

Contents

Introduction	Introduction A-1 Available Software A-2 New Products A-2	A
Ball Bearings, Ball Bearing Units and Takeups	Introduction B-1, Pictorial Index B-3, Selection B-9, Load Ratings B-11, Dimensions B-13, Additional Information B-75, Nomenclature B-78	B
Heavy Duty Ball Bearing Units	Introduction C-1, Pictorial Index C-3, Selection C-5, Load Ratings C-7, Dimensions C-9, Additional Information C-17, Nomenclature C-18	C
Spherical Roller Bearing Units and Takeups	Introduction D-1, D-27, D-41; Pictorial Index D-3, D-29, D-43; Selection D-5, D-31, D-45; Load Ratings D-7, D-33, D-47; Dimensions D-9, D-35, D-49; Replacement Parts D-61, Additional Information D-68, Nomenclature D-70	D
Spherical Roller Bearing Pillow Blocks and Takeups	Introduction E-1, Index E-3, Selection E-7, Load Ratings E-9, Dimensions E-15, Nomenclature E-27, Replacement Parts E-29, Additional Information E-34	E
Spherical Roller Bearings	Introduction F-1, Index F-2, Selection F-3, Load Ratings F-5, Dimensions F-7, Additional Information F-17, Nomenclature F-18	F
Cylindrical Roller Bearings	Introduction G-1, Pictorial Index G-3, Selection G-5, Load Ratings G-7, Dimensions G-15, Additional Information G-31, Nomenclature G-32	G
Spherical Roller Bearings	Introduction H-1, Selection H-3, H-7; Load Ratings H-5, H-9; Dimensions H-6, H-11; Additional Information H-15, Nomenclature H-16	H
Sleeve Bearing Units and Takeups	Introduction I-1, I-19; Pictorial Index I-3, I-20; Selection I-5, I-21; Load Ratings I-7, I-23; Dimensions I-9, I-25; Replacement Parts I-17, Nomenclature I-29	I

Link-Belt® Bearings.

Across industry, the name "Link-Belt" is recognized as a symbol for a superior line of bearings.

Today, the Link-Belt Bearing Division's principal product line consists of cylindrical roller bearings; ball bearings and ball bearing units, self-aligning spherical roller bearings and spherical roller bearing units; babbitt and bronze sleeve bearing units and takeups. All in a wide range of sizes suitable for practically all industrial requirements.

Mere completeness, however, does not, by itself, make any line of bearings superior. What counts is the performance of each individual bearing type. And, in that respect, Link-Belt bearings offer a true competitive edge.

Every Link-Belt bearing incorporates the benefits of years of continuous research and development. Benefits that directly translate to superior quality in every aspect of judging a bearing. Rugged, advanced design. Quality materials. Accurate workmanship. The most modern of manufacturing facilities and techniques. Plus, application expertise that can come only from years of close working relationships with industries of all kinds.

Wherever shafts turn, Link-Belt bearings help transmit power with efficiency and reliability that industry after industry depends on. There can be no greater assurance of superior quality performance in your application.

A wide network of stock-carrying distributors maintain immediately available quantities of Link-Belt bearings in a wide variety of types. To give you superior performance, when and where you need it.

In turn, vast Link-Belt warehouse inventories support distributor stocks, allowing for overnight delivery in many cases.



Further supplementing these efforts, strategically located Sales Offices provide for direct, in-depth consultation. Each is staffed with knowledgeable customer service representatives, area managers, and product specialists, who are able to aid in matters from the simplest application questions to developing complete power transmission systems for specific applications.

The industry's most efficient order processing system.

To facilitate prompt, efficient service and order processing, Link-Bearing Division, Rexnord Corp. customers get quick, upto-the-minute "on-line" response to new orders, order status, and inventory availability, anywhere in the world ... all with a simple phone call to their nearest Link-Belt Bearing Division Service Center.

The minute an order is entered, the inventory is instantly reserved. The system even stores predetermined shipping instructions for individual customers, saving phone times and eliminating the possibility of an error.

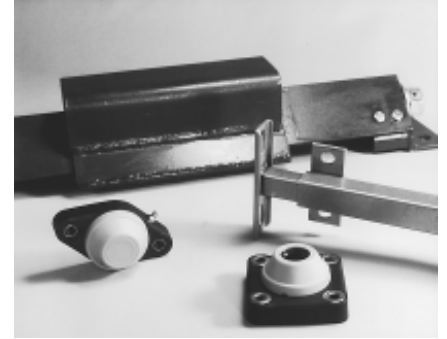
The result: Link-Belt order processing is faster, easier, and more accurate than any other power transmission equipment manufacturer's system.

New Products

Corrosion resistant polyamide or polypropylene housings with auxiliary seals. See pages B-13 and B-14.

T-frame protected screw takeup frames for pillow block mounting. Available in mild or 304 stainless steel. See pages B-57 and B-58.

LHD heavy duty welded steel takeup frames with protected screws. See pages C-15, D-22 and E-25.



Engineering Support Software

Developed by engineers at Link-Belt Bearing Division, **AutoLINK™** Version 1.0 is a general purpose bearing analysis program that calculates reaction loads on two bearing shaft systems based on data supplied by the user. Loads from belts, gears, chain drives or other predetermined loads are calculated. The program then either selects bearings for an application or analyzes pre-selected bearings. It can analyze up to three externally applied loads and provide analysis for up to five different shaft arrangements and multiple shaft diameters. The final output provides lubrication, installation and service instructions for the calculated bearing selection.

A similar program call **FANBAN™** is also available to help simplify fan and blower bearing selection and system analysis.

For more information on these valuable time-saving programs, contact your Rexnord Representative or the Link-Belt Engineering Department.

With **Cad-Cat®** software, you'll avoid the need for redrawing Rex and Link-Belt components from scratch. And enjoy new levels of speed, accuracy and efficiency throughout the design process. Compatible with AutoCad® software **CadCat** creates CAD drawings on-line and at your fingertips.

CadCat electronic catalogs are available for the following Rexnord product lines: Link-Belt Bearings, Link-Belt Model R Speed Reducers, Rex Bearings, Rex Omega Couplings and Rex Planetgear Speed Reducers.

For more information on CadCat call: 1-414-643-3021.

- ® AutoCAD is a registered trademark of Autodesk, Inc.
- ® CadCat is a registered trademark of Rexnord Corp.



Ball Bearings, Ball Bearing Units and Takeups

Contents

Series 200

Ball Bearing Units and Takeups

Introduction	B-1
Pictorial Index	B-3
Selection	B-9
Load Ratings	B-11
Dimensions:	
Klean-Gard Units	B-13
Dura-Klean Units	B-15
Pillow Blocks	B-21
Flange Blocks	B-32
Takeups	B-51
Additional Information	B-75
Nomenclature	B-78

Series 200

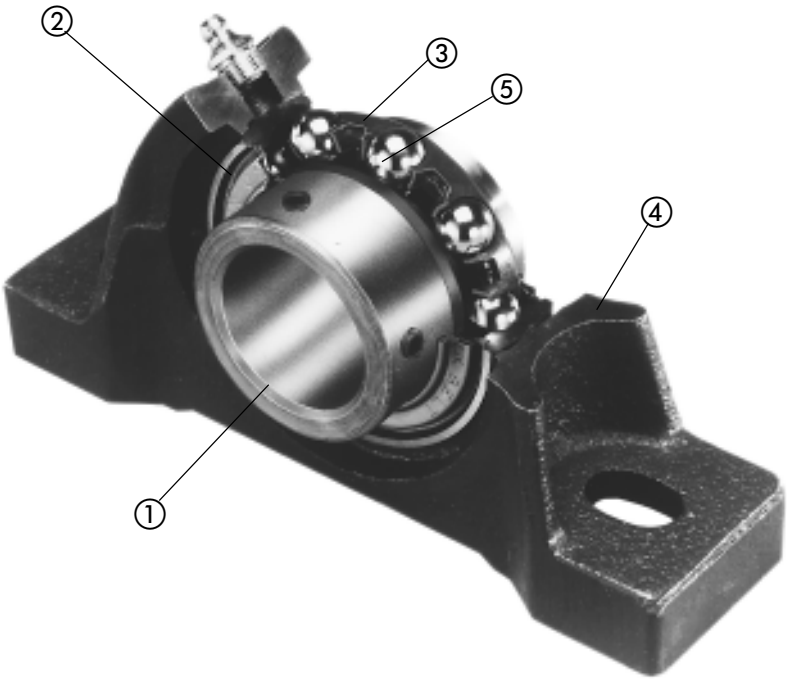
Collar Mounted Ball Bearings, Spring Locking Ball Bearings, Round, Square and Hex Bore Ball Bearings

Introduction	B-7
Pictorial Index	B-8
Selection	B-9
Load Ratings	B-11
Dimensions:	
U200, S200, Y200, W200	B-63
Hex, Square, or Round Bore	B-70
Additional Information	B-77
Nomenclature	B-80

Series 200 Ball Bearing Units and Takeups

Series 200 standard duty ball bearing units provide a versatility of application arrangements for carrying shafts with radial or combination radial and thrust loads. They are designed for general purpose industrial machinery, conveyors, chain and belt drives, fans and blowers, power transmission, and many other applications.

- ① Extended or wide inner ring for moderate or high stability and load support.
- ② Choice of spring locking or spring locking collar with set screws or eccentric cam locking collar to lock inner ring securely to shaft.
- ③ Choice of Steel-Clad Type H labyrinth seal Type N single lip seal or Type E3 triple lip seal. W200 series has Type U or Type E single lip seal. S200 Series has Type E single lip seal.
- ④ Compact one-piece housing provides excellent mounting support.
- ⑤ Alignable precision deep groove ball bearing manufactured of quality alloy bearing steel provides high capacity and long life.



Wide and Extended Inner Ring Ball Bearings, Spring Locking

Precision alignable ball bearings of deep groove construction for high capacity and high precision applications. Spring locking collar or set screw locking securely locks

the bearing to the shaft. The U200 wide inner ring furnishes increased shaft support and accommodates wider seals for extra lubricant capacity.



Wide and Extended Inner Ring Ball Bearings, Eccentric Cam Locking Collars

Precision alignable ball bearings of deep groove construction. Eccentric cam locking collars hold the bearings securely to the shaft and further tightens with bearing

rotation. The Y200 wide inner ring provides increased shaft support and accommodates wide seals for extra lubricant capacity.



Steel-Clad Seals



**TYPE H
SEAL**

All bearing type seals are crimped tightly in the bearing outer rings with steel members and cannot be blown out during relubrication.

Type N lip seals have the same contoured external trash guard for maximum lip protection and a full land riding lip for grease retention and dirt exclusion. The Type N seal rides on a precision ground surface of the bearing inner ring for smooth operation and tightness.

Type H multi-labyrinth seal with contoured external trash guard is an excellent all purpose low friction seal for grease lubrication.



**TYPE N
SEAL**



**TYPE E3
SEAL**

Type E3 triple lip seal is a tight high torque seal for ultimate dirt exclusion. It has an external trash guard to protect the precision die molded lip members.

Type E molded lip seal with external trash guard for maximum lip protection and a full land riding lip for grease retention and dirt exclusion.



**TYPE E
SEAL**

One-piece Housings

Rugged one-piece precision machined housings of many types provide a versatility of mounting arrangement and facilitate installation. All mounting surfaces are fully machined and all housings provide for easy bearing relubrication. Grease flows through the fitting into a machined grease groove

and through the lubricant holes of the outer ring directly into the bearing chamber between the seals. Pillow blocks have slotted bolt holes with ample space provided for drilling dowel pin holes. Flanged units have drilled mounting holes. Takeup units have machined slots for accurate adjustment.



Standard Duty Ball Bearing Units

Series 3-200, 200

Pillow Blocks, Cast Iron

P3-U200N, PL3-U200N, PH3-U200N, PT3-U200N, PL3-Y200N, P3-Y200N

Alignable pillow blocks for shaft sizes $\frac{1}{2}$ " through 4" (17-100 mm). Open or closed end, and standard, high or low backing dimension. Available with type H, type N, type E3, seals for grease lubrication.

Load ratings on pages B-11 and B-12.

Dimensions on pages B-21 and B-22, B-25 and B-26, and B-30 and B-31.

Additional information on page B-75.



Flanged Units, 2, 3, and 4-bolt

FX3-U200N, FX3-Y200N, F3-U200N, F3-Y200N, FB3-U200N

Alignable 2-bolt units for shaft sizes $\frac{1}{2}$ " through $2\frac{3}{16}$ " (17-55 mm); 3-bolt units for shaft sizes $\frac{7}{8}$ " through $1\frac{7}{16}$ " (25-85 mm); 4-bolt units for shaft sizes $\frac{1}{2}$ " through $3\frac{1}{2}$ " (17-85 mm). Open or closed end, drilled bolt holes, and machined mounting surfaces. Furnished with eccentric cam or spring locking. Available with type H, type N or type E3, seals for grease lubrication.

Load ratings on pages B-11 and B-12.

Dimensions on pages B-32 through B-34, B-37 and B-38.

Additional information on page B-75.



Flanged Cartridge Units

FC3-Y200N, FC3-U200N

Alignable units for shaft sizes $\frac{7}{8}$ " through 4" (25-100 mm). Open or closed end, drilled bolt holes, and machined mounting surfaces. Available with type H, type N, type E3 seals for grease lubrication.

Load ratings on pages B-11 and B-12.

Dimensions on pages B-41 and B-42.

Additional information on page B-75.



Takeup Units

T3-U200N, TH3-U200N

Alignable units for takeup applications with shaft sizes $\frac{1}{2}$ " through $2\frac{7}{16}$ " (17-55 mm) with narrow or wide slots. Open or closed end and without frames, guides, or adjusting screws. Furnished with type N seals for grease lubrication.

Load ratings on pages B-11 and B-12.

Dimensions on pages B-51 and B-53.

Additional information on page B-75.



Takeups, Steel Frames

Adjustable type takeups for conveyors and elevators. Spring locking. Furnished with type N lip seals for grease lubrication.

TAS3-U200N

Conveyor takeup with formed steel frame for moderate service. Bearing bores are perpendicular to the base of the frame. Shaft sizes $1\frac{5}{16}$ " through $2\frac{3}{16}$ " (25-55 mm).

TDS3-U200N

Conveyor takeup with removable top welded steel frame, for moderate to heavy service. Bearing bores are parallel to the base of the frame. Shaft sizes $1\frac{15}{16}$ " through $3\frac{15}{16}$ " (50-100 mm).

NT3-U200N

*Load ratings on pages B-11 and B-12.
Dimensions on pages B-55 through B-60.
Additional information on page B-75.*

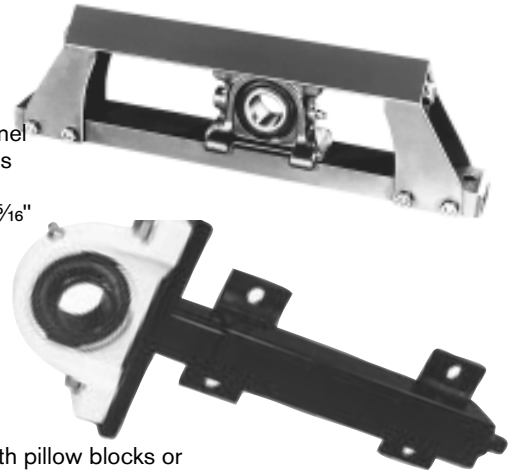
Conveyor takeup with welded steel channel frame for moderate service. Bearing bores are parallel to the base of the frame. Shaft sizes $1\frac{5}{16}$ " through $1\frac{15}{16}$ " (25-50 mm).

LC

Universal takeup frames for mounting with all pillow blocks.

TP, TSP, TPT, TSPT

Universal T-frame takeup for mounting with pillow blocks or tapped base pillow blocks. T-frames are mild steel (TP, TPT) or AISI 304 stainless steel (TSP, TSPT). Also available with quick release feature for pillow block mounting and AISI 304 stainless steel frame.



Screw Conveyor Units

Double ball bearing trough end units and hanger bearing units.

FF200N

Four bolt square trough end flanged units for shaft sizes $1\frac{1}{2}$ " through $3\frac{7}{16}$ ", and spring locking mounting. Two ball bearings for taking screw thrust and external chain or belt loads.

HM3-U200E3, HM3-U200N

*Load ratings on pages B-11 and B-12.
Dimensions on pages B-61 and B-62.
Additional information on page B-75.*

Alignable hanger bearing units, relubricatable, or spring locking, with type E3 triple lip seals or type N lip seals. Units made to fit square tubing with separate internal grease pipe for extra rigid mounting. Available for shaft sizes $1\frac{1}{2}$ " through $3\frac{7}{16}$ ".



Replacement Bearings

UG200NL, YG200NL

Wide inner ring deep groove single row ball bearings for shaft sizes $\frac{1}{2}$ " through 4". (UG200 bearings are available with standard metric bores for shafting) (17 mm through 100 mm). Furnished with eccentric cam or spring locking or spring locking collar. Available with type N, type H, type E3 seals for grease lubrication.

*Load ratings on pages B-11 and B-12.
Dimensions on pages B-64 and B-66.
Additional information on page B-77.*



Intermediate Ball Bearing Units

Series 200

Pillow Blocks, Cast Iron

P3-W200E, PL3-W200E, P3-S200E, PL3-S200E, PT3-S200E

Alignable pillow blocks for shaft sizes $\frac{1}{2}$ " through $1\frac{15}{16}$ ", standard or low backing dimension. Available with type E seal. Relubricatable.

Load ratings on pages B-11 and B-12.

Dimensions on pages B-23 and B-24, B-27 and B-28, and B-30.

Additional information on page B-76.



Pillow Blocks, Formed Steel

PS-W200E, PS-Y200N, PS-U200N

Alignable pillow blocks for shaft sizes $\frac{1}{2}$ " through $1\frac{1}{16}$ ". Standard backing dimension. Non-relubricatable. W200 series available with type E seals, U200 and Y200 series available with type N single lip or type E3 triple lip seal.

Load ratings on pages B-11 and B-12.

Dimensions on page B-29.

Additional information on page B-76.



Flanged Units, 2, 3, and 4-bolt

FX3-W200E, FX3-S200E, F3-W200E, F3-S200E, FB3-S200E

Alignable flanged units for shaft sizes $\frac{1}{2}$ " through $1\frac{15}{16}$ ", two, three, or four bolt mounting. Available with type E seal. Relubricatable.

Load ratings on pages B-11 and B-12.

Dimensions on pages B-32, B-35 and B-36, and B-39 and B-40.

Additional information on page B-76.



Flanged Units, High-test Iron

FX-U200N, FX-UG200N, FXR-U200N, FXR-UG200N
FX-Y200N, FX-YG200N, FXR-Y200N, FXR-YG200N
F-U200N, F-UG200N, FR-U200N, FR-UG200N
F-Y200N, F-YG200N, FR-Y200N, FR-YG200N

Alignable flanged units for shaft sizes $\frac{1}{2}$ " through 2", two, three, or four bolt mounting. W200 series available with type E seal, S200 series available with type E seal, U200 and Y200 series available with type N single lip or type E3 triple lip seals. Optional relubrication feature.

Load ratings on pages B-11 and B-12.

Dimensions on pages B-43 through B-46.

Additional information on page B-76.



Takeup Units

T3-S200E, TH3-S200E

Alignable units for takeup applications with shaft sizes $\frac{3}{4}$ " through $1\frac{15}{16}$ " with narrow or wide slots. Opened or closed end and without frames, guides, or adjusting screws. Furnished with type E seals for grease lubrication.

Load ratings on pages B-11 and B-12.
Dimensions on pages B-52 and B-54.
Additional information on page B-76.



Replacement Bearings

U200NL, UG200NL
W200EL, WG200EL
Y200NL, YG200NL
SG200EL

Extended and wide inner ring deep groove ball bearings for shaft sizes $\frac{1}{2}$ " through $2\frac{7}{16}$ ". Furnished with eccentric cam collar or spring locking. Type E3 triple lip seal optional for series U200 and Y200.

Load ratings on pages B-11 and B-12.
Dimensions on pages B-63 through B-69.
Additional information on page B-77.



Flanged Housings, 2-piece Formed Steel

MST, MSTR, MS, MSC, GMSA-GMSB

MST compact 2-bolt mounting for bearings of $\frac{1}{2}$ " through $1\frac{1}{4}$ " shaft diameter and basic 204 through 206 of the round, square and hex bore series.

Dimensions on page B-50

MSTR-3 bolt triangular mounting for bearings of $\frac{3}{4}$ " through $1\frac{1}{4}$ " shaft diameter and basic 204 through 206 of the round, square and hex bore series.

Dimensions on page B-48.

MS or MSC 3 or 4-bolt round mounting for bearings of $\frac{1}{2}$ " through $2\frac{3}{16}$ " shaft diameter and basic 204 through 211 of the round, square and hex bore series.

Dimensions on page B-47.

GMSA-GMSB 3 or 4-bolt round mounting of the relubricatable type for $\frac{7}{8}$ " through $2\frac{3}{16}$ " shaft diameter or basic 205 through 211 of the round, square and hex bore series.

Dimensions on page B-49.
Load ratings on pages B-43 through B-46.
Additional information on page B-76.



Series 200

Collar Mounted Ball Bearings

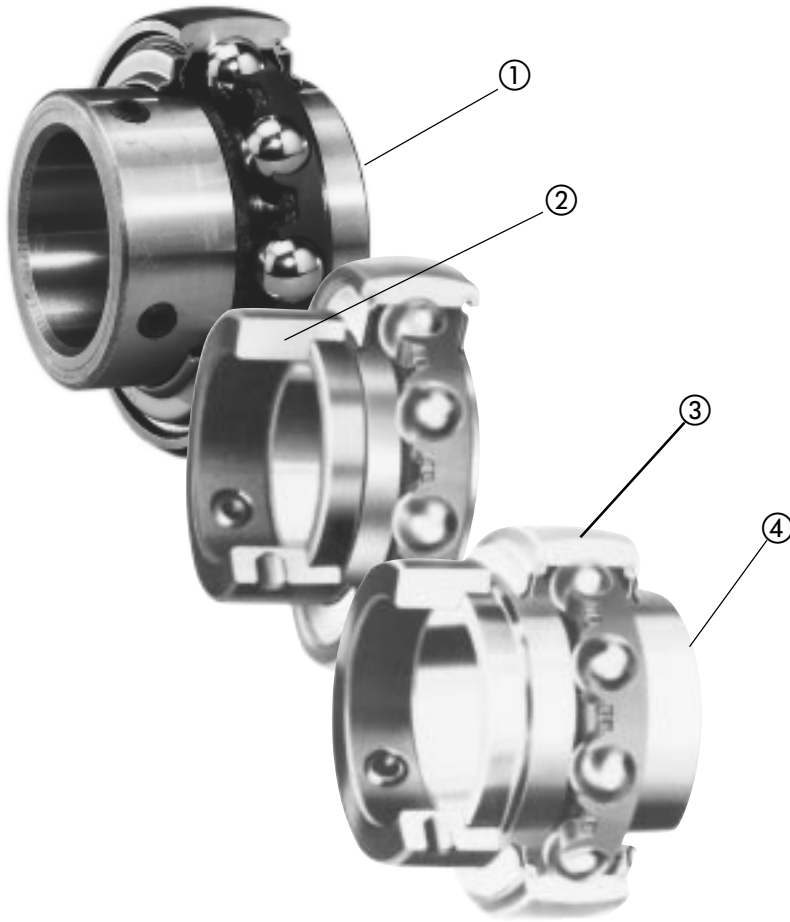
Spring Locking Ball Bearing

Round, Square and Hex Bore Ball Bearings

Series U200, S200, W200, Y200 collar mounted or spring locking ball bearings, and round, square and hex bore ball bearings provide economic and versatile arrangements for supporting shafts, especially with the 2-piece formed steel

flanged housings. These product lines are designed for light industrial applications, agricultural machinery, lawn and garden equipment, recreational vehicles and other applications.

- ① Precision deep groove ball bearings or quality alloy bearing steel provide high capacity and long life.
- ② Choice of spring locking collar with set screws or spring locking or eccentric cam locking collar to fasten inner ring securely to shaft.
- ③ Optional features such as spherical or cylindrical O.D.'s, relubricatable or non-relubricatable.
- ④ Extended or wide inner rings to meet diverse application requirements.



