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BALL BEARINGS

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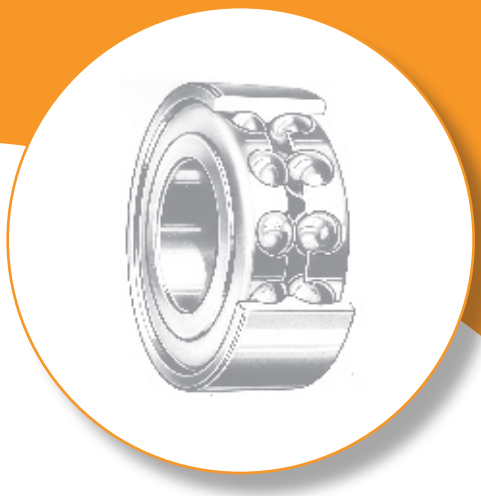
RADIAL AND ANGULAR CONTACT BEARINGS

Overview: Timken is a premier manufacturer of ball bearings. We produce a broad range of precision ball bearings, wide inner ring ball bearings and housed units for standard industrial applications and specialized uses. From standard single-row deep groove radial ball bearings to advanced integral designs, Timken has your solution.

- **Sizes:** 3 mm - 600 mm bore.
- **Markets:** Aircraft, construction, agriculture, machine tool and general industry.
- **Features:** Special coatings for corrosion resistance, special seal designs.
- **Benefits:** Radial: Better life in contaminated environments.

  Angular: Single-row angular contact ball bearing - suited to work in lower operating temperature and high speed with a heavy thrust load. Can be mounted in a duplex arrangement. The refined bore tolerance give a higher life.

  Double-row angular contact ball bearing - excellent axial and radial rigidity in confined space.



Radial and Angular Contact Ball Bearings

Prefixes:

A	stainless steel
F	flanged outer ring
H	snug fit
J	extra loose internal fit
JJ	extra extra loose internal fit
L	internal self-aligning
M	precision ABEC 3
P	loose fit
R	normal fit
S	extra small inch-dimension type
T	tight fit
V	precision ABEC 5
W	wide-type single-row (same width inner and outer)
WIR	single-row, wide inner only

Bore Size: (04 and up: multiply last two numbers by five to get bore in millimeters)

00	10 mm
01	12 mm
02	15 mm
03	17 mm
04	20 mm
05	25 mm
12	60 mm
20	100 mm

Suffixes:

C1, C2, C3, etc. (manufacturing code - Timken® use only)	
FT	full ball complement
K	Conrad, non-filling slot type
W	maximum capacity, filling slot type
WI	angular contact, low-shoulder outer
WO	angular contact, low-shoulder inner
WN	angular contact, low-shoulder, inner and outer

W **3** **05** **K** **LL**

Numbers: Basic Type Series:

S1	**3, 5, 7, etc.,** single-row inch, extra small
30	single-row metric, extra small
100	single-row, extra large
200	single-row, light
300	single-row, medium
5200	double-row, light
5300	double-row, medium
7200	single-row, angular contact, light
7300	single-row, angular contact, medium
7400	single-row, angular contact, heavy
9100	single-row, extra-light
9300	single-row, ultra-light
XLS	inch-dimension, Conrad type

Additional Features:

B	spherical outside diameter
BR	cast bronze retainer
D	one shield
DD	two shields
G	Wireloc (snap ring)
L	one Mechani-Seal
LL	two Mechani-Seals
MBR	machined bronze retainer
P	one seal
PP	two seals
PP2, 3, 4, etc.	Tri-Ply Seals if prefix letter is W (example: W208PPB5)
R	one land-riding rubber seal
RR	two land-riding rubber seals
S	external self-aligning
SMBR	iron silicon bronze retainer
T	one felt seal
TT	two felt seals

Radial and Angular Contact Ball Bearings

RADIAL BALL BEARINGS

SINGLE-ROW ANGULAR CONTACT BEARINGS

DOUBLE-ROW ANGULAR CONTACT BEARINGS

INTRODUCTION

EXTRA SMALL SERIES

Extra small bearings are available in the 30 Metric Series, the 33 and S Inch Series and the F Flanged Series. These bearings can sustain radial, thrust and combined loads proportionate to the capacities of the small shafts for which they are designed. They are appropriate for use in fractional horsepower motors, precision instruments, domestic appliances, film projectors and similar devices.

The F flanged series has external shoulders with the bearing for mounting in through-bored housings. This series is used where compactness is essential or where it is not feasible to machine housing shoulders.

All series in the extra small family include shielded versions. The 30 Metric Series is also available with felt seals, Mechani-Seals and rubber seals, while the 33 and S Inch Series is available with rubber seals.

Some sizes in the Extra Small Series are manufactured from stainless steel.

Extra Small Series

EXTRA SMALL 33 AND S SERIES BUSINESS MACHINE BEARINGS

Standard and special extra small bearings are available and often used in business machine applications. They include clamp-type collar bearings for slip-fit mounting on shafts, bearings with Wireloc in the outer ring, and rubber cushioned "O" series with special housed units.

EXTRA LIGHT 9300 AND 9100 SERIES

Bearings in the Extra Light 9300 and 9100 Series are ideally suited for applications where housing diameters are restricted and it is desirable to maintain relatively large shaft diameters. Both series are made in the Conrad or non-filling slot construction with the 9300 Series having a somewhat thinner section.

The 9100 Series is generally available with shields, rubber seals and snap ring combinations. The 9300 Series is selectively available with two rubber seals. Machine tools, textile machinery and jet engine gear boxes are some of the end products in which these series have found wide use.

Extra Light 9300 and 9100 Series

LIGHT 200 SERIES

Bearings in the 200 Series have a greater section height than the Extra Light 9300 and 9100 Series bearings and feature a close dimensional balance between bore, outside diameter and width. These characteristics make them well-suited for a broad range of applications involving light to medium loads combined with relatively high speeds.

Their versatility has made them a popular design choice of designers and has resulted in many variations in the series. They are available in either the Conrad or maximum capacity type and with shields, rubber seals, Mechani-Seals, felt seals or a combination of shield and seal. Snap ring combinations are also included.

Wide-type 200 Series rubber seal (W200PP) and Mechani-Seal (W200KLL) bearings are made with standard bores and outside diameters, but in widths equal to the corresponding sizes of double-row bearings. This series offers a larger support area for shaft and housing contact and extra space for lubricant.

Light 200 Series

MEDIUM 300 SERIES

The 300 Series radial ball bearings are similar in construction to the 200 Series, but have considerably heavier cross sections throughout. They provide greater radial and thrust capacity and are able to withstand heavier shock loads.

Because of their rugged construction, these bearings are particularly suited for heavy-duty applications like those found in large electric motors, woodworking machinery and gear boxes. This series includes both Conrad and maximum capacity designs as well as shielded, sealed and snap ring variations.

In the 300 Series wide-type, rubber seal (W300PP) and Mechani-Seal (W300KLL) bearings are made with standard bores and outside diameters, but in width equal to the corresponding sizes of double-row bearings.

Medium 300 Series

XLS AND EXTRA LARGE 100 SERIES

Bearings in the inch-dimension XLS Series and metric-dimension Extra Large 100 Series have extra large diameters and a compact cross section. XLS bearings are made in the Conrad and maximum capacity filling slot designs. The Extra Large 100 Series offers the maximum capacity, filling slot and counterbore types.

XLS and Extra Large 100 Series

TRI-PLY SEAL DISK HARROW BEARINGS

Bearings with Tri-Ply Seals are designed for service involving severe contamination, such as disk harrows, disk tillers and other seed preparation equipment and certain conveyor applications. Tri-Ply sealed units come in two designs – one consisting of three Timken rubber seals separated by steel spacers and retained by steel caps in the outer ring and the other, a highly effective one-piece, molded seal design. Both designs have an exterior shroud cap to protect the seals and reinforce the exceptional sealing action of the complete unit. A patented notched seal groove design, provided on selected sizes, is one of the most positive seal retention methods ever developed.

Tri-Ply Seal Disk Harrow Bearings

HEX BORE BEARINGS

These bearings are designed for either outer or inner ring rotation in low speed, moderately loaded applications such as farm machinery and conveyors. Their chief advantage is ease of mounting. Except for axial positioning by adjacent parts, no collars, setscrews or other external parts are required to lock the inner ring to the hex shaft.

Hex Bore Bearings

R-SEAL DISK HARROW BEARINGS

R-Seal bearings are designed for a wide variety of farm machinery applications where single-lip positive contact seals are required. Each sealing element has a Timken Fafnir rubber seal that effectively seals the bearing with a heavy flare on the cylindrically ground O.D. (inner ring). A steel back-up plate supports the seal rubber and prevents the seal lip from inverting. An outside metal shroud cap gives maximum abrasion protection to the rubber element and completes the assembly that is rolled into the outer ring seal groove for positive retention.

R-Seal radial ball bearings are used in positions in planting, cultivating and harvesting machinery. They are available in various configurations including round bores in metric and inch dimensions and cylindrical and spherical outside diameters.

R-Seal Agricultural Bearings

ANGULAR CONTACT – SINGLE-ROW 7000 PRODUCT FAMILY

Timken offers a 7200WN Light, 7300WN Medium and 7400WN Heavy Series single-row, angular contact bearings, which are designed for combination loading with high-thrust capacity in one direction.

The 7000WN bearings are manufactured with better than ABEC 1 inner ring bore tolerances and ABEC 3 running accuracy. These bearings, when mounted in a duplex arrangement, provide axial and/or radial rigidity in applications where control of shaft displacement is essential.

These bearings are available with various cage designs as defined in the dimension tables. The external dimensions of all 7000WN bearings interchange with corresponding sizes in the 200, 300 and 400 single-row radial series.

Single-Row Angular Contact Bearings 7000 Product Family

ANGULAR CONTACT – DOUBLE-ROW

Double-row Angular Contact Bearings are available in the Light 5200 and Medium 5300 Series. These bearings have the same bores and outside diameters as the corresponding sizes in the 200 and 300 Series, single-row, radial type.

Chief advantages of the double-row type are rigidity, compactness and high capacity. The two rows of balls provide for bearings large radial capacity combined with moderate thrust capacity in either direction.

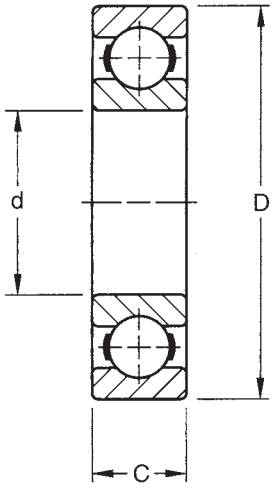
Double-row bearings are available in both the Conrad (K) construction with uninterrupted race shoulders and the maximum capacity type. The latter has a filling slot in the shoulder of both rings and a maximum ball complement.

Sizes with the W suffix have the filling slot on one side only. In these cases, thrust should be applied on the side opposite the filling slot.

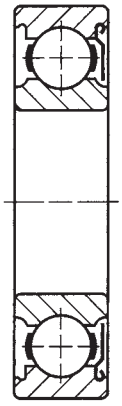
Double-Row Angular Contact

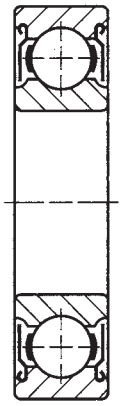
EXTRA SMALL 30 METRIC SERIES

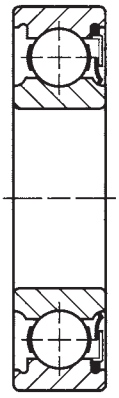
- Designed for small shafts.
- Can sustain radial, thrust and combined load proportionate to capacities of small shafts.
- Suitable for use in fractional horsepower motors, domestic appliances, precision instruments and similar devices.
- Offer various combinations of shields and seals, as listed below.
- Electric motor quality for applications where quietness is required.
- Stainless steel series, denoted by a prefix A before the bearing number. (Example: A38K)

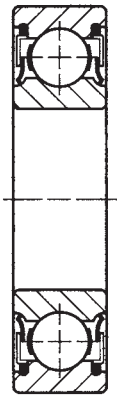


Open


One Shield
D


Two Shields
DD


One Rubber Seal
P


Two Rubber Seals
PP

OPEN AND SHIELDED TYPES DIMENSIONS – TOLERANCES

Bearing Number open	one shield D	two shield DD	Bore d +.000 mm, -0.008 mm +0.0000", -0.0003"		Outside Diameter D tolerance +0.000 mm +0.0000" to minus				Width C +0.00 mm, -.12 mm +0.000", -0.005"		Fillet Radius(1)		Wt.		Static Load Rating C_o		Extended Dynamic Load Rating C_E(2)	
			mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
34K	34KD	34KDD	4	0.1575	16	0.6299	0.008	0.0003	5	0.197	0.3	0.012	0.005	0.01	560	125	1630	365
35K	35KD	35KDD	5	0.1969	19	0.7480	0.009	0.00035	6	0.236	0.3	0.012	0.009	0.02	865	195	2450	560
36K	36KD	36KDD	6	0.2362	19	0.7480	0.009	0.00035	6	0.236	0.3	0.012	0.009	0.02	865	195	2450	560
37K	37KD	37KDD	7	0.2756	22	0.8661	0.009	0.00035	7	0.276	0.3	0.012	0.009	0.02	1400	312	3650	830
38K	38KD	38KDD	8	0.3150	22	0.8661	0.009	0.00035	7	0.276	0.3	0.012	0.009	0.02	1400	312	3650	830
38KV	—	—	8	0.3150	24	0.9449	0.009	0.00035	7	0.276	0.3	0.012	0.018	0.04	1370	305	3650	830
39K	39KD	39KDD	9	0.3543	26	1.0236	0.009	0.00035	8	0.315	0.3	0.012	0.018	0.04	1960	440	5000	1120

(1) Maximum shaft or housing fillet radius that bearing corners will clear.
(2) Based on 10^6 revolutions of calculated fatigue life.

SEALED TYPES DIMENSIONS – TOLERANCES

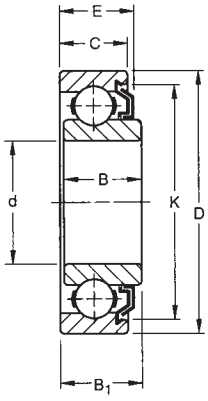
Bearing Number one seal P	two seals PP	Bore d +0.000 mm, -.008 mm +0.0000", -.0003"		Outside Diameter D +.000 mm, -.009 mm +0.0000", -.00035"		Width C +0.00 mm, -.12 mm +0.000", -0.005"		Fillet Radius(1)		Wt.		Static Load Rating C_o		Extended Dynamic Load Rating C_E(2)	
		mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
36P	36PP	6	0.2362	19	0.7480	10	0.394	0.3	0.012	0.014	0.03	865	195	2450	560
36P2	36PP2	6	0.2362	19	0.7480	6	0.236	0.3	0.012	0.014	0.03	865	195	2450	560
37P	37PP	7	0.2756	22	0.8661	10	0.394	0.3	0.012	0.018	0.04	1370	305	3650	830
37P2	37PP2	7	0.2756	22	0.8661	7	0.276	0.3	0.012	0.018	0.04	1400	312	3650	830
38P	38PP	8	0.3150	22	0.8661	10	0.394	0.3	0.012	0.018	0.04	1370	305	3650	830
38P2	38PP2	8	0.3150	22	0.8661	7	0.276	0.3	0.012	0.018	0.04	1400	312	3650	830
39P	39PP	9	0.3543	26	1.0236	8	0.315	0.6	0.024	0.023	0.05	1960	440	5000	1120

(1) Maximum shaft or housing fillet radius that bearing corners will clear.
(2) Based on 10^6 revolutions of calculated fatigue life.

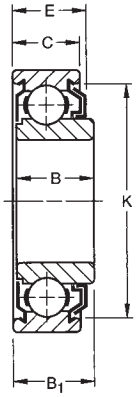
EXTRA SMALL 30 METRIC SERIES

MECHANI-SEALS

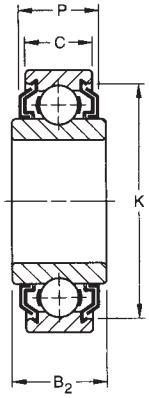
- Developed by The Timken® Company.
- Adapted to the 30 metric series for effective grease retention and exclusion of foreign matter.
- Can be operated at speeds comparable to open-type bearings.
- Available with:
  - One Mechani-Seal (suffix L).
  - One Mechani-Seal and one shield (suffix LD).
  - Two Mechani-Seals (suffix LL).



One Seal
L



One Seal and Shield
LD



Two Seals
LL

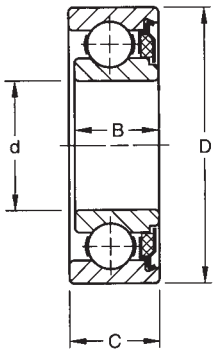
DIMENSIONS – TOLERANCES

Bearing Number one seal L	one seal and shield LD	two seals LL	Bore d +0.000 mm -0.008 mm +0.0000" -0.0003" mm	in.	Outside Diameter D +0.000 mm -0.009 mm +0.0000" -0.00035" mm	in.	Width B_1 mm	in.	Ring Width +0.00 mm, -.12 mm +0.000" -.005": inner B mm	in.	inner B_2[3] mm	in.	outer C mm	in.	Fillet Radius[1] mm	in.	Seal Protection width E mm	in.	width P mm	in.	O.D. K mm	in.	Inner Ring Offset[2] mm	in.	Wt. kg	lbs.	Static Load Rating C_o N	lbs.	Extended Dynamic Load Rating C_E[4] N	lbs.
36KL	36KLD	36KLL	6	0.2362	19	0.7480	10.31	0.406	9.80	0.386	14.27	0.562	8.00	0.315	0.3	0.012	9.60	0.378	10.87	0.428	16.7	21/32	0.50	0.020	0.014	0.03	865	195	2450	560
36KVL	—	—	6	0.2362	24	0.9449	10.31	0.406	9.80	0.386	—	—	8.00	0.315	0.3	0.012	9.60	0.378	—	—	19.0	3/4	0.50	0.020	0.022	0.05	865	195	2450	560
37KL	37KLD	37KLL	7	0.2756	22	0.8661	10.31	0.406	9.80	0.386	14.27	0.562	8.00	0.315	0.3	0.012	9.60	0.378	11.18	0.440	18.7	47/64	0.50	0.020	0.018	0.04	1400	312	3650	830
37KVL	37KVLD	—	7	0.2756	24	0.9449	10.31	0.406	9.80	0.386	—	—	8.00	0.315	0.3	0.012	9.60	0.378	—	—	19.0	3/4	0.50	0.020	0.022	0.05	1400	312	3650	830
38KL	38KLD	38KLL	8	0.3150	22	0.8661	10.31	0.406	9.80	0.386	14.27	0.562	8.00	0.315	0.3	0.012	9.60	0.378	11.18	0.440	18.7	47/64	0.50	0.020	0.018	0.04	1400	312	3650	830
38KVL	38KVLD	38KVLL	8	0.3150	24	0.9449	10.31	0.406	9.80	0.386	14.27	0.562	8.00	0.315	0.3	0.012	9.60	0.378	11.13	0.438	19.0	3/4	0.50	0.020	0.022	0.05	1370	305	3650	830
—	—	38KLL2	8	0.3150	22	0.8661	—	—	—	—	12.62	0.497	8.00	0.315	0.3	0.012	—	—	11.18	0.440	18.7	47/64	—	—	0.022	0.05	1370	305	3650	830
—	—	38KVLL2	8	0.3150	24	0.9449	—	—	—	—	12.62	0.497	8.00	0.315	0.3	0.012	—	—	11.13	0.438	19.0	3/4	—	—	0.022	0.05	1370	305	3650	830
39KL2	39KLD2	—	9	0.3543	26	1.0236	10.31	0.406	9.80	0.386	—	—	8.00	0.315	0.6	0.024	9.60	0.378	—	—	21.4	27/32	0.50	0.020	0.022	0.05	1960	440	5000	1120
—	39KVLD	39KVLL2	9	0.3543	30	1.1811	—	—	—	—	16.41	0.646	9.00	0.354	0.6	0.024	—	—	15.98	0.629	25.4	1	0.50	0.020	0.041	0.09	2650	595	6550	1500

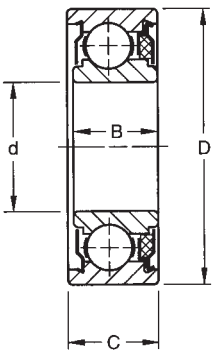
(1) Maximum shaft or housing fillet radius that bearing corners will clear.
(2) Does not apply to bearings with two seals.
Note: Inner ring offset is .51 mm (.020 inches) for the L, LD, and VLD versions.
(3) Two seals (suffix LL) type only.
(4) Based on 10^6 revolutions of calculated fatigue life.

FELT-SEALS

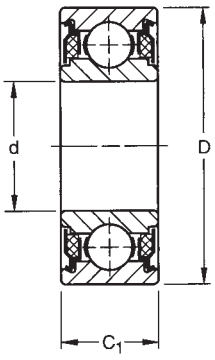
- Provide effective barrier against the entrance of foreign matter and the escape of lubricant.
- Contact seal with the felt riding on the ground surface of inner ring O.D.
- Can be operated at moderate speeds without excessive heating because the felt washer absorbs some lubricant.
- Electric motor quality where quietness is required.
- Available with:
  - One felt seal (suffix T).
  - One felt seal and one shield (suffix TD).
  - Two felt seals (suffix TT).



One Felt Seal
T



One Felt Seal and Shield
TD



Two Felt Seals
TT

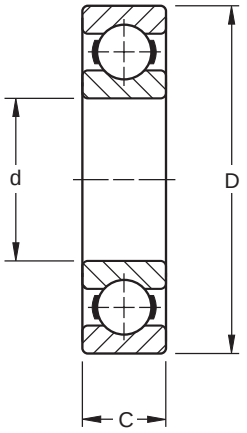
DIMENSIONS – TOLERANCES

Bearing Number one seal T	one seal and shield TD	two seals TT	Bore d +0.000 mm -0.008 mm +0.0000" -0.0003" mm	in.	Outside Diameter D +0.000 mm -0.009 mm +0.0000" -0.00035" mm	in.	Ring Width +0.00 mm, -.12 mm +0.000" -.005": inner B mm	in.	outer C mm	in.	C_1 mm	in.	Inner Ring Offset[2] mm	in.	Fillet Radius[1] mm	in.	Wt. kg	lbs.	Static Load Rating C_o N	lbs.	Extended Dynamic Load Rating C_E[3] N	lbs.
36KT	36KTD	36KTT	6	0.2362	19	0.7480	9.80	0.386	10.31	0.406	14.27	0.562	0.50	0.020	0.3	0.012	0.014	0.03	865	195	2450	560
36KVT	36KVTD	—	6	0.2362	24	0.9449	9.80	0.386	10.31	0.406	—	—	0.50	0.020	0.3	0.012	0.027	0.06	1370	305	3650	830
37KT	37KTD	—	7	0.2756	22	0.8661	9.80	0.386	10.31	0.406	—	—	0.50	0.020	0.3	0.012	0.018	0.04	1370	305	3650	830
37KVT	37KVTD	—	7	0.2756	24	0.9449	9.80	0.386	10.31	0.406	—	—	0.50	0.020	0.3	0.012	0.022	0.05	1370	305	3650	830
38KT	38KTD	38KTT	8	0.3150	22	0.8661	9.80	0.386	10.31	0.406	14.27	0.562	0.50	0.020	0.3	0.012	0.018	0.04	1370	305	3650	830
38KVT	38KVTD	38KVTT	8	0.3150	24	0.9449	9.80	0.386	10.31	0.406	14.27	0.562	0.50	0.020	0.3	0.012	0.022	0.05	1370	305	3650	830
39KT	39KTD	39KTT	9	0.3543	26	1.0236	11.10	0.437	11.51	0.453	14.27	0.562	0.40	0.016	0.6	0.024	0.027	0.06	1960	440	5000	1120
39KVT	39KVTD	—	9	0.3543	30	1.1811	12.19	0.480	12.70	0.500	—	—	0.50	0.020	0.6	0.024	0.041	0.09	2650	595	6550	1500

(1) Maximum shaft or housing fillet radius that bearing corners will clear.
(2) Does not apply to bearings with two seals.
(3) Based on 10^6 revolutions of calculated fatigue life.

EXTRA SMALL 33 AND S INCH SERIES

- Designed for small shafts.
- Can sustain radial, thrust and combined loads, proportionate to capacities of small shafts.
- Suitable for use in fractional horsepower motors, domestic appliances, precision instruments and similar devices.
- Include combinations of shields and seals, as listed below.
- Electric motor quality for applications where quietness is required.
- Several sizes are manufactured both in standard bearing-quality steel and stainless steel, as indicated in the tables.



DIMENSIONS – TOLERANCES

Bearing Number		Bore d tolerance +0.000 mm +0.000" to minus				Outside Diameter D tolerance +0.000 mm +0.000" to minus				Width C +0.000 mm, -0.13 mm +0.000, -0.005"		Fillet Radius(1)		Wt.		Static Load Rating C_0		Extended Dynamic Load Rating C_E (2)	
standard	stainless	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
33K3	A33K3	3.175	0.1250	0.008	0.0003	9.525	0.3750	0.010	0.0004	3.96	0.156	0.3	0.012	0.005	0.01	212	48	710	160
33K4	A33K4	3.175	0.1250	0.008	0.0003	12.700	0.5000	0.010	0.0004	4.37	0.172	0.3	0.012	0.005	0.01	490	110	1430	325
33K5	A33K5	4.762	0.1875	0.008	0.0003	12.700	0.5000	0.010	0.0004	3.96	0.156	0.3	0.012	0.005	0.01	490	110	1430	325
S1K7	AS1K7	6.350	0.2500	0.008	0.0003	15.875	0.6250	0.010	0.0004	4.98	0.196	0.3	0.012	0.005	0.01	560	125	1630	365
S1K	AS1K	6.350	0.2500	0.008	0.0003	19.050	0.7500	0.010	0.0004	5.56	0.219	0.4	0.016	0.009	0.02	1160	260	3100	695
S3K	AS3K	9.525	0.3750	0.008	0.0003	22.225	0.8750	0.010	0.0004	5.56	0.219	0.4	0.016	0.009	0.02	1400	312	3650	830
S5K	AS5K	12.700	0.5000	0.008	0.0003	28.575	1.1250	0.010	0.0004	6.35	0.250	0.4	0.016	0.018	0.04	2240	500	5600	1270
S7K	AS7K	15.875	0.6250	0.008	0.0003	34.925	1.3750	0.013	0.0005	7.14	0.281	0.8	0.031	0.032	0.07	3050	682	7500	1700
S8K	—	19.050	0.7500	0.010	0.0004	41.275	1.6250	0.013	0.0005	7.92	0.312	0.8	0.031	0.050	0.11	4400	1000	10400	2320
S9K	—	22.225	0.8750	0.010	0.0004	47.625	1.8750	0.013	0.0005	9.52	0.375	0.8	0.031	0.064	0.14	4900	1120	11000	2500
S10K	—	25.400	1.0000	0.010	0.0004	50.800	2.0000	0.013	0.0005	9.52	0.375	0.8	0.031	0.082	0.18	4900	1120	11000	2500
S11K	—	28.575	1.1250	0.010	0.0004	53.975	2.1250	0.013	0.0005	9.52	0.375	0.8	0.031	0.091	0.20	5400	1220	11800	2650
S12K	—	31.750	1.2500	0.013	0.0005	57.150	2.2500	0.013	0.0005	9.52	0.375	0.8	0.031	0.100	0.22	6000	1340	12200	2750

(1) Maximum shaft or housing fillet radius that bearing corners will clear.
(2) Based on 10^6 revolutions of calculated fatigue life.

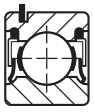
SHIELD AND SEAL COMBINATIONS


One Shield D


Two Shields DD


One Shield And Seal PD


Two Seals PP

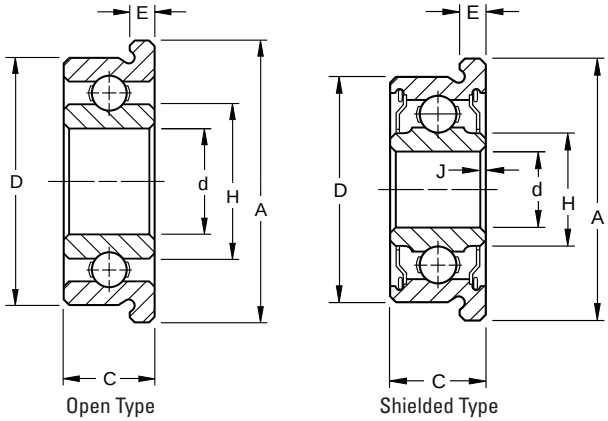

Two Seals Wireloc PPG

Standard One Shield D	Standard Two Shields DD	Stainless One Shield D	Stainless Two Shields DD	Width +0.00 mm, -.12 mm +0.000", -.005"			One Shield And Seal PD	Two Seals PP	Two Seals (Wireloc) PPG	Width +0.00 mm, -.12 mm +0.000", -.005"		
				mm	in.	in.				mm	in.	in.
33KD3	33KDD3	A33KD3	A33KDD3	3.96	0.156	5/32	—	33PP3	—	3.96	0.156	5/32
33KD4	33KDD4	—	—	4.37	0.172	11/64	—	—	—	—	—	—
33KD5	33KDD5	A33KD5	A33KDD5	4.98	0.196	—	—	33PP5	33PPG5	4.98	0.196	—
S1KD7	S1KDD7	AS1KD7	AS1KDD7	4.98	0.196	—	—	S1PP7	S1PPG7	4.98	0.196	—
S1KD	S1KDD	AS1KD	AS1KDD	7.14	0.281	9/32	—	S1PP	S1PPG	7.14	0.281	9/32
S3KD	S3KDD	AS3KD	AS3KDD	7.14	0.281	9/32	—	S3PP	S3PPG	7.14	0.281	9/32
S5KD	S5KDD	AS5KD	AS5KDD	7.92	0.312	5/16	S5PD	S5PP	S5PPG	7.92	0.312	5/16
S7KD	S7KDD	—	—	8.74	0.344	11/32	—	S7PP	—	8.74	0.344	11/32
S8KD	S8KDD	—	AS8KDD	11.13	0.438	7/16	S8PD	S8PP	—	11.13	0.438	7/16
S9KD	S9KDD	—	—	12.70	0.500	1/2	—	—	—	—	—	—
S10KD	S10KDD	—	—	12.70	0.500	1/2	—	S10PP2	—	12.70	0.500	1/2
—	—	—	—	—	—	—	—	S12NPP	—	12.70	0.500	—

FLANGED SERIES

CYLINDRICAL O.D.

- Four sizes offered in flanged construction.
- Integral shoulders for mounting in through-bored housings.
- Straight outside diameters.
- Interchangeable with corresponding unflanged sizes.
- Available with double shields.
- Electric motor quality for applications where quietness is required.



Open Type | Shielded Type

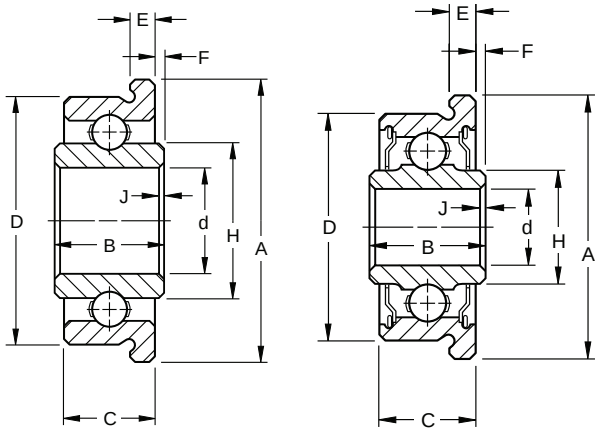
DIMENSIONS – TOLERANCES

Bearing Number		Bore d +0.000 mm -0.008 mm / +0.0000″ -0.0003″		chamfer J x 45° +0.25 mm -0.00 mm / +0.010″ -0.000″		Outside Diameter D +0.000 mm -0.010 mm / +0.000″ -0.0004″		Width C +0.00 mm -0.13 mm / +0.000″ -0.005″		Inner Ring Shoulder H Min.		Flange A +0.13 mm -0.05 mm / +0.005″ -0.002″		E ±0.05 mm / ±0.002″		Shielded Type Overall Width +0.00 mm -0.13 mm / +0.000″ -0.005″		H Min.		Wt.		Static Load Rating C_0		Extended Dynamic Load Rating C_E [2]	
open	shielded*	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
F33K3	F33KDD3	3.175	0.1250	0.30	0.012	9.525	0.3750	3.96	0.156	5.13	0.202	11.18	0.440	0.76	0.030	3.96	0.156	4.65	0.183	0.005	0.01	212	48	710	160
F33K5	F33KDD5	4.762	0.1875	0.30	0.012	12.700	0.5000	3.96	0.156	6.86	0.270	14.35	0.565	1.07	0.042	4.98	0.196	6.30	0.248	0.005	0.01	490	110	1430	325
FS1K7	FS1KDD7[1]	6.350	0.2500	0.30	0.012	15.875	0.6250	4.98	0.196	8.86	0.349	17.53	0.690	1.07	0.042	4.98	0.196	8.43	0.332	0.005	0.01	560	125	1630	365
FS3K	FS3KDD[1]	9.525	0.3750	0.41	0.016	22.225	0.8750	5.56	0.219	13.13	0.517	24.61	0.969	1.57	0.062	7.14	0.281	12.06	0.475	0.009	0.02	1400	310	3650	830

[1] Also available in stainless steel. To specify, add prefix "A" before bearing number.
[2] Based on 10^6 revolutions of calculated fatigue life.
* Also available with two contact seals. To specify, replace "KDD" in part number with "PP".

TAPERED O.D.

- F Flanged series has shoulders integral with the bearings for mounting in through-bored housings.
- Used where compactness is essential or where it is not desirable to machine housing shoulders.
- All sizes in series have tapered outside diameters and are available with double shields.
- Suitable applications include precision instruments, packaging machinery and motion picture projectors.
- Several sizes in the series are manufactured in both standard bearing-quality, chromium-alloy, high-carbon steel and stainless steel (stainless steel specified by suffix "A").
- Electric motor quality where quietness is required.



Open Type | Shielded Type

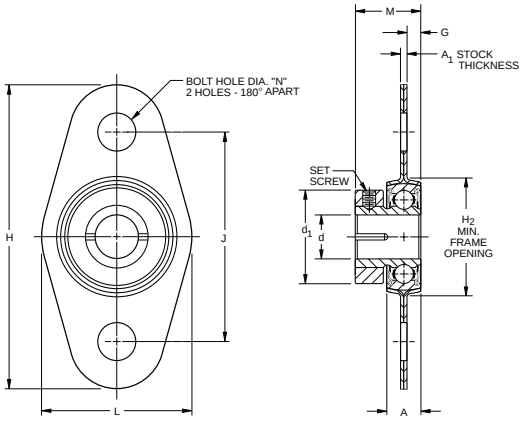
DIMENSIONS – TOLERANCES

Bearing Number		Bore d +0.008 mm -0.00 mm / +0.0003″ -0.0000″		chamfer J x 45° +0.025 mm -.00 mm / +0.010″ -0.000″		Outside Diameter D +0.000 mm -0.10 mm / +0.000″ -0.0004″		Inner Width B ±0.3 mm / ±0.010"		Ring Widths Inner Project F ±0.13 mm / -0.005″		H[3] Min.		Outer Width C +.00 mm -0.10 mm / +0.000" -0.004″		Taper Per Foot		Flange A +0.13 mm -0.05 mm / +0.005″ -0.002″		E ±0.05 mm / ±0.002"		Wt.		Static Load Rating C_0		Extended Dynamic Load C_E[4]	
open	shielded	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
F2[1]	—	4.762	0.1875	0.25	0.010	11.130	0.4382	4.80	0.189	0.41	0.016	6.93	0.273	4.14	0.163	2.03	0.080	12.70	0.500	1.07	0.042	0.005	0.01	465	106	1160	260
—	F2DD-2	3.175	0.1250	0.25	0.010	9.534	0.3757	4.77	0.188	0.38	0.015	4.60	0.181	4.14	0.163	1.90	0.075	11.13	0.438	0.94	0.037	0.005	0.01	212	48	710	160
F3	—	4.762	0.1875	0.25	0.010	14.305	0.5632	5.54	0.218	0.38	0.015	6.93	0.273	4.95	0.195	2.03	0.080	15.88	0.625	1.07	0.042	0.005	0.01	490	110	1430	325
—	F3DD	4.762	0.1875	0.25	0.010	14.305	0.5632	6.35	0.250	0.38	0.015	6.22	0.245	5.74	0.226	1.73	0.068	15.88	0.625	1.07	0.042	0.005	0.01	490	110	1430	325
F4	F4DD	6.350	0.2500	0.25	0.010	15.893	0.6257	6.35	0.250	0.38	0.015	8.41	0.331	5.74	0.226	1.73	0.068	17.45	0.687	1.07	0.042	0.005	0.01	560	125	1630	365
F5	F5DD[2]	7.938	0.3125	0.25	0.010	17.480	0.6882	6.35	0.250	0.38	0.015	10.41	0.410[2]	5.74	0.226	1.73	0.068	19.05	0.750	1.07	0.042	0.005	0.01	865	196	2400	540

[1] Full type, no retainer. Not suggested for speeds over 500 RPM.
[2] H dimension is 9.68 mm (.381") for F5DD.
[3] Land dimension of the inner ring.
[4] Based on 10^6 revolutions of calculated fatigue life.

ST FLANGETTE UNIT

- Pressed steel housed units designed for light-duty applications.
- Available in shaft sizes from 6.35 mm - 12.7 mm (1/4 to 1/2 inch).
- Designed to simplify mounting on side plate or frame-type housings.
- Two identical steel stampings house a clamp-type bearing with a spherical O.D. outer ring.
- Spherical inside surface of each stamping mates with the spherical O.D. of the bearing, providing initial self-alignment at mounting.
- Offers features of basic clamp-type bearing.
- Available with sealed or shielded construction.
- Radial load capacity is 25 percent of basic bearing's dynamic load rating at 33.3 RPM.
- Inspected to ABEC-1 tolerances, except bore.
- Suggested shaft tolerance: Nominal bore size to -.0005 in. resulting in .000 in. to .001 in. loose-shaft fit.



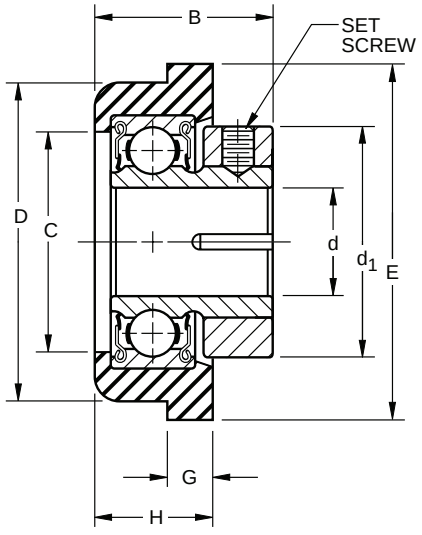
Unit Number	Bore** d +0.13 mm -0.000 mm +0.0005" -0.0000"		A		d1		H2		M		G		A1		H		L		J		N		Set-screw Thread*	Max. Radial Unit Load	
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.		N	lbs.
S1PPB7-3 ST	6.350	0.2500	5.556	7/32	14.287	9/16	19.844	25/32	10.922	0.430	2.007	0.079	0.683	0.0269	45.244	1 25/32	22.225	7/8	30.956	1 7/32	0.219	7/32	4-40	312	70
S3PPB15 ST	7.937	0.3125	7.144	9/32	19.844	25/32	27.781	1 3/32	14.275	0.562	2.718	0.107	0.836	0.0329	53.181	2 3/32	30.163	1 13/16	38.894	1 17/32	0.219	7/32	8-36	668	150
S3PPB5 ST	9.525	0.3750	7.144	9/32	19.844	25/32	27.781	1 3/32	14.275	0.562	2.718	0.107	0.836	0.0329	53.181	2 3/32	30.163	1 13/16	38.894	1 17/32	0.219	7/32	8-36	668	150
S5PPB2 ST	12.700	0.5000	7.937	5/16	23.019	29/32	32.544	1 9/32	15.875	0.625	3.048	0.120	0.912	0.0359	59.531	2 11/32	36.512	1 17/16	45.244	1 25/32	0.219	7/32	8-36	980	220

* All setscrews are hex socket oval point, six fluted socket setscrews available upon request. Setscrews with fused plastic patch available at added cost.

**Bore tolerance applies prior to collar assembly.

RTF-RUBBER TIRE FLANGE HOUSED UNIT

- Synthetic, conductive elastomer of Durometer hardness 80-85 facilitates mounting of standard cylindrical O.D. bearings in side plate of frame-type housings.
- Generous taper on entrance corner of rubber cartridge simplifies insertion of unit into side panel, assuring reasonable squareness of bearings when fully mounted.
- Bearing is positioned by integral flange of the rubber cartridge.
- Resiliency of elastomer accommodates wider than the standard suggested housing bore tolerance.
- Greater flexibility in adjusting to minor shaft and/or housing alignment.
- Helps reduce airborne noise and structural vibration.
- Additional advantages are similar to features of basic clamp-type bearing design.
- Due to deflection characteristics of the elastomer, radial and thrust ratings for the RTF Series are 10 percent of the basic bearing's dynamic load rating at 33.3 RPM.



Unit Number	Bore** d +0.13 mm -0.000 mm +0.0005" -0.0000"		D RTF O.D. ±0.13 mm ±0.005"		D HSG Bore ±0.13 mm ±0.005"		C		d1		E		B		G		H		Set-screw Thread*	Max. Radial Unit Load	
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.		N	lbs.
S1PP73RTF	6.350	0.2500	19.355	0.762	19.050	0.750	13.494	17/32	14.287	9/16	22.225	7/8	11.906	15/32	1.984	5/64	7.541	19/64	4-40	116	26
S3PP16RTF	7.937	0.3125	27.280	1.074	26.975	1.062	19.050	3/4	19.844	25/32	30.956	1 7/32	15.875	5/8	3.969	5/32	10.319	13/32	8-36	258	58
S3PP4RTF	9.525	0.3750	27.280	1.074	26.975	1.062	19.050	3/4	19.844	25/32	30.956	1 7/32	15.875	5/8	3.969	5/32	10.319	13/32	8-36	258	58
S5PP2RTF	12.700	0.5000	35.255	1.388	34.925	1.375	25.400	1	23.019	29/32	38.894	1 17/32	17.859	45/64	3.969	5/32	11.906	15/32	8-36	392	88

* All setscrews are hex socket oval point, six fluted socket setscrews available upon request. Setscrews with fused plastic patch available at added cost.

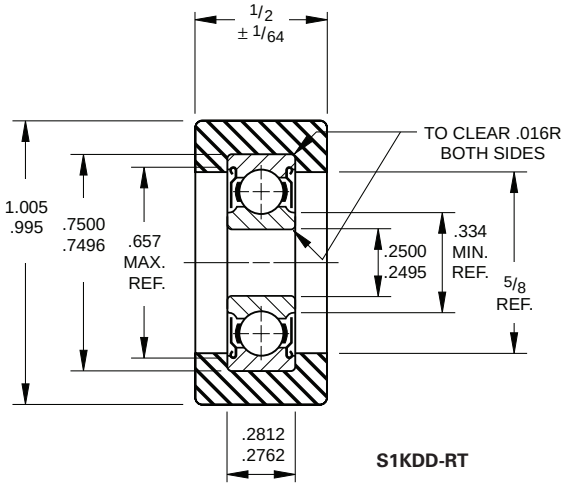
**Bore tolerance applies prior to collar assembly.

SPECIAL BEARINGS

- Pulley, guide roller and pinch roll bearings:
  - Available in several bore sizes.
  - Lightweight, low inertia, low torque and accurate running characteristics with minimum runout and wobble.
  - Many units feature outer ring assemblies with integral molded tires.
  - Most common tire materials are aluminum, steel and a variety of engineered plastics such as nylon, polycarbonate, acetal resin or polyurethane.
  - Tire material and configuration are determined by application requirements.
  - Standard materials and shapes can be made in many sizes.
  - Timken engineering may assist in testing materials you feel are suitable for your applications.

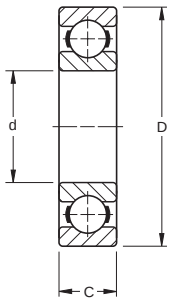
- Timken universal ring design:
  - Sealed or shielded versions readily available in the most basic bearing sizes.
  - Varying degrees of seal drag, to suit the sealing torque requirements dictated by the environmental conditions of the application.

- Integral assembly design concept:
  - Complete package of bearings, housings, shafts, etc.
  - Assembled and ready to mount.
  - Custom designed to solve customer assembly problems and minimize inventory of multiple components.
  - Overall cost savings.
  - Bearing units shown have been developed especially for business machine applications.



ULTRA LIGHT 9300K SERIES

- Designed for applications where housing diameters are restricted and it is desirable to maintain relatively large shaft diameters.
- Resembles the 9100K Series, except corresponding sizes of the 9300K Series have a somewhat thinner section.
- Used extensively in machine tools, textile machinery and jet engine gearbox applications.



DIMENSIONS – TOLERANCES

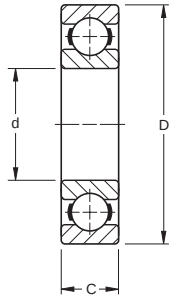
Bearing Number	Bore d		tolerance +0.000 mm +0.0000" to minus		Outside Diameter D		tolerance +0.000 mm +0.0000" to minus		Width C		tolerance +0.000 mm +0.0000" to minus		Fillet Radius(1)		Wt.		Static Load Rating C_o		Extended Dynamic Load Rating C_E(4)	
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
9301K	12	0.4724	0.008	0.0003	24	0.9449	0.009	0.00035	6	0.236	0.12	0.005	0.3	0.012	0.014	0.03	1600	360	3650	830
9302K	15	0.5906	0.008	0.0003	28	1.1024	0.009	0.00035	7	0.276	0.12	0.005	0.3	0.012	0.018	0.04	2270	510	4890	1100
9303K(2)	17	0.6693	0.008	0.0003	30	1.1811	0.009	0.00035	7	0.276	0.12	0.005	0.3	0.012	0.027	0.06	2540	570	5250	1180
9305K(2)	25	0.9843	0.010	0.0004	42	1.6535	0.011	0.00045	9	0.354	0.12	0.005	0.3	0.012	0.045	0.10	4540	1020	8010	1800
9306K(2)(3)	30	1.1811	0.010	0.0004	47	1.8504	0.011	0.00045	9	0.354	0.12	0.005	0.3	0.012	0.075	0.16	4980	1120	8270	1860
9307K	35	1.3780	0.012	0.00045	55	2.1654	0.013	0.0005	10	0.394	0.12	0.005	0.6	0.024	0.095	0.21	8010	1800	13300	3000
9308K	40	1.5748	0.012	0.00045	62	2.4409	0.013	0.0005	12	0.472	0.12	0.005	0.6	0.024	0.141	0.31	8900	2000	13800	3100
9310K	50	1.9685	0.012	0.00045	72	2.8346	0.013	0.0005	12	0.472	0.12	0.005	0.6	0.024	0.168	0.37	11560	2600	16700	3750
9311K	55	2.1654	0.015	0.0006	80	3.1496	0.013	0.0005	13	0.512*	0.15	0.006	1.0	0.039	0.209	0.46	14010	3150	18900	4250
9313K	65	2.5591	0.015	0.0006	90	3.5433	0.015	0.0006	13	0.512*	0.15	0.006	1.0	0.039	0.250	0.55	16010	3600	19600	4400
9316K	80	3.1496	0.015	0.0006	110	4.3307	0.015	0.0006	16	0.630*	0.15	0.006	1.0	0.039	0.363	0.80	24020	5400	28500	6400

(1) Maximum shaft or housing fillet radius that bearing corners will clear.
(2) Also available with rubber seals, e.g., 9303PP.
(3) Also available with two shields, e.g., 9306KDD.
(4) Based on 10^6 revolutions of calculated fatigue life.

* Width tolerance is +.00 mm to -.15 mm (+.000" to -.006").

EXTRA LIGHT 9100K SERIES

- For applications where housing diameters are restricted and it is desirable to maintain relatively large shaft diameters.
- Electric motor quality for applications where quietness is a requirement.



DIMENSIONS – TOLERANCES

Bearing Number	Bore d		tolerance +0.000 mm +0.0000" to minus		Outside Diameter D		tolerance +0.000 mm +0.0000" to minus		Width C		tolerance +0.000 mm +0.0000" to minus		Fillet Radius(1)		Wt.		Static Load Rating C_o		Extended Dynamic Load Rating C_E(2)	
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
9100K	10	0.3937	0.008	0.0003	26	1.0236	0.009	0.00035	8	0.3150	0.12	0.005	0.3	0.012	0.018	0.04	1960	440	5160	1160
9101K	12	0.4724	0.008	0.0003	28	1.1024	0.009	0.00035	8	0.3150	0.12	0.005	0.3	0.012	0.018	0.04	2360	530	5870	1320
9102K	15	0.5906	0.008	0.0003	32	1.2598	0.011	0.00045	9	0.3543	0.12	0.005	0.3	0.012	0.027	0.06	2800	630	6360	1430
9103K	17	0.6693	0.008	0.0003	35	1.3780	0.011	0.00045	10	0.3937	0.12	0.005	0.3	0.012	0.041	0.09	3200	720	6800	1530
9104K	20	0.7874	0.010	0.0004	42	1.6535	0.011	0.00045	12	0.4724	0.12	0.005	0.6	0.024	0.073	0.16	5000	1120	10700	2400
9105K	25	0.9843	0.010	0.0004	47	1.8504	0.011	0.00045	12	0.4724	0.12	0.005	0.6	0.024	0.077	0.17	5740	1290	11300	2550
9106K	30	1.1811	0.010	0.0004	55	2.1654	0.013	0.0005	13	0.5118	0.12	0.005	1.0	0.039	0.118	0.26	8010	1800	14600	3350
9107K	35	1.3780	0.012	0.00045	62	2.4409	0.013	0.0005	14	0.5512	0.12	0.005	1.0	0.039	0.145	0.32	9960	2240	18000	4050
9108K	40	1.5748	0.012	0.00045	68	2.6772	0.013	0.0005	15	0.5906	0.12	0.005	1.0	0.039	0.195	0.43	12200	2750	20000	4500
9109K	45	1.7717	0.012	0.00045	75	2.9528	0.013	0.0005	16	0.6299	0.12	0.005	1.0	0.039	0.249	0.55	14900	3350	24000	5400
9110K	50	1.9685	0.012	0.00045	80	3.1496	0.013	0.0005	16	0.6299	0.12	0.005	1.0	0.039	0.272	0.60	16000	3600	24900	5600
9111K	55	2.1654	0.015	0.0006	90	3.5433	0.015	0.0006	18	0.7087	0.15	0.006	1.0	0.039	0.390	0.86	20700	4650	32000	7200
9112K	60	2.3622	0.015	0.0006	95	3.7402	0.015	0.0006	18	0.7087	0.15	0.006	1.0	0.039	0.417	0.92	22600	5100	33400	7500
9113K	65	2.5591	0.015	0.0006	100	3.9370	0.015	0.0006	18	0.7087	0.15	0.006	1.0	0.039	0.445	0.98	24500	5500	34700	7800
9114K	70	2.7559	0.015	0.0006	110	4.3307	0.015	0.0006	20	0.7874	0.15	0.006	1.0	0.039	0.630	1.39	29800	6700	43200	9720
9115K	75	2.9528	0.015	0.0006	115	4.5276	0.015	0.0006	20	0.7874	0.15	0.006	1.0	0.039	0.680	1.50	32700	7350	44500	10000
9116K	80	3.1496	0.015	0.0006	125	4.9213	0.018	0.0007	22	0.8661	0.15	0.006	1.0	0.039	0.885	1.95	35600	8000	54300	12200
9117K	85	3.3465	0.020	0.0008	130	5.1181	0.018	0.0007	22	0.8661	0.20	0.008	1.0	0.039	0.966	2.13	35600	8000	56500	12700
9118K	90	3.5433	0.020	0.0008	140	5.5118	0.018	0.0007	24	0.9449	0.20	0.008	1.5	0.059	1.157	2.55	48000	10800	66700	15000
9119K	95	3.7402	0.020	0.0008	145	5.7087	0.018	0.0007	24	0.9449	0.20	0.008	1.5	0.059	1.188	2.62	52500	11800	68100	15300
9120K	100	3.9370	0.020	0.0008	150	5.9055	0.018	0.0007	24	0.9449	0.20	0.008	1.5	0.059	1.315	2.90	52500	11800	68100	15300

(1) Maximum shaft or housing fillet radius that bearing corners will clear.
(2) Based on 10^6 revolutions of calculated fatigue life.

Continued on the next page.

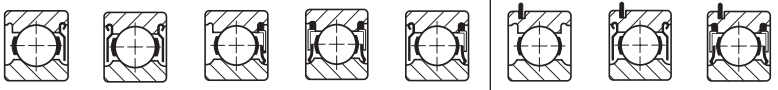
EXTRA LIGHT 9100K SERIES *(continued)*

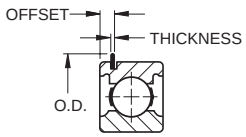
DIMENSIONS – TOLERANCES

Bearing Number	Bore d		tolerance +0.000 mm +0.0000" to minus		Outside Diameter D		tolerance +0.000 mm +0.0000" to minus		Width C		tolerance +0.000 mm +0.0000" to minus		Fillet Radius(1)		Wt.		Static Load Rating C_o		Extended Dynamic Load Rating C_E(2)	
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
9121K	105	4.1339	0.020	0.0008	160	6.2992	0.025	0.0010	26	1.0236	0.20	0.008	2.0	0.079	1.6	3.6	59600	13400	76900	17600
9122K	110	4.3307	0.020	0.0008	170	6.6929	0.025	0.0010	28	1.1024	0.20	0.008	2.0	0.080	—	—	71100	16000	92500	20800
9124K	120	4.7244	0.020	0.0008	180	7.0866	0.025	0.0010	28	1.1024	0.20	0.008	2.0	0.079	2.2	4.9	71100	16000	88900	20000
9126K	130	5.1181	0.025	0.0010	200	7.8740	0.030	0.0012	33	1.2992	0.25	0.010	2.0	0.079	3.4	7.4	90700	20400	115600	26000
9128K	140	5.5118	0.025	0.0010	210	8.2677	0.030	0.0012	33	1.2992	0.25	0.010	2.0	0.080	3.6	8.0	105000	23600	124500	28000
9130K	150	5.9055	0.025	0.0010	225	8.8583	0.030	0.0012	35	1.3780	0.25	0.010	2.0	0.080	5.5	12.0	92500	20800	113400	25500
9132K	160	6.2992	0.025	0.0010	240	9.4488	0.030	0.0012	38	1.4961	0.25	0.010	2.0	0.080	6.7	14.8	138000	31000	166800	37500
9134K	170	6.6929	0.025	0.0010	260	10.2362	0.035	0.0014	42	1.6535	0.25	0.010	2.0	0.080	9.0	19.8	160000	36000	189000	42500
9136K	180	7.0866	0.025	0.0010	280	11.0236	0.035	0.0014	44	1.8110	0.25	0.010	2.0	0.080	11.0	24.3	195700	44000	222000	50000
9138K	190	7.4803	0.030	0.0012	290	11.4173	0.035	0.0014	46	1.8110	0.30	0.012	2.0	0.080	12.0	26.5	204000	45500	216000	48000
9140K	200	7.8740	0.030	0.0012	310	12.2047	0.035	0.0014	51	2.0079	0.30	0.012	2.0	0.080	15.4	34.0	245000	55000	245000	55000
9144K	220	8.6614	0.030	0.0012	340	13.3858	0.040	0.0016	56	2.2047	0.30	0.012	2.5	0.100	20.0	44.2	290000	65500	280000	63000
9146K	240	9.4488	0.030	0.0012	360	14.1732	0.040	0.0016	56	2.2047	0.30	0.012	2.5	0.100	21.5	47.3	320000	72000	290000	65500
9152K	260	10.2362	0.035	0.0014	400	15.7480	0.040	0.0016	65	2.5591	0.35	0.014	3.0	0.120	31.6	69.6	400000	90000	345000	78000
9156K	280	11.0236	0.035	0.0014	420	16.5354	0.045	0.0018	65	2.5591	0.35	0.014	3.0	0.120	33.5	73.8	355000	80000	360000	80000
9160K	300	11.8110	0.035	0.0014	460	18.1102	0.045	0.0018	74	2.9134	0.35	0.014	3.0	0.120	46.6	102.9	520000	118000	415000	93000
9164K	320	12.5984	0.040	0.0016	480	18.8976	0.045	0.0018	74	2.9134	0.40	0.016	3.0	0.120	49.1	108.3	570000	127000	430000	98000
9180K	400	15.7480	0.040	0.0016	600	23.6220	0.050	0.0020	90	3.5433	0.40	0.016	4.0	0.160	—	—	815000	180000	550000	122000

(1) Maximum shaft or housing fillet radius that bearing corners will clear.
(2) Based on 10^6 revolutions of calculated fatigue life.

SHIELDS, SEALS AND SNAP RING COMBINATIONS



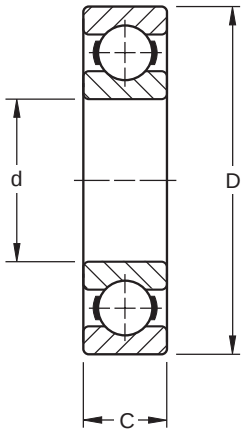


One Shield D	Two Shields DD	One Seal P	Two Seals PP	One Shield And Seal PD	Open Type G	Two Shields DDG	Two Seals PPG	O.D.		Thickness		Offset	
								mm	in.	mm	in.	mm	in.
9100KD	9100KDD	9100P	9100PP	9100PD	—	—	—	—	—	—	—	—	—
9101KD	9101KDD	9101P	9101PP	9101PD	—	—	—	—	—	—	—	—	—
9102KD	9102KDD	9102P	9102PP	—	9102KG	9102KDDG	9102PPG	36.5	1 7/16	1.07	0.042	3.05	0.120
9103KD	9103KDD	9103P	9103PP	9103PD2(2)	9103KG	9103KDDG	9103PPG	39.3	1 35/64	1.07	0.042	3.05	0.120
9104KD	9104KDD	9104P	9104PP	—	9104KG	9104KDDG	9104PPG	46.0	1 13/16	1.07	0.042	3.05	0.120
9105KD	9105KDD	9105P	9105PP	—	—	—	—	52.4	2 1/16	1.07	0.042	3.05	0.120
9106KD	9106KDD	9106P	9106PP	9106PD	9106KG	9106KDDG	9106PPG	60.3	2 3/8	1.07	0.042	3.05	0.120
9107KD	9107KDD	9107P	9107PP	—	9107KG	9107KDDG	9107PPG	67.5	2 21/32	1.65	0.065	3.63	0.143
9108KD	9108KDD	9108P	9108PP	—	9108KG	9108KDDG	9108PPG	74.2	2 59/64	1.65	0.065	4.04	0.159
9109KD	9109KDD	9109P	9109PP	9109PD	9109KG	9109KDDG	9109PPG	81.4	3 13/64	1.65	0.065	4.04	0.159
9110KD	9110KDD	9110P	9110PP	—	9110KG	—	—	86.5	3 13/32	1.65	0.065	4.04	0.159
9111KD	9111KDD	9111P	9111PP	—	9111KG	—	9111PPG	96.4	3 51/64	2.41	0.095	5.18	0.204
9112KD	9112KDD	9112P	9112PP	—	9112KG	—	—	101.2	3 63/64	2.41	0.095	5.18	0.204
9113KD	9113KDD	9113P	9113PP	9113PD	9113KG	—	9113PPG	106.4	4 3/16	2.41	0.095	5.18	0.204
9114KD	9114KDD	9114P	9114PP	—	9114KG	—	—	116.3	4 37/64	2.41	0.095	5.18	0.204
9115KD	9115KDD	9115P	9115PP	—	—	—	—	121.4	4 25/32	2.41	0.095	5.18	0.204
—	—	—	—	—	—	—	—	—	—	—	—	—	—
9117KD	—	—	—	—	9117KG	9117KDDG	—	139.7	5 1/2	2.77	0.109	5.54	0.218
—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
9120KD	—	—	9120NPP	—	—	—	—	159.5	6 9/32	2.77	0.109	6.35	0.250
9121KD	—	—	—	—	—	—	—	169.5	6 43/64	2.77	0.109	6.35	0.250
—	—	—	—	—	—	—	—	—	—	—	—	—	—
9124KD	—	9124P	9124PP	—	9124KG	—	—	192.9	7 19/32	3.05	0.120	6.63	0.261
—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—

(1) The snap ring is normally packaged separately in the box with bearing.
(2) Width of bearing is 12.700 mm (.5000").

LIGHT 200K SERIES

- Conrad-type bearing is well-balanced, with deep races and uninterrupted race shoulders. Excellent, general-purpose bearing.
- Capacity to carry radial and thrust in either direction or combined loads.
- Electric motor quality for applications where quietness is a requirement.



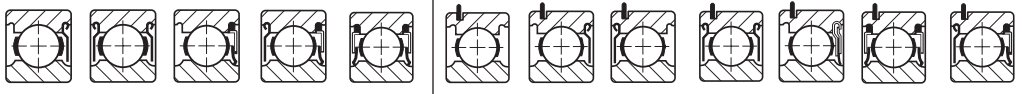
DIMENSIONS – TOLERANCES

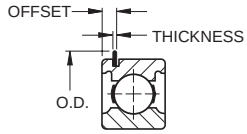
Bearing Number	Bore d		tolerance +0.000 mm +0.0000" to minus		Outside Diameter D		tolerance +0.000 mm +0.0000" to minus		Width C		tolerance +0.000 mm +0.0000" to minus		Fillet Radius(1)		Wt.		Static Load Rating C_o		Extended Dynamic Load Rating C_E(2)	
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
200K	10	0.3937	0.008	0.0003	30	1.1811	0.009	0.00035	9	0.3543	0.12	0.005	0.6	0.024	0.027	0.06	2600	585	6800	1530
201K	12	0.4724	0.008	0.0003	32	1.2598	0.011	0.00043	10	0.3937	0.12	0.005	0.6	0.024	0.036	0.08	3000	680	7600	1730
202K	15	0.5906	0.008	0.0003	35	1.3780	0.011	0.00043	11	0.4331	0.12	0.005	0.6	0.024	0.041	0.09	3470	830	8650	1930
203K	17	0.6693	0.008	0.0003	40	1.5748	0.011	0.00043	12	0.4724	0.12	0.005	0.6	0.024	0.064	0.14	4700	1060	10900	2450
204K	20	0.7874	0.010	0.0004	47	1.8504	0.011	0.00043	14	0.5512	0.12	0.005	1.0	0.039	0.104	0.23	6500	1460	14400	3250
205K	25	0.9843	0.010	0.0004	52	2.0472	0.013	0.0005	15	0.5906	0.12	0.005	1.0	0.039	0.127	0.28	7800	1760	16000	3600
206K	30	1.1811	0.010	0.0004	62	2.4409	0.013	0.0005	16	0.6299	0.12	0.005	1.0	0.039	0.195	0.43	11300	2550	22200	5000
207K	35	1.3780	0.012	0.00047	72	2.8346	0.013	0.0005	17	0.6693	0.12	0.005	1.0	0.039	0.290	0.64	15300	3450	29100	6550
208K	40	1.5748	0.012	0.00047	80	3.1496	0.013	0.0005	18	0.7087	0.12	0.005	1.0	0.039	0.376	0.83	19800	4460	36200	8130
209K	45	1.7717	0.012	0.00047	85	3.3465	0.015	0.0006	19	0.7480	0.12	0.005	1.0	0.039	0.426	0.94	20500	4600	36300	8160
210K	50	1.9685	0.012	0.00047	90	3.5433	0.015	0.0006	20	0.7874	0.12	0.005	1.0	0.039	0.476	1.05	23100	5200	40000	9000
211K	55	2.1654	0.015	0.0006	100	3.9370	0.015	0.0006	21	0.8268	0.15	0.006	1.5	0.059	0.635	1.40	29100	6550	49000	11000
212K	60	2.3622	0.015	0.0006	110	4.3307	0.015	0.0006	22	0.8661	0.15	0.006	1.5	0.059	0.807	1.78	35500	8000	62100	13400
213K	65	2.5591	0.015	0.0006	120	4.7244	0.015	0.0006	23	0.9055	0.15	0.006	1.5	0.059	1.016	2.24	39900	9000	62100	14600
214K	70	2.7559	0.015	0.0006	125	4.9213	0.018	0.0007	24	0.9449	0.15	0.006	1.5	0.059	1.107	2.44	44000	9890	69000	15500
215K	75	2.9528	0.015	0.0006	130	5.1181	0.018	0.0007	25	0.9843	0.15	0.006	1.5	0.059	1.198	2.64	44800	10100	68900	15500
216K	80	3.1496	0.015	0.0006	140	5.5118	0.018	0.0007	26	1.0236	0.15	0.006	2.0	0.079	1.483	3.27	54200	12200	81300	18300
217K	85	3.3465	0.020	0.0008	150	5.9055	0.018	0.0007	28	1.1024	0.20	0.008	2.0	0.079	1.860	4.10	62200	14000	95900	21600
218K	90	3.5433	0.020	0.0008	160	6.2992	0.025	0.0010	30	1.1811	0.20	0.008	2.0	0.079	2.209	4.87	71100	16000	109000	24500
220K	100	3.9370	0.020	0.0008	180	7.0866	0.025	0.0010	34	1.3386	0.20	0.008	2.0	0.080	4.077	8.98	93000	20800	134000	30500
221K	105	4.1339	0.020	0.0008	190	7.4803	0.030	0.0012	36	1.4173	0.20	0.008	2.0	0.080	3.777	8.32	93000	20800	127000	28500
222K	110	4.3307	0.020	0.0008	200	7.8740	0.030	0.0012	38	1.4961	0.20	0.008	2.0	0.080	4.300	9.47	104900	23600	153000	34500
224K	120	4.7244	0.020	0.0008	215	8.4646	0.030	0.0012	40	1.5748	0.20	0.008	2.0	0.080	7.064	15.56	133000	30000	173000	39000
226K	130	5.1181	0.020	0.0010	230	9.0551	0.030	0.0012	40	1.5748	0.25	0.010	3.0	0.120	6.642	14.63	149000	33500	189000	42500
228K	140	5.5118	0.025	0.0010	250	9.8425	0.030	0.0012	42	1.6535	0.25	0.010	3.0	0.120	11.196	24.66	162000	36500	200000	45000
230K	150	5.9055	0.025	0.0010	270	10.6299	0.035	0.0014	45	1.7717	0.25	0.010	3.0	0.120	12.17	26.8	180000	40500	218000	49000
232K	160	6.2992	0.025	0.0010	290	11.4173	0.035	0.0014	48	1.8898	0.25	0.010	3.0	0.120	15.03	33.1	235000	53000	260000	58500
234K	170	6.6929	0.025	0.0010	310	12.2047	0.035	0.0014	52	2.0472	0.25	0.010	4.0	0.160	18.66	41.1	276000	62000	291000	65500
236K	180	7.0866	0.025	0.0010	320	12.5984	0.040	0.0016	52	2.0472	0.25	0.010	4.0	0.160	19.39	42.7	298000	67000	309000	69500
238K	190	7.4803	0.030	0.0012	340	13.3858	0.040	0.0016	55	2.1654	0.30	0.012	4.0	0.160	23.02	50.7	290000	65000	300000	67000
240K	200	7.8740	0.030	0.0012	360	14.1732	0.040	0.0016	58	2.2835	0.30	0.012	4.0	0.160	26.42	58.2	375000	83000	355000	80000
242K	210	8.2677	0.030	0.0012	380	14.9606	0.040	0.0016	61	2.4016	0.30	0.012	4.0.	0.160	32.42	71.4	335000	76500	325000	73500
244K	220	8.6614	0.030	0.0012	400	15.7480	0.040	0.0016	65	2.5591	0.30	0.012	4.0	0.160	36.96	81.4	380000	86500	355000	80000
246K	230	9.0551	0.030	0.0012	420	16.5354	0.045	0.0018	68	2.6772	0.30	0.012	4.0	0.160	42.36	93.3	425000	95000	380000	85000
248K	240	9.4488	0.030	0.0012	440	17.3228	0.045	0.0018	72	2.8346	0.30	0.012	4.0	0.160	46.81	103.1	520000	116000	455000	102000
250K	250	9.8425	0.035	0.0014	460	18.1102	0.045	0.0018	76	2.9921	0.30	0.012	4.0	0.160	55.57	122.4	585000	129000	490000	110000
252K	260	10.2362	0.035	0.0014	480	18.8976	0.045	0.0018	80	3.1496	0.35	0.014	5.0	0.200	63.11	139.0	640000	143000	520000	118000
256K	280	11.0236	0.035	0.0014	500	19.6850	0.045	0.0018	80	3.1496	0.35	0.014	5.0	0.200	64.20	141.4	710000	160000	560000	125000
260K	300	11.8110	0.035	0.0014	540	21.2598	0.050	0.0020	85	3.3465	0.35	0.014	5.0	0.200	87.49	192.7	670000	150000	520000	116000
264K	320	12.5984	0.040	0.0016	580	22.8346	0.050	0.0020	92	3.6220	0.40	0.016	5.0	0.200	94.66	208.5	980000	220000	710000	160000

(1) Maximum shaft or housing fillet radius that bearing corners will clear.
(2) Based on 10^6 revolutions of calculated fatigue life.

SHIELDS, SEALS AND SNAP RING COMBINATIONS

Shields and Seals | **Snap Ring (Wireloc) [1]**



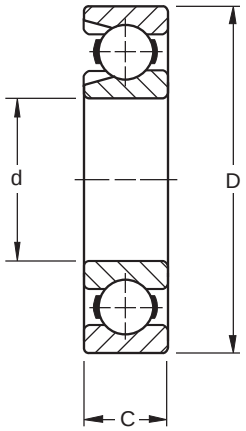


One Shield D	Two Shields DD	One Seal (N) P	One Seal One Shield PD	Two[3] Seals (N) PP	Open Type G	One Shield DG	One Shield GD	Two Shields DDG	One Seal PG	Two Seals PPG	One Seal One Shield PDG	O.D. Snap Ring		Thickness		Offset	
												mm	in.	mm	in.	mm	in.
200KD	200KDD	200P	200PD[2]	200PP	—	—	—	200KDDG	—	200PPG	—	34.5	1 23/64	1.07	0.042	3.05	0.120
201KD	201KDD	201P	201PD	201PP	201KG	201KDG	—	201KDDG	—	201PPG	—	36.5	1 7/16	1.07	0.042	3.05	0.120
202KD	202KDD	202P	202PD	202PP	202KG	202KDG	—	202KDDG	—	202PPG	—	39.3	1 35/64	1.07	0.042	3.05	0.120
203KD	203KDD	203P	203PD	203PP	203KG	203KDG	—	203KDDG	—	203PPG	—	44.4	1 3/4	1.07	0.042	3.05	0.120
204KD	204KDD	204P	204PD	204PP	204KG	204KDG	—	204KDDG	—	204PPG	—	52.4	2 1/16	1.07	0.042	3.45	0.136
205KD	205KDD	205P	205PD	205PP	205KG	205KDG	—	205KDDG	—	205PPG	—	57.5	2 17/64	1.07	0.042	3.45	0.136
206KD	206KDD	206P	206PD	206PP	206KG	206KDG	—	206KDDG	—	206PPG	—	67.6	2 21/32	1.65	0.065	4.83	0.190
207KD	207KDD	207P	207PD	207PP	207KG	207KDG	—	207KDDG	—	207PPG	—	78.2	3 5/64	1.65	0.065	4.83	0.190
208KD	208KDD	208P	—	208PP	208KG	208KDG	—	208KDDG	—	208PPG	—	86.5	3 13/32	1.65	0.065	4.83	0.190
209KD	209KDD	209P	—	209PP	209KG	209KDG	—	209KDDG	—	—	—	91.3	3 19/32	1.65	0.065	4.83	0.190
210KD	210KDD	210P	—	210PP	210KG	210KDG	—	210KDDG	—	210NPPG	—	96.4	3 51/64	2.41	0.095	5.59	0.220
211KD	211KDD	211NP	211NPD	211NPP	211KG	211KDG	211KGD	211KDDG	—	211NPPG	211NPDG	106.3	4 3/16	2.41	0.095	5.59	0.220
212KD	212KDD	212NP	212NPD	212NPP	212KG	212KDG	—	—	—	212NPPG	212NPDG	116.3	4 37/64	2.41	0.095	5.59	0.220
213KD	213KDD	213NP	—	213NPP	213KG	—	—	213KDDG	—	213NPPG	213NPDG	129.4	5 3/32	2.77	0.109	6.73	0.265
214KD	214KDD	214P	—	214NPP	214KG	214KDG	—	—	—	—	—	134.5	5 19/64	2.77	0.109	6.73	0.265
215KD	215KDD	215P	—	215NPP	—	—	—	—	—	—	—	—	—	—	—	—	—
216KD	216KDD	—	—	216NPP	—	—	—	—	—	—	—	—	—	—	—	—	—
217KD	217KDD	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
218KD	218KDD	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
222KD	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

[1] The snap ring is normally packaged separately in the box with the bearing.
[2] Available with snap ring as 200PDG.
[3] Also available in "VV" sealed design. Check for availability.
Note: "N" prefix for NP(P) seals indicate non-removable seal.

