXA-2RS
25,500	2,498	10,824	85	GEC 360 TXA-2RS
32,500	3,258	14,118	125	GEC 380 TXA-2RS
34,000	3,403	14,745	130	GEC 400 TXA-2RS
35,500	3,575	15,373	135	GEC 420 TXA-2RS
43,000	4,437	19,227	190	GEC 440 TXA-2RS
45,000	4,608	19,966	200	GEC 460 TXA-2RS
50,000	5,113	22,157	230	GEC 480 TXA-2RS
51,000	5,294	22,941	240	GEC 500 TXA-2RS
57,000	5,931	25,703	285	GEC 530 TXA-2RS
63,000	6,605	28,622	330	GEC 560 TXA-2RS
72,000	7,602	32,941	400	GEC 600 TXA-2RS
86,500	9,184	39,798	520	GEC 630 TXA-2RS
91,500	9,743	42,218	580	GEC 670 TXA-2RS
102,000	10,945	47,428	680	GEC 710 TXA-2RS
110,000	11,766	50,980	760	GEC 750 TXA-2RS
125,000	13,466	58,353	890	GEC 800 TXA-2RS

STANDARD MAINTENANCE-FREE
SPHERICAL PLAIN BEARINGS

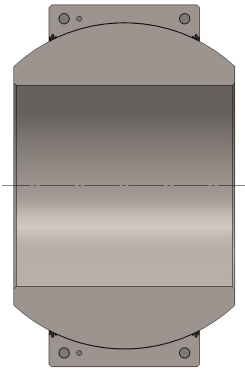
Designation-
SPBZ(XXXX)-TF

Heavy Loads



Custom sizes available

Lubron™ 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
3,147	5,215	508	2,201	165
3,282	5,508	535	2,317	175
3,439	5,732	562	2,433	185
4,339	7,306	732	3,174	275
4,586	7,634	765	3,315	285
4,766	7,980	798	3,456	300
5,845	9,666	997	4,322	415
6,068	10,116	1,036	4,488	430
6,744	11,240	1,149	4,981	510
6,969	11,465	1,190	5,157	530
7,756	12,814	1,333	5,778	620
8,542	14,162	1,485	6,434	730
9,666	16,186	1,709	7,405	880
11,690	19,445	2,065	8,947	1,145
12,364	20,569	2,190	9,491	1,280
13,938	22,930	2,460	10,662	1,500
14,724	24,729	2,645	11,460	1,680
16,860	28,100	3,027	13,118	1,960

STANDARD MAINTENANCE-FREE
SLOT LOADER SPHERICAL PLAIN BEARING

Designation:

SPBS (XX0)-TF



Single Piece Housing

Custom sizes available

Lubron™ 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

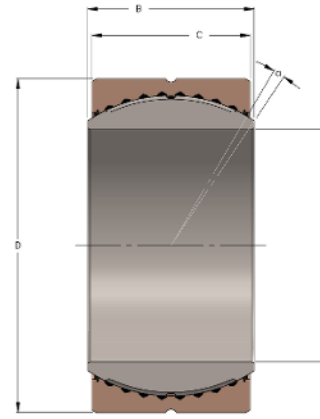
Maximum Dynamic Load (kN)	Maximum Static Load (kN)	Recommended Dynamic Load (kN)	Recommended Static Load (kN)	Approximate Weight (kg) 17-4PH
1,730	3,002	346	1,501	4
1,850	3,204	370	1,602	5
2,480	4,302	496	2,151	8
2,900	5,028	580	2,514	12
3,730	6,462	746	3,231	14
6,165	10,688	1,233	5,344	30
7,120	12,342	1,424	6,171	40
8,610	14,922	1,722	7,461	50
10,240	17,746	2,048	8,873	65
10,665	18,486	2,133	9,243	75

STANDARD MAINTENANCE-FREE
AQ30-BRONZE SPHERICAL PLAIN BEARING

Designation:

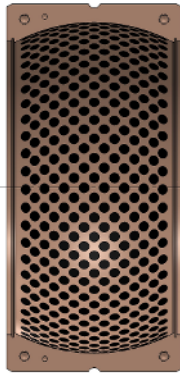
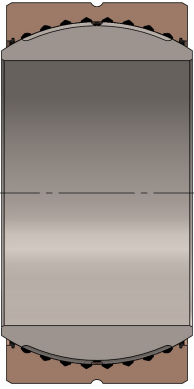
SPB(XX0)-AQAB