Wide Inner Ring Ball Bearings,

Spring Locking

Series U200, UG200, UB200, UBG200

Ball bearing with wide inner rings provide mounting stability by distributing the load over a large shaft area. Spring locking design provides a secure grip of the bearing to the shaft. The extra inner ring width accommodates wider seals for increased

lubricant capacity. Seals are crimped tightly in the bearing outer rings. Type N lip seals, type H labyrinth seals and type E3 triple lip seals can be furnished.



Extended Inner Ring Ball Bearings, Spring Locking

Series SG200

Compact ball bearing with extended inner rings for space savings. Set screw locking, properly torqued, holds bearing securely to the shaft. Carbonized inner rings to resist

fracture. Type E molded contact seal protects bearing from dirt. Steel outer member protects against fiber wrappage.



Extended Inner Ring Ball Bearings, Eccentric Cam Locking Collars

Series W200, WG200, WB200, WBG200

Compact ball bearings with extended inner rings for space savings. Eccentric cam locking collar holds bearing securely to the shaft. Shaft rotation further tightens collar. Type E molded contact seal protects

bearing from dirt. Steel outer member protects against fiber wrappage.



Wide Inner Ring Ball Bearings, Eccentric Cam Locking Collars

Series Y200, YG200, YB200, YBG200

Ball bearings with wide inner rings provide mounting stability by distributing the load over a large shaft area. Eccentric cam locking collar design provides a secure grip of the bearing to the shaft. Shaft rotation further tightens collar. The extra inner ring

width accommodates wider seals for increased lubricant capacity.

Type N lip seals, type H labyrinth seals and type E3 triple lip seals can be furnished.



Ball Bearings, Round Bore

Relubricatable or non-relubricatable for shaft sizes $\frac{7}{8}$ " through $2\frac{3}{16}$ ". Spherical or cylindrical outside diameters.

Load ratings on pages B-11 and B-12.

Dimensions on pages B-71 and B-72.

Additional information on page B-77.



Ball Bearings, Square Bore

Relubricatable or non-relubricatable for shaft sizes $\frac{7}{8}$ " through $1\frac{1}{2}$ ". Spherical or cylindrical outside diameters.

Load ratings on pages B-11 and B-12.

Dimensions on pages B-73 and B-74.

Additional information on page B-77.



Ball Bearings, Hex Bore

Non-relubricatable ball bearings for $\frac{5}{8}$ " through $1\frac{5}{8}$ " shaft size. Factory filled with grease. Spherical or cylindrical outside diameters.

Load ratings on pages B-11 and B-12.

Dimensions on page B-70.

Additional information on page B-77.



Selection

Ball Bearings and Ball Bearing Units

To select a bearing, determine the applied radial load, the applied thrust load, the desired Rating Life, and applicable operating conditions. The procedure shown here will aid in selecting a bearing to meet an L_{10} design life. The formulas for calculating life expectancy should be used to determine the Rating Life L_{10} for the bearing selected.

The selection procedures and rating formulas shown here are in agreement with The American Bearing Manufacturers Association Standards and ANSI/ABMA Standards STD 9-1990. Ratings are based

on fatigue life. The Rating Life or fatigue life at 90% reliability is the usual basis for bearing selection.

Series U200, Y200, and hex, square and round bore bearings have wide inner rings for load support; however, the S200 and W200 series are extended on one side only for compactness and low cost. In combination with its companion line of economically designed housings, this series is applicable to light or moderate duty requirements. Where non-relubricatable bearings are used, bearing life is often

limited by grease life, which is in turn affected by operating conditions. Also, economically designed housings must be applied within proportionate load limits.

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

For radial load applications only, Table 4, page B-12, can be used to select a bearing or to determine life expectancy.

Bearing Selection

Step 1 Determine an appropriate L_{10} design life.

Type of service	Operating time, hours per year	Design life, years	L_{10} design life, hours
Light seasonal usage	500 to 750	3-5	3,000
Heavy seasonal usage	1,400 to 1,600	4-6	8,000
Industrial—8 hour shift	2,000	10	20,000

Step 2 Determine a required $\left(\frac{C}{P}\right)$ from Table 1.

Step 3 Calculate the required C and select a ball bearing.

a For radial load only:
 $P = F_r$

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

Select a ball bearing from Table 3, page B-11 with a basic load rating C equal to or greater than the required C.

b For combined radial and thrust loads when $\frac{F_a}{F_r}$ is 0.19 or less:
 $P = F_r$

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

Select a ball bearing from Table 3, page B-11 with a basic load rating C equal to or greater than the required C.

c For combined radial and thrust loads when $\frac{F_a}{F_r}$ is greater than 0.19, use the following trial method:
Maximum $P = .56F_r + 2.30F_a$

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

Select a trial ball bearing with a basic load rating C from Table 3, page B-11, approximately equal to the maximum required C.

With this trial bearing calculate: $\frac{F_a}{Nd^2}$

Determine X and Y from Table 2.
Calculate P for the trial bearing.
 $P = XF_r + YF_a$

required $C = \left(\frac{C}{P}\right) P$ for the trial bearing using $\left(\frac{C}{P}\right)$ from Step 2.

Consult Table 3, page B-11, basic load rating. If a smaller bearing meets or nearly meets the required C, its life expectancy can be calculated.

Note: If the load P is greater than .25C for series U200, Y200, hex, square, and round bore bearings or greater than .15C for series S200 and W200, consult Link-Belt Bearing Division, Rexnord Corp.

Selection

Ball Bearings and Ball Bearing Units

symbols for formulas:

C = basic load rating, pounds (or newtons)
 C_o = static load rating, pounds (or newtons)
 e = a reference value
 F_a = thrust load, pounds (or newtons)
 F_r = radial load, pounds (or newtons)
 L₁₀ = rating life, hours
 n = speed, revolutions per minute
 P = equivalent radial load, pounds (or newtons)
 X = radial factor
 Y = thrust factor

Table 1 • Relation of L₁₀ life and speed to $\left(\frac{C}{P}\right)$

Bearing life, hours L ₁₀	$\left(\frac{C}{P}\right)$ ratio									
	Speed, n									
	50	100	200	300	400	500	600	700	800	
3000	2.08	2.62	3.30	3.77	4.15	4.47	4.75	5.01	5.23	
4000	2.29	2.88	3.63	4.15	4.57	4.92	5.23	5.51	5.76	
5000	2.46	3.10	3.91	4.47	4.92	5.30	5.64	5.93	6.20	
6000	2.62	3.30	4.15	4.75	5.23	5.64	5.99	6.30	6.59	
8000	2.88	3.63	4.57	5.23	5.76	6.20	6.59	6.94	7.25	
10000	3.10	3.91	4.92	5.64	6.20	6.68	7.10	7.47	7.81	
12000	3.30	4.15	5.23	5.99	6.59	7.10	7.54	7.94	8.30	
14000	3.47	4.37	5.51	6.30	6.94	7.47	7.94	8.36	8.74	
16000	3.63	4.57	5.76	6.59	7.25	7.81	8.30	8.74	9.14	
18000	3.77	4.75	5.99	6.86	7.54	8.13	8.63	9.09	9.50	
20000	3.91	4.92	6.20	7.10	7.81	8.42	8.94	9.41	9.84	
25000	4.21	5.30	6.68	7.65	8.42	9.07	9.63	10.1	10.6	
30000	4.47	5.64	7.10	8.13	8.94	9.63	10.2	10.8	11.3	
35000	4.71	5.93	7.47	8.55	9.41	10.1	10.8	11.3	11.9	
40000	4.92	6.20	7.81	8.94	9.84	10.6	11.3	11.9	12.4	
45000	5.12	6.45	8.13	9.30	10.2	11.0	11.7	12.3	12.9	
50000	5.30	6.68	8.42	9.63	10.6	11.4	12.1	12.8	13.4	
60000	5.64	7.10	8.94	10.2	11.3	12.1	12.9	13.6	14.2	
70000	5.93	7.47	9.41	10.8	11.9	12.8	13.6	14.3	14.9	
80000	6.20	7.81	9.84	11.3	12.4	13.4	14.2	14.9	15.6	
90000	6.45	8.13	10.2	11.7	12.9	13.9	14.8	15.5	16.2	
100000	6.68	8.42	10.6	12.1	13.4	14.4	15.3	16.1	16.8	
150000	7.65	9.63	12.1	13.9	15.3	16.5	17.5	18.4	19.3	
200000	8.42	10.6	13.4	15.3	16.8	18.1	19.3	20.3	21.2	
	Speed, n									
	900	1000	1200	1500	1800	2400	3600	6000	10000	
3000	5.44	5.64	5.99	6.45	6.86	7.54	8.63	10.2	12.1	
4000	5.99	6.20	6.59	7.10	7.54	8.30	9.50	11.3	13.4	
5000	6.45	6.68	7.10	7.65	8.13	8.94	10.2	12.1	14.4	
6000	6.86	7.10	7.54	8.13	8.63	9.50	10.9	12.9	15.3	
8000	7.54	7.81	8.30	8.94	9.50	10.5	12.0	14.2	16.8	
10000	8.13	8.42	8.94	9.63	10.2	11.3	12.9	15.3	18.1	
12000	8.63	8.94	9.50	10.2	10.9	12.0	13.7	16.2	19.3	
14000	9.09	9.41	10.0	10.8	11.4	12.6	14.4	17.1	20.3	
16000	9.50	9.84	10.5	11.3	12.0	13.2	15.1	17.9	21.2	
18000	9.88	10.2	10.9	11.7	12.4	13.7	15.7	18.6	22.0	
20000	10.2	10.6	11.3	12.1	12.9	14.2	16.2	19.3	22.8	
25000	11.0	11.4	12.1	13.1	13.9	15.3	17.5	20.7	24.6	
30000	11.7	12.1	12.9	13.9	14.8	16.2	18.6	22.0	26.1	
35000	12.3	12.8	13.6	14.6	15.5	17.1	19.6	23.2	27.5	
40000	12.9	13.4	14.2	15.3	16.2	17.9	20.5	24.3	28.7	
45000	13.4	13.9	14.8	15.9	16.9	18.6	21.3	25.2	29.9	
50000	13.9	14.4	15.3	16.5	17.5	19.3	22.0	26.1	31.0	
60000	14.8	15.3	16.2	17.5	18.6	20.5	23.4	27.8	32.9	
70000	15.5	16.1	17.1	18.4	19.6	21.5	24.6	29.2	34.6	
80000	16.2	16.8	17.9	19.3	20.5	22.5	25.8	30.5	36.2	
90000	16.9	17.5	18.6	20.0	21.3	23.4	26.8	31.8	37.7	
100000	17.5	18.1	19.3	20.7	22.0	24.3	27.8	32.9	39.0	
150000	20.0	20.7	22.0	23.7	25.2	27.8	31.8	37.7	44.6	
200000	22.0	22.8	24.3	26.1	27.8	30.5	35.0	41.4	49.1	

basic formulas:

$$\left(\frac{C}{P}\right) = \left(\frac{L_{10} \times n \times 60}{1,000,000}\right)^{\frac{1}{3}}$$

$$L_{10} = \frac{\left(\frac{C}{P}\right)^3 \times 1,000,000}{n \times 60}$$

Life Expectancy

To calculate the Rating Life L₁₀ of any selected or trial bearing:

Step 1 Determine the equivalent radial load P.

a For radial load only:

$$P = F_r$$

b For combined radial and thrust load:

P = XF_r + YF_a using X and Y from Table 2 below.

Step 2 Calculate the ratio of basic load rating C to the equivalent radial load.

$$\frac{C}{P}$$

Step 3 Approximate the bearing life from Table 1.

Table 2 • X and Y factors for ball bearings

$\frac{F_a}{F_r}$ N/d²	e	$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
		X	Y	X	Y
25	.19	1.0	0	.56	2.30
37.5	.21	1.0	0	.56	2.15
50	.22	1.0	0	.56	1.99
75	.24	1.0	0	.56	1.85
100	.26	1.0	0	.56	1.71
125	.27	1.0	0	.56	1.63
150	.28	1.0	0	.56	1.56
200	.30	1.0	0	.56	1.45
300	.34	1.0	0	.56	1.31
500	.38	1.0	0	.56	1.15
750	.42	1.0	0	.56	1.04
1000	.44	1.0	0	.56	1.00

For values between those in the table linear interpolation can be used.

Life Adjustment

The Rating Life, L₁₀, may be modified for some applications in accordance with the formula

$$L_a = a_1 a_2 a_3 L_{10}$$

where L_a = Adjusted life for (100-n) % reliability,

a₁ = Life adjustment factor for reliability

a₂ = Life adjustment factor for material and processing

a₃ = Life adjustment factor for operating conditions.

For most normal applications, all factors will be taken as 1, and the Rating Life used as the selection basis or life estimate. In addition, as long as standard catalog bearings are used, a₂ will be normally set equal to one. The factor a₃ covers such things as lubrication, misalignment, and temperature. Some conditions that could yield as significantly different than unity include speeds less than 20000 DN or greater than 200000 DN, temperatures below -40°F (-40°C) or above 275°F (135°C), or misalignment greater than 0.0005 radians. For other possible conditions, as well as additional information on life adjustment factors, consult Link-Belt Bearing Division, Rexnord Corp.

Load Ratings

Ball Bearings and Ball Bearing Units

Table 3 • Load ratings, speed limits and ball data

Bearing Size Number		Hex Square Round	C ₀ Static load rating		C Static load rating		Approximate speed limit RPM			d Ball diameter	N Number of balls	Nd ²	
S200 U200 W200 Y200	newtons		pounds	newtons	pounds	Felt seals	N & E seals‡	H seals	E3 seals	inches			
2B08 210 211 2M17	...	}	4 940	1110	8 100	1820	...	9000	12000	...	19/64	7	.617
212 2M20	204		6 590	1480	9 830	2210	...	7500	10000	...	5/16	8	.781
214 215 216 2M25	205	}	7 830	1760	10 810	2430	...	6800	9600	1000	5/16	9	.879
218 219 2E20 2M30	206		11 300	2530	15 030	3380	...	5600	8000	...	3/8	9	1.27
220 222 223 2M35	207	}	15 300	3440	19 880	4470	...	4800	6850	700	7/16	9	1.72
224 2M40	208		19 900	4460	25 100	5640	...	4500	6000	650	1/2	9	2.25
226 227 228 2M45	209	}	20 400	4590	25 220	5670	...	4000	5330	600	1/2	9	2.25
231 2E32 2M50	210		23 200	5220	27 090	6090	...	3600	4800	550	1/2	10	2.50
232 235 2M55	211	}	29 200	6570	33 540	7540	...	3200	4360	500	9/16	10	3.16
236 238 239 2M60	...		36 000	8080	40 520	9110	...	3000	4000	...	5/8	10	3.91
240 243 2M65	...	}	40 100	9010	44 220	9940	3690	3850	...	...	21/32	10	4.31
244 247 2E48 2M75	...		49 200	11100	51 600	11600	3200	3300	...	...	11/16	11	5.20
255 2E56 2M85	...	}	63 600	14300	64 500	14500	2800	2950	...	...	25/32	11	6.71
263 2E64 2M100	...		92 900	20900	94 300	21200	2400	2500	...	...	1	10	10.0

If the load P is greater than .15C for S200 and W200 or .25C all others, consult Link-Belt Bearing Division, Rexnord Corp.
 ● Based on grease lubrication and moderate load.
 Additional information, page B-75.

‡ N & E seals operation at higher speeds up to H seal speed limit is allowable providing the lip seal friction does not result in operating temperatures over 225°F (107°C).

Load Ratings

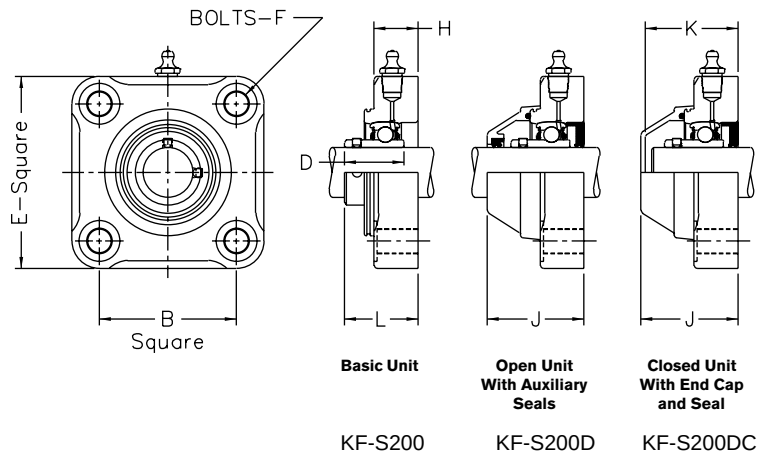
Ball Bearings and Ball Bearing Units

Table 4 • Radial load ratings in pounds at various RPM for appropriate L₁₀ life hours

Bearing Size Number			Radial load ratings, pounds																				
S200 U200 W200 Y200	Hex Square Round	L ₁₀ Minimum life, hours	Speed, RPM																				
			50	100	200	300	400	500	600	700	800	900	1000	1200	1500	1800	2000	2500	3000	3500	4000	5000	
2B08 210 211 2M17	...	{	3000	...	...	...	...	444	413	387	367	353	338	327	309	287	269	262	243	229	218	209	194
8000			...	...	...	...	320	298	382	267	256	245	236	223	209	196	191	176	166	158	152	141	
20000			...	373	298	260	238	222	209	198	189	182	176	166	154	146	141	131	123	118	113	105	
40000			374	298	238	209	189	176	166	158	152	146	141	133	124	116	113	105	94	89	86	79	
100000			271	215	171	149	136	126	119	113	108	104	100	94	87	82	79	74	69	66	63	58	
212 2M20	204	{	3000	...	...	...	...	538	500	469	445	427	409	396	374	348	325	317	295	277	264	253	235
8000			...	...	489	427	387	361	341	323	310	297	286	270	253	237	230	213	201	191	183	170	
20000			...	451	361	314	288	268	253	239	228	220	213	201	186	176	170	158	149	142	136	126	
40000			454	361	288	253	228	213	201	191	183	176	170	160	149	140	136	127	119	114	109	96	
100000			331	263	209	182	166	154	145	137	131	126	122	115	107	100	97	90	85	80	77	71	
214 215 216 2M25	205	{	3000	...	...	...	...	591	549	515	489	469	450	435	411	382	357	348	323	304	298	277	258
8000			...	...	537	469	425	396	374	355	340	326	314	297	277	260	253	234	220	210	201	186	
20000			...	496	396	345	316	294	277	263	250	242	234	220	205	193	187	173	163	155	149	138	
40000			498	396	316	277	250	234	220	209	201	193	186	176	163	154	149	139	131	124	119	111	
100000			364	289	229	200	182	169	159	151	144	139	134	126	117	110	106	99	93	88	84	78	
218 219 2E20 2M30	206	{	3000	...	...	...	...	820	762	715	678	651	624	603	569	529	495	482	448	421	400	384	357
8000			...	...	745	651	590	549	519	492	471	451	434	411	384	360	350	323	304	290	277	257	
20000			...	688	549	378	438	407	384	363	346	335	323	304	282	267	258	239	225	214	205	191	
40000			691	549	438	384	346	323	304	289	277	266	257	243	225	212	206	191	180	171	164	152	
100000			505	401	318	278	252	234	221	209	200	193	186	175	162	153	148	137	129	123	117	109	
220 222 223 2M35	207	{	3000	...	...	...	...	1080	1000	944	895	859	823	796	751	698	653	635	591	555	526	506	470
8000			...	...	984	859	778	725	684	649	622	595	573	541	506	474	461	426	401	381	365	338	
20000			...	908	725	631	577	537	506	479	456	441	426	401	372	351	339	314	296	282	270	250	
40000			912	759	577	506	456	426	401	380	365	351	338	319	296	279	271	251	236	224	216	200	
100000			668	530	421	367	334	310	292	277	265	255	246	231	215	202	195	181	171	162	155	144	
224 2M40	208	{	3000	...	...	...	...	1220	1130	1060	1000	968	927	897	847	786	736	716	665	625	595	569	529
8000			...	...	1100	968	877	816	771	731	701	670	645	610	569	534	519	479	451	429	411	381	
20000			...	1020	816	711	650	605	569	539	514	496	479	451	419	395	382	354	333	317	304	282	
40000			1020	816	650	569	514	480	452	428	411	395	380	359	334	313	304	282	266	252	242	225	
100000			752	597	474	414	376	349	328	312	298	287	277	261	242	228	220	204	192	182	174	162	
226 227 228 2M45	209	{	3000	...	...	...	...	1370	1270	1190	1130	1080	1040	1000	952	884	827	804	748	702	668	640	596
8000			...	...	1240	1080	986	918	867	821	787	753	725	685	640	600	583	539	507	482	462	428	
20000			...	1150	918	799	731	680	640	606	578	558	539	507	471	444	429	397	374	356	341	316	
40000			1150	918	731	640	578	539	507	481	461	443	427	404	375	352	342	317	298	283	272	252	
100000			847	672	534	466	423	393	370	351	336	323	312	294	273	256	248	230	216	205	197	182	
231 2E32 2M50	210	{	3000	...	...	...	...	1470	1360	1280	1210	1160	1110	1080	1020	949	888	864	803	754	718	687	647
8000			...	...	1330	1160	1050	985	931	882	845	809	778	736	687	644	626	578	544	518	496		
20000			...	1230	985	858	785	730	687	651	620	599	578	544	505	476	461	426	401	382	366		
40000			1240	985	785	687	620	579	545	517	495	476	459	433	402	378	367	340	320	304	292		
100000			909	722	573	500	455	422	397	377	361	347	335	315	293	275	266	247	232	221	211		
232 235 2M55	211	{	3000	...	...	...	...	1820	1690	1580	1500	1440	1380	1340	1260	1170	1090	1060	993	932	887	849	
8000			...	...	1650	1440	1300	1210	1150	1090	1040	1000	963	910	849	797	774	715	672	640	613		
20000			...	1520	1210	1060	970	902	849	804	767	740	715	672	624	589	569	527	496	472	452		
40000			1530	1210	970	849	767	715	673	638	612	588	567	535	497	466	453	420	395	375	360		
100000			1126	894	710	620	563	523	492	467	447	430	415	391	363	341	329	306	288	273	261		
			E3 SEALS																				
			U SEALS																				
236 238 239 2M60	...	{	3000	...	...	...	...	2200	2040	1910	1810	1740	1670	1610	1520	1410	1320	1290	1190	1120	1070	1020	970
8000			...	...	2000	1740	1580	1470	1390	1310	1260	1200	1160	1090	1020	962	934	862	811	772			
20000			...	1840	1470	1280	1170	1080	1020	971	925	893	862	811	753	710	686	635	598	569			
40000			1850	1470	1170	1020	925	863	812	770	738	709	684	645	599	563	546	506	476	452			
100000			1360	1079	857	748	680	631	594	564	540	519	501	471	438	412	398	369	347	330			
			N & E SEALS																				
			H SEALS																				
240 243 2M65	...	{	3000	...	...	...	...	2400	2230	2090	1980	1900	1820	1760	1660	1540	1440	1400	1300	1220	1160		
8000			...	...	2180	1900	1720	1600	1510	1430	1370	1310	1260	1190	1110	1040	1010	940	885	842			
20000			...	2010	1600	1390	1270	1180	1110	1050	1000	974	940	885	821	774	749	693	652	620			
40000			2020	1600	1270	1110	1000	941	886	840	805	773	746	704	653	613	595	552	519	493			
100000			1485	1178	935	817	742	689	649	616	589	567	547	515	478	450	434	403	379	360			
244 247 2E48 2M75	...	{	3000	...	...	...	...	2880	2600	2440	2310	2220	2120	2050	1940	1800	1680	1640	1520	1430			
8000			...	...	2540	2220	2010	1870	1760	1670	1600	1530	1470	1390	1300	1220	1180	1090	1030				
20000			...	2340	1870	1620	1490	1380	1300	1230	1170	1130	1090	1030	957	903	873	808	760				
40000			2360	1870	1490	1300	1170	1090	1030	979	939	902	869	820	761	715	694	643	605				
100000			1732	1375	1091	953	866	804	756	719	687	661	638	600	557	524	506	470	442				
255 2E56 2M85	...	{	3000	...	...	...	...	3500	3250	3050	2890	2770	2650	2570	2420	2250	2100	2050	1900				
8000			...	...	3180	2770	2510	2340	2200	2090	2000	1910	1840	1740	1620	1520	1480	1360					
20000			...	2930	2340	2030	1860	1730	1620	1540	1470	1410	1360	1280	1190	1120	1090	1000					
40000			2940	2340	1860	1620	1470	1370	1290	1220	1170	1120	1080	1020	950	892	866	803					
100000			2166	1719	1365	1192	1083	1005	946	899	860	827	798	751	697	656	633						
263 2E64 2M100	{	{	3000	...	...	...	...	5110	4750	4450	4220	4050	3880	3750	3540	3290	3070	2990					
8000			...	...	4640	4050	3670	3410	3220	3050	2930	2800	2690	2540	2370	2230	2160						
20000			...	4280	3410	2970	2710	2520	2370	2250	2140	2070	2000	1880	1740	1640	1590						
40000			4300	3410	2710	2370	2140	2000	1880	1780	1710	1640	1580	1490	1380	1300	1260						
100000			3168	2514	1996	1743	1584	1470	1384	1314	1257	12											