LIGHT 200W SERIES

- 200W Series, maximum capacity type, is dimensionally interchangeable with the 200K type, but has greater capacity for supporting heavier radial loads and light thrust loads in either direction.
- Maximum capacity bearings feature a filling slot in shoulder of each raceway to assemble an extra-large complement of balls.
- Consult your Timken representative for the availability of sizes other than those listed here.



DIMENSIONS – TOLERANCES

Bearing Number	Bore d tolerance +0.000 mm +0.0000" to minus				Outside Diameter D tolerance +0.000 mm +0.0000" to minus				Width C tolerance +0.000 mm +0.0000" to minus				Fillet Radius[1]		Wt.		Static Load Rating C_o		Extended Dynamic Load Rating* C_E[3]	
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
202W	15	0.5906	0.008	0.0003	35	1.3780	0.011	0.00045	11	0.4331	0.12	0.005	0.6	0.024	0.054	0.12	5060	1140	11000	2450
204W[2]	20	0.7874	0.010	0.0004	47	1.8504	0.011	0.00045	14	0.5512	0.12	0.005	1.0	0.039	0.113	0.25	9300	2120	19500	4400
205W[2]	25	0.9843	0.010	0.0004	52	2.0472	0.013	0.0005	15	0.5906	0.12	0.005	1.0	0.039	0.141	0.31	12200	2750	22600	5100
206W	30	1.1811	0.010	0.0004	62	2.4409	0.013	0.0005	16	0.6299	0.12	0.005	1.0	0.039	0.213	0.47	16900	3800	31000	6950
207W	35	1.3780	0.012	0.00047	72	2.8346	0.013	0.0005	17	0.6693	0.12	0.005	1.0	0.039	0.313	0.69	22600	5100	40000	9000
208W	40	1.5748	0.012	0.00047	80	3.1496	0.013	0.0005	18	0.7087	0.12	0.005	1.0	0.039	0.413	0.91	28400	6400	47000	10600
209W	45	1.7717	0.012	0.00047	85	3.3465	0.015	0.0006	19	0.7480	0.12	0.005	1.0	0.039	0.463	1.02	31500	7100	50000	11200
210W	50	1.9685	0.012	0.00047	90	3.5433	0.015	0.0006	20	0.7874	0.12	0.005	1.0	0.039	0.522	1.15	34600	7800	52000	11800
211W	55	2.1654	0.015	0.0006	100	3.9370	0.015	0.0006	21	0.8268	0.15	0.006	1.5	0.059	0.681	1.50	40600	9150	61000	13700
212W	60	2.3622	0.015	0.0006	110	4.3307	0.015	0.0006	22	0.8661	0.15	0.006	1.5	0.059	0.885	1.95	54200	12200	78000	17600
213W	65	2.5591	0.015	0.0006	120	4.7244	0.015	0.0006	23	0.9055	0.15	0.006	1.5	0.059	1.207	2.66	64800	14600	92000	20800
214W	70	2.7559	0.015	0.0006	125	4.9213	0.018	0.0007	24	0.9449	0.15	0.006	1.5	0.059	1.225	2.70	71100	16000	96000	21600
215W	75	2.9528	0.015	0.0006	130	5.1181	0.018	0.0007	25	0.9843	0.15	0.006	1.5	0.059	1.334	2.94	75500	17000	99000	22400
216W	80	3.1496	0.015	0.0006	140	5.5118	0.018	0.0007	26	1.0236	0.15	0.006	2.0	0.079	1.633	3.60	90600	20400	114000	26000
217W	85	3.3465	0.020	0.0008	150	5.9055	0.018	0.0007	28	1.1024	0.20	0.008	2.0	0.079	2.019	4.45	96000	22400	129000	29000
218W	90	3.5433	0.020	0.0008	160	6.2992	0.025	0.0010	30	1.1811	0.20	0.008	2.0	0.079	2.493	5.49	96500	25500	149000	33500
219W	95	3.7402	0.020	0.0008	170	6.6929	0.025	0.0010	32	1.2598	0.20	0.008	2.0	0.079	3.039	6.70	112000	29000	169000	38000
220W	100	3.9370	0.020	0.0008	180	7.0866	0.025	0.0010	34	1.3386	0.20	0.008	2.0	0.080	3.673	8.09	127000	33500	188000	42500
221W	105	4.1339	0.020	0.0008	190	7.4803	0.030	0.0012	36	1.4173	0.20	0.008	2.0	0.080	4.277	9.43	134000	35500	195000	44000
222W	110	4.3307	0.020	0.0008	200	7.8740	0.030	0.0012	38	1.4961	0.20	0.008	2.0	0.080	5.144	11.34	160000	42500	222000	50000
224W3	120	4.7244	0.020	0.0008	215	8.4646	0.030	0.0012	40	1.5748	0.25	0.010	2.0	0.080	6.586	14.52	156000	41500	222000	50000
226W3	130	5.1181	0.020	0.0010	230	9.0551	0.030	0.0012	40	1.5748	0.25	0.010	3.0	0.120	7.627	16.80	196000	53000	260000	58500
228W3	140	5.5118	0.025	0.0010	250	9.8425	0.030	0.0012	42	1.6535	0.25	0.010	3.0	0.120	9.307	20.50	260000	58500	270000	61000
230W	150	5.9055	0.025	0.0010	270	10.6299	0.035	0.0014	45	1.7717	0.25	0.010	3.0	0.120	12.485	27.50	290000	65500	300000	67000
232W	160	6.2992	0.025	0.0010	290	11.4173	0.035	0.0014	48	1.8898	0.25	0.010	3.0	0.120	15.436	34.00	340000	76500	325000	73500
234W	170	6.6929	0.025	0.0010	310	12.2047	0.035	0.0014	52	2.0472	0.25	0.010	4.0	0.160	19.068	42.00	375000	85000	345000	78000
236W	180	7.0866	0.025	0.0010	320	12.5984	0.040	0.0016	52	2.0472	0.25	0.010	4.0	0.160	19.886	43.80	405000	90000	365000	81500
238W	190	7.4803	0.030	0.0012	340	13.3858	0.040	0.0016	55	2.1654	0.30	0.012	4.0	0.160	23.608	52.00	465000	104000	405000	91500
240W	200	7.8740	0.030	0.0012	360	14.1732	0.040	0.0016	58	2.2835	0.30	0.012	4.0	0.160	27.150	59.80	560000	125000	465000	106000
242W	210	8.2677	0.030	0.0012	380	14.9606	0.040	0.0016	61	2.4016	0.30	0.012	4.0	0.160	33.279	73.30	570000	129000	465000	104000
244W	220	8.6614	0.030	0.0012	400	15.7480	0.040	0.0016	65	2.5591	0.30	0.012	4.0	0.160	38.091	83.90	680000	153000	530000	120000
246W	230	9.0551	0.030	0.0012	420	16.5354	0.045	0.0018	68	2.6772	0.30	0.012	4.0	0.160	45.719	100.70	695000	156000	530000	118000
248W	240	9.4488	0.030	0.0012	440	17.3228	0.045	0.0018	72	2.8346	0.30	0.012	4.0	0.160	48.761	107.40	865000	193000	640000	143000
250W	250	9.8425	0.030	0.0012	460	18.1102	0.045	0.0018	76	2.9921	0.30	0.012	4.0	0.160	57.568	126.80	930000	208000	670000	150000
252W	260	10.2362	0.035	0.0014	480	18.8976	0.045	0.0018	80	3.1496	0.35	0.014	5.0	0.200	65.468	144.20	1020000	232000	720000	160000
256W	280	11.0236	0.035	0.0014	500	19.6850	0.045	0.0018	80	3.1496	0.35	0.014	5.0	0.200	66.921	147.40	1120000	255000	765000	170000
260W	300	11.8110	0.035	0.0014	540	21.2598	0.050	0.0020	85	3.3465	0.35	0.014	5.0	0.200	89.894	198.00	1100000	245000	720000	160000
264W	320	12.5984	0.040	0.0016	580	22.8346	0.050	0.0020	92	3.6220	0.40	0.016	5.0	0.200	99.473	219.10	1560000	355000	965000	216000

[1] Maximum shaft or housing fillet radius that bearing corners will clear.
[2] These sizes have molded nylon cages.
[3] Based on 10^6 revolutions of calculated fatigue life.

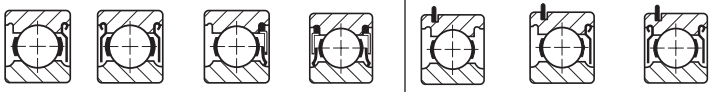
* For applications where thrust load exceeds 60% of radial load, consult your Timken representative.

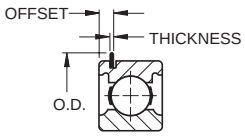
Listed in the table below are Timken maximum capacity type bearings (200W Series) with shields, seals and snap ring combinations.

The suffixes of the bearing numbers denote the following:

- **WD** - Filling slot opposite single shield
- **WNP** - Filling slot opposite single seal
- **WG** - Filling slot opposite snap ring
- **WDD** - Two shields
- **WNPP** - Two seals
- **WDG** - Filling slot and snap ring opposite shield
- **WDDG** - Two shields with filling slot opposite snap ring

SHIELDS, SEALS AND SNAP RING COMBINATIONS





Shields and Seals				Snap Ring (Wireloc)[1]									
One Shield D	Two Shields DD	One Seal P	Two Seals PP	Open Type G	One Shield DG	Two Shields DDG	O.D.		Thickness		Offset	
							mm	in.	mm	in.	mm	in.
204WD	—	—	—	204WG	—	—	52.4	2 1/16	1.07	0.042	3.45	0.136
205WD	—	—	—	205WG	—	—	57.5	2 17/64	1.07	0.042	3.45	0.136
206WD	—	—	—	206WG	206WDG	—	67.5	2 21/32	1.65	0.065	4.83	0.190
207WD	—	—	—	207WG	207WDG	—	78.2	3 5/64	1.65	0.065	4.83	0.190
208WD	208WDD	—	—	208WG	208WDG	208WDDG	86.5	3 13/32	1.65	0.065	4.83	0.190
209WD	209WDD	—	—	209WG	209WDG	—	91.3	3 19/32	1.65	0.065	4.83	0.190
210WD	210WDD	—	—	210WG	210WDG[2]	—	96.4	3 51/64	2.41	0.095	5.59	0.220
211WD	211WDD	—	—	211WG[3]	211WDG	—	106.4	4 3/16	2.41	0.095	5.59	0.220
212WD	212WDD	—	—	212WG	212WDG	212WDDG	116.3	4 37/64	2.41	0.095	5.59	0.220
213WD	213WDD	213WNP	213WNPP	213WG	213WDG	213WDDG	129.4	5 3/32	2.77	0.109	6.73	0.265
214WD	214WDD	—	—	214WG	214WDG	—	134.5	5 19/64	2.77	0.109	6.73	0.265
215WD	215WDD	215WNP	215WNPP	215WG	215WDG	215WDDG	139.7	5 1/2	2.77	0.109	6.73	0.265
216WD	216WDD	—	—	216WG	216WDG	—	149.6	5 57/64	2.77	0.109	7.54	0.297
217WD	217WDD	—	—	217WG	217WDG	—	159.5	6 9/32	2.77	0.109	7.54	0.297
218WD	218WDD	218WNP	—	218WG	—	—	169.5	6 43/64	2.77	0.109	7.54	0.297
219WD	219WDD	—	—	—	—	—	—	—	—	—	—	—
220WD	220WDD	—	—	220WG	—	—	192.9	7 19/32	3.05	0.12	8.61	0.339
221WD	—	—	—	—	—	—	—	—	—	—	—	—
222WD	—	—	—	—	—	—	—	—	—	—	—	—
224WD[4]	—	—	—	—	—	—	—	—	—	—	—	—

[1] The snap ring is normally packaged separately in the box with the bearing.
[2] Also available as a GWD-type filling slot opposite the shield and snap ring.
[3] Also available as 211GW with filling slot on same side as snap ring.
[4] Width is 1.6535" for the 224WD bearing.

LIGHT 200 SERIES EXTRA WIDTH INNER RING

- Sizes available in rubber seal (P) and Mechani-Seal (L) design.
- Extra width inner ring provides greater shaft support.
- P seal version uses a Buna N rubber contact seal.
- L seal employs a frictionless metallic member to form a labyrinth.
- Used extensively in high-speed pneumatic tools, small pumps, electric motors, domestic appliances, etc.
- Electric motor quality for applications where quietness is a requirement.

DIMENSIONS – TOLERANCES

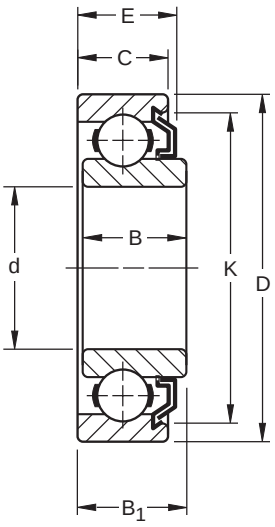
Bearing Number		Bore d				Outside Diameter D				Width B_1		Inner Ring Offset		Ring Widths 0.00, -.12 mm +0.000", - .005"				Fillet Radius(1)		Wt.		Static Load Rating C_o		Extended Dynamic Load Rating C_E(1)	
				tolerance +0.000 mm +0.0000" to minus				tolerance +0.000 mm +0.0000" to minus						Inner B		Outer C									
one seal L	one seal and shield LD	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
200KL	200KLD	10	0.3937	0.008	0.0003	30	1.1811	0.009	0.00035	12.70	0.500	0.51	0.020	12.19	0.480	8.99	0.354	0.6	0.024	0.036	0.08	2650	585	6550	1530
201KL	201KLD	12	0.4724	0.008	0.0003	32	1.2598	0.011	0.00045	12.70	0.500	0.51	0.020	12.19	0.480	10.01	0.394	0.6	0.024	0.041	0.09	3000	680	7500	1730
—	201KLD2	13	0.5118	0.008	0.0003	32	1.2598	0.011	0.00045	12.70	0.500	0.51	0.020	12.19	0.480	10.01	0.394	0.6	0.024	0.041	0.09	3000	680	7500	1730
201KL3	—	11.07	0.4358	0.008	0.0003	32	1.2598	0.011	0.00045	12.70	0.500	0.51	0.020	12.19	0.480	10.01	0.394	0.6	0.024	0.041	0.09	3000	680	7500	1730
202KL4	202KLD4	14	0.5512	0.008	0.0003	35	1.3780	0.011	0.00045	12.70	0.500	0.51	0.020	12.19	0.480	11.00	0.433	0.6	0.024	0.045	0.10	3690	830	8650	1930
202KL	202KLD	15	0.5906	0.008	0.0003	35	1.3780	0.011	0.00045	12.70	0.500	0.51	0.020	12.19	0.480	11.00	0.433	0.6	0.024	0.045	0.10	3450	830	8650	1930
202KL3	202KLD3	16	0.6299	0.008	0.0003	35	1.3780	0.011	0.00045	12.70	0.500	0.51	0.020	12.19	0.480	11.00	0.433	0.6	0.024	0.045	0.10	3450	830	8650	1930
203KL	203KLD	17	0.6693	0.008	0.0003	40	1.5748	0.011	0.00045	14.30	0.563	0.64	0.025	13.67	0.538	11.99	0.472	0.6	0.024	0.073	0.16	4700	1060	10800	2450
204KL	204KLD	20	0.7874	0.010	0.0004	47	1.8504	0.011	0.00045	15.88	0.625	0.64	0.025	15.24	0.600	14.00	0.551	1.0	0.039	0.113	0.25	6200	1460	14300	3200
205KL	205KLD	25	0.9843	0.010	0.0004	52	2.0472	0.013	0.0005	15.88	0.625	0.64	0.025	15.24	0.600	15.01	0.591	1.0	0.039	0.132	0.29	7800	1760	16000	3600
206KL	206KLD	30	1.1811	0.010	0.0004	62	2.4409	0.013	0.0005	20.00	0.787	0.99	0.039	19.00	0.748	16.00	0.630	1.0	0.039	0.231	0.51	10000	2550	22200	5000
207KL	207KLD	35	1.3780	0.012	0.00045	72	2.8346	0.013	0.0005	21.00	0.827	0.99	0.039	20.00	0.787	17.00	0.669	1.0	0.039	0.322	0.71	13700	3450	29000	6550
209KL	209KLD	45	1.7717	0.012	0.00045	85	3.3465	0.015	0.0006	26.00	1.024	—	—	26.00	1.024	19.00	0.748	1.0	0.039	0.508	1.12	17600	4550	37000	8300
211KL	211KLD	55	2.1654	0.015	0.0006	100	3.9370	0.015	0.0006	27.00	1.063	—	—	27.00	1.063	21.01	0.827	1.5	0.059	0.748	1.65	29100	6550	49000	11000

(1) Based on 10^6 revolutions of calculated fatigue life.

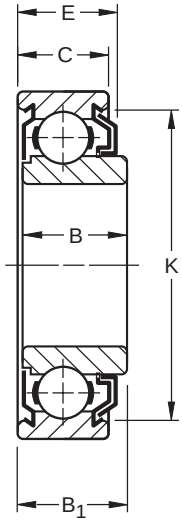
DIMENSIONS – TOLERANCES

Bearing Number		Bore d				Outside Diameter D				Ring Widths 0.00, -.12 mm +0.000", -.005"				Fillet Radius(1)		Wt.		Static Load Rating C_o		Extended Dynamic Load Rating C_E(5)	
				tolerance +0.000 mm +0.0000" to minus				tolerance +0.000 mm +0.0000" to minus		Inner B_2		Outer C									
two seals LL	two seals NPP	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
200KLL2	200KRR3(4)	10	0.3937	0.008	0.0003	30	1.1811	0.009	0.00035	16.40	0.646	8.99	0.354	0.6	0.024	0.036	0.08	2650	585	6800	1530
201KLL2	—	12	0.4724	0.008	0.0003	32	1.2598	0.011	0.00045	15.40	0.606	10.01	0.394	0.6	0.024	0.041	0.09	3000	680	7500	1700
201KLL3	—	13	0.5118	0.008	0.0003	32	1.2598	0.011	0.00045	15.40	0.606	10.01	0.394	0.6	0.024	0.041	0.09	3000	680	7500	1700
202KLL2	—	15	0.5906	0.008	0.0003	35	1.3780	0.011	0.00045	14.40	0.567	11.00	0.433	0.6	0.024	0.045	0.10	3690	830	8650	1930
202KLL3	202NPP11	16	0.6299	0.008	0.0003	35	1.3780	0.011	0.00045	14.40	0.567	11.00	0.433	0.6	0.024	0.045	0.10	3690	830	8650	1930
203KLL2(2)	203NPP8	17	0.6693	0.008	0.0003	40	1.5748	0.011	0.00045	16.60	0.654	11.99	0.472	0.6	0.024	0.073	0.16	4700	1060	10800	2450
204KLL2	204NPP7	20	0.7874	0.010	0.0004	47	1.8504	0.011	0.00045	17.75	0.699	14.00	0.551	1.0	0.039	0.113	0.25	6200	1460	14300	3200
205KLL2(3)	205NPP2	25	0.9843	0.010	0.0004	52	2.0472	0.013	0.0005	16.75	0.659	15.01	0.591	1.0	0.039	0.132	0.29	7800	1760	16000	3600
206KLL	206NPP2	30	1.1811	0.010	0.0004	62	2.4409	0.013	0.0005	24.00	0.945	16.00	0.630	1.0	0.039	0.231	0.51	11300	2550	22200	5000
207KLL	—	35	1.3780	0.012	0.00045	72	2.8346	0.013	0.0005	25.00	0.984	17.00	0.669	1.0	0.039	0.322	0.71	15300	3450	29000	6550
208KLL	—	40	1.5748	0.012	0.00045	80	3.1496	0.013	0.0005	30.18	1.188	18.01	0.709	1.0	0.039	0.463	1.02	20200	4550	36000	8150
209KLL	—	45	1.7717	0.012	0.00045	85	3.3465	0.015	0.0006	30.00	1.181	19.00	0.748	1.0	0.039	0.508	1.12	20200	4550	37000	8300

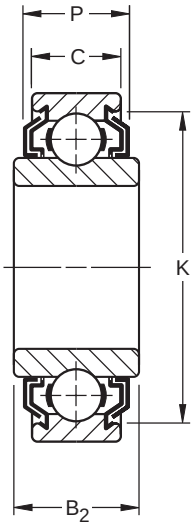
(1) Maximum shaft or housing fillet radius that bearing corners will clear.
(2) Also available as 203KLL with 18.24 mm (.718") inner ring width.
(3) Also available as 205KLL with 20.64 mm (.812") inner ring width.
(4) Equipped with R-Seal.
(5) Based on 10^6 revolutions of calculated fatigue life.



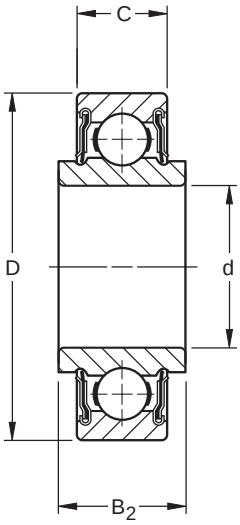
One Mechani-Seal
L



One Shield and
Mechani-Seal
LD

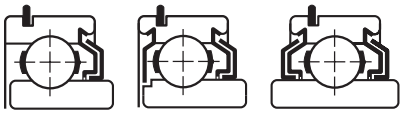


Two Mechani-Seals
LL

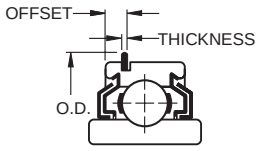


Two Rubber Seals
NPP[2]

MECHANI-SEAL SNAP RING COMBINATIONS



LG LDG LLG

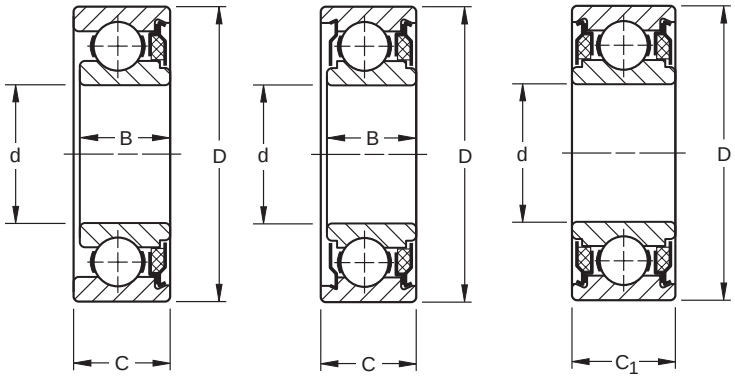


(Seal Projection) (L, LD, LL Types Only)						One Mechani-Seal	One Mechani-Seal and Shield	Two Mechani-Seals	Snap Ring[1]					
Width E		P		O.D. K		LG	LDG	LLG	O.D.		Thickness		Offset	
mm	in.	mm	in.	mm	in.				mm	in.	mm	in.	mm	in.
12.22	0.481	15.57	0.613	25.4	1	—	—	200KLLG2	34.5	1 23/64	1.07	0.042	3.05	0.120
12.19	0.480	14.40	0.567	27.0	1 1/16	—	—	201KLLG2	36.5	1 7/16	1.07	0.042	3.05	0.120
12.19	0.480	14.40	0.567	27.0	1 1/16	—	201KLDG3	—	36.5	1 7/16	1.07	0.042	3.05	0.120
12.37	0.487	13.79	0.543	30.2	1 3/16	—	202KLDG	202KLLG2	39.3	1 35/64	1.07	0.042	3.05	0.120
12.37	0.487	13.79	0.543	30.2	1 3/16	—	—	202KLLG3	39.3	1 35/64	1.07	0.042	3.05	0.120
14.00	0.551	16.00	0.630	34.9	1 3/8	203KLG	—	203KLLG2	44.4	1 3/4	1.07	0.042	3.05	0.120
15.57	0.613	17.14	0.675	40.1	1 37/64	204KLG2	—	204KLLG2	52.4	2 1/16	1.07	0.042	3.45	0.136
15.57	0.613	16.13	0.635	45.6	1 51/64	205KLG2	—	205KLLG2	57.5	2 17/64	1.07	0.042	3.45	0.136
19.48	0.767	22.99	0.905	54.4	2 9/64	—	—	206KLLG	67.5	2 21/32	1.65	0.065	4.83	0.190
20.50	0.807	23.98	0.944	62.7	2 15/32	—	—	207KLLG	78.2	3 5/64	1.65	0.065	4.83	0.190
23.32	0.918	28.63	1.127	69.8	2 3/4	—	—	—	86.5	3 13/32	1.65	0.065	4.83	0.190
24.23	0.954	29.46	1.160	75.4	2 31/32	—	—	209KLLG	91.3	3 19/32	1.65	0.065	4.83	0.190

[1] The snap ring is normally packaged separately in the box with the bearing.
NOTE: "N" prefix indicates a non-removable seal.

LIGHT 200 SERIES FELT SEAL TYPE

- Permits certain design economies, but cannot be assumed to be suitable for all conditions of service.
- In many cases, they are supplemented by adjacent parts in the application for adequate bearing protection in small equipment such as fractional horsepower motors, electric vacuum cleaners, small gear units, electric and pneumatic tools, etc.
- Suggested for effective grease retention and exclusion of foreign matter.
- Electric motor quality for applications where quietness is a requirement.



One Seal
T

One Seal and Shield
TD

Two Seals
TT

DIMENSIONS – TOLERANCES

Bearing Number		Bore d				Outside Diameter D				Ring Widths +0.00 mm, -0.12 mm 0.000, -0.005"				Inner Ring Offset		Fillet Radius(1)		Wt.		Static Load Rating C_o		Extended Dynamic Load Rating C_E(3)	
one seals T	one seal and shield TD	tolerance +0.000 mm +0.0000" to minus				tolerance +0.000 mm +0.0000" to minus																	
		mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
200KT	200KTD	10	0.3937	0.008	0.0003	30	1.1811	0.009	0.00035	12.19	0.480	12.70	0.500	0.51	0.020	0.6	0.024	0.045	0.10	2600	585	6790	1530
—	200KTD2	12	0.4724	0.008	0.0003	30	1.1811	0.009	0.00035	12.19	0.480	12.70	0.500	0.51	0.020	0.6	0.024	0.045	0.10	2600	585	6790	1530
201KT	201KTD	12	0.4724	0.008	0.0003	32	1.2598	0.011	0.00045	12.19	0.480	12.70	0.500	0.51	0.020	0.6	0.024	0.045	0.10	3000	680	7680	1730
201KT2	201KTD2	13	0.5118	0.008	0.0003	32	1.2598	0.011	0.00045	12.19	0.480	12.70	0.500	0.51	0.020	0.6	0.024	0.045	0.10	3000	680	7680	1730
202KT	202KTD	15	0.5906	0.008	0.0003	35	1.3780	0.011	0.00045	12.19	0.480	12.70	0.500	0.51	0.020	0.6	0.024	0.050	0.11	3600	830	8650	1930
202KT3(2)	202KTD3(2)	16	0.6299	0.008	0.0003	35	1.3780	0.011	0.00045	12.19	0.480	12.70	0.500	0.51	0.020	0.6	0.024	0.050	0.11	3600	830	8650	1930
203KT	203KTD	17	0.6693	0.008	0.0003	40	1.5748	0.011	0.00045	13.67	0.538	14.30	0.563	0.64	0.025	0.6	0.024	0.077	0.17	4700	1060	10900	2450
204KT	204KTD	20	0.7874	0.010	0.0004	47	1.8504	0.011	0.00045	15.24	0.600	15.88	0.625	0.64	0.025	1.0	0.039	0.118	0.26	6500	1460	14400	3250
205KT	205KTD	25	0.9843	0.010	0.0004	52	2.0472	0.013	0.00050	15.24	0.600	15.88	0.625	0.64	0.025	1.0	0.039	0.132	0.29	7800	1760	16000	3600
206KT	206KTD	30	1.1811	0.010	0.0004	62	2.4409	0.013	0.00050	19.00	0.748	19.99	0.788	0.99	0.039	1.0	0.039	0.245	0.54	11300	2550	22200	5000
207KT	207KTD	35	1.3780	0.012	0.00045	72	2.8346	0.013	0.00050	19.99	0.787	21.01	0.827	0.99	0.039	1.0	0.039	0.358	0.79	15300	3450	29000	6550

(1) Maximum shaft or housing fillet radius that bearing corners will clear.
(2) 202KT3 has 12.29 mm (.484") inner ring width.
(3) Based on 10^6 revolutions of calculated fatigue life.

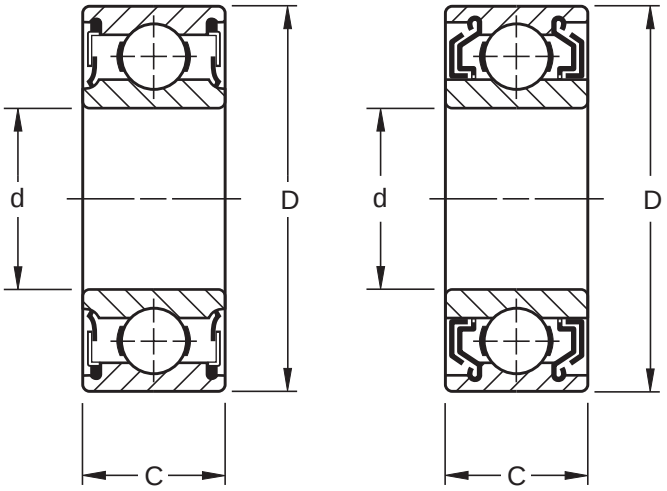
DIMENSIONS – TOLERANCES

Bearing Number	Bore d				Outside Diameter D				Ring Width C_1 +0.00 mm -0.12 mm +0.000 -0.005"		Fillet Radius(1)		Wt.		Static Load Rating C_o		Extended Dynamic Load Rating C_E(2)	
two seals TT	tolerance +0.000 mm +0.0000" to minus				tolerance +0.000 mm +0.0000" to minus													
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
200KTT	10	0.3937	0.008	0.0003	30	1.1811	0.009	0.00035	16.66	0.656	0.6	0.024	0.045	0.10	2600	585	6790	1530
201KTT	12	0.4724	0.008	0.0003	32	1.2598	0.011	0.00043	16.66	0.656	0.6	0.024	0.045	0.10	3000	680	7680	1730
201KTT3	13	0.5118	0.008	0.0003	32	1.2598	0.011	0.00043	16.66	0.656	0.6	0.024	0.045	0.10	3000	680	7680	1730
202KTT	15	0.5906	0.008	0.0003	35	1.3780	0.011	0.00043	16.66	0.656	0.6	0.024	0.050	0.11	3600	830	8650	1930
203KTT	17	0.6693	0.008	0.0003	40	1.5748	0.011	0.00043	18.24	0.718	0.6	0.024	0.077	0.17	4700	1060	10900	2450
204KTT	20	0.7874	0.010	0.0004	47	1.8504	0.011	0.00043	20.62	0.812	1.0	0.039	0.118	0.26	6500	1460	14400	3250
205KTT	25	0.9843	0.010	0.0004	52	2.0472	0.013	0.00051	20.62	0.812	1.0	0.039	0.132	0.29	7800	1760	16000	3600
206KTT	30	1.1811	0.010	0.0004	62	2.4409	0.013	0.00051	24.00	0.945	1.0	0.039	0.245	0.54	11300	2550	22200	5000
207KTT	35	1.3780	0.012	0.00045	72	2.8346	0.013	0.00051	25.00	0.984	1.0	0.039	0.358	0.79	15300	3450	29000	6550

(1) Maximum shaft or housing fillet radius that bearing corners will clear.
(2) Based on 10^6 revolutions of calculated fatigue life.

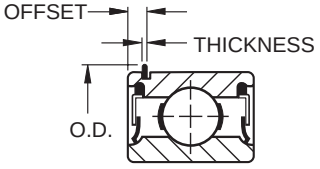
LIGHT, WIDE TYPE W200PP SERIES W200KLL SERIES

- Rubber seal (W200PP) and Mechani-Seal (W200KLL) types.
- Made with standard bores, standard outside diameters and a single row of balls.
- Same widths as double-row bearings of corresponding size.
- Extra width offers a larger support area for shaft and housing contact and added space for prepacked lubricant.
- Wide-type rubber seal bearings are particularly suited for use in electric motors, where they simplify housing design by eliminating auxiliary seals.
- Wide-type Mechani-Seal ball bearings are designed for applications where frictionless sealing and large grease capacity are required.
- Extremely effective grease retention and exclusion of foreign matter are assured by close running clearance between the seal members and slinger action of the outer member.



Rubber Seals PP

Mechani-Seals LL



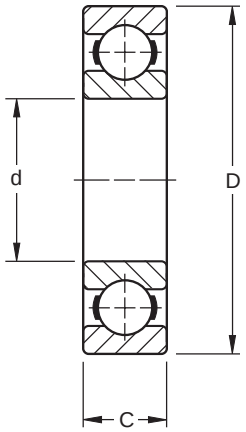
DIMENSIONS – TOLERANCES

Bearing Number		Bore d				Outside Diameter D				Width C		Fillet Radius[1]		Wt.		Static Load Rating C_o		Extended Dynamic Load C_E[4]		Snap Ring PPG[3]					
Contact Seal PP	Mechani-seal LL			tolerance +0.000 mm +0.0000" to minus				tolerance +0.000 mm +0.0000" to minus		+0.00 mm -0.12 mm +0.000" -.005"										O.D.		thickness		offset	
		mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.	mm	in.	mm	in.	mm	in.
W200PP	—	10	0.3937	0.008	0.0003	30	1.1811	0.009	0.00035	14.27	0.562	0.6	0.024	0.045	0.10	2650	600	6550	1500	—	—	—	—	—	—
W201PP	—	12	0.4724	0.008	0.0003	32	1.2598	0.011	0.00045	15.88	0.625	0.6	0.024	0.054	0.12	3000	695	7500	1700	—	—	—	—	—	—
W202PP	—	15	0.5906	0.008	0.0003	35	1.3780	0.011	0.00045	15.88	0.625	0.6	0.024	0.064	0.14	3450	780	8650	1930	—	—	—	—	—	—
W203PP[2]	—	17	0.6693	0.008	0.0003	40	1.5748	0.011	0.00045	17.48	0.688	0.6	0.024	0.091	0.20	4400	1000	10600	2360	44.4	$1\frac{3}{4}$	1.07	0.042	4.7	0.185
W204PP	W204KLL	20	0.7874	0.010	0.0004	47	1.8504	0.011	0.00045	20.62	0.812	1.0	0.039	0.150	0.33	6200	1400	14300	3200	—	—	—	—	—	—
W205PP[2]	W205KLL	25	0.9843	0.010	0.0004	52	2.0472	0.013	0.0005	20.62	0.812	1.0	0.039	0.177	0.39	6950	1560	15600	3450	57.5	$2\frac{17}{64}$	1.07	0.042	5.72	0.225
W206PP[2]	W206KLL	30	1.1811	0.010	0.0004	62	2.4409	0.013	0.0005	23.83	0.938	1.0	0.039	0.295	0.65	10000	2280	21600	4800	67.5	$2\frac{21}{32}$	1.65	0.065	6.15	0.242
W207PP	W207KLL	35	1.3780	0.012	0.00045	72	2.8346	0.013	0.0005	26.97	1.062	1.0	0.039	0.458	1.01	13700	3050	28500	6400	—	—	—	—	—	—
W208PP	W208KLL	40	1.5748	0.012	0.00045	80	3.1496	0.013	0.0005	30.18	1.188	1.0	0.039	0.630	1.39	17600	4000	36000	8150	—	—	—	—	—	—
W209PP	W209KLL	45	1.7717	0.012	0.00045	85	3.3465	0.015	0.0006	30.18	1.188	1.0	0.039	0.668	1.47	17600	4000	36000	8150	—	—	—	—	—	—
W210PP	—	50	1.9685	0.012	0.00045	90	3.5433	0.015	0.0006	30.18	1.188	1.0	0.039	0.767	1.69	19600	4500	39000	8800	—	—	—	—	—	—
W214PP	—	70	2.7559	0.015	0.0006	125	4.9213	0.018	0.0007	39.67	1.562	1.5	0.059	1.810	3.99	37500	8500	69500	15600	—	—	—	—	—	—

[1] Maximum shaft or housing fillet radius that bearing corners will clear.
[2] Also available with snap ring. To order, add suffix "G" to bearing number. Example: W205PPG.
[3] The snap ring is normally packaged separately in the box with the bearing.
[4] Based on 10^6 revolutions of calculated fatigue life.

MEDIUM 300K SERIES

- A heavier cross section than the 200 Series.
- Capable of carrying considerably heavier radial, thrust and combined loads for a given bore size.
- Capable of withstanding heavy shock loads. A ball bearing of heavier cross section is rarely required.
- Uses Conrad-type bearing that is well-balanced, with deep races and uninterrupted race shoulders.
- Electric motor quality where quietness is a requirement.

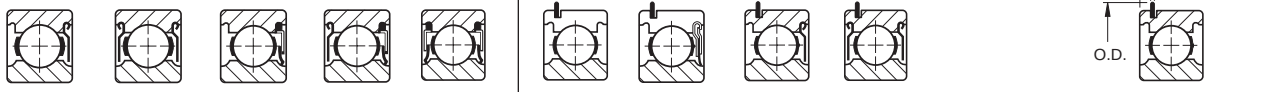


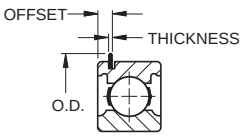
DIMENSIONS – TOLERANCES

Bearing Number	Bore d tolerance +0.000 mm +0.0000" to minus				Outside Diameter D tolerance +0.000 mm +0.0000" to minus				Width C tolerance +0.000 mm +0.0000" to minus				Fillet Radius(1)		Wt.		Static Load Rating C_o		Extended Dynamic Load Rating C_E(2)	
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
300K	10	0.3937	0.008	0.0003	35	1.3780	0.011	0.00043	11	0.433	0.12	0.005	0.6	0.024	0.054	0.12	3460	780	9200	2080
301K	12	0.4724	0.008	0.0003	37	1.4567	0.011	0.00043	12	0.472	0.12	0.005	1.0	0.039	0.064	0.14	3620	815	9400	2120
302K	15	0.5906	0.008	0.0003	42	1.6535	0.011	0.00043	13	0.512	0.12	0.005	1.0	0.039	0.082	0.18	5240	1180	13300	3000
303K	17	0.6693	0.008	0.0003	47	1.8504	0.011	0.00043	14	0.551	0.12	0.005	1.0	0.039	0.109	0.24	6550	1460	15300	3450
304K	20	0.7874	0.010	0.0004	52	2.0472	0.013	0.0005	15	0.591	0.12	0.005	1.0	0.039	0.141	0.31	7800	1760	17900	4050
305K	25	0.9843	0.010	0.0004	62	2.4409	0.013	0.0005	17	0.669	0.12	0.005	1.0	0.039	0.236	0.52	12200	2750	26600	6000
306K	30	1.1811	0.010	0.0004	72	2.8346	0.013	0.0005	19	0.748	0.12	0.005	1.0	0.039	0.354	0.78	15600	3550	33900	7650
307K	35	1.3780	0.012	0.00047	80	3.1496	0.013	0.0005	21	0.827	0.12	0.005	1.5	0.059	0.472	1.04	18400	4150	37700	8500
308K	40	1.5748	0.012	0.00047	90	3.5433	0.015	0.0006	23	0.906	0.12	0.005	1.5	0.059	0.644	1.42	25900	5850	50600	11400
309K	45	1.7717	0.012	0.00047	100	3.9370	0.015	0.0006	25	0.984	0.12	0.005	1.5	0.059	0.862	1.90	31500	7100	59500	13400
310K	50	1.9685	0.012	0.00047	110	4.3307	0.015	0.0006	27	1.063	0.12	0.005	2.0	0.079	1.125	2.48	37700	8500	69300	15600
311K	55	2.1654	0.015	0.0006	120	4.7244	0.015	0.0006	29	1.142	0.15	0.006	2.0	0.079	1.424	3.14	44400	10000	81200	18300
312K	60	2.3622	0.015	0.0006	130	5.1181	0.018	0.0007	31	1.220	0.15	0.006	2.0	0.079	1.765	3.89	51500	11600	92300	20800
313K	65	2.5591	0.015	0.0006	140	5.5118	0.018	0.0007	33	1.299	0.15	0.006	2.0	0.079	2.168	4.78	59500	13400	104000	23600
314K	70	2.7559	0.015	0.0006	150	5.9055	0.025	0.0010	35	1.378	0.15	0.006	2.0	0.079	2.617	5.77	67900	15300	116000	26000
315K	75	2.9528	0.015	0.0006	160	6.2992	0.018	0.0007	37	1.457	0.15	0.006	2.0	0.079	3.175	7.00	76800	17300	128000	29000
316K	80	3.1496	0.015	0.0006	170	6.6929	0.025	0.0010	39	1.535	0.15	0.006	2.0	0.079	3.756	8.28	85700	19300	139000	31500
317K	85	3.3465	0.020	0.0008	180	7.0866	0.025	0.0010	41	1.614	0.20	0.008	2.5	0.098	5.008	11.04	95900	21600	151000	34000
318K	90	3.5433	0.020	0.0008	190	7.4803	0.030	0.0012	43	1.693	0.20	0.008	2.5	0.098	5.121	11.29	106000	24000	162000	36500
320K	100	3.9370	0.020	0.0008	215	8.4646	0.030	0.0012	47	1.850	0.20	0.008	2.5	0.098	7.085	15.62	139000	31500	195000	41500
321K	105	4.1339	0.020	0.0008	225	8.8583	0.030	0.0012	49	1.929	0.20	0.008	2.5	0.098	10.21	22.52	163000	36500	126000	48000
322K	110	4.3307	0.020	0.0008	240	9.4488	0.030	0.0012	50	1.969	0.20	0.008	2.5	0.098	12.17	26.82	166000	37500	220000	49000
326K	130	5.1181	0.020	0.0010	280	11.0236	0.035	0.0014	58	2.323	0.25	0.010	2.5	0.098	18.90	41.60	240000	54000	280000	63000
330K	150	5.9055	0.025	0.0010	320	12.5984	0.040	0.0016	65	2.559	0.25	0.010	2.5	0.098	27.10	59.70	310000	69500	335000	75000
332K	160	6.2992	0.025	0.0010	340	13.3858	0.040	0.0016	68	2.677	0.25	0.010	2.5	0.098	31.51	69.40	310000	69500	335000	75000
334K	170	6.6929	0.025	0.0010	360	14.1732	0.040	0.0016	72	2.835	0.25	0.010	2.5	0.098	36.82	81.10	355000	80000	360000	81500
336K	180	7.0866	0.025	0.0010	380	14.9606	0.040	0.0016	75	2.953	0.25	0.010	2.5	0.098	42.04	92.60	390000	88000	390000	88000
338K	190	7.4803	0.030	0.0012	400	15.7480	0.040	0.0016	78	3.071	0.30	0.012	4.0	0.16	47.6	105.0	440000	98000	425000	95000
340K	200	7.8740	0.030	0.0012	420	16.5354	0.045	0.0018	80	3.150	0.30	0.012	4.0	0.16	56.1	123.6	465000	104000	425000	95000
342K	210	8.2677	0.030	0.0012	440	17.3228	0.045	0.0018	84	3.307	0.30	0.012	4.0	0.16	58.1	128.2	570000	129000	510000	114000
344K	220	8.6614	0.030	0.0012	460	18.1102	0.045	0.0018	88	3.465	0.30	0.012	4.0	0.16	69.8	154.0	610000	137000	520000	116000
348K	240	9.4488	0.030	0.0012	500	19.6850	0.045	0.0018	95	3.740	0.30	0.012	4.0	0.16	81.1	178.9	735000	163000	600000	134000
352K	260	10.2362	0.035	0.0014	540	21.2598	0.050	0.0020	102	4.016	0.35	0.014	4.0	0.16	98.4	217.0	850000	190000	670000	150000
356K	280	11.0236	0.035	0.0014	580	22.8346	0.050	0.0020	108	4.252	0.35	0.014	4.0	0.16	142.8	315.0	780000	176000	585000	134000

(1) Maximum shaft or housing fillet radius that bearing corners will clear.
(2) Based on 10^6 revolutions of calculated fatigue life.

SHIELDS, SEALS AND SNAP RING COMBINATIONS



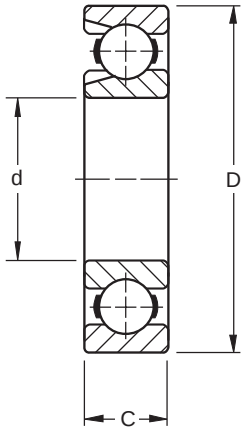


One Shield D	Two Shields DD	One Seal P	One Seal One Shield PD	Two Seals PP	Open Type G	One Shield PG	One Shield DG	Two Shields DDG	O.D.		Thickness		Offset	
									mm	in.	mm	in.	mm	in.
300KD	300KDD	300P	—	—	—	—	—	—	39.3	$1\frac{35}{64}$	1.07	0.042	3.05	0.120
301KD	301KDD	—	—	—	—	—	—	—	40.9	$1\frac{39}{64}$	1.07	0.042	3.05	0.120
302KD	302KDD	—	—	—	—	—	—	—	46.0	$1\frac{13}{16}$	1.07	0.042	3.05	0.120
303KD	303KDD	303P	—	303PP	303KG	—	—	—	52.4	$2\frac{1}{16}$	1.07	0.042	3.45	0.136
304KD	304KDD	304P	—	304PP	304KG	—	304KDG	304KDDG	57.5	$2\frac{17}{64}$	1.07	0.042	3.45	0.136
305KD	305KDD	305P	—	305PP	305KG	—	305KDG	305KDDG	67.5	$2\frac{21}{32}$	1.65	0.065	4.83	0.190
306KD	306KDD	306P	—	306PP	306KG	—	306KDG	306KDDG	78.2	$3\frac{5}{64}$	1.65	0.065	4.83	0.190
307KD	307KDD	307P	—	307PP	307KG	—	307KDG	307KDDG	86.5	$3\frac{13}{32}$	1.65	0.065	4.83	0.190
308KD	308KDD	308P	—	308PP	308KG	—	308KDG	308KDDG	96.4	$3\frac{51}{64}$	2.41	0.095	5.59	0.220
309KD	309KDD	309P	—	309PP	309KG	—	309KDG	309KDDG	106.4	$4\frac{3}{16}$	2.41	0.095	5.59	0.220
310KD	310KDD	310P	—	310PP	310KG	—	310KDG	310KDDG	116.3	$4\frac{37}{64}$	2.41	0.095	5.59	0.220
311KD	311KDD	311NP	311NPD	311NPP	311KG	311NPG	—	311KDDG	129.4	$5\frac{3}{32}$	2.77	0.109	6.73	0.265
312KD	312KDD	—	—	312NPP	312KG	—	—	312KDDG	139.7	$5\frac{1}{2}$	2.77	0.109	6.73	0.265
313KD	313KDD	—	—	—	—	—	—	313KDDG	149.6	$5\frac{57}{64}$	2.77	0.109	7.54	0.297
314KD	314KDD	—	—	—	—	—	—	—	—	——	—	—	—	
315KD	315KDD	—	—	—	—	—	—	—	—	——	—	—	—	
316KD	316KDD	—	—	—	—	—	—	—	—	——	—	—	—	
317KD	317KDD	—	—	—	—	—	—	—	—	——	—	—	—	
—	—	—	—	—	—	—	—	—	—	——	—	—	—	
320KD	320KDD	—	—	—	—	—	—	—	—	——	—	—	—	

(1) The snap ring is normally packaged separately in the box with the bearing.
Note: "N" prefix indicates a non-removable seal in NP (P) designs.

MEDIUM 300W SERIES

- A heavier cross section than the 200 Series.
- Capable of carrying considerably heavier radial, thrust and combined loads for a given bore size.
- Capable of withstanding heavy shock loads. A ball bearing of heavier cross section is rarely required.
- 300W Series bearings are dimensionally interchangeable with the 300K Series. However, bearings within the 300W Series are capable of carrying heavier radial loads, due to their larger ball complements.



DIMENSIONS – TOLERANCES

Bearing Number	Bore d		tolerance +0.000 mm +0.0000" to minus		Outside Diameter D		tolerance +0.000 mm +0.0000" to minus		Width C		tolerance +0.000 mm +0.0000" to minus		Fillet Radius(1)		Wt.		Static Load Rating C_o		Extended Dynamic Load Rating C_E(2)	
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
303W	17	0.6693	0.008	0.0003	47	1.8504	0.011	0.00045	14	0.551	0.12	0.005	1.0	0.039	0.118	0.26	9400	2120	20600	4650
304W	20	0.7874	0.010	0.0004	52	2.0472	0.013	0.0005	15	0.591	0.12	0.005	1.0	0.039	0.154	0.34	11300	2550	23900	5400
305W	25	0.9843	0.010	0.0004	62	2.4409	0.013	0.0005	17	0.669	0.12	0.005	1.0	0.039	0.259	0.57	17300	3900	33900	7650
306W	30	1.1811	0.010	0.0004	72	2.8346	0.013	0.0005	19	0.748	0.12	0.005	1.0	0.039	0.386	0.85	22600	5100	42800	9650
307W	35	1.3780	0.012	0.00047	80	3.1496	0.013	0.0005	21	0.827	0.12	0.005	1.5	0.059	0.513	1.13	29000	6550	51500	11600
308W	40	1.5748	0.012	0.00047	90	3.5433	0.015	0.0006	23	0.906	0.12	0.005	1.5	0.059	0.844	1.86	39000	8000	66000	15000
309W	45	1.7717	0.012	0.00047	100	3.9370	0.015	0.0006	25	0.984	0.12	0.005	1.5	0.059	0.934	2.06	47000	10600	78100	17600
310W	50	1.9685	0.012	0.00047	110	4.3307	0.015	0.0006	27	1.063	0.12	0.005	2.0	0.079	1.207	2.66	56000	12700	92000	20800
311W	55	2.1654	0.015	0.0006	120	4.7244	0.015	0.0006	29	1.142	0.15	0.006	2.0	0.079	1.542	3.40	66000	15000	106000	24000
312W	60	2.3622	0.015	0.0006	130	5.1181	0.018	0.0007	31	1.220	0.15	0.006	2.0	0.079	1.923	4.24	78000	17600	122000	27500
313W	65	2.5591	0.015	0.0006	140	5.5118	0.018	0.0007	33	1.299	0.15	0.006	2.0	0.079	2.413	5.32	96000	21600	144000	32500
314W	70	2.7559	0.015	0.0006	150	5.9055	0.018	0.0007	35	1.378	0.15	0.006	2.0	0.079	2.885	6.36	101000	22800	153000	34500
315W	75	2.9528	0.015	0.0006	160	6.2992	0.025	0.0010	37	1.457	0.15	0.006	2.0	0.079	3.497	7.71	127000	28500	180000	40500
316W	80	3.1496	0.015	0.0006	170	6.6929	0.025	0.0010	39	1.535	0.15	0.006	2.0	0.079	4.154	9.15	142000	32000	195000	44000
317W	85	3.3465	0.020	0.0008	180	7.0866	0.025	0.0010	41	1.614	0.20	0.008	2.5	0.098	4.872	10.74	157000	35500	211000	47500
318W	90	3.5433	0.020	0.0008	190	7.4803	0.030	0.0012	43	1.693	0.20	0.008	2.5	0.098	5.625	12.39	173000	39000	226000	51000
319W	95	3.7402	0.020	0.0008	200	7.8740	0.030	0.0012	45	1.772	0.20	0.008	2.5	0.098	6.514	14.36	191000	43000	239000	54000
320W	100	3.9370	0.020	0.0008	215	8.4646	0.030	0.0012	47	1.850	0.20	0.008	2.5	0.098	7.992	17.62	226000	51000	270000	61000
321W	105	4.1339	0.020	0.0008	225	8.8583	0.030	0.0012	49	1.929	0.20	0.008	2.5	0.098	9.117	20.10	244000	55000	284000	64000
322W	110	4.3307	0.020	0.0008	240	9.4488	0.030	0.0012	50	1.968	0.20	0.008	2.5	0.098	10.81	23.84	266000	60000	302000	68000
324W	120	4.7244	0.020	0.0008	260	10.2362	0.035	0.0014	55	2.165	0.20	0.008	2.5	0.098	15.01	33.10	284000	64000	319000	72000
326W	130	5.1181	0.025	0.0010	280	11.0236	0.035	0.0014	58	2.323	0.25	0.010	2.5	0.098	19.56	43.12	326000	73500	355000	80000
328W	140	5.5118	0.025	0.0010	300	11.8110	0.035	0.0014	62	2.441	0.25	0.010	2.5	0.098	23.06	50.80	410000	91500	400000	90000
330W	150	5.9055	0.025	0.0010	320	12.5984	0.040	0.0016	65	2.559	0.25	0.010	2.5	0.098	26.81	59.10	422000	95000	422000	95000
336W	180	7.0866	0.025	0.0010	380	14.9606	0.040	0.0016	79	3.110	0.25	0.010	2.5	0.098	47.66	105.10	600000	132000	524000	118000
338W	190	7.4803	0.030	0.0012	400	15.7480	0.040	0.0016	78	3.071	0.30	0.012	4.0	0.160	49.21	108.40	720000	160000	580000	129000
340W	200	7.8740	0.030	0.0012	420	16.5354	0.045	0.0018	80	3.150	0.30	0.012	4.0	0.160	57.48	126.60	730000	163000	570000	127000
342W	210	8.2677	0.030	0.0012	440	17.3228	0.045	0.0018	84	3.307	0.30	0.012	4.0	0.160	60.70	133.70	935000	208000	720000	160000
344W	220	8.6614	0.030	0.0012	460	18.1102	0.045	0.0018	88	3.465	0.30	0.012	4.0	0.160	72.10	158.80	880000	196000	700000	150000
348W	240	9.4488	0.030	0.0012	500	19.6850	0.045	0.0018	95	3.740	0.30	0.012	4.0	0.160	84.99	187.20	1200000	260000	850000	186000
352W	260	10.2362	0.035	0.0014	540	21.2598	0.050	0.0020	102	4.016	0.35	0.014	4.0	0.160	103.38	227.70	1400000	310000	950000	208000
356W	280	11.0236	0.035	0.0014	580	22.8346	0.050	0.0020	108	4.252	0.35	0.014	4.0	0.160	146.78	323.30	1350000	300000	855000	190000

(1) Maximum shaft or housing fillet radius that bearing corners will clear.

(2) Based on 10^6 revolutions of calculated fatigue life.

For applications where thrust load exceeds 60% Radial Load, consult your Timken representative.

Listed in the table below are Timken maximum capacity type bearings (300W Series) with shields, seals and snap ring combinations.

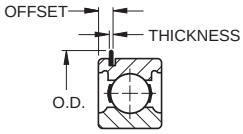
The bearing number suffixes denote the following:

- **WD** - filling slot opposite single shield
- **WG** - filling slot opposite snap ring
- **WDD** - two shields
- **WDG** - filling slot and snap ring opposite shield

SHIELDS, SEALS AND SNAP RING COMBINATIONS

Shields and Seals

Snap Ring (Wireloc)[1]

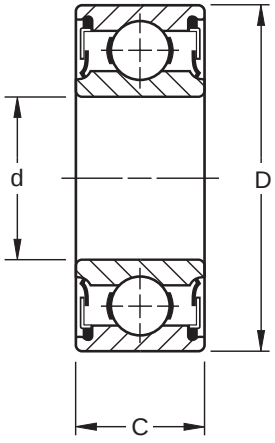


One Shield D	Two Shields DD	Open Type G	Open Shield DG	Two Shields DDG	O.D.		Thickness		Offset	
					mm	in.	mm	in.	mm	in.
—	—	—	—	—	—	—	—	—	—	—
—	—	304WG	—	—	57.5	2 17/64	1.07	0.042	3.45	0.136
305WD	—	305WG	—	—	67.5	2 21/32	1.65	0.065	4.83	0.190
306WD	306WDD	306WG	306WDG	—	78.2	3 5/64	1.65	0.065	4.83	0.190
307WD	307WDD	307WG	307WDG	—	86.5	3 13/32	1.65	0.065	4.83	0.190
308WD	308WDD	308WG[2]	308WDG	—	96.4	3 51/64	2.41	0.095	5.59	0.220
309WD	309WDD	309WG	309WDG	—	106.4	4 3/16	2.41	0.095	5.59	0.220
310WD	310WDD	310WG	310WDG	310WDDG	116.3	4 37/64	2.41	0.095	5.59	0.220
311WD	311WDD	311WG	311WDG	—	129.4	5 3/32	2.77	0.109	6.73	0.265
312WD	312WDD	312WG[3]	312WDG	312WDDG	139.7	5 1/2	2.77	0.109	6.73	0.265
313WD	313WDD	313WG	313WDG	313WDDG	149.6	5 57/64	2.77	0.109	7.54	0.297
314WD	314WDD	—	—	—	—	—	—	—	—	—
315WD	315WDD	—	—	—	—	—	—	—	—	—
316WD	316WDD	316WG	—	—	182.6	7 3/16	3.05	0.120	8.61	0.339
317WD	317WDD	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
320WD	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
—	—	322WG	—	—	252.8	9 61/64	3.05	0.120	8.61	0.339

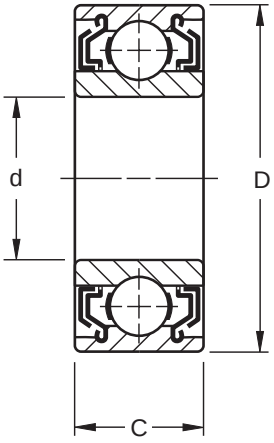
[1] The snap ring is normally packaged separately in the box with the bearing.
[2] Also available as a GW-Type filling slot and snap ring on same side. Also available 308GW2 with 20 mm width.
[3] Also available as 312WG-3 with filling slot on same side as snap ring.

MEDIUM, WIDE TYPE W300PP SERIES AND W300KLL SERIES

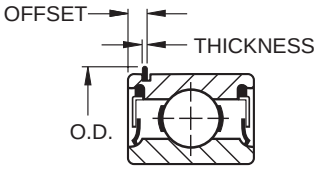
- The W300PP (rubber seal) Series and the W300KLL (Mechani-Seal) Series have the same bores and outside diameters as standard 300 Series ball bearings.
- Widths are equal to 5300 Series double-row ball bearings.
- Added width provides extra support on shafts and in housings and eliminates the need for locknuts and lockwashers on applications such as electric motors.
- Prepacked with the right amount of long-life, factory-filtered grease.
- These series incorporate the same advantages as the standard width Mechani-Seal and rubber seal bearings.
- Electric motor quality for applications where quietness is a requirement.



Rubber Seals
PP



Mechani-Seals
LL



D

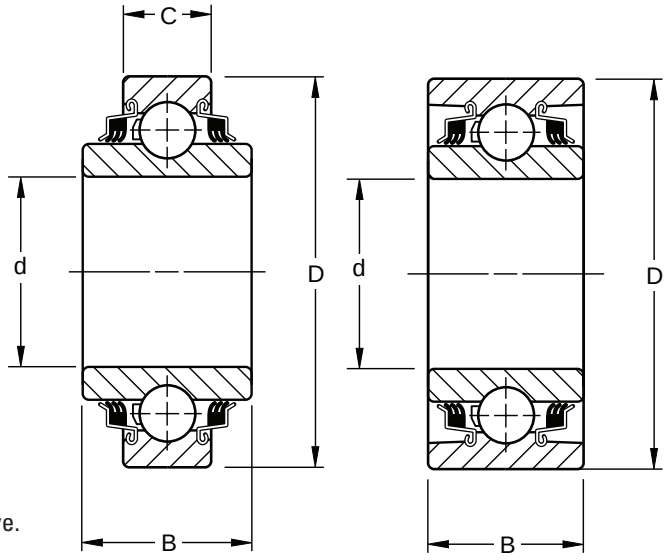
DIMENSIONS – TOLERANCES

Bearing Number		Bore d				Outside Diameter D				Width C		Fillet Radius(1)		Wt.		Static Load Rating C_o		Extended Dynamic Load C_E(4)		Snap Ring PPG					
Contact Seal PP	Mechani-Seal LL	tolerance +0.000 mm +0.0000" to minus				tolerance +0.000 mm +0.0000" to minus				+0.00 mm -.12 mm +0.000" -.005"										O.D.		Thickness		Offset	
		mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.	mm	in.	mm	in.	mm	in.
W304PP	—	20	0.7874	0.010	0.0004	52	2.0472	0.013	0.0005	22.22	0.875	1.0	0.039	0.213	0.47	7800	1760	17900	4050	—	—	—	—	—	—
W305PP(2)	—	25	0.9843	0.010	0.0004	62	2.4409	0.013	0.0005	25.40	1.000	1.0	0.039	0.354	0.78	12200	2750	26600	6000	67.5	$2\frac{21}{35}$	1.65	0.065	4.82	0.190
W306PP	—	30	1.1811	0.010	0.0004	72	2.8346	0.013	0.0005	30.18	1.188	1.0	0.039	0.558	1.23	15600	3550	33900	7650	—	—	—	—	—	—
W307PP	W307KLL	35	1.3780	0.012	0.00047	80	3.1496	0.013	0.0005	34.92	1.375	1.5	0.059	0.780	1.72	18400	4150	37700	8500	—	—	—	—	—	—
W308PP(2)	W308KLL(2)	40	1.5748	0.012	0.00047	90	3.5433	0.015	0.0006	36.53	1.438	1.5	0.059	1.021	2.25	25900	5850	50600	11400	96.4	$3\frac{51}{64}$	2.41	0.095	5.59	0.220
W309PP	W309KLL	45	1.7717	0.012	0.00047	100	3.9370	0.015	0.0006	39.67	1.562	1.5	0.059	1.370	3.02	31500	7100	59000	13400	—	—	—	—	—	—
W310PP	—	50	1.9685	0.012	0.00047	110	4.3307	0.015	0.0006	44.45	1.750	2.0	0.079	1.828	4.03	37700	8500	69000	15600	—	—	—	—	—	—
W311PP(2)	W311KLL	55	2.1654	0.015	0.0006	120	4.7244	0.015	0.0006	49.23	1.938(3)	2.0	0.079	2.386	5.26	44400	10000	81000	18300	129.4	$5\frac{3}{32}$	2.77	0.109	0.73	0.265
W312PP(2)	W312KLL	60	2.3622	0.015	0.0006	130	5.1181	0.018	0.0007	53.98	2.125(3)	2.0	0.079	3.053	6.73	51500	11600	92000	20800	139.7	$5\frac{1}{2}$	2.77	0.109	0.73	0.265
W313PP	—	65	2.5591	0.015	0.0006	140	5.5118	0.018	0.0007	58.72	2.312(3)	2.0	0.079	3.883	8.56	59500	13400	104000	23600	—	—	—	—	—	—
W314PP	—	70	2.7559	0.015	0.0006	150	5.9055	0.018	0.0007	63.50	2.500(3)	2.0	0.079	4.731	10.43	67000	15300	116000	26000	—	—	—	—	—	—
W315PP	—	75	2.9528	0.015	0.0006	160	6.2992	0.025	0.0010	68.28	2.688(3)	2.0	0.079	5.811	12.81	76000	17300	128000	29000	—	—	—	—	—	—

(1) Maximum shaft or housing fillet radius that bearing corners will clear.
(2) Also available with snap ring. To order, add suffix "G" to bearing number. Example: W305PPG. The snap ring is normally packaged separately in the box with the bearing.
(3) Width tolerance is .00 mm to -.15 mm (.000" to -.006").
(4) Based on 10^6 revolutions of calculated fatigue life.

TRI-PLY SEAL SERIES NON-RELUBRICATABLE TYPE CYLINDRICAL O.D.

- Designed for environments where severe contamination is present, such as agricultural tillage equipment.
- One-piece Tri-Ply seals:
  - Incorporate a highly effective design molded to an exterior shroud cap.
  - Provide exceptionally effective protection against loss of lubricant and entrance of wet or abrasive contaminants.
- Seven-piece Tri-Ply construction:
  - Standard on certain sizes.
  - Shroud cap nests closely with the outside seal.
  - Helps protect the rubber seal members from fiber wrap warpage and abrasion.
  - Balanced design, identified by deep races, large balls and extra-wide or heavy, shock-resistant inner and outer rings.
- Use of Tri-Ply Seal bearings simplifies housing designs and their extra inner ring width provides greater support on the shaft.
- For speeds in excess of 500 RPM, consult your Timken representative.



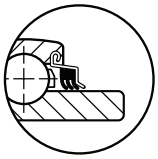


Figure 1


Figure 2

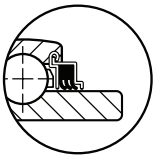


Figure 3

ROUND BORE

Bearing Number	Type-Fig.	Bore d		tolerance +0.000 mm +0.0000" to minus		Outside Diameter D		tolerance +0.000 mm +0.0000" to minus		Ring Widths 0.00, -.12 mm +0.000", -0.005" B Inner		C Outer		Balls No.	Balls Size	Wt.		Static Load Rating C_o		Extended Dynamic Load Rating C_E[2]	
		mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
W208PP10	1-1	38.113	1.5005	0.013	0.0005	80	3.1496	0.013	0.0005	42.87	1.688	21.00	0.827	9	1/2	0.681	1.50	19900	4500	36800	8300
W210PP8	2-	38.860	1.5300	0.250	0.0100	90	3.5433	0.015	0.0006	30.18	1.188	30.18	1.188	10	1/2	0.894	1.97	23000	5200	39900	9000
W210PP2	2-	49.230	1.9380	0.013	0.0005	90	3.5433	0.015	0.0006	30.18	1.188	30.18	1.188	10	1/2	0.767	1.69	23000	5200	39900	9000
W211PP2	2-2	55.580	2.1880	0.015	0.0006	100	3.9370	0.015	0.0006	33.34[1]	1.312	33.34	1.312	10	9/16	1.056	2.33	29000	6550	48800	11000
W214PP2	2-	70.000	2.7559	0.015	0.0006	125	4.9213	0.020	0.0008	39.69[1]	1.562	39.69	1.562	10	1 1/16	1.901	4.19	43500	9800	71000	16000
W315PP2	2-	76.342	3.0056	0.015	0.0006	160	6.2992	0.025	0.0010	68.26[1]	2.688	68.26	2.688	8	1 1/16	5.956	13.13	76800	17300	128000	29000

[1] Inner and outer width tolerance is .00 mm to -.15 mm (.000" to .006").
[2] Based on 10^6 revolutions of calculated fatigue life.

SQUARE BORE

Bearing Number	Type-Fig.	Shaft Size d		Outside Diameter D		tolerance +0.000 mm +0.0000" to minus		Ring Widths 0.00, -.12 mm +0.000", -0.005" B Inner		C Outer		Balls No.	Balls Size	Wt.		Static Load Rating C_o		Extended Dynamic Load Rating C_E[2]	
		mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
W208PP6	1–1	25.4	1	80	3.1496	0.013	0.0005	36.51	1.438	18	0.709	9	1/2	0.73	1.62	19900	4500	36800	8300
W208PP5	1–1	28.6	1 1/8	80	3.1496	0.013	0.0005	36.51	1.438	18	0.709	9	1/2	0.68	1.50	19900	4500	36800	8300
W208PP8	1–1	28.6	1 1/8	80	3.1496	0.013	0.0005	36.51	1.438	30.18	1.188	9	1/2	0.75	1.66	19900	4500	36800	8300
W211PP3	2–2	38.1	1 1/2	100	3.9370	0.015	0.0006	33.34[1]	1.312	33.34	1.312	10	9/16	1.27	2.79	29000	6550	48800	11000
W211PP5	1–2	38.1	1 1/2	101.6	4.0000	0.015	0.0006	44.45[1]	1.750	36.52	1.438	10	7/16	1.58	3.48	29000	6550	48800	11000

[1] Inner and outer width tolerance is .00 mm to -.15 mm (.000" to .006").
[2] Based on 10^6 revolutions of calculated fatigue life.

TRI-PLY SEAL SERIES NON-RELUBRICATABLE TYPE SPHERICAL O.D.

- Similar in design and features to bearings shown on D27, except for a spherical O.D.

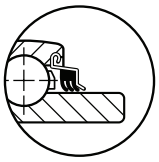


Figure 1

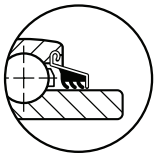


Figure 2

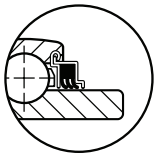
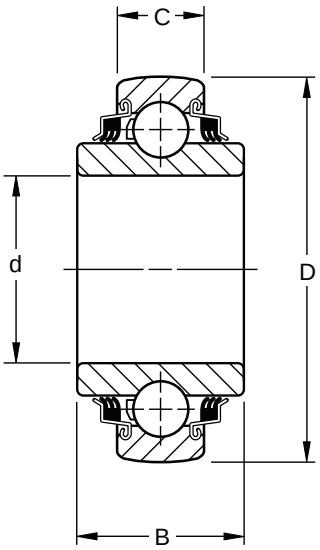
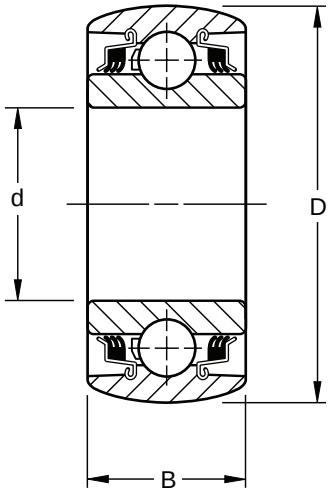


Figure 3



Type 1



Type 2

ROUND BORE

Bearing Number	Type-Fig.	Bore d		tolerance +0.000 mm +0.0000" to minus		Outside Diameter D		tolerance +0.000 mm +0.0000" to minus		Ring Widths +0.00, -.12 mm +0.000", -0.005" B Inner		C Outer		Balls No.	Stamping Size	Wt.		Static Load Rating C_o		Extended Dynamic Load Rating C_E[2]	
		mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.		kg	lbs.	N	lbs.	N	lbs.
W208PPB7	1–1	30.170	1.1880	0.013	0.0005	80	3.150	0.013	0.0005	30.18	1.188	18.00	0.709	9	1/2 80MS	0.640	1.41	19900	4500	36800	8300
W208PPB2	1–	38.113	1.5005	0.013	0.0005	80	3.150	0.013	0.0005	42.96	1.688	18.00	0.709	9	1/2 80MS	0.721	1.59	19900	4500	36800	8300
W208PPB23	1–1	38.113	1.5005	0.013	0.0005	80	3.150	0.013	0.0005	42.96	1.688	30.18	1.188	9	15/32 80MS	0.681	1.50	15600	3550	32000	7200
W209PPB2	2–2	45.000	1.7717	0.013	0.0005	85	3.346	0.015	0.0006	30.18	1.188	30.18	1.188	9	1/2 85MS	0.653	1.44	20200	4550	36800	8300
W209PPB4	2–2	39.000	1.5350	0.250	0.0100	85	3.346	0.015	0.0006	30.18	1.188	30.18	1.188	9	1/2 85MS	0.748	1.65	20200	4550	36800	8300
W210PPB2	2–	49.230	1.9380	0.013	0.0005	90	3.543	0.015	0.0006	30.18	1.188	30.18	1.188	10	1/2 90MS	0.708	1.56	23000	5200	39900	9000
W210PPB5	2–	45.340	1.7850	0.250	0.0100	90	3.543	0.015	0.0006	30.18	1.188	30.18	1.188	10	1/2 90MS	0.794	1.75	23000	5200	39900	9000
W211PPB2	2–2	55.580	2.1880	0.015	0.0006	100	3.937	0.015	0.0006	33.34[1]	1.312	33.34	1.312	10	9/16 100MS	0.966	3.63	29000	6550	48800	11000
W214PPB2	2–	70.000	2.7559	0.015	0.0006	125	4.921	0.02	0.0008	39.69[1]	1.562	39.69	1.562	10	11/16 —[3]	1.796	3.96	43500	9800	71000	16000
W214PPB9	1–	70.260	2.7660	0.025	0.0010	125	4.921	0.02	0.0008	44.45[1]	1.750	28.00	1.102	10	11/16 —[3]	1.796	3.96	43500	9800	71000	16000

[1] Inner and outer width tolerance is .00 mm to -.15 mm (.000" to -.006").
[2] Based on 10^6 revolutions of calculated fatigue life.