Submersible



Custom sizes available

Lubron™ Part Number	d Inside Diameter	D Outside Diameter	B Inner Ring Width	C Outer Ring Width	Inner Ring Outer Diameter
SPB320-AQAB	320	440	160	135	380
SPB340-AQAB	340	460	160	135	400
SPB360-AQAB	360	480	160	135	420
SPB380-AQAB	380	520	190	160	450
SPB400-AQAB	400	540	190	160	470
SPB420-AQAB	420	560	190	160	490
SPB440-AQAB	440	600	218	185	520
SPB460-AQAB	460	620	218	185	540
SPB480-AQAB	480	650	230	195	565
SPB500-AQAB	500	670	230	195	585
SPB530-AQAB	530	710	243	205	620
SPB560-AQAB	560	750	258	215	655
SPB600-AQAB	600	800	272	230	700
SPB630-AQAB	630	850	300	260	740
SPB670-AQAB	670	900	308	260	785
SPB710-AQAB	710	950	325	275	830
SPB750-AQAB	750	1,000	335	280	875
SPB800-AQAB	800	1,060	335	300	930



Characteristics:

- Metric units
- Axial split
- Two-piece aluminum 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

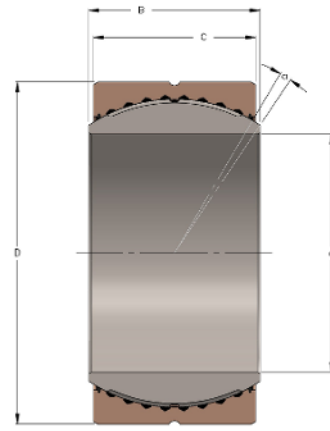
Angle of Tilt	Dynamic Load (kN)	Static Load (kN)	Approximate Weight (kg)
4	1,205	4,821	75
3	1,269	5,075	80
3	1,332	5,328	85
4	1,737	6,950	125
3	1,815	7,259	130
3	1,892	7,568	135
3	2,366	9,465	190
3	2,457	9,829	200
3	2,727	10,907	230
3	2,823	11,294	240
3	3,163	12,653	280
3	3,523	14,090	330
3	4,054	16,216	400
3	4,898	19,592	520
3	5,196	20,783	580
3	5,837	23,348	680
3	6,274	25,097	760
3	7,182	28,726	885

STANDARD MAINTENANCE-FREE
SL-BRONZE SPHERICAL PLAIN BEARING

Designation:

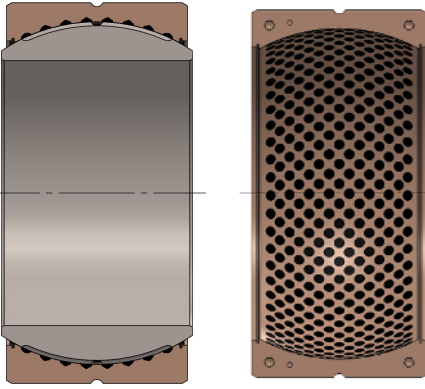
SPB(XX0)-SLAB

Grease Compatible



Custom sizes available

Lubron™ Part Number	d Inside Diameter	D Outside Diameter	B Inner Ring Width	C Outer Ring Width	Inner Ring Outer Diameter
SPB320-SLAB	320	440	160	135	380
SPB340-SLAB	340	460	160	135	400
SPB360-SLAB	360	480	160	135	420
SPB380-SLAB	380	520	190	160	450
SPB400-SLAB	400	540	190	160	470
SPB420-SLAB	420	560	190	160	490
SPB440-SLAB	440	600	218	185	520
SPB460-SLAB	460	620	218	185	540
SPB480-SLAB	480	650	230	195	565
SPB500-SLAB	500	670	230	195	585
SPB530-SLAB	530	710	243	205	620
SPB560-SLAB	560	750	258	215	655
SPB600-SLAB	600	800	272	230	700
SPB630-SLAB	630	850	300	260	740
SPB670-SLAB	670	900	308	260	785
SPB710-SLAB	710	950	325	275	830
SPB750-SLAB	750	1,000	335	280	875
SPB800-SLAB	800	1,060	335	300	930



Characteristics:

- Metric units
- Axial split
- Two-piece aluminum 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

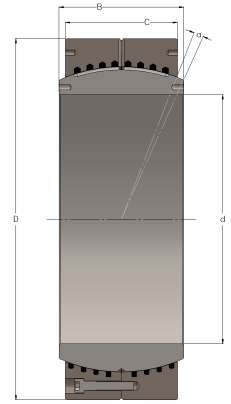
Angle of Tilt	Dynamic Load (kN)	Static Load (kN)	Approximate Weight (kg)
4	1,205	4,821	75
3	1,269	5,075	80
3	1,332	5,328	85
4	1,737	6,950	125
3	1,815	7,259	130
3	1,892	7,568	135
3	2,366	9,465	190
3	2,457	9,829	200
3	2,727	10,907	230
3	2,823	11,294	240
3	3,163	12,653	280
3	3,523	14,090	330
3	4,054	16,216	400
3	4,898	19,592	520
3	5,196	20,783	580
3	5,837	23,348	680
3	6,274	25,097	760
3	7,182	28,726	885