Corrosion Resistant Klean-Gard™ Flanged Unit KF-S200, KLF-S200

Reinforced Polyamide or Polypropylene Housing
4-bolt Mounting
Alignable
Spring Locking
Stainless Steel Bushing and Washers
Prelubricated with Food Grade Grease
Relubricatable
Inner & Outer Rings with Black Oxide Coating

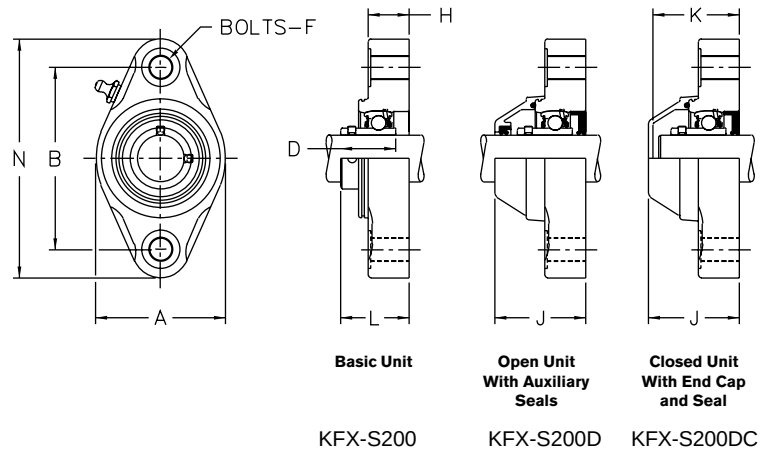


Dimensions (inches/mm)

Shaft Diameter		Flanged Unit Number		B	D	E	F Bolts	H	J	K	L	Replacement Bearing Number
mm	inches	Polyamide	Polypropylene▲									
25	1	KF-S216 KF-S2M25	KLF-S216 KLF-S2M25	2.756 70	1 ¹ / ₁₆ 30.17	3 ⁵⁵ / ₆₄ 98	3/8 10	7/8 22.5	1 ⁶¹ / ₆₄ 49.5	1 ⁷ / ₈ 47.5	1 ¹⁵ / ₃₂ 37.3	SG216ELK82/99A SG2M25ELK82/99A
30	1 ³ / ₁₆ 1 ¹ / ₄	KF-S219 KF-S2E20 KF-S2M30	KLF-S219 KLF-S2E20 KLF-S2M30	3.268 83	1 ¹¹ / ₃₂ 34.13	4 ²¹ / ₆₄ 110	3/8 10	1 ¹ / ₆₄ 26	2 ¹¹ / ₆₄ 55	2 ³ / ₃₂ 53	1 ³ / ₄ 44.2	SG219ELK82/99A SG2E20ELK82/99A SG2M30ELK82/99A
35	1 ¹ / ₄ 1 ³ / ₈ 1 ⁷ / ₁₆	KF-S220 KF-S222 KF-S223 KF-S2M35	KLF-S220 KLF-S222 KLF-S223 KLF-S2M35	3.622 92	1 ⁹ / ₁₆ 39.67	4 ²³ / ₃₂ 120	3/8 10	1 ¹ / ₆₄ 26	2 ²¹ / ₆₄ 59	2 ¹ / ₄ 57	1 ⁷ / ₈ 47.7	SG220ELK82/99A SG222ELK82/99A SG223ELK82/99A SG2M35ELK82/99A
40	1 ¹ / ₂	KF-S224 KF-S2M40	KLF-S224 KLF-S2M40	4.016 102	1 ¹¹ / ₁₆ 42.87	5 ⁵ / ₃₂ 131	3/8 10	1 ³ / ₁₆ 30	2 ³⁷ / ₆₄ 65.5	2 ¹⁵ / ₃₂ 62.5	2 ¹ / ₁₆ 52.4	SG224ELK82/99A SG2M40ELK82/99A

Corrosion Resistant Klean-Gard™ Flanged Units KFX-S200, KLFX-S200

Reinforced Polyamide or Polypropylene Housing
2-bolt Mounting
Alignable
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Stainless Steel Bushing and Washers
Prelubricated with Food Grade Grease
Relubricatable
Inner & Outer Rings with Black Oxide Coating



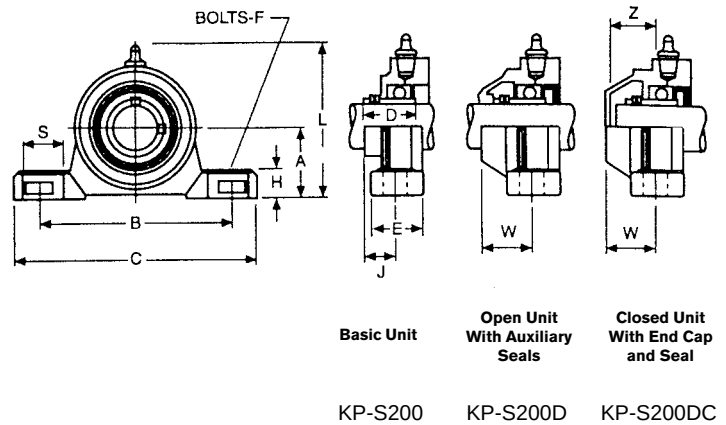
Dimensions (inches/mm)

Shaft Diameter		Flanged Unit Number		A	B	D	F Bolts	H	J	K	L	N	Replacement Bearing Number
mm	inches	Polyamide	Polypropylene▲										
20	3/4	KFX-S212 KFX-S2M20	KLFX-S212 KLFX-S2M20	2 ⁷ / ₁₆ 62	3.543 90	1 ¹ / ₈ 28.58	3/8 10	5 ¹ / ₆₄ 20	1 ¹³ / ₁₆ 46	1 ¹¹ / ₁₆ 43	1 ²³ / ₆₄ 34.3	4 ⁹ / ₁₆ 116	SG212ELK82/99A SG2M20ELK82/99A
25	1	KFX-S216 KFX-S2M25	KLFX-S216 KLFX-S2M25	2 ¹³ / ₁₆ 71	3.898 99	1 ³ / ₁₆ 30.17	3/8 10	7/8 22.5	1 ⁶¹ / ₆₄ 49.5	1 ⁷ / ₈ 47.5	1 ¹⁵ / ₃₂ 37.3	5 ¹ / ₈ 130	SG216ELK82/99A SG2M25ELK82/99A
30	1 ³ / ₁₆ 1 ¹ / ₄	KFX-S219 KFX-S2E20 KFX-S2M30	KLFX-S219 KLFX-S2E20 KLFX-S2M30	3 ¹¹ / ₃₂ 85	4.606 117	1 ¹¹ / ₃₂ 34.13	3/8 10	1 ¹ / ₆₄ 26	2 ¹¹ / ₆₄ 55	2 ³ / ₃₂ 53	1 ³ / ₄ 44.2	5 ⁵³ / ₆₄ 148	SG219ELK82/99A SG2E20ELK82/99A SG2M30ELK82/99A
35	1 ¹ / ₄ 1 ³ / ₈ 1 ⁷ / ₁₆	KFX-S220 KFX-S222 KFX-S223 KFX-S2M35	KLFX-S220 KLFX-S222 KLFX-S223 KLFX-S2M35	3 ²¹ / ₃₂ 93	5.118 130	1 ⁹ / ₁₆ 39.67	3/8 10	1 ¹ / ₆₄ 26	2 ²¹ / ₆₄ 59	2 ¹ / ₄ 57	1 ⁷ / ₈ 47.7	6 ³ / ₈ 162	SG220ELK82/99A SG222ELK82/99A SG223ELK82/99A SG2M35ELK82/99A
40	1 ¹ / ₂	KFX-S224 KFX-S2M40	KLFX-S224 KLFX-S2M40	4 ¹ / ₆₄ 102	5.672 144	1 ¹¹ / ₁₆ 42.87	3/8 10	1 ³ / ₁₆ 30	2 ³⁷ / ₆₄ 65.5	2 ¹⁵ / ₃₂ 62.5	2 ¹ / ₁₆ 52.4	6 ⁵⁹ / ₆₄ 176	SG224ELK82/99A SG2M40ELK82/99A

See footnotes and Housing Load Ratings on facing page.

Corrosion Resistant Klean-Gard™ Pillow Block KP-S200, KLP-S200

Reinforced Polyamide or Polypropylene Housing
Alignable
Spring Locking
Stainless Steel Bushing and Washers
Prelubricated with Food Grade Grease
Relubricatable
Inner & Outer Rings with Black Oxide Coating



Dimensions (inches/mm)

Shaft Diameter		Pillow Block Number		A	B	C	D	E	F	H	J	L	S	W	Z	Replacement Bearing Number
mm	inches	Polyamide	Polypropylene▲						Bolts							
20	3/4	KP-S212 KP-S2M20	KLP-S212 KLP-S2M20	1 1/16 33.3	3 25/32 96.0	5 1/32 128.0	1 1/8 28.58	1 1/16 30	3/8 10	4 3/64 17	3/4 19	3 1/32 77	7/8 22.0	1 7/32 30.8	1 1/8 28.8	SG212ELK82/99A SG2M20ELK82/99A
25	1	KP-S216 KP-S2M25	KLP-S216 KLP-S2M25	1 7/16 36.5	4 1 1/64 106.0	5 3 1/64 140.0	1 3/16 30.17	1 23/64 34.5	3/8 10	4 3/64 17	1 3/16 20.6	3 1 1/32 85	7/8 22.0	1 13/32 32.7	1 13/64 30.7	SG216ELK82/99A SG2M25ELK82/99A
30	1 3/16	KP-S219 KP-S2E20	KLP-S219 KLP-S2E20	1 11/16 42.9	4 49/64 121.0	6 27/64 163.0	1 11/32 34.13	1 27/64 36	1/2 12	2 5/32 20	6 1/64 24.2	3 55/64 98	1 5/16 24.0	1 3/8 35	1 19/64 33	SG219ELK82/99A SG2E20ELK82/99A SG2M30ELK82/99A
	1 1/4	KP-S2E20 KP-S2M30	KLP-S2E20 KLP-S2M30													
35	1 1/4	KP-S220	KLP-S220	1 7/8 47.6	4 31/32 126.0	6 37/64 167.0	1 1/8 39.67	1 33/64 38.6	1/2 12	2 5/32 20	1 7/64 28.2	4 1/4 108	1 5/16 24.0	1 9/16 39.5	1 15/32 37.5	SG220ELK82/99A SG222ELK82/99A SG223ELK82/99A SG2M35ELK82/99A
	1 3/8	KP-S222	KLP-S222													
	1 7/16	KP-S223 KP-S2M35	KLP-S223 KLP-S2M35													
40	1 1/2	KP-S224 KP-S2M40	KLP-S224 KLP-S2M40	2 50.8	5 11/32 136	7 9/32 185.0	1 11/16 42.87	1 33/64 38.6	1/2 12	2 5/32 20	1 13/64 30.6	4 13/32 112	1 5/16 24.0	1 11/64 41.6	1 9/16 39.6	SG224ELK82/99A SG2M40ELK82/99A

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size, Rp 1/8 parallel thread per ISO 7/1 latest revision. Note: 1/8" PT external thread will not fit.

▲ Furnished with Viton seals and o-ring and AISI 316 stainless steel bushings and washers.

Selection guide, pages B-9, B-10.

Load ratings, pages B-11, B-12.

Additional information, page B-76.

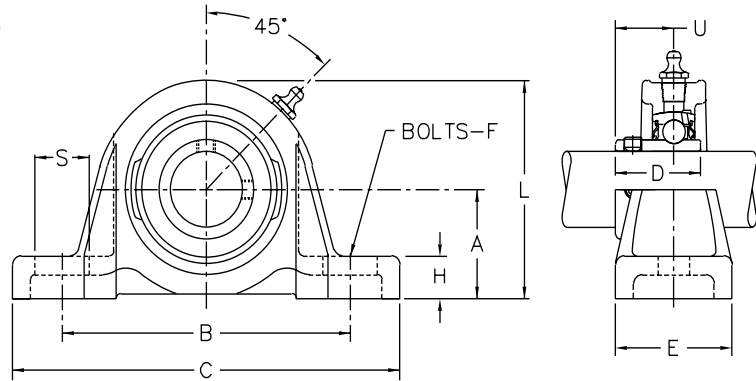
Load ratings for bearings and housings

Shaft Diameter		Bearing Load Ratings*		Maximum Recommended Equivalent Radial Load *	Maximum Recommended Axial Load (1)
mm	inches	Dynamic C	Static C ₀	P _E	F _a
20	3/4	2210 lb 9830 N	1480 lb 6590 N	332 lb 1475 N	175 lb 778 N
25	1	2430 lb 10810 N	1760 lb 7830 N	365 lb 1622 N	175 lb 778 N
30	1 3/16	3380 lb 15030 N	2530 lb 11300 N	507 lb 2254 N	330 lb 1468 N
	1 1/4				
35	1 1/4	4470 lb 19880 N	3440 lb 15300 N	670 lb 2982 N	330 lb 1468 N
	1 3/8				
	1 7/16				
40	1 1/2	5640 lb 25100 N	4460 lb 19900 N	846 lb 3765 N	500 lb 2224 N

* If actual bearing load exceeds maximum recommended equivalent radial load or impact loading will occur, consult Link-Belt Bearing Division, Rexnord Corporation. Housing should not be used under tension loads. For this reason, pillow blocks are designed to withstand loads directed into the base. Polyamide and Polypropylene housing strength exceeds maximum recommended equivalent radial load. (1) Values based on set screw holding capacity for properly tightened set screws. These values may be used in design, as a safety factor has been applied.

Corrosion Resistant Dura-Klean™ Pillow Blocks WP3-S200E

Cast Iron Housing with Non-Porous Nylon Coating
Standard Backing
Alignable
Spring Locking
Prelubricated with Food Grade Grease
Relubricable
Inner & Outer Rings with Black Oxide Coating



Dimensions (inches/mm)

Shaft Diameter		Pillow block number	A †	B	C	D	E	F Bolts	H	L	S	U	Unit Wt. (lbs./kg)	Replacement bearing no.
mm	inches													
20	3/4	WP3-S212E	15/16	37/8	51/8	11/8	11/2	3/8	1/2	219/32	11/16	3/4	1.5	SG212ELK82/99A
		WP3-S2M20E	33.34	98.4	130.2	28.58	38.1	10	12.7	65.9	17.5	19.0	.68	SG2M20ELK82/99A
25	7/8	WP3-S214E	17/16	4	53/8	13/16	15/8	3/8	9/16	27/8	11/16	13/16	1.7	SG214ELK82/99A
	15/16	WP3-S215E											1.6	SG215ELK82/99A
	1	WP3-S216E											1.6	SG216ELK82/99A
		WP3-S2M25E	36.51	101.6	136.5	30.17	41.3	10	14.3	73.0	17.5	20.6	.73	SG2M25ELK82/99A
30	1 1/8	WP3-S218E	111/16	45/8	65/16	111/32	13/4	1/2	11/16	35/16	15/16	61/64	2.6	SG218ELK82/99A
	1 3/16	WP3-S219E											2.6	SG219ELK82/99A
	1 1/4	WP3-S2E20E											2.6	SG2E20ELK82/99A
		WP3-S2M30E	42.86	117.5	160.3	34.13	44.4	12	17.5	84.1	23.8	24.2	1.18	SG2M30ELK82/99A
35	1 1/4	WP3-S220E	17/8	415/16	63/8	19/16	17/8	1/2	13/16	311/16	13/16	17/64	3.4	SG220ELK82/99A
	1 3/8	WP3-S222E											3.4	SG222ELK82/99A
	1 7/16	WP3-S223E											3.3	SG223ELK82/99A
		WP3-S2M35E	47.62	125.4	161.9	39.67	47.6	12	20.6	93.7	20.6	28.2	1.50	SG2M35ELK82/99A
40	1 1/2	WP3-S224E	2	53/8	71/8	111/16	17/8	1/2	13/16	4	15/16	113/64	4.4	SG224ELK82/99A
		WP3-S2M40E	50.80	136.5	179.4	42.87	47.6	12	20.6	101.6	23.8	30.6	2.00	SG2M40ELK82/99A
	1 5/8	WP3-S226E	21/8	53/8	71/4	149/64	2	1/2	13/16	45/16	7/8	115/64	5.1	SG226ELK82/99A
	1 11/16	WP3-S227E											5.0	SG227ELK82/99A
	1 3/4	WP3-S228E											4.9	SG228ELK82/99A
			53.98	142.9	184.2	44.85	50.8	12	20.6	109.5	22.2	31.4	2.22	
	1 15/16	WP3-S231E	21/4	63/16	77/8	151/64	21/8	5/8	7/8	41/2	15/16	117/64	5.8	SG231ELK82/99A
			57.15	157.2	200.0	45.64	54.0	16	22.2	114.3	23.8	32.1	2.63	

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size, 1/8" PT.

†Tolerance, +.000" –.010" (+0.00 mm –0.25 mm).

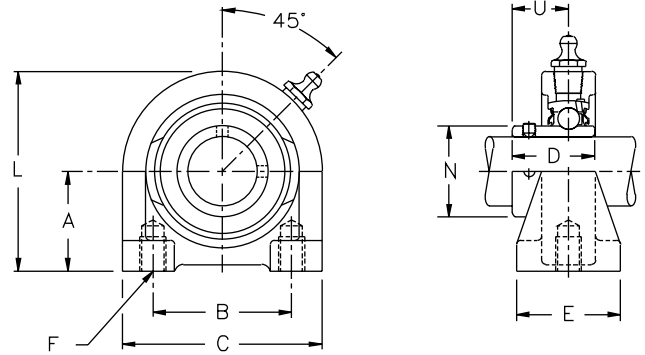
Selection guide, pages B-9, B-10.

Load ratings, pages B-11, B-12.

Additional information, page B-76.

Corrosion Resistant Dura-Klean™ Pillow Blocks WPT3-S200E

Cast Iron Housing with Non-Porous Nylon Coating
Standard Backing
Tapped Base
Alignable
Spring Locking
Prelubricated with Food Grade Grease
Relubricable
Inner & Outer Rings with Black Oxide Coating



Dimensions (inches/mm)

Shaft Diameter		Pillow block number	A †	B	C	D	E	F		L	N	U	Unit wt. (lbs./kg)	Bearing no.
mm	inches							Tap	Min. Depth					
20	¾	WPT3-S212E WPT3-S2M20E	1⅝ 33.34	2 50.80	2⅞ 73.0	1⅞ 28.58	1½ 38.1	⅝-16 —	½ 12.7	2⅞ ₃₂ 65.9	1⅞ 28.6	¾ 19.0	1.0 .45	SG212ELK82/99A SG2M20ELK82/99A
25	⅞ 1⅝ 1	WPT3-S214E	1⅞	2	2⅞	1⅜	1½	⅝-16	½	2⅞	1⅝	1⅜	1.3	SG214ELK82/99A
		WPT3-S215E											1.3	SG215ELK82/99A
		WPT3-S216E											1.2	SG216ELK82/99A
		WPT3-S2M25E											.54	SG2M25ELK82/99A
30	1⅞ 1⅜ 1¼	WPT3-S218E	1⅞	3	4	1⅞ ₃₂	1½	⅞-14	⅝	3⅝	1⅞ ₃₂	⅝ ₆₄	2.3	SG218ELK82/99A
		WPT3-S219E											2.3	SG219ELK82/99A
		WPT3-S2E20E											2.2	SG2E20ELK82/99A
		WPT3-S2M30E											1.00	SG2M30ELK82/99A
35	1¼ 1⅜ 1⅞	WPT3-S220E	1⅞	3¼	4⅞ ₃₂	1⅞	1⅞	½-13	¾	3⅞ ₁₆	1 ²⁷ / ₃₂	1⅞ ₆₄	3.1	SG220ELK82/99A
		WPT3-S222E											3.1	SG222ELK82/99A
		WPT3-S223E											3.0	SG223ELK82/99A
		WPT3-S2M35E											1.36	SG2M35ELK82/99A
	1⅝ ₁₆	WPT3-S231E	2¼ 57.15	4 101.60	5⅞ ₁₆ 138.1	1⅞ ₁₆ 42.87	2 50.8	⅝-11 —	⅞ 22.2	4½ 114.3	2⅞ ₃₂ 62.7	1⅞ ₆₄ 30.6	5.3 2.36	SG231ELK82/99A

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size, 1/8" PT.

† Tolerance, +.000" –.010" (+0.00 mm –0.25 mm).

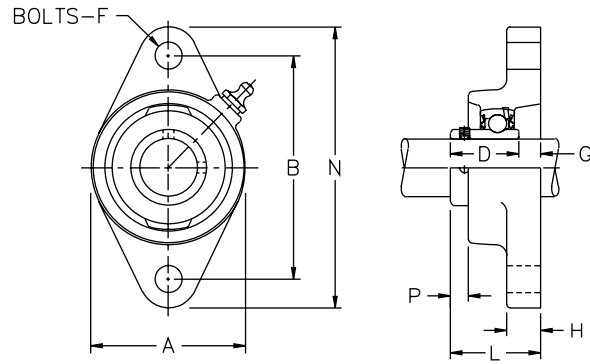
Selection guide, pages B-9, B-10.

Load ratings, pages B-11, B-12.

Additional information, page B-76.

Corrosion Resistant Dura-Klean™ Flanged Units WFX3-S200E

Cast Iron Housing with Non-Porous Nylon Coating
2-bolt Mounting
Alignable
Prelubricated with Food Grade Grease
Relubricable
Inner & Outer Rings with Black Oxide Coating



Dimensions (inches/mm)

Shaft Diameter		Flanged unit number	A	B	D	F Bolts	G	H	L	N	P	Unit wt. (lbs./kg)	Replacement bearing no.
mm	inches												
20	3/4	WFX3-S212E <i>WFX3-S2M20E</i>	2 1/16	3 17/32	1 1/8	3/8	23/64	9/16	1 31/64	4 13/32	9/32	1.1	SG212ELK82/99A
			61.9	89.69	28.58	10	9.1	14.3	37.7	111.9	7.1	.50	SG2M20ELK82/99A
25	7/8	WFX3-S214E	2 11/16	3 57/64	1 3/16	7/16	3/8	1 9/32	1 9/16	4 29/32	5/16	1.5	SG214ELK82/99A
	1 5/16	WFX3-S215E										1.5	SG215ELK82/99A
	1	WFX3-S216E										1.4	SG216ELK82/99A
		<i>WFX3-S2M25E</i>	68.3	98.82	30.17	10	9.5	15.1	39.7	124.6	7.9	.64	SG2M25ELK82/99A
30	1 1/8	WFX3-S218E	3 3/16	4 19/32	1 11/32	7/16	25/64	1 9/32	1 47/64	5 19/32	27/64	2.2	SG218ELK82/99A
	1 3/16	WFX3-S219E										2.1	SG219ELK82/99A
	1 1/4	WFX3-S2E20E										2.1	SG2E20ELK82/99A
		<i>WFX3-S2M30E</i>	81.0	116.68	34.13	10	9.9	15.1	44.0	142.1	10.7	.95	SG2M30ELK82/99A
35	1 1/4	WFX3-S220E	3 5/8	5 1/8	1 9/16	1/2	23/64	5/8	1 59/64	6 1/8	33/64	2.8	SG220ELK82/99A
	1 3/8	WFX3-S222E										2.7	SG222ELK82/99A
	1 7/16	WFX3-S223E										2.6	SG223ELK82/99A
		<i>WFX3-S2M35E</i>	92.1	130.18	39.69	12	9.1	15.9	48.8	155.6	13.1	1.18	SG2M35ELK82/99A
40	1 1/2	WFX3-S224E	4	5 21/32	1 11/16	1/2	27/64	5/8	27/64	6 25/32	17/32	3.8	SG224ELK82/99A
		<i>WFX3-S2M40E</i>	101.6	143.67	42.87	12	10.7	15.9	53.6	172.2	1.5	1.73	SG2M40ELK82/99A
	1 5/8	WFX3-S226E	4 1/4	5 27/32	1 49/64	1/2	3/8	5/8	2 9/64	7 3/32	39/64	4.4	SG226ELK82/99A
	1 11/16	WFX3-S227E										4.4	SG227ELK82/99A
	1 3/4	WFX3-S228E										4.3	SG228ELK82/99A
			108.0	148.43	44.85	12	9.5	15.9	54.4	180.2	13.9	1.95	
	1 15/16	WFX3-S231E	4 9/16	6 3/16	1 51/64	9/16	1 9/32	3/4	2 25/64	7 7/16	39/64	5.6	SG231ELK82/99A
			115.9	157.16	45.64	14	15.1	19.0	60.7	188.9	13.9	2.54	

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size, 1/8" PT.