SQUARE BORE

Bearing Number	Type-Fig.	Shaft Size	to minus	Outside Diameter D		tolerance +0.000 mm +0.0000" to minus		Ring Widths +0.00, -.12 mm +0.000", -0.005" B Inner		C Outer		Balls No.	Stamping Size	Wt.		Static Load Rating C_o		Extended Dynamic Load Rating C_E[2]	
		mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.		mm	in.	kg	lbs.	N	lbs.
W208PPB13	1–1	22.2	7/8	80	3.1496	0.013	0.0005	36.53	1.438	18.00	0.709	9	1/2 80MS	0.735	1.62	19900	4500	36800	8300
W208PPB6	1–1	25.4	1	80	3.1496	0.013	0.0005	36.53	1.438	18.00	0.709	9	1/2 80MS	0.721	1.59	19900	4500	36800	8300
W208PPB5	1–1	28.6	1 1/8	80	3.1496	0.013	0.0005	36.53	1.438	18.00	0.709	9	1/2 80MS	0.667	1.47	19900	4500	36800	8300
W209PPB5	1–2	31.8	1 1/4	85	3.3465	0.015	0.0006	36.53	1.438	30.18	1.188	9	1/2 85MS	0.794	1.75	20200	4550	36800	8300
W210PPB4	2–	28.6	1 1/8	90	3.5433	0.015	0.0006	30.18	1.188	30.18	1.188	10	1/2 90MS	0.957	2.11	23000	5200	39900	9000
W210PPB6	1–	28.6	1 1/8	90	3.5433	0.015	0.0006	36.53	1.438	30.18	1.188	10	1/2 90MS	1.021	2.25	23000	5200	39900	9000
W211PPB3	2–2	38.1	1 1/2	100	3.9370	0.015	0.0006	33.34[1]	1.312	33.34	1.312	10	9/16 100MS	1.207	2.66	29000	6550	48800	11000

[1] Inner and outer width tolerance is .00 mm to -.15 mm (.000" to -.006").
[2] Based on 10^6 revolutions of calculated fatigue life.

TRI-PLY SEAL SERIES RELUBRICATABLE TYPE

- Similar in design and features to those shown on the preceding two pages.
- Includes a provision for relubrication.

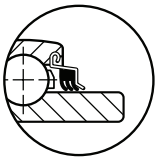


Figure 1

Figure 2

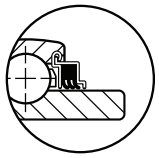
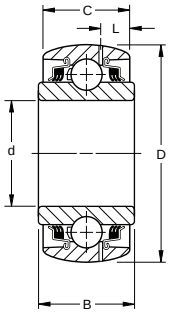
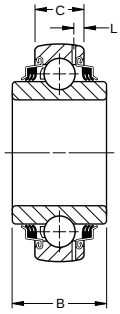


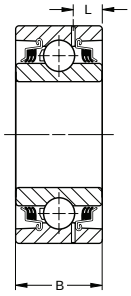
Figure 3



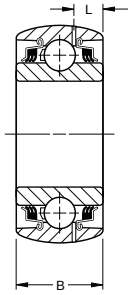
Type 1



Type 2



Type 3



Type 4

ROUND BORE

Bearing Number	Type-Fig.	Bore d		tolerance +0.000 mm +0.0000" to minus		Outside Diameter D		tolerance +0.000 mm +0.0000" to minus		Ring Width +0.00 mm, -0.12 mm +0.000", -.005" B Inner		C Outer		Balls No.	Size	L		Wt.		Static Load Rating C_o		Extended Dynamic Load C_E[3]	
ROUND BORE		mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.		in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
GW209PPB4	4–2	39.00	1.5350	0.250	0.0100	85	3.3465	0.015	0.0006	30.18	1.188	30.18	1.188	9	1/2	8.79	0.346	0.748	1.65	20200	4550	36800	8300
GW209PPB2	4–2	45.00	1.7717	0.013	0.0005	85	3.3465	0.015	0.0006	30.18	1.188	30.18	1.188	9	1/2	8.79	0.346	0.653	1.44	20200	4550	36800	8300
GW209PPB11	2–2	45.24	1.7810	0.250	0.0100	85	3.3465	0.015	0.0006	36.53	1.438	22.00	0.866	9	1/2	4.55	0.179	0.621	1.37	20200	4550	36800	8300
GW210PP3	3–	37.53	1.4065	0.013	0.0005	90	3.5433	0.015	0.0006	30.18	1.188	30.18	1.188	10	1/2	9.02	0.355	1.021	2.25	23000	5200	39900	9000
GW210PPB5	4–	45.34	1.7850	0.250	0.0100	90	3.5433	0.015	0.0006	30.18	1.188	30.18	1.188	10	1/2	9.02	0.355	0.794	1.75	23000	5200	39900	9000
GW210PPB2	4–	49.23	1.9380	0.013	0.0005	90	3.5433	0.015	0.0006	30.18	1.188	30.18	1.188	10	1/2	9.02	0.355	0.681	1.50	23000	5200	39900	9000
GW210PP9[1]	2–	49.40	1.9450	0.180	0.0070	90	3.5433	0.015	0.0006	36.53	1.438	23.00	0.906	10	1/2	4.70	0.185	0.794	1.75	23000	5200	39900	9000
GW211PPB13	2–2	45.34	1.7850	0.250	0.0100	100	3.9370	0.015	0.0006	33.34	1.312	25.00	0.984	10	9/16	5.82	0.299	0.916	2.02	29000	6550	48800	11000
GW211PPB10	4–2	49.23	1.9380	0.015	0.0006	100	3.9370	0.015	0.0006	33.34[2]	1.312	33.34	1.312	10	9/16	9.96	0.392	1.025	2.26	29000	6550	48800	11000
GW211PPB14	2–2	51.18	2.0150	0.250	0.0100	100	3.9370	0.015	0.0006	33.34[2]	1.312	25.00	0.984	10	9/16	5.82	0.229	0.907	2.00	29000	6550	48800	11000
GW211PP2	3–2	55.58	2.1880	0.015	0.0006	100	3.9370	0.015	0.0006	33.34[2]	1.312	33.34	1.312	10	9/16	9.96	0.392	1.361	3.00	29000	6550	48800	11000
GW211PPB2	4–2	55.58	2.1880	0.015	0.0006	100	3.9370	0.015	0.0006	33.34[2]	1.312	33.34	1.312	10	9/16	9.96	0.392	1.188	2.62	29000	6550	48800	11000
GW211PPB8	2–2	55.58	2.1880	0.015	0.0006	100	3.9370	0.015	0.0006	33.34[2]	1.312	25.00	0.984	10	9/16	5.82	0.229	0.839	1.85	29000	6550	48800	11000
GW211PPB9	2–2	55.75	2.1950	0.180	0.0070	100	3.9370	0.015	0.0006	39.69[2]	1.562	25.00	0.984	10	9/16	5.41	0.213	0.916	2.02	29000	6550	48800	11000
GW214PPB6	2–	68.28	2.6881	0.015	0.0006	125	4.9213	0.020	0.0008	68.26[2]	2.688	28.00	1.102	10	11/16	5.54	0.218	2.155	4.75	43500	9800	71000	16000
GW214PP2	3–	70.00	2.7559	0.015	0.0006	125	4.9213	0.020	0.0008	39.69[2]	1.562	39.69	1.562	10	11/16	10.52	0.414	1.901	4.19	43500	9800	71000	16000
GW214PPB2	4–	70.00	2.7559	0.015	0.0006	125	4.9213	0.020	0.0008	39.69[2]	1.562	39.69	1.562	10	11/16	10.52	0.414	1.796	3.96	43500	9800	71000	16000
GW214PPB5	1–	70.00	2.7559	0.015	0.0006	125	4.9213	0.020	0.0008	61.90[2]	2.438	39.69	1.562	10	11/16	10.52	0.414	2.155	4.75	43500	9800	71000	16000
GW216PPB3	2–3	76.45	3.0100	0.250	0.0100	140	5.5118	0.020	0.0008	63.50[2]	2.500	30.00	1.181	11	23/32	6.10	0.240	—	—	54000	12200	81000	18300
GW216PP5	3–3	63.88	2.5150	0.250	0.0100	140	5.5118	0.020	0.0008	63.50[2]	2.500	30.00	1.181	11	23/32	6.10	0.240	—	—	54000	12200	81000	18300

SQUARE BORE

		Shaft Size																					
SQUARE BORE		mm	in.	mm	in.	mm	in.	mm	in.	mm	in.		in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.		
GW208PPB6	2–1	25.4	1	80	3.1496	0.013	0.0005	36.53	1.438	21.00	0.827	9	1/2	5.66	0.223	0.794	1.75	19900	4500	36800	8300		
GW208PPB5	2–1	28.6	1 1/8	80	3.1496	0.013	0.0005	36.53	1.438	21.00	0.827	9	1/2	5.66	0.223	0.667	1.47	19900	4500	36800	8300		
GW208PPB8	1–1	28.6	1 1/8	80	3.1496	0.013	0.0005	36.53	1.438	30.18	1.188	9	1/2	8.36	0.329	0.794	1.75	19900	4500	36800	8300		
GW208PPB17	3–1	28.6	1 1/8	80	3.3755	0.013	0.0005	36.53	1.438	30.18	1.188	9	1/2	8.28	0.326	0.925	2.04	19900	4500	36800	8300		
GW209PPB5	1–2	31.8	1 1/4	85	3.3456	0.015	0.0006	36.53	1.438	30.18	1.188	9	1/2	8.79	0.346	0.794	1.75	20200	4550	36800	8300		
GW209PPB8	2–2	31.8	1 1/4	85	3.3456	0.015	0.0006	36.53	1.438	22.00	0.866	9	1/2	4.55	0.179	0.748	1.65	20200	4550	36800	8300		
GW210PP4	3–	28.6	1 1/8	90	3.5433	0.015	0.0006	30.18	1.188	30.18	1.188	10	1/2	9.02	0.355	1.048	2.31	23000	5200	39900	9000		
GW210PPB4	4–	28.6	1 1/8	90	3.5433	0.015	0.0006	30.18	1.188	30.18	1.188	10	1/2	9.02	0.355	0.794	1.75	23000	5200	39900	9000		
GW211PP3	3–2	38.1	1 1/2	100	3.9370	0.015	0.0006	33.34[2]	1.312	33.34	1.312	10	9/16	9.96	0.392	1.266	2.79	29000	6550	48800	11000		
GW211PPB3	4–2	38.1	1 1/2	100	3.9370	0.015	0.0006	33.34[2]	1.312	33.34	1.312	10	9/16	9.96	0.392	1.207	2.66	29000	6550	48800	11000		
GW211PP17	3–2	38.1	1 1/2	100	3.9370	0.015	0.0006	44.45[2]	1.750	33.34	1.312	10	9/16	9.96	0.392	1.188	2.62	29000	6550	48800	11000		
GW214PPB4	4–	50.8	2	125	4.9213	0.020	0.0008	39.69[2]	1.562	39.69	1.562	10	11/16	10.52	0.414	2.155	4.75	43500	9800	71000	16000		
GW216PPB4	2–3	44.4	1 3/4	140	5.5118	0.020	0.0008	63.50[2]	2.500	30.00	1.181	11	23/32	6.10	0.240	—	—	54000	12200	81000	18300		
GW216PP2[1]	2–3	57.2	2 1/4	140	5.5118	0.020	0.0008	63.50[2]	2.500	30.00	1.181	11	23/32	6.10	0.240	—	—	54000	12200	81000	18300		
GW226PPB2	2–3	57.2	2 1/4	140	5.5118	0.020	0.0008	63.50[2]	2.500	30.00	1.181	11	23/32	6.10	0.240	—	—	54000	12200	81000	18300		

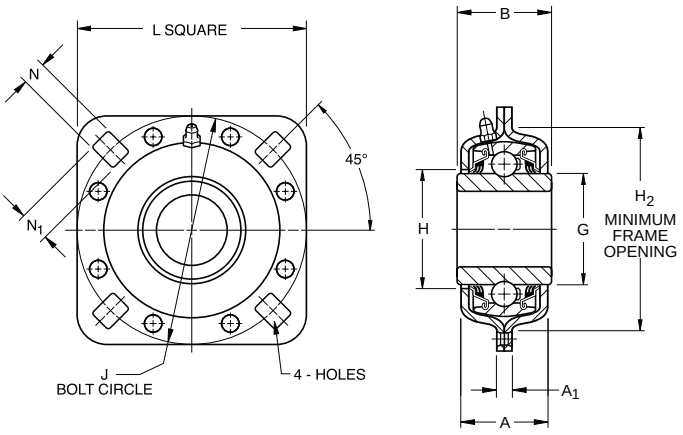
(1) Cylindrical O.D.

(2) Inner and outer width tolerance is .00 mm to-.15 mm (.000" to -.006").

(3) Based on 10^6 revolutions of calculated fatigue life.

TRI-PLY SERIES DISK HARROW UNITS

- The answer to versatility in design.
- For extra-special design needs, this unit incorporates a Tri-Ply bearing mounted in two stampings, riveted together with two o-rings.
- Available in two basic size groups, one incorporating a 209 and the other a 211 bearing.
- Both size groups offer these features:
  - Dynamic alignment capability (±3°).
  - Shroud effect from close clearance of stamping to inner ring.
  - Relubrication.
  - One unit piece for ease of handling and assembly.
  - Fitting flange mates with outer ring milled recess, preventing possibility of outer ring circumferential movement.
  - Stampings are case hardened to minimize wear.
  - Units are equipped with nylon retainer, molded one-piece seals and patented notched outer ring seal grooves.



209 METRIC SERIES

Unit Number	Shaft Diameter	B	H_2	J	N_1	N	L	G Ref.	H	A	A_1	Static Load Rating C_o	Extended Dynamic Load Rating C_E[1]
	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	N	N
DHU 30S–209	30 SQ.	43	101.6	127.0	16.7	13.5	127.0	57.9	59.9	42.5	6.7	18000	36500
DHU 40R–209	40 SQ.	43	101.6	127.0	16.7	13.5	127.0	57.9	59.9	42.5	6.7	18000	36500
DHU 45R–209	45 RD.	43	101.6	127.0	16.7	13.5	127.0	57.9	59.9	42.5	6.7	18000	36500

211 METRIC SERIES

DHU 40S–211	40 SQ.	51	113.5	139.7	15.1	13.5	139.7	69.7	73.0	49.2	7.5	25000	48000
DHU 50R–211	50 RD.	51	113.5	139.7	15.1	13.5	139.7	69.7	73.0	49.2	7.5	25000	48000
DHU 55R–211	55 RD.	51	113.5	139.7	15.1	13.5	139.7	69.7	73.0	49.2	7.5	25000	48000

209 SERIES

Unit Number	Shaft Diameter	B	H_2	J	N_1	N	L	G Ref.	H	A	A_1	Static Load Rating C_o	Extended Dynamic Load Rating C_E[1]
	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	in.	lbs.	lbs.
DHU 1½ R–209	1 ½ RD.	1 11/16	4	5	21/32	17/32	5	2.279	2 23/64	1 43/64	17/64	4000	8150
DHU 1⅛ S–209	1 ⅛ SQ.	1 11/16	4	5	21/32	17/32	5	2.279	2 23/64	1 43/64	17/64	4000	8150
DHU 1¾ R–209	1 ¾ RD.	1 11/16	4	5	21/32	17/32	5	2.279	2 23/64	1 43/64	17/64	4000	8150
DHU 1¼S–209	1 ¼ SQ.	1 ¾	4	5	21/32	17/32	5	2.279	2 23/64	1 43/64	17/64	4000	8150
DHU 491 A	1 ¾ RD.	1 ¾	4	5	21/32	17/32	5	2.279	2 23/64	1 43/64	17/64	4000	8150

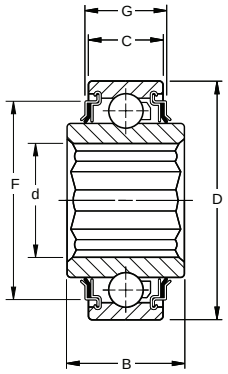
211 SERIES

DHU 1½ S–211	1 ½ SQ.	2	4	5 ½	19/32	17/32	5 ½	2.746	2 7/8	1 15/16	19/64	5600	10800
DHU 1¾ R–211	1 ¾ RD.	2 ⅛	4	5 ½	19/32	17/32	5 ½	2.746	2 7/8	1 15/16	19/64	5600	10800
DHU 2 3/16 R–211	2 3/16 RD.	2 3/16	4	5 ½	19/32	17/32	5 ½	2.746	2 7/8	1 15/16	19/64	5600	10800

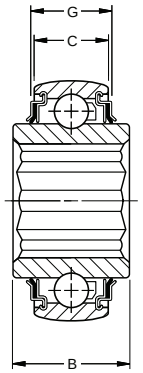
[2] Based on 10^6 revolutions of calculated fatigue life.

HEX BORE BEARINGS

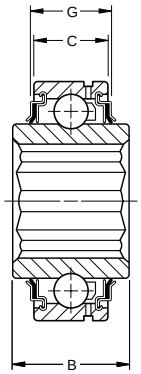
- Designed to be used for outer or inner ring rotation in low-speed, moderately-loaded applications, primarily in agricultural implements and conveyors.
- Tolerances of the hex bore are suitable for mounting on cold rolled hex shafting.
- Main advantage is ease of mounting. Except for axial positioning by adjacent parts, no collars, setscrews or other locking devices are required to lock the inner ring to the hex shaft.
- Utilize the R-Type shroud seal.



Type 1



Type 2



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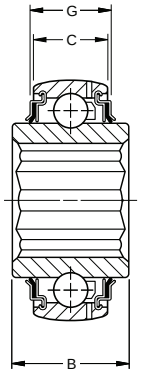
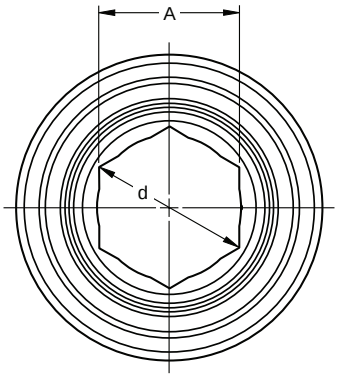


Type 4

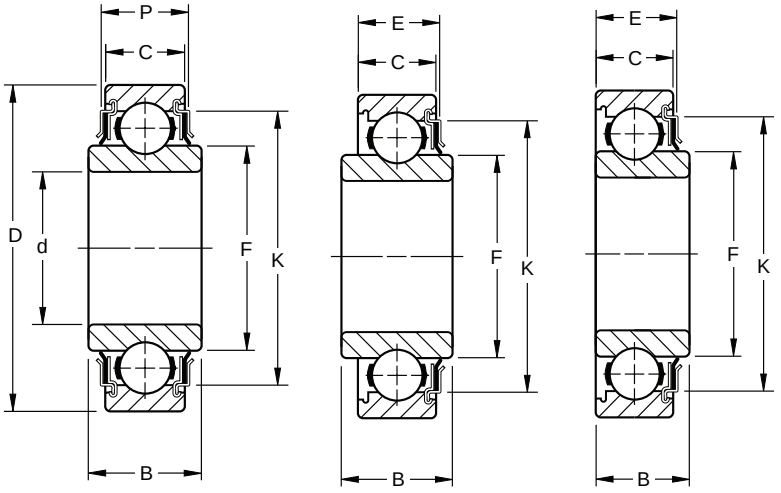


Bearing Number	Type	Hex Shaft Size	A Across Flats		Hex Bore tolerance -0.00 mm +0.000" to plus		d Across corners min.		Outside Diameter D tolerance +0.000 mm +0.0000" to minus				Width +0.000 mm +0.0000" C Outer		-0.12 mm -.005" B Inner		F		G		Balls No.	Balls Size	Wt.		Static Load Rating C_0		Extended Dynamic Load Rating C_E[3]	
			mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.			kg	lbs.	N	lbs.	N	lbs.
NON-RELUBRICATABLE TYPE																												
202KRR3	1	9/16	14.30	0.563	0.13	0.005	16.46	0.648	35	1.3780	0.013	0.0005	11	0.433	13.00	0.512	—	—	—	—	8	7/32	0.054	0.12	4400	1000	10600	2360
204KRR2	1	11/16	17.65	0.695	0.13	0.005	20.22	0.796	47	1.8504	0.013	0.0005	14	0.551	20.96	0.825	—	—	—	—	8	5/16	0.145	0.32	6200	1400	14300	3200
205KRR2	1	7/8	22.25	0.876	0.13	0.005	25.65	1.010	52	2.0472	0.013	0.0005	15	0.591	25.40	1.000	—	—	—	—	9	5/16	0.200	0.44	6950	1560	15600	3450
205KRRB2	2	7/8	22.25	0.876	0.13	0.005	25.65	1.010	52	2.0472	0.013	0.0005	15	0.591	25.40	1.000	—	—	—	—	9	5/16	0.200	0.44	6950	1560	15600	3450
205PPB13[1]	2	7/8	22.25	0.876	0.13	0.005	25.65	1.010	52	2.0472	0.013	0.0005	15	0.591	25.40	1.000	42.67	1.680	20.19	0.795	9	5/16	0.200	0.44	6950	1560	15600	3450
206KPP3[1]	1	1	25.43	1.001	0.13	0.005	29.31	1.154	62	2.4409	0.013	0.0005	16	0.630	24.00	0.945	52.07	2.050	19.56	0.770	9	3/8	0.345	0.76	10000	2280	21600	4800
206KPPB3[1]	2	1	25.43	1.001	0.13	0.005	29.31	1.154	62	2.4409	0.013	0.0005	16	0.630	24.00	0.945	52.07	2.050	19.56	0.770	9	3/8	0.345	0.76	10000	2280	21600	4800
206KRR6	1	1	25.43	1.001	0.13	0.005	29.31	1.154	62	2.4409	0.013	0.0005	16	0.630	24.00	0.945	52.07	2.050	19.56	0.770	9	3/8	0.341	0.75	10000	2280	21600	4800
206KRRB6	2	1	25.43	1.001	0.13	0.005	29.31	1.154	62	2.4409	0.013	0.0005	16	0.630	24.00	0.945	52.07	2.050	19.56	0.770	9	3/8	0.341	0.75	10000	2280	21600	4800
207KPP3	1	1 1/4	31.77	1.251	0.13	0.005	36.40	1.433	72	2.8346	0.013	0.0005	17	0.669	37.70	1.484	60.35	2.376	19.68	0.775	9	7/16	0.454	1.00	13700	3050	28500	6400
207KPPB3	2	1 1/4	31.77	1.251	0.13	0.005	36.40	1.433	72	2.8346	0.013	0.0005	17	0.669	25.00	0.984	60.35	2.376	19.68	0.775	9	7/16	0.395	0.87	13700	3050	28500	6400
207KRRB9	2	1 1/8	28.60	1.126	0.13	0.005	32.97	1.298	72	2.8346	0.013	0.0005	17	0.669	37.70	1.484	60.35	2.376	19.68	0.775	9	7/16	0.454	1.00	13700	3050	28500	6400
207KRRB12	2	1 1/8	28.60	1.126	0.13	0.005	32.97	1.298	72	2.8346	0.013	0.0005	17	0.669	25.00	0.984	60.35	2.376	19.68	0.775	9	7/16	0.395	0.87	13700	3050	28500	6400
207KRR17	1	1 1/4	31.77	1.251	0.13	0.005	36.65	1.443	72	2.8346	0.013	0.0005	17	0.669	25.00	0.984	60.35	2.376	19.68	0.775	9	7/16	0.395	0.87	13700	3050	28500	6400
207KRRB17	2	1 1/4	31.77	1.251	0.13	0.005	36.65	1.443	72	2.8346	0.013	0.0005	17	0.669	25.00	0.984	60.35	2.376	19.68	0.775	9	7/16	0.395	0.87	13700	3050	28500	6400
W208PPB16[1]	2	1 1/4	31.77	1.251	0.13	0.005	36.65	1.443	80	3.1496	0.013	0.0005	18	0.709	36.53	1.438	68.43	2.694	25.27	0.995	9	1/2	0.658	1.45	17600	4000	36000	8150
W208KRRB6	2	1 3/8	34.95	1.376	0.13	0.005	40.30	1.587	80	3.1496	0.013	0.0005	21	0.827	36.53	1.438	68.43	2.694	23.54	0.927	9	1/2	—	—	17600	4000	36000	8150
W208KRR8	1	1 1/4	31.77	1.251	0.13	0.005	36.65	1.443	80	3.1496	0.013	0.0005	18	0.709	36.53	1.438	68.43	2.694	20.45	0.805	9	1/2	0.658	1.45	17600	4000	36000	8150
209KRRB2	2	1 1/2	38.12	1.501	0.13	0.005	43.99	1.732	85	3.3456	0.015	0.0006	19	0.748	30.00	1.181	73.86	2.908	23.27	0.916	9	1/2	0.576	1.27	17600	4000	36000	8150
W210PPB7[1]	2	1 5/8	41.30	1.626	0.13	0.005	47.65	1.876	90	3.5433	0.015	0.0006	30.18	1.188	30.18	1.188	—	—	—	—	10	1/2	0.794	1.75	19600	4500	39000	8800
RELUBRICATABLE TYPE																												
G206KPP4[1]	3	1	25.43	1.001	0.13	0.005	29.26	1.152	62	2.4409	0.13	0.005	18	0.709	24.00	0.945	—	—	—	—	9	3/8	0.281	0.62	10000	2280	21600	4800
G206KPPB4[1]	4	1	25.43	1.001	0.13	0.005	29.26	1.152	62	2.4409	0.13	0.005	18	0.709	24.00	0.945	52.07	2.050	19.56	0.770	9	3/8	0.277	0.61	10000	2280	21600	4800
G206KRRB6	4	1	25.43	1.001	0.13	0.005	29.26	1.152	62	2.4409	0.13	0.005	18	0.709	24.00	0.945	52.07	2.050	19.56	0.770	9	3/8	0.268	0.59	10000	2280	21600	4800
G207KPPB2[1]	4	1 1/8	28.60	1.126	0.13	0.005	32.97	1.298	72	2.8346	0.13	0.005	19	0.748	37.70	1.484	60.32	2.375	25.40	1.000	9	7/16	0.454	1.00	13700	3050	28500	6400
GW208KRRB5	4	1 1/4	31.77	1.251	0.13	0.005	36.65	1.443	80	3.1496	0.13	0.005	21	0.827	36.51	1.438	60.35	2.694	22.43	0.883	9	1/2	0.635	1.40	17600	4000	36000	8150
GW208PPB22[1]	2	1 1/4	31.88	1.255	0.13	0.005	36.75	1.447	80	3.1496	0.13	0.005	21	0.827	36.51	1.438	52.07	2.050	28.32	1.115	9	1/2	0.681	1.50	17600	4000	36000	8150
GC1200KPPB2[1]		1 3/4	44.48	1.751	0.13	0.005	51.31	2.020	100	3.9370	0.015	0.0006	25[2]	0.984	57.15	2.250	86.11	3.390	29.01	1.142	10	9/16	1.521	3.35	19600	4500	39000	8800

[1] Tri-Ply Seal bearing.
[2] Inner and outer ring tolerance is .00 mm to -15 mm (.000" to -.006").
[3] Based on 10^6 revolutions of calculated fatigue life.

LIGHT 200 SERIES R-SEAL TYPE

- Consists of deep groove, Conrad-type bearings.
- Incorporates a flare-out, contact R-Seal.
- Synthetic rubber impregnated washer is enclosed between two metal shields, providing excellent protection against contaminants.
- Because of the heavy contact seal, this series is normally employed in moderate-speed service.



Type 1 Type 2 Type 3

DIMENSIONS – TOLERANCES

Bearing Type Number		Bore d tolerance +0.000 mm +0.0000" to minus				Outside Diameter D tolerance +0.000 mm +0.0000" to minus				Width +0.00 -0.12 mm +0.000 -.005" B Inner		C Outer		E Max.		P Max.		K Max.		Fillet Radius(1)		F		Static Load Rating C_0		Extended Dynamic Load Rating C_E(3)	
		mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm.	in.	mm.	in.	N	lbs.	N	lbs.
203KR2	3	15.883	0.6253	0.008	0.0003	40	1.5748	0.013	0.0005	14.00	0.551	12	0.472	—	—	—	—	—	—	0.6	0.024	24.44	0.962	4700	1060	10900	2450
203KRR2	1	16.256	0.6400	0.130	0.0005	40	1.5748	0.013	0.0005	18.29	0.720	12	0.472	—	—	—	—	—	—	0.6	0.024	24.44	0.962	4700	1060	10900	2450
203KRR5	1	13.081	0.5150	0.130	0.0005	40	1.5748	0.013	0.0005	18.29	0.720	12	0.472	—	—	—	—	—	—	0.6	0.024	24.44	0.962	4700	1060	10900	2450
203KRR7	1	17	0.6693	0.008	0.0003	40	1.5748	0.013	0.0005	16.61	0.654	12	0.472	—	—	—	—	—	—	0.6	0.024	24.44	0.962	4700	1060	10900	2450
204KR2	3	19.063	0.7505	0.013	0.0005	45.225	1.7805	0.013	0.0005	15.49	0.610	15.49	0.610	—	—	—	—	—	—	1	0.039	28.73	1.131	6500	1460	14400	3250
204KRR3	1	20	0.7874	0.010	0.0004	47	1.8504	0.013	0.0005	17.75	0.699	14	0.551	—	—	—	—	—	—	1	0.039	28.73	1.131	6500	1460	14400	3250
205KR4	2	25.413	1.0005	0.013	0.0005	52	2.0472	0.013	0.0005	25.40	1.000	15	0.591	15.875	0.625	—	—	42.67	1.68	1	0.039	33.81	1.331	7800	1760	16000	3600
206KR7	2	30	1.1811	0.010	0.0004	62	2.4409	0.013	0.0005	24.00	0.945	16	0.630	17.780	0.700	—	—	52.07	2.05	1	0.039	40.28	1.586	11300	2550	21800	4900
206KRR8	1	30	1.1811	0.013	0.0004	62	2.4409	0.013	0.0005	24.00	0.945	16	0.630	—	—	19.56	0.77	52.07	2.05	1	0.039	39.09	1.539	11300	2250	21800	4900
207KRR	1	35	1.3780	0.013	0.0005	72	2.8346	0.013	0.0005	25.00	0.984	17	0.669	—	—	19.68	0.775	60.35	2.376	1	0.039	46.94	1.848	15000	3450	29000	6550
208KRR2	1	40	1.5748	0.013	0.0005	80	3.1496	0.013	0.0005	27.00	1.063	21	0.827	—	—	21.31	0.839	68.45	2.695	1	0.039	52.25	2.057	19800	4460	36200	8130
209KRR3	1	45	1.7717	0.013	0.0005	85	3.3465	0.013	0.0005	27.00	1.063	21	0.827	—	—	24.18	0.952	72.42	2.851	1	0.039	57.89	2.279	20500	4600	36300	8160
210KRR	1	50	1.9685	0.013	0.0005	90	3.5433	0.015	0.0006	30.00	1.181	20	0.787	—	—	24.03	0.946	77.60	3.055	1	0.039	62.81	2.473	23100	5200	40000	9000
212KRR	1	60	2.3622	0.015	0.0006	110	4.3307	0.015	0.0006	36.00(2)	1.417	22	0.886	—	—	30.02	1.182	99.87	3.932	1	0.039	76.45	3.010	35500	8000	58600	13200

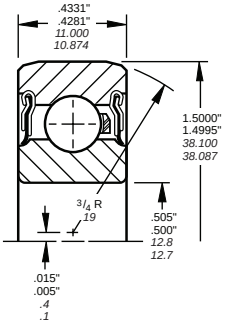
(1) Maximum shaft or housing fillet radius which bearing corners will clear.
(2) Inner and outer width tolerance is .00 mm to -.15 mm (.000" to .0006").
(3) Based on 10^6 revolutions of calculated fatigue life.

FARM RADIAL SPECIALS

BEARING NUMBER 202NPP9

SPECIAL FEATURES
- ½ in. Bore
- O.D. corner turned to a ¾ in. radius
- Special heavy stiff seals of Buna-N rubber
- Crimped-in seal

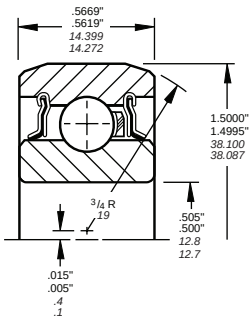
TYPICAL APPLICATIONS
Cam Follower



BEARING NUMBER 202KRR7

SPECIAL FEATURES
- ½ in. Bore
- 1½ in. O.D.
- Thick outer ring

TYPICAL APPLICATIONS
Cam Follower



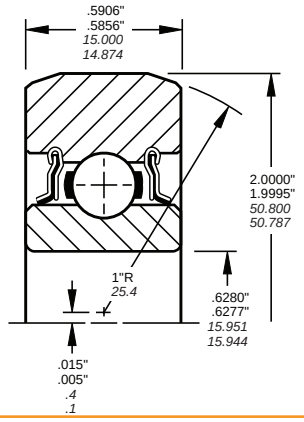
Continued on the next page.

FARM RADIAL SPECIALS *(continued)*

BEARING NUMBER 203KRR3

SPECIAL FEATURES
- 5/8 in. Bore
- 2 in. O.D.
- Thick outer ring

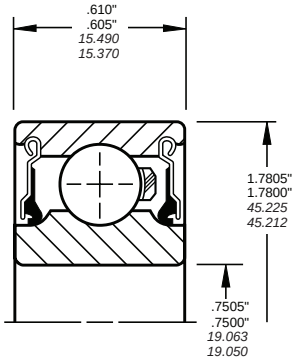
TYPICAL APPLICATIONS
Cam Follower
Guide Rolls for Baler Plunger



BEARING NUMBER P204RR6

SPECIAL FEATURES
- 3/4 in. Bore
- 1.7805 in. O.D.
- Replaces 204KRNP2

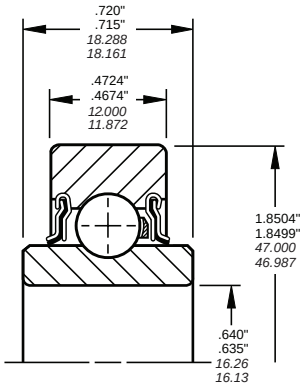
TYPICAL APPLICATIONS
Mower Spindle



BEARING NUMBER 203KRR6

SPECIAL FEATURES
- 5/8 in. Bore
- 47 mm O.D.
- Thick outer ring

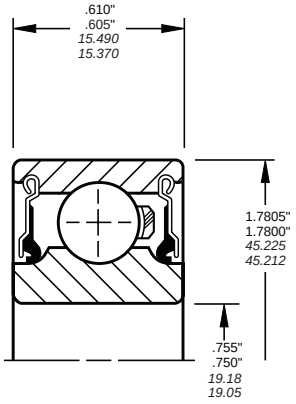
TYPICAL APPLICATIONS
Idler Pulley
Idler Sprocket



BEARING NUMBER 204RR7

SPECIAL FEATURES
- 3/4 in. Bore
- 1.7805 in. O.D.
- Replaces 204KRNP3

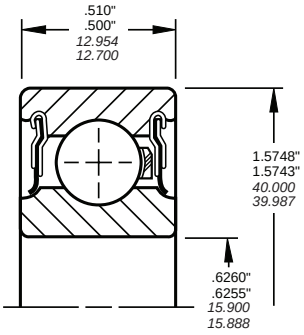
TYPICAL APPLICATIONS
Rolling Cultivator
Disk



BEARING NUMBER 203NPP9

SPECIAL FEATURES
- 5/8 in. Bore
- Width .500"

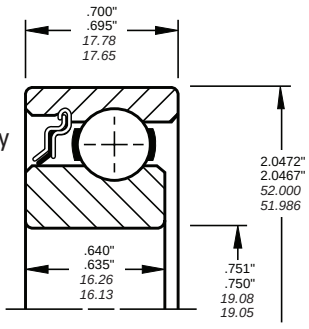
TYPICAL APPLICATIONS
Disk Grain Drill



BEARING NUMBER 205KR3

SPECIAL FEATURES
- 3/4 in. Bore
- Excellent moment load capacity available from special internal geometry of races
- Heavy contact flare-out type R-Seal with shroud cap

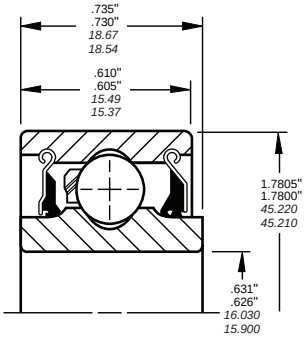
TYPICAL APPLICATIONS
Disk Hiller, Planter



BEARING NUMBER 204RY2

SPECIAL FEATURES
- 5/8 in. Bore
- Gothic Arch Race

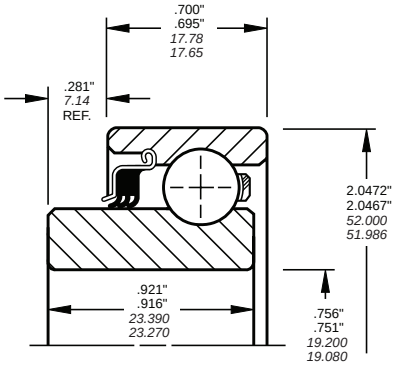
TYPICAL APPLICATIONS
Planter
Double Disk Opener



BEARING NUMBER 205KP6

SPECIAL FEATURES
- 3/4 in. Bore
- Tri-Ply Seal on one side with shroud cap

TYPICAL APPLICATIONS
Rolling Cultivator



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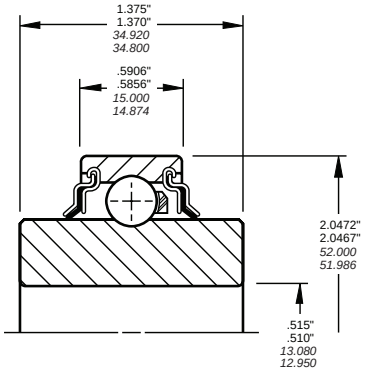
FARM RADIAL SPECIALS *(continued)*

BEARING NUMBER 205KRR6

SPECIAL FEATURES
- ½ in. Bore
- Extended inner ring

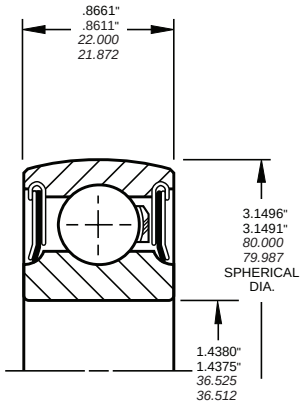
TYPICAL APPLICATIONS
Potato Harvester



BEARING NUMBER 208NPPB5

SPECIAL FEATURES
- 1 7/16 in. Bore
- PP Seals with shroud cap

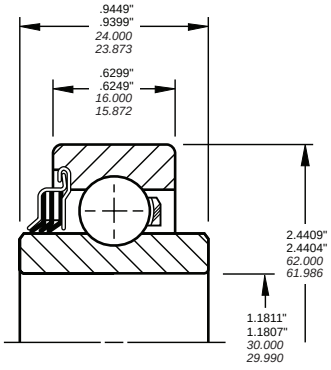
TYPICAL APPLICATIONS
Baler Crank Pin



BEARING NUMBER 206KP2

SPECIAL FEATURES
- Tri-Ply Seal on one side with shroud cap

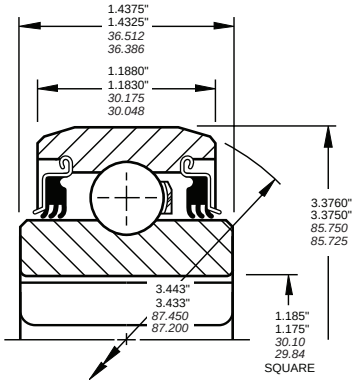
TYPICAL APPLICATIONS
Combine



BEARING NUMBER 208PPB12

SPECIAL FEATURES
- 1⅛ in. Square Bore
- Molded Tri-Ply seal
- Heavy outer ring

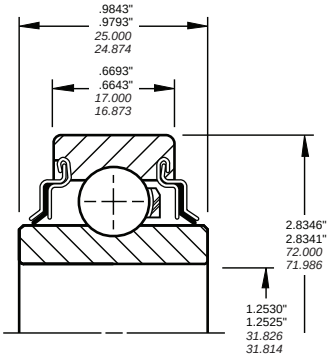
TYPICAL APPLICATIONS
Disk Harrow



BEARING NUMBER 207KRR14

SPECIAL FEATURES
- 1¼ in. Bore

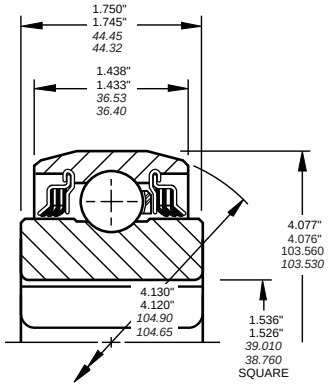
TYPICAL APPLICATIONS
Disk Harrow
Transport Wheel



BEARING NUMBER W211PPB6

SPECIAL FEATURES
- 1½ in. Square Bore
- Tri-Ply seal with shroud cap
- Heavy outer ring

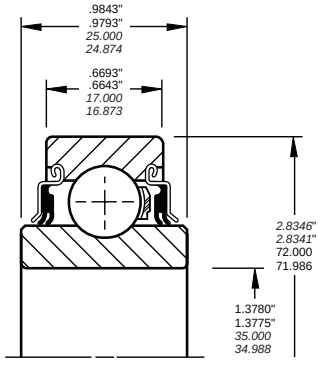
TYPICAL APPLICATIONS
Disk Harrow



BEARING NUMBER 207KYY

SPECIAL FEATURES
- Molded double lip seal

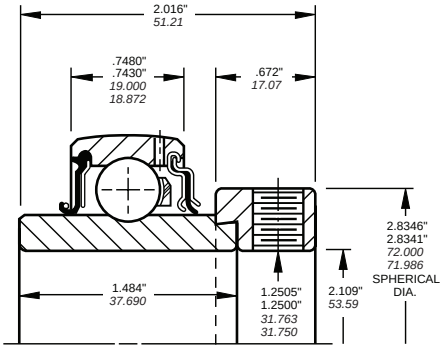
TYPICAL APPLICATIONS
Disk Harrow
Transport Wheel



BEARING NUMBER G1104KRXB2

SPECIAL FEATURES
- Oil Seal on one side

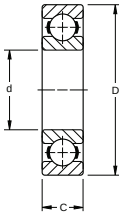
TYPICAL APPLICATIONS
Chain Case



SPECIAL BEARINGS

Size	Special Features	Typical Application
200KRR3	Inner Ring Width .6457/.6407 One piece molded seals	Windrower
J202KRR8	Extended Inner Width .880/.875	Tobacco Harvester
202NPP9	½" Bore-O.D. corner turned to ¾" radius	Baler Cam Foller
P202NPP11	Extra Wide Inner .5669/.5619 Bore 16mm .6299/.6296	Cam Follower
P203KRR3	⅝" Bore 2" O.D. Heavy section outer ring	Cam Follower Guide Rolls for Baler Plunger
203KRR6	⅝" Bore 47mm O.D.Heavy section outer ring	Baler Pick-up
203NPP9	⅝" Bore .500" width	Disk Grain Drill Opener
P203PP10	.6255/.6260" Bore	Light Duty Disk Applications
BB203KRR2 A2139	Wide Inner .720/.715 Bore .6400/.6350 Gothic arch races	Rotary Hoe
P204KR2	Bore .7505/.7500 Width .610/.605 O.D. 1.7805/1.7800	Rotary Lawn Tractor Blade Spindle Bearing
204KRD4	⅝" Bore extended inner R-Seal side .689/.685	Disk Opener Seed Drill
204KRNP5	Bore .631/.626 Extended Inner Width 1.125/1.120	Planter Opener Wheels
P204KRRB5	Bore .793/.788 Inner Width .6988/.6938	Row Crop Machine
204RR6 E8728	Ground Bore .7505/.7500 Width .610 O.D. 1.7805 Extra loose radial play. Replaces 204KRNP2 E8728	Planter Gage Wheels
P204RR6	Same as above except standard radial play. Replaces 204KRNP2	Garden Tractor Mower Spindle
H204KRNP6	Bore, O.D., Width same as P204KR2	Planter
204RR7 E8728	¾" Bore 1.7805 O.D. .610 Width Extra loose radial play. Replaces 204KRNP2 E8728	Rolling Cultivator Disk Sprockets, Pulleys and Disk Opener
205NPP2	Inner Width .6594/.6544	Miscellaneous
205KR3	¾" Bore , Special Races, Heavy R-Seal with Shroud Cap	Disk Hiller Planter and Cotton Picker
205KP6	¾" Bore Tri-Ply seal on one side with shroud cap	Rolling Cultivator Coulter Bearing
205KRR6	½" Bore extended inner ring	Windrow Digger
205KRR7	½" Bore 1.500/1.495 Extended Inner Ring with Offset race	Cone Roller Beet and Potato Harvester
205PPB7 FS544	$15/16$" Bore Tri-Ply Seals 1.375/1.3760 Inner Width	Rolling Cultivator
G205KPRB11	⅞" Hex Bore, One R-Seal and one Tri-Ply Seal Inner Width 1.000/.975	Corn Head Mechanism
205PP9 FS544	¾" Bore Inner Width 1.3750/1.3700 Tri-Ply Seals	Cultivator
205PP10	⅝" Bore Inner Width 1.375/1.370 Tri-Ply Seals	Potato Harvester
205PP11	1" Bore Inner Width 1.187/1.185 Tri-Ply Seals	Marker Wheel
205PP12	⅝" Bore Inner Width 1.500/1.495 Tri-Ply Seals	Cone Roller, Beet and Potato Harvester
205PP13	⅞" Hex Bore Inner Width 1.000/.995 Tri-Ply Seals	Corn Head Mechanism
206KRD	Offset Rings Inner Width .748/.743 Outer Width .6299/.6249 R-Seal on extended inner side	Combine
206KP2	Tri-Ply Seal one side Wide Inner Ring .9449/.9399	Combine
206KPP2	Tri-Ply Seals Wide Inner Ring .9449/.9399	Forrage Harvester
H206KRP2 A1391	¾" Bore Wide Inner Ring .9449/ .9399 Extended on R-Seal side	Disk Hiller and Bedders
206KPPB3	1" Hex Bore Tri-Ply Seals Inner Ring Width .9449/.9399	Disk Harrow
206KRR4	Large Inner Ring Bore Corner to clear .090 R Shaft Fillet	Drive Shaft Bearing
206KRRB3	1⅛ Bore Flare out type R-Seal with Shroud Cap	Corn Picker Snapping Rolls
206KRRB9	1" Bore Inner Width .9450/.9400	Planter
206KRR13	¾" Bore	Idler Sprocket Bearing for round Baler
207KRR3	Large Inner Ring Bore Corner to clear .090 R Shaft Fillet	Trencher
207KRR8	Large Inner Ring Bore Corner to clear .090 R Shaft Fillet Narrow Inner .8499/.8399"	Baler
P207KRRB10	1¼ Bore Flare out type R-Seal with Shroud Cap	Corn Picker Snapping Rolls
207KRR12	1⅛" Hex Bore	Forage Harvester
P207KRNPB13	Bore 1.2505/1.2500 Extended Inner 1.000/.945 on R-Seal Side	Corn Picker Gathering Chain
207KRR14	Bore 1.2530/1.2525	Disk Harrow Transport Wheel
207KYY	Double Lip Seal	Disk Harrow Transport Wheel
P208KRR4 A1849	Bore 1.5312/1.5307 Large Inner Ring Bore Corner to clear .090R Shaft Fillet	Clutch Shaft
208NPPB5	Bore 1.4380/1.4375 Plya Seals with Shroud Cap	Crank Pin for Square Baler
209KRRB2	1" Hex Bore	Round Baler
304KR2	Offset Inner Ring with .7087/ .7037 Width	Tractor Water Pump
BB9105KRR2	1" Bore Inner Extended on one side with 1.000/.995 Width Two 17/64 dia. holes in Inner Ring 180° apart	Hay Rake
9113KDD3 FS264C	Cap Extends Past Inner Face on one side	PTO Drive
9114KDD3 FS264C	Cap Extends Past Inner Face on one side	PTO Drive
9117K3	Bore 3.2500/3.2492 O.D. 5.000/4.9992	PTO Drive

XLS/BIC SERIES – CONRAD TYPE



- An inch-dimension series with extra large diameters.
- Conrad or non-filling slot design.
- Compact sections for adaptability in applications where space is restricted.

DIMENSIONS – TOLERANCES

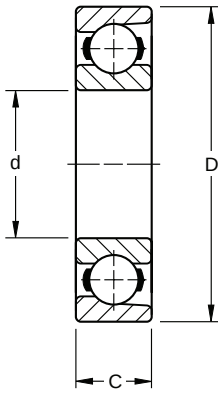
Bearing Number	Bore d		tolerance +0.000 mm +0.0000" to minus		Outside Diameter D		tolerance +0.000 mm +0.0000" to minus		Width C		tolerance +0.000 mm +0.0000" to minus		Fillet Radius[1]		Wt.		Static Load Rating C_o		Extended Dynamic Load Rating C_E[2]	
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
XLS44K	69.850	2.7500	0.015	0.0006	104.775	4.1250	0.015	0.0006	17.460	0.6875	0.13	0.005	1.2	0.047	0.449	0.99	22000	4900	28500	6400
XLS48K2	76.200	3.0000	0.015	0.0006	114.300	4.5000	0.015	0.0006	19.050	0.7500	0.13	0.005	1.2	0.047	0.567	1.25	33500	7500	44000	9800
XLS52K	82.550	3.2500	0.020	0.0008	120.650	4.7500	0.020	0.0008	19.050	0.7500	0.13	0.005	1.2	0.047	0.626	1.38	30000	6700	35500	8000
XLS56K	88.900	3.5000	0.020	0.0008	127.000	5.0000	0.020	0.0008	19.050	0.7500	0.13	0.005	1.7	0.065	0.671	1.48	31500	7100	36500	8150
XLS60K2	95.250	3.7500	0.020	0.0008	133.350	5.2500	0.020	0.0008	19.050	0.7500	0.13	0.005	1.6	0.063	0.712	1.57	34500	7800	39000	8650
XLS64K2	101.600	4.0000	0.020	0.0008	142.849	5.6240	0.025	0.0010	22.230	0.8750	0.13	0.005	2.0	0.080	0.794	1.75	41500	9500	47500	10600
41BIC196	104.648	4.1250	0.020	0.0008	152.400	6.0000	0.025	0.0010	22.230	0.8750	0.20	0.008	2.5	0.100	1.471	3.24	47500	10600	55000	12500
42BIC196	107.950	4.2500	0.020	0.0008	152.400	6.0000	0.025	0.0010	22.230	0.8750	0.20	0.008	2.5	0.100	1.374	3.03	47500	10600	55000	12500
43BIC206	111.125	4.3750	0.020	0.0008	158.750	6.2500	0.025	0.0010	22.230	0.8750	0.20	0.008	2.5	0.100	1.542	3.40	51000	11400	57000	12900
XLS72KD2	114.300	4.5000	0.020	0.0008	158.730	6.2490	0.025	0.0010	22.230	0.8750	0.20	0.008	2.0	0.080	1.121	2.47	54000	12000	60000	13400
45BIC206	114.300	4.5000	0.020	0.0008	158.750	6.2500	0.025	0.0010	22.230	0.8750	0.20	0.008	2.5	0.100	1.442	3.18	51000	11400	57000	12900
46BIC216	117.475	4.6250	0.020	0.0008	165.100	6.5000	0.025	0.0010	22.230	0.8750	0.20	0.008	2.5	0.100	1.615	3.56	54000	12000	58500	13200
47BIC216	120.650	4.7500	0.025	0.0010	165.100	6.5000	0.025	0.0010	22.230	0.8750	0.25	0.010	2.5	0.100	1.512	3.33	57000	12700	61000	13700
48BIC225	123.825	4.8750	0.025	0.0010	177.800	7.0000	0.025	0.0010	25.400	1.0000	0.25	0.010	2.5	0.100	2.254	4.97	65500	15000	75000	16600
XLS76K2	120.650	4.7500	0.025	0.0010	165.100	6.5000	0.025	0.0010	22.230	0.8750	0.25	0.010	1.7	0.065	1.157	2.55	57000	12700	61000	13700
XLS80K2	127.000	5.0000	0.025	0.0010	177.775	6.9990	0.025	0.0010	25.400	1.0000	0.25	0.010	2.0	0.080	1.611	3.55	67000	15000	72000	16300
50BIC225	127.000	5.0000	0.025	0.0010	177.800	7.0000	0.025	0.0010	25.400	1.0000	0.25	0.010	2.5	0.100	2.3	5.0	65500	15000	75000	16600
51BIC240	130.175	5.1250	0.025	0.0010	184.150	7.2500	0.030	0.0012	25.400	1.0000	0.25	0.010	2.5	0.100	2.5	5.5	69500	15600	76500	17300
52BIC240	133.350	5.2500	0.025	0.0010	184.150	7.2500	0.030	0.0012	25.400	1.0000	0.25	0.010	2.5	0.100	2.4	5.2	69500	15600	76500	17300
53BIC247	136.525	5.3750	0.025	0.0010	190.500	7.5000	0.030	0.0012	25.400	1.0000	0.25	0.010	2.5	0.100	2.6	5.7	75000	16600	80000	17600
55BIC247	139.700	5.5000	0.025	0.0010	190.500	7.5000	0.030	0.0012	25.400	1.0000	0.25	0.010	2.5	0.100	2.5	5.4	75000	16600	80000	17600
56BIC251	142.875	5.6250	0.025	0.0010	196.850	7.7500	0.030	0.0012	25.400	1.0000	0.25	0.010	2.5	0.100	2.7	5.9	75000	16600	80000	17600
57BIC251	146.050	5.7500	0.025	0.0010	196.850	7.7500	0.030	0.0012	25.400	1.0000	0.25	0.010	2.5	0.100	2.5	5.6	75000	16600	80000	17600
58BIC258	149.225	5.8750	0.025	0.0010	203.200	8.0000	0.030	0.0012	25.400	1.0000	0.25	0.010	2.5	0.100	2.8	6.1	78000	17300	81500	18000
60BIC258	152.400	6.0000	0.025	0.0010	203.200	8.0000	0.030	0.0012	25.400	1.0000	0.25	0.010	2.5	0.100	2.6	5.8	78000	17300	81500	18000
62BIC290	158.750	6.2500	0.025	0.0010	215.900	8.5000	0.030	0.0012	28.575	1.1250	0.25	0.010	3.0	0.120	3.5	7.7	104000	23200	106000	23600
65BIC298	165.100	6.5000	0.025	0.0010	222.250	8.7500	0.030	0.0012	28.575	1.1250	0.25	0.010	3.0	0.120	3.6	7.9	98000	22000	102000	22800
67BIC301	171.450	6.7500	0.025	0.0010	228.600	9.0000	0.030	0.0012	28.575	1.1250	0.25	0.010	3.0	0.120	3.7	8.2	104000	23200	104000	23600
70BIC309	177.800	7.0000	0.025	0.0010	241.300	9.5000	0.030	0.0012	31.750	1.2500	0.25	0.010	3.0	0.120	4.8	10.6	116000	26000	118000	26500
72BIC340	184.150	7.2500	0.030	0.0012	247.650	9.7500	0.030	0.0012	31.750	1.2500	0.31	0.012	3.0	0.120	4.9	10.8	122000	27500	122000	27000
75BIC348	190.500	7.5000	0.030	0.0012	254.000	10.0000	0.036	0.0014	31.750	1.2500	0.31	0.012	3.0	0.120	5.0	11.1	122000	27500	122000	27000
77BIC351	196.850	7.7500	0.030	0.0012	266.700	10.5000	0.036	0.0014	34.925	1.3750	0.31	0.012	3.0	0.120	6.3	13.9	146000	32500	143000	32500
80BIC359	203.200	8.0000	0.030	0.0012	273.050	10.7500	0.036	0.0014	34.925	1.3750	0.31	0.012	3.0	0.120	6.5	14.2	146000	32500	143000	32500
82BIC390	209.550	8.2500	0.030	0.0012	279.400	11.0000	0.036	0.0014	34.925	1.3750	0.31	0.012	3.0	0.120	6.6	14.6	153000	34500	150000	33500
85BIC391	215.900	8.5000	0.030	0.0012	292.100	11.5000	0.036	0.0014	38.100	1.5000	0.31	0.012	3.0	0.120	8.2	18.0	166000	37500	163000	36500
87BIC393	222.250	8.7500	0.030	0.0012	298.450	11.7500	0.036	0.0014	38.100	1.5000	0.31	0.012	3.0	0.120	8.4	18.5	176000	40000	170000	38000
90BIC401	228.600	9.0000	0.030	0.0012	304.800	12.0000	0.036	0.0014	38.100	1.5000	0.31	0.012	3.0	0.120	8.6	18.9	176000	40000	166000	37500
95BIC430	241.300	9.5000	0.030	0.0012	323.850	12.7500	0.041	0.0016	41.275	1.6250	0.36	0.014	4.0	0.160	10.6	23.4	200000	45000	190000	42500
100BIC439	254.000	10.0000	0.036	0.0014	336.550	13.2500	0.041	0.0016	41.275	1.6250	0.36	0.014	4.0	0.160	11.1	24.4	212000	47500	193000	43000
105BIC470	266.700	10.5000	0.036	0.0014	355.600	14.0000	0.041	0.0016	44.450	1.7500	0.36	0.014	4.0	0.160	13.5	29.8	255000	57000	224000	50000
110BIC479	279.400	11.0000	0.036	0.0014	368.300	14.5000	0.041	0.0016	44.450	1.7500	0.36	0.014	4.0	0.160	14.1	31.0	255000	57000	220000	50000
115BIC510	292.100	11.5000	0.036	0.0014	387.350	15.2500	0.041	0.0016	47.625	1.8750	0.36	0.014	5.0	0.200	16.9	37.2	280000	64000	240000	54000
120BIC519	304.800	12.0000	0.036	0.0014	406.400	16.0000	0.046	0.0018	50.800	2.0000	0.36	0.014	5.0	0.200	20.0	44.1	315000	71000	255000	58500
125BIC550	317.500	12.5000	0.041	0.0016	419.100	16.5000	0.046	0.0018	50.800	2.0000	0.41	0.016	5.0	0.200	20.7	45.7	325000	73500	265000	60000
135BIC580	342.900	13.5000	0.041	0.0016	457.200	18.0000	0.046	0.0018	57.150	2.2500	0.41	0.016	5.0	0.200	27.9	61.6	415000	93000	315000	71000
140BIC588	355.600	14.0000	0.041	0.0016	469.900	18.5000	0.046	0.0018	57.150	2.2500	0.41	0.016	5.0	0.200	28.8	63.4	415000	93000	310000	69500
145BIC610	368.300	14.5000	0.041	0.0016	495.300	19.5000	0.046	0.0018	63.500	2.5000	0.41	0.016	5.0	0.200	37.4	82.5	490000	110000	355000	80000
150BIC613	381.000	15.0000	0.041	0.0016	508.000	20.0000	0.051	0.0020	63.500	2.5000	0.41	0.016	5.0	0.200	38.5	84.8	490000	110000	355000	80000
155BIC615	393.700	15.5000	0.041	0.0016	520.700	20.5000	0.051	0.0020	63.500	2.5000	0.41	0.016	5.0	0.200	39.5	87.1	490000	110000	345000	78000
160BIC647	406.400	16.0000	0.046	0.0018	546.100	21.5000	0.051	0.0020	69.850	2.7500	0.46	0.018	5.0	0.200	48.8	107.6	585000	132000	400000	90000
165BIC660	419.100	16.5000	0.046	0.0018	558.800	22.0000	0.051	0.0020	69.850	2.7500	0.46	0.018	5.0	0.200	50.2	110.6	620000	137000	415000	93000
170BIC661	431.800	17.0000	0.046	0.0018	571.500	22.5000	0.051	0.0020	69.850	2.7500	0.46	0.018	5.0	0.200	51.4	113.3	620000	137000	415000	93000
175BIC680	444.500	17.5000	0.046	0.0018	596.900	23.5000	0.051	0.0020	76.200	3.0000	0.46	0.018	5.0	0.200	63.8	140.8	710000	160000	455000	102000
180BIC687	457.200	18.0000	0.046	0.0018	609.600	24.0000	0.051	0.0020	76.200	3.0000	0.46	0.018	5.0	0.200	65.3	144.0	710000	160000	455000	102000
185BIC695	469.900	18.5000	0.046	0.0018	622.300	24.5000	0.051	0.0020	76.200	3.0000	0.46	0.018	5.0	0.200	66.8	147.3	710000	160000	455000	102000
190BIC696	482.600	19.0000	0.046	0.0018	647.700	25.5000	0.076	0.0030	82.550	3.2500	0.46	0.018	5.0	0.200	80.7	177.9	800000	180000	500000	112000
195BIC710	495.300	19.5000	0.051	0.0020	660.400	26.0000	0.076	0.0030	82.550	3.2500	0.46	0.018	5.0	0.200	82.4	181.7	800000	180000	500000	112000
200BIC717	508.000	20.0000	0.051	0.0020	673.100	26.5000	0.076	0.0030	82.550	3.2500	0.51	0.020	5.0	0.200	84.3	185.9	850000	190000	510000	114000
205BIC725	520.700	20.5000	0.051	0.0020	698.500	27.5000	0.076	0.0030	88.900	3.5000	0.51	0.020	5.0	0.200	97.5	215.0	965000	216000	570000	129000
210BIC726	533.400	21.0000	0.051	0.0020	711.200	28.0000	0.076	0.0030	88.900	3.5000	0.51	0.020	5.0	0.200	99.7	219.8	1020000	228000	585000	132000

(1) Maximum shaft or housing fillet radius that bearing corners will clear.

(2) Based on 10^6 revolutions of calculated fatigue life.

BIH SERIES – MAXIMUM CAPACITY TYPE

- An inch-dimension series with extra large diameters.
- Maximum capacity design.
- Feature a counterbored outer ring to permit increased number of balls.
- Can carry thrust in one direction only, against the full shouldered side of the outer race.
- Compact sections for adaptability to applications where space is restricted.



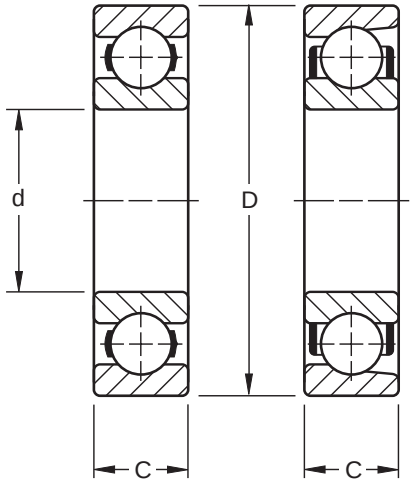
DIMENSIONS – TOLERANCES BIH SERIES

Bearing Number	Bore d		tolerance +0.000 mm +0.0000" to minus		Outside Diameter D		tolerance +0.000 mm +0.0000" to minus		Width C		tolerance +0.000 mm +0.0000" to minus		Fillet Radius(1)		Wt.		Static Load Rating C_o		Extended Dynamic Load Rating C_E(2)	
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
41BIH196	104.775	4.1250	0.020	0.0008	152.400	6.0000	0.025	0.0010	22.23	0.8750	0.20	0.008	2.5	0.10	1.411	3.11	63000	14000	65500	14600
42BIH196	107.950	4.2500	0.020	0.0008	152.400	6.0000	0.025	0.0010	22.23	0.8750	0.20	0.008	2.5	0.10	1.321	2.91	71000	16000	72000	16300
43BIH206	111.125	4.3750	0.020	0.0008	158.750	6.2500	0.025	0.0010	22.23	0.8750	0.20	0.008	2.5	0.10	1.483	3.27	51000	11400	57000	12900
45BIH206	114.300	4.5000	0.020	0.0008	158.750	6.2500	0.025	0.0010	22.23	0.8750	0.20	0.008	2.5	0.10	1.383	3.05	75000	16600	73500	16600
46BIH216	117.475	4.6250	0.020	0.0008	165.100	6.5000	0.025	0.0010	22.23	0.8750	0.20	0.008	2.5	0.10	1.561	3.44	80000	18000	76500	17300
48BIH225	123.825	4.8750	0.025	0.0010	177.800	7.0000	0.025	0.0010	25.40	1.0000	0.25	0.010	2.5	0.10	2.209	4.87	104000	23200	100000	22400
50BIH225	127.000	5.0000	0.025	0.0010	177.800	7.0000	0.025	0.0010	25.40	1.0000	0.25	0.010	2.5	0.10	2.3	5.0	104000	23200	100000	22400
51BIH240	130.175	5.1250	0.025	0.0010	184.150	7.2500	0.030	0.0012	25.40	1.0000	0.25	0.010	2.5	0.10	2.5	5.5	108000	24000	102000	22800
52BIH240	133.350	5.2500	0.025	0.0010	184.150	7.2500	0.030	0.0012	25.40	1.0000	0.25	0.010	2.5	0.10	2.4	5.2	104000	23200	100000	22400
53BIH247	136.525	5.3750	0.025	0.0010	190.500	7.5000	0.030	0.0012	25.40	1.0000	0.25	0.010	2.5	0.10	2.6	5.7	112000	25000	104000	23200
55BIH247	139.700	5.5000	0.025	0.0010	190.500	7.5000	0.030	0.0012	25.40	1.0000	0.25	0.010	2.5	0.10	2.5	5.4	112000	25000	104000	23200
56BIH251	142.875	5.6250	0.025	0.0010	196.850	7.7500	0.030	0.0012	25.40	1.0000	0.25	0.010	2.5	0.10	2.7	5.9	116000	26000	106000	23600
57BIH251	146.050	5.7500	0.025	0.0010	196.850	7.7500	0.030	0.0012	25.40	1.0000	0.25	0.010	2.5	0.10	2.5	5.6	116000	26000	106000	23600
58BIH258	149.225	5.8750	0.025	0.0010	203.200	8.0000	0.030	0.0012	25.40	1.0000	0.25	0.010	2.5	0.10	2.8	6.1	118000	26500	108000	24000
60BIH258	152.400	6.0000	0.025	0.0010	203.200	8.0000	0.030	0.0012	25.40	1.0000	0.25	0.010	2.5	0.10	2.6	5.8	118000	26500	108000	24000
62BIH290	158.750	6.2500	0.025	0.0010	215.900	8.5000	0.030	0.0012	28.575	1.1250	0.25	0.010	3.0	0.12	3.5	7.7	146000	33500	134000	30000
65BIH298	165.100	6.5000	0.025	0.0010	222.250	8.7500	0.030	0.0012	28.575	1.1250	0.25	0.010	3.0	0.12	3.6	7.9	153000	34500	137000	30500
67BIH301	171.450	6.7500	0.025	0.0010	228.600	9.0000	0.030	0.0012	28.575	1.1250	0.25	0.010	3.0	0.12	3.7	8.2	160000	35500	137000	31000
70BIH309	177.800	7.0000	0.025	0.0010	241.300	9.5000	0.030	0.0012	31.750	1.2500	0.25	0.010	3.0	0.12	4.8	10.6	180000	40500	160000	35500
72BIH340	184.150	7.2500	0.030	0.0012	247.650	9.7500	0.030	0.0012	31.750	1.2500	0.31	0.012	3.0	0.12	4.9	10.8	186000	42500	160000	36000
75BIH348	190.500	7.5000	0.030	0.0012	254.000	10.0000	0.036	0.0014	31.750	1.2500	0.31	0.012	3.0	0.12	5.0	11.1	193000	43000	163000	36500
77BIH351	196.850	7.7500	0.030	0.0012	266.700	10.5000	0.036	0.0014	34.925	1.3750	0.31	0.012	3.0	0.12	6.3	13.9	228000	51000	193000	44000
80BIH359	203.200	8.0000	0.030	0.0012	273.050	10.7500	0.036	0.0014	34.925	1.3750	0.31	0.012	3.0	0.12	6.5	14.2	236000	53000	200000	45000
82BIH390	209.550	8.2500	0.030	0.0012	279.400	11.0000	0.036	0.0014	34.925	1.3750	0.31	0.012	3.0	0.12	6.6	10.6	245000	55000	200000	45500
85BIH391	215.900	8.5000	0.030	0.0012	292.100	11.5000	0.036	0.0014	38.100	1.5000	0.31	0.012	3.0	0.12	8.2	18.0	270000	61000	224000	50000
87BIH393	222.250	8.7500	0.030	0.0012	298.450	11.7500	0.036	0.0014	38.100	1.5000	0.31	0.012	3.0	0.12	8.4	18.5	270000	61000	224000	50000
90BIH401	228.600	9.0000	0.030	0.0012	304.800	12.0000	0.036	0.0014	38.100	1.5000	0.31	0.012	3.0	0.12	8.6	18.9	280000	63000	228000	51000
95BIH430	241.300	9.5000	0.030	0.0012	323.850	12.7500	0.036	0.0014	41.275	1.6250	0.36	0.014	4.0	0.16	10.6	23.4	315000	71000	255000	57000
100BIH439	254.00	10.0000	0.036	0.0014	336.550	13.2500	0.041	0.0016	41.275	1.6250	0.36	0.014	4.0	0.16	11.1	24.4	325000	73500	260000	58500
105BIH470	266.700	10.5000	0.036	0.0014	355.600	14.0000	0.041	0.0016	44.450	1.7500	0.36	0.014	4.0	0.16	13.5	29.8	400000	90000	300000	68000
110BIH479	279.400	11.0000	0.036	0.0014	368.300	14.5000	0.041	0.0016	44.450	1.7500	0.36	0.014	4.0	0.16	14.1	31.0	415000	93000	305000	69500
115BIH510	292.100	11.5000	0.036	0.0014	387.350	15.2500	0.041	0.0016	47.625	1.8750	0.36	0.014	5.0	0.20	16.9	37.2	465000	104000	335000	75000
120BIH519	304.800	12.0000	0.036	0.0014	406.400	16.0000	0.046	0.0018	50.800	2.0000	0.36	0.014	5.0	0.20	20.0	44.1	510000	116000	355000	80000
135BIH580	342.900	13.5000	0.041	0.0016	457.200	18.0000	0.046	0.0018	57.150	2.2500	0.41	0.016	5.0	0.20	27.9	61.6	655000	146000	425000	95000
140BIH588	355.600	14.0000	0.041	0.0016	469.900	18.5000	0.046	0.0018	57.150	2.2500	0.41	0.016	5.0	0.20	28.8	63.4	680000	150000	430000	96500

(1) Maximum shaft or housing fillet radius that bearing corners will clear.
(2) Based on 10^6 revolutions of calculated fatigue life.