STANDARD MAINTENANCE-FREE
SL-BRONZE SPHERICAL PLAIN BEARING

Designation:

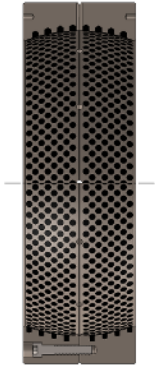
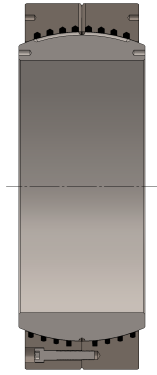
SPBRZ (XXXX)-SLAB

Grease Compatible



Custom sizes available

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



Characteristics:

- Imperial units
- Radial split
- Two-piece aluminum 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	79
7	250	875	90
6	300	950	100
6	350	1,025	145
5	400	1,100	160
5	450	1,175	175
5	500	1,250	230
3	550	1,800	315
3	600	2,200	460
3	650	2,800	540
3	780	3,150	725
3	900	3,600	775
2	1,100	4,380	960
2	1,320	5,250	1,080
2	1,420	5,650	1,200
2	1,650	6,460	1,360
2	1,850	7,200	1,560
2	2,000	7,950	1,715

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

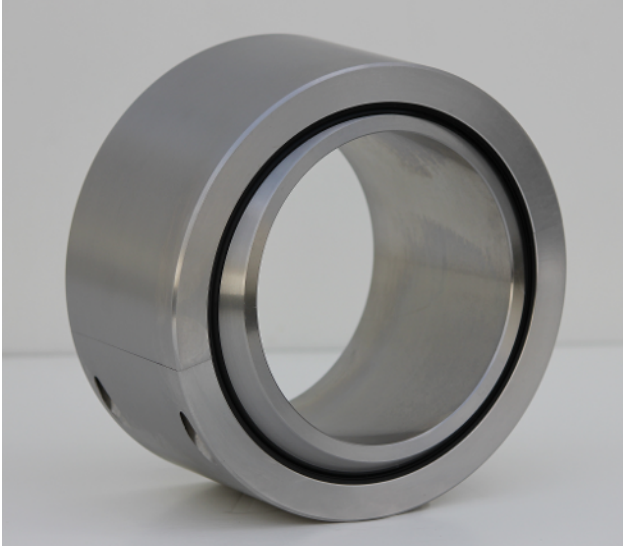
NEVADA, USA

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.

LUBRON™ APPLICATIONS

Spherical Plain Bearings



LAS VEGAS RAIDERS STADIUM NEVADA, USA

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

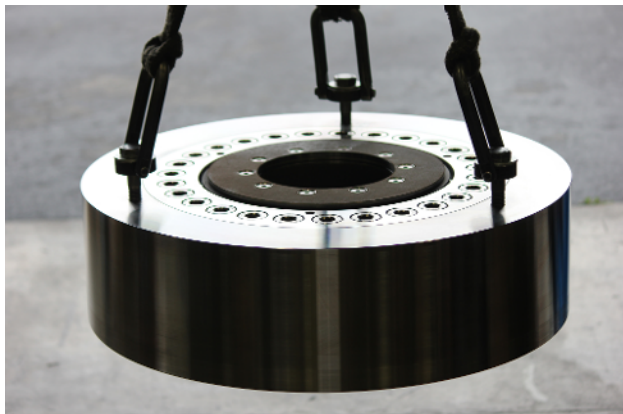
Lubron Solution: We custom designed (3) different sizes of corrosion resistant spherical plain bearings. Working closely with the engineering firm and construction company, we were able to get our Lubron TF spherical plain bearings specified on this project.



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.



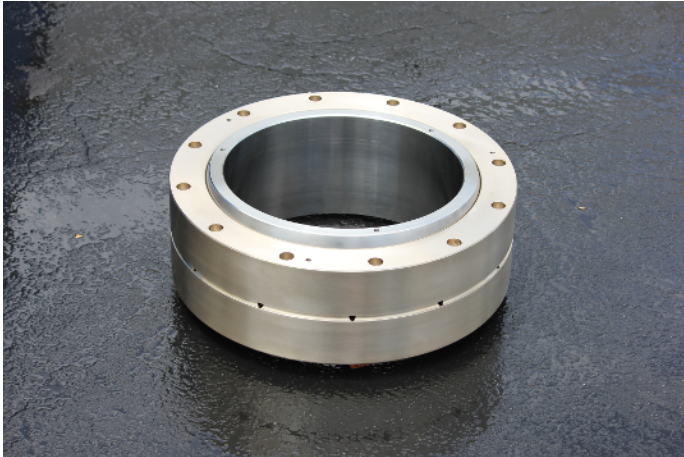
FOLSOM DAM BULKHEAD GATES CALIFORNIA, USA

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 auxiliary spillway bulkhead gates.