Selection guide, pages B-9, B-10.

Load ratings, pages B-11, B-12.

Additional information, page B-76.

Corrosion Resistant Dura-Klean™ Flanged Units WF3-S200E

Cast Iron Housing with Non-Porous Nylon Coating

4-bolt Mounting

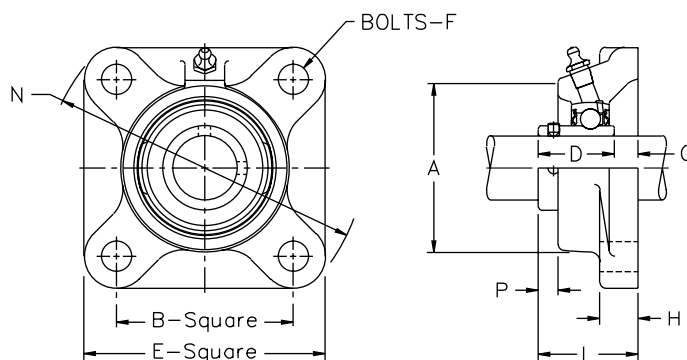
Alignable

Spring Locking

Prelubricated with Food Grade Grease

Relubricable

Inner & Outer Rings with Black Oxide Coating



Dimensions (inches/mm)

Shaft Diameter		Flanged unit number	A	B	D	E	F Bolts	G	H	L	N	P	Unit wt. (lbs./kg)	Replacement bearing no.
mm	inches													
20	3/4	WF3-S212E WF3-S2M20E	27/16 61.9	2 1/2 63.50	1 1/8 28.58	3 3/8 85.7	3/8 10	23/64 9.1	9/16 14.3	1 31/64 37.7	4 13/32 111.9	9/32 7.1	1.6 .73	SG212ELK82/99A SG2M20ELK82/99A
25	7/8 1 5/16 1	WF3-S214E	2 11/16 68.3	2 3/4 69.85	1 3/16 30.17	3 3/4 95.2	7/16 10	3/8 9.5	1 9/32 15.1	1 9/16 39.7	4 29/32 124.6	5/16 7.9	2.0	SG214ELK82/99A
		WF3-S215E											1.9	SG215ELK82/99A
		WF3-S216E											1.9	SG216ELK82/99A
		WF3-S2M25E											.86	SG2M25ELK82/99A
30	1 1/8 1 3/16 1 1/4	WF3-S218E	3 3/16 81.0	3 1/4 82.55	1 11/32 34.13	4 1/4 108.0	7/16 10	25/64 9.9	1 9/32 15.1	1 47/64 44.0	5 19/32 142.1	27/64 10.7	2.7	SG218ELK82/99A
		WF3-S219E											2.6	SG219ELK82/99A
		WF3-S2E20E											2.6	SG2E20ELK82/99A
		WF3-S2M30E											1.18	SG2M30ELK82/99A
35	1 1/4 1 3/8 1 7/16	WF3-S220E	3 5/8 92.1	3 5/8 92.08	1 9/16 39.67	4 5/8 117.5	1/2 12	23/64 9.1	5/8 15.9	1 59/64 48.8	6 1/8 155.6	37/64 14.7	3.5	SG220ELK82/99A
		WF3-S222E											3.4	SG222ELK82/99A
		WF3-S223E											3.3	SG223ELK82/99A
		WF3-S2M35E											1.50	SG2M35ELK82/99A
40	1 1/2	WF3-S224E	4 101.6	4 101.60	1 11/16 42.87	5 1/8 130.2	1/2 12	27/64 10.7	5/8 15.9	2 7/64 53.6	6 25/32 172.2	17/32 13.5	4.7	SG224ELK82/99A
		WF3-S2M40E											2.13	SG2M40ELK82/99A
	1 5/8 1 11/16 1 3/4	WF3-S226E	4 1/4 108.0	4 1/8 104.78	1 49/64 44.85	5 3/8 136.5	1/2 12	3/8 9.5	5/8 15.9	2 9/64 54.4	7 3/32 180.2	35/64 13.9	5.4	SG226ELK82/99A
		WF3-S227E											5.4	SG227ELK82/99A
		WF3-S228E											5.3	SG228ELK82/99A
													2.41	
	1 5/16	WF3-S231E	4 1/2 114.3	4 3/8 111.12	1 51/64 45.64	5 5/8 142.9	1/2 12	1/2 12.7	2 13/16 19.0	2 19/64 58.3	7 7/16 188.9	9/16 14.3	6.2 2.81	SG231ELK82/99A

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size, 1/8" PT.

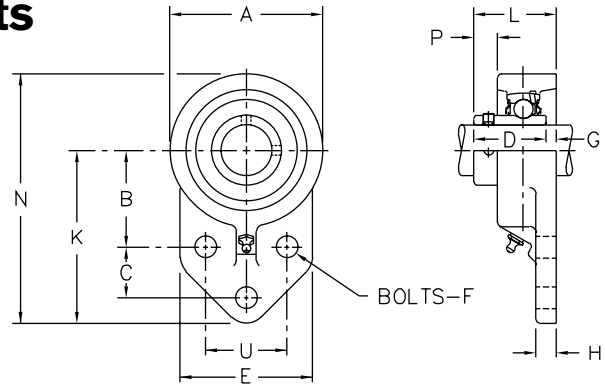
Selection guide, pages B-9, B-10.

Load ratings, pages B-11, B-12.

Additional information, page B-76.

Corrosion Resistant Dura-Klean™ Flanged Bracket Units WFB3-S200E

Cast Iron Housing with Non-Porous Nylon Coating
3-bolt Mounting
Alignable
Spring Locking
Prelubricated with Food Grade Grease
Relubricable
Inner & Outer Rings with Black Oxide Coating



Dimensions (inches/mm)

Shaft Diameter		Flanged unit numbers	A	B	C	D	E	F Bolts	G	H	K	L	N	P	U	Unit wt. (lbs./kg)	Bearing no.
mm	inches																
20	3/4	WFB3-S212E	2 1/2	1 11/16	7/8	1 1/8	2 3/8	3/8	7/32	5/16	3	1 11/32	4 1/4	1 1/32	1 1/2	1.2	SG212ELK82/99A
		WFB3-S2M20E	63.5	42.9	22.2	28.58	60.3	10	1.6	7.9	76.2	34.1	108.0	8.7	38.1	.54	SG2M20ELK82/99A
25	7/8 1 5/16 1	WFB3-S214E	2 3/4	1 13/16	1 1/8	1 3/16	2 1/2	3/8	9/32	3/8	3 3/8	1 29/64	4 3/4	5/16	1 5/8	1.7	SG214ELK82/99A
		WFB3-S215E														1.7	SG215ELK82/99A
		WFB3-S216E														1.6	SG216ELK82/99A
		WFB3-S2M25E														0.72	SG2M25ELK82/99A
30	1 1/8 1 3/16 1 1/4	WFB3-S218E	3 1/4	2 1/16	1 1/4	1 11/32	2 3/4	3/8	9/32	3/8	3 3/4	1 5/8	5 3/8	3/8	1 7/8	2.2	SG218ELK82/99A
		WFB3-S219E														2.2	SG219ELK82/99A
		WFB3-S2E20E														2.1	SG2E20ELK82/99A
		WFB3-S2M30E														0.95	SG2M30ELK82/99A
35	1 1/4 1 3/8 1 7/16	WFB3-S220E	3 3/4	2 3/8	1 1/4	1 9/16	3 1/4	1/2	23/64	1/2	4 1/4	1 59/64	6 1/8	3 1/64	2	3.2	SG220ELK82/99A
		WFB3-S222E														3.2	SG222ELK82/99A
		WFB3-S223E														3.1	SG223ELK82/99A
		WFB3-S2M35E														1.41	SG2M35ELK82/99A

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size, 1/4"-28 UNF.

Selection guide, pages B-9, B-10.

Load ratings, pages B-11, B-12.

Additional information, page B-76.

Corrosion Resistant

Dura-Klean™ Takeup Units

Cast Iron Housing with Non-Porous Nylon Coating

Wide Slot Design

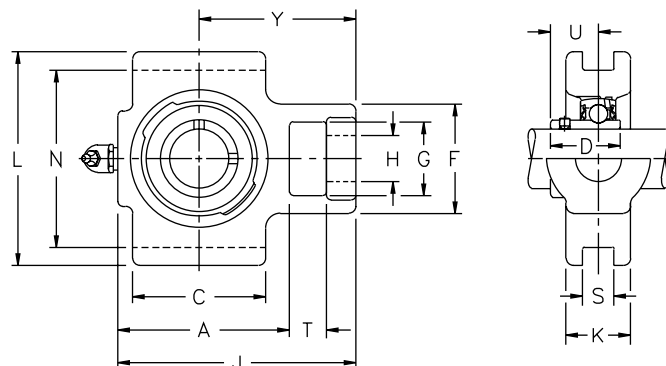
Alignable

Spring Locking

Prelubricated with Food Grade Grease

Relubricable

Inner & Outer Rings with Black Oxide Coating



Dimensions (inches/mm)

Shaft Diameter		Takeup unit number	A	C	D	F	G	H	J	K	L	N +0.000" -0.015" (+0.00 -0.38)	S +0.005" -0.015" (+0.013 -0.38)	T	U	Y	Unit wt. (lbs./kg)	Bearing no.
mm	inches	Lip seals																
20	3/4	WTH3-S212E WTH3-S2M20E	227/32 72.2	2 1/4 57.2	1 1/8 28.58	1 7/8 47.6	1 1/4 31.8	3/4 19.0	3 31/32 100.8	1 1/16 27.0	3 5/8 92.1	3.000 76.20	.531 13.49	5/8 15.9	3/4 19.0	2 21/32 67.5	2.4 1.1	SG212ELK82/99A SG2M20ELK82/99A
25	7/8	WTH3-S214E	229/32 73.8	2 1/4 57.2	1 3/16 30.17	1 27/32 46.8	1 1/4 31.8	3/4 19.0	4 1/32 102.4	1 13/32 27.8	3 5/8 92.1	3.000 76.20	.531 13.49	5/8 15.9	1 3/16 20.6	2 21/32 67.5	2.7 1.2	SG214ELK82/99A
	1 5/16	WTH3-S215E																SG215ELK82/99A
	1	WTH3-S216E																SG216ELK82/99A
		WTH3-S2M25E																SG2M25ELK82/99A
30	1 1/8	WTH3-S218E	3 11/32 84.9	2 1/2 63.5	1 11/32 34.13	2 3/16 55.6	1 7/16 36.5	7/8 22.2	4 15/32 113.5	1 13/32 27.8	4 1/8 104.8	3.500 88.90	.531 13.49	5/8 15.9	6 1/64 24.2	2 27/32 72.2	3.2 1.5	SG218ELK82/99A
	1 3/4	WTH3-S219E																SG219ELK82/99A
	1 1/4	WTH3-S2E20E																SG2E20ELK82/99A
		WTH3-S2M30E																SG2M30ELK82/99A
35	1 1/4	WTH3-S220E	3 11/16 93.7	2 3/4 69.8	1 9/16 39.67	2 5/16 58.7	1 7/16 36.5	7/8 22.2	4 13/16 122.2	1 13/16 30.2	4 1/8 104.8	3.500 88.90	.531 13.49	5/8 15.9	1 7/64 28.2	2 31/32 75.4	4.0 1.8	SG220ELK82/99A
	1 3/8	WTH3-S222E																SG222ELK82/99A
	1 7/16	WTH3-S223E																SG223ELK82/99A
		WTH3-S2M35E																SG2M35ELK82/99A
40	1 1/2	WTH3-S224E WTH3-S2M40E	4 3/16 106.4	3 1/4 82.6	1 11/16 42.87	2 27/32 72.2	1 15/16 49.2	1 1/8 28.6	5 9/16 141.3	1 15/16 33.3	4 3/4 120.6	3.969 100.81	.688 17.48	3/4 19.0	1 13/64 30.6	3 15/32 88.6	5.3 2.4	SG224ELK82/99A SG2M40ELK82/99A
	1 5/8	WTH3-S226E	4 3/16 106.4	3 1/4 82.6	1 49/64 44.85	2 7/8 73.0	1 15/16 49.2	1 1/8 28.6	5 9/16 141.3	1 13/16 34.9	4 3/4 120.6	3.969 100.81	.688 17.48	3/4 19.0	1 15/64 31.4	3 15/32 88.6	5.3 2.4	SG226ELK82/99A
	1 11/16	WTH3-S227E																SG227ELK82/99A
	1 3/4	WTH3-S228E																SG228ELK82/99A
	1 5/16	WTH3-S231E	4 9/16 115.9	3 3/8 85.7	1 51/64 45.64	2 7/8 73.0	1 15/16 49.2	1 1/8 28.6	5 51/64 150.8	1 43/64 42.5	4 3/4 120.6	3.969 100.81	.688 17.48	3/4 19.0	1 17/64 32.1	3 19/32 91.3	6.6 3.0	SG231ELK82/99A

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size, 1/8" PT.

Selection guide, pages B-9, B-10.

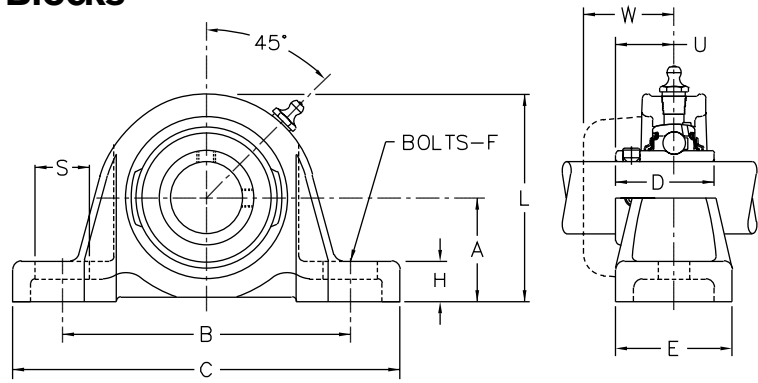
Load ratings, pages B-11, B-12.

Additional information, page B-76.

Standard Duty Ball Bearing Pillow Blocks

P3-U200N

Cast Iron Housing
Standard Backing Height
Alignable
Spring Locking
Relubricatable
Wide Inner Ring
Available in Nickel Plate □



Dimensions (inches/mm)

Shaft Diameter		Pillow block number	A	B	C	D	E	F	H	L	M	S	U	W	Unit wt.	Bearing no.
mm	inches	Lip Seals	†					Bolts			Collar O.D.			◆	(lbs./kg)	
17	1/2	P3-U2B08N	1 1/16	3 1/2	4 5/8	1 3/32	1 1/2	3/8	1/2	2 11/32	...	3/4	4 1/64	1 13/64	1.1	UG2B08NL
	5/8	P3-U210N													1.0	UG210NL
	11/16	P3-U211N													1.0	UG211NL
		P3-U2M17N													0.5	UG2M17NL
20	3/4	P3-U212N	1 5/16	3 7/8	5 1/8	1 3/32	1 1/2	3/8	1/2	2 19/32	...	1 1/16	3/4	1 19/64	1.7	UG212NL
		P3-U2M20N	33.34	98.4	130.2	32.54	38.1	10	12.7	65.9	...	17.5	19.0	32.9	0.8	UG2M20NL
25	7/8	P3-U214N △	1 7/16	4	5 3/8	1 23/64	1 5/8	3/8	9/16	2 7/8	...	1 1/16	5 1/64	1 9/32	1.9	UG214NL
	15/16	P3-U215N △													1.9	UG215NL
	1	P3-U216N △													1.8	UG216NL
		P3-U2M25N													0.9	UG2M25NL
30	1 1/8	P3-U218N	1 11/16	4 5/8	6 5/16	1 9/16	1 3/4	1/2	1 1/16	3 5/16	...	1 5/16	6 1/64	1 29/64	2.8	UG218NL
	1 3/16	P3-U219N													2.7	UG219NL
	1 1/4	P3-U2E20N													2.7	UG2E20NL
		P3-U2M30N													1.2	UG2M30NL
35	1 1/4	P3-U220N △	1 7/8	4 15/16	6 3/8	1 49/64	1 7/8	1/2	1 3/16	3 11/16	...	1 3/16	1 7/64	1 35/64	3.8	UG220NL
	1 3/8	P3-U222N △													3.7	UG222NL
	1 7/16	P3-U223N △													3.7	UG223NL
		P3-U2M35N													1.7	UG2M35NL
40	1 1/2	P3-U224N △	2	5 3/8	7 1/16	1 29/32	1 7/8	1/2	1 3/16	4	...	1 5/16	1 11/64	1 41/64	4.7	UG224NL
		P3-U2M40N △	50.80	136.5	179.4	48.42	47.6	12	20.6	101.6	...	23.8	29.8	41.7	2.1	UG2M40NL
45	1 5/8	P3-U226N △	2 1/8	5 5/8	7 1/4	2 1/32	2	1/2	1 3/16	4 5/16	...	7/8	1 15/64	1 21/32	5.4	UG226NL
	1 11/16	P3-U227N △													5.4	UG227NL
	1 3/4	P3-U228N △													5.3	UG228NL
		P3-U2M45N													2.3	UG2M45NL
50	1 15/16	P3-U231N △	2 1/4	6 3/16	7 7/8	2 3/32	2 1/8	5/8	7/8	4 1/2	...	1 5/16	1 17/64	1 25/32	6.1	UG231NL
		P3-U2E32N △													6.0	UG2E32NL
		P3-U2M50N													2.6	UG2M50NL
55	2	P3-U232N △	2 1/2	6 3/4	9 1/16	2 1/4	2 3/8	5/8	1	5	...	1 5/16	1 13/32	2 1/64	7.8	UG232NL
		P3-U235N △													7.7	UG235NL
		P3-U2M55N													3.5	UG2M55NL
60	2 1/4	P3-U236N	2 11/16	7 1/2	9 1/2	2 1/2	2 1/2	5/8	1 1/8	5 3/8	...	1 1/16	1 9/16	2 7/64	11.5	UG236NL
	2 3/8	P3-U238N													11.4	UG238NL
	2 1/16	P3-U239N													11.3	UG239NL
		P3-U2M60N													5.1	UG2M60NL
65	2 1/2	P3-U240N	3	8 1/8	10 1/2	2 11/16	2 7/8	3/4	1 1/16	6	4 3/16	1 3/16	1 11/16	2 1/16	16.2	UG240NL
		P3-U243N													15.6	UG243NL
		P3-U2M65N													6.8	UG2M65NL
75	2 3/4	P3-U244N	3 1/4	8 7/8	11 3/4	2 7/8	3 1/4	3/4	1 3/8	6 1/2	4 5/8	1 5/16	1 13/16	2 7/32	20.0	UG244NL
	2 15/16	P3-U247N													19.3	UG247NL
	3	P3-U2E48N													19.0	UG2E48NL
		P3-U2M75N													8.7	UG2M75NL
85	3 3/16	P3-U255N	3 3/4	10	13	3 9/16	3 1/2	7/8	1 5/8	7 7/16	5 3/16	1 5/8	2 1/8	2 1/2	29.0	UG255NL
		P3-U2E56N													28.5	UG2E56NL
		P3-U2M85N													13.2	UG2M85NL
100	3 15/16	P3-U263N	4 7/16	11 7/8	15 1/4	4 1/4	4 1/4	7/8	1 13/16	8 7/8	5 15/16	1 7/8	2 37/64	3 1/64	50.4	UG263NL
		P3-U2E64N													49.9	UG2E64NL
		P3-U2M100N													22.9	UG2M100NL

Bold face items are normally available from stock; please consult for availability of non-stock items.

Shaft sizes over 2 7/16" have collars.

Lubrication fitting tap size: for 1 1/16" (17 mm) and smaller shafts, 1/4"-28 UNF; for all other shafts, 1/8" PT.

■ N lip seals standard. H labyrinth seals available.

□ Nickel plated housings available through size 239; add Suffix K75, i.e. P3-U2B08NK75.

† Tolerance, +.000" - .010" (+0.00 mm -0.25 mm).

△ Available with E3 triple lip seals.

◆ Width dimension for closed end unit.

Selection guide, pages B-9, B-10.

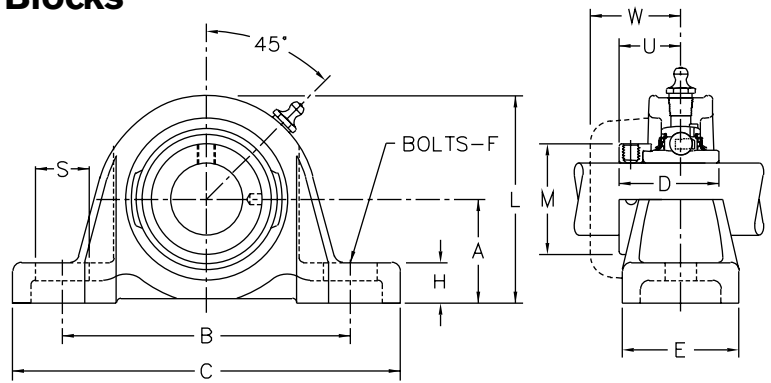
Load ratings, pages B-11, B-12.

Additional information, page B-75.

Standard Duty Ball Bearing Pillow Blocks

P3-Y200N

Cast Iron Housing
Standard Backing Height
Alignable
Eccentric Cam Locking Collar
Relubricatable
Wide Inner Ring



Dimensions (inches/mm)

Shaft Diameter	Pillow block number ■	A †	B	C	D	E	F Bolts	H	L	M	S	U	W ◆	Unit wt. (lbs./kg)	Bearing no.
inches	Lip Seals														
1/2	P3-Y2B08N	1 1/16	3 1/2	4 5/8	1 15/32	1 1/2	3/8	1/2	2 11/32	1 1/8	3/4	59/64	1 13/64	1.1	YG2B08NL
5/8	P3-Y210N	30.16	88.9	117.5	37.31	38.1	10	12.7	59.5	28.6	19.0	23.4	30.6	.50	YG210NL
1 1/16	P3-Y211N														YG211NL
3/4	P3-Y212N	1 5/16	3 7/8	5 1/8	1 23/32	1 1/2	3/8	1/2	2 19/32	1 1/16	1 1/16	1 3/64	1 19/64	1.8	YG212NL
		33.34	98.4	130.2	43.66	38.1	10	12.7	65.9	33.3	17.5	26.6	32.9	.82	
7/8	P3-Y214N△	1 7/16	4	5 3/8	1 3/4	1 5/8	3/8	9/16	2 7/8	1 1/2	1 1/16	1 1/16	1 13/32	2.0	YG214NL
1 5/16	P3-Y215N△	36.51	101.6	136.5	44.45	41.3	10	14.3	73.0	38.1	17.5	27.0	32.5	.91	YG215NL
1	P3-Y216N△														YG216NL
1 1/8	P3-Y218N	1 11/16	4 5/8	6 5/16	1 29/32	1 3/4	1/2	1 1/16	3 1/16	1 3/4	1 5/16	1 3/16	1 29/64	2.8	YG218NL
1 3/16	P3-Y219N	42.86	117.5	160.3	48.42	44.4	12	17.5	84.1	44.4	23.8	30.2	36.9	1.27	YG219NL
1 1/4	P3-Y2E20N														YG2E20NL
1 1/4	P3-Y220N△	1 7/8	4 15/16	6 3/8	2 1/64	1 7/8	1/2	1 3/16	3 11/16	2 3/16	1 3/16	1 3/32	1 39/64	4.0	YG220NL
1 3/8	P3-Y222N△	47.62	125.4	161.9	51.20	47.6	12	20.6	93.7	55.6	20.6	32.5	39.3	1.82	YG222NL
1 7/16	P3-Y223N△														YG223NL
1 1/2	P3-Y224N△	2	5 3/8	7 1/16	2 7/32	1 7/8	1/2	1 3/16	4	2 3/8	1 5/16	1 3/8	1 41/64	5.0	YG224NL
		50.80	136.5	179.4	56.36	47.6	12	20.6	101.6	60.3	23.8	34.9	41.7	2.27	
1 5/8	P3-Y226N△	2 1/8	5 5/8	7 1/4	2 7/32	2	1/2	1 3/16	4 5/16	2 1/2	7/8	1 3/8	1 21/32	5.7	YG226NL
1 11/16	P3-Y227N△	53.98	142.9	184.2	56.36	50.8	12	20.6	109.5	63.5	22.2	34.9	42.1	2.59	YG227NL
1 3/4	P3-Y228N△														YG228NL
1 15/16	P3-Y231N△	2 1/4	6 3/16	7 7/8	2 15/32	2 1/8	5/8	7/8	4 1/2	2 3/4	1 5/16	1 1/2	1 25/32	6.4	YG231NL
2	P3-Y2E32N△	57.15	157.2	200.0	62.71	54.0	16	22.2	114.3	69.8	23.8	38.1	45.2	2.91	YG2E32NL
2 1/16	P3-Y232N△	2 1/2	6 3/4	9 1/16	2 13/16	2 3/8	5/8	1	5	3	1 5/16	1 23/32	2 1/64	8.4	YG232NL
2 3/16	P3-Y235N△	63.50	171.4	230.2	71.44	60.3	16	25.4	127.0	76.2	33.3	43.6	51.2	3.81	YG235NL
2 1/4	P3-Y236N	2 11/16	7 1/2	9 1/2	3 1/16	2 1/2	5/8	1 1/8	5 3/8	3 3/16	1 1/16	1 27/32	2 7/64	11.6	YG236NL
2 3/8	P3-Y238N	68.26	190.5	241.3	77.79	63.5	16	28.6	136.5	84.1	27.0	46.8	53.6	5.27	YG238NL
2 7/16	P3-Y239N														YG239NL

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size: for 1 1/16" and smaller shaft sizes, 1/4"-28 UNF; for all other shafts, 1/8" PT.