EXTRA LARGE 100 SERIES

- Dimensions originally established to meet specific design requirements, before standard dimensions were established by the American Bearing Manufacturers Association (ABMA).
- A metric series.
- Available in the 100 Series (extra light).
- Available in a radially-fitted counterbore type, having a maximum complement of balls.
- Identified by the suffix "WI," these are designed to take thrust in one direction only.



Filling-Slot Type Counterbore Type

DIMENSIONS – TOLERANCES

Bearing Number			Bore d				Outside Diameter D				Width C		Fillet Radius[1]		Wt.						Static Load Rating C_o		Extended Dynamic Load C_E[5]	
Filling-slot Type	Counter-bore Type	One Shield D			tolerance +0.000 mm +0.0000" to minus				tolerance +0.000 mm +0.0000" to minus		+0.00 mm -.25 mm +0.000" -.010"				Filling-slot Type		Counter-bore Type		Shielded Type					
			mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	kg	lbs.	kg	lbs.	N	lbs.	N	lbs.
120W2	—	120WD2N	100	3.9370	0.020	0.0008	160	6.2992	0.025	0.0010	28	1.102[4]	2.01	0.079	2.041	4.50	—	—	2.041	4.50	75000	17000	106000	24000
122W	122WI	122WD2N[3]	110	4.3307	0.020	0.0008	175	6.8898	0.025	0.0010	30	1.181[4]	2.01	0.079	2.762	6.09	2.835	6.25	3.157	6.96	80000	18000	116000	26000
124W	124WI	124WD	120	4.7244	0.020	0.0008	190	7.4803	0.030	0.0012	32	1.260[4]	2.01	0.079	3.475	7.66	3.538	7.80	3.466	7.64	98000	22400	140000	31500
126W	126WI	126WD	130	5.1181	0.025	0.0010	205	8.0709	0.030	0.0012	34	1.339	2.01	0.079	4.336	9.56	4.318	9.52	4.332	9.55	110000	24500	146000	33500
128W	128WI	128WD	140	5.5118	0.025	0.0010	220	8.6614	0.030	0.0012	36	1.417	2.01	0.079	5.239	11.55	5.244	11.56	5.294	11.67	122000	27000	163000	36500
130W	—	130WD	150	5.9055	0.025	0.0010	235	9.2520	0.030	0.0012	38	1.496	2.01	0.079	6.278	13.84	—	—	6.437	14.19	140000	31500	183000	41500
132W	—	132WD	160	6.2992	0.025	0.0010	250	9.8425	0.030	0.0012	40	1.575	2.49	0.098	7.394	16.30	—	—	7.484	16.50	160000	35500	208000	46500
134W	—	—	170	6.6929	0.025	0.0010	265	10.4331	0.035	0.0014	42	1.654	2.49	0.098	9.049	19.95	—	—	—	—	180000	40000	224000	51000
—	—	136WD2N	180	7.0866	0.025	0.0010	280	11.0236	0.035	0.0014	49	1.929	2.49	0.098	—	—	—	—	11.004	24.26	200000	45000	245000	55000
138W	—	—	190	7.4803	0.03	0.0120	300	11.8110	0.035	0.0014	46	1.811[2]	2.49	0.098	12.928	28.50	—	—	—	—	245000	56000	285000	64000

[1] Maximum shaft or housing fillet radius that bearing corners will clear.
[2] +.00 mm, -25 mm (+000", -.010").
[3] 35 mm width.
[4] Width tolerance is +.00 mm, -.20 mm (+.000", -.008").
[5] Based on 10^6 revolutions of calculated fatigue life.

7000WN PRODUCT FAMILY

INTRODUCTION

The high performance 7000WN Angular Contact Product Family is specifically designed to support heavy thrust loads at lower operating temperatures at high speeds. Included in the angular contact series are the following design features:

- Refined bore diameter tolerance
- Increased thrust capacity
- Extended load capacity
- Lower operating temperatures
- Better than ABEC 1 bore diameter tolerances
- High operating contact angle
- Improved ball section ratio
- Low shoulder inner and outer rings improve oil flow

A feature of this series is the refined bore diameter tolerance. The closer bore tolerance in the WN product family reduces the broad range of interference and thus prevents the development of undesirable high preload in mounted duplex pairs. As a result, longer bearing life is achieved and high operating temperatures are avoided.

This product family can support heavy thrust loads by combining high shoulders on the thrust side of both rings with a high operating angle. In addition, uniformity of load per ball under combined loads is more favorable with a high contact angle and results in longer bearing life.

Maximum clearance between the one-piece brass or bronze cage and the land diameters of both rings is achieved in the WN construction. Utilizing low shoulder diameters on the non-thrust sides of inner and outer rings promotes efficient oil passage through the bearing resulting in lower operating temperatures and longer bearing life.

The 7000WN Product Family is divided into several designs. Sizes 7207-7218WN and 7304-7318WN have a 40 degree contact angle and a one-piece, ball-piloted, pressed brass cage. Sizes 7219-7230WN and 7319-7330WN have a 40 degree contact angle and a one-piece, outer ring-piloted, high-strength machined bronze cage. The 7412WN and 7415WN both have a 40 degree contact angle and a one-piece conical, high-strength machined bronze cage.

The 7000WN Product Family is available as single bearings and duplex sets. A single with the suffix "SU" is flush ground on both faces for universal mounting. Such bearings can be used as singles or duplex mounted back-to-back (DB), face-to-face (DF) or tandem (DT), depending on the functional requirements of the design. The mounting of duplex "SU" bearings will result in a preload range of minimum internal clearance to a solid preload.

Bearings without the "SU" designation are not flush ground and are intended to be used as singles. These bearings are used to support thrust from one direction and are often accompanied by a preload spring.

Bearings with the suffix "DU" are flush ground on both faces for universal mounting. A duplex pair of "DU" bearings can be mounted (DB, DF, or DT), depending on the functional requirements of the design. These bearings, after mounting, will result in a range of positive light preload.

APPLICATIONS

These design features are advantageous in applications such as oil refining pump systems where higher productivity and longer system life is important. Other applications where these features are equally suited are deep well pump motors, vertical and horizontal pumps, worm gear and right angle drives, spindles, live centers and gearboxes. For applications requiring a high degree of axial and radial rigidity, these bearings are suggested in preloaded duplex mountings.

MOUNTING

Although each 7000WN Product Family bearing is a self-contained unit, the construction is such that they are frequently mounted as two bearings opposed, so that thrust can be carried in either direction.

Unlike the radial type, the angular contact bearing, when mounted alone, requires adjustment and must be installed with care. As the bearing is relatively loose axially before mounting, it is important that the design incorporate some means to move the outer ring axially into its correct position relative to the inner ring. This adjustment should be made when the bearing is mounted. A common method is to place a preload spring or shims at one bearing location.

The correct adjustment of the single bearing is obtained when the initial axial looseness of the assembly is removed. This eliminates the possibility of premature bearing damage due to excessive preloading or looseness through improper adjustment.

Bearings designated "SU" are ground on both surfaces to permit universal mounting. These duplex sets are ideally suited for applications which involve a combination of radial loads from either direction. "SU" bearings are flush ground so that under a specific axial gage load the inner ring will protrude beyond the face of the outer ring. This design results in an internal axial clearance within the bearing pair that helps to minimize build-up of excessive preload within the bearings when mounted on a shaft with maximum interference.

To assure correct mounting of bearings in the 7000WN Product Family, the word THRUST is marked on the thrust face of both the inner and outer rings. This face should abut against the housing shoulder or the end cover, depending on the required direction of "thrust".

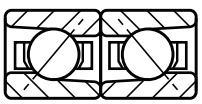
ORDERING INFORMATION

"SU" Suffix: All bearings are packaged singly.
To obtain a pair of SU flush ground bearings for duplex mounting, specify two bearings.
Example: (2) 7210WN SU bearings.

"DU" Suffix: All bearings are packaged as a pair in a single box.
To obtain a pair of DU flush ground bearings for duplex mounting, specify one pair.
Example: one pair-7219WN MBR-DU.

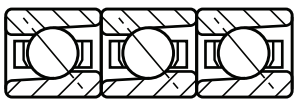
No Suffix: All bearings are packaged singly.
No other designation is required to obtain

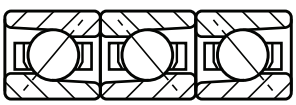
MOUNTING ARRANGEMENTS


Duplex- DB
Back-to-Back


Duplex- DF
Face-to-Face

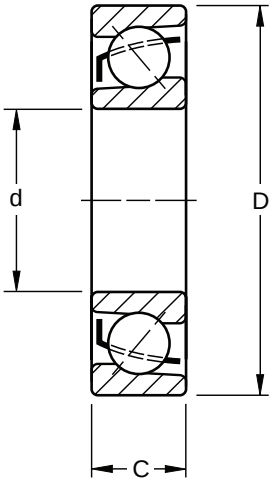

Duplex- DT Tandem


Three Bearings in Tandem

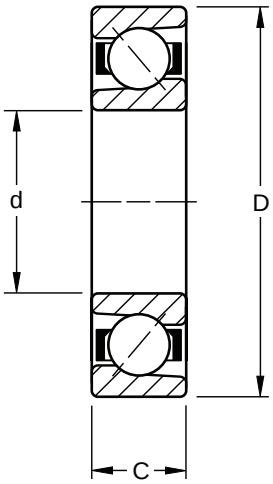

Two in Tandem Opposed
with a Single Bearing

LIGHT 7200WN SERIES

- Dimensionally interchangeable with the radial 200 Series.
- 7000WN Product Family includes a refined bore diameter.
- A single bearing is suggested for applications in which the thrust load is in one direction or, in the case of combined loads, the thrust load is high in relation to the radial load.
- A duplex pair is suggested for applications where thrust is present in both directions or where axial displacement of the shaft must be restricted.
- For exceptionally high thrust loads in one direction, a tandem pair can be used, opposed by a third bearing.
- Sizes 7201K through 7203WN have a 20 degree contact angle and a nylon cage.
- Sizes 7204WN through 7218WN have a 40 degree contact angle and a one-piece, ball-piloted, pressed brass cage.
- Larger sizes 7219WN through 7230WN have a 40 degree contact angle and a one-piece, outer ring piloted high-strength machined bronze cage.



7207-7218WN
40° Contact Angle



7219-7230WN MBR
40° Contact Angle

DIMENSIONS – TOLERANCES

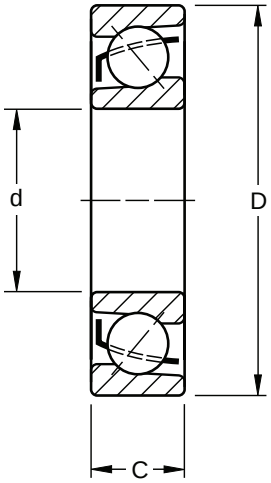
Bearing Number	Bore d tolerance +0.000 mm +0.0000" to minus				Outside Diameter D tolerance +0.000 mm +0.0000" to minus				Width C tolerance +0.000 mm +0.0000" to minus				Fillet Radius(1)		Wt.		Static Load Rating C_o		Extended Dynamic Load Rating C_E(4)	
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
7201K	12	0.4724	0.008	0.0003	32	1.2598	0.011	0.00043	10	0.3937	0.12	0.005	0.6	0.024	0.036	0.08	2790	630	7100	1600
7202W	15	0.5906	0.008	0.0003	35	1.3780	0.011	0.00043	11	0.4331	0.12	0.005	0.6	0.024	0.045	0.10	4700	1060	10300	2320
7203W	17	0.6693	0.008	0.0003	40	1.5748	0.011	0.00043	12	0.4727	0.12	0.005	0.6	0.024	0.068	0.15	6930	1560	14200	3200
7204WN(2)(3)	20	0.7874	0.010	0.0004	47	1.8504	0.011	0.00043	14	0.5512	0.12	0.005	1.0	0.039	0.104	0.23	8100	1830	16800	3800
7205WN(3)	25	0.9843	0.010	0.0004	52	2.0472	0.013	0.0005	15	0.5906	0.12	0.005	1.0	0.039	0.132	0.29	9400	2120	16600	3750
7206WN	30	1.1811	0.010	0.0004	62	2.4409	0.013	0.0005	16	0.6299	0.12	0.005	1.0	0.039	0.209	0.46	13500	3050	23000	5200
7207WN	35	1.3780	0.010	0.0004	72	2.8346	0.013	0.0005	17	0.6693	0.12	0.005	1.0	0.039	0.286	0.63	18000	4150	30800	6950
7208WN	40	1.5748	0.010	0.0004	80	3.1496	0.013	0.0005	18	0.7087	0.12	0.005	1.0	0.039	0.331	0.73	23000	5200	36000	8150
7209WN	45	1.7717	0.010	0.0004	85	3.3465	0.015	0.0006	19	0.7480	0.12	0.005	1.0	0.039	0.435	0.96	25900	5850	40500	9150
7210WN	50	1.9685	0.010	0.0004	90	3.5433	0.015	0.0006	20	0.7874	0.12	0.005	1.0	0.039	0.508	1.12	28400	6400	42500	9500
7211WN	55	2.1654	0.010	0.0004	100	3.9370	0.015	0.0006	21	0.8268	0.15	0.006	1.5	0.059	0.635	1.40	36200	8150	52000	11800
7212WN	60	2.3622	0.010	0.0004	110	4.3307	0.015	0.0006	22	0.8661	0.15	0.006	1.5	0.059	0.835	1.84	44000	10000	63000	14300
7213WN	65	2.5591	0.010	0.0004	120	4.7244	0.015	0.0006	23	0.9055	0.15	0.006	1.5	0.059	1.061	2.34	52400	11800	72400	16300
7214WN	70	2.7559	0.010	0.0004	125	4.9213	0.018	0.0007	24	0.9449	0.15	0.006	1.5	0.059	1.171	2.58	57300	12900	78000	17600
7215WN	75	2.9528	0.010	0.0004	130	5.1181	0.018	0.0007	25	0.9843	0.15	0.006	1.5	0.059	1.271	2.80	58000	13200	78000	17600
7216WN	80	3.1496	0.010	0.0004	140	5.5118	0.018	0.0007	26	1.0236	0.15	0.006	2.0	0.079	1.483	3.27	65500	15600	91500	20400
7217WN	85	3.3465	0.013	0.0005	150	5.9055	0.018	0.0007	28	1.1024	0.20	0.008	2.0	0.079	2.096	4.62	76500	18300	106000	23600
7218WN	90	3.5433	0.013	0.0005	160	6.2992	0.025	0.0010	30	1.1811	0.20	0.008	2.0	0.079	2.567	5.66	88000	21200	119000	27000
7219WN MBR	95	3.7402	0.013	0.0005	170	6.6929	0.025	0.0010	32	1.2600	0.20	0.008	2.0	0.079	3.025	6.67	93000	22800	133000	30000
7220WN MBR	100	3.9370	0.013	0.0005	180	7.0866	0.025	0.0010	34	1.3390	0.20	0.008	2.0	0.079	3.460	7.62	106000	25500	146000	33500
7222WN MBR	110	4.3307	0.013	0.0005	200	7.8740	0.030	0.0012	38	1.4960	0.20	0.008	2.0	0.079	5.162	11.38	134000	32500	173000	39000
7224WN MBR	120	4.7244	0.013	0.0005	215	8.4646	0.030	0.0012	40	1.5750	0.20	0.008	2.0	0.079	6.354	14.01	160000	36500	188000	42500
7226WN MBR	130	5.1181	0.018	0.0007	230	9.0551	0.030	0.0012	40	1.5750	0.25	0.010	2.5	0.098	7.543	16.63	176000	43000	211000	47500
7228WN MBR	140	5.5118	0.018	0.0007	250	9.8425	0.030	0.0012	42	1.6540	0.25	0.010	2.5	0.098	9.634	21.24	200000	47500	224000	50000
7230WN MBR	150	5.9055	0.018	0.0007	270	10.6299	0.035	0.0014	45	1.7720	0.25	0.010	2.5	0.098	11.731	25.84	240000	56000	248000	56000

(1) Maximum shaft or housing fillet radius that bearing corners will clear.
(2) Also available as W design.
(3) Also available with 20° contact angle and nylon cage.
(4) Based on 10^6 revolutions of calculated fatigue life.

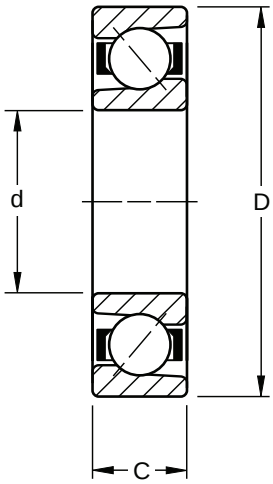
Note: 7208WN-7212WN also available with a one-piece, high-strength machined bronze retainer (MBR). This cage can be quoted on the other sizes by request.

MEDIUM 7300WN SERIES

- Dimensionally interchangeable with the radial 300 Series.
- The 7000WN Product Family includes a refined bore diameter. The 7300WN Series can sustain heavier thrust and combined loads than the 7200WN Series.
- A single bearing is suggested for applications in which the thrust load is in one direction or, in the case of combined loads, the thrust load is high in relation to the radial load.
- A duplex pair is suggested for applications where thrust is present in both directions or where axial displacement of the shaft must be restricted.
- For exceptionally high thrust loads in one direction, a tandem pair can be used, opposed by a third bearing.
- Size 7303W has a 20 degree contact angle and a steel cage.
- Sizes 7304WN through 7318WN have a 40 degree contact angle and a one-piece, ball-piloted, pressed brass cage.
- Larger sizes 7319WN through 7330WN have a 40 degree contact angle and a one-piece, outer ring piloted high-strength machined bronze cage.
- Sizes 7306WN to 7318WN also available with a one-piece, high-strength, machined bronze retainer.



7304-7318WN
40° Contact Angle



7319-7330WN MBR
40° Contact Angle

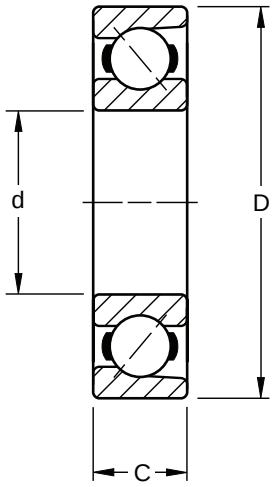
DIMENSIONS – TOLERANCES

Bearing Number	Bore d tolerance +0.000 mm +0.0000" to minus				Outside Diameter D tolerance +0.000 mm +0.0000" to minus				Width C tolerance +0.000 mm +0.0000" to minus				Fillet Radius[1]		Wt.		Static Load Rating C_o		Extended Dynamic Load Rating C_E[2]	
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
7303W	17	0.6693	0.008	0.0003	47	1.8504	0.011	0.00045	14	0.5512	0.12	0.005	1.0	0.039	0.118	0.26	9200	2080	20200	4550
7304WN	20	0.7874	0.010	0.0004	52	2.0472	0.013	0.0005	15	0.5906	0.12	0.005	1.0	0.039	0.150	0.33	9590	2160	19500	4400
7305WN	25	0.9843	0.010	0.0004	62	2.4409	0.013	0.0005	17	0.6693	0.12	0.005	1.0	0.039	0.241	0.53	13300	3000	26500	5850
7306WN	30	1.1811	0.010	0.0004	72	2.8346	0.013	0.0005	19	0.7480	0.12	0.005	1.0	0.039	0.363	0.80	20800	4650	34600	7800
7307WN	35	1.3780	0.010	0.0004	80	3.1496	0.013	0.0005	21	0.8268	0.12	0.005	1.5	0.059	0.408	0.90	23900	5400	41300	9300
7308WN	40	1.5748	0.010	0.0004	90	3.5433	0.015	0.0006	23	0.9055	0.12	0.005	1.5	0.059	0.667	1.47	30200	6800	50600	11400
7309WN	45	1.7717	0.010	0.0004	100	3.9370	0.015	0.0006	25	0.9843	0.12	0.005	1.5	0.059	0.885	1.95	39900	9000	66600	15000
7310WN	50	1.9685	0.010	0.0004	110	4.3307	0.015	0.0006	27	1.0630	0.12	0.005	2.0	0.079	1.139	2.51	47900	10800	76800	17300
7311WN	55	2.1654	0.010	0.0004	120	4.7244	0.015	0.0006	29	1.1417	0.15	0.006	2.0	0.079	1.592	3.51	56400	12700	88800	20000
7312WN	60	2.3622	0.010	0.0004	130	5.1181	0.018	0.0007	31	1.2205	0.15	0.006	2.0	0.079	1.969	4.34	64800	14600	101000	22800
7313WN	65	2.5591	0.010	0.0004	140	5.5118	0.018	0.0007	33	1.2992	0.15	0.006	2.0	0.079	2.477	5.46	75500	17000	115000	26000
7314WN	70	2.7559	0.010	0.0004	150	5.9055	0.018	0.0007	35	1.3780	0.15	0.006	2.0	0.079	2.676	5.90	85700	19300	128000	29000
7315WN	75	2.9528	0.010	0.0004	160	6.2992	0.025	0.0010	37	1.4567	0.15	0.006	2.0	0.079	3.452	7.61	98000	22000	142000	32000
7316WN	80	3.1496	0.010	0.0004	170	6.6929	0.025	0.0010	39	1.5354	0.15	0.006	2.0	0.079	4.504	9.92	108000	24500	153000	34500
7317WN	85	3.3465	0.013	0.0005	180	7.0866	0.025	0.0010	41	1.6124	0.20	0.008	2.5	0.098	4.940	10.88	122000	27500	166000	37500
7318WN	90	3.5433	0.013	0.0005	190	7.4803	0.030	0.0012	43	1.6929	0.20	0.008	2.5	0.098	6.247	13.76	135000	30500	177000	40000
7319WN MBR	95	3.7402	0.013	0.0005	200	7.8740	0.030	0.0012	45	1.7717	0.20	0.008	2.5	0.098	6.706	14.77	148000	33500	191000	43000
7320WN MBR	100	3.9370	0.013	0.0005	215	8.4646	0.030	0.0012	47	1.8504	0.20	0.008	2.5	0.098	8.227	18.12	177000	40000	217000	49000
7321WN MBR	105	4.1339	0.013	0.0005	225	8.8583	0.030	0.0012	49	1.9291	0.20	0.008	2.5	0.098	9.498	20.92	191000	43000	226000	51000
7322WN MBR	110	4.3307	0.013	0.0005	240	9.4488	0.030	0.0012	50	1.9685	0.20	0.008	2.5	0.098	10.892	23.99	226000	51000	253000	57000
7324WN MBR	120	4.7244	0.013	0.0005	260	10.2362	0.035	0.0014	55	2.1654	0.20	0.008	2.5	0.098	14.356	31.62	259000	58500	284000	64000
7326WN MBR	130	5.1181	0.018	0.0007	280	11.0236	0.035	0.0014	58	2.2835	0.25	0.010	3.0	0.118	17.339	38.19	302000	68000	315000	71000
7328WN MBR	140	5.5118	0.018	0.0007	300	11.8110	0.035	0.0014	62	2.4409	0.25	0.010	3.0	0.118	20.294	44.70	346000	78000	339000	76500
7330WN MBR	150	5.9055	0.018	0.0007	320	12.5984	0.040	0.0016	65	2.5591	0.25	0.010	3.0	0.118	24.907	54.86	390000	88000	368000	83000

(1) Maximum shaft or housing fillet radius that bearing corners will clear.
(2) Based on 10^6 revolutions of calculated fatigue life.

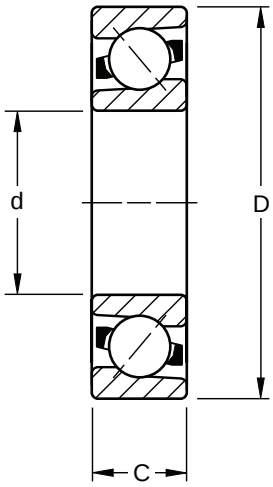
HEAVY 7400 SERIES

- Dimensionally interchangeable with the radial 400 Series.
- Sizes with a "WN" suffix include a refined bore diameter tolerance.
- Can sustain heavier thrust and combined loads than the 7300WN Series.
- A single bearing is suggested for applications in which the thrust load is in one direction or, in the case of combined loads, the thrust load is high in relation to the radial load.
- A duplex pair is suggested for applications where thrust is present in both directions or where axial displacement of the shaft must be restricted.
- For exceptionally high thrust loads in one direction, a tandem pair can be used, opposed by a third bearing.
- Sizes with a suffix "W" have a 20 degree contact angle and a steel retainer.
- Sizes with a suffix "PW" have a 35 degree contact angle and a steel retainer.
- Sizes with a "WN" suffix have a 40 degree contact angle and a one-piece, high-strength machined bronze cage.



7405W-7409W
20° Contact Angle

7410PW-7420PW
35° Contact Angle



7412WN and 7415WN MBR
40° Contact Angle

D

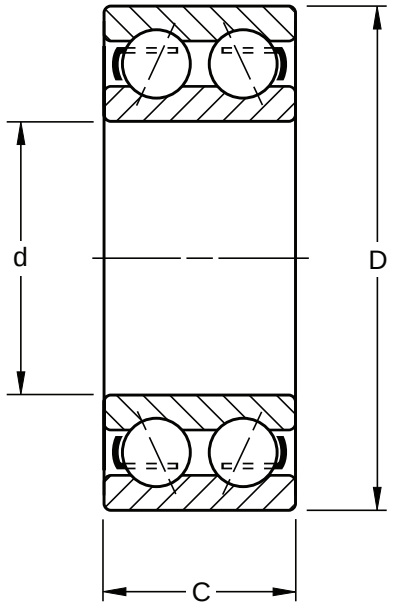
DIMENSIONS – TOLERANCES

Bearing Number	Bore d		tolerance +0.000 mm +0.0000" to minus		Outside Diameter D		tolerance +0.000 mm +0.0000" to minus		Width C		tolerance +0.000 mm +0.0000" to minus		Fillet Radius(1)		Wt.		Static Load Rating C_0		Extended Dynamic Load Rating C_E(2)	
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	kg	lbs.	N	lbs.	N	lbs.
7405W	25	0.9843	0.010	0.0004	80	3.1496	0.013	0.0005	21	0.8268	0.12	0.005	1.5	0.060	0.925	2.04	25900	5850	53300	12000
7406W	30	1.1811	0.010	0.0004	90	3.5433	0.015	0.0006	23	0.9055	0.12	0.005	1.5	0.060	0.957	2.11	35500	8000	69000	15600
7407W	35	1.3780	0.012	0.00045	100	3.9370	0.015	0.0006	25	0.9843	0.12	0.005	1.5	0.060	1.002	2.21	42800	9650	79900	18000
7408W	40	1.5748	0.012	0.00045	110	4.3307	0.015	0.0006	27	1.0630	0.12	0.005	2.0	0.080	1.311	2.89	56400	12700	99500	22400
7409W	45	1.7717	0.012	0.00045	120	4.7244	0.015	0.0006	29	1.1417	0.12	0.005	2.0	0.080	1.647	3.63	62000	14000	106000	24000
7410WN	50	1.9685	0.012	0.00045	130	5.1181	0.018	0.0007	31	1.2205	0.12	0.005	2.0	0.080	2.195	4.84	66600	15000	115000	26000
7411PW	55	2.1654	0.015	0.0006	140	5.5118	0.018	0.0007	33	1.2992	0.15	0.006	2.0	0.080	2.681	5.91	71000	16000	122000	27500
7412WN	60	2.3622	0.010	0.0004	150	5.9055	0.018	0.0007	35	1.3780	0.15	0.006	2.0	0.080	3.257	7.18	85700	19300	135000	30500
7413WN	65	2.5591	0.015	0.0006	160	6.2992	0.025	0.0010	37	1.4567	0.15	0.006	2.0	0.080	3.896	8.59	91500	20400	142000	32000
7414WN	70	2.7559	0.015	0.0006	180	7.0866	0.025	0.0010	42	1.6535	0.15	0.006	2.5	0.100	5.688	12.54	115500	26000	173000	39000
7415WN	75	2.9528	0.010	0.0004	190	7.4803	0.030	0.0012	45	1.7717	0.15	0.006	2.5	0.100	6.745	14.87	148000	33500	202000	45500
7416WN	80	3.1496	0.015	0.0006	200	7.8740	0.030	0.0012	48	1.8898	0.15	0.006	2.5	0.100	7.747	17.08	153000	34500	206000	46500
7418PW	90	3.5433	0.020	0.0008	225	8.8583	0.030	0.0012	54	2.1268	0.20	0.008	3.0	0.120	11.159	24.60	200000	45000	236000	53000
7420PW	100	3.9370	0.020	0.0008	265	10.4331	0.036	0.0014	60	2.3622	0.20	0.008	3.0	0.120	18.643	41.10	279000	63000	315000	71000

(1) Maximum shaft or housing fillet radius that bearing corners will clear.
(2) Based on 10^6 revolutions of calculated fatigue life.

LIGHT 5200 SERIES

- Features the same bores and outside diameters as the corresponding bearings in the 200 Series single-row radial type.
- Double-row angular contact ball bearings meet the demand for increased axial and radial rigidity in applications where the design limits space.
- Available in both Conrad and maximum capacity types.
- Suffix “K” denotes Conrad (example: 5203K).
- Suffix “W” or no suffix denotes maximum capacity type (example: 5212W, 5213).
- Please note: these double-row series bearings are not prelubricated.



DIMENSIONS – TOLERANCES

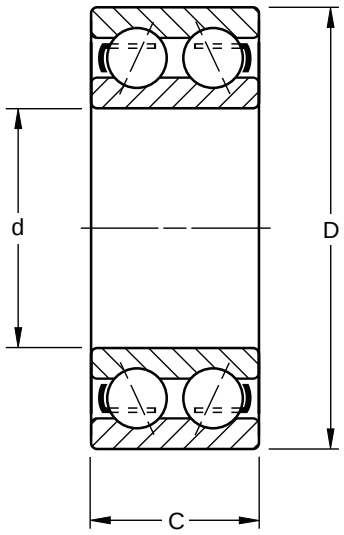
Bearing Number	Bore d tolerance +0.000 mm +0.0000" to minus				Outside Diameter D tolerance +0.000 mm +0.0000" to minus				Width C +0.00 mm, -0.12 mm +0.000", -0.005"			Fillet Radius[1]		Contact Angle	Wt.		Static Load Rating C_o		Extended Dynamic Load Rating C_E[6]	
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	in.	mm	in.		kg	lbs.	N	lbs.	N	lbs.
5200K[2]	10	0.3937	0.008	0.0003	30	1.1811	0.009	0.00035	14.27	0.562	9/16	0.6	0.024	20°	0.054	0.12	5060	1140	10600	2400
5201K[2]	12	0.4724	0.008	0.0003	32	1.2598	0.012	0.00045	15.88	0.625	5/8	0.6	0.024	20°	0.068	0.15	4700	1060	9060	2040
5202K[2]	15	0.5906	0.008	0.0003	35	1.3780	0.012	0.00045	15.88	0.625	5/8	0.6	0.024	20°	0.073	0.16	7100	1600	13500	3050
5203K[2]	17	0.6693	0.008	0.0003	40	1.5748	0.012	0.00045	17.48	0.688	11/16	0.6	0.024	20°	0.104	0.23	9200	2080	16800	3800
5204K[2]	20	0.7874	0.010	0.0004	47	1.8504	0.012	0.00045	20.62	0.812	13/16	1.0	0.039	20°	0.163	0.36	12600	2850	22600	5100
5205K[2]	25	0.9843	0.010	0.0004	52	2.0472	0.013	0.0005	20.62	0.812	13/16	1.0	0.039	20°	0.186	0.41	15100	3400	24800	5600
5206K	30	1.1811	0.010	0.0004	62	2.4409	0.013	0.0005	23.83	0.938	15/16	1.0	0.039	20°	0.295	0.65	21700	4900	34600	7800
5206W	30	1.1811	0.010	0.0004	62	2.4409	0.013	0.0005	23.83	0.938	15/16	1.0	0.039	30°	0.295	0.65	27000	6100	39000	8800
5207K	35	1.3780	0.012	0.00047	72	2.8346	0.013	0.0005	26.97	1.062	1 1/16	1.0	0.039	20°	0.481	1.06	29000	6550	45000	10200
5207W	35	1.3780	0.012	0.00047	72	2.8346	0.013	0.0005	26.97	1.062	1 1/16	1.0	0.039	30°	0.481	1.06	36800	8300	51500	11600
5208K	40	1.5748	0.012	0.00047	80	3.1496	0.013	0.0005	30.17	1.188	1 3/16	1.0	0.039	20°	0.566	1.32	33900	7650	51500	11600
5208W	40	1.5748	0.012	0.00047	80	3.1496	0.013	0.0005	30.17	1.188	1 3/16	1.0	0.039	30°	0.599	1.32	47000	10600	62000	14000
5209K	45	1.7717	0.012	0.00047	85	3.3456	0.015	0.0006	30.17	1.188	1 3/16	1.0	0.039	20°	0.699	1.54	39000	8800	57000	12900
5209W	45	1.7717	0.012	0.00047	85	3.3456	0.015	0.0006	30.17	1.188	1 3/16	1.0	0.039	30°	0.699	1.54	51500	11600	64800	14600
5210K	50	1.9685	0.012	0.00047	90	3.5433	0.015	0.0006	30.17	1.188	1 3/16	1.0	0.039	20°	0.753	1.66	44400	10000	62000	14000
5210W	50	1.9685	0.012	0.00047	90	3.5433	0.015	0.0006	30.17	1.188	1 3/16	1.0	0.039	30°	0.753	1.66	56000	12700	66600	15000
5211K	55	2.1654	0.015	0.0006	100	3.9370	0.015	0.0006	33.32	1.312[4]	1 5/16	1.5	0.059	20°	1.039	2.29	71000	12700	76000	17300
5211W	55	2.1654	0.015	0.0006	100	3.9370	0.015	0.0006	33.32	1.312[4]	1 5/16	1.5	0.059	30°	1.039	2.29	62000	16000	84000	19000
5212K	60	2.3622	0.015	0.0006	110	4.3307	0.015	0.0006	36.53	1.438[4]	1 7/16	1.5	0.059	20°	1.388	3.06	88800	14000	85000	19300
5212W	60	2.3622	0.015	0.0006	110	4.3307	0.015	0.0006	36.53	1.438[4]	1 7/16	1.5	0.059	30°	1.388	3.06	72000	20000	103000	23800
5213K	65	2.5591	0.015	0.0006	120	4.7244	0.015	0.0006	38.10	1.500[4]	1 1/2	1.5	0.059	20°	1.923	4.24	76800	17300	101000	22800
5213[3]	65	2.5591	0.015	0.0006	120	4.7244	0.015	0.0006	38.10	1.500[4]	1 1/2	1.5	0.059	30°	1.923	4.24	92000	20800	99500	22400
5214K	70	2.7559	0.015	0.0006	125	4.9213	0.018	0.0007	39.67	1.562[4]	1 9/16	1.5	0.059	20°	2.096	4.62	84000	19000	108000	24500
5214[3]	70	2.7559	0.015	0.0006	125	4.9213	0.018	0.0007	39.67	1.562[4]	1 9/16	1.5	0.059	30°	2.096	4.62	126000	28500	139000	31500
5215K	75	2.9528	0.015	0.0006	130	5.1181	0.018	0.0007	41.28	1.625[4]	1 5/8	1.5	0.059	20°	2.336	5.15	85700	19300	108000	24500
5215[3]	75	2.9528	0.015	0.0006	130	5.1181	0.018	0.0007	41.28	1.625[4]	1 5/8	1.5	0.059	30°	2.336	5.15	137000	31000	144000	32500
5216[3]	80	3.1496	0.015	0.0006	140	5.5118	0.018	0.0007	44.45	1.750[4]	1 3/4	2.0	0.079	30°	2.867	6.32	162000	36500	168000	38000
5217[3]	85	3.3465	0.020	0.0008	150	5.9055	0.018	0.0007	49.23	1.938[5]	1 15/16	2.0	0.079	30°	3.629	8.00	177000	40000	188000	42500
5218W	90	3.5433	0.020	0.0008	160	6.2992	0.025	0.0010	52.37	2.062[5]	2 1/16	2.0	0.079	20°	4.518	9.96	191000	43000	202000	45500
5219[3]	95	3.7402	0.020	0.0008	170	6.6929	0.025	0.0010	55.58	2.188[5]	2 3/16	2.0	0.079	30°	5.411	11.93	235000	53000	244000	55000
5220W	100	3.9370	0.020	0.0008	180	7.0866	0.025	0.0010	60.32	2.375[5]	2 3/8	2.0	0.079	20°	6.541	14.42	253000	57000	259000	58500
5221W	105	4.1339	0.020	0.0008	190	7.4803	0.030	0.0012	65.10	2.563[5]	2 9/16	2.0	0.079	20°	7.537	16.60	301000	67600	300000	67500
5222[3]	110	4.3307	0.020	0.0008	200	7.8740	0.030	0.0012	69.85	2.750[5]	2 3/4	2.0	0.079	30°	9.503	20.95	339000	76500	326000	73500

[1] Maximum shaft or housing fillet radius that bearing corners will clear.
[2] Sizes have PRB molded nylon retainers.
[3] These sizes have contact angle converging inside the bearing.
[4] Width tolerance is +.00 mm to -.15 mm (+.000 to -.006").
[5] Width tolerance is +.00 mm to -.20 mm (+.000 to -.008").
[6] Based on 10^6 revolutions of calculated fatigue life.

Note: See page D45 for Shield and Snap Ring Combinations.

MEDIUM 5300 SERIES

- Features the same bores and outside diameters as corresponding bearings in the 300 Series single-row radial type.
- Double-row angular contact ball bearings meet the demand for increased axial and radial rigidity in applications where design limits space.
- Available in Conrad and maximum capacity types.
- Suffix “K” denotes Conrad type (example: 5303K).
- Suffix “W” or no suffix denotes maximum capacity type (examples: 5312W, 5319).
- Please note that these double-row series bearings are not prelubricated.



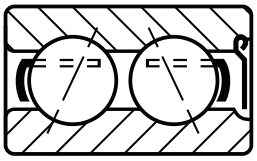
DIMENSIONS – TOLERANCES

Bearing Number	Bore d tolerance +0.000 mm +0.0000" to minus				Outside Diameter D tolerance +0.000 mm +0.0000" to minus				Width C +0.00 mm, -0.12 mm +0.000", -0.005"			Fillet Radius(1)		Contact Angle	Wt.		Static Load Rating C_0		Extended Dynamic Load Rating C_E(6)	
	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	in.	mm	in.		kg	lbs.	N	lbs.	N	lbs.
5302	15	0.5906	0.008	0.0003	42	1.6535	0.012	0.00045	19.05	0.75	3/4	1.0	0.039	20°	0.141	0.31	9200	2080	16800	3800
5303K	17	0.6693	0.008	0.0003	47	1.8504	0.012	0.00045	22.22	0.875	7/8	1.0	0.039	20°	0.191	0.42	12600	2850	22600	5100
5304K(2)	20	0.7874	0.010	0.0004	52	2.0472	0.013	0.0005	22.22	0.875	7/8	1.0	0.039	20°	0.222	0.49	15300	3450	28400	6400
5305K(2)	25	0.9843	0.010	0.0004	62	2.4409	0.013	0.0005	25.4	1.000	1	1.0	0.039	20°	0.367	0.81	21100	4750	37700	8500
5306K	30	1.1811	0.010	0.0004	72	2.8346	0.013	0.0005	30.17	1.188	1 3/16	1.0	0.039	20°	0.612	1.35	29000	6550	47000	10600
5306W	30	1.1811	0.010	0.0004	72	2.8346	0.013	0.0005	30.17	1.188	1 3/16	1.0	0.039	30°	0.612	1.35	41000	9300	62000	14000
5307K	35	1.3780	0.012	0.00047	80	3.1496	0.013	0.0005	34.93	1.375	1 3/8	1.5	0.059	20°	0.871	1.92	36000	8300	59500	13400
5307W	35	1.3780	0.012	0.00047	80	3.1496	0.013	0.0005	34.93	1.375	1 3/8	1.5	0.059	30°	0.871	1.92	47900	10800	69200	15600
5308K	40	1.5748	0.012	0.00047	90	3.5433	0.015	0.0006	36.53	1.438	1 7/16	1.5	0.059	20°	1.139	2.51	46000	10400	72400	16300
5308W	40	1.5748	0.012	0.00047	90	3.5433	0.015	0.0006	36.53	1.438	1 7/16	1.5	0.059	30°	1.139	2.51	66600	15000	90600	20400
5309K	45	1.7717	0.012	0.00047	100	3.9370	0.015	0.0006	39.67	1.562	1 9/16	1.5	0.059	20°	1.433	3.16	56400	12700	87000	19600
5309W	45	1.7717	0.012	0.00047	100	3.9370	0.015	0.0006	39.67	1.562	1 9/16	1.5	0.059	30°	1.433	3.16	81000	18300	106000	24000
5310K	50	1.9685	0.012	0.00047	110	4.3307	0.015	0.0006	44.45	1.750	1 3/4	2.0	0.079	20°	2.091	4.61	73000	16600	111000	25000
5310W	50	1.9685	0.012	0.00047	110	4.3307	0.015	0.0006	44.45	1.750	1 3/4	2.0	0.079	30°	2.091	4.61	97000	22000	126000	28500
5311K	55	2.1654	0.015	0.0006	120	4.7244	0.015	0.0006	49.22	1.938(3)	1 15/16	2.0	0.079	20°	2.722	6.00	86700	19500	124400	28000
5311W	55	2.1654	0.015	0.0006	120	4.7244	0.015	0.0006	49.22	1.938(3)	1 15/16	2.0	0.079	20°	2.722	6.00	113000	25500	144000	32500
5312W	60	2.3622	0.015	0.0006	130	5.1181	0.018	0.0007	53.98	2.125(3)	2 1/8	2.0	0.079	20°	3.423	7.54	151000	34000	191000	43000
5313W	65	2.5591	0.015	0.0006	140	5.5118	0.018	0.0007	58.72	2.312(3)	2 5/16	2.0	0.079	20°	4.163	9.17	173000	39000	213000	48000
5314W	70	2.7559	0.015	0.0006	150	5.9055	0.018	0.0007	63.50	2.500(3)	2 1/2	2.0	0.079	20°	5.362	11.82	195000	44000	239000	54000
5315W	75	2.9528	0.015	0.0006	160	6.2992	0.025	0.0010	68.30	2.689(3)	2 11/16	2.0	0.079	20°	6.428	14.17	222000	50000	266000	60000
5316W	80	3.1496	0.015	0.0006	170	6.6929	0.025	0.0010	68.28	2.688(3)	2 11/16	2.0	0.079	20°	7.366	16.24	248000	56000	284000	64000
5317W	85	3.3465	0.020	0.0008	180	7.0866	0.025	0.0010	73.02	2.875(4)	2 7/8	2.5	0.098	20°	8.827	19.46	279000	63000	308000	69500
5318W	90	3.5433	0.020	0.0008	190	7.4803	0.030	0.0012	73.02	2.875(4)	2 7/8	2.5	0.098	20°	9.616	21.20	308000	69500	333000	75000
5319W	95	3.7402	0.020	0.0008	200	7.8740	0.030	0.0012	77.77	3.062(4)	3 1/16	2.5	0.098	30°	11.562	25.49	319000	72000	333000	75000
5320W	100	3.9370	0.020	0.0008	215	8.4646	0.030	0.0012	82.55	3.250(4)	3 1/4	2.5	0.098	20°	14.333	31.57	377000	85000	377000	85000
5322W	110	4.3307	0.020	0.0008	240	9.4488	0.030	0.0012	92.08	3.625(4)	3 5/8	2.5	0.098	20°	20.153	44.43	479000	108000	453000	102000
5324W	120	4.7244	0.020	0.0008	260	10.2362	0.035	0.0014	104.78	4.125(4)	4 1/8	2.5	0.098	20°	28.291	62.37	555000	125000	497000	112000
5328W	140	5.5118	0.025	0.0010	300	11.8110	0.035	0.0014	114.30	4.500(5)	4 1/2	3.0	0.118	20°	38.102	84.00	630000	140000	570000	129000

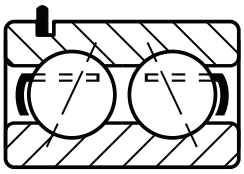
(1) Maximum shaft or housing fillet radius that bearing corners will clear.
(2) Sizes have PRB molded nylon retainers.
(3) Width tolerance is +.00 mm to -.15 mm (+.000 to -.006").
(4) Width tolerance is +.00 mm to -.20 mm (+.000 to -.008").
(5) Width tolerance is +.00 mm to -.25 mm (+.000 to -.010").
(6) Based on 10^6 revolutions of calculated fatigue life.

Note: See opposite page for shield and snap ring combinations.

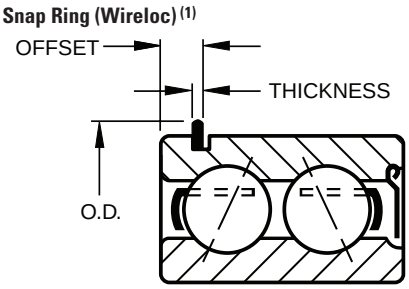
SHIELD AND SNAP RING COMBINATIONS



One Shield D



Open Type G



One Shield DG

5200 SERIES

Bearing Number	Width +0.00 mm, -.12 mm +0.000", -.005"		Wt.		Bearing Number	Snap Ring(1) O.D.		Thickness		Offset		Wt.	
	mm	in.	in.	kg	lbs.		mm	in.	mm	in.	mm	in.	kg	lbs.
5200KDD2	15.88	0.625(3)	5/8	0.054	0.12	—	34.5	1 23/64	1.07	0.042	3.05	0.120	—	—
5201KD(DD)	15.88	0.625	5/8	0.064	0.14	—	36.5	1 7/16	1.07	0.042	3.05	0.120	—	—
—	—	—	—	—	—	—	39.3	1 35/64	1.07	0.042	3.05	0.120	—	—
5203KD(KDD3)	17.48	0.688	11/16	0.159	0.35	5203KDG	44.4	1 3/4	1.07	0.042	3.05	0.120	0.127	0.28
5204KD	20.62	0.812	13/16	0.118	0.26	5204KG	52.4	2 1/16	1.07	0.042	3.45	0.136	0.150	0.33
5205KD	22.22	0.875	7/8	0.204	0.45	5205KG	57.5	2 17/64	1.07	0.042	3.45	0.136	0.200	0.44
5206WD	26.97	1.062	1 1/16	0.336	0.74	5206WG(KG)	67.5	2 21/32	1.65	0.065	4.83	0.190	0.331	0.73
5207WD	30.17	1.188	1 3/16	0.546	1.21	5207KG	78.2	3 5/64	1.65	0.065	4.83	0.190	—	—
5208WD	30.17	1.188	1 3/16	0.662	1.46	—	86.5	3 13/32	1.65	0.065	4.83	0.190	—	—
5209WD	30.17	1.188	1 3/16	0.712	1.57	5209WG(KG)	91.3	3 19/32	1.65	0.065	4.83	0.190	0.721	1.59
5210WD	33.32	1.312	1 5/16	0.816	1.80	5210WG(KG)	96.4	3 51/64	2.41	0.095	5.59	0.220	0.771	1.70
5211WD	33.32	1.312	1 5/16	1.043	2.30	5211WG(KG)	106.4	4 3/16	2.41	0.095	5.59	0.220	1.066	2.35
5212WD	39.67	1.562	1 9/16	1.497	3.30	5212WG(KG)	116.3	4 37/64	2.41	0.095	5.59	0.220	1.424	3.14
5213WD	—	—	—	—	—	—	129.4	5 3/32	2.77	0.109	6.73	0.265	—	—
5214WD(2)	39.67	1.562	1 9/16	2.137	4.71	—	134.5	5 19/64	2.77	0.109	6.73	0.265	—	—
—	—	—	—	—	—	5215G(2)	139.7	5 1/2	2.77	0.109	6.73	0.265	2.327	5.13
5216DD(2)	47.62	1.875	1 7/8	3.062	6.75	5216G(2)	149.6	5 57/64	2.77	0.109	7.54	0.297	2.962	6.53
—	—	—	—	—	—	5217G(2)	159.5	6 9/32	2.77	0.109	7.54	0.297	3.724	8.21
5218WD	52.37	2.062	2 1/16	4.504	9.93	—	169.5	6 43/64	2.77	0.109	7.54	0.297	—	—
—	—	—	—	—	—	5219G(2)	182.6	7 3/16	3.05	0.120	8.61	0.339	5.498	12.12

5300 SERIES

Bearing Number	Width +0.00 mm, -.12 mm +0.000", -.005"		Wt.		Bearing(4) Number	Snap Ring(1) O.D.		Thickness		Offset		Wt.	
	mm	in.	in.	kg	lbs.		mm	in.	mm	in.	mm	in.	kg	lbs.
5303KDD	22.25	0.875	7/8	—	—	5303KG	52.4	2 1/16	1.07	0.042	3.45	0.136	0.227	0.50
5304KDD	22.25	0.875	7/8	—	—	5304KG	57.6	2 17/64	1.07	0.042	3.45	0.136	0.231	0.51
5305KDD2	25.4	1.000	1	—	—	5305KG	67.5	2 21/32	1.65	0.065	4.83	0.190	0.376	0.83
5306WD	33.32	1.312	1 5/16	0.640	1.41	5306WG(KG)	78.2	3 5/64	1.65	0.065	4.83	0.190	0.608	1.34
5307WD	38.10	1.500	1 1/2	0.857	1.89	5307WG(KG)	86.5	3 13/32	1.65	0.065	4.83	0.190	0.807	1.78
5308WD	39.67	1.562	1 9/16	1.143	2.52	5308WG(KG)	96.4	3 51/64	2.41	0.095	5.59	0.220	1.102	2.43
5309WD	42.88	1.688	1 11/16	1.665	3.67	5309WG(KG)	106.4	4 3/16	2.41	0.095	5.59	0.220	1.461	3.22
5310WD	47.62	1.875	1 7/8	2.019	4.45	5310WG(KG)	116.3	4 37/64	2.41	0.095	5.59	0.220	1.932	4.26
5311D(4)	52.37	2.062	2 1/16	2.826	6.23	5311WG(KG)	129.4	5 3/32	2.77	0.109	6.73	0.265	2.789	6.15
5312D(4)	57.15	2.250	2 1/4	3.423	7.54	5312WG(KG)	139.7	5 1/2	2.77	0.109	6.73	0.265	3.493	7.70
5313D(4)	61.72	2.438	2 7/16	4.663	10.28	5313WG(KG)	149.6	5 57/64	2.77	0.109	7.54	0.297	4.291	9.46
—	—	—	—	—	—	5314WG(KG)	159.5	6 9/32	2.77	0.109	7.54	0.297	5.466	12.05
						5315KG	169.6	6 43/64	2.77	0.109	7.54	0.297	—	—

(1) The snap ring is normally packaged separately in the box with the bearing.
(2) These sizes have contact angle converging inside bearing (30°).
(3) Inner ring width is 19.05 mm (.7500").
(4) Ring widths are different for these parts. Contact a Timken sales engineer to validate size.

NOTES

WIDE INNER RING

Overview: Wide inner ring ball bearings consist of a single-row ball bearing and an extended inner ring. They carry radial, axial and combination loads. The extended inner ring slips onto the shaft and secures with a locking mechanism.

- **Sizes:** Standard series: 15 mm - 75 mm shaft (0.59 in. - 2.9528 in.).
  Medium and heavy-duty series go larger.
- **Markets:** Agriculture, fans and blowers, food processing and conveyors.
- **Features:** Available with a variety of shaft locking systems: eccentric locking collars, setscrews and concentric locking collars.
- **Benefits:** Designed for ease of mounting and maximum shaft support.

Wide Inner Ring Ball Bearings

Prefixes:
Basic Series and Additional Features

C	concentric collar
E	metric bore
G	relubricatable
1	standard series (200 series bearings)
L	light series
N	heavy series (300 series bearings)
RA	extended inner ring, one side only
SM	standard series (open-type bearings)
SMN	heavy series (open-type bearings)
ER, YA	setscrew locking device series
M	medium duty setscrew lock series

Suffixes:
Internal Construction

K	Conrad, non-filling slot-type
W	maximum capacity filling slot-type

G1 **103** **K** **RRB**

Numbers:
Last three numbers indicate bore size — first in inches, last two in sixteenths

015	$15/16$ in.
103	$1\ 3/16$ in.
203	$2\ 3/16$ in.
25	25 mm (metric)
40	40 mm (metric)

Additional Features

L	one Mechani-seal
LL	two Mechani-seals
PP	two seals
R	one land-riding rubber seal
RR	two land-riding rubber seals
B	spherical outside diameter
S	external self-aligning
PP2, 3, 4, etc.,	- Tri-Ply seals (if preceded by K)
TDC	thin dense chrome plate
F	food grade grease

Wide Inner Ring Ball Bearings

INTRODUCTION

Wide inner ring bearing design for ball bearings that are easily mounted on straight shafts and positioned without shoulders, locknuts or adapters.

The internal bearing construction is basically the same as the deep race, single row radial type with ability to carry radial, thrust and combined loads, while providing low friction qualities. The inner ring is generally extended on both sides of the race to provide additional shaft support, and is locked to the shaft by specially designed setscrews, an eccentric self-locking collar, or a concentric collar. The wide inner ring bearings are also available with cylindrical or spherical outside diameters. The cylindrical or straight O.D. type is used for mounting in straight-bored housings. The spherical O.D. type must be mounted in a corresponding spherical seat and is used to compensate for shaft or housing misalignments.

WIDE INNER RING BEARINGS WITH ECCENTRIC LOCKING COLLARS

The following series are available with the cam (self-locking) collar.

RR SERIES

These bearings feature the flareout, contact type R-Seal which encloses a synthetic rubber impregnated washer between two metal caps. Most sizes incorporate the Shroud-Seal design. R-Seal wide inner ring bearings are available in the following non-relubricatable variations: KR (one seal, cylindrical O.D.), KRR and KRRB (two seals). Relubricatable versions are: G-KRR, G-KRRB and GN-KRRB (heavy-duty).

RR Series

LL SERIES

These bearings are dimensionally interchangeable with the RR Series, but have non-contact labyrinth seals and steel cages for low-torque, high speed and higher temperature service (up to 350° F.)

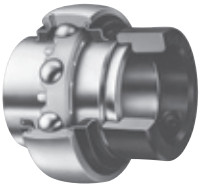
RA-RR SERIES

The RA-RR Series features an extended inner ring and self-locking collar for simple and effective shaft retention in a standard series bearing. The positive contact, land-riding R-Seal provides improved protection against the heavy contamination encountered in many applications. All sizes have a heat stabilized, moisture conditioned 6/6 nylon retainer which has proven effective under conditions of misalignment. RA-RR extended inner ring bearings are available as RA-RR (two-seals, straight O.D.) and RA-RRB (two seals, spherical O.D.). Relubricatable versions are GRA-RR and GRA-RRB.

RA-RR Series

TRI-PLY-SEAL SERIES

Tri-Ply Seal bearings are designed for environments where severe conditions and moisture are present. The one-piece Tri-Ply Seals incorporate a highly effective seal design molded to an exterior shroud cap. The shroud cap protects the seal lips from fiber wrap and abrasion while enhancing the overall sealing effectiveness of the unit. All units incorporate the self-locking collar and have a nylon retainer. Tri-Ply Seal bearings are available in both a non-relubricatable (KPPB) and relubricatable version (G-KPPB).



Tri-Ply Seal Series

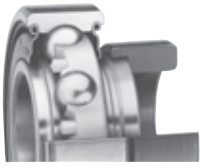
EXTERNAL SELF-ALIGNING SERIES

The construction of this series permits the inner assembly, which contains an open type ball bearing with spherical O.D. to align in the seat of the mating outer ring. The seat of this outer ring is matched with the spherical O.D. of the ball bearing outer ring providing unrestricted self-alignment and allowing the inner assembly to become square and true with the shaft. Self-aligning units are available in both standard SM-S or heavy SMN-S Series.

External Self-Aligning Series

RA-DD SERIES BEARINGS

The RA-DD Series bearings are extended inner ring type with cam locking collars. They incorporate two close fitting non-contact grease shields to effectively retain lubricant and provide protection against harmful contaminants. The non-contact metallic shields provide improved high speed and low-torque performance required for high speed printing press applications. The 6/6 molded nylon retainer has proven effective under conditions of misalignment. These bearings are dimensionally interchangeable and have the same load capacities as the RA-RR Series. (Available in 5/8 in. -1 1/2 in. shaft sizes.)



RA-DD Series

WIDE INNER RING BEARINGS WITH SETSCREW LOCKING DEVICE

The following series are available with the setscrew locking device with special setscrews that are resistant to loosening during operation.

Y SERIES

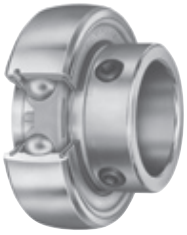
Full width inner ring Y Series bearings increase shaft support in HVAC, conveyors and other industrial applications. They feature superfinished raceways, grade 10 balls and anti-backout nylon patch setscrews. Flexible 6/6 nylon retainers and land-riding shroud seals also ensure excellent performance. They are factory prelubricated and relubricatable setscrew mounting feature is ideal for reversing applications.

Y Series

YA SERIES

The YA Series relubricatable and non-relubricatable bearings are an extended inner ring type with specially designed setscrews. Positive contact land-riding R-Seals provide protection against harmful contaminants and retain lubricant.

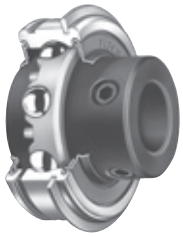
Setscrew series bearings are available in both non-relubricatable version YA and relubricatable version GYA-RRB. Both types have nylon retainers.



YA Series

ER SERIES

This series offers industry standard mounting dimensions and standard nomenclature for a large variety of sizes of relubricatable, extended inner ring bearings for through-bored housings. All bearings in this series have nylon retainers and are equipped with snap rings, eliminating the need for machining housing shoulders. ER bearings are designed with a unique setscrew locking device that locks bearing to shaft and is resistant to loosening during operation. Positive contact land-riding R-Seals provide protection against harmful contaminants and retain lubricant. All ER bearings are black oxide coated for corrosion resistance. Ideal for low-starting and running torque applications.



ER Series

WIDE INNER RING BEARINGS WITH CONCENTRIC COLLARS

GC SERIES

The GC Series wide inner ring bearings are relubricatable with spherical outside diameters, nylon retainers and shroud seals. The metal shroud maintains tight seal contact against the inner ring and shields the rubber seals from damage due to dirt or fiber wrap. The concentric collar is locked to the shaft by two setscrews, located 120 degrees apart, mated with threaded holes in the collar and drilled holes in the bearing inner ring.

GC Series

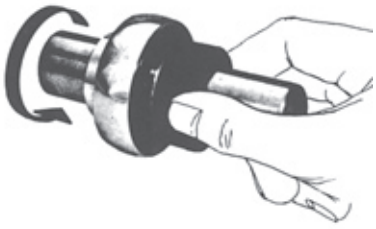
YM MEDIUM DUTY SERIES

The Timken Medium Duty Series offers reliable performance and extended life for applications which see heavier loads. This series has been designed with a combination of premium features – such as superfinished raceways and a nylon patch setscrew locking device, as an ideal package for demanding conditions. These superior bearing inserts will operate with reduced levels in noise, vibration and friction and are the choice antifriction component for saw and paper mill applications, as well as fan and blower assemblies, food and grain handling and conveyor systems.

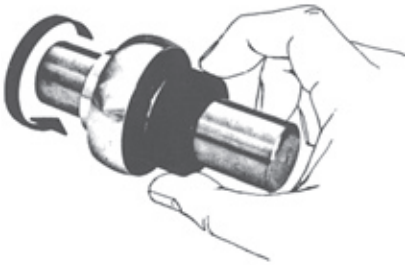
YM Series

CAM (SELF-LOCKING) COLLAR

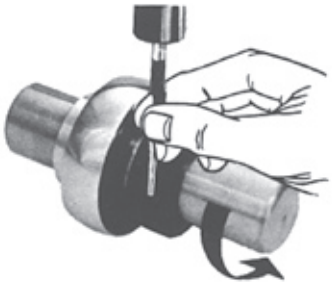
1. Observe cam design of the wide inner ring and self-locking collar.



2. Mate the cam of the collar with the cam of the wide inner ring.



3. Press the locking collar against the wide inner ring and turn in the direction of shaft rotation until tightly engaged.



4. With drift pin in collar hole, strike in direction of shaft rotation to lock.

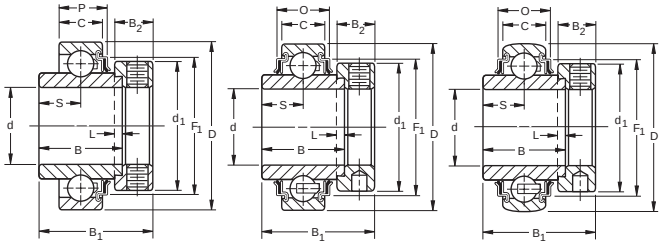
   For stationary shafts and outer ring rotation, turn the collar in opposite direction of rotation.

5. Tighten setscrew in collar.

KR, KRR, KRRB INDUSTRIAL SERIES NON-RELUBRICATABLE TYPES

- Designed for extremely dirty or wet conditions.
- Feature R-Seals with flared lips that firmly contact the ground O.D. of the inner ring.
- R-Seals provide a positive seal against dirt and other contaminants while effectively retaining the lubricant.
- Equipped with Shroud-Seals, providing extra effectiveness and protection.
- Extra-wide design provides additional shaft support and extra-large grease capacity.

Suggested shaft tolerances: 1/2"-1 15/16", nominal to -.013 mm, -.0005"; 2"- 2 15/16", nominal to - .025 mm, -.0010".



KR One Seal Cylindrical O.D. | KRR Two Seals Cylindical O.D. | KRRB Two Seals Spherical O.D.

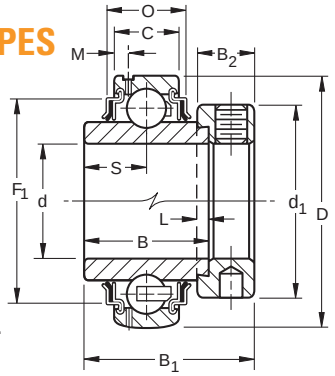
TO ORDER, SPECIFY BEARING NUMBER FOLLOWED BY "+ COL". Example: 1103KRRB + COL.

Bearing Number (Spherical O.D.)			Collar Number	Basic Outer Ring Size	Bore[1] d	O.D. D	Ring Widths B Inner	Ring Widths C Outer	S	L	d_1	B_2	B_1	F_1	O	P	Brg. & Collar Wt.		Static Load Rating C_o	Extended Dynamic Load Rating C_E
					mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	kg	lbs.	N / lbs.	N / lbs.
–	1008KRR	(KRRB)	S1008K		1/2												0.154	0.34		
1010KR	1010KRR	(KRRB)	S1010K	203	5/8	40	27.78	12	13.9	4.0	28.6	13.5	37.3	34.01	16.56	14.27	0.145	0.32	4700	10700
–	1011KRR	(KRRB)	S1011K		11/16	1.5748	1 3/32	0.472	35/64	5/32	1 1/8	17/32	1 15/32	1.339	0.652	0.562	0.122	0.27	1060	2400
–	E17KRR	(KRRB)	SE17K		17												0.122	0.27		
1012KR	1012KRR	(KRRB)	S1012K	204	3/4	47	34.13	14	17.1	4.0	33.3	13.5	43.7	38.91	16.56	15.29	0.204	0.45	6200	14300
–	E20KRR	(KRRB)	SE20K		20	1.8504	1 11/32	0.551	43/64	5/32	1 5/16	17/32	1 23/32	1.532	0.652	0.602	0.204	0.45	1400	3200
–	1013KRR	(KRRB)	S1013K		13/16												0.286	0.63		
–	1014KRR	(KRRB)	S1014K	205	7/8												0.272	0.6		
1015KR	1015KRR	(KRRB)	S1015K		15/16	52	34.92	15	17.5	4.0	38.1	13.5	44.1	45.19	16.66	15.82	0.254	0.56	7700	15800
1100KR	1100KRR	(KRRB)	S1100K		1	2.0472	1 3/8	0.591	11/16	5/32	1 1/2	17/32	1 47/64	1.779	0.656	0.623	0.231	0.51	1730	3550
–	E25KRR	(KRRB)	SE25K		25												0.231	0.51		
–	1101	(KRRB)	S1101K		1 1/16												0.413	0.91		
1102KR	1102KRR	(KRRB)	S1102K		1 1/8	62	36.51	16	18.3	4.0	44.4	15.9	48.4	52.53	19.56	17.78	0.404	0.89	11100	21200
1103KR	1103KRR	(KRRB)	S1103K	206	1 3/16	2.4409	1 7/16	0.630[2]	23/32	5/32	1 3/4	5/8	1 29/32	2.068	0.770	0.700	0.376	0.83	2500	4900
–	1103KRR3	(KRRB3)	S1103K3		1 1/4												0.349	0.77		
–	E30KRR	(KRRB)	SE30K		30												0.376	0.83		
1104KR	1104KRR	(KRRB)	S1104K		1 1/4												0.653	1.44		
–	1105KRR	(KRRB)	S1105K	207	1 5/16	72	37.70	17	18.85	4.0	54.0	17.1	51.2	60.55	19.69	18.34	0.603	1.33	15100	28500
–	1106KRR	(KRRB)	S1106K		1 3/8	2.8346	1 31/64	0.669[3]	0.742	5/32	2 1/8	43/64	2 1/64	2.384	0.775	0.722	0.572	1.26	3400	6400
1107KR	1107KRR	(KRRB)	S1107K		1 7/16												0.544	1.2		
–	E35KRR	(KRRB)	SE35K		35												0.572	1.26		
1108KR	1108KRR	(KRRB)	S1108KT		1 1/2	80	42.86	18	21.4	4.8	60.3	18.3	56.4	67.79	20.45	19.28	0.789	1.74	19600	36000
–	1109KRR	(KRRB)	S1109KT	208	1 9/16	3.1496	1 11/16	0.709[4]	27/32	3/16	2 3/8	23/32	2 7/32	2.669	0.805	0.757	0.739	1.63	4400	8150
–	E40KRR	(KRRB)	SE40K		40												0.739	1.63		
–	1110KRR	(KRRB)	S1110K		1 5/8												0.898	1.98		
1111KR	1111KRR	(KRRB)	S1111K	209	1 11/16	85	42.86	19	21.4	4.8	63.5	18.3	56.4	73.86	24.18	21.59	0.848	1.87	20000	36000
1112KR	1112KRR	(KRRB)	S1112K		1 3/4	3.3465	1 11/16	0.748	27/32	3/16	2 1/2	23/32	2 7/32	2.908	0.952	0.850	0.825	1.82	4500	8150
–	E45KRR	(KRRB)	SE45K		45												0.825	1.82		
–	1114KRR	(KRRB)	S1114K		1 7/8	90	49.21	20[5]	24.6	4.8	69.9	18.3	62.7	77.7	24.51	22.25	1.057	2.33	22709	39000
1115KR[6]	1115KRR	(KRRB)	S1115K	210	1 15/16	3.5433	1 15/16	0.787[5]	31/32	3/16	2 3/4	23/32	2 15/32	3.059	0.965	0.876	1.000	2.18	5100	8800
–	E50KRR	(KRRB)	SE50K		50												1.000	2.18		
1200KR	1200KRR	(KRRB)	S1200K		2												1.520	3.35		
–	1202KRR	(KRRB)	S1202K	211	2 1/8	100	55.56	21	27.8	4.8	76.2	20.6	71.4	87.17	27.41	24.21	1.356	2.99	28500	48000
1203KR	1203KRR	(KRRB)	S1203K		2 3/16	3.9370	2 3/16	0.827	1 3/32	3/16	3	13/16	2 13/16	3.432	1.079	0.953	1.306	2.88	6400	10800
–	E55KRR	(KRRB)	SE55K		55												1.306	2.88		
–	1204KRR	(KRRB)	S1204K		2 1/4	110	61.91	22	31	6.4	84.1	22.2	77.8	94.89	30.02	26.01	1.715	3.78	35600	58500
1207KR	1207KRR	(KRRB)	S1207K	212	2 7/16	4.3307	2 7/16	0.866	1 7/32	1/4	3 5/16	7/8	3 1/16	3.736	1.182	1.024	1.565	3.45	8000	13200
–	E60KRR	(KRRB)	SE60K		60												1.615	3.56		
–	1215KRR	(KRRB)	S1215K	215	2 15/16	130	74.61	25	37.3	6.4	101.6	23.8	91.2	113.13	34.03	—	2.640	5.82	43600	69500
–	E75KRR	(KRRB)	SE75K		75	5.1181	2 15/16	0.984	1 15/32	1/4	4	15/16	3 5/8	4.454	1.340	—	2.640	5.82	9800	15600

[1] Bore tolerances: 1/2" - 2 3/16" nominal to .013 mm, +.0005; 2 1/4" - 2 15/16" nominal to +.015 mm, +.0006".
[2] Spherical O.D. outer ring width is 18 mm, .709".
[3] Spherical O.D. outer ring width is 19 mm, .748".
[4] Spherical O.D. outer ring width is 21 mm, .827".
[5] Spherical O.D. outer ring width is 22 mm, .866".
[6] Available with spherical O.D. To order, add suffix B. Example 1115KRRB.

G-KRR, G-KRRB INDUSTRIAL SERIES RELUBRICATABLE TYPES

- The G-KRR Series wide inner ring bearings are the same as RR Series and have a provision for relubrication.
- Designed for extremely dirty or wet conditions.
- Includes R-Seals with flared lips that firmly contact the ground O.D. of the inner ring. The inner ring provides a positive seal against dust, dirt and other contaminants and effectively retains the lubricant.
- G-KRR Series bearings are equipped with Shroud-Seals, providing extra effectiveness and protection.
- Extra-wide design provides additional shaft support and extra-large grease capacity.



Suggested shaft tolerances: 1/2" - 1 15/16", nominal to -.013 mm, -.0005";
2" - 2 15/16", nominal to -.025 mm, -.0010".

TO ORDER, SPECIFY BEARING NUMBER FOLLOWED BY "+ COL". Example: G1010KRRB + COL.