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

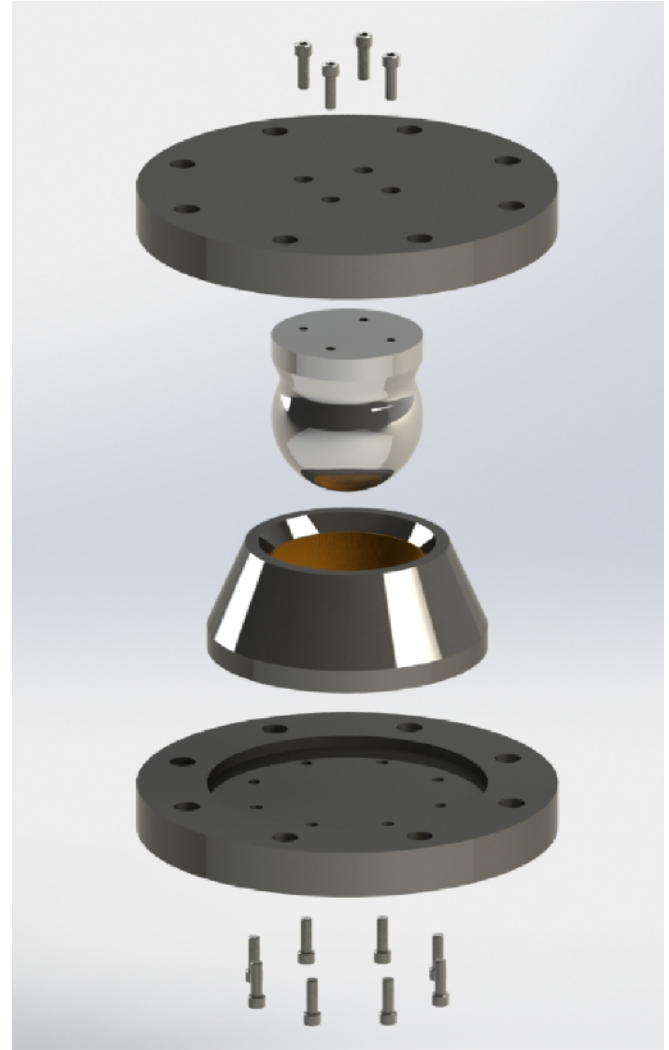
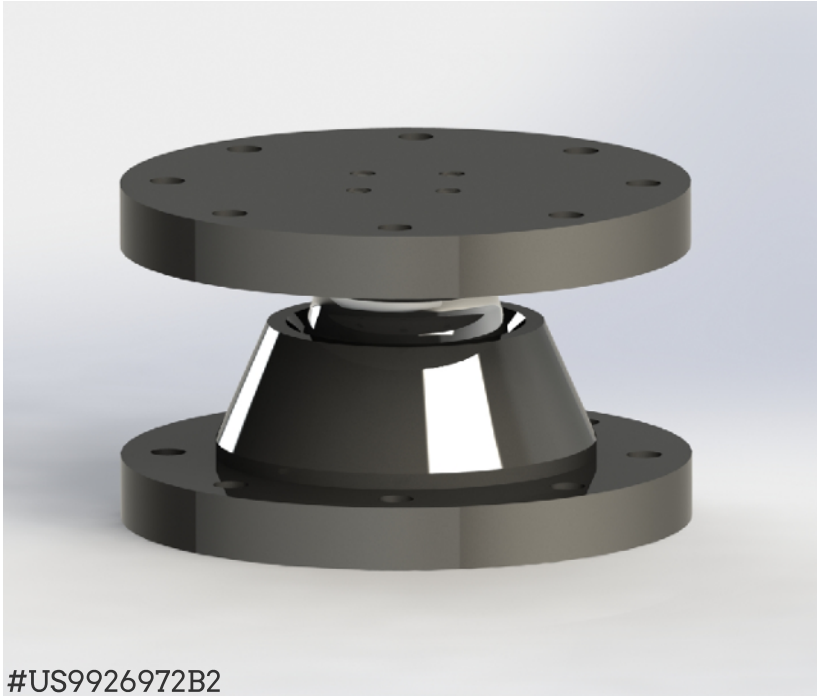
Customer Problem: The customer needed a self-lubricating bearing that could withstand a high radiation environment.

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.



Applications: High Rise Buildings & Skyscrapers



Project 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:



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

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.



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.



Needle Rollers, Tappets, Shafts & Pistons

Precision Products needle rollers, shafts, tappet roller bearings, injection pump bearings, and pistons.



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.