■ N lip seals standard. H labyrinth seals available.

† Tolerance, +.000" - .010" (+0.00 mm -0.25 mm).

△ Available with E3 triple lip seals.

◆ Width dimension for closed end unit.

Selection guide, pages B-9, B-10.

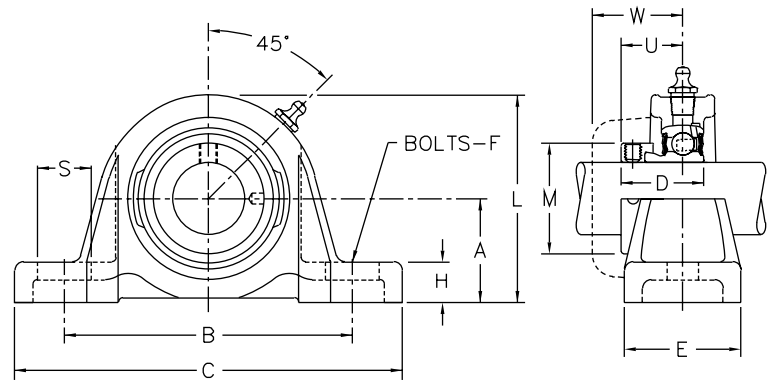
Load ratings, pages B-11, B-12.

Additional information, page B-75.

Intermediate Ball Bearing Pillow Blocks

P3-W200E

Cast Iron Housing
Standard Backing Height
Alignable
Eccentric Cam Locking Collar
Relubricable
Extended Inner Ring



Dimensions (inches/mm)

Shaft Diameter inches	Pillow block number	A †	B	C	D	E	F Bolts	H	L	M	S	U	W ◆	Unit wt. (lbs./kg)	Bearing no.
1/2 5/8	P3-W2B08E P3-W210E	1 5/16	3 1/2	4 5/8	1 1/8	1 1/2	3/8	1/2	2 11/32	1 1/8	3/4	7/8	1 13/64	.9 .41	WG2B08EL WG210EL
3/4	P3-W212E	1 5/16 33.34	3 7/8 98.4	5 1/8 130.2	1 7/32 30.96	1 1/2 38.1	3/8 10	1/2 12.7	2 19/32 65.9	1 5/16 33.3	1 1/16 17.5	59/64 23.4	1 19/64 32.9	1.6 .73	WG212EL
7/8 1 5/16 1	P3-W214E P3-W215E P3-W216E	1 7/16 36.51	4 101.6	5 3/8 136.5	1 7/32 30.96	1 5/8 41.3	3/8 10	9/16 14.3	2 7/8 73.0	1 1/2 38.1	1 1/16 17.5	59/64 23.4	1 19/32 32.5	1.8 0.82	WG214EL WG215EL WG216EL
1 1/8 1 3/16 1 1/4	P3-W218E P3-W219E P3-W2E20E	1 11/16 42.86	4 5/8 117.5	6 5/16 160.3	1 13/32 35.72	1 3/4 44.4	1/2 12	1 1/16 17.5	3 5/16 84.1	1 3/4 44.4	1 5/16 23.8	1 3/64 26.6	1 29/64 36.9	2.5 1.14	WG218EL WG219EL WG2E20EL
1 1/4 1 3/8 1 7/16	P3-W220E P3-W222E P3-W223E	1 7/8 47.62	4 15/16 125.4	6 3/8 161.9	1 17/32 38.89	1 7/8 47.6	1/2 12	1 3/16 20.6	3 11/16 93.7	2 3/16 55.6	1 3/16 20.6	1 5/32 29.4	1 35/64 39.3	3.7 1.68	WG220EL WG222EL WG223EL
1 1/2	P3-W224E	2 50.80	5 3/8 136.5	7 1/16 179.4	1 23/32 43.66	1 7/8 47.6	1/2 12	1 3/16 20.6	4 101.6	2 3/8 60.3	1 5/16 23.8	1 9/32 32.5	1 41/64 41.7	4.6 2.09	WG224EL
1 5/8 1 11/16 1 3/4	P3-W226E P3-W227E P3-W228E	2 1/8 53.98	5 5/8 142.9	7 1/4 184.2	1 23/32 43.66	2 50.8	1/2 12	1 3/16 20.6	4 5/16 109.5	2 1/2 63.5	7/8 22.2	1 9/32 32.5	1 21/32 42.1	5.0 2.27	WG226EL WG227EL WG228EL
1 15/16 2	P3-W231E P3-W2E32E	2 1/4 57.15	6 3/16 157.2	7 7/8 200.0	1 23/32 43.66	2 1/8 54.0	5/8 16	7/8 22.2	4 1/2 114.3	2 3/4 69.8	1 5/16 23.8	1 9/32 32.5	1 25/32 45.2	5.5 2.5	WG231EL WG2E32EL

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size: for 1 1/16" and smaller shaft sizes, 1/4"-28 UNF; for all other shafts, 1/8" PT.

† Tolerance, +.000" –.010" (+0.00 mm –0.25 mm).

◆ Width dimension for closed end unit

Selection guide, pages B-9, B-10.

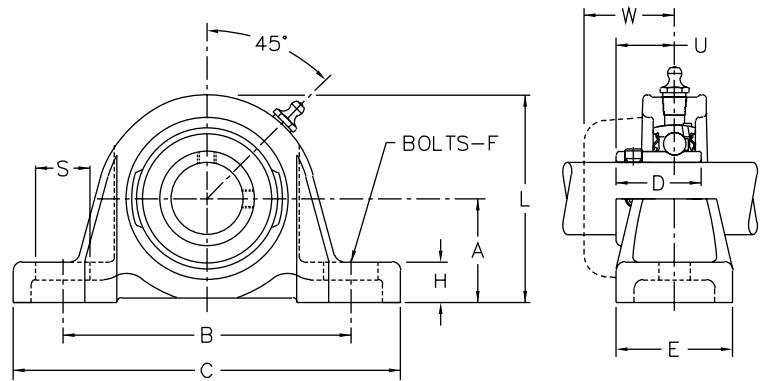
Load ratings, pages B-11, B-12.

Additional information, page B-76.

Intermediate Ball Bearing Pillow Blocks

P3-S200E

Cast Iron Housing
 Standard Backing Height
 Alignable
 Spring Locking
 Relubricatable
 Extended Inner Ring
 Available in Nickel Plate ☐
 Available in DURA-KLEAN ☒



Dimensions (inches/mm)

Shaft Diameter inches	Pillow block number	A †	B	C	D	E	F Bolts	H	L	S	U	W ◆	Unit wt. (lbs./kg)	Replacement bearing no.
3/4	P3-S212E	15/16 33.34	37/8 98.4	51/8 130.2	11/8 28.58	11/2 38.1	3/8 10	1/2 12.7	219/32 65.9	11/16 17.5	3/4 19.0	119/64 32.9	1.5 .68	SG212EL
7/8 15/16 1	P3-S214E P3-S215E P3-S216E	17/16 36.51	4 101.6	53/8 136.5	13/16 30.17	15/8 41.3	3/8 10	9/16 14.3	27/8 73.0	11/16 17.5	13/16 20.6	19/32 32.5	1.7 1.6 1.6 .73	SG214EL SG215EL SG216EL
11/8 13/16 11/4	P3-S218E P3-S219E P3-S2E20E	111/16 42.86	45/8 117.5	65/16 160.3	111/32 34.13	13/4 44.4	1/2 12	11/16 17.5	35/16 84.1	15/16 23.8	61/64 24.2	129/64 36.9	2.6 2.6 2.6 1.18	SG218EL SG219EL SG2E20EL
11/4 13/8 17/16	P3-S220E P3-S222E P3-S223E	17/8 47.62	415/16 125.4	63/8 161.9	19/16 39.67	17/8 47.6	1/2 12	13/16 20.6	311/16 93.7	13/16 20.6	17/64 28.2	139/64 39.3	3.4 3.4 3.3 1.50	SG220EL SG222EL SG223EL
11/2	P3-S224E	2 50.80	53/8 136.5	71/16 179.4	111/16 42.87	17/8 47.6	1/2 12	13/16 20.6	4 101.6	15/16 23.8	113/64 30.6	141/64 41.7	4.4 2.00	SG224EL
15/8 111/16 13/4	P3-S226E P3-S227E P3-S228E	21/8 53.98	55/8 142.9	71/4 184.2	149/64 44.85	2 50.8	1/2 12	13/16 20.6	45/16 109.5	7/8 22.2	115/64 31.4	121/32 42.1	5.1 5.0 4.9 2.22	SG226EL SG227EL SG228EL
115/16	P3-S231E	21/4 57.15	63/16 157.2	77/8 200.0	151/64 45.64	21/8 54.0	5/8 16	7/8 22.2	41/2 114.3	15/16 23.8	117/64 32.1	125/32 45.2	5.8 2.63	SG231EL

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size, 1/8" PT.

■ DURA-KLEAN coated housings available; add prefix W, i.e. WP3-S212E.

□ Nickel plated housings available; add Suffix K75, i.e. P3-S212EK75.

Nickel plated units are furnished prelubricated with food grade grease and black oxide coated inner and outer rings.

† Tolerance, +.000" –.010" (+0.00 mm –0.25 mm).

◆ Width dimension for closed end unit.

Selection guide, pages B-9, B-10.

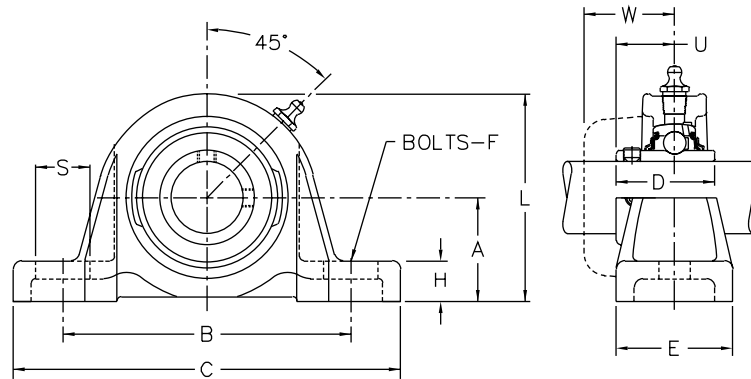
Load ratings, pages B-11, B-12.

Additional information, page B-76.

Standard Duty Ball Bearing Pillow Blocks

PL3-U200N

Cast Iron Housing
Low Backing Height
Alignable
Spring Locking
Relubricatable
Wide Inner Ring



Dimensions (inches/mm)

Shaft Diameter		Pillow block number ■	A	B	C	D	E	F	H	L	S	U	W	Unit wt. (lbs./kg)	Bearing no.
mm	inches	Lip seals	†					Bolts					◆		
17	1/2	PL3-U2B08N	1 1/16	3 1/2	4 3/4	1 3/32	1 3/8	3/8	1/2	2 1/8	9/16	4 1/64	1 13/64	1.0	UG2B08NL
	5/8	PL3-U210N												.9	UG210NL
	1 1/16	PL3-U211N												.9	UG211NL
		PL3-U2M17N												0.4	UG2M17NL
20	3/4	PL3-U212N	1 1/4	3 7/8	5 1/8	1 9/32	1 1/2	3/8	7/16	2 17/32	1 1/16	3/4	1 19/64	1.6	UG212NL
		PL3-U2M20N	31.75	98.4	130.2	32.54	38.1	10	11.1	64.3	17.5	19.0	32.9	0.8	UG2M20NL
25	7/8	PL3-U214N△	1 5/16	4 1/8	5 1/2	1 29/64	1 3/4	3/8	5/8	2 1 1/16	9/16	5 1/64	1 9/32	1.8	UG214NL
	19/16	PL3-U215N△												1.8	UG215NL
	1	PL3-U216N△												1.7	UG216NL
		PL3-U2M25N												0.9	UG2M25NL
30	1 1/8	PL3-U218N	1 9/16	4 3/4	6 5/16	1 9/16	1 7/8	1/2	1 1/16	3 5/32	3/4	6 1/64	1 29/64	2.6	UG218NL
	1 3/16	PL3-U219N												2.5	UG219NL
	1 1/4	PL3-U2E20N												2.5	UG2E20NL
		PL3-U2M30N												1.1	UG2M30NL
35	1 1/4	PL3-U220N△	1 13/16	4 15/16	6 3/8	1 49/64	1 7/8	1/2	3/4	3 5/8	1 3/16	1 7/64	1 35/64	3.6	UG220NL
	1 3/8	PL3-U222N△												3.5	UG222NL
	1 7/16	PL3-U223N△												3.5	UG223NL
		PL3-U2M35N												1.6	UG2M35NL
40	1 1/2	PL3-U224N△	1 19/16	5 3/8	7 1/16	1 29/32	1 7/8	1/2	3/4	3 15/16	1 9/16	1 11/64	1 41/64	4.5	UG224NL
		PL3-U2M40N	49.21	136.5	179.4	48.42	47.6	12	19.0	100.0	23.8	29.8	41.7	2.0	UG2M40NL
45	1 5/8	PL3-U226N△	2 1/16	5 5/8	7 1/4	2 1/32	2	1/2	3/4	4 1/4	7/8	1 15/64	1 21/32	5.2	UG226NL
	1 11/16	PL3-U227N△												5.2	UG227NL
	1 3/4	PL3-U228N△												5.1	UG228NL
		PL3-U2M45N												2.2	UG2M45NL
50	1 15/16	PL3-U231N△	2 3/16	6 3/16	7 7/8	2 3/32	2 1/8	5/8	1 3/16	4 7/16	1 5/16	1 17/64	1 25/32	5.9	UG231NL
	2	PL3-U2E32N△												5.8	UG2E32NL
		PL3-U2M50N												2.5	UG2M50NL
55	2	PL3-U232N△	2 7/16	6 3/4	9 1/16	2 1/4	2 3/8	5/8	1 5/16	4 15/16	1 5/16	1 13/32	2 1/64	7.4	UG232NL
	2 3/16	PL3-U235N△												7.3	UG235NL
		PL3-U2M55N												3.2	UG2M55NL
60	2 1/4	PL3-U236N	2 1 1/16	7 1/2	9 1/2	2 1/2	2 1/2	3/4	1 1/8	5 3/8	1 1/16	1 9/16	2 7/64	11.0	UG236NL
	2 3/8	PL3-U238N												11.0	UG238NL
	2 7/16	PL3-U239N												10.9	UG239NL
		PL3-U2M60N												4.9	UG2M60NL

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size: for 1 1/16" (17 mm) and smaller shafts, 1/4"-28 UNF; for all other shafts, 1/8" PT.

■ N lip seals standard. H labyrinth seals available.

† Tolerance, +.000" –.010" (+0.00 mm –0.25 mm).

△ Available with E3 triple lip seals.

◆ Width dimension for closed end unit.

Selection guide, pages B-9, B-10.

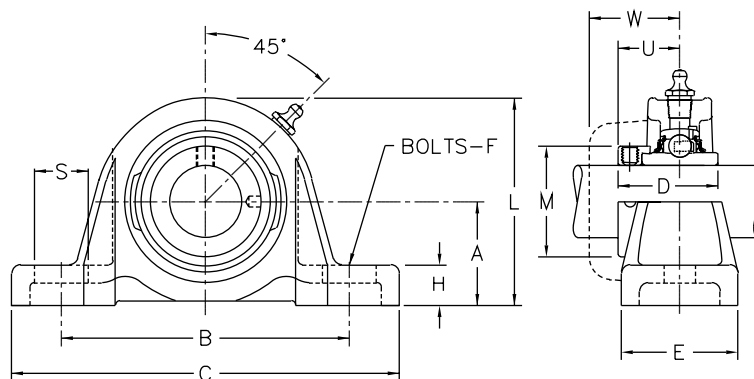
Load ratings, pages B-11, B-12.

Additional information, page B-75.

Standard Duty Ball Bearing Pillow Blocks

PL3-Y200N

Cast Iron Housing
Low Backing Height
Alignable
Eccentric Cam Locking Collar
Relubricatable
Wide Inner Ring



Dimensions (inches/mm)

Shaft Diameter	Pillow block number ■	A	B	C	D	E	F	H	L	M	S	U	W	Unit wt. (lbs./kg)	Bearing no.
inches	Lip seals	†					Bolts						◆		
1/2 5/8 11/16	PL3-Y2B08N PL3-Y210N PL3-Y211N	1 1/16 26.99	3 1/2 88.9	4 3/4 120.6	1 15/32 37.31	1 3/8 34.9	3/8 10	1/2 12.7	2 1/8 54.0	1 1/8 28.6	9/16 14.3	59/64 23.4	1 13/64 30.6	1.0 0.4	YG2B08NL YG210NL YG211NL
3/4	PL3-Y212N	1 1/4 31.75	3 7/8 98.4	5 1/8 130.2	1 23/32 43.66	1 1/2 38.1	3/8 10	7/16 11.1	2 17/32 64.3	1 5/16 33.3	1 1/16 17.5	1 3/64 26.6	1 19/64 32.9	1.7 0.8	YG212NL
7/8 15/16 1	PL3-Y214N△ PL3-Y215N△ PL3-Y216N△	1 5/16 33.34	4 1/8 104.8	5 1/2 139.7	1 3/4 44.45	1 3/4 44.4	3/8 10	5/8 15.9	2 11/16 68.3	1 1/2 38.1	9/16 14.3	1 1/16 27.0	1 19/32 32.5	1.9 0.9	YG214NL YG215NL YG216NL
1 1/8 1 3/16 1 1/4	PL3-Y218N PL3-Y219N PL3-Y2E20N	1 9/16 39.69	4 3/4 120.6	6 5/16 160.3	1 29/32 48.42	1 7/8 47.6	1/2 12	1 1/16 17.5	3 5/32 80.2	1 3/4 44.4	3/4 19.0	1 3/16 30.2	1 29/64 36.9	2.6 1.2	YG218NL YG219NL YG2E20NL
1 1/4 1 3/8 1 7/16	PL3-Y220N△ PL3-Y222N△ PL3-Y223N△	1 13/16 46.04	4 15/16 125.4	6 3/8 161.9	2 1/64 51.20	1 7/8 47.6	1/2 12	3/4 19.0	3 5/8 92.1	2 3/16 55.6	1 3/16 20.6	1 19/32 32.5	1 35/64 39.3	3.8 1.7	YG220NL YG222NL YG223NL
1 1/2	PL3-Y224N△	1 15/16 49.21	5 5/8 136.5	7 1/16 179.4	2 7/32 56.36	1 7/8 47.6	1/2 12	3/4 19.0	3 15/16 100.0	2 5/8 60.3	1 5/16 23.8	1 3/8 34.9	1 141/64 41.7	4.8 2.1	YG224NL
1 5/8 1 11/16 1 3/4	PL3-Y226N△ PL3-Y227N△ PL3-Y228N△	2 1/16 52.39	5 5/8 142.9	7 1/4 184.2	2 7/32 56.36	2 50.8	1/2 12	3/4 19.0	4 1/4 108.0	2 1/2 63.5	7/8 22.2	1 3/8 34.9	1 121/32 42.1	5.5 2.4	YG226NL YG227NL YG228NL
1 15/16 2	PL3-Y231N△ PL3-Y2E32N△	2 3/16 55.56	6 3/16 157.2	7 7/8 200.0	2 15/32 62.71	2 1/8 54.0	5/8 16	1 3/16 20.6	4 7/16 112.7	2 3/4 69.8	1 5/16 23.8	1 1/2 38.1	1 125/32 45.2	6.2 2.7	YG231NL YG2E32NL
2 2 3/16	PL3-Y232N△ PL3-Y235N△	2 7/16 61.91	6 3/4 171.4	9 1/16 230.2	2 19/16 71.44	2 3/8 60.3	5/8 16	1 5/16 23.8	4 15/16 125.4	3 76.2	1 5/16 33.3	1 23/32 43.6	2 1/64 51.2	8.0 3.5	YG232NL YG235NL
2 1/4 2 3/8 2 7/16	PL3-Y236N PL3-Y238N PL3-Y239N	2 11/16 68.26	7 1/2 190.5	9 1/2 241.3	3 1/16 77.79	2 1/2 63.5	5/8 16	1 1/8 28.6	5 3/8 136.5	3 5/16 84.1	1 1/16 27.0	1 27/32 46.8	2 7/64 53.6	11.6 5.3	YG236NL YG238NL YG239NL

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size: for 1 1/16" and smaller shaft sizes, 1/4"-28 UNF; for all other shafts, 1/8" PT.

■ N lip seals standard. H labyrinth seals available.

† Tolerance, +.000" - .010" (+0.00 mm -0.25 mm).

△ Available with E3 triple lip seals.

◆ Width dimension for closed end unit.

Selection guide, pages B-9, B-10.

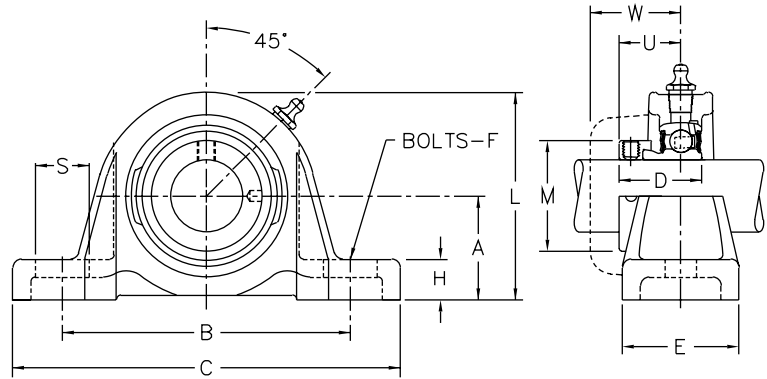
Load ratings, pages B-11, B-12.

Additional information, page B-75.