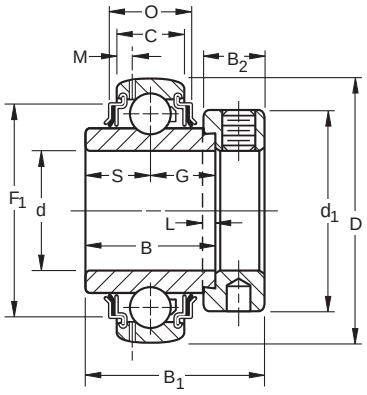
Bearing Number Cylindrical O.D.	Bearing Number Spherical O.D.	Collar Number	Basic Outer Ring Size	Bore(1) d mm	Bore(1) d in.	O.D. D mm	O.D. D in.	Ring Widths B Inner mm	Ring Widths B Inner in.	Ring Widths C Outer mm	Ring Widths C Outer in.	S mm	S in.	L mm	L in.	d_1 mm	d_1 in.	B_2 mm	B_2 in.	B_1 mm	B_1 in.	F_1 mm	F_1 in.	O mm	O in.	P mm	P in.	Brg. & Collar Wt. kg	Brg. & Collar Wt. lbs.	Static Load Rating C_0 N	Static Load Rating C_0 lbs.	Extended Dynamic Load Rating C_E N	Extended Dynamic Load Rating C_E lbs.
—	G1008KRRB	S1008K			1/2																							0.154	0.34				
—	G1009KRRB	S1009K			9/16																							0.141	0.31				
G1010KRR	G1010KRRB	S1010K	203		5/8	40	1.5748	27.78	1 3/32	12	0.472	13.9	35/64	4.0	5/32	28.6	1 1/8	13.5	17/32	2.72	0.107	37.3	1 15/32	34.01	1.339	16.56	0.652	0.141	0.31	4700	1060	10700	2400
G1011KRR	G1011KRRB	S1011K			11/16																							0.118	0.26				
GE17KRR	GE17KRRB	SE17K		17																								0.118	0.26				
G1012KRR	G1012KRRB	S1012K	204		3/4	47	1.8504	34.13	1 11/32	14	0.551	17.1	43/64	4.0	5/32	33.3	1 5/16	13.5	17/32	3.43	0.135	43.7	1 23/32	38.91	1.532	17.3	0.681	0.204	0.45	6200	1400	14300	3200
GE20KRR	GE20KRRB	SE20K		20																								0.204	0.45				
—	G1013KRRB	S1013K			13/16																							0.286	0.63				
G1014KRR	G1014KRRB	S1014K	205		7/8	52	2.0472	34.92	1 3/8	15	0.591	17.5	11/16	4.0	5/32	38.1	1 1/2	13.5	17/32	3.86	0.152	44.4	1 3/4	45.19	1.779	16.66	0.656	0.263	0.58	7700	1730	15800	3550
G1015KRR	G1015KRRB	S1015K			15/16																							0.240	0.53				
G1100KRR	G1100KRRB	S1100K			1																							0.227	0.50				
GE25KRR	GE25KRRB	SE25K		25																								0.227	0.50				
G1101KRR	G1101KRRB	S1101K			1 1/16																							0.417	0.92				
G1102KRR	G1102KRRB	S1102K			1 1/8	62	2.4409	36.51	1 7/16	18	0.709	18.3	23/32	4.0	5/32	44.1	1 47/64	15.9	5/8	3.96	0.156	48.4	1 29/32	52.53	2.068	21.56	0.849	0.404	0.89	11100	2500	21800	4900
G1103KRR	G1103KRRB	S1103K	206		1 3/16																							0.376	0.83				
—	G1103KRRB3	S1103K3			1 1/4																							0.349	0.77				
GE30KRR	GE30KRRB	SE30K		30																								0.376	0.83				
G1104KRR	G1104KRRB	S1104K			1 1/4																							0.653	1.44				
—	G1105KRRB	S1105K	207		1 5/16	72	2.8346	37.70	1 31/64	19	0.748	18.85	0.742	4.0	5/32	54.0	2 1/8	17.1	43/64	3.68	0.145	51.2	2 1/64	60.55	2.384	21.74	0.856	0.617	1.36	15100	3400	28500	6400
G1106KRR	G1106KRRB	S1106K			1 3/8																							0.585	1.29				
G1107KRR	G1107KRRB	S1107K			1 7/16																							0.562	1.24				
GE35KRR	GE35KRRB	SE35K		35																								0.585	1.29				
G1108KRR	G1108KRRB	S1108KT			1 1/2	80	3.1496	42.86	1 11/16	21	0.827	21.4	27/32	4.8	3/16	60.3	2 3/8	18.3	23/32	4.06	0.16	56.4	2 7/32	67.79	2.669	23.44	0.923	0.812	1.79	19600	4400	36000	8150
—	G1109KRRB	S1109KT	208		1 9/16																							0.771	1.70				
GE40KRR	GE40KRRB	SE40K		40																								0.771	1.70				
G1110KRR	G1110KRRB	S1110K			1 5/8																							0.925	2.04				
G1111KRR	G1111KRRB	S1111K	209		1 11/16	85	3.3465	42.86	1 11/16	22	0.866	21.4	27/32	4.8	3/16	63.5	2 1/2	18.3	23/32	4.55	0.179	56.4	2 7/32	73.86	2.908	27.18	1.07	0.880	1.94	20000	4500	36000	8150
G1112KRR	G1112KRRB	S1112K			1 3/4																							0.835	1.84				
GE45KRR	GE45KRRB	SE45K		45																								0.835	1.84				
—	G1113KRR	S1113K			1 13/16																							1.116	2.46				
—	G1114KRRB	S1114K			1 7/8	90	3.5433	49.21	1 15/16	23	0.903(2)	24.6	31/32	4.8	3/16	69.9	2 3/4	18.3	23/32	4.7	0.185	62.7	2 15/32	77.7	3.059	27.51	1.083	1.034	2.28	22700	5100	39200	8800
G1115KRR	G1115KRRB	S1115K	210		1 15/16																							1.016	2.24				
GE50KRR	GE50KRRB	SE50K		50																								1.016	2.24				
G1200KRR	G1200KRRB	S1200K			2																							1.583	3.49				
—	G1201KRRB	S1201K			2 1/16	100	3.937	55.56	2 3/16	25	0.983(3)	27.8	1 3/32	4.8	3/16	76.2	3	20.6	13/16	5.0	0.197	71.4	2 13/16	87.17	3.432	29.01	1.142	1.470	3.24	28500	6400	48000	10800
—	G1202KRRB	S1202K	211		2 1/8																							1.406	3.10				
G1203KRR	G1203KRRB	S1203K			2 3/16																							1.365	3.01				
GE55KRR	GE55KRRB	SE55K		55																								1.365	3.01				
—	G1204KRRB	S1204K			2 1/4																							2.041	4.50				
—	G1205KRRB	S1205K	212		2 5/16	110	4.3307	61.91	2 7/16	27	1.063	31	1 7/32	6.4	1/4	84.1	3 5/16	22.2	7/8	5.13	0.202	77.8	3 1/16	94.89	3.736	35.03	1.379	1.923	4.24	35600	8000	58800	13200
—	G1206KRRB	S1206K			2 3/8																							1.846	4.07				
G1207KRR	G1207KRRB	S1207K			2 7/16																							1.778	3.92				
GE60KRR	GE60KRRB	SE60K		60																								1.846	4.07				
—	G1210KRRB	S1210K			2 5/8	125	4.9213	68.26	2 11/16	28	1.102	34.1	1 11/32	6.4	1/4	96.8	3 13/16	23.8	15/16	5.08	0.2	79.4	3 1/8	109.17	4.298	35.94	1.415	2.681	5.91	43000	9650	69500	15600
—	G1211KRRB	S1211K	214		2 11/16																							2.585	5.70				
—	GE70KRRB	SE70K		70																								2.585	5.70				
—	G1212KRRB	S1212K			2 3/4																							3.084	6.80				
—	G1213KRRB	S1213K	215		2 13/16	130	5.1181	74.61	2 15/16	29	1.142	37.3	1 15/32	6.4	1/4	101.6	4	23.8	15/16	5.56	0.219	92.1	3 5/8	113.13	4.454	38.03	1.497	2.976	6.56	43600	9800	69500	15600
—	G1214KRRB	S1214K			2 7/8																							2.867	6.32				
—	G1215KRRB	S1215K			2 15/16																							2.753	6.07				
—	GE75KRRB	SE75K		75																								2.753	6.07				

(1) Bore tolerances: 1/2" - 2 3/16", nominal to .013 mm, +.0005".
2 1/4" - 2 15/16", nominal to .015 mm, +.0006".

(2) Spherical O.D. outer ring width is 22 mm, .866".
(3) Spherical O.D. outer ring width is 24 mm, .945".

GN-KRRB HEAVY SERIES RELUBRICATABLE TYPE

- The heavy series R-Seal bearings are similar to the standard series and designed to withstand continuous, heavy or shock loads.
- This series has heavier section 300 Series bearings. They include a considerably thicker sealing member in the contact-type diaphragm seal.
- The design of the series assures complete retention of the lubricant and positive exclusion of all contaminants.



Suggested shaft tolerances: 1 3/16" - 1 15/16", nominal to -.013 mm, -.0005";
2" - 3 15/16", nominal to -.025 mm, -.0010".

TO ORDER, SPECIFY BEARING NUMBER FOLLOWED BY "+ COL". Example: GN303KRRB + COL.

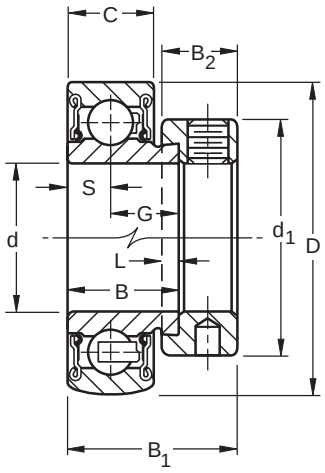
Bearing Number	Collar Number	Basic Outer Ring Size	Bore(1) d	O.D. D	Ring Widths B Inner	Ring Widths C Outer	S	G	L	d_1	B_2	M	B_1	F_1	O	Brg. & Collar Wt.		Static Load Rating C_o	Extended Dynamic Load Rating C_E
			in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg	lbs.	N lbs.	N lbs.
GN103KRRB	SN103K	306	1 3/16	72 2.8346	36.51 1 7/16	20 0.787	17.5 11/16	19.1 3/4	4 5/32	49.2 1 15/16	17.5 11/16	3.61 0.142	50 1 31/32	60.17 2.369	23.5 0.925	0.553	1.22	15600 3550	33500 7500
GN104KRRB	SN104K		1 1/4													0.762	1.68		
GN105KRRB	SN105K	307	1 5/16	80	38.10	22	18.3	19.8	4	55.6	17.5	3.96	51.6	67.01	27	0.744	1.64	20000	40500
GN106KRRB	SN106K		1 3/8	3.1496	1 1/2	0.866	23/32	25/32	5/32	2 3/16	11/16	0.156	2 1/32	2.638	1.063	0.726	1.6	4500	9150
GN107KRRB	SN107K		1 7/16													0.708	1.56		
GN108KRRB(2)	SN108K	308	1 1/2	90 3.5433	41.28 1 5/8	25 0.984	19.8 25/32	21.4 27/32	4.8 3/16	63.5 2 1/2	20.6 13/16	4.62 0.182	57.2 2 1/4	75.06 2.955	26.67 1.05	1.152	2.54	24500 5500	49000 11000
GN110KRRB	SN110K	309	1 5/8	100	42.86	27	19.8	23	4.8	69.9	20.6	5	58.7	82.58	28.52	1.656	3.65	30000	58500
GN111KRRB	SN111K		1 11/16	3.9370	1 11/16	1.063	25/32	29/32	3/16	2 3/4	13/16	0.197	2 5/16	3.251	1.123	1.456	3.21	6700	13200
GN112KRRB	SN112K		1 3/4													1.388	2.95		
GN114KRRB	SN114K	310	1 7/8	110	49.21	29	24.6	24.6	4.8	75.8	22.2	5.36	66.7	82.87	30.86	1.973	4.35	35500	68000
GN115KRRB	SN115K		1 15/16	4.3307	1 15/16	1.142	31/32	31/32	3/16	2 63/64	7/8	0.211	2 5/8	3.654	1.215	1.905	4.2	8000	15300
GN200KRRB	SN200K	311	2	120	55.56	31	27.8	27.8	4.8	82.6	22.2	5.49	73	101.78	37.47	2.132	4.7	41500	80000
GN203KRRB	SN203K		2 3/16	4.7244	2 3/16	1.22	1 3/32	1 3/32	3/16	3 1/4	7/8	0.216	2 7/8	4.007	1.475	2.368	5.22	9300	18000
GN207KRRB	SN207K	312	2 7/16	130	61.91	33	31	31	6.4	88.9	23.8	5.84	79.4	108.52	38.99	2.839	6.26	48000	90000
				5.1181	2 7/16	1.299	1 7/32	1 7/32	1/4	3 1/2	15/16	0.23	3 1/8	4.312	1.535			10800	20400
GN211KRRB	SO211K	314	2 11/16	150	68.26	37	34.1	34.1	6.4	101.6	27	6.73	88.9	126.31	44.96	4.509	9.94	63000	116000
				5.9055	2 11/16	1.457	1 11/32	1 11/32	1/4	4	1 1/16	0.265	3 1/2	4.973	1.77			14300	26000
GN215KRRB	SN215K	315	2 15/16	160	74.61	39	37.3	37.3	6.4	112.7	31.8	6.48	100	133.02	51.13	5.634	12.42	71000	125000
				6.2992	2 15/16	1.535	1 15/32	1 15/32	1/4	4 7/16	1 1/4	0.255	3 15/16	5.273	2.013			16000	28500
GN303KRRB	SN303K	316	3 3/16	170	80.96	41	40.5	40.5	6.4	119.1	31.8	7.26	106.4	142.82	51.05	7.126	15.71	80000	137000
				6.6929	3 3/16	1.614	1 19/32	1 19/32	1/4	4 11/16	1 1/4	0.286	4 3/16	5.623	2.010			18000	30500
GN307KRRB	SN307K	318	3 7/16	190	87.31	45	42.1	42.1	7.9	133.4	36.5	8.18	115.9	161.37	52.63	9.19	20.26	98000	156000
				7.4803	3 7/16	1.772	1 21/32	1 21/32	5/16	5 1/4	1 7/16	0.322	4 9/16	6.353	2.072			22400	33500
GN315KRRB	SN315K	320	3 15/16	215	100.01	49	50	50	7.9	146.1	36.5	7.82	129.6	182.85	59.36	12.233	26.97	132000	193000
				8.4646	3 15/16	1.929	1 31/32	1 31/32	5/16	5 3/4	1 7/16	0.308	5 1/16	7.199	2.337			22900	43000

(1) Bore tolerances: 1 3/16" - 2 3/16", nominal to .013 mm, +.0005"; 2 1/4" - 3 3/16", nominal to .015 mm, +.0006".
(2) Also available with cylindrical O.D. Delete suffix "B". Example: GN108KRR.

RA-RR, RA-RRB STANDARD SERIES NON-RELUBRICATABLE TYPES

- Bearings are an extended inner ring type with self-locking collar.
- Due to the positive contact, the land-riding R-Seal provides improved protection against harmful contaminants and retains lubricant under severe operating conditions.
- RA-RR Series are factory prelubricated and have cylindrical outside diameters.
- RA-RRB Series have spherical outside diameters for use in housings with corresponding spherical inside surfaces to provide unrestricted initial alignment.

Suggested shaft tolerances: **$\frac{1}{2}$"- 1 $\frac{15}{16}$", nominal to -.013 mm, -.0005";**
2" - 2 $\frac{3}{16}$", nominal to -.025 mm, -.0010".



RA-RR Two Seals
Cylindrical O.D.

RA-RRB Two Seals
Spherical O.D.

TO ORDER, SPECIFY BEARING NUMBER FOLLOWED BY "+ COL". Example: RA100RRB + COL.

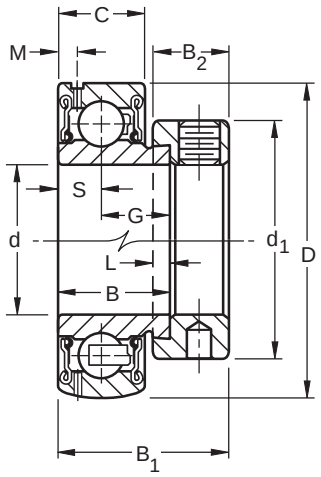
Bearing Number		Collar Number	Basic Outer Ring Size	Bore(1) d	O.D. D	Ring Widths		S	G	L	d_1	B_2	B_1	Brg. & Collar Wt.		Static Load Rating C_o	Extended Dynamic Load Rating C_E
Cylindrical O.D.	Spherical O.D.					B Inner	C Outer										
				mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	kg	lbs.	N / lbs.	N / lbs.
RA008RR	RA008RRB	S1008K		1/2										0.154	0.34		
RA009RR	RA009RRB	S1009K		9/16	40	19.05	13	6.5	12.55	4.0	28.6	13.5	28.6	0.145	0.32	4700	10600
RA010RR	RA010RRB	S1010K	203	5/8	1.5748	0.750	0.512(2)	0.256	0.494	5/32	1 1/8	17/32	1 1/8	0.127	0.28	1060	2360
RAE17RR	RAE17RRB	SE17K		17										0.127	0.28		
RA012RR	RA012RRB	S1012K	204	3/4	47	21.44	15	7.49	13.92	4.0	33.3	13.5	31	0.132	0.29	6200	14300
RAE20RR	RAE20RRB	SE20K		20	1.8504	0.844	0.591(3)	0.295	0.548	5/32	1 5/16	17/32	1 7/32	0.132	0.29	1400	3200
RA013RR	RA013RRB	S1013K		13/16										0.231	0.51		
RA014RR	RA014RRB	S1014K	205	7/8	52	21.44	15	7.49	13.92	4.0	38.1	13.5	31	0.213	0.47	7700	15800
RA015RR	RA015RRB	S1015K		15/16	2.0472	0.844	0.591	0.295	0.548	5/32	1 1/2	17/32	1 7/32	0.2	0.44	1730	3550
RA100RR	RA100RRB	S1100K		1										0.186	0.41		
RAE25RR	RAE25RRB	SE25K		25										0.186	0.41		
RA101RR	RA101RRB	S1101K		1 1/16										0.349	0.77		
RA102RR	RA102RRB	S1102K		1 1/8	62	23.82	18	8.99	14.81	4.0	44.1	15.9	35.7	0.327	0.72	11100	21800
RA103RR	RA103RRB	S1103K	206	1 3/16	2.4409	0.938	0.709	0.354	0.583	5/32	1 47/64	5/8	1 13/32	0.318	0.7	2500	4900
RA103RR2	RA103RRB2	S1103K3		1 1/4										0.295	0.65		
RAE30RR	RAE30RRB	SE30K		30										0.318	0.7		
RA104RR	RA104RRB	S1104K		1 1/4										0.562	1.24		
RA105RR	RA105RRB	S1105K	207	1 5/16	72	25.4	19	9.5	15.9	4.0	54.40	17.1	38.9	0.54	1.19	15100	28500
RA106RR	RA106RRB	S1106K		1 3/8	2.8346	1.000	0.748	0.374	0.626	5/32	2 1/8	43/64	1 17/32	0.513	1.13	3400	6400
RA107RR	RA107RRB	S1107K		1 7/16										0.476	1.05		
RAE35RR	RAE35RRB	SE35K		35										0.513	1.13		
RA108RR	RA108RRB	S1108K		1 1/2	80	30.18	22	11	19.18	4.8	60.3	18.3	43.7	0.694	1.53	19600	36000
RA109RR	RA109RRB	S1109K	208	1 9/16	3.1496	1.188	0.866(4)	0.433	0.755	3/16	2 3/8	23/32	1 23/32	0.649	1.43	4400	8150
RAE40RR	RAE40RRB	SE40K		40										0.649	1.43		
RA110RR	RA110RRB	S1110K		1 5/8										0.78	1.72		
RA111RR	RA111RRB	S1111K	209	1 11/16	85	30.18	22	11	19.18	4.8	63.5	18.3	43.7	0.735	1.62	20000	36000
RA112RR	RA112RRB	S1112K		1 3/4	3.3465	1.188	0.866	0.433	0.755	3/16	2 1/2	23/32	1 23/32	0.68	1.5	4500	8150
RAE45RR	RAE45RRB	SE45K		45										0.68	1.5		
RA113RR	RA113RRB	S1113K		1 13/16										0.88	1.94		
RA114RR	RA114RRB	S1114K		1 7/8	90	30.18	22	11	19.18	4.8	69.9	18.3	43.7	0.83	1.83	22700	39200
RA115RR	RA115RRB	S1115K	210	1 15/16	3.5433	1.188	0.866	0.433	0.755	3/16	2 3/4	23/32	1 23/32	0.771	1.70	5100	8800
RA115RR2	RA115RRB2	S1115K2		2										0.717	1.58		
RAE50RR	RAE50RRB	SE50K		50										0.771	1.79		
RA200RR	RA200RRB	S1200K		2										0.962	2.12		
RA201RR	RA201RRB	S1201K		2 1/16	100	32.54	24	11.99	20.55	4.8	76.2	20.6	48.4	0.898	1.98		
RA202RR	RA202RRB	S1202K	211	2 1/8	3.9370	1.281	0.945	0.472	0.809	3/16	3	13/16	1 29/32	0.857	1.89	28500	48000
RA203RR	RA203RRB	S1203K		2 3/16										0.807	1.78	6400	10800
RAE55RR	RAE55RRB	SE55K		55										0.807	1.78		

(1) Bore tolerance is nominal to .013 mm, +.0005".
(2) Spherical O.D. outer ring width is 12 mm, .472".
(3) Spherical O.D. outer ring width is 14 mm, .551".
(4) Spherical O.D. outer ring width is 21 mm, .827".

GRA-RR, GRA-RRB STANDARD SERIES RELUBRICATABLE TYPES

- GRA-RR Series bearings are the same as the RA-RR Series and have a provision for relubrication.
- GRA-RR Series have cylindrical outside diameters.
- GRA-RRB have spherical outside diameters

Suggested shaft tolerances: 1/2" - 1 15/16", nominal to -0.13 mm, -.0005"; 2" - 2 15/16", nominal to -.025 mm, -.0010".



GRA-RR Two Seals
Cylindrical O.D.

GRA-RRB Two Seals
Spherical O.D.

TO ORDER, SPECIFY BEARING NUMBER FOLLOWED BY "+ COL". Example: GRA100RRB + COL.

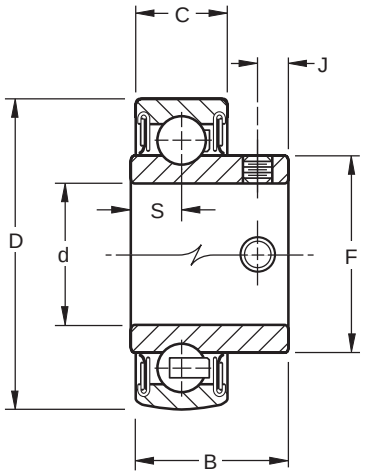
Bearing Number		Collar Number	Basic Outer Ring Size	Bore(1) d	O.D. D	Ring Widths		S	G	L	d_1	B_2	M	B_1	Brg. & Collar Wt.		Static Load Rating C_o	Extended Dynamic Load Rating C_E
Cylindrical O.D.	Spherical O.D.					B Inner	C Outer											
				mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	kg	lbs.	N lbs.	N lbs.
GRA008RR	GRA008RRB	S1008K		1/2											0.154	0.34		
—	GRA009RRB	S1009K		9/16	40	19.05	13	6.5	12.55	4.0	28.6	13.5	2.72	28.6	0.145	0.32	4700	10600
GRA010RR	GRA010RRB	S1010K	203	5/8	1.5748	0.750	0.512(2)	0.256	0.494	5/32	1 1/8	17/32	0.107	1 1/8	0.127	0.28	1060	2360
GRAE17RR	GRAE17RRB	SE17K		17											0.127	0.28		
GRA012RR	GRA012RRB	S1012K	204	3/4	47	21.44	15	7.49	13.92	4.0	33.3	13.5	3.05	31	0.132	0.29	6200	14300
GRAE20RR	GRAE20RRB	SE20K		20	1.8504	0.844	0.591(3)	0.295	0.548	5/32	1 5/16	17/32	0.12	1 7/32	0.132	0.29	1400	3200
—	GRA013RRB	S1013K		13/16											0.231	0.51		
GRA014RR	GRA014RRB	S1014K	205	7/8	52	21.44	15	7.49	13.92	4.0	38.1	13.5	3.61	31	0.213	0.47	7700	15800
—	GRA015RRB	S1015K		15/16	2.0472	0.844	0.591	0.295	0.548	5/32	1 1/2	17/32	0.142	1 7/32	0.2	0.44	1730	3550
GRA100RR	GRA100RRB	S1100K		1											0.186	0.41		
GRAE25RR	GRAE25RRB	SE25K		25											0.186	0.41		
GRA101RR	GRA101RRB	S1101K		1 1/16											0.349	0.77		
GRA102RR	GRA102RRB	S1102K		1 1/8	62	23.83	18	8.99	14.81	4.0	44.1	15.9	4.17	35.7	0.327	0.72	11100	21800
GRA103RR	GRA103RRB	S1103K	206	1 3/16	2.4409	0.938	0.709	0.354	0.583	5/32	1 47/64	5/8	0.164	1 13/32	0.318	0.7	2500	4900
GRA103RR2	GRA103RRB2	S1103K3		1 1/4											0.295	0.65		
GRAE30RR	GRAE30RRB	SE30K		30											0.318	0.7		
GRA104RR	GRA104RRB	S1104K		1 1/4											0.562	1.24		
—	GRA105RRB	S1105K	207	1 5/16	72	25.4	19	9.5	15.9	4.0	54.0	17.1	3.68	38.9	0.54	1.19	15100	28500
—	GRA106RRB	S1106K		1 3/8	2.8346	1.000	0.748	0.374	0.626	5/32	2 1/8	43/64	0.145	1 17/32	0.513	1.13	3400	6400
—	GRA107RRB	S1107K		1 7/16											0.476	1.05		
GRAE35RR	GRAE35RRB	SE35K		35											0.513	1.13		
GRA108RR	GRA108RRB	S1108K		1 1/2	80	30.18	22	11	19.18	4.8	60.3	18.3	4.17	43.7	0.694	1.53	19600	36000
—	GRA109RRB	S1109K	208	1 9/16	3.1496	1.188	0.866(4)	0.433	0.755	3/16	2 3/8	23/32	0.164	1 23/32	0.649	1.43	4400	8150
GRAE40RR	GRAE40RRB	SE40K		40											0.649	1.43		
—	GRA110RRB	S1110K		1 5/8											0.78	1.72		
—	GRA111RRB	S1111K	209	1 11/16	85	30.18	22	11	19.18	4.8	63.5	18.3	4.55	43.7	0.735	1.62	20500	36300
—	GRA112RRB	S1112K		1 3/4	3.3465	1.188	0.866	0.433	0.755	3/16	2 1/2	23/32	0.179	1 23/32	0.68	1.5	4600	8160
—	GRAE45RRB	SE45K		45											0.68	1.5		
—	GRA113RRB	S1113K		1 13/16											0.88	1.94		
—	GRA114RRB	S1114K		1 7/8	90	30.18	22	11	19.18	4.8	69.9	18.3	4.44	43.7	0.83	1.83	22700	39200
—	GRA115RRB	S1115K	210	1 15/16	3.5433	1.188	0.866	0.433	0.755	3/16	2 3/4	23/32	0.175	1 23/32	0.771	1.70	5100	8800
—	GRA115RRB2	S1115K2		2											0.717	1.58		
—	GRAE50RRB	SE50K		50											0.771	1.79		
—	GRA200RRB	S1200K		2											0.962	2.12		
—	GRA201RRB	S1201K		2 1/16	100	32.54	24	11.99	20.55	4.8	76.2	20.6	4.9	48.4	0.898	1.98	28500	48000
—	GRA202RRB	S1202K	211	2 1/8	3.9370	1.281	0.945	0.472	0.809	3/16	3	13/16	0.193	1 29/32	0.857	1.89	6400	10800
—	GRA203RRB	S1203K		2 3/16											0.807	1.78		
—	GRAE55RRB	SE55K		55											0.807	1.78		

(1) Bore tolerance is nominal to .013 mm, +.0005".
(2) Spherical O.D. outer ring width is 12 mm, .472".
(3) Spherical O.D. outer ring width is 14 mm, .551".
(4) Spherical O.D. outer ring width is 21 mm, .827".

YA-RR, YA-RRB STANDARD SERIES NON-RELUBRICATABLE TYPES

- Bearings are an extended inner ring type and have specially designed setscrews with unique thread form.
- Thread form in both series locks bearing to shaft so they are resistant to loosening during operation.
- A positive contact, land-riding R-Seal provides improved protection against harmful contaminants in both series and retains lubricant under severe operating conditions.
- A 6/6 molded nylon retainer has proved effective under conditions of misalignment.
- YA-RR Series has cylindrical outside diameters.
- YA-RRB Series has spherical outside diameters for use in housings with corresponding spherical inside surfaces. This provides unrestricted initial self-alignment.

Suggested shaft tolerances: **$^1/_2$" - 1 $^{15}/_{16}$", nominal to -.013 mm, -.0005";**
2" - 2 $^{15}/_{16}$", nominal to -.025 mm, -.0010".



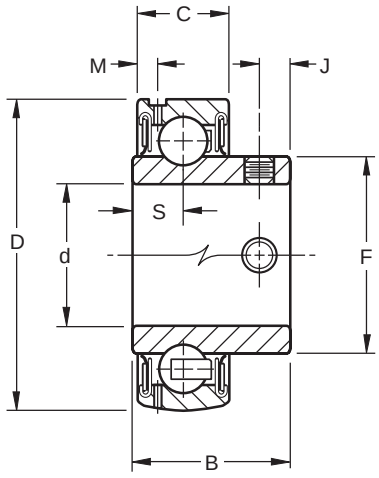
Bearing Number Cylindrical O.D.	Bearing Number Spherical O.D.	Basic Outer Ring Size	Bore(1) d	O.D. D	Ring Widths B Inner	Ring Widths C Outer	S	F	J	Setscrew Size	Brg. Wt.	Static Load Rating C_o	Extended Dynamic Load Rating C_E
			mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	N lbs.	N lbs.
YA008RR	YA008RRB		$^1/_2$	40	23.8	13	7.95	24.6	4.75	M5X.8	0.09	4700	10600
YA010RR	YA010RRB	203	$^5/_8$	1.5748	0.938	0.512(2)	0.313	$^{31}/_{32}$	0.187	10-32	0.19	1060	2360
YAE17RR	YAE17RRB		17										
YA012RR	YA012RRB	204	$^3/_4$	47	27	15	8.86	29	6.02	M6X1	0.14	6200	14300
YAE20RR	YAE20RRB		20	1.8504	1.063	0.591(3)	0.349	1 $^9/_{64}$	0.237	$^1/_4$-28	0.3	1400	3200
YA014RR	YA014RRB	205	$^7/_8$										
YA015RR	YA015RRB		$^{15}/_{16}$	52	28.2	15	8.84	33.7	6.35	M6X1	0.17	7700	15800
YA100RR	YA100RRB		1	2.0472	1.109	0.591	0.348	1 $^{21}/_{64}$	0.250	$^1/_4$-28	0.38	1730	3550
YAE25RR	YAE25RRB		25										
YA102RR	YA102RRB		1 $^1/_8$										
YA103RR	YA103RRB	206	1 $^3/_{16}$	62	32.5	18	9.65	40.1	7.87	M8X1.25	0.26	11100	21800
YA103RR2	YA103RRB2		1 $^1/_4$	2.4409	1.281	0.709	0.38	1 $^{37}/_{64}$	0.310	$^5/_{16}$-24(4)	0.58	2500	4900
YAE30RR	YAE30RRB		30										
YA104RR	YA104RRB		1 $^1/_4$										
YA106RR	YA106RRB	207	1 $^3/_8$	72	36.5	19	10.85	46.8	7.87	M8X1.25	0.42	15100	28500
YA107RR	YA107RRB		1 $^7/_{16}$	2.8346	1.444	0.748	0.427	1 $^{27}/_{32}$	0.310	$^5/_{16}$-24	0.93	3400	6400
YAE35RR	YAE35RRB		35										
YA108RR	YA108RRB	208	1 $^1/_2$	80	39.3	22	11.63	52.4	7.87	M8X1.25	0.56	17600	36000
YAE40RR	YAE40RRB		40	3.1496	1.538	0.8661(5)	0.458	2 $^1/_{16}$	0.310	$^5/_{16}$-24	1.24	4000	8150
YA110RR	YA110RRB		1 $^5/_8$										
YA111RR	YA111RRB	209	1 $^{11}/_{16}$	85	42	22	13.46	57.9	7.87	M8X1.25	0.54	20500	36300
YA112RR	YA112RRB		1 $^3/_4$	3.3465	1.655	0.8861	0.53	2 $^9/_{32}$	0.310	$^5/_{16}$-24	1.18	4500	8160
YAE45RR	YAE45RRB		45										
YA115RR	YA115RRB	210	1 $^{15}/_{16}$	90	44.3	22	13.46	62.7	9.02	M10X1.5	0.57	22700	39200
YA115RR2	YA115RRB2		2	3.5433	1.746	0.8661	0.53	2 $^{15}/_{32}$	0.355	$^3/_8$-24	1.25	5100	8800
YAE50RR	YAE50RRB		50										
YA200RR	YA200RRB	211	2	100	46.6	24	14.6	69.8	9.02	M10X1.5	0.58	28500	48000
YA203RR	YA203RRB		2 $^3/_{16}$	3.9370	1.833	0.9449	0.575	2 $^3/_4$	0.355	$^3/_8$-24	1.27	6400	10800
YAE55RR	YAE55RRB		55										

(1) Bore tolerance is nominal to .013 mm, +.0005".
(2) Spherical O.D. outer ring width is 12 mm, .4724".
(3) Spherical O.D. outer ring width is 14 mm, .5512".
(4) YA103RR2 and YA103RRB2 use $^1/_4$ - 28" setscrew.
(5) Spherical O.D. outer ring width is 21 mm, .8268".

GYA-RR, GYA-RRB STANDARD SERIES RELUBRICATABLE TYPES

- GYA-RR Series bearings are dimensionally interchangeable with the YA-RR Series.
- Both series have cylindrical outside diameters and can be used in standard cylindrical housings.
- GYA-RRB Series have spherical outside diameters, providing unrestricted initial alignment. This series is used in housings with corresponding spherical inside surfaces.

Suggested shaft tolerances: $1/2$"- $1\ 15/16$", nominal to -.013 mm, -.0005"; 2" - $2\ 15/16$", nominal to -.025 mm, -.0010".



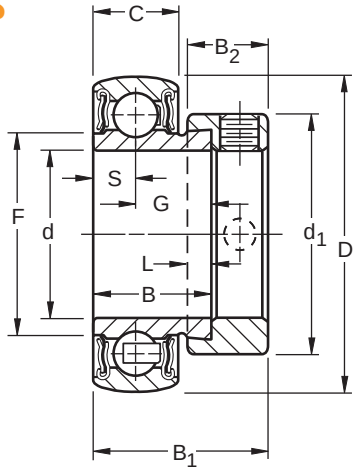
Bearing Number Cylindrical O.D.	Bearing Number Spherical O.D.	Basic Outer Ring Size	Bore(1) d	O.D. D	Ring Widths B Inner	Ring Widths C Outer	S	F	M	J	Setscrew Size	Brg. Wt.	Static Load Rating C_o	Extended Dynamic Load Rating C_E
			mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	N lbs.	N lbs.
GYA008RR	GYA008RRB		1/2	40	23.8	12	7.95	24.6	2.72	4.75	M5X.8	0.09	4700	10600
GYA010RR	GYA010RRB	203	5/8	1.5748	0.938	0.472	0.313	31/32	0.107	0.187	10-32	0.19	1060	2360
GYAE17RR	GYAE17RRB		17											
GYA012RR	GYA012RRB	204	3/4	47	27	14	8.86	29	3.05	6.02	M6X1	0.14	6200	14300
GYAE20RR	GYAE20RRB		20	1.8504	1.063	0.551	0.349	1 9/64	0.12	0.237	1/4-28	0.3	1400	3200
GYA014RR	GYA014RRB	205	7/8											
GYA015RR	GYA015RRB		15/16	52	28.2	15	8.84	33.7	3.61	6.35	M6X1	0.17	7700	15800
GYA100RR	GYA100RRB		1	2.0472	1.109	0.591	0.348	1 21/64	0.142	0.250	1/4-28	0.38	1730	3550
GYAE25RR	GYAE25RRB		25											
GYA102RR	GYA102RRB		1 1/8											
GYA103RR	GYA103RRB	206	1 3/16	62	32.5	18	9.65	40.1	4.17	7.87	M8X1.25	0.26	11100	21800
GYA103RR2	GYA103RRB2		1 1/4	2.4409	1.281	0.709	0.38	1 37/64	0.164	0.310	5/16-24(2)	0.58	2500	4900
GYAE30RR	GYAE30RRB		30											
GYA104RR	GYA104RRB		1 1/4											
GYA106RR	GYA106RRB	207	1 3/8	72	36.5	19	10.85	46.8	3.68	7.87	M8X1.25	0.42	15100	28500
GYA107RR	GYA107RRB		1 7/16	2.8346	1.444	0.748	0.427	1 27/32	0.145	0.310	5/16-24	0.93	3400	6400
GYAE35RR	GYAE35RRB		35											
GYA108RR	GYA108RRB	208	1 1/2	80	39.3	22	11.63	52.4	4.17	7.87	M8X1.25	0.56	17600	36000
GYAE40RR	GYAE40RRB		40	3.1496	1.538	0.8661	0.458	2 1/16	0.164	0.310	5/16-24	1.24	4000	8150
GYA110RR	GYA110RRB		1 5/8											
GYA111RR	GYA111RRB	209	1 11/16	85	42	22	13.46	57.9	4.54	7.87	M8X1.25	0.54	20000	36000
GYA112RR	GYA112RRB		1 3/4	3.3465	1.655	0.8661	0.53	2 9/32	0.179	0.310	5/16-24	1.18	4500	8150
GYAE45RR	GYAE45RRB		45											
GYA115RR	GYA115RRB	210	1 15/16	90	44.3	22	13.46	62.7	4.44	9.02	M10X1.5	0.57	22700	39200
GYA115RR2	GYA115RRB2		2	3.5433	1.746	0.8661	0.53	2 15/32	0.175	0.355	3/8-24	1.25	5100	8800
GYAE50RR	GYAE50RRB		50											
GYA200RR	GYA200RRB	211	2	100	46.6	24	14.6	69.8	4.9	9.02	M10X1.5	0.58	28500	48000
GYA203RR	GYA203RRB		2 3/16	3.9370	1.833	0.9449	0.575	2 3/4	0.193	0.355	3/8-24	1.27	6400	10800
GYAE55RR	GYAE55RRB		55											

(1) Bore tolerance is nominal to .013 mm, +.0005".
(2) GYA103RR2 and GYA103RRB2 use 1/4 - 28" setscrew.

RAL-NPPB STANDARD SERIES NON-RELUBRICATABLE TYPES

- RAL Series are high-quality, compact, low-cost bearings and are intended for use in lightly loaded applications.
- RAL Series are extended inner ring type with self-locking collars.
- Prelubricated RAL Series incorporate the positive contact, land-riding R-Seal. The seal has proved effective in the retention of lubricants and exclusion of foreign matter under extreme service conditions.
- RAL-NPPD Series bearings have spherical outside diameters providing unrestricted initial alignment.
- Used in housings with corresponding spherical inside surfaces.

Suggested shaft tolerances: 1/2" - 1 1/4", nominal to -.013 mm, -.0005".



TO ORDER, SPECIFY BEARING NUMBER FOLLOWED BY "+ COL". Example: RAL100NPPB + COL.

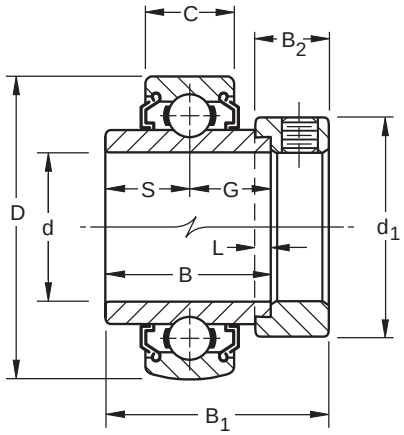
Bearing Number	Collar Number	Basic Outer Ring Size	Bore(2) d	O.D. D	Ring Widths B Inner	Ring Widths C Outer	S	G	F	L	d_1	B_2	B_1	Brg. & Collar Wt.		Static Load Rating C_o	Extended Dynamic Load Rating C_E
			in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	kg	lbs.	N lbs.	N lbs.
RAL008NPPB(1)	LS008K		1/2	35	15.88	11	5.502	10.373	20.07	4	25.4	11.1	23.8	–	–	3000	7500
RAL009NPPB	LS009K	202	9/16	1.3780	5/8	0.433	0.2116	0.4084	0.790	5/32	1	7/16	15/16	–	–	680	1700
RAL010NPPB(1)	LS010K		5/8											0.06	0.13		
RAL012NPPB(1)	LS012K	9104	3/4	42	16.67	12	6	10.663	25.15	3.2	29.8	11.1	24.6	0.09	0.20	4400	10400
				1.6535	21/32	0.472	0.2362	0.4198	0.990	1/8	1 11/64	7/16	31/32			1000	2320
RAL013NPPB	LS013K		13/16											–	–		
RAL014NPPB	LS014K	9105	7/8	47	17.46	12	6	11.476	29.67	4	36.1	11.9	25.4	0.11	0.24	4900	11000
RAL015NPPB	LS015K		15/16	1.8504	11/16	0.472	0.2362	0.4518	1.168	5/32	1 27/64	15/32	1	–	–	1120	2500
RAL100NPPB(1)	LS100K		1											0.10	0.22		
RAL101NPPB	LS101K		1 1/16											–	–		
RAL102NPPB	LS102K	9106	1 1/8	55	18.27	13	6.5	11.755	36.32	4	42.5	11.9	26.2	0.13	0.29	6950	14600
RAL103NPPB	LS103K		1 3/16	2.1654	23/32	0.512	0.2559	0.4628	1.43	5/32	1 43/64	15/32	1 1/32	0.13	0.28	1560	3350
RAL103NPPB2(1)	LS103K2		1 1/4											0.13	0.28		

(1) Also available with cylindrical O.D. (Delete suffix "B").
(2) Bore tolerance is nominal to .013 mm, +.0005".

KL, KLB, KLL, KLLB SPECIAL SERIES NON-RELUBRICATABLE TYPES

- These wide inner ring ball bearings have either one or two Mechani-Seals.
- Types KLB and KLLB have spherical outside diameters permitting self-alignment when mounted in a housing with a corresponding spherical seat.
- All four types are prelubricated at the factory and require no further lubrication.
- Suitable for higher speed and/or higher temperature applications.
- Because they incorporate non-contact seals, these bearings have very low rotational torque.

Suggested shaft tolerances: **$^1/_2$" - 1 $^{15}/_{16}$", nominal to -.013 mm, -.0005";**
2" - 2 $^{15}/_{16}$", nominal to -.025 mm, -.0010".



TO ORDER, SPECIFY BEARING NUMBER FOLLOWED BY "+ COL". Example: 1100KLL + COL.

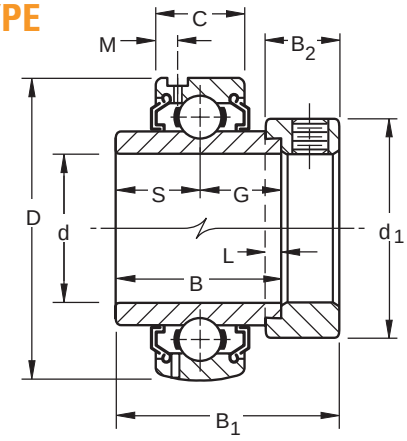
Bearing Number Cylindrical O.D.		Cylindrical O.D.	Spherical O.D.	Collar Number	Basic Outer Ring Size	Bore[4] d	O.D. D	Ring Widths B Inner	Ring Widths C Outer	S&G	L	d_1	B_2	B_1	Brg. & Collar Wt.		Static Load Rating C_o	Extended Dynamic Load Rating C_E
						in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg	lbs.	N lbs.	N lbs.
1008KL		1008KLL	(KLLB)	S1008K		1/2									0.168	0.37		
—		1009KLL		S1009K	203	9/16	40	27.78	12	13.89	3.97	28.58	13.49	37.31	0.163	0.36	4700	10700
1010KL		1010KLL	(KLLB)	S1010K		5/8	1.5748	1 3/32	0.4724	35/64	5/32	1 1/8	17/32	1 15/32	0.141	0.31	1060	2400
1011KL		1011KLL	(KLLB)	S1011K		11/16									0.122	0.27		
1012KL		1012KLL	(KLLB)	S1012K	204	3/4	47	34.13	14	17.06	3.97	33.34	13.5	43.7	0.209	0.46	6200	14300
							1.8504	1 11/32	0.5512	43/64	5/32	1 5/16	17/32	1 23/32			1400	3200
—		—		S1013K		13/16									0.286	0.63		
1014KL		1014KLL	(KLLB)	S1014K	205	7/8	52	34.92	15	17.46	3.97	38.1	13.49	44.45	0.277	0.61	7700	15800
1015KL		1015KLL	(KLLB)	S1015K		15/16	2.0472	1 3/8	0.5906	11/16	5/32	1 1/2	17/32	1 47/64	0.254	0.56	1730	3550
1100KL	(KLB)	1100KLL	(KLLB)	S1100K		1									0.25	0.55		
1101KL		—		S1101K		1 1/16									0.417	0.92		
1102KL		1102KLL	(KLLB)	S1102K	206	1 1/8	62	36.51	16[1]	18.26	3.97	44.1	15.88	48.42	0.413	0.91	11100	21800
1103KL	(KLB)	1103KLL	(KLLB)	S1103K		1 3/16	2.4409	1 7/16	0.6299	23/32	5/32	1 3/4	5/8	1 29/32	0.372	0.82	2500	4900
1103KL3		1103KLL3	(KLLB3)	S1103K3		1 1/4									0.358	0.79		
1104KL		1104KLL	(KLLB)	S1104K		1 1/4									0.649	1.43		
—		1105KLL	(KLLB)	S1105K	207	1 5/16	72	37.70	17[2]	18.85	3.97	54.0	17.46	51.2	0.617	1.36	15100	28500
1106KL		1106KLL	(KLLB)	S1106K		1 3/8	2.8346	1 31/64	0.6693	0.742	5/32	2 1/8	43/64	2 1/64	0.581	1.28	3400	6400
1107KL	(KLB)	1107KLL	(KLLB)	S1107K		1 7/16									0.544	1.2		
1108KL	(KLB)	1108KLL	(KLLB)	S1108K	208	1 1/2	80	42.86	18[3]	21.43	4.76	60.32	18.26	56.36	0.821	1.81	17600	36200
—		1109KLL	(KLLB)	S1109K		1 9/16	3.1496	1 11/16	0.7087	27/32	3/16	2 3/8	23/32	2 7/32	0.767	1.69	4000	8130
1110KL		1110KLL	(KLLB)	S1110K		1 5/8	85	42.86	19	21.43	4.76	60.35	18.26	56.36	0.934	2.06	20000	36300
1111KL		1111KLL	(KLLB)	S1111K	209	1 11/16	3.3465	1 11/16	0.7480	27/32	3/16	2 1/2	23/32	2 7/32	0.89	1.96	4500	8160
1112KL	(KLB)	1112KLL	(KLLB)	S1112K		1 3/4									0.844	1.86		
1114KL		1114KLL	(KLLB)	S1114K	210	1 7/8	90	49.21	20	24.61	4.76	69.9	18.26	62.71	1.075	2.37	22700	39000
1115KL	(KLB)	1115KLL	(KLLB)	S1115K		1 15/16	3.5433	1 15/16	0.7874	31/32	3/16	2 3/4	23/32	2 15/32	1.021	2.25	5100	8800
1200KL	(KLB)	1200KLL	(KLLB)	S1200K		2	100	55.56	21	27.98	4.76	76.2	20.64	71.44	1.54	3.4	28500	48000
—		1202KLL	(KLLB)	S1202K	211	2 1/8	3.9370	2 3/16	0.8268	1 3/32	3/16	3	13/16	2 13/16	1.406	3.1	6400	10800
1203KL		1203KLL	(KLLB)	S1203K		2 3/16									1.347	2.97		
1207KL		—		S1207K	212	2 7/16	110	61.91	22	30.96	6.35	84.14	22.22	77.79	1.66	3.66	35600	58500
							4.3307	2 7/16	0.8661	1 7/32	1/4	3 5/16	7/8	3 1/16			8000	13200
—		1215KLL	(KLLB)	S1215K	215	2 15/16	130	74.61	25	37.31	6.35	101.6	23.81	91.08	2.268	5	43600	69500
							5.1181	2 15/16	0.9843	1 15/32	1/4	4	15/16	3 5/8			9800	15600

[1] Spherical O.D. outer ring width is 18 mm, .7087".
[2] Spherical O.D. outer ring width is 19 mm, .7480".
[3] Spherical O.D. outer ring width is 21 mm, .8268".
[4] Bore tolerance: $^1/_2$"- 2 $^3/_{16}$", nominal to .013 mm, +.0005".
2 $^7/_{16}$"- 2 $^{15}/_{16}$", nominal to .015 mm, +.0006".

G-KLL, G-KLLB SPECIAL SERIES RELUBRICATABLE TYPE

- These wide inner ring ball bearings have two Mechani-Seals and a provision for relubrication.
- Type G-KLL has a cylindrical outside diameter
- Type G-KLLB has a spherical outside diameter.
- Both are generally suitable for higher speed and/or higher temperature applications.
- Because they incorporate non-contact seals, these bearings have very low rotational torque.
- Consult your Timken representative for suggestions.

Suggested shaft tolerances: **1/2" - 1 15/16", nominal to -.013 mm, -.0005";**
2" - 2 15/16", nominal to -.025 mm, -.0010".



TO ORDER, SPECIFY BEARING NUMBER FOLLOWED BY "+ COL". Example: G1015KLL + COL.

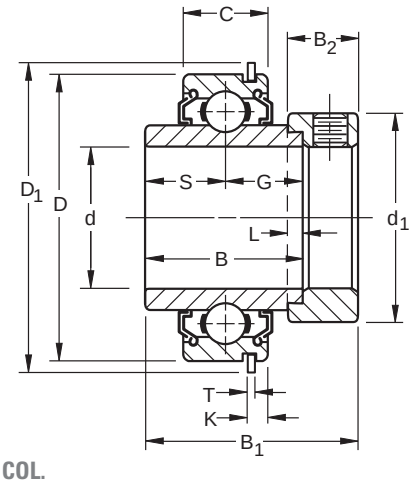
Bearing Number		Collar Number	Basic Outer Ring Size	Bore(1) d	O.D. D	Ring Widths		S&G	L	d_1	B_2	M	B_1	Brg. & Collar Wt.		Static Load Rating C_o	Extended Dynamic Load Rating C_E
Cylindrical O.D.	Spherical O.D.					B Inner	C Outer										
				in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg	lbs.	N lbs.	N lbs.
—	G1008KLLB	S1008K		1/2										0.15	0.33		
—	G1009KLLB	S1009K	203	9/16	40	27.78	12	13.9	4.0	28.6	13.5	2.72	37.3	0.136	0.3	4700	10700
G1010KLL	G1010KLLB	S1010K		5/8	1.5748	1 3/32	0.4724	35/64	5/32	1 1/8	17/32	0.107	1 15/32	0.141	0.31	1060	2400
G1011KLL	G1011KLLB	S1011K		11/16										0.118	0.26		
G1012KLL	G1012KLLB	S1012K	204	3/4	47	34.13	14	17.1	4.0	33.3	13.5	3.43	43.7	0.2	0.44	6200	14300
					1.8504	1 11/32	0.5512	43/64	5/32	1 5/16	17/32	0.135	1 23/32			1400	3200
—	G1013KLLB	S1013K		13/16										0.286	0.63		
G1014KLL	G1014KLLB	S1014K	205	7/8	52	34.92	15	17.5	4.0	38.1	13.5	3.86	44.45	0.263	0.58	7700	15800
G1015KLL	G1015KLLB	S1015K		15/16	2.0472	1 3/8	0.5906	11/16	5/32	1 1/2	17/32	0.152	1 3/4	0.245	0.54	1730	3550
G1100KLL	G1100KLLB	S1100K		1										0.222	0.49		
G1101KLL	—	S1101K		1 1/16										0.422	0.93		
G1102KLL	G1102KLLB	S1102K	206	1 1/8	62	36.51	18	18.3	4.0	44.4	15.9	3.96	48.4	0.413	0.91	11100	21800
G1103KLL	G1103KLLB	S1103K		1 3/16	2.4409	1 7/16	0.7087	23/32	5/32	1 3/4	5/8	0.156	1 29/32	0.395	0.87	2500	4900
—	G1103KLLB3	S1103K3		1 1/4										0.34	0.75		
G1104KLL	G1104KLLB	S1104K		1 1/4										0.649	1.43		
—	G1105KLLB	S1105K	207	1 5/16	72	37.70	19	18.85	4.0	54.0	17.46	3.43	51.2	0.622	1.37	15100	28500
G1106KLL	G1106KLLB	S1106K		1 3/8	2.8346	1 31/64	0.7480	0.742	5/32	2 1/8	11/16	0.135	2 1/64	0.59	1.3	3400	6400
G1107KLL	G1107KLLB	S1107K		1 7/16										0.549	1.21		
G1108KLL	G1108KLLB	S1108KT	208	1 1/2	80	42.86	21	21.4	4.8	60.3	18.3	4.06	56.4	0.826	1.82	17600	36200
G1109KLL	G1109KLLB	S1109KT		1 9/16	3.1496	1 11/16	0.8268	27/32	3/16	2 3/8	23/32	0.16	2 7/32	0.785	1.73	4000	8130
G1110KLL	G1110KLLB	S1110K		1 5/8	85	42.86	22	21.4	4.8	63.5	18.3	0.179	56.4	0.949	2.09	20000	36300
G1111KLL	G1111KLLB	S1111K	209	1 11/16	3.3465	1 11/16	0.8661	27/32	3/16	2 1/2	23/32	4.55	2 7/32	0.899	1.98	4500	8160
G1112KLL	G1112KLLB	S1112K		1 3/4										0.853	1.88		
—	G1113KLLB	S1113K		1 13/16	90	49.21	23	24.6	4.8	69.9	18.3	4.7	62.7	1.148	2.53	22700	39000
G1114KLL	G1114KLLB	S1114K	210	1 7/8	3.5433	1 15/16	0.9055	31/32	3/16	2 3/4	23/32	0.185	2 15/32	1.09	2.4	5100	8800
G1115KLL	G1115KLLB	S1115K		1 15/16										1.031	2.27		
G1200KLL	G1200KLLB	S1200K		2										1.593	3.51		
—	G1201KLLB	S1201K	211	2 1/16	100	55.56	24	27.8	4.8	76.2	20.6	5	71.4	1.512	3.33	28500	48000
—	G1202KLLB	S1202K		2 1/8	3.9370	2 3/16	0.9450	1 3/32	3/16	3	13/16	0.197	2 13/16	1.416	3.12	6400	10800
G1203KLL	G1203KLLB	S1203K		2 3/16										1.285	2.83		
G1204KLL	G1204KLLB	S1204K	212	2 1/4										2.03	4.47		
—	G1205KLLB	S1205K		2 5/16	110	61.91	27	31	6.4	84.1	22.2	5.13	77.8	1.938	4.27	35600	58500
—	G1206KLLB	S1206K		2 3/8	4.3307	2 7/16	1.0630	1 7/32	1/4	3 5/16	7/8	0.202	3 1/16	1.852	4.08	8000	13200
—	G1207KLLB	S1207K		2 7/16										1.789	3.94		
—	G1215KLLB	S1215K	215	2 15/16	130	74.61	25	37.3	6.4	101.6	23.8	5.56	91.2	2.837	6.25	43600	69500
					5.1181	2 15/16	0.9843	1 15/32	1/4	4	15/16	0.219	3 5/8			9800	15600

(1) Bore tolerance: 1/2" - 2 3/16", nominal to .013 mm, +.0005".
2 1/4" - 2 15/16", nominal to .015 mm, +.0006".

KLLG SPECIAL SERIES WITH WIRELOC

- KLLG wide inner ring bearings are the same as the KLL Type, except for a snap ring or Wireloc in the outer ring.
- The Wireloc mounting provides a convenient method of positively locating a bearing axially.

Suggested shaft tolerances: 1/2" - 1 15/16", nominal to -.013 mm, -.0005"; 2" - 2 7/16", nominal to -.025 mm, -.0010".



TO ORDER, SPECIFY BEARING NUMBER FOLLOWED BY "+ COL". Example: 1008KLLG + COL.

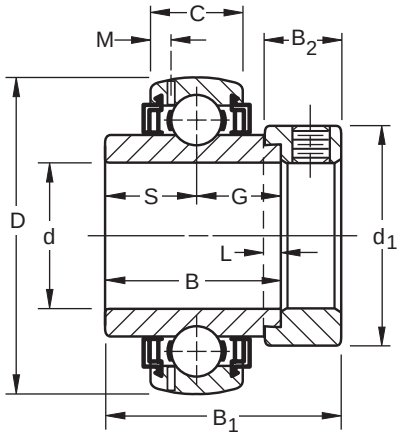
Bearing Number	Collar Number	Basic Outer Ring Size	Bore[1] d	O.D. D	Ring Widths B Inner	Ring Widths C Outer	S&G	L	d_1	B_2	B_1	Snap Wire Dimensions D_1	Snap Wire Dimensions T	Snap Wire Dimensions K	Brg. & Collar Wt.		Static Load Rating C_o	Extended Dynamic Load Rating C_E
			in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg	lbs.	N lbs.	N lbs.
1008KLLG	S1008K		1/2												0.173	0.38		
1009KLLG	S1009K	203	9/16	40	27.78	12	13.9	4.0	28.6	13.5	37.3	44.45	1.07	3.05	0.154	0.34	4700	10700
1010KLLG	S1010K		5/8	1.5748	1 3/32	0.4724	35/64	5/32	1 1/8	17/32	1 15/32	1 3/4	0.042	0.12	0.141	0.31	1060	2400
1011KLLG	S1011K		11/16												0.132	0.29		
1012KLLG	S1012K	204	3/4	47	34.13	14	17.1	4.0	33.3	13.5	43.7	52.39	1.07	3.45	0.204	0.45	6200	14300
				1.8504	1 11/32	0.5512	43/64	5/32	1 5/16	17/32	1 23/32	2 1/16	0.042	0.136			1400	3200
1013KLLG	S1013K		13/16												0.272	0.6		
1014KLLG	S1014K	205	7/8	52	34.92	15	17.5	4.0	38.1	13.5	44.1	57.55	1.07	3.45	0.263	0.58	7700	15800
1015KLLG	S1015K		15/16	2.0472	1 3/8	0.5906	11/16	5/32	1 1/2	17/32	1 47/64	2 17/64	0.042	0.136	0.245	0.54	1730	3550
1100KLLG	S1100K		1												0.227	0.5		
1101KLLG	S1101K		1 1/16	62	36.51	16	18.3	4.0	44.4	15.9	48.4	67.47	1.65	4.83	0.427	0.94	11100	21800
1102KLLG	S1102K	206	1 1/8	2.4409	1 7/16	0.6299	23/32	5/32	1 3/4	5/8	1 29/32	2 21/32	0.065	0.190	0.386	0.85	2500	4900
1103KLLG	S1103K		1 3/16												0.386	0.85		
1104KLLG	S1104K		1 1/4												0.645	1.42		
1105KLLG	S1105K	207	1 5/16	72	37.70	17	18.85	4.0	54.0	17.1	51.2	78.18	1.65	4.83	0.604	1.33	15100	28500
1106KLLG	S1106K		1 3/8	2.8346	1 31/64	0.6693	0.742	5/32	2 1/8	43/64	2 1/64	3 5/64	0.065	0.190	0.577	1.27	3400	6400
1107KLLG	S1107K		1 7/16												0.54	1.19		
1108KLLG	S1108KT	208	1 1/2	80	42.86	18	21.4	4.8	60.3	18.3	56.4	86.52	1.65	4.83	0.826	1.82	17600	36200
1109KLLG	S1109KT		1 9/16	3.1496	1 11/16	0.7087	27/32	3/16	2 3/8	23/32	2 7/32	3 13/32	0.065	0.190	0.785	1.73	4000	8130
1110KLLG	S1110K		1 5/8	85	42.86	19	21.4	4.8	63.5	18.3	56.4	91.28	1.65	4.83	0.922	2.03	20000	36300
1111KLLG	S1111K	209	1 11/16	3.3465	1 11/16	0.7480	27/32	3/16	2 1/2	23/32	2 7/32	3 19/32	0.065	0.190	0.881	1.94	4500	8160
1112KLLG	S1112K		1 3/4												0.844	1.86		
1113KLLG	S1113K		1 13/16	90	49.21	20	24.6	4.8	69.9	18.3	62.7	96.44	2.41	5.59	1.035	2.28	22700	39000
1114KLLG	S1114K	210	1 7/8	3.5433	1 15/16	0.7874	31/32	3/16	2 3/4	23/32	2 15/32	3 51/64	0.095	0.22	1.003	2.21	5100	8800
1115KLLG	S1115K		1 15/16												0.971	2.14		
1200KLLG	S1200K		2												1.475	3.25		
1201KLLG	S1201K	211	2 1/16	100	55.56	21	27.8	4.8	76.2	20.6	71.4	106.36	2.41	5.59	1.444	3.18	28500	48000
1202KLLG	S1202K		2 1/8	3.9370	2 3/16	0.8268	1 3/32	3/16	3	13/16	2 13/16	4 3/16	0.095	0.22	1.38	3.08	6400	10800
1203KLLG	S1203K		2 3/16												1.353	2.98		
1204KLLG	S1204K	212	2 1/4												1.793	3.95		
1205KLLG	S1205K		2 5/16	110	61.91	22	30.96	6.4	84.1	22.2	77.8	116.28	2.41	5.59	1.743	3.84	35600	58500
1206KLLG	S1206K		2 3/8	4.3307	2 7/16	0.8661	1 7/32	1/4	3 5/16	7/8	3 1/16	4 37/64	0.095	0.22	1.711	3.77	8000	13200
1207KLLG	S1207K		2 7/16												1.684	3.71		

[1] Bore tolerance: 1/2" - 2 3/16", nominal to .013 mm, +.0005".
2 1/4" - 2 7/16", nominal to .015 mm, +.0006".

GN-KLLB HEAVY SERIES/SPECIAL DUTY

- The GN-KLLB Series ball bearings are heavy and are similar in design to the standard LL (Mechani-Seal) wide inner ring bearings.
- The GN-KLLB Series have heavier section 300 Series bearings.
- Unlike standard series, the seal in this heavy series is a three-piece construction and includes two fixed inner members and an external rotation slinger.

Suggested shaft tolerances: **1/8" - 1 15/16", nominal to -.013 mm, -.0005";**
2" - 2 15/16", nominal to -.025 mm, -.0010".



TO ORDER, SPECIFY BEARING NUMBER FOLLOWED BY "+ COL". Example: GN104KLLB + COL.

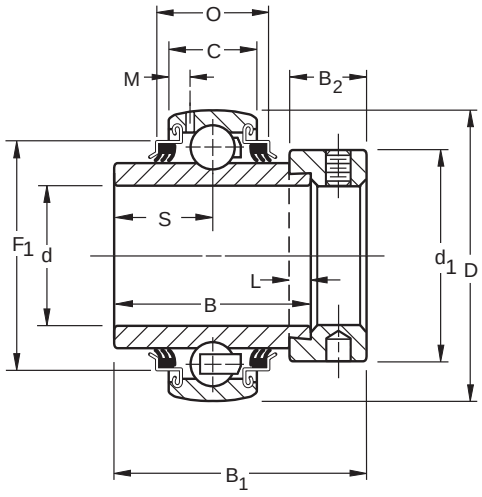
Bearing Number	Collar Number	Basic Outer Ring Size	Bore[1] d	O.D. D	Ring Widths B Inner	Ring Widths C Outer N-KLL	Ring Widths C Outer GN-KLLB	S	G	L	d_1	B_2	M	B_1	Brg. & Collar Wt.		Static Load Rating Rating	Extended Dynamic Load C_E
																C_o		
			in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg	lbs.	N lbs.	N lbs.
GN102KLLB	SN102K		1 1/8	72	36.51	19	20	17.46	19.05	3.9	49.21	17.46	3.61	1.97	0.554	1.22	15800	33500
GN103KLLB	SN103K	306	1 3/16	2.8346	1 7/16	0.7480	0.7874	11/16	3/4	5/32	1 15/16	11/16	0.142	1 31/32	0.604	1.33	3550	7500
GN104KLLB	SN104K		1 1/4	80	38.10	21	22	18.3	19.84	3.9	55.6	17.46	3.96	51.59	0.649	1.43		
GN106KLLB	SN106K	307	1 3/8		1 1/2	0.8268	0.8661	23/32	25/32	5/32	2 3/16	11/16	0.156	2 1/32	0.699	1.54	21200	40500
GN107KLLB	SN107K		1 7/16	3.1496											0.731	1.61	4750	9150
GN108KLLB	SN108K	308	1 1/2	90	41.28	23	25	19.84	21.43	4.8	63.5	20.64	4.62	57.15	1.153	2.54	26100	49000
				3.5433	1 5/8	0.9055	0.9843	25/32	27/32	3/16	2 1/2	13/16	0.182	2 1/4			5850	11000
GN111KLLB	SN111K	309	1 11/16	100	42.86	25	27	19.84	23.02	4.8	69.85	20.64	4.8	58.74	1.457	3.21	31600	58500
GN112KLLB	SN112K		1 3/4	3.9370	1 11/16	0.9843	1.063	25/32	29/32	3/16	2 3/4	13/16	0.189	2 5/16	1.657	3.65	7100	13200
GN115KLLB	SN115K	310	1 15/16	110	50	27	29	24.6	24.6	4.8	76.2	22.23	5.16	66.68	1.907	4.2	37900	68000
				4.3307	1 31/32	1.063	1.1417	31/32	31/32	3/16	3	7/8	0.203	2 5/8			8500	15300
GN203KLLB	SN203K	311	2 3/16	120	55.56	29	31	27.8	29.37	4.8	82.55	22.23	5.49	73.02	2.37	5.22	43600	80000
				4.7244	2 3/16	1.1417	1.2205	1 3/32	1 5/32	3/16	3 1/4	7/8	0.216	2 7/8			9800	18000
GN207KLLB	SN207K	312	2 7/16	130	61.91	31	33	30.96	30.96	6.4	88.9	23.8	5.84	79.38	2.841	6.26	51700	90000
				5.1181	2 7/16	1.2205	1.2992	1 7/32	1 7/32	1/4	3 1/2	15/16	0.23	3 1/8			11600	20400
GN211KLLB	SN211K	314	2 11/16	150	68.26	35	37	34.13	34.13	6.4	101.6	26.99	6.73	88.9	4.512	9.94	66800	116000
				5.9055	2 11/16	1.378	1.4567	1 11/32	1 11/32	1/4	4	1 1/16	0.265	3 1/2			15000	26000
GN215KLLB	SN215K	315	2 15/16	160	74.61	—	39	37.3	37.3	6.4	112.71	31.75	6.48	100.01	5.638	12.42	75700	125000
				6.2992	2 15/16	—	1.5354	1 15/32	1 15/32	1/4	4 7/16	1 1/4	0.255	3 15/16			17000	28500

[1] Bore tolerance: 1/2" - 2 3/16", nominal to .013 mm, +.0005".
2 7/16" - 2 15/16", nominal to .015 mm, +.0006".

TRI-PLY SEAL INDUSTRIAL SERIES NON-RELUBRICATABLE AND RELUBRICATABLE TYPES

- Tri-Ply Seal bearings are dimensionally interchangeable with KRRB bearings and can be used with standard housings.
- One-piece Tri-Ply Seals incorporate a highly effective seal design molded to an exterior shroud cap. The shroud cap protects the seal lip from fiber wrap and abrasion.
- Supplied with a self-locking collar, the bearings are most effective in environments with severe contamination and moisture.
- Relubricatable Tri-Ply Seal bearings are dimensionally interchangeable with G-KRRB bearings.
- This design can be used with standard housings.

Suggested shaft tolerances: **a. heavy loads - nominal to -.025 mm, -.001";**
b. light loads - nominal to -.050 mm, -.002".



TO ORDER, SPECIFY BEARING NUMBER FOLLOWED BY "+ COL". Example: G1115KPPB3 + COL.

Bearing Number		Basic Outer Ring Size	Bore(1) d	O.D. D	Ring Widths		L	d_1	B_2	S	B_1	M(2)	F_1	O	Brg. & Collar Wt.		Static Load Rating C_o	Extended Dynamic Load Rating C_E
Spherical O.D.	Spherical O.D.				B Inner	C Outer												
Relubricatable Type	Non-Relubricatable Type		mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	kg	lbs.	N lbs.	N lbs.
G1013KPPB3	1013KPPB3		13/16												0.286	0.63		
G1014KPPB3	1014KPPB3	205	7/8	52	34.92	15	3.9	38.1	13.5	17.5	44.4	3.61	45.19	16.66	0.272	0.60	7700	15800
G1015KPPB3	1015KPPB3		15/16	2.0472	1 3/8	0.591	5/32	1 1/2	17/32	11/16	1 3/4	0.142	1.779	0.656	0.254	0.56	1730	3550
G1100KPPB3	1100KPPB3		1												0.231	0.51		
GE25KPPB3	E25KPPB3		25												0.231	0.51		
G1101KPPB3	1101KPPB3		1 1/16												0.413	0.91		
G1102KPPB3	1102KPPB3		1 1/8	62	36.51	18	3.9	44.4	15.9	18.3	48.4	4.19	52.53	21.56	0.404	0.89	11100	21800
G1103KPPB3	1103KPPB3	206	1 3/16	2.4409	1 7/16	0.709	5/32	1 3/4	5/8	23/32	1 29/32	0.156	2.068	0.849	0.376	0.83	2500	4900
G1103KPPB4	1103KPPB4		1 1/4												0.349	0.77		
GE30KPPB3	E30KPPB3		30												0.376	0.83		
G1104KPPB2	1104KPPB2		1 1/4												0.653	1.44		
G1105KPPB2	1105KPPB2	207	1 5/16	72	37.70	19	3.9	54.0	17.1	18.85	51.2	3.68	60.35	25.40	0.603	1.33	15100	28500
G1106KPPB2	1106KPPB2		1 3/8	2.8346	1 31/64	0.748	5/32	2 1/8	43/64	0.742	2 1/64	0.145	2.376	1.00	0.572	1.26	3400	6400
G1107KPPB2	1107KPPB2		1 7/16												0.544	1.20		
GE35KPPB2	E35KPPB2		35												0.572	1.26		
G1108KPPB3	1108KPPB3		1 1/2	80	42.86	21	4.8	60.3	18.3	21.4	56.4	5.66	67.79	23.44	0.789	1.74	19800	20500
G1109KPPB3	1109KPPB3	208	1 9/16	3.1496	1 11/16	0.827	3/16	2 3/8	23/32	27/32	2 7/32	0.223	2.669	0.923	0.739	1.63	4460	4600
GE40KPPB3	E40KPPB3		40												0.739	1.63		
G1110KPPB4	1110KPPB4		1 5/8												0.898	1.98		
G1111KPPB4	1111KPPB4	209	1 11/16	85	42.86	22	4.8	63.5	18.3	21.4	56.4	4.55	72.44	27.48	0.848	1.87	36200	36300
G1112KPPB4	1112KPPB4		1 3/4	3.3465	1 11/16	0.866	3/16	2 1/2	23/32	27/32	2 7/32	0.179	2.852	1.082	0.826	1.82	8130	8160
GE45KPPB4	E45KPPB4		45												0.826	1.82		
G1113KPPB3	1113KPPB3		1 13/16												1.116	2.46		
G1114KPPB3	1114KPPB3		1 7/8	90	49.21	23	4.8	69.9	18.3	24.6	62.7	4.7	77.7	27.51	1.034	2.28	22700	39200
G1115KPPB3	1115KPPB3	210	1 15/16	3.5433	1 15/16	0.906	3/16	2 3/4	23/32	31/32	2 15/32	0.185	3.059	1.083	1.016	2.24	5100	8800
GE50KPPB3	E50KPPB3		50												1.016	2.24		
G1200KPPB4	1200KPPB4		2												1.583	3.49		
G1201KPPB4	1201KPPB4		2 1/16	100	55.56	24	4.8	76.2	20.6	27.8	71.4	5.41	87.17	29.01	1.47	3.24	28500	48100
G1202KPPB4	1202KPPB4	211	2 1/8	3.9370	2 3/16	0.945	3/16	3	13/16	1 3/32	2 13/16	0.213	3.432	1.142	1.406	3.10	6400	10800
G1203KPPB4	1203KPPB4		2 3/16												1.365	3.01		
GE55KPPB4	E55KPPB4		55												1.365	3.01		

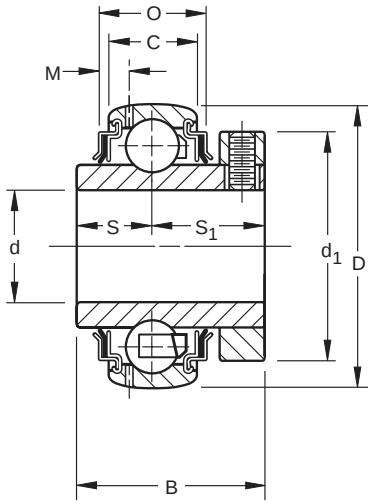
(1) Bore tolerance: 13/16" - 2 3/16", nominal to .013 mm, +.0005".
(2) Applies to relubricatable type only.

Note: Suggested max speed - 500 RPM.