Intermediate Ball Bearing Pillow Blocks

PL3-W200E

Cast Iron Housing
Low Backing Height
Alignable
Eccentric Cam Locking Collar
Relubricatable
Extended Inner Ring



Dimensions (inches/mm)

Shaft Diameter inches	Pillow block number	A †	B	C	D	E	F Bolts	H	L	M	S	U	W ◆	Unit wt. (lbs./kg)	Bearing no.
1/2 5/8	PL3-W2B08E PL3-W210E	1 1/16	3 1/2	4 3/4	1 1/8	1 3/8	3/8	1/2	2 1/8	1 1/8	9/16	7/8	1 13/64	.9	WG2B08EL WG210EL
3/4	PL3-W212E	1 1/4 31.75	3 7/8 98.4	5 1/8 130.2	1 7/32 30.96	1 1/2 38.1	3/8 10	7/16 11.1	2 17/32 64.3	1 1/8 33.3	1 1/16 17.5	59/64 23.4	1 19/64 32.9	1.6 0.7	WG212EL
7/8 1 5/16 1	PL3-W214E PL3-W215E PL3-W216E	1 5/16 33.34	4 1/8 104.8	5 1/2 139.7	1 7/32 30.96	1 3/4 44.4	3/8 10	5/8 15.9	2 11/16 68.3	1 1/2 38.1	9/16 14.3	59/64 23.4	1 9/32 32.5	1.8 0.8	WG214EL WG215EL WG216EL
1 1/8 1 3/16 1 1/4	PL3-W218E PL3-W219E PL3-W2E20E	1 9/16 39.69	4 3/4 120.6	6 5/16 160.3	1 13/32 35.72	1 7/8 47.6	1/2 12	1 1/16 17.5	3 5/32 80.2	1 3/4 44.4	3/4 19.0	1 3/64 26.6	1 29/64 36.9	2.5 1.1	WG218EL WG219EL WG2E20EL
1 1/4 1 3/8 1 7/16	PL3-W220E PL3-W222E PL3-W223E	1 13/16 46.04	4 15/16 125.4	6 3/8 161.9	1 17/32 38.89	1 7/8 47.6	1/2 12	3/4 19.0	3 3/8 92.1	2 3/16 55.6	13/16 20.6	1 1/32 29.4	1 35/64 39.3	3.7 1.7	WG220EL WG222EL WG223EL
1 1/2	PL3-W224E	1 15/16 49.21	5 3/8 136.5	7 1/16 179.4	1 23/32 43.66	1 7/8 47.6	1/2 12	3/4 19.0	3 15/16 100.0	2 3/8 60.3	15/16 23.8	1 9/32 32.5	1 41/64 41.7	4.6 2.1	WG224EL
1 5/8 1 11/16 1 3/4	PL3-W226E PL3-W227E PL3-W228E	2 1/16 52.39	5 5/8 142.9	7 1/4 184.2	1 23/32 43.66	2 50.8	1/2 12	3/4 19.0	4 1/4 108.0	2 1/2 63.5	7/8 22.2	1 9/32 32.5	1 21/32 42.1	5.0 2.3	WG226EL WG227EL WG228EL
1 15/16 2	PL3-W231E PL3-W2E32E	2 3/16 55.56	6 3/16 157.2	7 7/8 200.0	1 23/32 43.66	2 1/8 54.0	5/8 16	13/16 20.6	4 7/16 112.7	2 3/4 69.8	15/16 33.3	1 9/32 32.5	1 25/32 45.2	5.5 2.5	WG231EL WG2E32EL

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size: for 1 1/16" and smaller shaft sizes, 1/4"-28 UNF; for all other shafts, 1/8" PT.

† Tolerance, +.000" –.010" (+0.00 mm –0.25 mm).

◆ Width dimensions for closed end unit.

Selection guide, pages B-9, B-10.

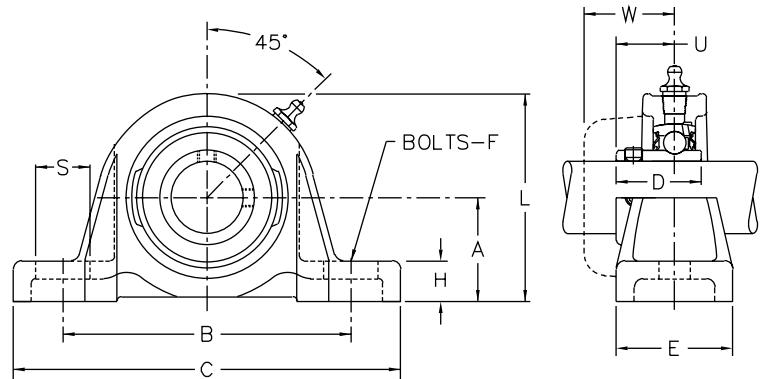
Load ratings, pages B-11, B-12.

Additional information, page B-76.

Intermediate Ball Bearing Pillow Blocks

PL3-S200E

Cast Iron Housing
Low Backing Height
Alignable
Spring Locking
Relubricatable
Extended Inner Ring
Available in Nickel Plate □



Dimensions (inches/mm)

Shaft Diameter inches	Pillow block number	A †	B	C	D	E	F Bolts	H	L	S	U	W ◆	Unit wt. (lbs./kg)	Replacement bearing no.
3/4	PL3-S212E	1 1/4 31.75	3 7/8 98.4	5 1/8 130.2	1 1/8 28.58	1 1/2 38.1	3/8 10	7/16 11.1	2 17/32 64.3	1 1/16 17.5	3/4 19.0	1 19/64 32.9	1.4 .64	SG212EL
7/8	PL3-S214E	1 5/16 40.0	4 1/8 104.8	5 1/2 139.7	1 3/16 30.17	1 3/4 44.4	3/8 10	5/8 15.9	2 1 1/16 68.3	9/16 14.3	1 3/16 20.6	1 1/32 32.5	1.9	SG214EL
15/16	PL3-S215E												1.8	SG215EL
1	PL3-S216E												1.8 .82	SG216EL
1 1/8	PL3-S218E	1 9/16 41.3	4 3/4 120.6	6 5/16 160.3	1 1 1/32 34.13	1 7/8 47.6	1/2 12	1 1/16 17.5	3 5/32 80.2	3/4 19.0	6 1/64 24.2	1 29/64 36.9	2.6	SG218EL
1 1/16	PL3-S219E												2.6	SG219EL
1 1/4	PL3-S2E20E												2.5 1.14	SG2E20EL
1 1/4	PL3-S220E	1 13/16 46.04	4 15/16 125.4	6 3/8 161.9	1 9/16 39.67	1 7/8 47.6	1/2 12	3/4 19.0	3 5/8 92.1	1 3/16 20.6	1 7/64 28.2	1 35/64 39.3	3.4	SG220EL
1 3/8	PL3-S222E												3.3	SG222EL
1 7/16	PL3-S223E												3.3 1.50	SG223EL
1 1/2	PL3-S224E	1 15/16 49.21	5 3/8 136.5	7 1/16 179.4	1 1 1/16 42.87	1 7/8 47.6	1/2 12	3/4 19.0	3 15/16 100.0	1 5/16 23.8	1 13/64 30.6	1 4 1/64 41.7	4.2 1.91	SG224EL
1 5/8	PL3-S226E	2 1/16 52.39	5 5/8 142.9	7 1/4 184.2	1 49/64 44.85	2 50.8	1/2 12	3/4 19.0	4 1/4 108.0	7/8 22.2	1 15/64 31.4	1 2 1/32 42.1	5.1	SG226EL
1 1 1/16	PL3-S227E												5.0	SG227EL
1 3/4	PL3-S228E												5.0 2.27	SG228EL
1 5/16	PL3-S231E	2 3/16 55.56	6 3/16 157.2	7 7/8 200.0	1 5 1/64 45.64	2 1/8 54.0	5/8 16	1 3/16 20.6	4 7/16 112.7	1 5/16 23.8	1 17/64 32.1	1 25/32 45.2	5.7 2.59	SG231EL

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size, 1/8" PT.

□ Nickel plated housings available add Suffix K75, i.e. PL3-S212EK75.

Nickel plated units are furnished prelubricated with food grade grease and black oxide coated inner and outer rings.

† Tolerance, +.000" –.010" (+0.00 mm –0.25 mm).

◆ Width dimension for closed end unit.

Selection guide, pages B-9, B-10.

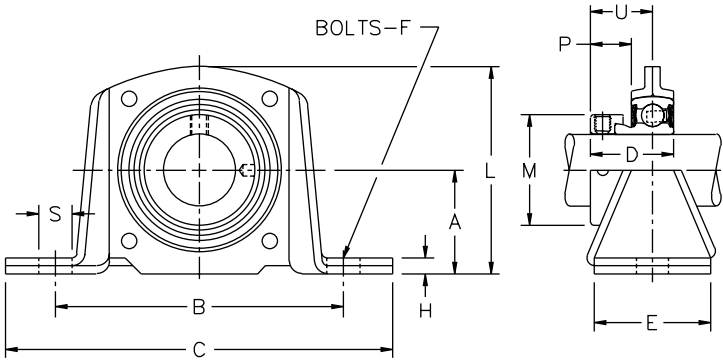
Load ratings, pages B-11, B-12.

Additional information, page B-76.

Intermediate Ball Bearing Pillow Blocks

PS-W200E, PS-Y200N

Formed Steel Housing
Standard Backing Height
Alignable
Eccentric Cam Locking Collar
Non-relubricatable
Extended and Wide Inner Ring



Dimensions (inches/mm)

Shaft Diameter inches	Pillow block number		A	B	C	D		E	F Bolts	H	L	M	S	U		Radial load rating of housing lbs/ newtons	Unit wt. (lbs./kg.)	
	Extended Inner Ring	Wide Inner Ring				W200	Y200							W200	Y200		Extended inner ring	Wide inner ring
1/2 5/8 11/16	PS-W2B08E PS-W210E -----	PS-Y2B08N PS-Y210N PS-Y211N	1 3/16 30.2	3 1/2 88.9	4 5/8 117.5	1 1/8 28.58	1 15/32 37.31	1 1/16 27.0	3/8 10	7/32 5.6	2 11/32 59.5	1 1/8 28.6	33/64 13.1	7/8 22.2	59/64 23.4	600 2 670	.7 0.3	.9 0.4
3/4	PS-W212E	PS-Y212N	1 3/16 33.3	3 7/8 98.4	5 1/8 130.2	1 7/32 30.96	1 23/32 43.66	1 1/8 28.6	3/8 10	7/32 5.6	2 5/8 66.7	1 1/8 33.3	9/16 14.3	59/64 23.4	1 3/4 26.6	700 3 110	.9 0.4	1.1 0.5
7/8 15/16 1	PS-W214E PS-W215E PS-W216E	PS-Y214N PS-Y215N PS-Y216N	1 3/16 36.5	4 1/16 103.2	5 3/8 136.5	1 7/32 30.96	1 3/4 44.45	1 7/32 31.0	3/8 10	7/32 5.6	2 55/64 72.6	1 1/2 38.1	1/2 12.7	59/64 23.4	1 1/16 27.0	800 3 560	1.1 0.5	1.3 0.6
1 1/8 1 3/16 1 1/4	PS-W218E PS-W219E PS-W2E20E	PS-Y218N PS-Y219N PS-Y2E20N	1 11/16 42.9	4 49/64 121.0	6 5/16 160.3	1 11/32 35.72	1 29/32 48.42	1 7/16 36.5	1/2 12	5/16 7.9	3 3/16 84.1	1 3/4 44.4	49/64 19.4	1 3/4 26.6	1 3/16 30.2	985 4 380	1.7 0.8	2.0 0.9
1 1/4 1 3/8 1 7/16	PS-W220E PS-W222E PS-W223E	PS-Y220N PS-Y222N PS-Y223N	1 7/8 47.6	5 5/64 129.0	6 15/16 176.2	1 7/32 38.89	2 1/64 51.20	1 5/8 41.3	1/2 12	5/16 7.9	3 3/4 95.2	2 3/16 55.6	49/64 19.4	1 5/32 29.4	1 5/32 32.5	1300 5 780	2.4 1.1	2.7 1.2

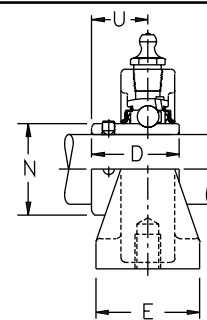
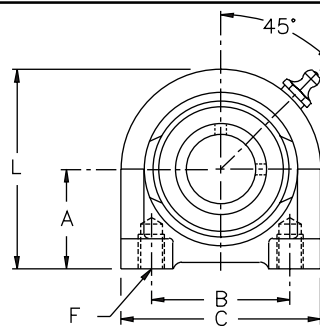
Bold face items are normally available from stock; please consult for availability of non-stock items.
Also available with U200N wide inner ring. Replace "Y" with "U"; i.e. PS-U2B08N. For dimensions D and U, see page B-30.
Selection guide, pages B-9, B-10.
Load ratings, pages B-11, B-12.
Additional information, page B-76.

Standard Duty Ball Bearing Pillow Blocks

PT3-U200N

Cast Iron Housing
Standard Backing Height
Tapped Base
Alignable

Spring Locking
Relubricatable
Wide Inner Ring



Dimensions (inches/mm)

Shaft Diameter	Pillow block number ■	A †	B	C	D	E	F		L	N	U	Unit wt. (lbs./kg)	Bearing no.
							Tap	Min. Depth					
3/4	PT3-U212N	1 ⁵ / ₁₆ 33.34	2 50.80	2 ⁷ / ₈ 73.0	1 ⁹ / ₃₂ 32.54	1 ¹ / ₂ 38.1	3/8-16 —	1/2 12.7	2 ¹⁹ / ₃₂ 65.9	1 ¹ / ₈ 28.6	3/4 19.0	1.2 .54	UG212NL
7/8 1 ⁵ / ₁₆ 1	PT3-U214N △ PT3-U215N △ PT3-U216N △	1 ⁷ / ₁₆ 36.51	2 50.80	2 ⁷ / ₈ 73.0	1 ²³ / ₆₄ 34.53	1 ¹ / ₂ 38.1	3/8-16 —	1/2 12.7	2 ⁷ / ₈ 73.0	1 ⁵ / ₁₆ 33.3	5 ¹ / ₆₄ 20.2	1.5 1.4 1.4	UG214NL UG215NL UG216NL
1 ¹ / ₈ 1 ³ / ₁₆ 1 ¹ / ₄	PT3-U218N PT3-U219N PT3-U2E20N	1 ¹¹ / ₁₆ 42.86	3 76.20	4 101.6	1 ⁹ / ₁₆ 39.69	1 ¹ / ₂ 38.1	7/16-14 —	5/8 15.9	3 ⁵ / ₁₆ 84.1	1 ¹⁹ / ₃₂ 40.5	6 ¹ / ₆₄ 24.2	2.5 2.5 2.4	UG218NL UG219NL UG2E20NL
1 ¹ / ₄ 1 ³ / ₈ 1 ⁷ / ₁₆	PT3-U220N △ PT3-U222N △ PT3-U223N △	1 ⁷ / ₈ 47.62	3 ¹ / ₄ 82.55	4 ¹³ / ₃₂ 111.9	1 ⁴⁹ / ₆₄ 44.85	2 50.8	1/2-13 —	3/4 19.0	3 ¹¹ / ₁₆ 93.7	1 ²⁷ / ₃₂ 46.9	1 ⁷ / ₆₄ 28.2	3.5 3.4 3.3	UG220NL UG222NL UG223NL
1 ¹¹ / ₁₆ 1 ³ / ₄	PT3-U227N PT3-U228N	2 ¹ / ₈ 53.98	3 ³ / ₄ 95.25	5 127.0	2 ¹ / ₃₂ 51.59	2 50.8	1/2-13 M12x1.75	7/8 22.2	4 ¹ / ₄ 108.0	2 ⁹ / ₃₂ 57.94	1 ¹⁵ / ₆₄ 31.4	4.9 2.27	UG227NL UG228NL
1 ¹⁵ / ₁₆ 2	PT3-U231N △ PT3-U2E32N △	2 ¹ / ₄ 57.15	4 101.60	5 ⁷ / ₁₆ 138.1	2 ³ / ₃₂ 48.42	2 50.8	5/8-11 —	7/8 22.2	4 ¹ / ₂ 114.3	2 ¹⁹ / ₃₂ 62.7	1 ¹⁷ / ₆₄ 32.1	5.6 5.5	UG231NL UG2E32NL
												2.50	

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size, 1/8" PT.

■ N lip seals standard. H labyrinth seals available.

† Tolerance, +.000" —.010" (+0.00 mm —0.25 mm).

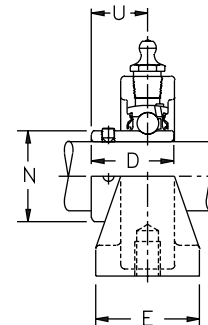
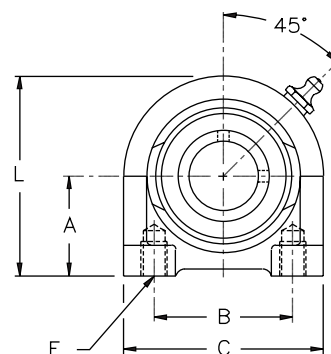
△ Available with E3 triple lip seals.

Intermediate Ball Bearing Pillow Blocks

PT3-S200E

Cast Iron Housing
Standard Backing Height
Alignable

Spring Locking
Relubricatable
Extended Inner Ring
Available in Nickel Plate□
Available in DURA-KLEAN



Dimensions (inches/mm)

Shaft Diameter inches	Pillow block number	A †	B	C	D	E	F		L	N	U	Unit Wt. (lbs./kg)	Bearing no.
							Tap	Min. Depth					
3/4	PT3-S212E	1 ⁵ / ₁₆ 33.34	2 50.80	2 ⁷ / ₈ 73.0	1 ¹ / ₈ 28.58	1 ¹ / ₂ 38.1	3/8-16 —	1/2 12.7	2 ¹⁹ / ₃₂ 65.9	1 ¹ / ₈ 28.6	3/4 19.0	1.0 .45	SG212EL
7/8 1 ⁵ / ₁₆ 1	PT3-S214E PT3-S215E PT3-S216E	1 ⁷ / ₁₆ 36.51	2 50.80	2 ⁷ / ₈ 73.0	1 ³ / ₁₆ 30.17	1 ¹ / ₂ 38.1	3/8-16 —	1/2 12.7	2 ⁷ / ₈ 73.0	1 ⁵ / ₁₆ 33.3	1 ³ / ₁₆ 20.6	1.3 1.3 1.2	SG214EL SG215EL SG216EL
1 ¹ / ₈ 1 ³ / ₁₆ 1 ¹ / ₄	PT3-S218E PT3-S219E PT3-S2E20E	1 ¹¹ / ₁₆ 42.86	3 76.20	4 101.6	1 ¹¹ / ₃₂ 34.13	1 ¹ / ₂ 38.1	7/16-14 —	5/8 15.9	3 ⁵ / ₁₆ 84.1	1 ¹⁹ / ₃₂ 40.5	6 ¹ / ₆₄ 24.2	2.3 2.3 2.2	SG218EL SG219EL SG2E20EL
1 ¹ / ₄ 1 ³ / ₈ 1 ⁷ / ₁₆	PT3-S220E PT3-S222E PT3-S223E	1 ⁷ / ₈ 47.62	3 ¹ / ₄ 82.55	4 ¹³ / ₃₂ 111.9	1 ⁹ / ₁₆ 39.67	1 ⁷ / ₈ 47.6	1/2-13 —	3/4 19.0	3 ¹¹ / ₁₆ 93.7	1 ²⁷ / ₃₂ 46.9	1 ⁷ / ₆₄ 28.2	3.1 3.1 3.0	SG220EL SG222EL SG223EL
1 ¹¹ / ₁₆ 1 ³ / ₄	PT3-S227E PT3-S228E	2 ¹ / ₈ 53.98	3 ³ / ₄ 95.25	5 127.0	1 ⁴⁹ / ₆₄ 44.85	2 50.8	1/2-13 —	7/8 22.2	4 ¹ / ₄ 108.0	2 ⁹ / ₃₂ 57.94	1 ¹⁵ / ₆₄ 31.4	4.8 2.18	SG227EL SG228EL
1 ¹⁵ / ₁₆	PT3-S231E	2 ¹ / ₄ 57.15	4 101.60	5 ⁷ / ₁₆ 138.1	1 ¹¹ / ₁₆ 42.87	2 50.8	5/8-11 —	7/8 22.2	4 ¹ / ₂ 114.3	2 ¹⁹ / ₃₂ 62.7	1 ¹³ / ₆₄ 30.6	5.3 2.36	SG231EL

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size, 1/8" PT.

† Tolerance, +.000" —.010" (+0.00 mm —0.25 mm).

□ Nickel plated housings available add Suffix K75, i.e. PL3-S212EK75. Nickel plated units are furnished prelubricated with food grade grease and black oxide coated inner and outer rings.

Selection guide, pages B-9, B-10.

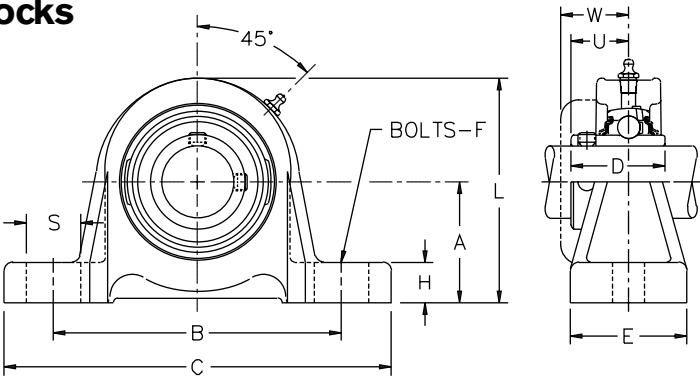
Load ratings, pages B-11, B-12.

Additional information, page B-76.

Standard Duty Ball Bearing Pillow Blocks

PH3-U200N

Cast Iron Housing
High Backing Height
Alignable
Spring Locking
Relubricatable
Wide Inner Ring



Dimensions (inches/mm)

Shaft Diameter		Pillow block number ■	A †	B	C	D	E	F Bolts	H	L	S	U	W ◆	Unit wt. (lbs./kg)	Bearing no.
mm	inches	Lip seals													
30	1 1/8	PH3-U218N	2	5 1/2	7	1 1/16	1 15/16	1/2	1 1/16	3 5/8	7/8	6 1/64	1 25/64	3.8	UG218NL
	1 3/16	PH3-U219N												3.7	UG219NL
	1 1/4	PH3-U2E20N												3.7	UG2E20NL
		PH3-U2M30N												1.6	UG2M30NL
35	1 1/4	PH3-U220N	2 3/8	6 1/4	8 1/4	1 49/64	2 1/2	5/8	3/4	4 1/4	1 1/4	1 7/64	1 35/64	4.8	UG220NL
	1 3/8	PH3-U222N												4.7	UG222NL
	1 7/16	PH3-U223N												4.7	UG223NL
		PH3-U2M35N												2.2	UG2M35NL
45	1 3/8	PH3-U226N	2 3/8	6 5/8	8 1/4	2 1/32	2 3/8	5/8	3/4	4 9/16	1 5/16	1 15/64	1 21/32	7.9	UG226NL
	1 11/16	PH3-U227N												7.9	UG227NL
	1 3/4	PH3-U228N												7.8	UG228NL
		PH3-U2M45N												3.5	UG2M45NL
50	1 15/16	PH3-U231N	2 3/4	8 1/16	10 1/8	2 3/32	2 5/8	5/8	7/8	5	1 1/4	1 17/64	1 53/64	9.5	UG231NL
		PH3-U2M50N	69.85	204.8	257.2	53.18	66.7	16	22.2	127.0	31.8	32.1	46.4	4.2	UG2M50NL
55	2	PH3-U232N	3 1/8	8 7/8	11 3/8	2 1/4	3	5/8	7/8	5 5/8	1 1/8	1 13/32	2 1/64	13.2	UG232NL
	2 3/16	PH3-U235N												13.1	UG235NL
		PH3-U2M55N												5.9	UG2M55NL
60	2 1/4	PH3-U236N	3 1/8	8 7/8	11 3/8	2 1/2	3	3/4	7/8	5 7/8	1 1/4	1 9/16	2 7/64	14.4	UG236NL
	2 3/8	PH3-U238N												14.4	UG238NL
	2 7/16	PH3-U239N												14.3	UG239NL
		PH3-U2M60N												6.5	UG2M60NL

Please consult for availability.

Lubrication fitting tap size, 1/8" PT.

■ N lip seals standard. H labyrinth seals available.

† Tolerance, +.000" –.010" (+0.00 mm –0.25 mm).

◆ Width dimension for closed end unit.

Selection guide, pages B-9, B-10.

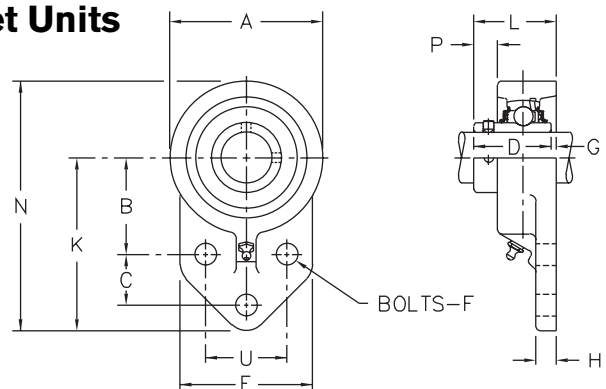
Load ratings, pages B-11, B-12.

Additional information, page B-75.

Standard Duty Ball Bearing Flanged Bracket Units

FB3-U200N

Cast Iron Housing
3-bolt Mounting
Alignable
Spring Locking
Relubricatable
Wide Inner Ring



Dimensions (inches/mm)

Shaft Diameter	Flanged unit number	A	B	C	D	E	F	G	H	K	L	N	P	U	Unit wt. (lbs./kg)	Bearing no.
mm inches							Bolts									
20	$\frac{3}{4}$ FB3-U212N FB3-U2M20N	2½ 63.5	1⅞ 42.9	⅞ 22.2	1⅝ 32.5	2⅝ 60.3	⅜ 10	⅛ 1.6	⅝ 7.9	3 76.2	1⅞ 34.1	4¼ 108.0	1⅝ 8.7	1½ 38.1	1.4 .64	UG212NL UG2M20NL
25	$\frac{7}{8}$ FB3-U214N △	2¾ 69.8	1⅞ 46.0	1⅞ 28.6	1⅝ 34.53	2½ 63.5	⅜ 10	⅜ 2.4	⅝ 9.5	3⅝ 85.7	1⅞ 38.9	4¾ 120.6	1⅝ 7.5	1½ 41.3	1.9 1.9 1.8	UG214NL UG215NL UG216NL UG2M25NL
	$\frac{15}{16}$ FB3-U215N △															
	1 FB3-U216N △ FB3-U2M25N															
30	$\frac{1}{8}$ FB3-U218N	3¼ 82.6	2⅞ 52.3	1¼ 31.8	1⅝ 39.69	2¾ 69.8	⅜ 10	⅛ 1.6	⅝ 9.5	3⅝ 95.2	1⅞ 43.7	5⅝ 136.5	⅝ 9.5	1⅞ 47.6	2.6 2.5 2.5	UG218NL UG219NL UG2E20NL UG2M30NL
	$\frac{13}{16}$ FB3-U219N															
	$\frac{1}{4}$ FB3-U2E20N FB3-U2M30N															
35	$\frac{1}{4}$ FB3-U220N △	3¾ 95.2	2⅝ 60.3	1¼ 31.8	1⅝ 44.85	3¼ 82.6	½ 12	⅝ 4.0	⅞ 12.7	4¼ 108.0	1⅞ 48.8	6⅝ 155.6	¾ 12.3	2 50.8	3.5 3.4 3.4	UG220NL UG222NL UG223NL UG2M35NL
	$\frac{13}{16}$ FB3-U222N △															
	$\frac{1}{2}$ FB3-U223N △ FB3-U2M35N															

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size, ¼"-28 UNF.

■ N lip seals standard. H labyrinth seals available.

△ Available with E3 triple lip seals.

◆ Width dimension for closed end unit.

Selection guide, pages B-9, B-10.

Load ratings, pages B-11, B-12.

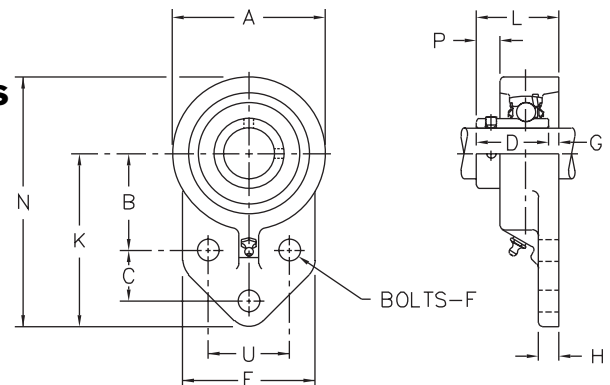
Additional information, page B-75.

Intermediate Ball Bearing Flanged Bracket Units

FB3-S200E

Cast Iron Housing
3-bolt Mounting
Alignable
Spring Locking

Relubricatable
Extended Inner Ring
Available in Nickel Plate □
Available in DURA-KLEAN



Dimensions (inches/mm)

Shaft Diameter	Flanged unit number	A	B	C	D	E	F	G	H	K	L	N	P	U	Unit wt. (lbs./kg)	Bearing no.
Inches							Bolts									
$\frac{3}{4}$	FB3-S212E	2½ 63.5	1⅞ 42.9	⅞ 22.2	1⅝ 28.58	2⅝ 60.3	⅜ 10	⅛ 1.6	⅝ 7.9	3 76.2	1⅞ 34.1	4¼ 108.0	1⅝ 8.7	1½ 38.1	1.2 .54	SG212EL
$\frac{7}{8}$ $\frac{15}{16}$ 1	FB3-S214E	2¾ 69.8	1⅞ 46.0	1⅞ 28.6	1⅝ 30.17	2½ 63.5	⅜ 10	⅜ 2.4	⅝ 9.5	3⅝ 85.7	1⅞ 38.9	4¾ 120.6	1⅝ 7.5	1½ 41.3	1.7 1.7 1.6	SG214EL SG215EL SG216EL
	FB3-S215E															
	FB3-S216E															
$\frac{1}{8}$ $\frac{13}{16}$ $\frac{1}{4}$	FB3-S218E	3¼ 82.6	2⅞ 52.3	1¼ 31.8	1⅝ 34.13	2¾ 69.8	⅜ 10	⅛ 1.6	⅝ 9.5	3⅝ 95.2	1⅞ 43.7	5⅝ 136.5	⅝ 9.5	1⅞ 47.6	2.2 2.2 2.1	SG218EL SG219EL SG2E20EL
	FB3-S219E															
	FB3-S2E20E															
$\frac{1}{4}$ $\frac{13}{16}$ $\frac{1}{2}$	FB3-S220E	3¾ 95.2	2⅝ 60.3	1¼ 31.8	1⅝ 39.67	3¼ 82.6	½ 12	⅝ 4.0	⅞ 12.7	4¼ 108.0	1⅞ 48.8	6⅝ 155.6	¾ 12.3	2 50.8	3.2 3.2 3.1	SG220EL SG222EL SG223EL
	FB3-S222E															
	FB3-S223E															

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size, ¼"-28 UNF.

□ Nickel plated housings; add suffix K75, (i.e. FB3-S212EK75).

Nickel plated units are furnished prelubricated with food grade grease and black oxide coated inner and outer rings.

Selection guide, pages B-9, B-10.

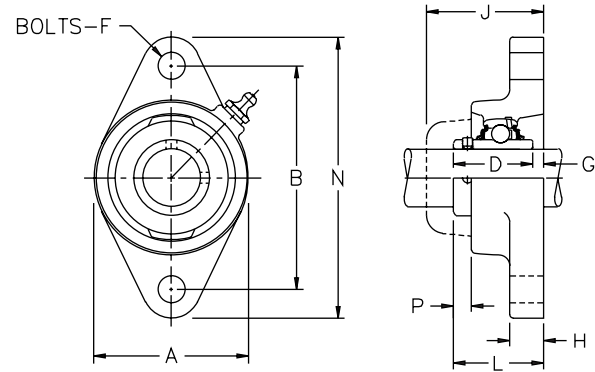
Load ratings, pages B-11, B-12.

Additional information, page B-76.

Standard Duty Ball Bearing Flanged Units

FX3-U200N

Cast Iron Housing
2-bolt Mounting
Alignable
Spring Locking
Relubricatable
Wide Inner Ring
Available in Nickel Plate □



Dimensions (inches/mm)

Shaft Diameter		Flanged unit number ■	A	B	D	F	G	H	J	L	N	P	Unit wt. (lbs./kg)	Bearing no.
mm	inches	Lip seals				Bolts			◆					
17	1/2	FX3-U2B08N	2 1/8	3	1 3/32	3/8	5/32	1/2	1 25/32	1 1/4	3 7/8	1/4	1.0	UG2B08NL
	5/8	FX3-U210N											.9	UG210NL
	1 1/16	FX3-U211N											.9	UG211NL
		FX3-U2M17N											0.5	UG2M17NL
20	3/4	FX3-U212N	2 7/16	3 17/32	1 9/32	3/8	13/64	9/16	2 1/64	1 31/64	4 13/32	9/32	1.2	UG212NL
		FX3-U2M20N	61.9	89.69	32.54	10	5.2	14.3	51.2	37.7	111.9	7.1	0.6	UG2M20NL
25	7/8	FX3-U214N△	2 1 1/16	3 57/64	1 23/64	7/16	3/16	19/32	2	1 35/64	4 29/32	19/64	1.6	UG214NL
	15/16	FX3-U215N△											1.6	UG215NL
	1	FX3-U216N△											1.5	UG216NL
		FX3-U2M25N											0.7	UG2M25NL
30	1 1/8	FX3-U218N	3 3/16	4 19/32	1 9/16	7/16	1 1/64	19/32	2 15/64	1 47/64	5 19/32	27/64	2.5	UG218NL
	1 3/16	FX3-U219N											2.4	UG219NL
	1 1/4	FX3-U2E20N											2.4	UG2E20NL
		FX3-U2M30N											1.0	UG2M30NL
35	1 1/4	FX3-U220N△	3 5/8	5 1/8	1 49/64	1/2	5/32	5/8	2 23/64	1 59/64	6 1/8	33/64	3.1	UG220NL
	1 3/8	FX3-U222N△											3.0	UG222NL
	1 7/16	FX3-U223N△											3.0	UG223NL
		FX3-U2M35N											1.4	UG2M35NL
40	1 1/2	FX3-U224N△	4	5 21/32	1 29/32	1/2	1 1/64	5/8	2 35/64	2 5/64	6 25/32	1/2	4.2	UG224NL
		FX3-U2M40N	101.6	143.67	48.42	12	4.4	15.9	64.7	52.8	172.2	12.7	1.9	UG2M40NL
45	1 5/8	FX3-U226N△	4 1/4	5 27/32	2 1/32	1/2	7/64	5/8	2 9/16	2 9/64	7 3/32	35/64	5.1	UG226NL
	1 11/16	FX3-U227N△											5.1	UG227NL
	1 3/4	FX3-U228N△											5.0	UG228NL
		FX3-U2M45N											2.2	UG2M45NL
50	1 15/16	FX3-U231N△	4 9/16	6 3/16	2 3/32	9/16	19/64	3/4	2 57/64	2 25/64	7 7/16	9/16	6.3	UG231NL
	2	FX3-U2E32N△											6.2	UG2E32NL
		FX3-U2M50N											2.8	UG2M50NL
			115.9	157.16	53.18	14	7.5	19.0	73.4	60.7	188.9	14.3		
55	2	FX3-U232N△	5	7 1/4	2 1/4	5/8	13/32	13/16	3 1/4	2 21/32	8 1/2	2 1/32	7.4	UG232NL
	2 3/16	FX3-U235N△											7.3	UG235NL
		FX3-U2M55N											3.3	UG2M55NL

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size: for 1 1/16" (17 mm) and smaller shafts, 1/4"-28 UNF; for all other shafts, 1/8" PT.

■ N lip seals standard. H labyrinth seals available.

□ Nickel plated housings available through size 235; add suffix K75, i.e. FX3-U2B08NK75.

△ Available with E3 triple lip seals.

◆ Width dimension for closed end unit.

Selection guide, pages B-9, B-10.

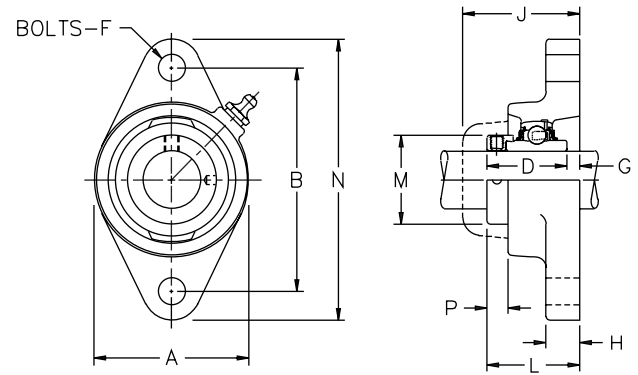
Load ratings, pages B-11, B-12.

Additional information, page B-75.

Standard Duty Ball Bearing Flanged Units

FX3-Y200N

Cast Iron Housing
2-bolt Mounting
Alignable
Eccentric Cam Locking Collar
Relubricatable
Wide Inner Ring



Dimensions (inches/mm)

Shaft Diameter inches	Flanged unit number ■ Lip seals	A	B	D	F Bolts	G	H	J ◆	L	M	N	P	Unit wt. (lbs./kg)	Bearing no.
1/2 5/8 11/16	FX3-Y2B08N FX3-Y210N FX3-Y211N	2 1/8 54.0	3 76.20	1 15/32 37.31	3/8 10	1/16 1.6	1/2 12.7	1 25/32 45.2	1 17/32 38.9	1 1/8 28.6	3 7/8 98.4	3 3/64 13.1	1.0 0.5	YG2B08NL YG210NL YG211NL
3/4	FX3-Y212N	2 7/16 61.9	3 17/32 89.69	1 23/32 43.66	3/8 10	1/16 1.6	9/16 14.3	2 1/64 51.2	1 51/64 45.6	1 5/16 33.3	4 13/32 111.9	3 7/64 14.7	1.3 0.6	YG212NL
7/8 15/16 1	FX3-Y214N △ FX3-Y215N △ FX3-Y216N △	2 11/16 68.3	3 57/64 98.82	1 3/4 44.45	7/16 10	1/16 1.6	1 9/32 15.1	2 50.8	1 13/16 46.0	1 1/2 38.1	4 29/32 124.6	3 5/64 13.9	1.7 0.8	YG214NL YG215NL YG216NL
1 1/8 1 3/16 1 1/4	FX3-Y218N FX3-Y219N FX3-Y2E20N	3 3/16 81.0	4 19/32 116.68	1 29/32 48.42	7/16 10	1/16 1.6	1 9/32 15.1	2 15/64 56.7	1 31/32 50.0	1 3/4 44.4	5 19/32 142.1	2 1/32 16.7	2.5 1.1	YG218NL YG219NL YG2E20NL
1 1/4 1 3/8 1 7/16	FX3-Y220N △ FX3-Y222N △ FX3-Y223N △	3 5/8 92.1	5 1/8 130.18	2 1/64 51.20	1 1/2 12	1/16 1.6	5/8 15.9	2 23/64 59.9	2 5/64 52.8	2 3/16 55.6	6 1/8 155.6	1 1/16 17.5	3.3 1.5	YG220NL YG222NL YG223NL
1 1/2	FX3-Y224N △	4 101.6	5 21/32 143.67	2 7/32 56.36	1 1/2 12	1/16 1.6	5/8 15.9	2 35/64 65.1	2 9/32 57.9	2 3/8 63.5	6 25/32 180.2	4 5/64 17.5	4.5 2.5	YG224NL
1 5/8 1 11/16 1 3/4	FX3-Y226N △ FX3-Y227N △ FX3-Y228N △	4 1/4 108.0	5 27/32 148.3	2 7/32 56.36	1 1/2 12	1/16 1.6	5/8 15.9	2 9/16 64.7	2 9/32 57.9	2 1/2 60.3	7 3/32 172.2	1 1/16 17.8	5.4 2.5	YG226NL YG227NL YG228NL
1 15/16 2	FX3-Y231N △ FX3-Y2E32N △	4 9/16 115.9	6 3/16 157.16	2 15/32 62.71	9/16 14	5/32 4.0	3/4 19.0	2 57/64 73.4	2 5/8 66.7	2 3/4 69.8	7 7/16 188.9	2 5/32 19.8	6.6 3.0	YG231NL YG2E32NL
2 2 3/16	FX3-Y232N △ FX3-Y235N △	5 127.0	7 1/4 184.15	2 13/16 71.44	5/8 16	5/32 4.0	1 1/16 20.6	3 1/4 82.6	2 31/32 75.4	3 76.2	8 1/2 215.9	3 1/32 24.6	8.0 3.6	YG232NL YG235NL

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size: for 1 1/16" and smaller shaft sizes, 1/4"-28 UNF; for all other shafts, 1/8" PT.

■ N lip seals standard. H labyrinth seals available.

△ Available with E3 triple lip seals.

◆ Width dimension for closed end unit.

Selection guide, pages B-9, B-10.

Load ratings, pages B-11, B-12.

Additional information, page B-75.

Intermediate Ball Bearing Flanged Units

FX3-W200E

Cast Iron Housing

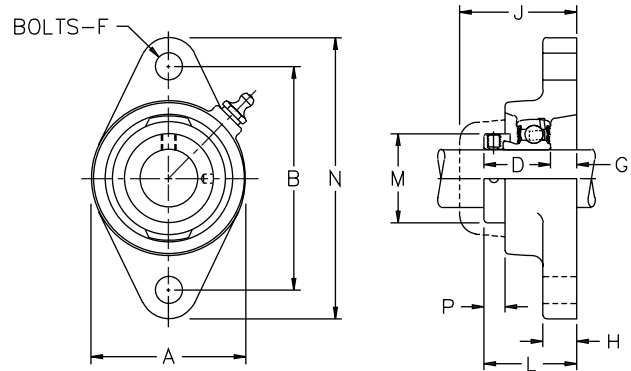
2-bolt Mounting

Alignable

Eccentric Cam Locking Collar

Relubricatable

Extended Inner Ring



Dimensions (inches/mm)

Shaft Diameter inches	Flanged unit number	A	B	D	F Bolts	G	H	J ◆	L	M	N	P	Unit wt. (lbs./kg)	Bearing no.
$\frac{1}{2}$ $\frac{5}{8}$	FX3-W2B08E FX3-W210E	$2\frac{1}{8}$ 54.0	3 76.20	$1\frac{1}{8}$ 28.58	$\frac{3}{8}$ 10	$\frac{23}{64}$ 9.1	$\frac{1}{2}$ 12.7	$1\frac{25}{32}$ 45.2	$1\frac{31}{64}$ 37.7	$1\frac{1}{8}$ 28.6	$\frac{37}{8}$ 98.4	$\frac{15}{32}$ 11.9	.6 0.3	WG2B08EL WG210EL
$\frac{3}{4}$	FX3-W212E	$2\frac{7}{16}$ 61.9	$3\frac{17}{32}$ 89.69	$1\frac{1}{32}$ 30.96	$\frac{3}{8}$ 10	$\frac{7}{16}$ 11.1	$\frac{9}{16}$ 14.3	$2\frac{1}{64}$ 51.2	$1\frac{21}{32}$ 42.1	$1\frac{1}{16}$ 33.3	$4\frac{13}{32}$ 111.9	$\frac{29}{64}$ 11.5	1.0 0.4	WG212EL
$\frac{7}{8}$ $\frac{15}{16}$ 1	FX3-W214E FX3-W215E FX3-W216E	$2\frac{11}{16}$ 68.3	$3\frac{9}{64}$ 98.82	$1\frac{1}{32}$ 30.96	$\frac{7}{16}$ 10	$\frac{29}{64}$ 11.5	$\frac{19}{32}$ 15.1	2 50.8	$1\frac{43}{64}$ 42.5	$1\frac{1}{2}$ 38.1	$4\frac{29}{32}$ 124.6	$\frac{27}{64}$ 10.7	1.4 0.6	WG214EL WG215EL WG216EL
$1\frac{1}{8}$ $1\frac{3}{8}$ $1\frac{1}{4}$	FX3-W218E FX3-W219E FX3-W2E20E	$3\frac{3}{16}$ 81.0	$4\frac{19}{32}$ 116.68	$1\frac{13}{32}$ 35.72	$\frac{7}{16}$ 10	$\frac{27}{64}$ 10.7	$\frac{19}{32}$ 15.1	$2\frac{15}{64}$ 56.7	$1\frac{53}{64}$ 64.4	$1\frac{3}{4}$ 44.4	$5\frac{19}{32}$ 142.1	$\frac{33}{64}$ 13.1	2.1 1.0	WG218EL WG219EL WG2E20EL
$1\frac{1}{4}$ $1\frac{3}{8}$ $1\frac{7}{16}$	FX3-W220E FX3-W222E FX3-W223E	$3\frac{5}{8}$ 92.1	$5\frac{1}{8}$ 130.18	$1\frac{17}{32}$ 38.89	$\frac{1}{2}$ 12	$\frac{7}{16}$ 11.1	$\frac{5}{8}$ 15.9	$2\frac{23}{64}$ 59.9	$1\frac{31}{32}$ 50.0	$2\frac{3}{16}$ 55.6	$6\frac{1}{8}$ 155.6	$\frac{9}{16}$ 14.3	3.0 1.4	WG220EL WG222EL WG223EL
$1\frac{1}{2}$	FX3-W224E	4 101.6	$5\frac{21}{32}$ 143.67	$1\frac{29}{32}$ 43.66	$\frac{1}{2}$ 12	$\frac{15}{32}$ 11.9	$\frac{5}{8}$ 15.9	$2\frac{35}{64}$ 64.7	$2\frac{3}{16}$ 55.6	$2\frac{3}{8}$ 60.3	$6\frac{25}{32}$ 172.2	$\frac{39}{64}$ 15.5	4.0 1.8	WG224EL
$1\frac{5}{8}$ $1\frac{11}{16}$ $1\frac{3}{4}$	FX3-W226E FX3-W227E FX3-W228E	$4\frac{1}{4}$ 108.0	$5\frac{27}{32}$ 148.43	$1\frac{23}{32}$ 43.66	$\frac{1}{2}$ 12	$\frac{15}{32}$ 11.9	$\frac{5}{8}$ 15.9	$2\frac{9}{16}$ 65.1	$2\frac{3}{16}$ 55.6	$2\frac{1}{2}$ 63.5	$7\frac{3}{32}$ 180.2	$\frac{19}{32}$ 15.1	4.7 2.1	WG226EL WG227EL WG228EL
$1\frac{15}{16}$ 2	FX3-W231E FX3-W2E32E	$4\frac{9}{16}$ 115.9	$6\frac{3}{16}$ 157.16	$1\frac{23}{32}$ 43.66	$\frac{9}{16}$ 14	$\frac{11}{16}$ 17.5	$\frac{3}{4}$ 19.0	$2\frac{57}{64}$ 73.4	$2\frac{13}{32}$ 61.1	$2\frac{3}{4}$ 69.8	$7\frac{7}{16}$ 188.9	$\frac{9}{16}$ 14.3	5.7 2.6	WG231EL WG2E32EL

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size: for $\frac{1}{16}$ " and smaller shaft sizes, $\frac{1}{4}$ "-28 UNF; for all other shafts, $\frac{1}{8}$ " PT.

◆ Width dimension for closed end unit.

Selection guide, pages B-9, B-10.

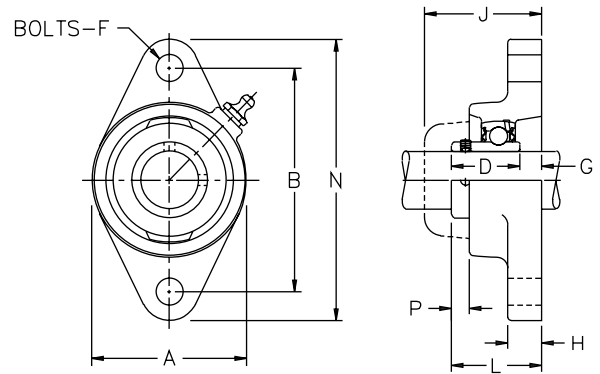
Load ratings, pages B-11, B-12.

Additional information, page B-76.