GC-KRRB INDUSTRIAL SERIES CONCENTRIC COLLAR RELUBRICATABLE TYPE

- Relubricatable with spherical outside diameters and shroud seals.
- Metal shroud maintains tight seal contact against the inner ring and shields the rubber seals from damage because of dirt or fiber wrap.
- The concentric collar is locked to the shaft by two setscrews located 120 degrees apart, mated with threaded holes in the collar and drilled holes in the bearing inner ring.
- The extra-wide design provides additional shaft support and extra-large grease capacity.

Suggested shaft tolerances: 1/2" - 1 15/16", nominal to -.013 mm, -.0005"; 2" - 2 15/16", nominal to -.025 mm, -.0010".



TO ORDER, SPECIFY BEARING NUMBER. Example: GC1103KRRB + COL.

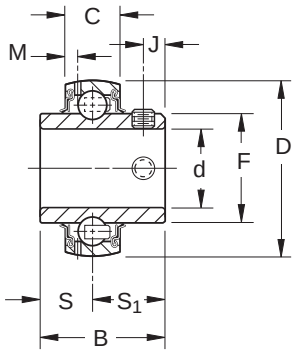
Bearing Number (Spherical O.D.)	Collar Number	Basic Outer Ring Size	Bore(1) d	O.D. D	Ring Widths B Inner	Ring Widths C Outer	S	S_1	d_1	M	O	Setscrew Size	Brg. & Collar Wt.	Static Load Rating C_o	Extended Dynamic Load Rating C_E
			mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	kg / lbs.	N / lbs.	N / lbs.
GC1008KRRB	C203		1/2										0.154 0.34		
GC1010KRRB	C203	203	5/8	40	26.59	12	11.1	15.5	34.1	2.72	14.71	M5x0.8	0.145 0.32	4700	10600
GC1011KRRB	C203		11/16	1.5748	1 3/64	0.472	7/16	39/64	11/32	0.107	0.579	10-32	0.122 0.27	1060	2360
GCE17KRRB			17										0.122 0.27		
GC1012KRRB	C204	204	3/4	47	30.96	14	12.3	18.7	38.1	3.43	20.68	M5x0.8	0.204 0.45	6200	14300
GCE20KRRB			20	1.8504	1 7/32	0.551	31/64	47/64	1 1/2	0.135	0.814	10-32	0.204 0.45	1400	3200
GC1014KRRB	C205	205	7/8										0.272 0.6		
GC1015KRRB	C205		15/16	52	34.13	15	13.9	20.2	44.4	3.61	19.74	M6x1	0.254 0.56	7700	15800
GC1100KRRB	C205		1	2.0472	1 11/32	0.5905	35/64	51/64	1 3/4	0.142	0.777	1/4-28	0.231 0.51	1730	3550
GCE25KRRB			25										0.231 0.51		
GC1102KRRB	C206	206	1 1/8										0.404 0.89		
GC1103KRRB	C206		1 3/16	62	37.31	18	14.7	22.6	52.4	4.19	24.51	M6x1	0.376 0.83	11100	21800
GC1103KRRB3	C206		1 1/4	2.4409	1 15/32	0.709	37/64	57/64	2 1/16	0.156	0.965	1/4-28	0.349 0.77	2500	4900
GCE30KRRB			30										0.376 0.83		
GC1104KRRB	C207		1 1/4										0.653 1.44		
GC1106KRRB	C207	207	1 3/8	72	41.28	19	15.9	25.4	59.5	3.68	25.86	M6x1	0.572 1.26	15100	28500
GC1107KRRB	C207		1 7/16	2.8346	1 5/8	0.7481	5/8	1	2 11/32	0.145	1.018	1/4-28	0.544 1.20	3400	6400
GCE35KRRB			35										0.572 1.26		
GC1108KRRB	C208	208	1 1/2	80	44.05	21	16.7	27.4	68.3	5.66	28.42	M8x1.25	0.789 1.74	19800	20500
GCE40KRRB			40	3.1496	1 47/64	0.827	21/32	1 5/64	2 11/16	0.223	1.119	5/16-24	0.739 1.63	4460	4600
GC1110KRRB	C209-2		1 5/8										0.898 1.98		
GC1111KRRB	C209	209	1 11/16	85	46.83	22	17.5	29.4	73	4.55	32.21	M8x1.25	0.848 1.87	36200	36300
GC1112KRRB	C209		1 3/4	3.3465	1 27/32	0.866	1 11/16	1 5/32	2 7/8	0.179	1.268	5/16-24	0.826 1.82	8130	8160
GCE45KRRB			45										0.826 1.82		
GC1115KRRB	C210	210	1 15/16	90	48.42	23	18.3	30.2	79.4	4.7	32.23	M8x1.25	0.990 2.18	22700	39200
GCE50KRRB			50	3.5433	1 29/32	0.906	23/32	1 3/16	3 1/8	0.185	1.269	5/16-24	0.990 2.18	5100	8800
GC1200KRRB	C211		2	100	53.97	24	20.6	33.3	88.9	5.41	33.73	M10x1.5	1.52 3.35	28500	48000
GC1203KRRB	C211	211	2 3/16	3.9370	2 1/8	0.945	13/16	1 5/16	3 1/2	0.213	1.328	3/8-24	1.306 2.88	6400	10800
GCE55KRRB			55										1.306 2.88		
GC1207KRRB	C212	212	2 7/16	110	60.32	27	23.0	37.3	95.3	5.13	35.03	M10x1.5	1.565 3.45	35600	58800
GCE60KRRB			60	4.3307	2 3/8	1.063	29/32	1 15/32	3 3/4	0.202	1.379	3/8-24		8000	13200
GC1215KRRB	C215	215	2 15/16	130	70.64	29	27.0	43.7	114.3	5.59	38.25	M10x1.5	2.64 5.82	43600	69500
GCE75KRRB			75	5.1181	2 25/32	1.142	1 1/16	1 23/32	4 1/2	0.219	1.506	3/8-20		9800	15600

(1) Bore tolerances: 1 3/16" - 2 3/16", nominal to .013 mm, +.0005".
2 1/4" - 3 3/16", nominal to .015 mm, +.0006".

GY-KRRB SETSCREW INDUSTRIAL SERIES

- The Y-Series setscrew bearing has increased shaft support for HVAC and other industrial applications.
- Featuring superfinished raceways, grade 10 balls and anti-back-out nylon patch setscrews, they are factory prelubricated and are relubricatable.
- Setscrew mounting feature is ideal for reversing load applications.

Suggested shaft tolerances: 1/2"-1 15/16", nominal to -.013 mm, -.0005"; 2" - 2 15/16", nominal to -.025 mm, -.0010".



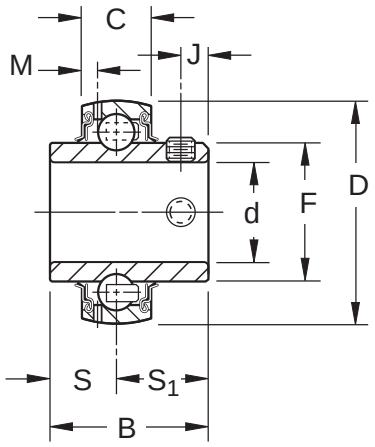
Bearing Number	Basic Outer Ring Size	Bore[1] d	O.D. D	Ring Widths B Inner	Ring Widths C Outer	S	S1	F	M	J	Setscrew Size	Static Load Rating Co	Extended Dynamic Load Rating CE
		mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	N / lbs.	N / lbs.
GY1008KRRB		1/2											
GY1009KRRB	203	9/16	40	27.38	12	11.5	15.88	22.86	2.72	4.55	M5X.8	4400	10600
GY1010KRRB		5/8	1.5748	1.078	0.472	0.453	0.625	0.9	0.107	0.179	10-32	1000	2360
GY1011KRRB		11/16											
GYE15KRRB		15											
GYE17KRRB		17											
GY1012KRRB	204	3/4	47	30.96	14	12.7	18.26	27.56	3.43	5.13	M5X.8	6200	14300
GYE20KRRB		20	1.8504	1.219	0.55	0.5	0.719	1.085	0.135	0.202	10-32	1400	3200
GY1013KRRB		13/16											
GY1014KRRB		7/8	52	34.11	15	14.27	19.91	33.83	3.86	6.3	M6X1	7700	15800
GY1015KRRB	205	15/16	2.0472	1.343	0.591	0.562	0.781	1.332	0.152	0.248	1/4-28	1730	3550
GY1100KRRB		1											
GYE25KRRB		25											
GY1101KRRB		1 1/16											
GY1102KRRB	206	1 1/8	62	38.1	18	15.88	22.22	40.31	3.96	7.62	M6X1	11000	21600
GY1103KRRB		1 3/16	2.4409	1.500	0.709	0.625	0.875	1.587	0.156	0.300	1/4-28	2500	4800
GY1103KRRB3		1 1/4											
GYE30KRRB		30											
GY1104KRRB		1 1/4											
GY1105KRRB	207	1 5/16	72	42.87	19	17.48	25.4	46.18	3.68	7.82	M8X1.25	15100	28500
GY1106KRRB		1 3/8	2.8346	1.688	0.748	0.688	1	1.816	0.145	0.308	5/16-24	3400	6400
GY1107KRRB		1 7/16											
GYE35KRRB		35											
GY1108KRRB	208	1 1/2	80	49.22	21	19.05	30.17	52.27	4.06	8	M8X1.25	19600	36000
GY1109KRRB		1 9/16	3.1496	1.938	0.827	0.75	1.188	2.058	0.16	0.315	5/16-24	4400	8150
GYE40KRRB		40											
GY1110KRRB		1 5/8											
GY1111KRRB	209	1 11/16	85	49.22	22	19.05	30.17	57.92	4.55	8	M8X1.25	20000	36000
GY1112KRRB		1 3/4	3.3465	1.938	0.8661	0.75	1.188	2.28	0.179	0.315	5/16-24	4500	8150
GYE45KRRB		45											
GY1113KRRB		1 13/16											
GY1114KRRB		1 7/8	90	51.59	22	19.05	32.54	62.84	4.7	10	M10X1.5	22700	39000
GY1115KRRB	210	1 15/16	3.5433	2.031	0.8661	0.75	1.281	2.474	0.185	0.394	3/8-24	5100	8800
GY1115KRRB3		2											
GYE50KRRB		50											
GY1200KRRB		2											
GY1201KRRB	211	2 1/16	100	55.55	24	22.22	33.32	69.77	5	10	M10X1.5	28500	48000
GY1202KRRB		2 1/8	3.9370	2.187	0.945	0.875	1.312	2.747	0.197	0.394	3/8-24	6400	10800
GY1203KRRB		2 3/16											
GYE55KRRB		55											
GY1204KRRB		2 1/4											
GY1205KRRB	212	2 5/16	110	65.07	27	25.4	39.67	76.48	5.13	10	M10X1.5	35600	58500
GY1206KRRB		2 3/8	4.3307	2.562	1.063	1	1.562	3.011	0.202	0.394	3/8-24	8000	13200
GY1207KRRB		2 7/16											
GYE60KRRB		60											
GY1210KRRB		2 5/8	1.25	69.85	28	26.97	42.84	86.92	5.08	12	M12X1.75	37500	69500
GY1211KRRB	214	2 11/16	4.9213	2.75	1.102	1.062	1.687	3.422	0.2	0.472	7/16-20	8500	15600
GYE70KRRB		70											
GY1212KRRB		2 3/4											
GY1214KRRB	215	2 7/8	130	77.8	29	33.32	44.45	91.92	5.56	12	M12X1.75	43600	69500
GY1215KRRB		2 15/16	5.1181	3.063	1.142	1.312	1.75	3.619	0.219	0.472	7/16-20	9800	15600
GYE75KRRB		75											

[1] Bore tolerances: 1/2" - 2 3/16", nominal to .013 mm, +.0005".
2 1/4" - 3 15/16", nominal to .015 mm, +.0006".

MEDIUM-DUTY GYM-KRRB INSERTS SETSCREW LOCK

- This series is designed to offer extended bearing life despite demanding industrial environments.
- Insert features a full width inner ring, providing extra support along the shaft.
- The extra support feature, coupled with a flexible nylon retainer, allows the inserts to operate for extended periods with undersized shafts or in misalignment conditions.
- Inserts are equipped with a three-piece seal, protecting against corrosion, contamination and fiber wrap.
- Inserts also include nylon patch setscrews, resisting setscrew back-out and providing superior holding power in applications with severe vibration.

Suggested shaft tolerances: 1" - 1 15/16", nominal to -.013 mm, -.0005";
2" - 3", nominal to -.025 mm, -.0010".



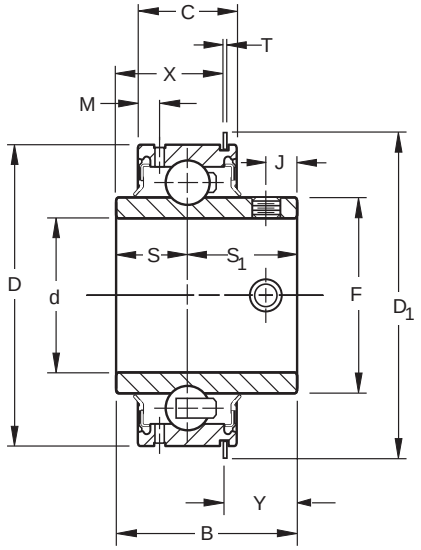
Bearing Number Spherical O.D.	Basic Outer Ring Size	Bore[1] d	O.D. D	Ring Widths B Inner	Ring Widths C Outer	S	S_1	F	M	J	Setscrew Size	Bearing Wt.	Static Load Rating C_0	Extended Dynamic Load Rating C_E
		in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	N lbs.	N lbs.
GYM1100KRRB	206	1	62 2.4409	38.10 1.500	18 0.709	15.88 0.625	22.22 0.875	40.31 1.587	3.96 0.156	7.62 0.300	M6 x 1 1/4 -28	0.427 0.94	11100 2500	21800 4900
GYM1103KRRB	207	1 3/16	72 2.8346	42.87 1.688	19 0.748	17.48 0.688	25.40 1.000	46.18 1.816	3.68 0.145	7.82 0.308	M8 x 1.25 5/16 -24	0.704 1.55	15100 3400	28500 6400
GYM1107KRRB	208	1 7/16	80 3.1496	49.22 1.938	21 0.827	19.05 0.750	30.17 1.188	52.27 2.058	4.06 0.160	8.00 0.315	M8 x 1.25 5/16 -24	0.817 1.8	19600 4400	36300 8150
GYM1108KRRB	209	1 1/2	85 3.3465	49.22 1.938	22 0.866	19.05 0.750	30.17 1.188	52.27 2.280	4.55 0.179	8.00 0.315	M8 x 1.25 5/16 -24	0.885 1.95	20000 4500	36300 8150
GYM1111KRRB GYM1112KRRB	210	1 11/16 1 3/4	90 3.5433	51.59 2.031	22 0.866	19.05 0.750	32.54 1.281	62.84 2.474	4.70 0.185	10.00 0.394	M10 x 1.5 3/8 -24	1.271 2.8 1.203 2.65	22700 5100 22700 5100	39200 8800 39200 8800
GYM1115KRRB GY1200KRRB	211	1 15/16 2	100 3.9370	55.55 2.187	24 0.945	22.22 0.875	33.32 1.312	69.77 2.747	5.00 0.197	10.00 0.394	M10 x 1.5 3/8 -24	1.634 3.6 1.498 3.3	28500 6400 28500 6400	48100 10800 48100 10800
GYM1203KRRB GY1204KRRB	212	2 3/16 2 1/4	110 4.3307	65.07 2.562	27 1.063	25.40 1.000	39.67 1.562	76.48 3.011	5.13 0.202	10.00 0.394	M10 x 1.5 3/8 -24	2.225 4.9 1.952 4.3	35600 8000 35600 8000	58800 13200 58800 13200
GYM1207KRRB GYM1208KRRB	214	2 7/16 2 1/2	125 4.9213	69.85 2.750	28 1.102	26.97 1.062	42.84 1.687	76.48 3.422	5.08 0.200	12.00 0.472	M12 x 1.75 7/16 -20	2.996 6.6 2.86 6.3	43000 9650 43000 9650	69500 15600 69500 15600
GYM1211KRRB	215	2 11/16	130 5.1181	77.80 3.063	29 1.142	33.32 1.312	44.45 1.750	91.92 3.619	5.56 0.219	12.00 0.472	M12 x 1.75 7/16 -20	3.042 6.7	43600 9800	69500 15600
GYM1215KRRB GYM1300KRRB	216	2 15/16 3	140 5.5118	77.80 3.063	29 1.142	33.32 1.312	44.45 1.750	91.92 3.619	5.56 0.219	12.00 0.472	M12 x 1.75 7/16 -20	3.087 6.8	53400 12000 53400 12000	80200 18000 80200 18000

[1] Bore tolerance: 1/2" - 2 3/16", nominal to .013 mm, +.0005".
2 1/4" - 3 15/16", nominal to .015 mm, +.0006".

ER INDUSTRIAL SERIES RELUBRICATABLE TYPE

- Designed for use in applications where low starting torque and low running torque are necessary.
- ER-DD Series is for applications where extremely low-torque is required.
- Test results indicate an average of 95 percent reductions in start-up torque when using ER-DD over the standard ER bearing. Running torque is reduced up to 85 - 90 percent.

Suggested shaft tolerances: 1/2" - 1 15/16", nominal to -.013 mm, -.0005";
2" - 2 15/16", nominal to -.025 mm, -.0010".



Bearing Number	Basic Outer Ring	Bore(1) d	O.D. D	Ring Widths B Inner	Ring Widths C Outer	S	S1	F	J	D1	Y ref	T	M	X ref	Setscrew Size	Bearing Wt.		Cross Reference Number(2)
		in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg	lbs.	
ER08*		1/2														0.190	0.42	
ER10*	204	5/8	47	30.96	15.88	12.7	18.26	28.17	5.16	52.4	16.61	1.2	3.97	14.35	M5X.8	0.167	0.37	SM1012K
ER12*		3/4	1.8504	1 7/32	5/8	1/2	23/32	1 7/64	13/64	2 1/16	21/32	3/64	5/32	9/16	10 - 32	0.141	0.31	
ER14*		7/8														0.218	0.48	
ER15	205	15/16	52	34.13	19.05	14.29	19.84	33.73	6.35	57.5	16.61	1.2	3.57	17.50	M6X1	0.195	0.43	SM1013K
ER16*		1	2.0472	1 11/32	3/4	9/16	25/32	1 21/64	1/4	2 17/64	21/32	3/64	9/64	11/16	1/4 - 28	0.181	0.40	
ER18	206	1 1/8	62	38.1	22.23	15.87	22.22	40.48	7.54	67.5	17.93	1.6	5.56	20.17	M6X1	0.340	0.75	SM1101K
ER19		1 3/16	2.4409	1 1/2	7/8	5/8	7/8	1 19/32	19/64	2 21/32	45/64	1/16	7/32	51/64	1/4 - 28	0.313	0.69	
ER20*		1 1/4														0.567	1.25	
ER22*	207	1 3/8	72	42.86	23.81	17.46	25.4	46.83	7.94	78.2	19.76	1.6	5.56	23.11	M8X1.25	0.499	1.10	SM1104K
ER23*		1 7/16	2.8346	1 11/16	15/16	11/16	1	1 27/32	5/16	3 5/64	25/32	1/16	7/32	29/32	5/16 - 24	0.476	1.05	
ER24*	208	1 1/2	80	49.21	27.78	19.05	30.16	52.38	7.94	86.5	21.16	1.6	6.35	28.07	M8X1.25	0.671	1.48	SM1108K
			3.1496	1 15/16	1 3/32	3/4	1 3/16	2 1/16	5/16	3 13/32	53/64	1/16	1/4	1 7/64	5/16 - 24			
ER27	209	1 11/16	85	49.21	27.78	19.05	30.16	57.94	7.94	91.3	21.16	1.6	6.35	28.07	M8X1.25	0.735	1.62	SM1110K
ER28*		1 3/4	3.3465	1 15/16	1 3/32	3/4	1 3/16	2 9/64	5/16	3 19/32	53/64	1/16	1/4	1 7/64	5/16 - 24	0.690	1.52	
ER30	210	1 7/8	90	51.59	28.58	19.05	32.54	55.66	9.92	96.4	24.66	2.4	7.14	27.31	M10X1.5	0.853	1.88	SM1113K
ER31		1 15/16	3.5433	2 1/32	1 1/8	3/4	1 9/32	2 7/16	25/64	3 51/64	31/32	3/32	9/32	1 5/64	3/8 - 24	0.834	1.84	
ER32*	211	2	100	55.56	30.16	22.22	33.34	69.85	9.92	106.4	24.28	2.4	7.14	31.27	M10X1.5	1.300	2.87	SM1200K
ER35		2 3/16	3.9370	2 3/16	1 3/16	7/8	1 5/16	2 3/4	25/64	4 3/16	61/64	3/32	9/32	1 15/64	3/8 - 24	1.084	2.39	
ER39*	212	2 7/16	110	65.09	31.75	25.4	39.69	76.60	9.92	116.3	28.24	2.4	6.75	36.83	M10X1.5	1.450	3.20	SM1204K
			4.3307	2 9/16	1 1/4	1	1 9/16	3 1/64	25/64	4 37/64	1 7/64	3/32	1 7/64	1 29/64	3/8 - 24			
ER47	215	2 5/16	130	77.79	38.1	33.33	44.45	91.68	11.91	139.7	33.02	2.8	6.35	44.78	M12X1.75	2.210	4.88	SM1213K
			5.1180	3 1/16	1 1/2	1 5/16	1 3/4	3 39/64	15/32	5 1/2	1 19/64	7/64	1/4	1 49/64	7/16 - 20			
ER51	216	3 3/16	140	77.79	42.86	28.58	49.21	98.43	13.49	149.6	35.32	2.8	11.11	42.47	M12X1.75	3.450	7.61	SM1303K
			5.5110	3 1/16	1 11/16	1 1/8	1 15/16	3 7/8	17/32	5 57/64	1 25/64	7/64	7/16	1 43/64	7/16 - 20			
ER55	217	3 7/16	150	85.72	49.21	34.16	51.57	104.84	11.91	159.5	34.53	2.8	11.02	51.21	M12X1.75	—	—	SM1307K
			5.9051	3 3/8	1 15/16	1 11/32	2 1/32	4 1/8	7/16	6 1/4	1 23/64	7/64	7/16	2 1/64	7/16 - 20			

(1) Bore tolerance: 1/2" - 2 3/16", nominal to .013 mm, +.0005".
2 1/4" - 2 15/16", nominal to .015 mm, +.0006".

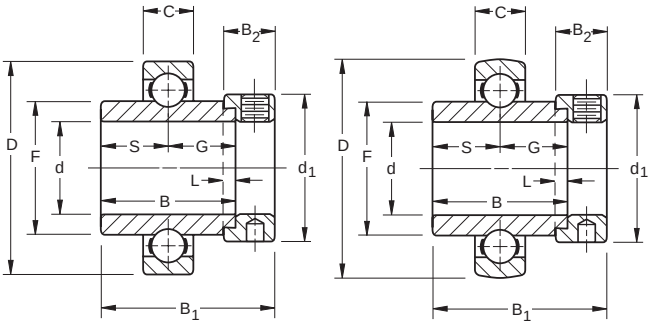
(2) Use cross reference bearing numbers to locate Load Ratings on page D70.

*ER-DD low drag/low-torque version available.

SM INDUSTRIAL SERIES A AND B TYPES/MUA-B INSERTS[6]

- Standard SM Series A and B have the same ring tolerances and corner radii as equivalent 200 Series single-row radial ball bearings.
- Type A has cylindrical outside diameters; type B has spherical outside diameters. The letter B appears on the outer ring only.
- Bearings are not prelubricated.

Suggested shaft tolerances: 1/2" - 1 15/16", nominal to -.013 mm, -0005";
2" - 3 15/16", nominal to -.025 mm, -.0010".



Type A Type B

TO ORDER, SPECIFY BEARING NUMBER FOLLOWED BY "+ COL".
Example: SM1207KB + COL.

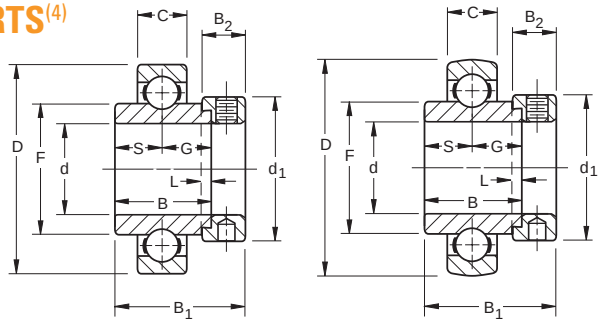
Bearing Number A Type[7]	Bearing Number B Type	Collar Number	Basic Outer Ring Size	Bore[4] d	O.D. D	Ring Widths B Inner	Ring Widths C Outer	S&G	F	L	d_1	B_1	B_2	Brg. & Collar Wt.		Static Load Rating C_o	Extended Dynamic Load Rating C_E
				in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg	lbs.	N lbs.	N lbs.
SM1008K	SM1008KB	S1008K		1/2										0.145	0.32		
SM1009K	SM1009KB	S1009K	203	9/16	40	27.78	12	13.9	22.86	4.0	28.6	13.5	37.3	0.131	0.29	4700	10600
SM1010K	SM1010KB	S1010K		5/8	1.5748	1 3/32	0.4724	35/64	0.900	5/32	1 1/8	17/32	1 15/32	0.136	0.3	1600	2360
SM1011K	SM1011KB	S1011K		11/16										0.113	0.25		
SM1012K	SM1012KB	S1012K	204	3/4	47	34.13	14	17.1	27.56	4.0	33.3	13.5	48.66	0.195	0.43	6200	14300
					1.8504	1 11/32	0.5512	43/64	1.085	5/32	1 5/16	17/32	1 23/32			1400	3200
SM1013K	SM1013KB	S1013K		13/16										0.276	0.61		
SM1014K	SM1014KB	S1014K	205	7/8	52	34.93	15	17.5	33.83	4.0	38.1	13.5	44.45	0.254	0.56	6950	15600
SM1015K	SM1015KB	S1015K		15/16	2.0472	1 3/8	0.5906	11/16	1.332	5/32	1 1/2	17/32	1 3/4	0.236	0.52	1730	3450
SM1100K	SM1100KB	S1100K		1										0.217	0.48		
SM1101K	SM1101KB	S1101K		1 1/16	62	36.51	16[1]	18.3	40.31	4.0	44.4	15.9	48.4	0.399	0.88	11100	21600
SM1102K	SM1102KB	S1102K	206	1 1/8	2.4409	1 7/16	0.6299	23/32	1.587	5/32	1 3/4	5/8	1 29/32	0.367	0.81	2500	4800
SM1103K	SM1103KB	S1103K		1 3/16										0.331	0.73		
SM1104K	SM1104KB	S1104K		1 1/4										0.621	1.37		
SM1105K	SM1105KB	S1105K	207	1 5/16	72	37.70	17[2]	18.85	46.13	4.0	54.0	17.46	51.2	0.589	1.3	15100	28500
SM1106K	SM1106KB	S1106K		1 3/8	2.8346	1 31/64	0.6693	0.742	1.816	5/32	2 1/8	11/16	2 1/64	0.562	1.24	3400	6400
SM1107K	SM1107KB	S1107K		1 7/16										0.539	1.19		
SM1108KT	SM1108KB	S1108KT	208	1 1/2	80	42.86	18[3]	21.4	52.27	4.8	60.3	18.3	56.4	0.761	1.68	19600	36000
SM1109KT		S1109KT		1 9/16	3.1496	1 11/16	0.7087	27/32	2.058	3/16	2 3/8	23/32	2 7/32	0.716	1.58	4400	8150
SM1110K	SM1110KB	S1110K		1 5/8	85	42.86	19	21.4	57.92	4.8	63.5	18.3	56.4	0.875	1.93	20000	36000
SM1111K	SM1111KB	S1111K	209	1 11/16	3.3465	1 11/16	0.7480	27/32	2.28	3/16	2 1/2	23/32	2 7/32	0.857	1.89	4500	8150
SM1112K	SM1112KB	S1112K		1 3/4										0.803	1.77		
SM1113K	SM1113KB	S1113K		1 13/16	90	49.21	20	24.6	62.84	4.8	69.9	18.3	62.7	1.075	2.37	22700	39000
SM1114K	SM1114KB	S1114K	210	1 7/8	3.5433	1 15/16	0.7874	31/32	2.474	3/16	2 3/4	23/32	2 15/32	1.012	2.23	5100	8800
SM1115K	SM1115KB	S1115K		1 15/16										0.962	2.12		
SM1200K	SM1200KB	S1200K		2										1.51	3.33		
SM1201K	SM1201KB	S1201K	211	2 1/16	100	55.56	21	27.8	69.77	4.8	76.2	20.6	71.4	1.397	3.08	28500	48000
SM1202K	SM1202KB	S1202K		2 1/8	3.9370	2 9/16	0.8268	1 3/32	2.747	3/16	3	13/16	2 13/16	1.438	3.17	6400	10800
SM1203K	SM1203KB	S1203K		2 3/16										1.256	2.77		
SM1204K	SM1204KB	S1204K	212	2 1/4										1.86	4.1		
SM1205K	SM1205KB	S1205K		2 5/16	110	61.91	22	30.96	76.48	6.4	84.14	22.33	77.8	1.787	3.94	35600	58500
SM1206K	SM1206KB	S1206K		2 3/8	4.3307	2 7/16	0.8661	1 7/32	3.011	1/4	3 5/16	7/8	3 1/16	1.692	3.73	8000	13200
SM1207K	SM1207KB	S1207K		2 7/16										1.374	3.03		
SM1208K	SM1208KB	S1208K	213	2 1/2	120	68.26	23	34.13	84.58	6.4	96.84	23.81	85.73	2.472	5.45	39200	63000
					4.7244	2 11/16	0.9055	1 11/32	3.33	1/4	3 13/16	15/16	3 3/8			8800	14300
SM1211KT	SM1211KTB	S1211KT	214	2 11/16	125	68.26	24	34.13	86.92	6.4	96.84	23.81	85.73	2.418	5.33	43000	69500
					4.9213	2 11/16	0.9449	1 11/32	3.422	1/4	3 13/16	15/16	3 3/8			9650	15600
SM1213K	SM1213KB	S1213K	215	2 13/16	130	74.61	25	37.3	91.92	6.4	101.6	23.81	92.08	2.858	6.3	43600	68000
SM1215K	SM1215KB	S1215K		2 15/16	5.1181	2 15/16	0.9843	1 15/32	3.619	1/4	4	15/16	3 5/8	2.803	6.18	9800	15300
SM1303K	SM1303KB	S1303K	216	3 3/16	140	80.96	26	40.48	98.4	6.4	111.13	25.4	100.01	3.452	7.61	53400	80000
					5.5118	3 3/16	1.0236	1 19/32	3.874	1/4	4 3/8	1	3 15/16			12000	18000
SM1307K	SM1307KB	S1307K	217	3 7/16	150	87.31	28	43.66	104.83	6.4	112.71	25.4	106.36	3.901	8.6	61000	93000
					5.9055	3 7/16	1.1024	1 23/32	4.127	1/4	4 7/16	1	4 3/16			13700	20800
SM1311W-BR	SM1311WB-BR[5]	S1311K	219	3 11/16	170	93.66	32	46.83	118.34	6.4	127	26.99	114.3	6.078	13.4	113600	150000
					6.6929	3 11/16	1.2598	1 27/32	4.659	1/4	5	1 1/16	4 1/2			25500	34000
SM1315W-BR	SM1315WB-BR[5]	S1315	220	3 15/16	180	100.01	34	50	123.85	6.4	139.7	31.75	125.41	7.335	16.17	126900	170000
					7.0866	3 15/16	1.3386	1 31/32	4.876	1/4	5 1/2	1 1/4	4 15/16			28500	38000

[1] Spherical O.D. outer ring width is 18 mm, .7087".
[2] Spherical O.D. outer ring width is 19 mm, .7480".
[3] Spherical O.D. outer ring width is 21 mm, .8268".
[4] Bore tolerance: 1/2" - 2 3/16", nominal to .013 mm, +.0005".
2 1/4" - 3 3/16", nominal to .015 mm, +.0006".
3 1/4" - 3 15/16", nominal to .018 mm, +.0007".
[5] For applications where thrust load exceeds 60% of radial load, consult your Timken representative.
[6] See page D140.
[7] Order as MUA assembly suggested.

SMN HEAVY SERIES A AND B TYPES/MUOA-B INSERTS[4]

- SMN Series types A and B have the same ring tolerances and corner radii as equivalent 300 Series single-row radial ball bearings.
- Type A has cylindrical outside diameters; Type B has spherical outside diameters. The letter B appears on the outer ring only.
- Bearings are not prelubricated.

Suggested shaft tolerances: $\frac{5}{8}$" - 1 $\frac{15}{16}$", nominal to -.013 mm, -.0005";
2 $\frac{3}{16}$" - 3 $\frac{15}{16}$", nominal to -.025 mm, -.0010".
For larger sizes, contact your Timken representative.



TO ORDER, SPECIFY BEARING NUMBER FOLLOWED BY "+ COL". Example: SMN102K + COL.

Bearing Number A Type[3]	Bearing Number B Type	Collar Number	Basic Outer Ring Size	Bore[1] d	O.D. D	Ring Widths B Inner	Ring Widths C Outer	S	G	F	L	d_1	B_2	B_1	Brg. & Collar Wt.		Static Load Rating C_0	Extended Dynamic Load Rating C_E
				in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg lbs.	lbs.	N lbs.	N
SMN010K	SMN010KB	SN010K	303	$\frac{5}{8}$	47	34.13	14	17.07	17.07	25.93	4.0	34.93	15.88	46.05	0.24	0.53	6550	15000
SMN011K	SMN011KB	SN011K		$\frac{11}{16}$	1.8504	1 $\frac{11}{32}$	0.5512	$\frac{43}{64}$	$\frac{43}{64}$	1.021	$\frac{5}{32}$	1 $\frac{3}{8}$	$\frac{5}{8}$	1 $\frac{13}{16}$	0.218	0.48	1460	3350
SMN012K	SMN012KB	SN012K	304	$\frac{3}{4}$	52	34.93	15	15.9	19.05	29.24	4.0	36.51	15.88	46.83	0.227	0.5	7800	17600
					2.0472	1 $\frac{3}{8}$	0.5906	$\frac{5}{8}$	$\frac{3}{4}$	1.151	$\frac{5}{32}$	1 $\frac{7}{16}$	$\frac{5}{8}$	1 $\frac{27}{32}$			1760	4000
SMN013K	SMN013KB	SN013K		$\frac{13}{16}$											0.445	0.98		
SMN014K	SMN014KB	SN014K	305	$\frac{7}{8}$	62	34.93	17	16.67	18.26	36.5	4.0	42.86	15.88	46.83	0.431	0.95	12200	26000
SMN015K	SMN015KB	SN015K		$\frac{15}{16}$	2.4409	1 $\frac{3}{8}$	0.6693	$\frac{21}{32}$	$\frac{23}{32}$	1.437	$\frac{5}{32}$	1 $\frac{11}{16}$	$\frac{5}{8}$	1 $\frac{27}{32}$	0.413	0.91	2750	5850
SMN100K	SMN100KB	SN100K		1											0.404	0.86		
SMN101K	SMN101KB	SN101K		1 $\frac{1}{16}$	72	36.51	19	17.46	19.05	43.23	4.0	49.21	17.46	50	0.608	1.34	15600	33500
SMN102K	SMN102KB	SN102K	306	1 $\frac{1}{8}$	2.8346	1 $\frac{7}{16}$	0.7480	$\frac{11}{16}$	$\frac{3}{4}$	1.702	$\frac{5}{32}$	1 $\frac{15}{16}$	$\frac{11}{16}$	1 $\frac{31}{32}$	0.585	1.29	3550	7500
SMN103K	SMN103KB	SN103K		1 $\frac{3}{16}$											0.567	1.25		
SMN104K	SMN104KB	SN104K		1 $\frac{1}{4}$											0.803	1.77		
SMN105K	SMN105KB	SN105K	307	1 $\frac{15}{16}$	80	38.10	21	18.26	19.84	48.95	4.0	55.6	17.46	51.59	0.757	1.67	21200	40500
SMN106K	SMN106KB	SN106K		1 $\frac{3}{8}$	3.1496	1 $\frac{1}{2}$	0.8268	$\frac{23}{32}$	$\frac{25}{32}$	1.927	$\frac{5}{32}$	2 $\frac{3}{16}$	$\frac{11}{16}$	2 $\frac{1}{32}$	0.726	1.6	4750	9150
SMN107K	SMN107KB	SN107K		1 $\frac{7}{16}$											0.721	1.56		
SMN108K	SMN108KB	SN108K	308	1 $\frac{1}{2}$	90	41.28	23	19.84	21.43	55.5	4.8	63.5	20.64	57.15	1.089	2.4	26100	49000
SMN109K	SMN109KB	SN109K		1 $\frac{9}{16}$	3.5433	1 $\frac{5}{8}$	0.9055	$\frac{25}{32}$	$\frac{27}{32}$	2.185	$\frac{3}{16}$	2 $\frac{1}{2}$	$\frac{13}{16}$	2 $\frac{1}{4}$	1.025	2.26	5850	11000
SMN110K	SMN110KB	SN110K		1 $\frac{5}{8}$	100	42.86	25	19.84	23.02	62.05	4.8	69.9	20.64	58.74	1.433	3.16	31600	58500
SMN111K	SMN111KB	SN111K	309	1 $\frac{11}{16}$	3.9370	1 $\frac{11}{16}$	0.9843	$\frac{25}{32}$	$\frac{29}{32}$	2.443	$\frac{3}{16}$	2 $\frac{3}{4}$	$\frac{13}{16}$	$\frac{25}{16}$	1.361	3	7100	13200
SMN112K	SMN112KB	SN112K		1 $\frac{3}{4}$											1.361	3		
SMN113K	SMN113KB	SN113K		1 $\frac{13}{16}$	110	49.21	27	24.61	24.61	68.78	4.8	76.2	22.2	66.68	1.896	4.18	37900	68000
SMN114K	SMN114KB	SN114K	310	1 $\frac{7}{8}$	4.3307	1 $\frac{15}{16}$	1.063	$\frac{31}{32}$	$\frac{31}{32}$	2.708	$\frac{3}{16}$	3	$\frac{7}{8}$	2 $\frac{5}{8}$	1.805	3.98	8500	15300
SMN115K	SMN115KB	SN115K		1 $\frac{15}{16}$											1.737	3.83		
SMN200K	SMN200KB	SN200K		2											2.413	5.32		
SMN201K	SMN201KB	SN201K	311	2 $\frac{1}{16}$	120	55.56	29	27.78	27.78	75.01	4.8	82.55	22.2	73.03	2.395	5.28	43600	80000
SMN202K	SMN202KB	SN202K		2 $\frac{1}{8}$	4.7244	2 $\frac{3}{16}$	1.1417	1 $\frac{3}{32}$	1 $\frac{3}{32}$	2.953	$\frac{3}{16}$	3 $\frac{1}{4}$	$\frac{7}{8}$	2 $\frac{7}{8}$	2.331	5.14	9800	18000
SMN203K	SMN203KB	SN203K		2 $\frac{3}{16}$											2.209	4.87		
SMN204K	SMN204KB	SN204K	312W	2 $\frac{1}{4}$											3.084	6.8		
SMN205K	SMN205KB	SN205K		2 $\frac{5}{16}$	130	61.91	31	31	31	81.53	6.4	88.9	23.81	79.38	3.012	6.64	51480	89800
SMN206K	SMN206KB	SN206K		2 $\frac{3}{8}$	5.1181	2 $\frac{7}{16}$	1.2205	1 $\frac{7}{32}$	1 $\frac{7}{32}$	3.21	$\frac{1}{4}$	3 $\frac{1}{2}$	$\frac{15}{16}$	3 $\frac{1}{8}$	2.908	6.41	11700	20400
SMN207K	SMN207KB	SN207K		2 $\frac{7}{16}$											2.812	6.2		
SMN211K	SMN211KB	SO211K	314	2 $\frac{11}{16}$	150	2.69	35	34.13	34.13	94.78	6.4	101.6	26.99	92.08	4.205	9.27	66800	116000
					5.9055	2 $\frac{11}{16}$	1.378	1 $\frac{11}{32}$	1 $\frac{11}{32}$	3.731	$\frac{1}{4}$	4	1 $\frac{1}{16}$	3 $\frac{5}{8}$			15000	26000
SMN215K	SMN215KB	SN215K	315	2 $\frac{15}{16}$	160	74.61	37	37.31	37.31	100.38	6.4	112.71	31.75	100.01	5.856	12.91	75700	125000
					6.2992	2 $\frac{15}{16}$	1.4567	1 $\frac{15}{32}$	1 $\frac{15}{32}$	3.952	$\frac{1}{4}$	4 $\frac{7}{16}$	1 $\frac{1}{4}$	3 $\frac{15}{16}$			17000	28500
SMN303K	SMN303KB	SN303K	316	3 $\frac{3}{16}$	170	80.96	39	40.48	40.48	106.91	6.4	119.06	31.75	106.36	6.704	14.78	86000	137000
					6.6929	3 $\frac{3}{16}$	1.5354	1 $\frac{19}{32}$	1 $\frac{19}{32}$	4.209	$\frac{1}{4}$	4 $\frac{11}{16}$	1 $\frac{1}{4}$	4 $\frac{3}{16}$			19300	30500
SMN307K	SMN307KB	SN307K	318	3 $\frac{7}{16}$	190	87.31	43	43.66	43.66	120.12	7.94	133.35	36.51	115.89	9.984	22.01	106900	156000
					7.4803	3 $\frac{7}{16}$	1.6929	1 $\frac{23}{32}$	1 $\frac{23}{32}$	4.729	$\frac{5}{16}$	5 $\frac{1}{4}$	1 $\frac{7}{16}$	4 $\frac{9}{16}$			24000	35500
SM0311W-BR[2]	SM0311WB-BR[2]	SO311K	319	3 $\frac{11}{16}$	200	93.66	45	38.89	54.77	126.67	7.94	139.7	36.51	122.24	11.09	24.45	173700	224000
					7.874	3 $\frac{11}{16}$	1.7717	1 $\frac{17}{32}$	2 $\frac{5}{32}$	4.987	$\frac{5}{16}$	5 $\frac{1}{2}$	1 $\frac{7}{16}$	4 $\frac{13}{16}$			39000	50000
SMN315K	SMN315KB	SN315K	320	3 $\frac{15}{16}$	215	100.01	47	50	50	134.77	7.94	146.05	36.51	128.59	13.068	28.81	140300	193000
					8.4646	3 $\frac{15}{16}$	1.8504	1 $\frac{31}{32}$	1 $\frac{31}{32}$	5.306	$\frac{5}{16}$	5 $\frac{3}{4}$	1 $\frac{7}{16}$	5 $\frac{1}{16}$			31500	43000
SMN403W-BR[2]	SMN403WB-BR	SN403K	321	4 $\frac{3}{16}$	225	104.78	49	48.42	56.36	141.22	7.94	157.16	42.86	139.7	15.508	34.19	202700	250000
					8.8583	4 $\frac{1}{8}$	1.9291	1 $\frac{29}{32}$	2 $\frac{7}{32}$	5.56	$\frac{5}{16}$	6 $\frac{3}{16}$	1 $\frac{11}{16}$	5 $\frac{1}{2}$			45500	56000
SMN407W-BR[2]	SMN407WB-BR[2]	SN407K	322	4 $\frac{7}{16}$	240	106.36	50	49.21	57.15	142.75	7.94	165.1	42.86	141.29	19.051	42	245000	285100
					9.4488	4 $\frac{3}{16}$	1.9685	1 $\frac{15}{16}$	2 $\frac{1}{4}$	5.92	$\frac{5}{16}$	6 $\frac{1}{2}$	1 $\frac{11}{16}$	5 $\frac{9}{16}$			55000	64000
SMN415W-BR[2]	SMN415WB-BR[2]	SN415K	326	4 $\frac{15}{16}$	280	106.36	59	53.98	61.91	176.56	7.94	206.38	42.86	150.81	29.66	65.39	327400	347400
					11.0236	4 $\frac{3}{16}$	2.3228	2 $\frac{1}{8}$	2 $\frac{7}{16}$	6.951	$\frac{5}{16}$	8 $\frac{1}{8}$	1 $\frac{11}{16}$	5 $\frac{15}{16}$			73500	78000

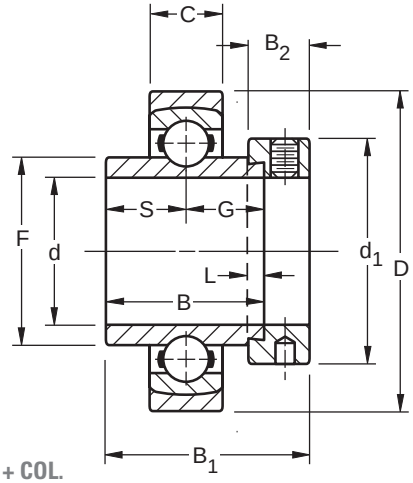
[1] Bore tolerance: $\frac{5}{8}$" - 2 $\frac{3}{16}$", nominal to .013 mm, +.0005".
3 $\frac{1}{4}$" - 4 $\frac{3}{16}$", nominal to .018 mm, +.0007".
4 $\frac{7}{16}$" - 4 $\frac{15}{16}$", nominal to .020 mm, +.0008".

[2] For applications where thrust load exceeds 60% of radial load, consult your Timken representative.
[3] Order as MUOA assembly suggested.
[4] See page D140.

SM-S INDUSTRIAL SERIES

- Standard SM-S Series permits the inner assembly to swivel in the outer aligning ring.
- Unrestricted self-alignment is achieved allowing the inner ring to become square and true with the shaft and assembly.
- The external S-Ring is uniquely ground and closely matched to its respective outer bearing ring. The S-Ring of one bearing will not fit the outer ring of another bearing.
- Bearings are not prelubricated.

Suggested shaft tolerances: 1" - 1 15/16", nominal to -.013 mm, -.0005";
2" - 3 15/16", nominal to -.025 mm, -.0010".



TO ORDER, SPECIFY BEARING NUMBER FOLLOWED BY "+ COL". Example: SM1100KS + COL.

Bearing Number	Collar Number	Basic Outer Ring Size	Bore(1) d	O.D. D	Ring Widths B Inner	Ring Widths C Outer	S&G	F	L	d_1	B_2	B_1	Brg. & Collar Wt.		Static Load Rating C_o	Extended Dynamic Load Rating C_E
			in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg	lbs.	N lbs.	N lbs.
SM1100KS	S1100K	205	1	57 2.2441	34.93 1 3/8	15 0.591	17.46 11/16	33.83 1.332	4.0 5/32	38.1 1 1/2	13.5 17/32	44.1 1 47/64	0.263	0.58	7700 1730	15600 3450
SM1103KS	S1103K	206	1 3/16	68 2.6772	36.51 1 7/16	16 0.6300	18.3 23/32	39.12 1.54	4.0 5/32	44.4 1 3/4	15.9 5/8	48.4 1 29/32	0.418	0.92	11100 2500	21600 4800
SM1104KS SM1107KS	S1104K S1107K	207	1 1/4 1 7/16	79 3.1102	37.70 1 31/64	17 0.669	18.85 0.742	46.13 1.816	4.0 5/32	54.4 2 1/8	17.46 11/16	51.2 2 1/64	0.726 0.658	1.6 1.45	11500 3400	28500 6400
SM1108KS	S1108KT	208	1 1/2	88 3.4646	42.86 1 11/16	18 0.709	21.4 27/32	52.27 2.058	4.8 3/16	60.3 2 3/8	18.3 23/32	56.4 2 7/32	0.903	1.99	19600 4400	36000 8150
SM1115KS	S1115K	210	1 15/16	100 3.9370	49.21 1 15/16	20 0.7874	24.6 31/32	62.84 2.474	4.8 3/16	69.9 2 3/4	18.3 23/32	62.7 2 15/32	1.185	2.61	22700 5100	39000 8800
SM1203KS	S1203K	211	2 3/16	110 4.3307	55.56 2 3/16	21 0.8268	27.8 1 3/32	69.77 2.747	4.8 3/16	76.2 3	20.6 13/16	71.4 2 13/16	1.748	3.85	28500 6400	48000 10800
SM1207KS	S1207K	212	2 7/16	120 4.7244	61.91 2 7/16	22 0.8661	30.96 1 7/32	76.48 3.011	6.4 1/4	84.14 3 5/16	22.2 7/8	77.8 3 1/16	1.907	4.2	35600 8000	58500 13200
SM1211KS	S1211KT	214	2 11/16	140 5.5118	68.26 2 11/16	24 0.9449	34.13 1 11/32	86.92 3.422	6.4 1/4	96.84 3 13/16	23.81 15/16	79.4 3 3/8	2.974	6.55	43000 9650	69500 15600
SM1215KS	S1215K	215	2 15/16	145 5.7087	74.61 2 15/16	25 0.9843	37.3 1 15/32	91.92 3.619	6.4 1/4	101.6 4	23.81 15/16	92.08 3 5/8	3.541	7.8	43600 9800	68000 15300
SM1303KS	S1303K	216	3 3/16	155 6.1024	80.96 3 3/16	26 1.0236	40.48 1 19/32	98.4 3.874	6.4 1/4	111.13 4 3/8	25.4 1	100.01 3 15/16	4.15	9.14	53400 12000	80000 18000
SM1307KS	S1307K	217	3 7/16	165 6.4961	87.31 3 7/16	28 1.1024	43.66 1 23/32	104.83 4.127	6.4 1/4	112.71 4 7/16	25.4 1	106.36 4 3/16	4.69	10.33	61000 13700	93000 20800
SM1315WS(2)	S1315K	220	3 15/16	200 7.874	100.01 3 15/16	34 1.3386	50 1 31/32	123.85 4.876	6.4 1/4	139.7 5 1/2	31.75 1 1/4	125.41 4 15/16	8.939	19.69	126900 28500	170000 38000

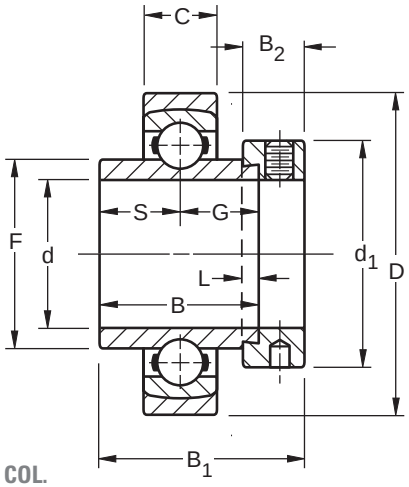
(1) Bore tolerance: 1" - 2 3/16", nominal to .013 mm, +.0005".
2 1/4" - 3 3/16", nominal to .015 mm, +.0006".
3 1/4" - 3 15/16", nominal to .018 mm, +.0007".

(2) For applications where thrust load exceeds 60% of radial load, consult your Timken representative.

SMN-S HEAVY SERIES

- Construction permits inner assembly to swivel in the outer aligning ring.
- Unrestricted self-alignment is achieved, allowing the inner ring to become square and true with the shaft and assembly.
- The external S-Ring is uniquely ground and closely matched to its respective outer bearing ring so that the S-Ring of one bearing will not fit the outer ring of another bearing.
- Has the basic 300 Series load capacities.
- Bearings are not prelubricated.

Suggested shaft tolerances: 1 3/16" - 1 15/16", nominal to -.013 mm, -.0005";
2" - 3 15/16", nominal to -.025 mm, -.0010".



TO ORDER, SPECIFY BEARING NUMBER FOLLOWED BY "+ COL". Example: SMN103KS + COL.

Bearing Number	Collar Number	Basic Outer Ring Size	Bore(1) d	O.D. D	Ring Widths B Inner	Ring Widths C Outer	S	G	F	L	d_1	B_2	B_1	Brg. & Collar Wt.		Static Load Rating C_o	Extended Dynamic Load Rating C_E
			in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	kg	lbs.	N lbs.	N lbs.
SMN103KS	SN103K	306	1 3/16	80 3.1496	36.51 1 7/16	19 0.748	17.5 11/16	19.1 3/4	43.23 1.702	4.0 5/32	49.2 1 15/16	17.5 11/16	50.0 1 31/32	0.654	1.44	15600 3550	33500 7550
SMN107KS	SN107K	307	1 7/16	88 3.4646	38.10 1 1/2	21 0.8268	18.30 23/32	19.8 25/32	48.95 1.927	4.0 5/32	55.6 2 3/16	17.5 11/16	51.6 2 1/32	0.849	1.87	21200 4750	40500 9150
SMN108KS	SN108KT	308	1 1/2	100 3.9370	41.28 1 5/8	23 0.9055	19.80 25/32	21.4 27/32	55.5 2.185	4.8 3/16	63.5 2 1/2	20.6 13/16	57.2 2 1/4	1.344	2.96	26100 5850	49000 11000
SMN111KS	SN111K	309	1 11/16	110 4.3307	42.86 1 11/16	25 0.9843	19.80 25/32	23.0 29/32	62.05 2.443	4.8 3/16	69.9 2 3/4	20.6 13/16	58.7 2 5/16	1.693	3.73	31600 7100	58500 13200
SMN115KS	SN115K	310	1 15/16	120 4.7244	49.21 1 15/16	27 1.063	24.6 31/32	24.6 31/32	68.78 2.708	4.8 3/16	76.2 3	22.2 7/8	66.7 2 5/8	2.147	4.73	37900 8500	68000 15300
SMN203KS	SN203K	311	2 3/16	130 5.1181	55.56 2 3/16	29 1.1417	27.8 1 3/32	27.8 1 3/32	75.01 2.953	4.8 3/16	82.6 3 1/4	22.2 7/8	73.00 2 7/8	2.769	6.1	43600 9800	80000 18000
SMN207KS	SN207K	312	2 7/16	145 5.7087	61.91 2 7/16	31 1.2205	31 1 7/32	31 1 7/32	81.53 3.21	6.4 1/4	88.9 3 1/2	23.8 15/16	79.4 3 1/8	3.405	7.5	51700 11600	90000 20400
SMN211KS	SO211K	314	2 11/16	165 6.4961	68.26 2 11/16	35 1.378	34.10 1 11/32	34.1 1 11/32	94.7 3.731	6.4 1/4	101.6 4	27.0 1 1/16	92.1 3 5/8	5.185	11.42	66800 15000	116000 26000
SMN215KS	SN215K	315	2 15/16	175 6.8898	74.61 2 15/16	37 1.4567	37.3 1 15/32	37.3 1 15/32	100.38 3.952	6.4 1/4	112.7 4 7/16	31.8 1 1/4	100.0 3 15/16	6.456	14.22	75700 17000	125000 28500
SMN303KS	SN303K	316	3 3/16	190 7.4803	80.96 3 3/16	39 1.5354	40.5 1 19/32	40.5 1 19/32	106.91 4.209	6.4 1/4	119.10 4 11/16	31.8 1 1/4	106.4 4 3/16	8.04	17.71	86000 19300	137000 30500
SMN307KS	SN307K	318	3 7/16	210 8.2677	87.31 3 7/16	43 1.6929	43.7 1 23/32	43.7 1 23/32	120.12 4.729	7.9 5/16	133.4 5 1/4	36.5 1 7/16	115.9 4 9/16	1.79	25.97	106900 24000	156000 35500
SMO311WS-BR	SO311K	319	3 11/16	220 8.6608	93.66 3 11/16	45 1.768	38.89 1 17/32	54.77 2 5/32	126.53 4.982	7.94 5/16	139.7 5 1/2	36.51 1 7/16	122.24 4 13/16	16.3	33.0	166000 37500	224000 50000
SMN315KS	SN315K	320	3 15/16	235 9.252	100.01 3 15/16	47 1.8504	50 1 31/32	50 1 31/32	134.77 5.306	7.9 5/16	146.0 5 3/4	36.5 1 7/16	128.6 5 1/16	15.822	34.85	140300 31500	193000 43000
SMN407WS-BR(2)	SN407K	322	4 7/16	265 10.4331	106.36 4 3/16	50 1.9685	49.20 1 15/16	57.2 2 1/4	150.37 5.92	7.9 5/16	168.3 6 1/2	42.9 1 11/16	141.3 5 9/16	21.465	47.28	245000 55000	280000 63000
SMN415WS-BR(2)	SN415K	326	4 15/16	300 11.811	115.89 4 9/16	59 2.3228	54.0 2 1/8	61.9 2 7/16	176.56 6.951	7.9 5/16	206.4 8 1/8	42.9 1 11/16	150.8 5 15/16	33.773	74.39	327400 73500	345000 78000

(1) Bore tolerance: 15/16" - 2 3/16", nominal to .013 mm, +.0005".
2 1/4" - 3 3/16", nominal to .015 mm, +.0006".
3 1/4" - 4 3/16", nominal to .018 mm, +.0007".
4 7/16" - 4 15/16", nominal to .020 mm, +.0008".

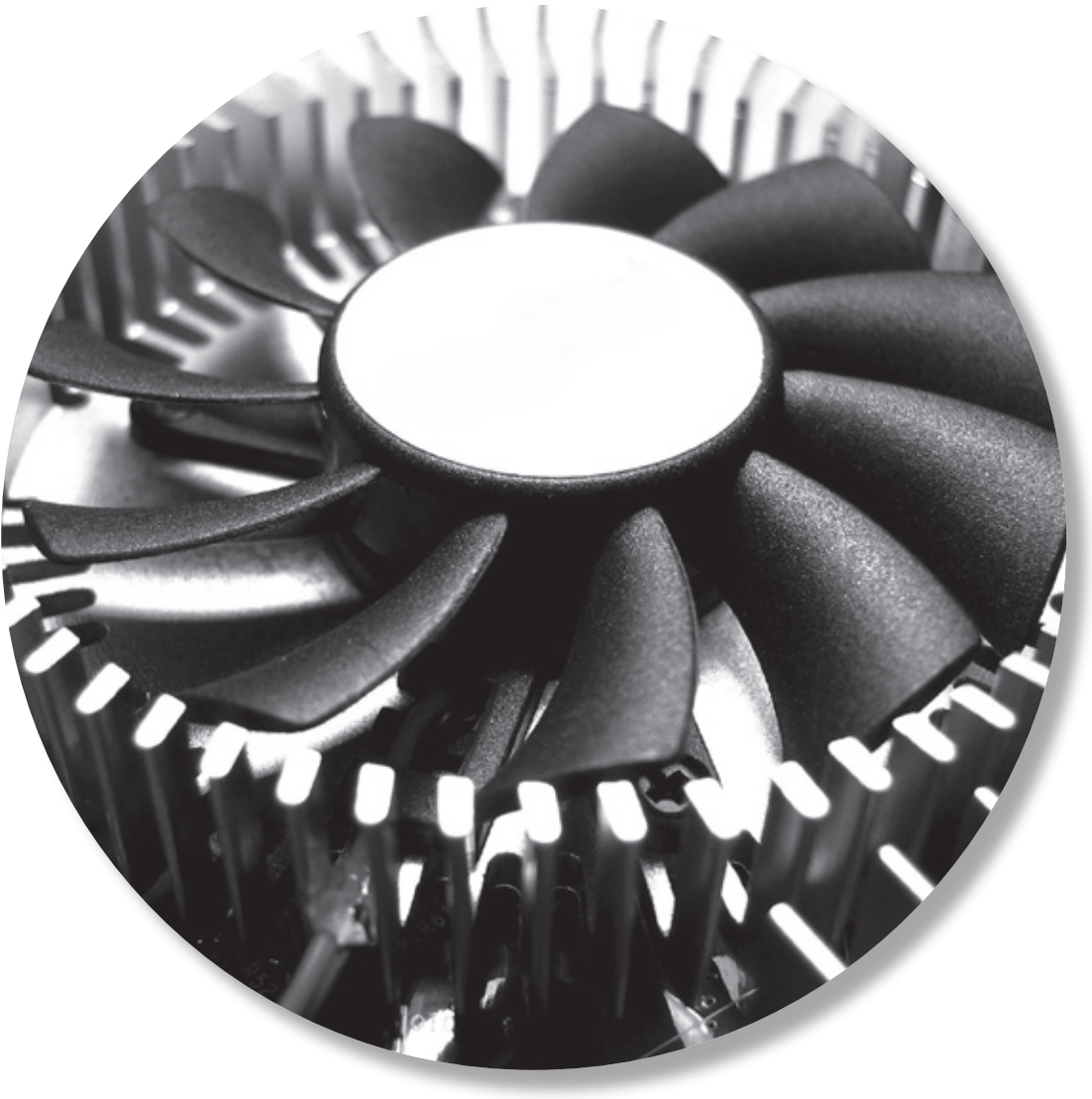
(2) For applications where thrust load exceeds 60% of radial load, consult your Timken representative.

NOTES

HOUSED UNITS

Overview: Timken housed units are available in a wide variety of types and sizes to accommodate a complete range of operating conditions.

- **Sizes:** 12.7 mm - 75.4 mm shaft size (0.50 in. - 2.968 in.).
- **Markets:** Agriculture, fans and blowers, food processing and conveyors.
- **Features:** Most popular design features cast iron housing. Other material options include malleable iron, polymer, pressed-steel or rubber.
- **Benefits:** Combines bearing, housing, seal and locking system into one device for easy installation. Operates even when the shaft is not perfectly aligned with the mounting surface.



D

Wide Inner Ring Ball Bearings Housed Units

AK	low base
AO	heavy series
AS	high base
C	cylindrical cartridge
CJ	four-bolt mount
CJT	two-bolt mount
AS	high base
TU	take-up unit

***Options:**

C	concentric collar
H	heavy housing
L	expansion unit
M	medium-duty

PT	polymer housing with TDC® bearing
NT	nickel-plated with TDC bearing
PS	polymer housing w/ stainless steel bearing

R **AK** ***** **1** **NT**

L	labyrinth seal with self-locking collar
R	contact shroud seal with self-locking collar
S	contact shroud seal, narrow inner ring, setscrew lock
T	Tri-Ply shroud seal with self-locking collar
V	contact shroud seal, narrow inner ring, self-locking collar
Y	contact shroud seal, with wide inner ring, setscrew lock

Bore Size
inch $\frac{1}{2}$ in. - $3\frac{15}{16}$ in.
metric 15 - 75 mm

Wide Inner Ring Ball Bearings
Housed Units

D

INTRODUCTION

Ball bearing housed units are available in a wide variety of types and sizes to accommodate a complete range of operating conditions.

These units generally have cast iron housings and are designed for mounting on straight shafts with a slip fit. The self-locking collar and the setscrew inner bearing designs provide ease in mounting. Bolt holes in housings take standard bolts for assembling these units to machinery frames. Several series are also available with the concentric locking collar.

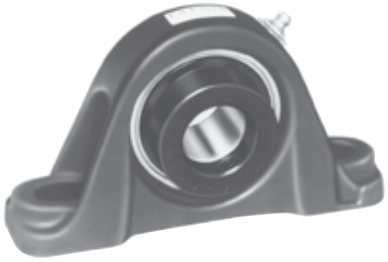
Most units are made with a self-aligning feature, and it is unnecessary for the user to refine the design in excess of practical limits. Units incorporating prelubricated wide inner ring bearings may be furnished without grease fittings.

Several basic types of housed units are available: pillow blocks, flanged cartridges, flangette units, cylindrical cartridges and take-up units. The type required is determined by its application and mounting requirements. Within the basic type selected, variations allow for load factors, shaft sizes, mounting surface dimensions, base to shaft centerline heights and lubrication requirements.

PILLOW BLOCKS

Pillow blocks, the most commonly used type of mounted units, are designed to provide shaft support where the mounting surface is parallel to the shaft axis. The bolt holes are usually slotted for adjustment during mounting.

Pillow blocks are supplied in a variety of configurations. Pressed steel and rubber pillow blocks are also available for light-duty applications.



FLANGED CARTRIDGES

Flanged cartridges are used where a shaft passes through the machine frame at a right angle. A four-bolt mounting is the most common, however, where the mounting area is restricted, three- and two-bolt versions are available. A piloted flanged cartridge provides additional mounting accuracy and support.

Flanged cartridges are supplied in both standard and heavy-duty series. Iron and rubber flanged cartridges are also available.

A complete line of flangette units, or pressed-steel flanged cartridges, provides an economical solution to light-duty applications. Two-, three- and four-bolt mountings are available along with a relubricable version.

CYLINDRICAL CARTRIDGES

Cylindrical cartridges, like flanged cartridges, provide shaft support where the shaft axis is perpendicular to and passing through a machined housing which is generally very thick. The outside diameter of the cylindrical cartridges permits mounting with a press fit into a straight, through-bored housing.

Cylindrical cartridges have a machined spherical bearing seat to provide initial shaft alignment in standard-duty applications. Synthetic, conductive rubber cylindrical cartridges are available for applications where low-cost, light-duty, low-noise operation is essential.

TAKE-UP UNITS

Take-up units are used where shaft adjustment and belt tightening devices are required, such as conveyor applications. Frames for take-up units provide for either side or top mounting.

Take-up units are available in cast iron for standard-duty and pressed steel for economical, light-duty applications.

TIMKEN SELF-LOCKING COLLAR INSTALLATION

Most Timken housed units come equipped with the self-locking collar to facilitate the mounting of wide inner ring bearings. This self-locking collar eliminates the need for locknuts, washers, shoulders, sleeves, and adapters.

The locking collar has a counterbored recess made purposely eccentric to the bore. The collar recess and the end of the bearing inner ring with which it engages are both machined so that they act as mating cams when on the shaft.

When the collar is engaged to the inner ring, it grips the shaft tightly with a positive binding action that increases with use. No adjustments of any kind are necessary.

1. Slip the shaft through the pillow block or other Timken housed unit incorporating the wide inner ring bearing. Be certain the bearing is aligned in position along the shaft to eliminate any possibility of cramping loads.

2. Fasten the unit securely to the base using the proper bolt size.

3. Place the self-locking collar on the shaft with its cam adjacent to the cam on the end of the bearing's inner ring. The eccentric recessed cam will slide over and engage the corresponding cam on the bearing inner ring. Turn the collar in the direction of shaft rotation.

4. Using a lightweight hammer and a drift pin inserted in the drift pin hole strike in the direction of shaft rotation to positively engage the collar. The wide inner ring is now locked to the shaft.

5. As a final step, fully tighten the setscrew. It exerts a wedging action to hold the collar always in the engaged position, even under shock load. This design will operate effectively after the cams are tightly locked in most cases with no setscrews at all.

CONCENTRIC COLLAR

For simplified installation of Timken housed units equipped with concentric collar bearings, the collar is normally assembled to the wide inner ring for shipment. Slip the complete unit on the shaft following steps 1 and 2 described for the self-locking collar procedure, and tighten both setscrews.

TIMKEN SETSCREW LOCKING BEARING

Steps 1 and 2 can be repeated from the self-locking collar installation above. To lock the setscrew bearing, simply tighten each inner ring setscrew to the suggested torque listed by shaft size. See chart below.

Shaft Size (in.)	mm	SUGGESTED Torque in lbs.	SUGGESTED (n • m)
1/2 - 11/16	17 mm	35 in lbs.	4 (n • m)
3/4 - 1	20-25 mm	80 in lbs.	9 (n • m)
1 1/16 - 1 3/4	30-45 mm	155 in lbs.	18 (n • m)
1 13/16 - 2 3/16	50-55 mm	275 in lbs.	31 (n • m)

It may be necessary to rotate the shaft to provide an easy access of the setscrew wrench to the setscrews. To disassemble, loosen the setscrews.

TIMKEN SURVIVOR™ PT SERIES

Timken's SURVIVOR™ Series housed units have been created to handle stringent food handling requirements and serve in highly corrosive applications. All assembly components have been carefully selected to comply with federal food processing requirements without compromising bearing performance needs.

The patented SURVIVOR PT polymer housed units have been tested to withstand a wide range of highly corrosive chemicals commonly found in food and beverage processing industries. These units are dimensionally stable under load and can operate in continuous temperatures up to 250° F (brief exposure up to 350° F) and the finish will not scrape or flake off during use.

The bearing inserts, given the proprietary Timken thin dense chrome coating, are combined with stainless steel locking collars to provide superior corrosion protection. This coating is a thin, dense chrome coating that will not crack or peel under known application conditions. The bearing housings are available as high-base and low-base pillow blocks, and 2-bolt and 4-bolt flanged cartridges for popular shaft sizes of $^{3}/_{4}$ in. through 1 $^{1}/_{2}$ in. and 20 mm through 40 mm diameters. Bearing inserts are available with the self-locking collar or the setscrew locking device. The SURVIVOR PT assemblies are dimensionally interchangeable with the current line of Timken cast iron housed units.

The SURVIVOR Series provides extraordinary corrosion resistance for food and beverage industries, materials handling operations, dairy and refrigeration applications, as well as HVAC, chemical, maritime and other highly corrosive environments.

All materials used in the SURVIVOR assemblies, including the grease, are approved for USDA and FDA compliant industries.

ORDERING INFORMATION

To order complete SURVIVOR polymer assemblies, simply add the "PT" suffix to the current cast iron housed unit designations.

Example:

YCJT 1 PT or RAK $^{3}/_{4}$ PT

Refer to the corresponding cast iron housing design for dimensional data. Consult your Timken sales representative or an authorized distributor for shaft size availability.

SURVIVOR inserts can be ordered using Timken's standard part number for wide inner ring bearings with a "TDCF" suffix. Example:

GY1100KRRB TDCF or G1100KRRB + COL TDCF

PT SERIES	
COMPONENT	**MATERIAL**
Balls	Stainless Steel
Ball Retainer	Nylon
Collar	Stainless Steel
Crush Bushing	Stainless Steel
Grease	FDA Approved
Housing	Polymer
Grease Fitting	Stainless Steel
Grease Fitting Cover	Nylon
Rings	TDC plated
Seals	Synthetic Rubber
Seal Caps	Stainless Steel
Setscrew	Stainless Steel

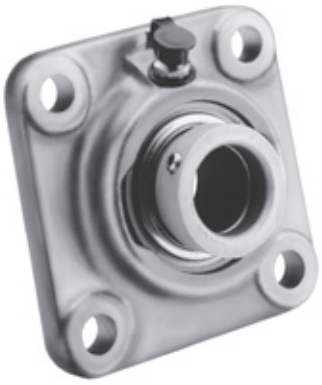
TIMKEN SURVIVOR™ NT SERIES

Timken SURVIVOR NT Series is designed to stand up to the demands of the food handling industries and for use in highly corrosive applications. The NT Series provides outstanding protection in combination with thin dense chrome coating ball bearing inserts, collar and the electroless nickel-plated housing.

The SURVIVOR NT Series units are available as high-base and low-base pillow blocks, and 2-bolt and 4-bolt flanged cartridges for popular shaft sizes of $^{1}/_{2}$ in. through 2 $^{15}/_{16}$ in. (and selected metric diameters). Timken also produces a take-up unit in the SURVIVOR NT Series in limited shaft sizes (RTU-NT). The bearing inserts are available with self-locking collars. The SURVIVOR NT Series is dimensionally interchangeable with the current line of Timken cast iron housed units.

The SURVIVOR NT Series provides extraordinary corrosion resistance in a durable package suitable for food and beverage industries, materials handling operations, dairy and refrigeration applications, as well as HVAC, chemical, maritime and other highly corrosive environments.

All materials used in the SURVIVOR assemblies, including the grease, are approved for USDA and FDA compliant industries.



ORDERING INFORMATION

To order complete SURVIVOR nickel-plated assemblies, simply add the "NT" suffix to the cast iron housed unit designations. Example:

RCJT 1 NT or RAK $^{3}/_{4}$ NT

Refer to the corresponding cast iron housing design for dimensional data. Consult your Timken sales representative or an authorized distributor for shaft size availability.

SURVIVOR inserts can be ordered using Timken's standard part number for wide inner ring bearings with a "TDCF" suffix. Example:

G1100KRRB + COL TDCF

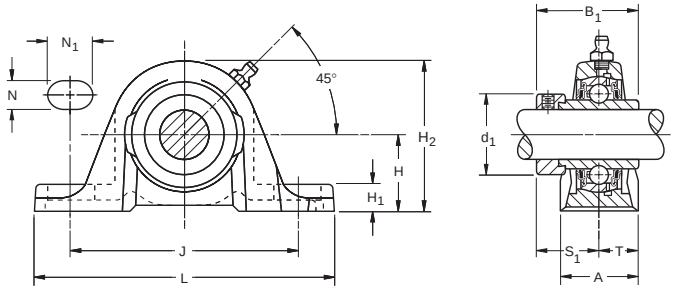
NT SERIES	
COMPONENT	**MATERIAL**
Balls	Stainless Steel
Ball Retainer	Nylon
Collar	Stainless Steel
Rings	TDC plated
Grease	FDA Approved
Housing Finish	Nickel Plating
Grease Fitting	Stainless Steel
Grease Fitting Cover	Nylon
Seals	Synthetic Rubber
Seal Caps	Stainless Steel
Setscrew[1]	Stainless Steel

[1] Standard SURVIVOR NT units are only available in the "R" series, self-locking collar types. Setscrew lock series ("Y") units are available for minimum quantity orders.

RAK, TAK, LAK INDUSTRIAL SERIES

Timken RAK, TAK and LAK pillow blocks are suggested for industrial applications where normal loads are encountered.

- A compact, one-piece housing that can be mounted in any position.
- Pillow blocks self-align at mounting with the spherical outside diameter of the bearing fitting into corresponding spherical housing seat.
- Units are prelubricated and ready for immediate installation.
- Grease fitting is provided for relubrication.
- Self-locking collars are supplied with all units.
- RAK pillow block is equipped with G-KRRB (R-Seal) wide inner ring bearings, the TAK with G-KPPB (Tri-Ply Seal) wide inner ring bearings and the LAK with the G-KLLB (Mechani-Seal) wide inner ring bearings.
- **Contact a Timken representative to discuss highly corrosive applications (food processing, chemical exposure) where Timken thin dense chrome coated bearings can be utilized.**



Suggested shaft tolerances: **½"- 1 15/16", nominal to -.013 mm, -.0005"; 2" - 2 15/16", nominal to -.025 mm, -.0010".**

BEARING DATA

Unit	Bearing Number	Dimensions and Load Ratings
RAK	G.KRRB	Page D54
TAK	G.KPPB	Page D65
LAK	G.KLLB	Page D62

TO ORDER, SPECIFY UNIT AND SHAFT DIAMETER. Example: RAK 1 7/16". POPULAR SIZES ARE IN BOLD.

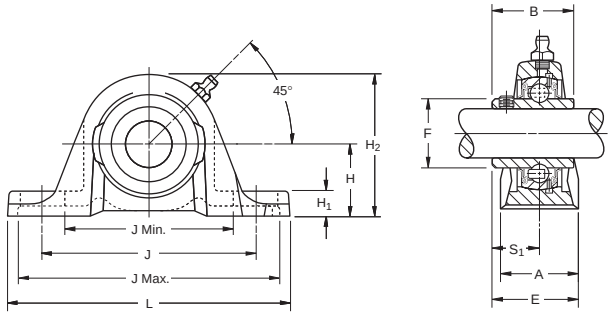
Unit	Shaft Dia. mm / in.	H mm / in.	H_2 mm / in.	B_1 mm / in.	J mm / in.	L mm / in.	A mm / in.	H_1 mm / in.	N mm / in.	N_1 mm / in.	d_1 mm / in.	S_1 mm / in.	T mm / in.	Bolt Size mm / in.	Bearing Number[1] RAK	Bearing Number[1] (TAK/LAK)	Collar Number	Housing Number new (old)	Unit Wt. kg / lbs.
RAK, LAK	1/2	26.99	53.2	37.3	92.1	123.8	30.2	8.7	11.1	22.2	28.6	23.4	15.1	10	G1008KRRB	(KLLB)	S1008K	T-40238	0.454
RAK, LAK	5/8	1 1/16	2 3/32	1 15/32	3 5/8	4 7/8	1 3/16	11/32	7/16	7/8	1 1/8	59/64	19/32	3/8	G1010KRRB	(KLLB)	S1010K	(T-30595)	1
RAK	11/16														G1011KRRB		S1011K		
RAK	17														GE17KRRB		SE17K		
RAK, LAK	**3/4**	31.75	62.7	43.7	96	127	31.8	11.9	11.1	19.8	33.3	26.6	15.9	10	G1012KRRB	(KLLB)	S1012K	T-40239	0.635
RAK	20	1 1/4	2 15/32	1 23/32	3 25/32	5	1 1/4	15/32	7/16	25/32	1 5/16	1 3/64	5/8	3/8	GE20KRRB		SE20K	(T-30555)	1.4
RAK, TAK	7/8														G1014KRRB	(KPPB3)	S1014K		
RAK, TAK, LAK	15/16	33.34	68.3	44.4	104.8	139.7	35.7	11.9	11.1	20.6	38.1	27	17.9	10	G1015KRRB	(KPPB3/KLLB)	S1015K	T-30365	0.803
RAK, TAK, LAK	**1**	1 5/16	2 11/16	1 3/4	4 1/8	5 1/2	1 13/32	15/32	7/16	13/16	1 1/2	1 1/16	45/64	3/8	G1100KRRB	(KPPB3/KLLB)	S1100K		1.77
RAK, TAK	25														GE25KRRB	(KPPB3)	SE25K		
RAK, TAK	1 1/16														G1101KRRB	(KPPB3)	S1101K		
RAK, TAK, LAK	1 1/8	39.69	80.2	48.4	117.5	157.2	39.7	13.5	14.3	23.8	44.1	30.2	19.9	12	G1102KRRB	(KPPB3/KLLB)	S1102K	T-40241	1.297
RAK, TAK, LAK	1 3/16	1 9/16	3 5/32	1 29/32	4 5/8	6 3/16	1 9/16	17/32	9/16	15/16	1 47/64	1 3/16	25/32	1/2	G1103KRRB	(KPPB3/KLLB)	S1103K	(T-30300)	2.86
RAK, TAK	30														GE30KRRB	(KPPB3)	SE30K		
RAK, TAK, LAK	1 1/4														G1104KRRB	(KPPB2/KLLB)	S1104K		
RAK, TAK	1 5/16	46.04	92.1	51.2	130.2	166.7	45.2	16.7	14.3	24.6	54	32.5	22.7	12	G1105KRRB	(KPPB2)	S1105K	T-40242	1.674
RAK, TAK	1 3/8	1 13/16	3 5/8	2 1/64	5 1/8	6 9/16	1 25/32	21/32	9/16	31/32	2 1/8	1 9/32	57/64	1/2	G1106KRRB	(KPPB2)	S1106K	(T-30410)	3.69
RAK, TAK, LAK	**1 7/16**														G1107KRRB	(KPPB2/KLLB)	S1107K		
RAK, TAK	35														GE35KRRB	(KPPB2)	SE35K		
RAK, TAK, LAK	**1 1/2**	49.21	100	56.4	136.5	179.4	47.6	19	14.3	26.2	60.3	34.9	23.8	12	G1108KRRB	(KPPB3/KLLB)	S1108KT	T-40243	2.15
RAK, TAK	1 9/16	1 15/16	3 15/16	2 7/32	5 3/8	7 1/16	1 7/8	3/4	9/16	1 1/32	2 3/8	1 3/8	15/16	1/2	G1109KRRB	(KPPB3)	S1109KT	(T-30484)	4.74
RAK, TAK	40														GE40KRRB	(KPPB3)	SE40K		
RAK, TAK	1 5/8														G1110KRRB	(KPPB4)	S1110K		
RAK, TAK, LAK	**1 11/16**	52.39	104.8	56.4	149.2	191.3	50.8	17.5	14.3	28.6	63.5	34.9	25.4	12	G1111KRRB	(KPPB4/KLLB)	S1111K	T-40244	2.409
RAK, TAK, LAK	1 3/4	2 1/16	4 1/8	2 7/32	5 7/8	7 17/32	2	11/16	9/16	1 1/8	2 1/2	1 3/8	1	1/2	G1112KRRB	(KPPB4/KLLB)	S1112K	(T-30682)	5.31
RAK, TAK	45														GE45KRRB	(KPPB4)	SE45K		
RAK, TAK	1 7/8	55.56	112.7	62.7	158	200	55.6	17.5	17.5	23.8	69.8	38.1	27.8	16	G1114KRRB	(KPPB3)	S1114K	T-40245	3.003
RAK, TAK, LAK	**1 15/16**	2 3/16	4 7/16	2 15/32	6 7/32	7 7/8	2 3/16	11/16	11/16	15/16	2 3/4	1 1/2	1 3/32	5/8	G1115KRRB	(KPPB3/KLLB)	S1115K	(T-30706)	6.62
RAK, TAK	50														GE50KRRB	(KPPB3)	SE50K		
RAK, TAK	2														G1200KRRB	(KPPB4)	S1200K	T-40246	3.901
RAK, TAK	2 1/8	61.91	124.6	71.4	176.2	222.3	58.7	19	18.3	29.4	76.2	43.7	29.4	16	G1202KRRB	(KPPB4)	S1202K	(T-30738)	8.6
RAK, TAK, LAK	**2 3/16**	2 7/16	4 29/32	2 13/16	6 15/16	8 3/4	2 5/16	3/4	23/32	1 5/32	3	1 23/32	1 5/32	5/8	G1203KRRB	(KPPB4/KLLB)	S1203K		
RAK, TAK	55														GE55KRRB	(KPPB4)	SE55K		
RAK	2 1/4														G1204KRRB		S1204K	T-40247	5.511
RAK	2 3/8	68.26	137.3	77.8	188.1	239.7	60.3	22.2	17.5	29.4	84.1	46.8	30.2	16	G1206KRRB		S1206K	(T-31244)	12.15
RAK, LAK	**2 7/16**	2 11/16	5 13/32	3 1/16	7 13/32	9 7/16	2 3/8	7/8	11/16	1 5/32	3 5/16	1 27/32	1 3/16	5/8	G1207KRRB	(KLLB)	S1207K		
RAK	60														GE60KRRB		SE60K		
RAK	2 11/16	76.2	154	85.7	203.2	266.7	73	33.3	20.6	34.9	96.8	45.2	36.5	20	G1211KRRB		S1211KT	T-22503	7.92
RAK	70	3	6 1/16	3 3/8	8	10 1/2	2 7/8	1 5/16	13/16	1 3/8	3 13/16	1 25/32	1 7/16	3/4	GE70KRRB		SE70K		17.46
RAK	2 15/16	84.14	163.5	92.1	241.3	304.8	82.6	38.1	22.2	31.8	101.6	54.8	41.3	20	G1215KRRB		S1215K	T-20134	9.026
RAK	75	3 5/16	6 7/16	3 5/8	9 1/2	12	3 1/4	1 1/2	7/8	1 1/4	4	2 5/32	1 5/8	3/4	GE75KRRB		SE75K		19.9

[1] Bearing number for RAK is G-KRRB. TAK uses G-KPPB type LAK uses G-KLLB. Note: All units have 1/8 pipe thread grease fitting except 1/2-11/16 and 3/4 units which have 1/4-28 fitting.

YAK INDUSTRIAL SERIES SETSCREW UNITS

- Timken Series low-base setscrew pillow blocks feature the GY-KRRB bearing.
- Well-suited for industrial applications with normal loads, due to its full width inner ring setscrew.
- **Contact a Timken representative to discuss highly corrosive applications (food processing, chemical exposure) where Timken thin dense chrome coated bearings can be utilized.**

Suggested shaft tolerances: **½" - 1 15/16", nominal to -.013 mm, -.0005"; 2" - 2 15/16", nominal to -.025 mm, -.0010".**



BEARING DATA

Unit	Bearing Number	Dimensions and Load Ratings
YAK	GY-KRRB	Page D67

TO ORDER, SPECIFY UNIT AND SHAFT DIAMETER. Example: YAK 1 7/16". POPULAR SIZES ARE IN BOLD.

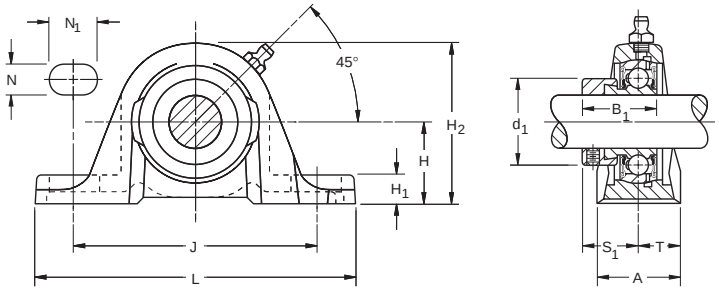
Unit	Shaft Dia. mm	Shaft Dia. mm in.	H mm in.	H_2 mm in.	B mm in.	L mm in.	J mm in.	J Min. mm in.	J Max. mm in.	A mm in.	H_1 mm in.	F mm in.	S_1 mm in.	E mm in.	Bolt Size in.	Bearing
YAK		1/2	26.99	53.2	27.4	123.8	92.1	69.8	114.4	30.2	8.7	22.86	15.9	30.95	10	GY1008KRRB
YAK		5/8	1 1/16	2 3/32	1 5/64	4 7/8	3 5/8	2 3/4	4 1/2	1 3/16	11/32	0.9	5/8	1 7/32	3/8	GY1010KRRB
YAK	17															GYE17KRRB
YAK		**3/4**	31.75	62.7	30.9	127	96	76.2	155.8	31.8	11.9	27.56	18.3	34.13	10	GY1012KRRB
YAK	20		1 1/4	2 15/32	1 7/32	5	3 25/32	3	4 9/16	1 1/4	15/32	1.085	23/32	1 11/32	3/8	GYE20KRRB
YAK		7/8														GY1014KRRB
YAK		15/16	33.34	68.3	34.1	139.7	104.8	84.1	125.4	35.7	11.9	33.83	19.8	37.7	10	GY1015KRRB
YAK		**1**	1 5/16	2 11/16	1 11/32	5 1/2	4 1/8	3 5/16	4 15/16	1 13/32	15/32	1.332	25/32	1 31/64	3/8	GY1100KRRB
YAK	25															GYE25KRRB
YAK		1 1/8														GY1102KRRB
YAK		**1 3/16**	39.69	80.2	38.1	157.2	117.5	93.7	141.3	39.7	13.5	40.31	22.2	42.07	12	GY1103KRRB
YAK		1 1/4 S	1 9/16	3 5/32	1 1/2	6 3/16	4 5/8	3 11/16	5 9/16	1 9/16	17/32	1.587	7/8	1 21/32	1/2	GY1103KRRB3
YAK	30															GYE30KRRB
YAK		1 1/4														GY1104KRRB
YAK		1 3/8	46.04	92.1	42.9	166.7	130.2	105.6	154.8	45.2	16.7	46.13	25.4	48.02	12	GY1106KRRB
YAK		**1 7/16**	1 13/16	3 5/8	1 11/16	6 9/16	5 1/8	4 5/32	6 3/32	1 25/32	21/32	1.816	1	1 57/64	1/2	GY1107KRRB
YAK	35															GYE35KRRB
YAK		**1 1/2**	49.21	100	49.2	179.4	136.5	110.3	162.7	47.6	19	52.27	30.2	53.98	12	GY1108KRRB
YAK	40		1 15/16	3 15/16	1 15/16	7 1/16	5 3/8	4 11/32	6 13/32	1 7/8	3/4	2.058	1 3/16	2 1/8	1/2	GYE40KRRB
YAK		1 5/8														GY1110KRRB
YAK		**1 11/16**	52.39	104.8	49.2	191.3	149.2	120.7	177.8	50.8	17.5	57.92	30.2	55.56	12	GY1111KRRB
YAK		1 3/4	2 1/16	4 1/8	1 15/16	7 17/32	5 7/8	4 3/4	7	2	11/16	2.28	1 3/16	2 3/16	1/2	GY1112KRRB
YAK	45															GYE45KRRB
YAK		**1 15/16**	55.56	112.7	51.6	200	158	132.6	183.4	55.6	17.5	62.84	32.5	60.33	16	GY1115KRRB
YAK		2 S	2 3/16	4 7/16	2 1/32	7 7/8	6 7/32	5 7/32	7 7/32	2 3/16	11/16	2.474	1 9/32	2 3/8	5/8	GY1115KRRB3
YAK	50															GYE50KRRB
YAK		2	61.91	124.6	55.6	222.3	176.2	146.9	205.6	58.7	19	69.77	33.3	61.91	16	GY1200KRRB
YAK		**2 3/16**	2 7/16	4 29/32	2 3/16	8 3/4	6 15/16	5 25/32	8 3/32	2 5/16	3/4	2.747	1 5/16	2 7/16	5/8	GY1203KRRB
YAK	55															GYE55KRRB
YAK		2 1/4	68.26	137.3	65.1	239.7	188.1	158.8	217.5	60.3	22.2	76.48	39.1	69.85	16	GY1204KRRB
YAK		**2 7/16**	2 11/16	5 13/32	2 9/16	9 7/16	7 13/32	6 1/4	8 9/16	2 3/8	7/8	3.011	1 9/16	2 3/4	5/8	GY1207KRRB
YAK	60															GYE60KRRB
YAK		2 11/16	76.2	154	69.9	266.7	203.2	168.3	238.1	73	33.3	86.92	42.9	79.4	20	GY1211KRRB
YAK	70		3	6 1/16	2 3/4	10 1/2	8	6 5/8	9 3/8	2 7/8	1 5/16	3.422	1 11/16	3 1/8	3/4	GYE70KRRB
YAK		2 15/16	84.14	163.5	77.8	304.8	241.3	209.5	223.1	82.5	38.1	91.92	44.4	85.73	20	GY1215KRRB
YAK	75		3 5/16	6 7/16	3 1/16	12	9 1/2	8 1/4	10 3/4	3 1/4	1 1/2	3.619	1 3/4	3 3/8	3/4	GYE75KRRB

Shaft diameter with an S = smaller housing.

VAK STANDARD SERIES

- The streamlined and rugged VAK pillow block unit combines engineered housing and RA-RR extended inner ring bearing.
- RA-RR bearing employs a positive contact land-riding seal and a Timken originating self-locking collar. Collar assures positive shaft retention.
- Pillow block can be mounted to operate in any position.
- Bearing housed units are factory prelubricated, but a grease fitting is provided to allow for relubrication if required.

Suggested shaft tolerances: **½" - 1 15/16", nominal to -.013 mm, -.0005";**
2" - 2 3/16", nominal to -.025 mm, -.0010".



BEARING DATA

Unit	Bearing Number	Dimensions and Load Ratings
VAK	GRA-KRRB	Page D57

TO ORDER, SPECIFY UNIT AND SHAFT DIAMETER. Example: VAK 1 7/16". POPULAR SIZES ARE IN BOLD.

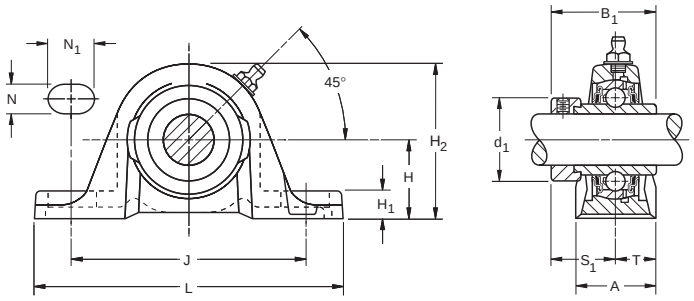
Unit	Shaft Dia. mm / in.	H mm / in.	H_2 mm / in.	B_1 mm / in.	J mm / in.	L mm / in.	A mm / in.	H_1 mm / in.	N mm / in.	N_1 mm / in.	d_1 mm / in.	S_1 mm / in.	T mm / in.	Bolt Size mm / in.	Bearing Number	Collar Number	Housing Number new (old)	Unit Wt. kg lbs.
VAK	1/2	26.99	53.2	28.6	92.1	123.8	30.2	8.7	11.1	22.2	28.6	22.2	15.1	10	GRA008RRB	S1008K	T-40238	0.454
VAK	5/8	1 1/16	2 3/32	1 1/8	3 5/8	4 7/8	1 3/16	11/32	7/16	7/8	1 1/8	7/8	19/32	3/8	GRA010RRB	S1010K	(T-30595)	1
VAK	17														GRAE17RRB	SE17K		
VAK	**3/4**	31.75	62.7	31	96	127	31.8	11.9	11.1	19.8	33.3	23.4	15.9	10	GRA012RRB	S1012K	T-40239	0.563
VAK	20	1 1/4	2 15/32	1 7/32	3 25/32	5	1 1/4	15/32	7/16	25/32	1 5/16	59/64	5/8	3/8	GRAE20RRB	SE20K	(T-30555)	1.24
VAK	7/8														GRA014RRB	S1014K		
VAK	15/16	33.34	68.3	31	104.8	139.7	35.7	11.9	11.1	20.6	38.1	23.4	17.9	10	GRA015RRB	S1015K	T-30365	0.758
VAK	**1**	1 5/16	2 11/16	1 7/32	4 1/8	5 1/2	1 13/32	15/32	7/16	13/16	1 1/2	59/64	45/64	3/8	GRA100RRB	S1100K		1.67
VAK	25														GRAE25RRB	SE25K		
VAK	1 1/8														GRA102RRB	S1102K		
VAK	**1 3/16**	39.69	80.2	35.7	117.5	157.2	39.7	13.5	14.3	23.8	44.1	27	19.9	12	GRA103RRB	S1103K	T-40241	1.235
VAK	1 1/4 S	1 9/16	3 5/32	1 13/32	4 5/8	6 3/16	1 9/16	17/32	9/16	15/16	1 47/64	1 1/16	25/32	1/2	GRA103RRB2	S1103K3	(T-30300)	2.72
VAK	30														GRAE30RRB	SE30K		
VAK	1 1/4														GRA104RRB	S1104K		
VAK	1 3/8	46.04	92.1	38.9	130.2	166.7	45.2	16.7	14.3	24.6	54	29.4	22.7	12	GRA106RRB	S1106K	T-40242	1.594
VAK	**1 7/16**	1 13/16	3 5/8	1 17/32	5 1/8	6 9/16	1 25/32	21/32	9/16	31/32	2 1/8	1 5/32	57/64	1/2	GRA107RRB	S1107K	(T-30410)	3.51
VAK	35														GRAE35RRB	SE35K		
VAK	**1 1/2**	49.21	100	43.7	136.5	179.4	47.6	19	14.3	26.2	60.3	32.5	23.8	12	GRA108RRB	S1108KT	T-40243	2.034
VAK	1 9/16	1 15/16	3 15/16	1 23/32	5 3/8	7 1/16	1 7/8	3/4	9/16	1 1/32	2 3/8	1 9/32	15/16	1/2	GRA109RRB	S1109KT	(T-30484)	4.48
VAK	40														GRAE40RRB	SE40K		
VAK	1 5/8														GRA110RRB	S1110K		
VAK	**1 11/16**	52.39	104.8	43.7	149.2	191.3	50.8	17.5	14.3	28.6	63.5	32.5	25.4	12	GRA111RRB	S1111K	T-40244	2.261
VAK	1 3/4	2 1/16	4 1/8	1 23/32	5 7/8	7 17/32	2	11/16	9/16	1 1/8	2 1/2	1 9/32	1	1/2	GRA112RRB	S1112K	(T-30682)	4.98
VAK	45														GRAE45RRB	SE45K		
VAK	1 7/8														GRA114RRB	S1114K		
VAK	**1 15/16**	55.56	112.7	43.7	158	200	55.6	17.5	17.5	23.8	69.8	32.5	27.8	16	GRA115RRB	S1115K	T-40245	2.774
VAK	2 S	2 3/16	4 7/16	1 23/32	6 7/32	7 7/8	2 3/16	11/16	11/16	15/16	2 3/4	1 9/32	1 3/32	5/8	GRA115RRB2	S1115K2	(T-30706)	6.11
VAK	50														GRAE50RRB	SE50K		
VAK	2	61.91	124.6	48.4	176.2	222.3	58.7	19	18.3	29.4	76.2	36.5	29.4	16	GRA200RRB	S1200K	T-40246	3.328
VAK	**2 3/16**	2 7/16	4 29/32	1 29/32	6 15/16	8 3/4	2 5/16	3/4	23/32	1 5/32	3	1 7/16	1 5/32	5/8	GRA203RRB	S1203K	(T-30738)	7.33
VAK	55														GRAE55RRB	SE55K		

Note: All units have 1/8 pipe thread grease fitting except 1/2-11/16 and 3/4 units which have 1/4-28 fitting.
Shaft diameter with an S = smaller housing.

RAS, TAS, LAS INDUSTRIAL SERIES

- Timken RAS, TAS and LAS pillow blocks are similar in design and equal in load-carrying capacity to the RAK, TAK and LAK types.
- RAS, TAS, and LAS types have a slightly higher base-to-center height dimension than the RAK, TAK and LAK types, making them interchangeable with other competitive designs.
- RAS pillow block is equipped with G-KRRB (R-Seal) wide inner ring bearing, the TAS with G-KPPB (Tri-Ply Seal) wide inner ring bearings, and the LAS with the G-KLLB (Mechani-Seal) wide inner ring bearings.
- **Contact your Timken representative to discuss highly corrosive applications (food processing, chemical exposure) where Timken thin dense chrome coated bearings can be utilized.**

Suggested shaft tolerances: **½" - 1 15/16", nominal to -.013 mm, -.0005"; 2" - 2 3/16", nominal to -.025 mm, -0010".**



BEARING DATA

Unit	Bearing Number	Dimensions and Load Ratings
RAS	G-KRRB	Page D54
TAS	G-KPPB	Page D65
LAS	G-KLLB	Page D62

TO ORDER, SPECIFY UNIT AND SHAFT DIAMETER. Example: RAS 1 3/16". POPULAR SIZES ARE IN BOLD.

Unit	Shaft Dia.	H	H_2	B1	J	L	A	H_1	N	N_1	d_1	S_1	T	Bolt Size	Bearing Number[1]		Collar Number	Housing Number	Unit Wt.
	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	RAK	(TAK/LAK)		(old) new	kg lbs.
RAS	1/2														G1008KRRB		S1008K		
RAS	5/8	30.16	56.4	37.3	92.1	123.8	30.2	11.9	11.1	22.2	28.6	23.4	15.1	10	G1010KRRB		S1010K	T-40238	0.454
RAS	11/16	1 3/16	2 7/32	1 15/32	3 5/8	4 7/8	1 3/16	15/32	7/16	7/8	1 1/8	59/64	19/32	3/8	G1011KRRB		S1011K	(T-30595)	1.00
RAS	17														GE17KRRB		SE17K		
RAS	**3/4**	33.34	64.3	43.7	96	127	31.8	13.5	11.1	19.8	33.3	26.6	15.9	10	G1012KRRB		S1012K	T-40239	0.635
RAS	20	1 5/16	2 17/32	1 23/32	3 25/32	5	1 1/4	17/32	7/16	25/32	1 5/16	1 3/64	5/8	3/8	GE20KRRB		SE20K	(T-30555)	1.40
RAS,TAS	7/8														G1014KRRB	(KPPB3)	S1014K		
RAS,TAS	15/16	36.51	71.4	44.4	104.8	139.7	35.7	15.1	11.1	20.6	38.1	27	17.9	10	G1015KRRB	(KPPB3)	S1015K		0.803
RAS,TAS,LAS	**1**	1 7/16	2 13/16	1 3/4	4 1/8	5 1/2	1 13/32	19/32	7/16	13/16	1 1/2	1 1/16	45/64	3/8	G1100KRRB	(KPPB3)	S1100K	T-30365	1.77
RAS,TAS	25														GE25KRRB	(KPPB3)	SE25K		
RAS,TAS	1 1/16														G1101KRRB	(KPPB3)	S1101K		
RAS,TAS	1 1/8	42.86	83.3	48.4	117.5	157.2	39.7	16.7	14.3	23.8	49.5	30.2	19.9	12	G1102KRRB	(KPPB3)	S1102K	T-40241	1.297
RAS,TAS,LAS	**1 3/16**	1 11/16	3 9/32	1 29/32	4 5/8	6 3/16	1 9/16	21/32	9/16	15/16	1 3/4	1 3/16	25/32	1/2	G1103KRRB	(KPPB3)	S1103K	(T-30300)	2.86
RAS,TAS	30														GE30KRRB	(KPPB3)	SE30K		
RAS,TAS	1 1/4														G1104KRRB	(KPPB2)	S1104K		
RAS,TAS	1 5/16	47.62	93.7	51.2	130.2	166.7	45.2	18.3	14.3	24.6	54	32.5	22.7	12	G1105KRRB	(KPPB2)	S1105K	T-40242	1.674
RAS,TAS	1 3/8	1 7/8	3 11/16	2 1/64	5 1/8	6 9/16	1 25/32	23/32	9/16	31/32	2 1/8	1 9/32	57/64	1/2	G1106KRRB	(KPPB2)	S1106K	(T-30410)	3.69
RAS,TAS,LAS	**1 7/16**														G1107KRRB	(KPPB2)	S1107K		
RAS,TAS	35														GE35KRRB	(KPPB2)	SE35K		
RAS,TAS	**1 1/2**	49.21	100	56.4	136.5	179.4	47.6	19	14.3	26.2	60.3	34.9	23.8	12	G1108KRRB	(KPPB3)	S1108KT	T-40243	2.150
RAS,TAS	1 9/16	1 15/16	3 15/16	2 7/32	5 3/8	7 1/16	1 7/8	3/4	9/16	1 1/32	2 3/8	1 3/8	15/16	1/2	G1109KRRB	(KPPB3)	S1109KT	(T-30484)	4.74
RAS,TAS	40														GE40KRRB	(KPPB3)	SE40K		
RAS,TAS	1 5/8														G1110KRRB	(KPPB4)	S1110K		
RAS,TAS	**1 11/16**	53.98	106.4	56.4	149.2	191.3	50.8	19	14.3	28.6	63.5	34.9	25.4	12	G1111KRRB	(KPPB4)	S1111K	T-40244	2.409
RAS,TAS	1 3/4	2 1/8	4 3/16	2 7/32	5 7/8	7 17/32	2	3/4	9/16	1 1/8	2 1/2	1 3/8	1	1/2	G1112KRRB	(KPPB4)	S1112K	(T-30682)	5.31
RAS,TAS	45														GE45KRRB	(KPPB4)	SE45K		
RAS,TAS	1 7/8	57.15	114.3	62.7	158	200	55.6	19	17.5	23.8	69.8	38.1	27.8	16	G1114KRRB	(KPPB3)	S1114K	T-40245	3.003
RAS,TAS,LAS	1 15/16	2 1/4	4 1/2	2 15/16	6 7/32	7 7/8	2 3/16	3/4	11/16	15/16	2 3/4	1 1/2	1 3/32	5/8	G1115KRRB	(KPPB3)	S1115K	(T-30706)	6.62
RAS,TAS	50														GE50KRRB	(KPPB3)	SE50K		
RAS,TAS	2														G1200KRRB	(KPPB4)	S1200K		
RAS,TAS	2 1/8	63.5	126.2	71.4	176.2	222.3	58.7	20.6	18.3	29.4	76.2	43.7	29.4	16	G1202KRRB	(KPPB4)	S1202K	T-40246	3.901
RAS,TAS	**2 3/16**	2 1/2	4 31/32	2 13/16	6 15/16	8 3/4	2 5/16	13/16	23/32	1 5/32	3	1 23/32	1 5/32	5/8	G1203KRRB	(KPPB4)	S1203K	(T-30738)	8.60
RAS,TAS	55														GE55KRRB	(KPPB4)	SE55K		
RAS	2 1/4	69.85	138.9	77.8	188.1	239.7	60.3	23.8	18.3	29.4	84.1	46.8	30.2	16	G1204KRRB		S1204K	T-40247	5.511
RAS	2 3/8	2 3/4	5 15/32	3 1/16	7 13/32	9 7/16	2 3/8	15/16	23/32	1 5/32	3 5/16	1 27/32	1 3/16	5/8	G1206KRRB		S1206K	(T-31244)	12.15
RAS,LAS	**2 7/16**														G1207KRRB		S1207K		
RAS	60														GE60KRRB		SE60K		
RAS	2 15/16	82.55	164.3	92.1	215.9	269.9	69.9	25.4	22.2	31.8	101.6	54.8	34.9	20	G1215KRRB		S1215K	T-23423	9.026
RAS	75	3 1/4	6 15/32	3 5/8	8 1/2	10 5/8	2 3/4	1	7/8	1 1/4	4	2 5/32	1 3/8	3/4	GE75KRRB		SE75K		19.90

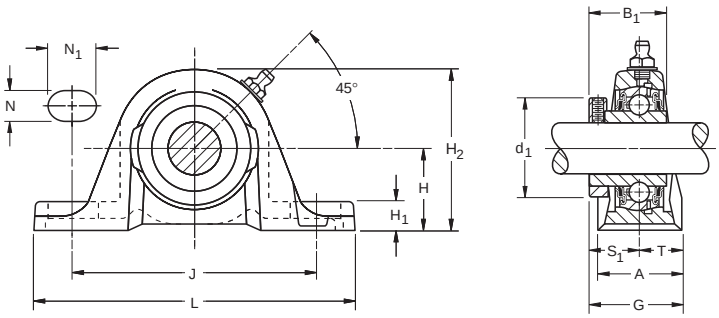
[1]Bearing number for RAS is G-KRRB. TAS uses G-KPPB, type LAS uses G-KLLB.

Note: All units have 1/8 pipe thread grease fitting except 1/2-11/16 and 3/4 units which have 1/4-28 fitting.

RASC INDUSTRIAL SERIES CONCENTRIC COLLAR

- All RASC pillow blocks are equipped with GC-KRRB (R-Seal) wide inner ring bearings with concentric collars.
- Pillow blocks self-align at mounting with the spherical outside diameter of the bearing fitting into a corresponding spherical housing seat.
- Units are prelubricated and ready for immediate installation.
- Grease fitting provides for relubrication if required.
- Concentric collars are supplied with all units.

Suggested shaft tolerances: **½" - 1 15/16", nominal to -.013 mm, -.0005";**
2" - 2 15/16", nominal to -.025 mm, -.0010".



BEARING DATA

Unit	Bearing Number	Dimensions and Load Ratings
RASC	GC-KRRB	Page D66

TO ORDER, SPECIFY UNIT AND SHAFT DIAMETER. Example: RASC 1".

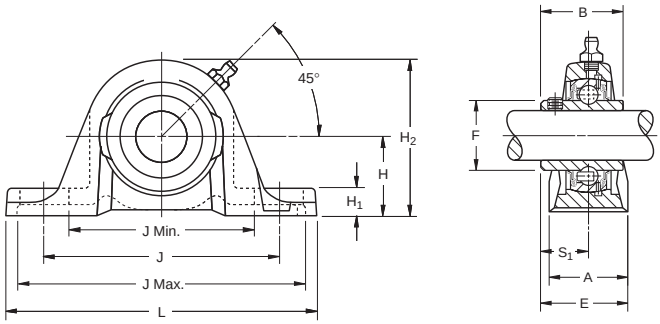
Unit	Shaft Dia.	H	H_2	B_1	J	L	A	H_1	N	N_1	d_1	S_1	T	G	Bolt Size	Bearing Number	Collar Number	Housing Number	Unit Wt.
	in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.			new (old)	kg lbs.
RASC	5/8	30.16	56.4	26.6	92.1	123.8	30.2	11.9	11.1	22.2	34.1	15.5	15.5	31	10	GC1010KRRB	C203	T-40238	0.454
		1 3/16	2 7/32	1 3/64	3 5/8	4 7/8	1 3/16	15/32	7/16	7/8	1 11/32	39/64	39/64	1 7/32	3/8			(T-30595)	1
RASC	3/4	33.34	64.3	31	96	127	31.8	13.5	11.1	19.8	38.1	18.7	17.1	35.7	10	GC1012KRRB	C204	T-40239	0.635
		1 5/16	2 17/32	1 7/32	3 25/32	5	1 1/4	17/32	7/16	25/32	1 1/2	47/64	43/64	1 13/32	3/8			(T-30555)	1.40
RASC	1	36.51	71.4	34.1	104.8	139.7	35.7	15.1	11.1	20.2	44.4	20.2	17.9	38.1	10	GC1100KRRB			0.803
		1 7/16	2 13/16	1 11/32	4 1/8	5 1/2	1 13/32	19/32	7/16	13/16	1 3/4	51/64	45/64	1 1/2	3/8		C205	T-30365	1.77
RASC	1 1/8	42.86	83.3	37.3	117.5	157.2	39.7	16.7	14.3	23.8	52.4	22.6	22.2	44.8	12	GC1102KRRB			
RASC	1 3/16	1 11/16	3 9/32	1 15/32	4 5/8	6 3/16	1 9/16	21/32	9/16	15/16	2 1/16	57/64	7/8	1 49/64	1/2	GC1103KRRB	C206	T-40241	1.297
RASC	1 1/4 S															GC1103KRRB3		(T-30300)	2.86
RASC	1 1/4	47.62	93.7	41.3	130.2	166.7	45.2	18.3	14.3	24.6	59.5	25.4	22.2	49.2	12	GC1104KRRB	C207	T-40242	1.674
RASC	1 3/8	1 7/8	3 11/16	1 5/8	5 1/8	6 9/16	1 25/32	23/32	9/16	31/32	2 11/32	1	7/8	1 15/16	1/2	GC1106KRRB		(T-30410)	3.69
RASC	1 7/16															GC1107KRRB			
RASC	1 1/2	49.21	100	44.1	136.5	179.4	47.6	19	14.3	26.2	68.3	27.4	24.6	52	12	GC1108KRRB	C208	T-40243	2.150
		1 15/16	3 15/16	1 47/64	5 3/8	7 1/16	1 7/8	3/4	9/16	1 1/32	2 11/16	1 5/64	31/32	2 3/64	1/2			(T-30484)	4.74
RASC	1 11/16	53.98	106.3	46.8	149.2	191.3	50.8	19	14.3	23	73	29.4	25.4	54.8	12	GC1111KRRB	C209	T-40244	2.409
RASC	1 3/4	2 1/8	4 3/16	1 27/32	5 7/8	7 17/32	2	3/4	9/16	29/32	2 7/8	1 5/32	1	2 5/32	1/2	GC1112KRRB		(T-30682)	5.31
RASC	1 15/16	57.15	114.3	48.4	158	200	55.6	19	17.5	23.8	79.4	30.2	27.8	57.9	16	GC1115KRRB	C210	T-40245	3.003
		2 1/4	4 1/2	1 29/32	6 7/32	7 7/8	2 3/16	3/4	11/16	15/16	3 1/8	1 3/16	1 3/32	2 9/32	5/8			(T-30706)	6.62
RASC	2	63.5	126.2	54	176.2	222.3	58.7	20.6	18.3	29.4	88.9	33.3	29.4	62.7	16	GC1200KRRB	C211	T-40246	3.901
RASC	2 3/16	2 1/2	4 31/32	2 1/8	6 15/16	8 3/4	2 5/16	13/16	23/32	1 5/32	3 1/2	1 5/16	1 5/32	2 15/32	5/8	GC1203KRRG		(T-30738)	8.60
RASC	2 7/16	69.85	138.9	60.3	188.1	239.7	60.3	23.8	18.3	29.4	95.2	37.3	31.8	69.1	16	GC1207KRRB	C212	T 40247	5.511
		2 3/4	5 15/32	2 3/8	7 13/32	9 7/16	2 3/8	15/16	23/32	1 5/32	3 3/4	1 15/32	1 1/4	2 23/32	5/8			(T 31244)	12.15
RASC	2 15/16	82.55	164.3	70.6	215.9	269.9	69.9	25.4	22.2	31.8	114.3	43.7	34.9	78.6	20	GC1215KRRB	C215	T 23423	9.06
		3 1/4	6 15/32	2 25/32	8 1/2	10 5/8	2 3/4	1	7/8	1 1/4	4 1/2	1 23/32	1 3/8	3 3/32	3/4				19.91

Note: All units have 1/8 pipe thread grease fitting except RASC 1/2-11/16 and 3/4 units which have 1/4-28 fitting.

YAS INDUSTRIAL SERIES SETSCREW UNITS

- Timken YAS Series high-base, setscrew, pillow blocks feature the GY-KRRB bearing.
- This full-width inner ring setscrew is well-suited for industrial applications involving wet or dirty environments.
- Housing is designed for two-bolt mounting in any position.
- **Contact your Timken representative to discuss highly corrosive applications (food processing, chemical exposure) where Timken thin dense chrome coated bearings can be utilized.**

Suggested shaft tolerances: **½" to 1 15/16", nominal to -.013 mm, -.0005"; 2" - 2 15/16", nominal to -.025 mm, -.0010".**



BEARING DATA

Unit	Bearing Number	Dimensions and Load Ratings
YAS	GY-KRRB	Page D67

TO ORDER, SPECIFY UNIT AND SHAFT DIAMETER. Example: YAS 1 7/16". POPULAR SIZES ARE IN BOLD.

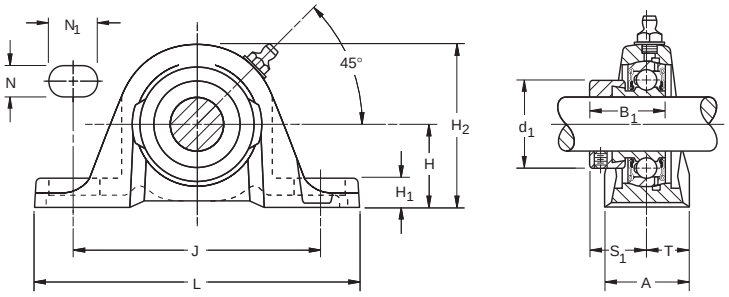
Unit	Shaft Dia. mm / in.	H mm / in.	H_2 mm / in.	B mm / in.	L mm / in.	J mm / in.	J Min. mm / in.	J Max. mm / in.	A mm / in.	H_1 mm / in.	F mm / in.	S_1 mm / in.	E mm / in.	Bolt Size mm / in.	Bearing
YAS	1/2	30.16	56.4	27.4	123.8	92.1	69.8	114.3	30.2	11.9	22.86	15.9	30.95	10	GY1008KRRB
YAS	5/8	1 3/16	2 7/32	1 5/64	4 7/8	3 5/8	2 3/4	4 1/2	1 3/16	15/32	0.9	5/8	1 7/32	3/8	GY1010KRRB
YAS	17														GYE17KRRB
YAS	**3/4**	33.34	64.3	30.9	127	96	76.2	155.8	31.8	13.5	27.56	18.3	34.13	10	GY1012KRRB
YAS	20	1 5/16	2 17/32	1 7/32	5	3 25/32	3	4 9/16	1 1/4	17/32	1.085	23/32	1 11/32	3/8	GYE20KRRB
YAS	7/8														GY1014KRRB
YAS	15/16	36.51	71.4	34.1	139.7	104.8	84.1	125.4	35.7	15.1	33.83	19.8	37.7	10	GY1015KRRB
YAS	**1**	1 7/16	2 13/16	1 11/32	5 1/2	4 1/8	3 5/16	4 15/16	1 13/32	19/32	1.332	25/32	1 31/64	3/8	GY1100KRRB
YAS	25														GYE25KRRB
YAS	1 1/8														GY1102KRRB
YAS	**1 3/16**	42.86	83.3	38.1	157.2	117.5	93.7	141.3	39.7	16.7	40.31	22.2	42.07	12	GY1103KRRB
YAS	1 1/4 S	1 11/16	3 9/32	1 1/2	6 3/16	4 5/8	3 11/16	5 9/16	1 9/16	21/32	1.587	7/8	1 21/32	1/2	GY1103KRRB3
YAS	30														GYE30KRRB
YAS	1 1/4														GY1104KRRB
YAS	1 3/8	47.62	93.6	42.9	166.7	130.2	105.6	154.8	45.2	18.3	46.13	25.4	48.02	12	GY1106KRRB
YAS	**1 7/16**	1 7/8	3 11/16	1 11/16	6 9/16	5 1/8	4 5/32	6 3/32	1 25/32	23/32	1.816	1	1 57/64	1/2	GY1107KRRB
YAS	35														GYE35KRRB
YAS	**1 1/2**	49.21	100	49.2	179.4	136.5	110.3	162.7	47.6	19.1	52.27	30.2	53.98	12	GY1108KRRB
YAS	40	1 15/16	3 15/16	1 15/16	7 1/16	5 3/8	4 11/32	6 13/32	1 7/8	3/4	2.058	1 3/16	2 1/8	1/2	GYE40KRRB
YAS	1 1/2 H	53.98	104.8	49.2	179.4	136.5	110.3	162.7	47.6	23	52.27	30.2	53.98	12	GY1108KRRB
		2 1/8	4 1/8	1 15/16	7 1/16	5 3/8	4 11/32	6 13/32	1 7/8	29/32	2.058	1 3/16	2 1/8	1/2	
YAS	1 5/8														GY1110KRRB
YAS	**1 11/16**	53.98	106.3	49.2	191.3	149.2	120.7	177.8	50.8	19.1	57.92	30.2	55.56	12	GY1111KRRB
YAS	1 3/4	2 1/8	4 3/16	1 15/16	7 17/32	5 7/8	4 3/4	7	2	3/4	2.28	1 3/16	2 3/16	1/2	GY1112KRRB
YAS	45														GYE45KRRB
YAS	**1 15/16**	57.15	114.3	51.6	200	158	132.6	183.4	55.6	19.1	62.84	32.5	60.33	16	GY1115KRRB
YAS	2 S	2 1/4	4 1/2	2 1/32	7 7/8	6 7/32	5 7/32	7 7/32	2 3/16	3/4	2.474	1 9/32	2 3/8	5/8	GY1115KRRB3
YAS	50														GYE50KRRB
YAS	2	63.5	126.2	55.6	222.3	176.2	146.9	205.6	58.7	20.6	69.77	33.3	61.91	16	GY1200KRRB
YAS	**2 3/16**	2 1/2	4 31/32	2 3/16	8 3/4	6 15/16	5 25/32	8 3/32	2 5/16	13/16	2.747	1 5/16	2 7/16	5/8	GY1203KRRB
YAS	55														GYE55KRRB
YAS	2 1/4	69.85	138.9	65.1	239.7	188.1	158.8	217.5	60.3	23.8	76.48	39.1	69.85	16	GY1204KRRB
YAS	**2 7/16**	2 3/4	5 15/32	2 9/16	9 7/16	7 13/32	6 1/4	8 9/16	2 3/8	15/16	3.011	1 9/16	2 3/4	5/8	GY1207KRRB
YAS	60														GYE60KRRB
YAS	2 15/16	82.55	164.3	77.8	269.9	215.9	184.2	247.7	69.9	25.4	91.92	44.4	79.38	20	GY1215KRRB
YAS	75	3 1/4	6 15/32	3 1/16	10 5/8	8 1/2	7 1/4	9 3/4	2 3/4	1	3.619	1 3/4	3 1/8	3/4	GYE75KRRB
YAS	2 15/16 H	88.9	177.8	77.8	330.2	228.6	177.8	279.4	88.9	31.75	91.92	44.4	88.9	20	GY1215KRRB
		3 1/2	7	3 1/16	13	9	7	11	3 1/2	1 1/4	3.619	1 3/4	3 1/2	3/4	

Shaft diameter with an S = Smaller housing; Shaft diameter with an H = heavier housing.

VAS STANDARD SERIES

- Timken pillow blocks are similar in design and features, and equal in load-carrying capacity to the VAK Series.
- Slightly different base-to-center height dimension make them interchangeable with certain other competitive designs.
- Units are prelubricated and ready for immediate installation.
- Grease fitting provides for relubrication if required.

Suggested shaft tolerances: **½" - 1 15/16", nominal to -.013 mm, -.0005";**
2" - 2 3/16", nominal to -.025 mm, -.0010".



BEARING DATA

Unit	Bearing Number	Dimensions and Load Ratings
VAS	GRA-RRB	Page D57

TO ORDER, SPECIFY UNIT AND SHAFT DIAMETER. Example: VAS 1 3/16". POPULAR SIZES ARE IN BOLD.

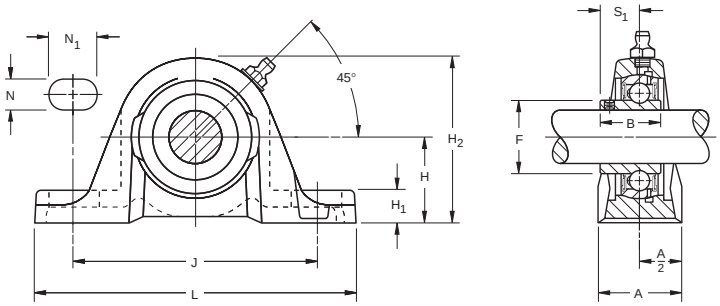
Unit	Shaft Dia.	H	H_2	B_1	J	L	A	H_1	N	N_1	d_1	S_1	T	Bolt Size	Bearing Number	Collar Number	Housing Number	Unit Wt.
	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.			new (old)	kg lbs.
VAS	1/2	30.16	56.4	28.6	92.1	123.8	30.2	11.9	11.1	22.2	28.6	22.2	15.1	10	GRA008RRB	S1008K	T-40238	0.454
VAS	5/8	1 3/16	2 7/32	1 1/8	3 5/8	4 7/8	1 3/16	15/32	7/16	7/8	1 1/8	7/8	19/32	3/8	GRA010RRB	S1010K	(T-30595)	1
VAS	17														GRAE17RRB	SE17K		
VAS	**3/4**	33.34	64.3	31	96	127	31.8	13.5	11.1	19.8	33.3	23.4	15.9	10	GRA012RRB	S1012K	T-40239	0.563
VAS	20	1 5/16	2 17/32	1 7/32	3 25/32	5	1 1/4	17/32	7/16	25/32	1 5/16	59/64	5/8	3/8	GRAE20RRB	SE20K	(T-30555)	1.24
VAS	7/8														GRA013RRB	S1013K		
VAS	15/16	36.51	71.4	31	104.8	139.7	35.7	15.1	11.1	20.6	38.1	23.4	17.9	10	GRA015RRB	S1015K		0.758
VAS	**1**	1 7/16	2 13/16	1 7/32	4 1/8	5 1/2	1 13/32	19/32	7/16	13/16	1 1/2	59/64	45/64	3/8	GRA100RRB	S1100K	T-30365	1.67
VAS	25														GRAE25RRB	SE25K		
VAS	1 1/8														GRA102RRB	S1102K		
VAS	**1 3/16**	42.86	83.3	35.7	117.5	157.2	39.7	16.7	14.3	23.8	44.1	27	19.9	12	GRA103RRB	S1103K	T-40241	1.235
VAS	1 1/4 S	1 11/16	3 9/32	1 13/32	4 5/8	6 3/16	1 9/16	21/32	9/16	15/16	1 47/64	1 1/16	25/32	1/2	GRA103RRB2	S1103K3	(T-30300)	2.72
VAS	30														GRAE30RRB	SE30K		
VAS	1 1/4	47.62	93.7	38.9	130.2	166.7	45.2	18.3	14.3	24.6	54	29.4	22.7	12	GRA104RRB	S1104K		
VAS	1 3/8	1 7/8	3 11/16	1 17/32	5 1/8	6 9/16	1 25/32	23/32	9/16	31/32	2 1/8	1 5/32	57/64	1/2	GRA106RRB	S1106K	T-40242	1.594
VAS	**1 7/16**														GRA107RRB	S1107K	(T-30410)	3.51
VAS	35														GRAE35RRB	SE35K		
VAS	**1 1/2**	49.21	100.0	43.7	136.5	179.4	47.6	19.0	14.3	26.2	60.3	32.5	23.8	12	GRA108RRB	S1108KT	T-40243	2.034
VAS	40	1 15/16	3 15/16	1 23/32	5 3/8	7 1/16	1 7/8	3/4	9/16	1 1/32	2 3/8	1 9/32	15/16	1/2	GRAE40RRB	SE40K	(T-30484)	4.48
VAS	1 5/8														GRA110RRB	S1110K		
VAS	**1 11/16**	53.98	106.4	43.7	149.2	191.3	50.8	19.0	14.3	28.6	63.5	32.5	25.4	12	GRA111RRB	S1111K	T-40244	2.261
VAS	1 3/4	2 1/8	4 3/16	1 23/32	5 7/8	7 17/32	2	3/4	9/16	1 1/8	2 1/2	1 9/32	1	1/2	GRA112RRB	S1112K	(T-30682)	4.98
VAS	45														GRAE45RRB	SE45K		
VAS	1 7/8														GRA114RRB	S1114K		
VAS	**1 15/16**	57.15	114.3	43.7	158	200	55.6	19.0	18.3	29.4	69.8	32.5	27.8	16	GRA115RRB	S1115K	T-40245	2.774
VAS	2 S	2 1/4	4 1/2	1 23/32	6 7/32	7 7/8	2 3/16	3/4	23/32	1 5/32	2 3/4	1 9/32	1 3/32	5/8	GRA115RRB2	S1115K2	(T-30706)	6.11
VAS	50														GRAE50RRB	SE50K		
VAS	2	63.5	126.2	48.4	176.2	222.3	58.7	20.6	18.3	29.4	76.2	36.5	29.4	16	GRA200RRB	S1200K	T-40246	3.328
VAS	**2 3/16**	2 1/2	4 31/32	1 29/32	6 15/16	8 3/4	2 5/16	13/16	23/32	1 5/32	3	1 7/16	1 5/32	5/8	GRA203RRB	S1203K	(T-30738)	7.33
VAS	55														GRAE55RRB	SE55K		

Note: All units have 1/8 pipe thread grease fitting except 1/2-11/16 and 3/4 units which have 1/4-28 fitting.

SAS STANDARD SERIES

- The SAS is a streamlined and a rugged one-piece pillow block unit that combines the Timken engineered housing and GYA-RRB setscrew bearing.
- GYA-RRB bearing employs a positive contact land-riding seal and specially designed setscrews.
- SAS pillow block can be mounted in and will operate in any position.
- Bearing housed units are factory prelubricated, but a grease fitting is provided to allow for relubrication if required.

Suggested shaft tolerances: **½" - 1 15/16", nominal to -.013 mm, -.0005"; 2" - 2 3/16", nominal to -.025 mm, -.0010".**



BEARING DATA

Unit	Bearing Number	Dimensions and Load Ratings
SAS	GYA-KRRB	Page D59

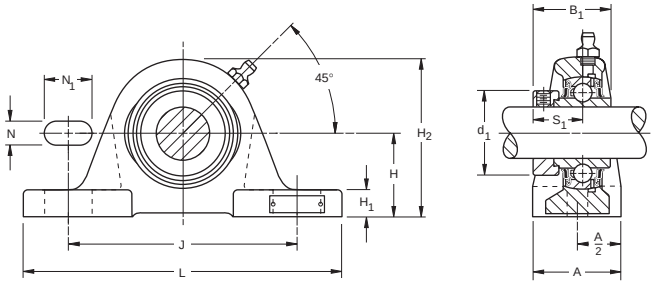
TO ORDER, SPECIFY UNIT AND SHAFT DIAMETER. Example: SAS 1". POPULAR SIZES ARE IN BOLD.

Unit	Shaft Dia.	H	H_2	S_1	J	L	A	H_1	N	N_1	F	B	Bolt Size	Bearing Number	Housing Number	Unit Wt.
	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	new / (old)	kg / lbs.
SAS	1/2	30.16	56.4	15.9	92.1	123.8	30.2	11.9	11.1	22.2	24.6	23.8	10	GYA008RRB	T-40238	0.42
SAS	5/8	1 3/16	2 7/32	5/8	3 5/8	4 7/8	1 3/16	15/32	7/16	7/8	31/32	15/16	3/8	GYA010RRB	(T-30595)	0.92
SAS	17													GYAE17RRB		
SAS	**3/4**	33.34	64.3	18.3	96	127	31.8	13.5	11.1	19.8	29	27	10	GYA012RRB	T-40239	0.57
SAS	20	1 5/16	2 17/32	23/32	3 25/32	5	1 1/4	17/32	7/16	25/32	1 9/64	1 1/16	3/8	GYAE20RRB	(T-30555)	1.25
SAS	7/8													GYA014RRB		
SAS	15/16	36.51	71.4	19.4	104.8	139.7	35.7	15.1	11.1	20.6	33.7	28.2	10	GYA015RRB	T-30365	0.75
SAS	**1**	1 7/16	2 13/16	49/64	4 1/8	5 1/2	1 13/32	19/32	7/16	13/16	1 21/64	1 7/64	3/8	GYA100RRB		1.67
SAS	25													GYAE25RRB		
SAS	1 1/8													GYA102RRB		
SAS	**1 3/16**	42.86	83.3	23	117.5	157.2	39.7	16.7	14.3	23.8	40.1	32.5	12	GYA103RRB	T-40241	1.14
SAS	1 1/4 S	1 11/16	3 9/32	29/32	4 5/8	6 3/16	1 9/16	21/32	9/16	15/16	1 37/64	1 9/32	1/2	GYA103RRB2	(T-30300)	2.52
SAS	30													GYAE30RRB		
SAS	1 1/4													GYA104RRB		
SAS	1 3/8	47.62	93.6	25.8	130.2	166.7	45.2	18.3	14.3	24.6	46.8	36.5	12	GYA106RRB	T-40242	1.52
SAS	**1 7/16**	1 7/8	3 11/16	1 1/64	5 1/8	6 9/16	1 25/32	23/32	9/16	31/32	1 27/32	1 7/16	1/2	GYA107RRB	(T-30410)	3.35
SAS	35													GYAE35RRB		
SAS	**1 1/2**	49.21	100	27.8	136.5	179.4	47.6	19	14.3	26.2	52.4	39.3	12	GYA108RRB	T-40243	1.85
SAS	40	1 15/16	3 15/16	1 3/32	5 3/8	7 1/16	1 7/8	3/4	9/16	1 1/32	2 1/16	1 35/64	1/2	GYAE40RRB	(T-30484)	4.08
SAS	**1 1/2 H**	53.90	100	27.8	136.5	179.4	47.6	19	14.3	26.2	52.4	39.3	12	GYA108RRB	T-39528	1.85
		2 1/8	3 15/16	1 3/32	5 3/8	7 1/16	1 7/8	3/4	9/16	1 1/32	2 1/16	1 35/64	1/2			4.08
SAS	1 5/8													GYA110RRB		
SAS	**1 11/16**	53.9	106.3	28.6	149.2	191.3	51.0	19	14.3	28.6	57.9	42.1	12	GYA111RRB	T-40244	2.06
SAS	1 3/4	2 1/8	4 3/16	1 1/8	5 7/8	7 17/32	2	3/4	9/16	1 1/8	2 9/32	1 21/32	1/2	GYA112RRB	(T-30682)	4.55
SAS	45													GYAE45RRB		
SAS	**1 15/16**	57.2	114.3	30.9	158	200	55.6	19	17.5	23.8	62.7	44.4	16	GYA115RRB	T-40245	2.54
SAS	2 S	2 1/4	4 1/2	1 7/32	6 7/32	7 7/8	2 3/16	3/4	11/16	15/16	2 15/32	1 3/4	5/8	GYA115RRB2	(T-30706)	5.6
SAS	50													GYAE50RRB		
SAS	2	63.5	126.2	31.7	176.2	222.3	58.7	20.6	18.3	29.4	69.8	46.4	16	GYA200RRB	T-40246	3.02
SAS	**2 3/16**	2 1/2	4 31/32	1 1/4	6 15/16	8 3/4	2 5/16	13/16	23/32	1 5/32	2 3/4	1 53/64	5/8	GYA203RRB	(T-30738)	6.66
SAS	55													GYAE55RRB		

Note: All units have 1/8 pipe thread grease fitting except 1/2-11/16 and 3/4 units which have 1/4-28 fitting.
Shaft diameter with an S = smaller housing; Shaft diameter with an H = heavier housing.

RAKH INDUSTRIAL SERIES

- Timken pillow blocks are similar in design to other standard series, but have slightly different dimensions to allow interchangeability with competitive designs.
- May be used independently or in connection with RAKHL expansion unit shown below. Used in this capacity, the RAKH pillow blocks provide fixed shaft location while the RAKHL expansion units allows for axial movement. Maximum operating temperature for the RAKH units is 250˚ F (121˚ C).
- Units are supplied with self-locking collars.
- **Contact your Timken representative to discuss highly corrosive applications (food processing, chemical exposure) where Timken thin dense chrome coated bearings can be utilized.**



Suggested shaft tolerances: **$13/16$" - $1\ 15/16$", nominal to -.013 mm, -.0005"; 2" - $2\ 15/16$", nominal to -.025 mm, -.0010".**

BEARING DATA

Unit	Bearing Number	Dimensions and Load Ratings
RAKH	G-KRRB	Page D54

TO ORDER, SPECIFY UNIT AND SHAFT DIAMETER. Example: RAKH $1\ 7/16$".

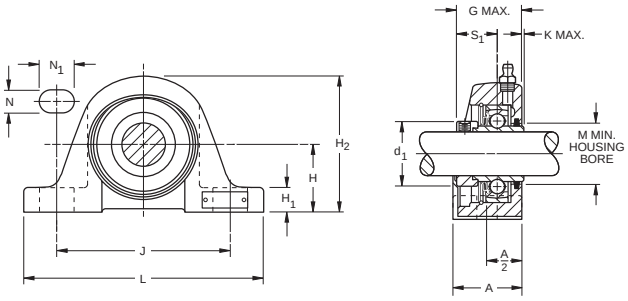
Unit[1]	Shaft Dia.	H	H_2	B_1	J	L	A	H_1	N	N_1	d_1	S_1	Bolt Size	Bearing Number	Collar Number	Housing Number	Unit Wt.
	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.			new	kg lbs.
RAKH	1	44.45 $1\ 3/4$	82.6 $3\ 1/4$	44.4 $1\ 3/4$	119.1 $4\ 11/16$	158.8 $6\ 1/4$	50.8 2	15.9 $5/8$	14.3 $9/16$	25.4 1	38.1 $1\ 1/2$	27 $1\ 1/16$	9.5 $3/8$	G1100KRRB	S1100K	T-22295	1.689 3.72
RAKH	$1\ 3/16$	47.63 $1\ 7/8$	90.5 $3\ 9/16$	48.4 $1\ 29/32$	127 5	174.6 $6\ 7/8$	57.2 $2\ 1/4$	17.5 $11/16$	14.3 $9/16$	25.4 1	44.1 $1\ 47/64$	30.2 $1\ 3/16$	12.7 $1/2$	G1103KRRB	S1103K	T-22216	2.184 4.81
RAKH	$1\ 1/4$	53.98	101.6	51.2	144.5	203.2	57.2	19	14.3	30.2	54	32.5	12.7	G1104KRRB	S1104K	T-22212	2.915
RAKH	$1\ 7/16$	$2\ 1/8$	4	$2\ 1/64$	$5\ 11/16$	8	$2\ 1/4$	$3/4$	$9/16$	$1\ 3/16$	$2\ 1/8$	$1\ 9/32$	$1/2$	G1107KRRB	S1107K		6.42
RAKH	$1\ 1/2$	58.74 $2\ 5/16$	111.1 $4\ 3/8$	56.4 $2\ 7/32$	155.6 $6\ 1/8$	222.2 $8\ 3/4$	66.7 $2\ 5/8$	20.6 $13/16$	17.5 $11/16$	31.8 $1\ 1/4$	60.3 $2\ 3/8$	34.9 $1\ 3/8$	12.7 $1/2$	G1108KRRB	S1108KT 	 T-22291	4.004 8.82
RAKH	$1\ 11/16$	58.74	114.3	56.4	155.6	222.2	66.7	20.6	17.5	33.3	63.5	34.9	12.7	G1111KRRB	S1111K	T-22293	4.032
RAKH	$1\ 3/4$	$2\ 5/16$	$4\ 1/2$	$2\ 7/32$	$6\ 1/8$	$8\ 3/4$	$2\ 5/8$	$13/16$	$11/16$	$1\ 5/16$	$2\ 1/2$	$1\ 3/8$	$1/2$	G1112KRRB	S1112K		8.88
RAKH	$1\ 15/16$	63.5 $2\ 1/2$	122.2 $4\ 13/16$	62.7 $2\ 15/32$	171.4 $6\ 3/4$	241.3 $9\ 1/2$	73 $2\ 7/8$	22.2 $7/8$	17.5 $11/16$	36.5 $1\ 7/16$	69.8 $2\ 3/4$	38.1 $1\ 1/2$	12.7 $1/2$	G1115KRRB	S1115K	T-22214	5.098 11.23
RAKH	$2\ 3/16$	69.85	136.5	71.4	184.2	260.4	79.4	27	20.6	36.5	76.2	43.7	15.9	G1203KRRB	S1203K	T-22297	6.728
RAKH	55	$2\ 3/4$	$5\ 3/8$	$2\ 13/16$	$7\ 1/4$	$10\ 1/4$	$3\ 1/8$	$1\ 1/16$	$13/16$	$1\ 7/16$	3	$1\ 23/32$	$5/8$	GE55KRRB	SE55K		14.82
RAKH	$2\ 7/16$	76.2 3	150.8 $5\ 15/16$	77.8 $3\ 1/16$	203.2 8	285.8 $11\ 1/4$	82.6 $3\ 1/4$	27 $1\ 1/16$	20.6 $13/16$	41.3 $1\ 5/8$	84.1 $3\ 5/16$	46.8 $1\ 27/32$	15.9 $5/8$	G1207KRRB	S1207K 	 T-22299	 8.217
RAKH	$2\ 11/16$	88.9 $3\ 1/2$	171.4 $6\ 3/4$	85.7 $3\ 3/8$	228.6 9	330.2 13	88.9 $3\ 1/2$	28.6 $1\ 1/8$	23.8 $15/16$	50.8 2	96.8 $3\ 13/16$	45.2 $1\ 25/32$	19 $3/4$	G1211KRRB	S1211K	T-22303	11.495 25.32
RAKH	$2\ 15/16$	88.9 $3\ 1/2$	177.8 7	92.1 $3\ 5/8$	228.6 9	330.2 13	88.9 $3\ 1/2$	31.8 $1\ 1/4$	23.8 $15/16$	50.8 2	101.6 4	54.8 $2\ 5/32$	19 $3/4$	G1215KRRB	S1215K 	 T-22305	11.795 25.98

[1] When used with the expansion unit, specify both units, shaft diameter and suffix.

RAKHL EXPANSION SERIES

- Designed to allow axial shaft expansion caused by elevated temperatures or other conditions that lead to shaft movement.
- Designed for use with the RAKH pillow blocks.
- RAKH units provide axial shaft location and the RAKHL allows shaft floatation.
- Due to limitations of the lubricant and seal material, the maximum operating temperature for the RAKHL units is 250˚ F (121˚ C).
- Units are supplied with self-locking collars.
- Steel "S" ring assures axial expansion.

Suggested shaft tolerances: **$13/16$" - $1\ 15/16$", nominal to -.013 mm, -.0005"; 2" - $2\ 15/16$", nominal to -.025 mm, -.0010".**



BEARING DATA

Unit	Bearing Number	Dimensions and Load Ratings
RAKHL	KRS	Page D53

TO ORDER, SPECIFY UNIT AND SHAFT DIAMETER. Example: RAKHL $2\ 7/16$".

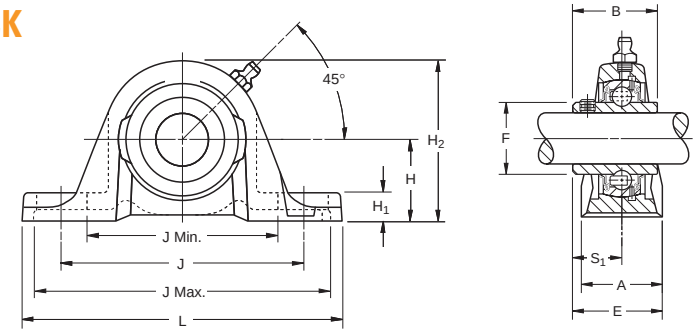
Unit	Shaft Dia.	Total Float	H	H_2	G	J	L	A	H_1	N	N_1	K	d_1	S_1	M	Bolt Size	Bearing Number	Collar Number	Housing Number	Unit Wt.
	in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.			new	kg lbs.
RAKHL	$1\ 3/16$	3.2 $1/8$	47.63 $1\ 7/8$	96.8 $3\ 13/16$	49.2 $1\ 15/16$	127 5	174.6 $6\ 7/8$	50.8 2	17.5 $11/16$	14.3 $9/16$	25.4 1	2.4 $3/32$	44.5 $1\ 3/4$	30.2 $1\ 3/16$	41.7 $1\ 41/64$	12.7 $1/2$	1103KRS	S1103K	A11414	2.182 4.81
RAKHL	$1\ 7/16$	4.8 $3/16$	53.98 $2\ 1/8$	106.4 $4\ 3/16$	55.2 $2\ 11/64$	144.5 $5\ 11/16$	201.6 $7\ 15/16$	51.6 $2\ 1/32$	19 $3/4$	14.3 $9/16$	30.2 $1\ 3/16$	3.2 $1/8$	54 $2\ 1/8$	32.5 $1\ 9/32$	48.02 $1\ 57/64$	12.7 $1/2$	1106KRS 1107KRS	S1106K S1107K	A11199	2.912 6.42
RAKHL	$1\ 15/16$	6.4 $1/4$	63.5 $2\ 1/2$	129.4 $5\ 3/32$	65.1 $2\ 9/16$	171.4 $6\ 3/4$	241.3 $9\ 1/2$	63.5 $2\ 1/2$	22.2 $7/8$	17.5 $11/16$	36.5 $1\ 7/16$	4 $5/32$	69.8 $2\ 3/4$	38.1 $1\ 1/2$	63.9 $2\ 33/64$	12.7 $1/2$	1115KRS	S1115K	A11357	5.094 11.23
RAKHL	$2\ 3/16$	6.4 $1/4$	69.85 $2\ 3/4$	142.9 $5\ 5/8$	73.4 $2\ 57/64$	184.2 $7\ 1/4$	260.4 $10\ 1/4$	76.2 3	27 $1\ 1/16$	20.6 $13/16$	36.5 $1\ 7/16$	4.4 $11/64$	76.2 3	43.7 $1\ 23/32$	71 $2\ 51/64$	15.9 $5/8$	1203KRS	S1203K	A11358	6.722 14.82
RAKHL[1]	$2\ 7/16$	6.4 $1/4$	76.2 3	158.8 $6\ 1/4$	78.6 $3\ 3/32$	203.2 8	285.8 $11\ 1/4$	82.6 $3\ 1/4$	27 $1\ 1/16$	20.6 $13/16$	41.3 $1\ 5/8$	4.8 $3/16$	84.1 $3\ 5/16$	46.8 $1\ 27/32$	78.2 $3\ 5/64$	15.9 $5/8$	1207KRS	S1207K	—	8.210 18.1
RAKHL	$2\ 15/16$	6.4 $1/4$	88.9 $3\ 1/2$	181 $7\ 1/4$	113.5 $3\ 15/32$	228.6 9	330.2 13	88.9 $3\ 1/2$	31.8 $1\ 1/4$	23.8 $15/16$	50.8 2	8.7 $11/32$	101.6 4	54.8 $2\ 5/32$	118.7 $3\ 43/64$	19 $3/4$	1215KRS	S1215K	T-28261	11.785 25.98

[1] Special order.

YASM MEDIUM DUTY SERIES SETSCREW LOCK

- Timken YASM medium-duty pillow blocks feature the GYM-KRRB bearing inserts.
- Ideal for conveyer, fan and blower, sawmill, and feed and grain handling applications.
- Cast iron housings are durable, powder-paint coated and maintain an excellent finish while resisting corrosion, chemicals and weather exposure.
- Incorporates premium features designed to extend bearing life.

Suggested shaft tolerances: **1" - 1 15/16", nominal to -.013 mm, -.0005";**
2" - 3", nominal to -.025 mm, -.0010".



BEARING DATA

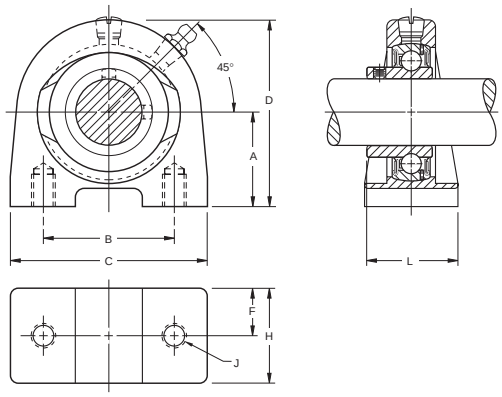
Unit	Bearing Number	Dimensions and Load Ratings
YASM	GYM-KRRB	Page D68

TO ORDER, SPECIFY UNIT AND SHAFT DIAMETER. Example: YASM 1 7/16".

Unit	Shaft Dia.	H	H_2	B	L	J	J Min.	J Max.	A	H_1	F	S_1	E	Bolt Size	Bearing Number
	in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	
YASM	1	42.86 1 11/16	83.3 3 9/32	38.1 1 1/2	157.2 6 3/16	117.5 4 5/8	93.7 3 11/16	141.3 5 9/16	39.7 1 9/16	16.7 21/32	40.31 1.587	22.2 7/8	42.07 1 21/32	12 1/2	GYM1100KRRB
YASM	1 3/16	47.62 1 7/8	93.6 3 11/16	42.9 1 11/16	166.7 6 9/16	130.2 5 1/8	105.6 4 5/32	154.8 6 3/32	45.2 1 25/32	18.3 23/32	48.84 1.844	25.4 1	48.02 1 57/64	12 1/2	GYM1103KRRB
YASM	1 7/16	53.98 2 1/8	104.8 4 1/8	49.2 1 15/16	179.4 7 1/16	136.5 5 3/8	110.3 4 11/32	162.7 6 13/16	47.6 1 7/8	23 29/32	52.27 2.058	30.2 1 3/16	53.98 2 1/8	12 1/2	GYM1107KRRB
YASM	1 1/2	53.98 2 1/8	106.3 4 3/16	49.2 1 15/16	191.3 7 17/32	149.2 5 7/8	120.7 4 3/4	177.8 7	50.8 2	19.1 3/4	57.92 2.28	30.2 1 3/16	55.56 2 3/16	12 1/2	GYM1108KRRB
YASM	1 11/16	57.15	114.3	51.6	200	157.9	134.1	183.4	55.6	19.1	62.84	32.5	60.33	16	GYM1111KRRB
YASM	1 3/4	2 1/4	4 1/2	2 1/32	7 7/8	6 7/32	5 9/32	7 5/32	2 3/16	3/4	2.474	1 9/32	2 3/8	5/8	GYM1112KRRB
YASM	1 15/16	63.5	126.2	55.6	222.3	176.2	146.9	205.6	54.8	20.6	69.77	33.3	61.91	16	GYM1115KRRB
YASM	2	2 1/2	4 31/32	2 3/16	8 3/4	6 15/16	5 25/32	8 3/32	2 5/32	13/16	2.747	1 5/16	2 7/16	5/8	GYM1200KRRB
YASM	2 3/16	69.85	138.9	65.1	239.7	188.1	158.8	217.5	60.3	23.8	76.48	39.1	69.85	16	GYM1203KRRB
YASM	2 1/4	2 3/4	5 15/32	2 9/16	9 7/16	7 13/32	6 1/4	8 9/16	2 3/8	15/16	3.011	1 9/16	2 3/4	5/8	GYM1204KRRB
YASM	2 7/16	76.2	153.99	77.78	266.7	203.2	168.28	238.13	73.02	33.34	86.92	42.86	79.375	20	GYM1207KRRB
YASM	2 1/2	3	6 1/16	3 1/16	10 1/2	8	6 5/8	9 3/8	2 7/8	1 5/16	3.422	1 11/16	3 1/8	3/4	GYM1208KRRB
YASM	2 11/16	88.9 3 1/2	177.8 7	93.66 3 11/16	330.2 13	228.6 9	177.8 7	279.4 11	88.90 3 1/2	31.75 1 1/4	91.90 3.618	44.45 1 3/4	93.66 3 11/16	20 3/4	GYM1211KRRB
YASM	2 15/16	88.9	177.8	93.66	330.2	228.6	177.8	279.4	88.90	31.75	91.90	44.45	93.66	20	GYM1215KRRB
YASM	3	3 1/2	7	3 11/16	13	9	7	11	3 1/2	1 1/4	3.618	1 3/4	3 11/16	3/4	GYM1300KRRB

STB SERIES

- STB two-bolt housed units come assembled and ready for mounting.
- Ideal for applications where space is limited, bolt screws are accessed from the bottom of the unit, loads are not severe and reversing moments are not encountered.
- Units are assembled with GYA-RRB bearings with positive contact land-riding seals and setscrew locking.
- Units are factory prelubricated, but a grease fitting is provided for relubrication if required.



BEARING DATA

Unit	Bearing Number	Dimensions and Load Ratings
STB	GYA-RRB	Page D59

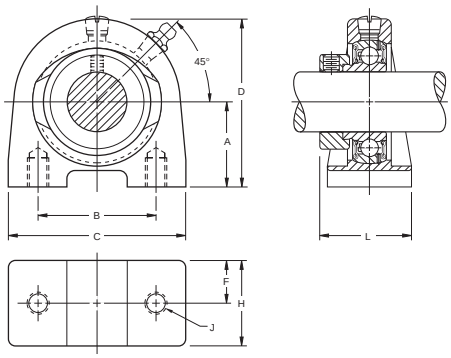
TO ORDER, SPECIFY UNIT AND SHAFT DIAMETER. Example: STB 1″.

Unit	Shaft Dia.	A	B	C	D	F	H	J	L	Bearing Number	Housing Number
	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.		
STB	3/4	32.3	50.8	73.03	71.12	18.3	36.5	3/8-16	36.5	GYA012RRB	T-90001
STB 20		1 5/16	2	2 7/8	2 13/32	23/32	1 7/16		1 7/16	GYAE20RRB	
STB	7/8									GYA014RRB	
STB	15/16	36.5	50.8	76.2	71.44	18.3	36.5	3/8-16	37.7	GYA015RRB	T-39343
STB	1	1 7/16	2	3	2 13/16	23/32	1 7/16		1 31/64	GYA100RRB	
STB 25										GYAE25RRB	
STB	1 1/8									GYA102RRB	T-90003
STB	1 3/16	42.9	76.2	101.6	82.6	19.05	38.1	7/16-14	42.07	GYA103RRB	
STB	1 1/4 S	1 11/16	3	4	3 1/4	3/4	1 1/2		1 21/32	GYA103RRB2	
STB 30										GYAE30RRB	
STB	1 1/4									GYA104RRB	
STB	1 3/8	47.6	82.6	107.95	93.66	22.23	44.45	1/2-13	48.02	GYA106RRB	T-40256
STB	1 7/16	1 7/8	3 1/4	4 1/4	3 11/16	7/8	1 3/4		1 57/64	GYA107RRB3	
STB 35										GYAE35RRB	
STB	1 1/2	49.2	88.9	117.48	100.01	23.81	47.63	1/2-13	51.2	GYA108RRB	T-90005
STB 40		1 15/16	3 1/2	4 5/8	3 15/16	15/16	1 7/8		2 1/64	GYAE40RRB	
STB	1 5/8									GYA110RRB	
STB	1 11/16	54	95.25	127	107.95	25.4	50.8	1/2-13	53.98	GYA111RRB	T-90008
STB	1 3/4	2 1/8	3 3/4	5	4 1/4	1	2		2 1/8	GYA112RRB	
STB 45										GYAE45RRB	
STB	1 15/16	57.2	101.6	139.7	114.3	25.4	50.8	5/8-11	56.36	GYA115RRB	T-90010
STB	2	2 1/4	4	5 1/2	4 1/2	1	2		2 7/32	GYA200RRB	
STB 50										GYAE50RRB	

Shaft diameter with an S = smaller housing.

VTB SERIES

- VTB two-bolt housed units are nearly identical to the STB unit, except they are assembled with the GRA-RRB bearings and positive contact R-Seals and locking collar.



BEARING DATA

Unit	Bearing Number	Dimensions and Load Ratings
VTB	GRA-RRB	Page D57

TO ORDER, SPECIFY UNIT AND SHAFT DIAMETER. Example: VTB 1″.

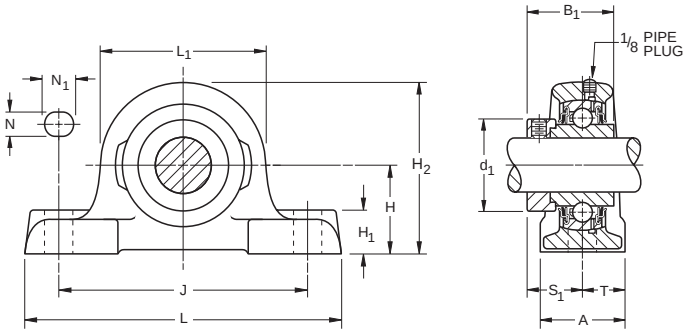
Unit	Shaft Dia. mm	Shaft Dia. in.	A mm / in.	B mm / in.	C mm / in.	D mm / in.	F mm / in.	H mm / in.	J mm / in.	L mm / in.	Bearing Number	Collar Number	Housing Number
VTB		3/4	32.3	50.8	73.03	71.12	18.3	36.5	3/8-16	41.67	GRA012RRB	S1012K	T-90001
VTB	20		1 5/16	2	2 7/8	2 13/32	23/32	1 7/16		1 41/64	GRAE20RRB	SE20K	
VTB		7/8									GRA014RRB	S1014K	
VTB		15/16	36.5	50.8	76.2	71.44	18.3	36.5	3/8-16	41.67	GRA015RRB	S1015K	T-39343
VTB		1	1 7/16	2	3	2 13/16	23/32	1 7/16		1 41/64	GRA100RRB	S1100K C2	
VTB	25										GRAE25RRB	SE25K	
VTB		1 1/8									GRA102RRB	S1102K	
VTB		1 3/16	42.9	76.2	101.6	82.6	19.05	38.1	7/16-14	45.64	GRA103RRB	S1103K	T-90003
VTB		1 1/4 S	1 11/16	3	4	3 1/4	3/4	1 1/2		1 51/64	GRA103RRB2	S1103K3	
VTB	30										GRAE30RRB	SE30K	
VTB		1 1/4									GRA104RRB	S1104K C1	
VTB		13/8	47.6	82.6	107.95	93.66	22.23	44.45	1/2-13	51.6	GRA106RRB	S1106K C1	T-40256
VTB		1 7/16	1 7/8	3 1/4	4 1/4	3 11/16	7/8	1 3/4		2 1/32	GRA107RRB3	S1107K C1	
VTB	35										GRAE35RRB	SE35K	
VTB		1 1/2	49.2	88.9	117.48	100.01	23.81	47.63	1/2-13	56.36	GRA108RRB	S1108KT	T-90005
VTB	40		1 15/16	3 1/2	4 5/8	3 15/16	15/16	1 7/8		2 7/32	GRAE40RRB	SE40K	
VTB		1 5/8									GRA110RRB	S1110K	
VTB		1 11/16	54	95.25	127	107.95	25.4	50.8	1/2-13	57.94	GRA111RRB	S1111K	T-90008
VTB		1 3/4	2 1/8	3 3/4	5	4 1/4	1	2		2 9/32	GRA112RRB	S1112K	
VTB	45										GRAE45RRB	SE45K	
VTB		1 15/16	57.2	101.6	139.7	114.3	25.4	50.8	5/8-11	57.94	GRA115RRB	S1115K	T-90010
VTB		2 S	2 1/4	4	5 1/2	4 1/2	1	2		2 9/32	GRA200RRB	S1115K2	
VTB	50										GRAE50RRB	SE50K	

Shaft diameter with an S = smaller housing.

RAO, LAO HEAVY SERIES

- Compact, economic, heavy-duty ball bearing housed unit.
- Incorporates the tested and proven features of the Timken standard RAK Series pillow block.
- RAO Series bearings are equipped to handle heavy capacity.
- LAO Series bearings are equipped with heavy series GN-KLLB wide inner ring bearings.
- Units are supplied with a self-locking collar that eliminate shaft shoulders, machining adapters and sleeves, and locknuts that provide easy mounting.

Suggested shaft tolerances: **$1\ 3/16$" - $1\ 15/16$", nominal to -.013 mm, -.0005";**
2" - $2\ 15/16$", nominal to -.025 mm, -.0010".



BEARING DATA

Unit	Bearing Number	Dimensions and Load Ratings
RAO	GN-KRRB	Page D55
LAO	GN-KLLB	Page D64

TO ORDER, SPECIFY UNIT AND SHAFT DIAMETER. Example: RAO $1\ 7/16$".

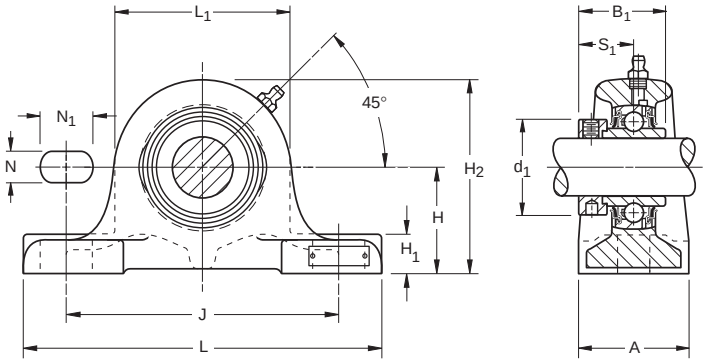
Unit[1]	Shaft Dia.	H	H_2	B_1	L_1	J	L	A	H_1	N	N_1	d_1	S_1	T	Bolt Size	Bearing Number	Collar Number	Housing Number	Unit Wt.
	in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.			new	kg lbs.
RAO	$1\ 3/16$	47.63 $1\ 7/8$	93.7 $3\ 11/16$	50 $1\ 31/32$	90.5 $3\ 9/16$	136.5 $5\ 3/8$	173 $6\ 13/16$	49.2 $1\ 15/16$	22.2 $7/8$	15.9 $5/8$	19 $3/4$	49.2 $1\ 15/16$	32.5 $1\ 9/32$	24.6 $31/32$	12.7 $1/2$	GN103KRRB	SN103K	T-18798	1.898 4.18
RAO	$1\ 7/16$	53.98 $2\ 1/8$	104 $4\ 3/32$	51.6 $2\ 1/32$	101.6 4	152.4 6	192.1 $7\ 9/16$	54 $2\ 1/8$	23.8 $15/16$	15.9 $5/8$	19 $3/4$	55.6 $2\ 3/16$	33.3 $1\ 5/16$	27 $1\ 1/16$	12.7 $1/2$	GN107KRRB	SN107K	T-18626	2.406 5.30
RAO	$1\ 1/2$	60.33 $2\ 3/8$	117.5 $4\ 5/8$	57.2 $2\ 1/4$	114.3 $4\ 1/2$	171.4 $6\ 3/4$	215.9 $8\ 1/2$	60.3 $2\ 3/8$	27 $1\ 1/16$	19 $3/4$	25.4 1	63.5 $2\ 1/2$	37.3 $1\ 15/32$	30.2 $1\ 3/16$	15.9 $5/8$	GN108KRRB	SN108K	T-18800	3.755 8.27
RAO	$1\ 11/16$	66.68 $2\ 5/8$	130.2 $5\ 1/8$	58.7 $2\ 5/16$	127 5	190.5 $7\ 1/2$	239.7 $9\ 7/16$	66.7 $2\ 5/8$	30.2 $1\ 3/16$	19 $3/4$	25.4 1	69.8 $2\ 3/4$	38.9 $1\ 17/32$	33.3 $1\ 5/16$	15.9 $5/8$	GN111KRRB	SN111K	T-18802	5.03 11.08
RAO	$1\ 15/16$	71.44 $2\ 13/16$	141.3 $5\ 9/16$	66.7 $2\ 5/8$	138.1 $5\ 7/16$	209.6 $8\ 1/4$	265.1 $10\ 7/16$	73 $2\ 7/8$	33.3 $1\ 5/16$	19 $3/4$	25.4 1	76.2 3	42.1 $1\ 21/32$	36.5 $1\ 7/16$	15.9 $5/8$	GN115KRRB	SN115K	T-18804	6.265 13.80
RAO	$2\ 3/16$	77.79 $3\ 1/16$	153.2 $6\ 1/32$	73 $2\ 7/8$	150.8 $5\ 15/16$	228.6 9	287.3 $11\ 5/16$	79.4 $3\ 1/8$	36.5 $1\ 7/16$	22.2 $7/8$	28.6 $1\ 1/8$	82.6 $3\ 1/4$	45.2 $1\ 25/32$	39.7 $1\ 9/16$	19 $3/4$	GN203KRRB	SN203K	T-18806	7.94 17.49
RAO	$2\ 7/16$	84.14 $3\ 5/16$	165.9 $6\ 17/32$	79.4 $3\ 1/8$	163.5 $6\ 7/16$	247.6 $9\ 3/4$	312.7 $12\ 5/16$	84.1 $3\ 5/16$	38.1 $1\ 1/2$	22.2 $7/8$	28.6 $1\ 1/8$	88.9 $3\ 1/2$	48.4 $1\ 29/32$	42.1 $1\ 21/32$	19 $3/4$	GN207KRRB	SN207K	T-18808	9.761 21.50
RAO	$2\ 11/16$	96.84 $3\ 13/16$	192.1 $7\ 9/16$	88.9 $3\ 1/2$	188.9 $7\ 7/16$	285.8 $11\ 1/4$	360.4 $14\ 3/16$	96 $3\ 13/16$	44.4 $1\ 3/4$	25.4 1	33.3 $1\ 5/16$	101.6 4	54.8 $2\ 5/32$	48.4 $1\ 29/32$	22.2 $7/8$	GN211KRRB	SO211K	T-18810	15.322 33.75
RAO	$2\ 15/16$	104.78 $4\ 1/8$	204.8 $8\ 1/16$	100 $3\ 15/16$	201.6 $7\ 15/16$	304.8 12	384.2 $15\ 1/8$	103.2 $4\ 1/16$	47.6 $1\ 7/8$	25.4 1	33.3 $1\ 5/16$	112.7 $4\ 7/16$	62.7 $2\ 15/32$	51.6 $2\ 1/32$	22.2 $7/8$	GN215KRRB	SN215K	T-18601	18.205 40.10

[1] LAO assembled with GN-KLLB bearing.

RSA, LSA INDUSTRIAL SERIES

- RSA Series are equipped with G-KRRB wide inner ring ball bearings.
- LSA Series are equipped with G-KLLB wide inner ring bearings.
- Pillow blocks are prelubricated and ready for immediate use.
- Grease fitting is provided for relubrication if required.
- All units are supplied with a self-locking collar.

Suggested shaft tolerances: **½" - 1 15/16", nominal to -.013 mm, -.0005";**
2" - 3 15/16", nominal to -.025 mm, -.0010".



BEARING DATA

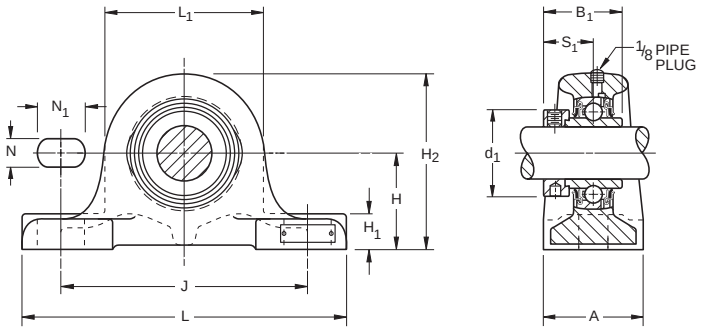
Unit	Bearing Number	Dimensions and Load Ratings
RSA	G-KRRB	Page D54
LSA	G-KLLB	Page D62

TO ORDER, SPECIFY UNIT AND SHAFT DIAMETER. Example: RSA 1 7/16". POPULAR SIZES ARE IN BOLD.

Unit	Shaft Dia.	H	H_2	B_1	L_1	J	L	A	H_1	N	N_1	d_1	S_1	Bolt Size	Bearing Number	Collar Number	Housing Number	Unit Wt.
	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.			new	kg / lbs.
RSA	1/2														G1008KRRB	S1008K		
RSA	5/8	31.75	58.7	37.3	54	96.8	122.2	31.8	12.7	11.1	14.3	30.2	23.4	9.5	G1010KRRB	S1010K	T-22784	0.681
RSA	11/16	1 1/4	2 5/16	1 15/32	2 1/8	3 13/16	4 13/16	1 1/4	1/2	7/16	9/16	1 3/16	59/64	3/8	G1011KRRB	S1011K		1.50
RSA	17														GE17KRRB	SE17K		
RSA	**3/4**	44.45	76.2	43.7	63.5	127.0	165.1	50.8	14.3	14.3	19	33.3	26.6	12.7	G1012KRRB	S1012K	T-22741	1.226
RSA	20	1 3/4	3	1 23/32	2 1/2	5	6 1/2	2	9/16	9/16	3/4	1 5/16	1 3/64	1/2	GE20KRRB	SE20K		2.70
RSA	7/8														G1014KRRB	S1014K		
RSA	15/16	50.80	85.7	44.4	69.8	139.7	177.8	54	15.9	14.3	19	38.1	27	12.7	G1015KRRB	S1015K	T-22716	1.521
RSA	**1**	2	3 3/8	1 3/4	2 3/4	5 1/2	7	2 1/8	5/8	9/16	3/4	1 1/2	1 1/16	1/2	G1100KRRB	S1100K		3.35
RSA	25														GE25KRRB	SE25K		
RSA	1 1/16														G1101KRRB	S1101K		
RSA	1 1/8	50.80	91.3	48.4	81	139.7	177.8	54	17.5	15.9	20.6	44.1	30.2	12.7	G1102KRRB	S1102K	T-22725	1.789
RSA, LSA	**1 3/16**	2	3 19/32	1 29/32	3 3/16	5 1/2	7	2 1/8	11/16	5/8	13/16	1 47/64	1 3/16	1/2	G1103KRRB	S1103K		3.94
RSA	30														GE30KRRB	SE30K		
RSA, LSA	1 1/4														G1104KRRB	S1104K		
RSA	1 5/16	60.33	111.1	51.2	101.6	158.8	209.6	66.7	22.2	19	31.8	54	32.5	15.9	G1105KRRB	S1105K	T-22382	3.260
RSA	1 3/8	2 3/8	4 3/8	2 1/64	4	6 1/4	8 1/4	2 5/8	7/8	3/4	1 1/4	2 1/8	1 9/32	5/8	G1106KRRB	S1106K		7.18
RSA, LSA	**1 7/16**														G1107KRRB	S1107K		
RSA	35														GE35KRRB	SE35K		
RSA	**1 1/2**	60.33	111.1	56.4	101.6	168.3	209.6	60.3	19	19	22.2	60.3	34.9	15.9	G1108KRRB	S1108KT	T-22752	2.928
RSA	1 9/16	2 3/8	4 3/8	2 7/32	4	6 5/8	8 1/4	2 3/8	3/4	3/4	7/8	2 3/8	1 3/8	5/8	G1109KRRB	S1109KT		6.45
RSA	40														GE40KRRB	SE40K		
RSA	1 5/8														G1110KRRB	S1110K		
RSA, LSA	**1 11/16**	60.33	114.3	56.4	108	168.3	209.6	60.3	20.6	19	23.8	63.5	34.9	15.9	G1111KRRB	S1111K	T-22701	3.064
RSA	1 3/4	2 3/8	4 1/2	2 7/32	4 1/4	6 5/8	8 1/4	2 3/8	13/16	3/4	15/16	2 1/2	1 3/8	5/8	G1112KRRB	S1112K		6.75
RSA	45														GE45KRRB	SE45K		
RSA	1 7/8	69.85	130.2	62.7	120.6	209.6	269.9	69.8	26.2	19	34.9	69.8	38.1	15.9	G1114KRRB	S1114K	T-22384	4.885
RSA, LSA	**1 15/16**	2 3/4	5 1/8	2 15/32	4 3/4	8 1/4	10 5/8	2 3/4	1 1/32	3/4	1 3/8	2 3/4	1 1/2	5/8	G1115KRRB	S1115K		10.76
RSA	50														GE50KRRB	SE50K		
RSA	2														G1200KRRB	S1200K		
RSA	2 1/8	79.38	142.1	71.4	125.4	228.6	288.9	79.4	25.4	19	33.3	76.2	43.7	15.9	G1202KRRB	S1202K	T-22696	6.022
RSA, LSA	**2 3/16**	3 1/8	5 19/32	2 13/16	4 15/16	9	11 3/8	3 1/8	1	3/4	1 5/16	3	1 23/32	5/8	G1203KRRB	S1203K		13.22
RSA	55														GE55KRRB	SE55K		
RSA	2 1/4														G1204KRRB	S1204K		
RSA	2 3/8	79.38	149.2	77.8	139.7	228.6	288.9	79.4	28.6	22.2	28.6	84.1	46.8	19	G1206KRRB	S1206K	T-22743	6.901
RSA, LSA	**2 7/16**	3 1/8	5 7/8	3 1/16	5 1/2	9	11 3/8	3 1/8	1 1/8	7/8	1 1/8	3 5/16	1 27/32	3/4	G1207KRRB	S1207K		15.20
RSA	60														GE60KRRB	SE60K		
RSA	2 11/16	95.25	173	82.6	155.6	260.4	320.7	88.9	33.3	22.2	34.9	96.8	45.2	19	G1211KRRB	S1211KT	T-22748	9.997
RSA	70	3 3/4	6 13/16	3 1/4	6 1/8	10 1/4	12 5/8	3 1/2	1 5/16	7/8	1 3/8	3 13/16	1 25/32	3/4	GE70KRRB	SE70K		22.02
RSA	2 15/16	95.25	177.8	92.1	196.1	206.4	320.7	88.9	38.1	22.2	31.8	101.6	54.8	19	G1215KRRB	S1215K	T-22386	10.683
RSA	75	3 3/4	7	3 5/8	7 23/32	10 1/4	12 5/8	3 1/2	1 1/2	7/8	1 1/4	4	2 5/32	3/4	GE75KRRB	SE75K		23.53

RSAO, LSAO HEAVY SERIES

- RSAO pillow blocks are equipped with GN-KRRB wide inner ring ball bearings.
- LSAO pillow blocks are equipped with GN-KLLB wide inner ring ball bearings.
- Suited for installations where the load is heavy in proportion to the shaft diameter or where considerable shock loads exist.
- For use in wet or extremely dirty conditions.
- Prelubricated and ready for immediate use and a grease fitting is provided for relubrication if required.
- All units are supplied with a self-locking collar.



Suggested shaft tolerances: **1 1/16", nominal to -.013 mm, -.0005";**
2"- 3 15/16", nominal to -.025 mm, -.0010".

BEARING DATA

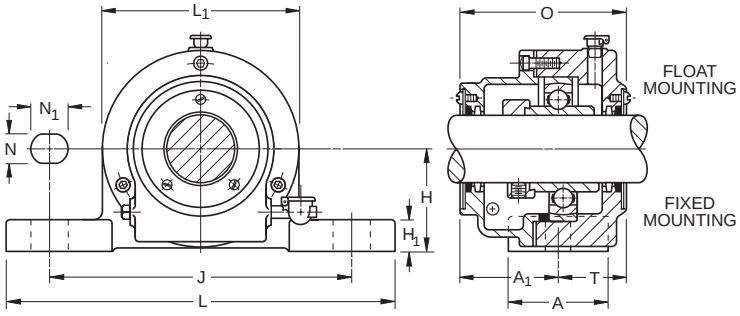
Unit	Bearing Number	Dimensions and Load Ratings
RSAO	GN-KRRB	Page D55
LSAO	GN-KLLB	Page D64

TO ORDER, SPECIFY UNIT AND SHAFT DIAMETER. Example: RSAO 1 7/16".

Unit	Shaft Dia.	H ±.010"	H_2 ref.	B_1	L_1	J ±.010"	L ref.	A ref.	H_1 ref.	N ±.010"	N_1 ±.010"	d_1 ±.005"	S_1 ref.	Bolt Size	Bearing Number		Collar Number	Housing Number	Unit Wt.
	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	mm / in.	RSAO	LSAO		new	kg / lbs.
RSAO, LSAO	1 3/16	60.33	108	50	95.2	168.3	209.6	60.3	22.2	15.9	25.4	48.7	32.5	12.7	GN103KRRB	(KLLB)	SN103K	T-22678	2.937
		2 3/8	4 1/4	1 31/32	3 3/4	6 5/8	8 1/4	2 3/8	7/8	5/8	1	1.918	1.280	1/2					6.47
RSAO, LSAO	1 7/16	69.85	122.2	51.6	104.8	209.6	269.9	69.8	23.8	19	28.6	55.1	33.3	15.9	GN107KRRB	(KLLB)	SN107K	T-22496	4.154
		2 3/4	4 13/16	2 1/32	4 1/8	8 1/4	10 5/8	2 3/4	15/16	3/4	1 1/8	2.168	1 5/16	5/8					9.15
RSAO, LSAO	1 1/2	79.38	136.6	57.2	114.3	228.6	288.9	79.4	27	19	28.6	63.0	37.3	15.9	GN108KRRB	(KLLB)	SN108K	T-22672	5.857
		3 1/8	5 3/8	2 1/4	4 1/2	9	11 3/8	3 1/8	1 1/16	3/4	1 1/8	2.480	1 15/32	5/8					12.90
RSAO, LSAO	1 11/16	79.38	142.9	58.7	127.0	228.6	288.9	79.4	30.2	19	28.6	69.3	38.9	15.9	GN111KRRB	(KLLB	SN111K	T-22498	6.56
RSAO	1 3/4	3 1/8	5 5/8	2 5/16	5	9	11 3/8	3 1/8	1 3/16	3/4	1 1/8	2.730	1 17/32	5/8	GN112KRRB		SN112K		14.45
RSAO, LSAO	1 15/16	79.38	148.4	66.7	138.1	228.6	288.9	79.4	33.3	19	28.6	75.7	42.1	15.9	GN115KRRB	(KLLB)	SN115K	T-22502	7.246
		3 1/8	5 27/32	2 5/8	5 7/16	9	11 3/8	3 1/8	1 5/16	3/4	1 1/8	2.980	1 21/32	5/8					15.96
RSAO	2	95.25	170.7	73	150.8	260.4	320.7	88.9	36.5	22.2	34.9	82.0	45.2	19	GN200KRRB		SN200K	T-22500	10.192
RSAO, LSAO	2 3/16	3 3/4	6 23/32	2 7/8	5 15/16	10 1/4	12 5/8	3 1/2	1 7/16	7/8	1 3/8	3.230	1 25/32	3/4	GN203KRRB	(KLLB)	SN203K		22.45
RSAO, LSAO	2 7/16	104.78	186.5	79.4	163.5	285.8	349.2	101.6	38.1	22.2	34.9	88.4	48.4	19	GN207KRRB	(KLLB)	SN207K	T-22494	16.144
		4 1/8	7 11/32	3 1/8	6 7/16	11 1/4	13 3/4	4	1 1/2	7/8	1 3/8	3.480	1 29/32	3/4					35.56
RSAO, LSAO	2 11/16	115.89	210.3	88.9	188.9	304.8	390.5	111.1	44.4	25.4	34.9	101.1	54.8	22.2	GN211KRRB	(KLLB)	SO211K	T-22492	19.295
		4 9/16	8 9/32	3 1/2	7 7/16	12	15 3/8	4 3/8	1 3/4	1	1 3/8	3.980	2 5/32	7/8					42.50
RSAO, LSAO	2 15/16	115.89	217.5	100	203.2	314.3	390.5	111.1	47.6	25.4	34.9	112.2	62.7	22.2	GN215KRRB	(KLLB)	SN215K	T-22490	20.09
		4 9/16	8 9/16	3 15/16	8	12 3/8	15 3/8	4 3/8	1 7/8	1	1 3/8	4.418	2 15/32	7/8					44.25
RSAO	3 3/16	115.89	223	106.4	214.3	314.3	390.5	111.1	49.2	25.4	44.4	119.1	65.9	22.2	GN303KRRB		SN303K	T-22444	22.814
		4 9/16	8 25/32	4 3/16	8 7/16	12 3/8	15 3/8	4 3/8	1 15/16	1	1 3/4	4.688	2 19/32	7/8					50.25
RSAO	3 7/16	130.18	250.8	115.9	241.3	339.7	409.6	120.6	57.2	28.6	54	133.4	73.8	25.4	GN307KRRB		SN307K	T-22446	30.986
		5 1/8	9 7/8	4 9/16	9 1/2	13 3/8	16 1/8	4 3/4	2 1/4	1 1/8	2 1/8	5.250	2 29/32	1					68.25
RSAO	3 15/16	144.46	281	128.6	273	374.6	439.7	130.2	65.1	28.6	44.4	146	78.6	25.4	GN315KRRB		SN315K	T-22448	40.633
		5 11/16	11 1/16	5 1/16	10 3/4	14 3/4	17 5/16	5 1/8	2 9/16	1 1/8	1 3/4	5.750	3 3/32	1					89.50

SAL INDUSTRIAL SERIES FIXED & FLOATING TYPES

- Designed for applications where normal to high temperatures are encountered and applications where one or more floating bearing units are required.
- The floating unit allows the bearing to move axially as the shaft expands due to rising temperatures. The fixed unit maintains shaft location.
- Bearings have loose internal fit.
- SAL unit is equipped with a self-aligning SM wide inner ring bearing and a self-locking collar.
- External aligning ring is fitted to the spherical surface of the outer ring.
- Equipped with oil-tight seals. Normally fitted for oil lubrication, but can be equipped for grease lubrication when specified.
- **Before installation, lubricate with high-grade automotive oil, turbine oil, or ball bearing grease.**
- Units are assembled with a spacer ring (fixed type). By removing spacer ring, the assembly becomes a floating unit.



Suggested shaft tolerances: **1 3/16", - 1 15/16", nominal to -.013 mm, -.0005";**
2" - 3 15/16", nominal to -.025 mm, -.0010".

BEARING DATA

Unit	Bearing Number	Dimensions and Load Ratings
SAL	SM-KS	Page D72

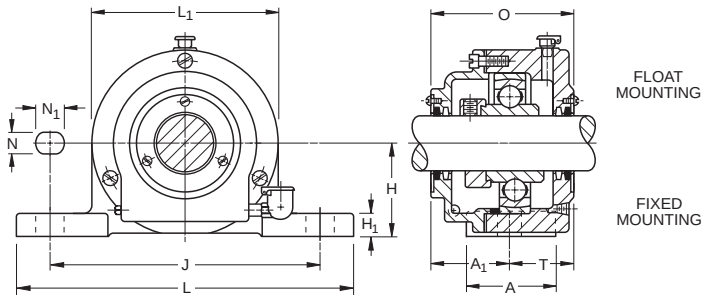
D

TO ORDER, SPECIFY UNIT AND SHAFT DIAMETER AND WHETHER FIXED OR FLOATING. Example: SAL 1 7/16" (one fixed, one floating).

Unit	Shaft Dia.	Total Float	H	O	L_1	A	J	L	N	N_1	H_1	A_1	T	Bolt Size	Bearing Number	Collar Number	Housing Number	Unit Wt.
	in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.			new	kg lbs.
SAL	1 3/16	6.4 1/4	50.8 2	97.6 3 27/32	96.8 3 13/16	54 2 1/8	139.7 5 1/2	177.8 7	15.9 5/8	19 3/4	17.5 11/16	56.4 2 7/32	41.3 1 5/8	12.7 1/2	SM1103KS	S1103K	T-12127	3.768 8.30
SAL	1 1/4	6.4 1/4	60.33 2 3/8	104.8 4 1/8	108 4 1/4	60.3 2 3/8	158.8 6 1/4	210 8 1/4	19 3/4	25.4 1	19 3/4	62.7 2 15/32	42.1 1 21/32	15.9 5/8	SM1104KS	S1104K	T-13108	5.239 11.54
SAL	1 7/16	6.4 1/4	60.33 2 3/8	104.8 4 1/8	108 4 1/4	60.3 2 3/8	158.8 6 1/4	210 8 1/4	19 3/4	25.4 1	19 3/4	62.7 2 15/32	42.1 1 21/32	15.9 5/8	SM1107KS	S1107K	T-13108	5.239 11.54
SAL	1 1/2	7.9 5/16	60.33 2 3/8	108 4 1/4	120.6 4 3/4	60.3 2 3/8	168.3 6 5/8	210 8 1/4	19 3/4	25.4 1	19 3/4	63.5 2 1/2	44.4 1 3/4	15.9 5/8	SM1108KTS	S1108KT	T-12121	6.143 13.53
SAL	1 11/16	7.9 5/16	60.33 2 3/8	110.3 4 11/32	120.6 4 3/4	60.3 2 3/8	168.3 6 5/8	210 8 1/4	19 3/4	25.4 1	19 3/4	65.9 2 19/32	44.4 1 3/4	15.9 5/8	SM1111KS	S1111K	T-12121	5.866 12.92
SAL	1 15/16	7.9 5/16	69.85 2 3/4	116.7 4 19/32	133.4 5 1/4	69.8 2 3/4	210 8 1/4	269.9 10 5/8	19 3/4	25.4 1	22.2 7/8	69.1 2 23/32	47.6 1 7/8	15.9 5/8	SM1115KS	S1115K	T-12313	8.113 17.87
SAL	2 3/16	7.9 5/16	79.38 3 1/8	137.3 5 13/32	146 5 3/4	79.4 3 1/8	228.6 9	288.9 11 3/8	19 3/4	25.4 1	22.2 7/8	79.4 3 1/8	57.9 2 9/32	15.9 5/8	SM1203KS	S1203K	A-5845	10.978 24.18
SAL	2 7/16	9.5 3/8	79.38 3 1/8	150 5 29/32	158.8 6 1/4	79.4 3 1/8	228.6 9	288.9 11 3/8	19 3/4	25.4 1	22.2 7/8	88.9 3 1/2	61.1 2 13/32	15.9 5/8	SM1207KS	S1207K	A-5083	12.894 28.40
SAL	2 11/16	7.1 9/32	95.25 3 3/4	156.4 6 5/32	171.4 6 3/4	88.9 3 1/2	259.7 10 1/4	320.7 12 5/8	22.2 7/8	28.6 1 1/8	27 1 1/16	92.1 3 5/8	64.3 2 17/32	19 3/4	SM1211KTS	S1211K	T-18940	15.889 35.02
SAL	2 15/16	9.9 25/64	95.25 3 3/4	173.8 6 27/32	190.5 7 1/2	88.9 3 1/2	259.7 10 1/4	320.7 12 5/8	22.2 7/8	28.6 1 1/8	27 1 1/16	100.8 3 31/32	73 2 7/8	19 3/4	SM1215KS	S1215K	A-5088	20.203 44.50
SAL	3 7/16	9.5 3/8	115.89 4 9/16	186.5 7 11/32	212.7 8 3/8	111.1 4 3/8	314.3 12 3/8	390.6 15 3/8	25.4 1	31.8 1 1/4	31.8 1 1/4	107.2 4 7/32	79.4 3 1/8	19 3/4	SM1307KS	S1307K	A-5206	33.482 73.75

SAOL HEAVY SERIES FIXED & FLOATING TYPES

- Designed for applications with higher than usual temperatures or where one or more floating bearing units are required.
- Floating unit allows the bearing to move axially as the shaft expands due to temperature rise. The fixed unit maintains shaft locations.
- Bearings have loose internal fit.
- SAOL unit is equipped with a self-aligning SMN wide inner ring bearing and a self-locking collar.
- External aligning ring is fitted to the spherical surface of the outer ring.
- Equipped with oil-type seals. Normally fitted for oil lubrication, but can be equipped for grease lubrication when specified.
- **Before installation, lubricate with high-grade automotive oil, turbine oil, or ball bearing grease.**
- Units are assembled with a spacer ring (fixed type). By removing the spacer ring, the assembly becomes a floating unit.



BEARING DATA

Unit	Bearing Number	Dimensions and Load Ratings
SAOL	SMN-KS	Page D73

Suggested shaft tolerances: **1 3/16" - 1 15/16", nominal to -.013 mm,-.0005";**
2" - 3 15/16", nominal to -.025 mm, -.0010".
Larger sizes, consult your Timken representative.

TO ORDER, SPECIFY UNIT AND SHAFT DIAMETER AND WHETHER FIXED OR FLOATING. Example: SAOL 1 7/16" (one fixed, one floating).

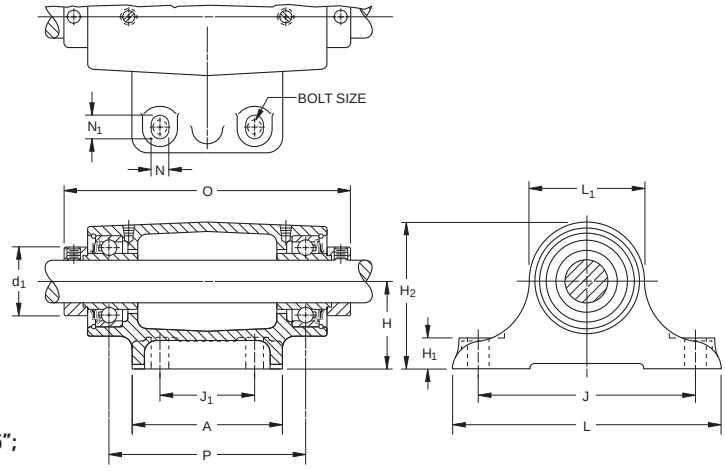
Unit	Shaft Dia.	Total Float	H	O	L_1	A	J	L	N	N_1	H_1	A_1	T	J_1[1]	Bolt No.	Bolt Size	Bearing Number	Collar Number	Housing Number	Unit Wt.
	in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.		mm in.			new	kg lbs.
SAOL	1 3/16	7.9 5/16	60.33 2 3/8	103.2 4 1/16	111.1 4 3/8	60.3 2 3/8	168.3 6 5/8	210 8 1/4	15.9 5/8	22.2 7/8	17.5 11/16	60.3 2 3/8	42.9 1 11/16	— —	2	12.7 1/2	SMN103KS	SN103K	T-12389	5.521 12.16
SAOL	1 7/16	9.1 23/64	69.8 2 3/4	111.1 4 3/8	120.6 4 3/4	69.8 2 3/4	209.6 8 1/4	269.9 10 5/8	19 3/4	25.4 1	20.6 13/16	69.1 2 23/32	42.1 1 21/32	— —	2	12.9 5/8	SMN107KS	SN107K	A-4779	7.037 15.5
SAOL	1 1/2	9.5 3/8	79.4 3 1/8	123.8 4 7/8	146 5 3/4	79.4 3 1/8	228.6 9	288.9 11 3/8	19 3/4	25.4 1	20.6 13/16	74.6 2 15/16	49.2 1 15/16	— —	2	12.9 5/8	SMN108KS	SN108K	A-4778A	11.35 25
SAOL	1 11/16	9.5 3/8	79.4 3 1/8	123.8 4 7/8	146 5 3/4	79.4 3 1/8	228.6 9	288.9 11 3/8	19 3/4	25.4 1	20.6 13/16	74.6 2 15/16	49.2 1 15/16	— —	2	12.9 5/8	SMN111KS	SN111K	A-4778	11.15 24.56
SAOL	1 15/16	9.5 3/8	79.4 3 1/8	122.2 4 13/16	158.8 6 1/4	79.4 3 1/8	228.6 9	288.9 11 3/8	19 3/4	25.4 1	20.6 13/16	73.8 2 29/32	48.4 1 29/32	— —	2	12.9 5/8	SMN115KS	SN115K	A-3818	12.462 27.45
SAOL	2 3/16	9.1 23/64	95.25 3 3/4	139.7 5 1/2	171.4 6 3/4	88.9 3 1/2	259.7 10 1/4	320.7 12 5/8	22.2 7/8	31.8 1 1/4	27 1 1/16	82.6 3 1/4	57.2 2 1/4	— —	2	19 3/4	SMN203KS	SN203K	A-4755	15.409 33.94
SAOL	2 7/16	8.7 11/32	104.8 4 1/8	150 5 29/32	190.5 7 1/2	101.6 4	285.8 11 1/4	349.2 13 3/4	22.2 7/8	31.8 1 1/4	27 1 1/16	91.3 3 19/32	58.7 2 5/16	— —	2	19 3/4	SMN207KS	SN207K	A-3819	18.841 41.5
SAOL	2 11/16	9.5 3/8	115.89 4 9/16	174.6 6 7/8	215.9 8 1/2	111.1 4 3/8	304.8 12	390.6 15 3/8	25.4 1	31.8 1 1/4	31.8 1 1/4	109.5 4 5/16	65.1 2 9/16	— —	2	22.2 7/8	SMN211KS	SO211K	A-4709	26.332 58
SAOL	2 15/16	12.7 1/2	115.89 4 9/16	177.8 7	225.4 8 7/8	111.1 4 3/8	314.3 12 3/8	390.6 15 3/8	25.4 1	31.8 1 1/4	31.8 1 1/4	104.8 4 1/8	73 2 7/8	— —	2	22.2 7/8	SMN215KS	SN215K	A-4798	33.823 74.5
SAOL	3 3/16	13.1 33/64	115.89 4 9/16	184.2 7 1/4	241.3 9 1/2	111.1 4 3/8	314.3 12 3/8	390.6 15 3/8	25.4 1	31.8 1 1/4	31.8 1 1/4	108 4 1/4	76.2 3	57.2 2 1/4	4	22.2 7/8	SMN303KS	SN303K	A-4780	35.298 77.75
SAOL	3 7/16	13.5 17/32	130.2 5 1/8	190.5 7 1/2	260.4 10 1/4	120.6 4 3/4	339.7 13 3/8	409.6 16 1/8	25.4 1	31.8 1 1/4	31.8 1 1/4	111.1 4 3/8	79.4 3 1/8	76.2 3	4	22.2 7/8	SMN307KS	SN307K	A-4155	48.805 107.5
SAOL	3 11/16	12.7 1/2	144.5 5 11/16	213.5 8 13/32	279.4 11	125.4 4 15/16	374.6 14 3/4	439.7 17 5/16	28.6 1 1/8	38.1 1 1/2	31.8 1 1/4	133.4 5 1/4	80.2 3 5/32	— —	2	25.4 1	SMO311WS	SO311K	A-4156	54.48 120
SAOL	3 15/16	17.5 11/16	152.4 6	219.9 8 21/32	298.4 11 3/4	133.4 5 1/4	393.1 15 1/2	469.9 18 1/2	28.6 1 1/8	38.1 1 1/2	34.9 1 3/8	127 5	92.9 3 21/32	82.6 3 1/4	4	25.4 1	SMN315KS	SN315K	A-4795	70.824 156
SAOL	4 3/16	15.9 5/8	165.1 6 1/2	225.4 8 7/8	317.5 12 1/2	158.8 6 1/4	449.3 17 11/16	539.8 21 1/4	28.6 1 1/8	38.1 1 1/2	38.1 1 1/2	134.1 5 9/32	91.3 3 19/32	101.6 4	4	25.4 1	SMN403WS	SN403K	T-14342	88.076 194
SAOL	4 7/16	14.3 9/16	177.8 7	228.6 9	327 12 7/8	171.4 6 3/4	449.3 17 11/16	539.8 21 1/4	31.8 1 1/4	44.4 1 3/4	44.4 1 3/4	134.9 5 5/16	93.6 3 11/16	108 4 1/4	4	28.6 1 1/8	SMN407WS	SN407K	T-11469	95.34 210
SAOL	4 15/16	31.4 1 15/64	209.6 8 1/4	261.9 10 5/16	381 15	184.2 7 1/4	514.4 20 1/4	630.2 24 13/16	31.8 1 1/4	44.4 1 3/4	50.8 2	152.4 6	109.5 4 5/16	120.6 4 3/4	4	28.6 1 1/8	SMN415WS	SN415K	T-11783	160.262 353

[1] When four bolts are used, dimension J_1 is distance between centers, and A_1 and T are measured from center of base.

DRNR INDUSTRIAL SERIES

- This rigid double pillow block is designed to provide a sturdy two-bearing mounting for fans and blowers, bench grinders, buffers, vertical shafts and similar heavy-duty applications.
- Compact, one-piece housing is equipped with two wide inner ring bearings with integral R-Seals and self-locking collar.
- Individual grease chambers provided for each bearing.
- Close clearance baffles allow excess grease to work into the center chamber of the housing.
- Grease fittings that take the place of standard pipe plugs provide the means of relubrication.
- Can be mounted in any position, with ample radial and thrust capacity assured at all times.

Suggested shaft tolerances: **$^{15}/_{16}$" - 1 $^{15}/_{16}$", nominal to -.013 mm, -.0005"; 2" - 2 $^{3}/_{16}$", nominal to -.025 mm, -.0010".**



BEARING DATA

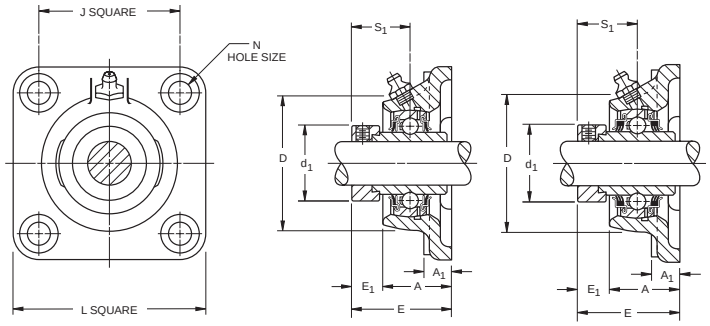
Unit	Bearing Number	Dimensions and Load Ratings
DRNR	KR	Page D53

TO ORDER, SPECIFY UNIT AND SHAFT DIAMETER. Example: DRNR 1 $^{7}/_{16}$".

Unit	Shaft Dia.	H	H_2	O	L_1	J	L	A	H_1	N	N_1	J_1	d_1	P	Bolt (4 req'd)	Bearing Number (2 req'd)	Collar Number	Housing Number	Unit Wt.
	in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.			new	kg lbs.
DRNR	$^{15}/_{16}$	63.5 2 1/2	99.2 3 29/32	200 7 7/8	71.4 2 13/16	158.8 6 1/4	196.8 7 3/4	108 4 1/4	19 3/4	12.7 1/2	15.9 5/8	69.8 2 3/4	38.1 1 1/2	146 5 3/4	9.5 3/8	1015KR	S1015K	T-19189	4.812 10.60
DRNR	1 $^{3}/_{16}$	63.5 2 1/2	105.6 4 5/32	203.2 8	84.1 3 5/16	158.8 6 1/4	196.8 7 3/4	108 4 1/4	22.2 7/8	12.7 1/2	15.9 5/8	69.8 2 3/4	44.1 1 47/64	142.9 5 5/8	9.5 3/8	1103KR	S1103K	T-19191	5.167 11.38
DRNR	1 $^{7}/_{16}$	76.2 3	123.8 4 7/8	276.2 10 7/8	95.2 3 3/4	203.2 8	254 10	139.7 5 1/2	25.4 1	15.9 5/8	22.2 7/8	88.9 3 1/2	54 2 1/8	211.5 8 21/64	12.7 1/2	1107KR	S1107K	T-19193	9.625 21.20
DRNR	1 $^{11}/_{16}$	76.2 3	133.4 5 1/4	279.4 11	114.3 4 1/2	203.2 8	254 10	139.7 5 1/2	25.4 1	15.9 5/8	22.2 7/8	88.9 3 1/2	63.5 2 1/2	209.6 8 1/4	12.7 1/2	1111KR	S1111K	T-19197	11.69 25.75
DRNR	1 $^{15}/_{16}$	88.9 3 1/2	150.8 5 5/16	352.4 13 7/8	123.8 4 7/8	241.3 9 1/2	304.8 12	177.8 7	28.5 1 1/8	17.5 11/16	28.5 1 1/8	114.3 4 1/2	69.8 2 3/4	276.2 10 7/8	15.9 5/8	1115KR	S1115K	T-19195	18.841 41.50
DRNR	2 $^{3}/_{16}$	88.9 3 1/2	158.8 6 1/4	355.6 14	133.4 5 1/4	241.3 9 1/2	304.8 12	177.8 7	31.8 1 1/4	17.5 11/16	28.5 1 1/8	114.3 4 1/2	76.2 3	268.3 10 9/16	15.9 5/8	1203KR	S1203K	A-9598	23.608 52.00

RCJ, TCJ, LCJ INDUSTRIAL SERIES

- Timken cartridges are used in applications where a minimum amount of machining is to be done.
- Each unit comes assembled and ready for mounting, with bolts through the flange.
- Wide inner ring bearings, self-aligning B-types, which compensate for shaft misalignment.
- RCJ flange cartridge is equipped with G-KRRB (R-Seal) wide inner ring bearings. The TCJ is equipped with G-KPPB (Tri-Ply Seal) wide inner ring bearings. The LCJ is equipped with the G-KLLB (Mechani-Seal) wide inner ring bearings.
- TCJ flange cartridges are identical to RCJ units, except they use the Tri-Ply seal bearing. Tri-Ply units offer the best protection in dirty environments.
- Units are factory prelubricated, but a grease fitting is provided for relubrication if required. Units are supplied with self-locking collars.
- **Contact a Timken representative to discuss highly corrosive applications (food processing, chemical exposure) where Timken thin dense chrome coated bearings can be used.**
- Safety end caps are available for selected sizes.



BEARING DATA

Unit	Bearing Number	Dimensions and Load Ratings
RCJ	G-KRRB	Page D54
TCJ	G-KPPB	Page D65
LCJ	G-KLLB	Page D62

Suggested shaft tolerances: **1 13/15" - 1 15/16", nominal to -.013 mm, -.0005"; 2" - 3 15/16", nominal to -.025 mm, -.0010". Larger sizes, consult your Timken representative.**

D

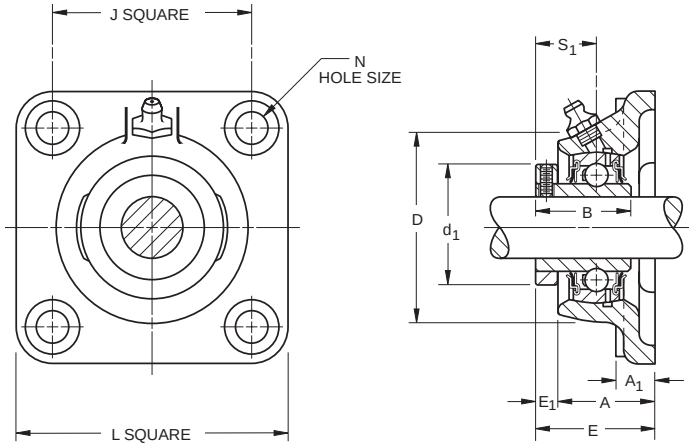
TO ORDER, SPECIFY UNIT AND SHAFT DIAMETER. Example: RCJ 1 3/16". POPULAR SIZES ARE IN BOLD.

Unit[2]	Shaft Dia. mm / in.	L ref. mm / in.	J ref. mm / in.	A_1 ref. mm / in.	A ±.015" mm / in.	E max. mm / in.	N mm / in.	E_1 mm / in.	S_1 ref. mm / in.	D ref. mm / in.	d_1 ±.005" mm / in.	Bearing Number[1] RCJ	(TCJ)	Collar Number	Housing Number new (old)	Unit Wt. kg lbs.
RCJ	1/2											G1008KRRB		S1008K		
RCJ	5/8	76.2	54	9.5	23.6	40.6	10.7	13.9	23.4	52.4	28.1	G1010KRRB		S1010K	T-40278	0.526
RCJ	11/16	3	2 1/8	13/32	0.929	1.599	27/64	35/64	59/64	2 1/16	1.105	G1011KRRB		S1011K	(T-16659)	1.16
RCJ	17											GE17KRRB		SE17K		
RCJ	**3/4**	85.7	63.5	11.1	27.8	46.4	10.7	16.3	26.6	60.3	32.8	G1012KRRB		S1012K	T-40267	0.726
RCJ	20	3 3/8	2 1/2	7/16	1.094	1.828	27/64	41/64	1 3/64	2 3/8	1.292	GE20KRRB		SE20K	(T-16661)	1.6
RCJ, TCJ	7/8											G1014KRRB	(KPPB3)	S1014K		
RCJ, TCJ	15/16	95.2	69.8	12.7	27.9	46.6	11.5	15.9	27	65.1	37.6	G1015KRRB	(KPPB3)	S1015K	T-40262	0.939
RCJ, TCJ	**1**	3 3/4	2 3/4	1/2	1.100	1.834	29/64	5/8	1 1/16	2 9/16	1.480	G1100KRRB	(KPPB3)	S1100K	(T-16663)	2.07
RCJ, TCJ	25											GE25KRRB	(KPPB3)	SE25K		
RCJ, TCJ	1 1/16											G1101KRRB	(KPPB3)	S1101K		
RCJ, TCJ	1 1/8	107.9	82.6	13.5	29.9	50.5	11.5	17.5	30.2	76.2	43.9	G1102KRRB	(KPPB3)	S1102K	T-40266	1.302
RCJ, TCJ	**1 3/16**	4 1/4	3 1/4	17/32	1.178	1.990	29/64	11/16	1 3/16	3	1.730	G1103KRRB	(KPPB3)	S1103K	(T-16664)	2.87
RCJ, TCJ	30											GE30KRRB	(KPPB3)	SE30K		
RCJ, TCJ	1 1/4											G1104KRRB	(KPPB2)	S1104K		
RCJ, TCJ	1 5/16	117.5	92.1	13.5	31.8	53.5	13.1	19	32.5	88.9	53.6	G1105KRRB	(KPPB2)	S1105K	T-40253	1.787
RCJ, TCJ	1 3/8	4 5/8	3 5/8	17/32	1.254	2.106	33/64	3/4	1 9/32	3 1/2	2.112	G1106KRRB	(KPPB2)	S1106K	(T-16617)	3.94
RCJ, TCJ	**1 7/16**											G1107KRRB	(KPPB2)	S1107K		
RCJ, TCJ	35											GE35KRRB	(KPPB2)	SE35K		
RCJ, TCJ	**1 1/2**	130.2	101.6	14.3	38.1	59.3	13.1	20.6	34.9	98.4	58.2	G1108KRRB	(KPPB3)	S1108KT	T-40263	2.291
RCJ, TCJ	1 9/16	5 1/8	4	9/16	1.500	2.334	33/64	13/16	1 3/8	3 7/8	2.292	G1109KRRB	(KPPB3)	S1109KT	(T-16666)	5.05
RCJ, TCJ	40											GE40KRRB	(KPPB3)	SE40K		
RCJ, TCJ	1 5/8											G1110KRRB	(KPPB4)	S1110K		
RCJ, TCJ	**1 11/16**	136.5	104.8	14.3	38.9	59.3	13.1	19.8	34.9	104.8	63.0	G1111KRRB	(KPPB4)	S1111K	T-40264	2.585
RCJ, TCJ	1 3/4	5 3/8	4 1/8	9/16	1.531	2.334	33/64	25/32	1 3/8	4 1/8	2.480	G1112KRRB	(KPPB4)	S1112K	(T-16667)	5.7
RCJ, TCJ	45											GE45KRRB	(KPPB4)	SE45K		
RCJ, TCJ	1 7/8	142.9	111.1	14.3	42.9	66.4	17.1	23	38.1	112.7	69.3	G1114KRRB	(KPPB3)	S1114K	T-40265	3.016
RCJ, TCJ	**1 15/16**	5 5/8	4 3/8	9/16	1.688	2.615	43/64	29/32	1 1/2	4 7/16	2.730	G1115KRRB	(KPPB3)	S1115K	(T-16668)	6.65
RCJ, TCJ	50											GE50KRRB	(KPPB3)	SE50K		
RCJ, TCJ	2											G1200KRRB	(KPPB4)	S1200K		
RCJ, TCJ	2 1/8	161.9	130.2	16.7	46.8	75.1	17.1	27.8	43.7	120.6	75.7	G1202KRRB	(KPPB4)	S1202K	T-40268	3.842
RCJ, TCJ	**2 3/16**	6 3/8	5 1/8	21/32	1.844	2.958	43/64	1 3/32	1 23/32	4 3/4	2.980	G1203KRRB	(KPPB4)	S1203K	(T-16683)	8.47
RCJ, TCJ	55											GE55KRRB	(KPPB4)	SE55K		
RCJ	2 1/4											G1204KRRB		S1204K		
RCJ	2 3/8	174.6	142.9	17.5	49.2	81.6	17.1	31.8	46.8	136.5	83.6	G1206KRRB		S1206K	T-40269	5.048
RCJ	**2 7/16**	6 7/8	5 5/8	11/16	1.937	3.214	43/64	1 1/4	1 27/32	5 3/8	3.292	G1207KRRB		S1207K	(T-17648)	11.13
RCJ	60											GE60KRRB		SE60K		
RCJ	2 11/16	187.3	149.2	19.1	63.5	90.3	16.3	25.4	45.2	152.4	96.3	G1211KRRB		S1211K	T-22530	6.885
RCJ	70	7 3/8	5 7/8	3/4	2.500	3.557	41/64	1	1 25/32	6	3.792	GE70KRRB		SE70K	(T-22270)	15.18
RCJ	2 15/16	196.8	152.4	22.2	66.7	96.7	19.8	26.2	54.8	161.9	101.1	G1215KRRB		S1215K	T-21620	8.21
RCJ	75	7 3/4	6	7/8	2.625	3.807	25/32	1 1/32	2 5/32	6 3/8	3.980	GE75KRRB		SE75K	(T-21620)	18.1

[1] Bearing number for RCJ is G-KRRB. TCJ uses G-KPPB.
[2] Type LCJ uses G-KLLB.

RCJC INDUSTRIAL SERIES CONCENTRIC COLLAR

- The same basic design as the RCJ Series, except a concentric collar is used as the shaft locking device instead of a self-locking cam collar.
- All RCJC units are equipped with GC-KRRB wide inner ring, concentric collar bearings.
- Spherical outside diameter of the bearings mounted in corresponding machined housing seats provides the initial self-alignment.
- Bolt hole spacing dimensions are interchangeable with the RCJ Series and most competitive units.
- Units are factory prelubricated, but a grease fitting is provided for relubrication if required.
- Concentric collars are supplied with all units.
- Safety end caps are available for selected sizes.



Suggested shaft tolerances: **½" - 1 15/16", nominal to -.013 mm, -.0005";**
2" - 2 15/16", nominal to -.025 mm, -.0010".

BEARING DATA

Unit	Bearing Number	Dimensions and Load Ratings
RCJC	GC-KRRB	Page D66

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TO ORDER, SPECIFY UNIT AND SHAFT DIAMETER. Example: RCJC 1 3/16".

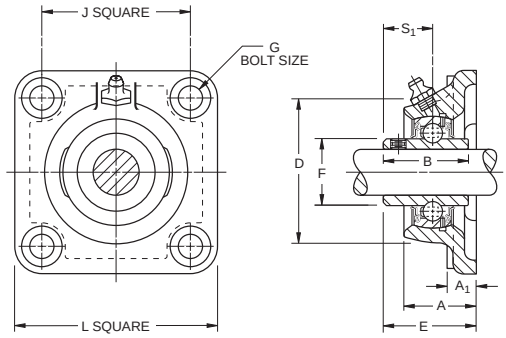
Unit	Shaft Dia.	L	J	A_1	A	E	N	E_1	B	D	d_1	S_1	Bearing Number	Collar Number	Housing Number	Unit Wt.
	in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.	mm in.				kg lbs.
RCJC	5/8	76.2 3	53.98 2 1/8	11.1 7/16	22.2 7/8	30.2 1 3/16	9.9 25/64	7.9 5/16	26.6 1 3/64	52.4 2 1/16	34.1 1 11/32	15.5 39/64	GC1010KRRB	C203	T-27113	0.486 1.07
RCJC	3/4	85.7 3 3/8	63.5 2 1/2	11.1 7/16	25.8 1 1/64	32.5 1 9/32	9.9 25/64	6.7 17/64	31 1 7/32	60.3 2 3/8	38.1 1 1/2	18.7 47/64	GC1012KRRB	C204	T-26605	0.645 1.42
RCJC	1	95.2 3 3/4	69.85 2 3/4	11.1 7/16	28.6 1 1/8	36.1 1 27/64	11.5 29/64	7.5 19/64	34.1 1 11/32	65.1 2 9/16	44.4 1 3/4	20.2 51/64	GC1100KRRB	C205	T-26614	0.781 1.72
RCJC RCJC RCJC	1 1/8 1 3/16 1 1/4 S	107.9 4 1/4	82.55 3 1/4	12.7 1/2	30.2 1 3/16	39.3 1 35/64	11.5 29/64	9.1 23/64	37.3 1 15/32	76.2 3	52.4 2 1/16	22.6 57/64	GC1102KRRB GC1103KRRB GC1103KRRB3	C206	T-26630	1.135 2.5
RCJC RCJC RCJC	1 1/4 1 3/8 1 7/16	117.5 4 5/8	92.08 3 5/8	14.3 9/16	34.1 1 11/32	44.4 1 3/4	13.1 33/64	10.3 13/32	41.3 1 5/8	88.9 3 1/2	59.5 2 11/32	25.4 1	GC1104KRRB GC1106KRRB GC1107KRRB	C207	T-26665	1.707 3.76
RCJC	1 1/2	130.2 5 1/8	101.6 4	17.5 11/16	40.5 1 19/32	51.2 2 1/64	13.1 33/64	10.7 27/64	44.1 1 47/64	98.4 3 7/8	68.3 2 11/16	27.4 1 5/64	GC1108KRRB	C208	T-16666A	2.238 4.93
RCJC RCJC	1 11/16 1 3/4	136.5 5 3/8	104.78 4 1/8	17.5 11/16	41.3 1 5/8	53.2 2 3/32	13.1 33/64	11.9 15/32	46.8 1 27/32	104.8 4 1/8	73 2 7/8	29.4 1 5/32	GC1111KRRB GC1112KRRB	C209	T-16667A	2.538 5.59
RCJC	1 15/16	142.9 5 5/8	111.12 4 3/8	15.9 5/8	42.1 1 21/32	54.8 2 5/32	17.1 43/64	12.7 1/2	48.4 1 29/32	112.7 4 7/16	79.4 3 1/8	30.2 1 3/16	GC1115KRRB	C210	T-26700	2.797 6.16
RCJC RCJC	2 2 3/16	161.9 6 3/8	130.18 5 1/8	19 3/4	44.4 1 3/4	58.7 2 5/16	17.1 43/64	14.3 9/16	54 2 1/8	120.6 4 3/4	88.9 3 1/2	33.33 1 5/16	GC1200KRRB GC1203KRRB	C211	T-26712	4.036 8.89
RCJC	2 7/16	174.6 6 7/8	142.88 5 5/8	19 3/4	47.6 1 7/8	65.9 2 19/32	16.3 41/64	18.3 23/32	60.3 2 3/8	136.5 5 3/8	95.2 3 3/4	37.3 1 15/32	GC1207KRRB	C212	T-26726	4.926 10.85
RCJC	2 15/16	196.8 7 3/4	152.4 6	22.2 7/8	54 2 1/8	75.4 2 31/32	19.8 25/32	21.4 27/32	70.6 2 25/32	161.9 6 3/8	114.3 4 1/2	43.7 1 23/32	GC1215KRRB	C215	T-27128	7.473 16.46

Shaft diameter with an S = smaller housing.

YCJ INDUSTRIAL SETSCREW SERIES

- The same basic design as the RCJ Series, except specially designed setscrews are used as the locking device instead of an eccentric collar.
- All units are equipped with GY-KRRB wide inner ring, setscrew bearings.
- Spherical outside diameter of the bearings mounted in the corresponding machined housing seats provides the initial self-alignment.
- Bolt hole spacing dimensions are interchangeable with the RCJ Series and most competitive units.
- Units are factory prelubricated, but a grease fitting is provided for relubrication if required.
- Safety end caps are available for selected sizes.

Suggested shaft tolerances: **½" - 1 15/16", nominal to -.013 mm, -.0005";**
2" - 2 15/16", nominal to -.025 mm, -.0010".



BEARING DATA

Unit	Bearing Number	Dimensions and Load Ratings
YCJ	GY-KRRB	Page D67

TO ORDER, SPECIFY UNIT AND SHAFT DIAMETER. Example: YCJ 1 7/16".

Unit	Shaft Dia. mm	Shaft Dia. in.	L ref. mm	L ref. in.	J ref. mm	J ref. in.	A_1 ref. mm	A_1 ref. in.	A ±.015 mm	A ±.015 in.	E max. mm	E max. in.	B mm	B in.	D ref. mm	D ref. in.	F ±.001 mm	F ±.001 in.	S_1 ref. mm	S_1 ref. in.	G Bolt Size mm	G Bolt Size in.	Bearing Number
YCJ		1/2	76.2	3	54	2 1/8	10.3	13/32	23.6	0.929	32.5	1.296	27.4	1 5/64	52.4	2 1/16	23.90	0.941	15.9	5/8	10	3/8	GY1008KRRB
YCJ		5/8																					GY1010KRRB
YCJ	17																						GYE17KRRB
YCJ		3/4	85.7	3 3/8	63.5	2 1/2	11.1	7/16	27.8	1.094	37.7	1.484	31.0	1 7/32	60.3	2 3/8	27.56	1.085	18.3	23/32	10	3/8	GY1012KRRB
YCJ	20																						GYE20KRRB
YCJ		7/8																					GY1014KRRB
YCJ		15/16	95.2	3 3/4	69.8	2 49/64	12.7	1/2	27.9	1.100	39.3	1.546	34.1	1 11/32	65.1	2 9/16	33.88	1.331	19.8	25/32	10	3/8	GY1015KRRB
YCJ		1																					GY1100KRRB
YCJ	25																						GYE25KRRB
YCJ		1 1/8																					GY1102KRRB
YCJ		1 3/16	107.9	4 1/4	82.6	3 1/4	13.5	17/32	29.9	1.178	42.4	1.671	38.1	1 1/2	76.2	3	40.31	1.587	22.2	7/8	10	3/8	GY1103KRRB
YCJ		1 1/4 S																					GY1103KRRB3
YCJ	30																						GYE30KRRB
YCJ		1 1/4																					GY1104KRRB
YCJ		1 3/8	117.5	4 5/8	92.1	3 5/8	13.5	17/32	31.8	1.254	46.4	1.827	42.9	1 11/16	88.9	3 1/2	46.81	1.843	25.4	1	12	1/2	GY1106KRRB
YCJ		1 7/16																					GY1107KRRB
YCJ	35																						GYE35KRRB
YCJ		1 1/2	130.2	5 1/8	101.6	4	14.3	9/16	38.1	1.500	54.4	2.141	49.2	1 15/16	98.4	3 7/8	52.27	2.057	30.2	1 3/16	12	1/2	GY1108KRRB
YCJ	40																						GYE40KRRB
YCJ		1 5/8																					GY1110KRRB
YCJ		1 11/16	136.5	5 3/8	104.8	4 1/8	14.3	9/16	38.9	1.531	54.4	2.141	49.2	1 15/16	104.8	4 1/8	57.92	2.279	30.2	1 3/16	12	1/2	GY1111KRRB
YCJ		1 3/4																					GY1112KRRB
YCJ	45																						GYE45KRRB
YCJ		1 15/16	142.9	5 5/8	111.1	4 3/8	14.3	9/16	42.9	1.688	60.7	2.390	51.6	2 1/32	112.7	4 7/16	62.84	2.473	32.5	1 9/32	16	5/8	GY1115KRRB
YCJ		2 S																					GY1115KRRB3
YCJ	50																						GYE50KRRB
YCJ		2	161.9	6 3/8	130.2	5 1/8	16.7	21/32	46.8	1.844	64.7	2.546	55.6	2 3/16	120.7	4 3/4	69.77	2.747	33.3	1 5/16	16	5/8	GY1200KRRB
YCJ		2 3/16																					GY1203KRRB
YCJ	55																						GYE55KRRB
YCJ		2 7/16	174.6	6 7/8	142.9	5 5/8	17.5	11/16	49.2	1.937	74.2	2.921	65.1	2 9/16	136.5	5 3/8	76.48	3.011	39.1	1 9/16	16	5/8	GY1207KRRB
YCJ	60																						GYE60KRRB
YCJ		2 11/16	187.3	7 3/8	149.2	5 7/8	19	3/4	63.5	2.500	81.4	3.204	69.9	2 3/4	152.4	6	86.92	3.422	42.9	1 11/16	16	5/8	GY1211KRRB
YCJ	70																						GYE70KRRB
YCJ		2 15/16	196.8	7 3/4	152.4	6	23.8	15/16	66.7	2.625	86.2	3.392	77.8	3 1/16	161.9	6 3/8	91.92	3.619	44.4	1 3/4	20	3/4	GY1215KRRB
YCJ	75																						GYE75KRRB

Shaft diameter with an S = smaller housing.