Intermediate Ball Bearing Flanged Units

FX3-S200E

Cast Iron Housing
 2-bolt Mounting
 Alignable
 Spring Locking
 Relubricatable
 Extended Inner Ring
 Available in Nickel Plate □
 Available in DURA-KLEAN ■



Dimensions (inches/mm)

Shaft Diameter inches	Flanged unit number	A	B	D	F Bolts	G	H	J	L	N	P	Unit wt. (lbs./kg)	Replacement bearing no.
3/4	FX3-S212E	27 ¹ / ₁₆ 61.9	317 ³ / ₃₂ 89.69	1 1/8 28.58	3/8 10	23 ³ / ₆₄ 9.1	9/16 14.3	21 ¹ / ₆₄ 51.2	131 ¹ / ₆₄ 37.7	413 ³ / ₃₂ 111.9	9/32 7.1	1.1 .50	SG212EL
7/8 15/16 1	FX3-S214E FX3-S215E FX3-S216E	211 ¹ / ₁₆ 68.3	357 ³ / ₆₄ 98.82	1 3/16 30.17	7/16 10	3/8 9.5	19/32 15.1	2 50.8	19/16 39.7	429 ³ / ₃₂ 124.6	5/16 7.9	1.5 1.5 1.4 .64	SG214EL SG215EL SG216EL
1 1/8 1 3/16 1 1/4	FX3-S218E FX3-S219E FX3-S2E20E	3 3/16 81.0	419 ³ / ₃₂ 116.68	1 11/32 34.13	7/16 10	25/64 9.9	19/32 15.1	215 ¹ / ₆₄ 56.7	147 ¹ / ₆₄ 44.0	519 ³ / ₃₂ 142.1	27/64 10.7	2.2 2.1 2.1 .95	SG218EL SG219EL SG2E20EL
1 1/4 1 3/8 1 7/16	FX3-S220E FX3-S222E FX3-S223E	3 5/8 92.1	5 1/8 130.18	1 9/16 39.69	1/2 12	23/64 9.1	5/8 15.9	223 ³ / ₆₄ 59.9	199 ¹ / ₆₄ 48.8	6 1/8 155.6	33/64 13.1	2.8 2.7 2.6 1.18	SG220EL SG222EL SG223EL
1 1/2	FX3-S224E	4 101.6	521 ³ / ₃₂ 143.67	1 11/16 42.87	1/2 12	27/64 10.7	5/8 15.9	235 ³ / ₆₄ 64.7	27/64 53.6	625 ³ / ₃₂ 172.2	17/32 13.5	3.8 1.73	SG224EL
1 5/8 1 11/16 1 3/4	FX3-S226E FX3-S227E FX3-S228E	4 1/4 108.0	527 ³ / ₃₂ 148.43	1 49/64 44.85	1/2 12	3/8 9.5	5/8 15.9	29/16 65.1	29/64 54.4	7 3/32 180.2	35/64 13.9	4.4 4.4 4.3 1.95	SG226EL SG227EL SG228EL
1 5/16	FX3-S231E	4 9/16 115.9	6 3/16 157.16	1 51/64 45.64	9/16 14	19/32 15.1	3/4 19.0	257 ¹ / ₆₄ 73.4	225 ³ / ₆₄ 60.7	77/16 188.9	35/64 13.9	5.6 2.54	SG231EL

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size, 1/8" PT.

■ DURA-KLEAN coated housings available; add prefix W, i.e. WFX3-S212E.

□ Nickel plated housings available, add suffix K75, i.e. FX3-S212EK75.

Nickel plated units are furnished prelubricated with food grade grease and black oxide coated inner and outer rings.

◆ Width dimension for closed end unit.

Selection guide, pages B-9, B-10.

Load ratings, pages B-11, B-12.

Additional information, page B-76.

Standard Duty Ball Bearing Flanged Units

F3-U200N

Cast Iron Housing

4-bolt Mounting

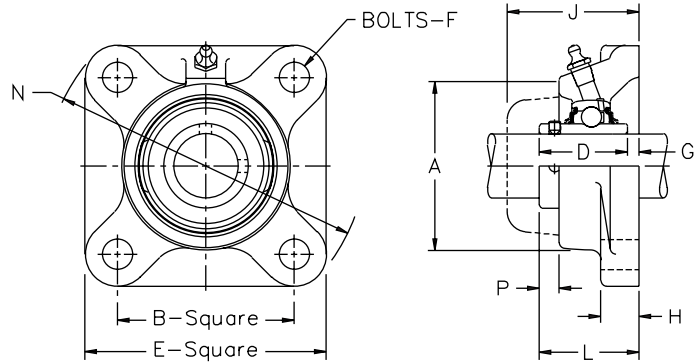
Alignable

Spring Locking

Relubricatable

Wide Inner Ring

Available in Nickel Plate □



Dimensions (inches/mm)

Shaft Diameter		Flanged unit number ■	A	B	D	E	F	G	H	J	L	M	N	P	Unit wt.	Bearing no.
mm	inches	Lip seals					Bolts			◆		Collar O.D.			(lbs./kg)	
17	1/2	F3-U2B08N	2 1/8	2 1/8	1 3/32	3	3/8	5/32	1/2	1 25/32	1 1/4	...	3 7/8	1/4	1.1	UG2B08NL
	5/8	F3-U210N													1.0	UG210NL
	11/16	F3-U211N													1.0	UG211NL
		F3-U2M17N													0.5	UG2M17NL
20	3/4	F3-U212N	2 7/16	2 1/2	1 3/32	3 3/8	3/8	13/64	9/16	2 1/64	1 31/64	...	4 13/32	9/32	1.5	UG212NL
		F3-U2M20N	61.9	63.50	32.54	85.7	10	5.2	14.3	51.2	37.7	...	111.9	7.1	0.7	UG2M20NL
25	7/8	F3-U214N△	2 11/16	2 3/4	1 23/64	3 3/4	7/16	3/16	1 9/32	2	1 35/64	...	4 29/32	1 9/64	1.9	UG214NL
	15/16	F3-U215N△													1.9	UG215NL
	1	F3-U216N△													1.8	UG216NL
		F3-U2M25N													0.9	UG2M25NL
30	1 1/8	F3-U218N	3 3/16	3 1/4	1 9/16	4 1/4	7/16	1 1/64	1 9/32	2 15/64	1 47/64	...	5 19/32	7/16	3.2	UG218NL
	1 3/16	F3-U219N													3.1	UG219NL
	1 1/4	F3-U2E20N													3.1	UG2E20NL
		F3-U2M30N													1.3	UG2M30NL
35	1 1/4	F3-U220N△	3 5/8	3 5/8	1 49/64	4 5/8	1/2	5/32	5/8	2 23/64	1 59/64	...	6 1/8	33/64	4.0	UG220NL
	1 3/8	F3-U222N△													3.9	UG222NL
	1 7/16	F3-U223N△													3.9	UG223NL
		F3-U2M35N													1.7	UG2M35NL
40	1 1/2	F3-U224N△	4	4	1 29/32	5 1/8	1/2	1 1/64	5/8	2 35/64	2 5/64	...	6 25/32	1/2	5.0	UG224NL
		F3-U2M40N	101.6	101.60	48.42	130.2	12	4.4	15.9	64.7	52.8	...	172.2	12.7	2.3	UG2M40NL
45	1 5/8	F3-U226N△	4 1/4	4 1/8	2 1/32	5 3/8	1/2	7/64	5/8	2 9/16	2 9/64	...	7 3/32	35/64	6.2	UG226NL
	1 11/16	F3-U227N△													6.2	UG227NL
	1 3/4	F3-U228N△													6.1	UG228NL
		F3-U2M45N													2.6	UG2M45NL
50	1 15/16	F3-U231N△	4 1/2	4 3/8	2 3/32	5 5/8	1/2	13/64	3/4	2 13/16	2 19/64	...	7 7/16	9/16	6.9	UG231NL
	2	F3-U2E32N△													6.8	UG2E32NL
		F3-U2M50N													3.0	UG2M50NL
55	2	F3-U232N△	4 15/16	5 1/8	2 1/4	6 3/8	5/8	5/16	2 9/32	3 11/64	2 9/16	...	8 1/2	5/8	8.9	UG232NL
	2 3/16	F3-U235N△													8.8	UG235NL
		FE-U2M55N													3.9	UG2M55NL
60	2 1/4	F3-U236N	5 3/8	5 5/8	2 1/2	6 7/8	5/8	1 1/32	1 9/16	3 25/64	2 27/32	...	9 7/32	4 1/64	11.9	UG236NL
	2 3/8	F3-U238N													11.9	UG238NL
	2 7/16	F3-U239N													11.8	UG239NL
		F3-U2M60N													5.4	UG2M60NL
65	2 1/2	F3-U240N	5 7/8	5 7/8	2 11/16	7 3/8	5/8	3/32	3/4	3 5/32	2 25/32	4 3/16	9 13/16	5/8	14.7	UG240NL
	2 11/16	F3-U243N													14.0	UG243NL
		F3-U2M65N													6.0	UG2M65NL
75	2 3/4	F3-U244N	6 3/8	6	2 7/8	7 3/4	3/4	3/32	3/4	3 3/8	2 31/32	4 5/8	10 1/4	1 1/16	18.0	UG244NL
	2 15/16	F3-U247N													17.2	UG247NL
	3	F3-U2E48N													17.0	UG2E48NL
		F3-U2M75N													7.8	UG2M75NL
85	3 7/16	F3-U255N	7 1/2	6 3/4	3 9/16	8 9/16	3/4	3/32	1	4 1/32	3 21/32	5 3/16	11 3/8	3/4	26.0	UG255NL
	3 1/2	F3-U2E56N													25.5	UG2E56NL
		F3-U2M85N													11.9	UG2M85NL

Bold face items are normally available from stock; please consult for availability of non-stock items.

Shaft sizes over 2 7/16" have collars.

Lubrication fitting tap size: for 1 1/16" (17 mm) and smaller shafts, 1/4"-28 UNF; for all other shafts, 1/8" PT.

■ N lip seals standard. H labyrinth seals available.

□ Nickel plated housings available through size 239; add Suffix K75, i.e. F3-U2B08NK75.

△ Available with E3 triple lip seals.

◆ Width dimension for closed end unit.

Selection guide, pages B-9, B-10.

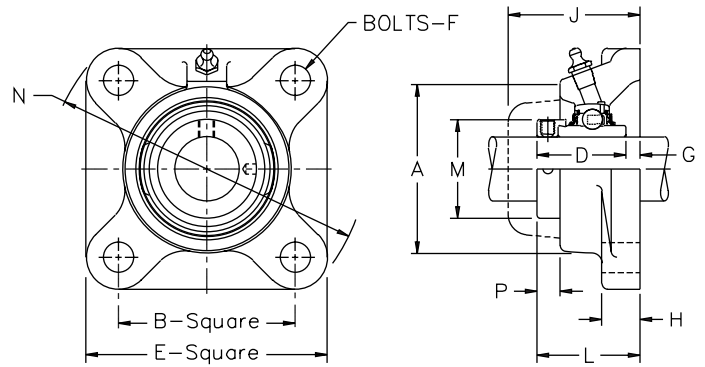
Load ratings, pages B-11, B-12.

Additional information, page B-75.

Standard Duty Ball Bearing Flanged Units

F3-Y200N

Cast Iron Housing
4-bolt Mounting
Alignable
Eccentric Cam Locking Collar
Relubricatable
Wide Inner Ring



Dimensions (inches/mm)

Shaft Diameter inches	Flanged unit number ■	A	B	D	E	F Bolts	G	H	J	L	M	N	P	Unit wt. (lbs./kg)	Bearing no.
	Lip seals								◆						
3/4	F3-Y212N	27/16 61.9	2 1/2 63.50	1 23/32 43.66	3 3/8 85.7	3/8 10	1/16 1.6	9/16 14.3	2 1/64 51.2	1 51/64 45.6	1 5/16 33.3	4 13/32 111.9	37/64 14.7	1.6 0.7	YG212NL
7/8	F3-Y214N△	2 11/16 68.3	2 3/4 69.85	1 3/4 44.45	3 3/4 95.2	7/16 10	1/16 1.6	1 9/32 15.1	2 50.8	1 13/16 46.0	1 1/2 38.1	4 29/32 124.6	3 5/64 13.9	2.0 0.9	YG214NL
1 5/16	F3-Y215N△														YG215NL
1	F3-Y216N△														YG216NL
1 1/8	F3-Y218N	3 3/16 81.0	3 1/4 82.55	1 29/32 48.42	4 1/4 108.0	7/16 10	1/16 1.6	1 9/32 15.1	2 15/64 56.7	1 31/32 50.0	1 3/4 44.4	5 19/32 142.1	2 1/32 16.7	3.2 1.5	YG218NL
1 3/16	F3-Y219N														YG219NL
1 1/4	F3-Y220N														YG220NL
1 1/4	F3-Y220N△	3 3/8 92.1	3 3/8 92.08	2 1/64 51.20	4 5/8 117.5	1/2 12	1/16 1.6	5/8 15.9	2 23/64 59.9	2 5/64 52.8	2 3/16 55.6	6 1/8 155.6	1 1/16 17.5	4.2 1.9	YG220NL
1 3/8	F3-Y222N△														YG222NL
1 7/16	F3-Y223N△														YG223NL
1 1/2	F3-Y224N△	4 101.6	4 101.60	2 7/32 56.36	5 1/8 130.2	1/2 12	1/16 1.6	5/8 15.9	2 35/64 64.7	2 9/32 57.9	2 3/8 60.3	6 25/32 172.2	4 5/64 17.8	5.3 2.4	YG224NL
1 5/8	F3-Y226N△	4 1/4 108.0	4 1/8 104.78	2 7/32 56.36	5 3/8 136.5	1/2 12	1/16 1.6	5/8 15.9	2 9/16 65.1	2 9/32 57.9	2 1/2 63.5	7 3/32 180.2	1 1/16 17.5	6.5 3.0	YG226NL
1 11/16	F3-Y227N△														YG227NL
1 3/4	F3-Y228N△														YG228NL
1 15/16	F3-Y231N△	4 1/2 114.3	4 3/8 111.12	2 15/32 62.71	5 5/8 142.9	1/2 12	1/16 1.6	3/4 19.0	2 13/16 71.4	2 17/32 64.3	2 3/4 69.8	7 7/16 188.9	5 1/64 20.2	7.2 3.3	YG231NL
2	F3-Y232N△														YG232NL
2 3/16	F3-Y235N△														YG235NL
2 1/4	F3-Y236N	5 3/8 136.5	5 5/8 142.88	3 1/16 77.79	6 7/8 174.6	5/8 16	1/16 1.6	1 5/16 23.8	3 25/64 86.1	3 1/8 79.4	3 9/16 84.1	9 7/32 234.2	1 5/16 23.8	12.5 5.7	YG236NL
2 3/8	F3-Y238N														YG238NL
2 7/16	F3-Y239N														YG239NL

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size: for 1 1/16" and smaller shaft sizes, 1/4"-28 UNF; for all other shafts, 1/8" PT.

■ N lip seals standard. H labyrinth seals available.

△ Available with E3 triple lip seals.

◆ Width dimension for closed end unit.

Selection guide, pages B-9, B-10.

Load ratings, pages B-11, B-12.

Additional information, page B-75.

Intermediate Ball Bearing Flanged Units

F3-W200E

Cast Iron Housing

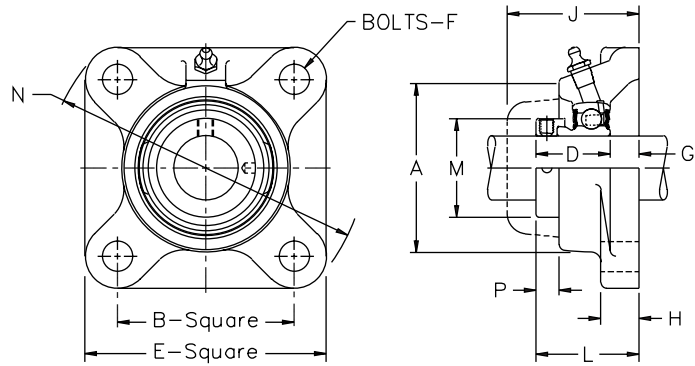
4-bolt Mounting

Alignable

Eccentric Cam Locking Collar

Relubricatable

Extended Inner Ring



Dimensions (inches/mm)

Shaft dia. inches	Flanged unit number	A	B	D	E	F Bolts	G	H	J ◆	L	M	N	P	Unit wt. (lbs./kg.)	Bearing no.
1/2 3/8	F3-W2B08E F3-W210E	2 1/8 54.0	2 1/8 53.98	1 1/8 28.58	3 76.2	3/8 10	23/64 9.1	1/2 12.7	1 25/32 45.2	1 31/64 37.7	1 1/8 28.6	3 7/8 98.4	1 5/32 11.9	.8 0.4	WG2B08EL WG210EL
3/4	F3-W212E	2 7/16 67.9	2 1/2 63.50	1 7/32 30.96	3 3/8 85.7	3/8 10	7/16 11.1	9/16 14.3	2 1/64 51.2	1 21/32 42.1	1 5/16 33.3	4 19/32 111.9	2 9/64 11.5	1.3 0.6	WG212EL
7/8 15/16 1	F3-W214E F3-W215E F3-W216E	2 11/16 68.3	2 3/4 69.85	1 7/32 30.96	3 3/4 95.2	7/16 10	29/64 11.5	1 9/32 15.1	2 50.8	1 43/64 42.5	1 1/2 38.1	4 29/32 124.6	2 7/64 10.7	1.8 0.8	WG214EL WG215EL WG216EL
1 1/8 1 3/16 1 1/4	F3-W218E F3-W219E F3-W2E20E	3 3/16 81.0	3 1/4 82.55	1 13/32 35.72	4 1/4 108.0	7/16 10	27/64 10.7	1 9/32 15.1	2 15/64 56.7	1 53/64 64.4	1 3/4 44.4	5 19/32 142.1	3 3/64 13.1	2.9 1.3	WG218EL WG219EL WG2E20EL
1 1/4 1 3/8 1 7/16	F3-W220E F3-W222E F3-W223E	3 5/8 92.1	3 3/8 92.08	1 17/32 38.89	4 5/8 117.5	1/2 12	7/16 11.1	5/8 15.9	2 23/64 59.9	1 31/32 50.0	2 3/16 55.6	6 1/8 155.6	9/16 14.3	3.7 1.7	WG220EL WG222EL WG223EL
1 1/2	F3-W224E	4 101.6	4 101.60	1 23/32 43.66	5 1/8 130.2	1/2 12	15/32 11.9	5/8 15.9	2 35/64 64.7	2 3/16 55.6	2 3/8 60.3	6 25/32 172.2	3 9/64 15.5	4.8 2.2	WG224EL
1 5/8 1 11/16 1 3/4	F3-W226E F3-W227E F3-W228E	4 1/4 108.0	4 1/8 104.78	1 23/32 43.66	5 3/8 136.5	1/2 12	15/32 11.9	5/8 15.9	2 9/16 65.1	2 3/16 55.6	2 1/2 63.5	7 3/32 180.2	1 9/32 15.1	5.6 2.5	WG226EL WG227EL WG228EL
1 5/16 2	F3-W231E F3-W2E32E	4 1/2 114.3	4 3/8 111.12	1 23/32 43.66	5 3/8 142.9	1/2 12	19/32 15.1	3/4 19.0	2 13/16 71.4	2 5/16 58.7	2 3/4 69.8	7 7/16 188.9	3 7/64 14.7	6.1 2.8	WG231EL WG2E32EL

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size: for 1 1/16" and smaller shaft sizes, 1/4"-28 UNF; for all other shafts, 1/8" PT.

◆ Width dimension for closed end unit.

Selection guide, pages B-9, B-10.

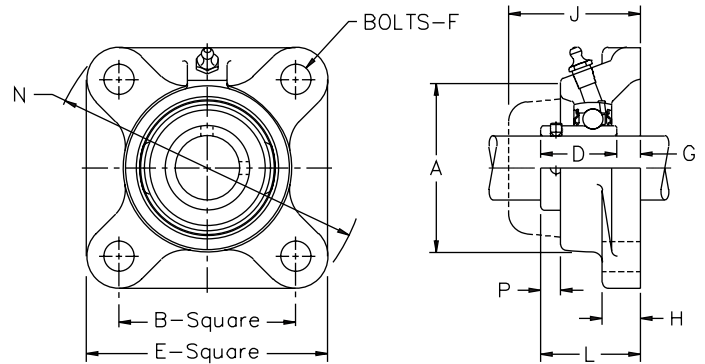
Load ratings, pages B-11, B-12.

Additional information, page B-76.

Intermediate Ball Bearing Flanged Units

F3-S200E

Cast Iron Housing
4-bolt Mounting
Alignable
Spring Locking
Relubricatable
Extended Inner Ring
Available in Nickel Plate□
Available in DURA-KLEAN■



Dimensions (inches/mm)

Shaft Diameter inches	Flanged unit number	A	B	D	E	F Bolts	G	H	J	L	N	P	Unit wt. (lbs./kg)	Replacement bearing no.
3/4	F3-S212E	27/16 61.9	2 1/2 63.50	1 1/8 28.58	3 3/8 85.7	3/8 10	23/64 9.1	9/16 14.3	2 1/64 51.2	1 31/64 37.7	4 13/32 111.9	9/32 7.1	1.6 .73	SG212EL
7/8 15/16 1	F3-S214E F3-S215E F3-S216E	2 11/16 68.3	2 3/4 69.85	1 3/8 30.17	3 3/4 95.2	7/16 10	3/8 9.5	19/32 15.1	2 50.8	1 9/16 39.7	4 29/32 124.6	5/16 7.9	2.0 1.9 1.9 .86	SG214EL SG215EL SG216EL
1 1/8 1 3/16 1 1/4	F3-S218E F3-S219E F3-S2E20E	3 3/16 81.0	3 1/4 82.55	1 11/32 34.13	4 1/4 108.0	7/16 10	25/64 9.9	19/32 15.1	2 15/64 56.7	1 47/64 44.0	5 19/32 142.1	27/64 10.7	2.7 2.6 2.6 1.18	SG218EL SG219EL SG2E20EL
1 1/4 1 3/8 1 7/16	F3-S220E F3-S222E F3-S223E	3 5/8 92.1	3 3/8 92.08	1 9/16 39.67	4 5/8 117.5	1/2 12	23/64 9.1	5/8 15.9	2 23/64 59.9	1 59/64 48.8	6 1/8 155.6	37/64 14.7	3.5 3.4 3.3 1.50	SG220EL SG222EL SG223EL
1 1/2	F3-S224E	4 101.6	4 101.60	1 11/16 42.87	5 1/8 130.2	1/2 12	27/64 10.7	5/8 15.9	2 35/64 64.7	2 7/64 53.6	6 25/32 172.2	17/32 13.5	4.7 2.13	SG224EL
1 5/8 1 11/16 1 3/4	F3-S226E F3-S227E F3-S228E	4 1/4 108.0	4 1/8 104.78	1 49/64 44.85	5 3/8 136.5	1/2 12	3/8 9.5	5/8 15.9	2 9/16 65.1	2 9/64 54.4	7 3/32 180.2	35/64 13.9	5.4 5.4 5.3 2.41	SG226EL SG227EL SG228EL
1 15/16	F3-S231E	4 1/2 114.3	4 3/8 111.12	1 51/64 45.64	5 5/8 142.9	1/2 12	1/2 12.7	3/4 19.0	2 13/16 71.4	2 19/64 58.3	7 7/16 188.9	9/16 14.3	6.2 2.81	SG231EL

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size, 1/8" PT.

■ DURA-KLEAN coated housings available; add prefix W, i.e. WF3-S212E.

□ Nickel plated housings available, add suffix K75, i.e. F3-S212EK75.

Nickel plated units are furnished prelubricated with food grade grease and black oxide coated inner and outer rings

◆ Width dimension for closed end unit.

Selection guide, pages B-9, B-10.

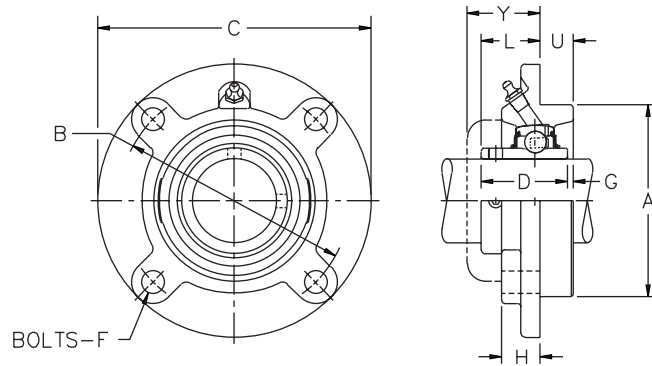
Load ratings, pages B-11, B-12.

Additional information, page B-76.

Standard Duty Ball Bearing Flanged Cartridge Units

FC3-U200N

Cast Iron Housing
4-bolt Mounting
Alignable
Spring Locking
Relubricatable
Wide Inner Ring



Dimensions (inches/mm)

Shaft Diameter		Flanged cartridge unit number ■	A †	B	C	D	F Bolts	G	H	L	M Collar O.D.	U	Y ◆	Unit wt. (lbs./kg)	Bearing no.
mm	inches	Lip seals													
25	7/8	FC3-U214N△	3.000	3⅝	4⅜	1⅔ ₆₄	⅜	0	⅝	55/64	...	½	1⅜	3.0	UG214NL
	15/16	FC3-U215N△												3.0	UG215NL
	1	FC3-U216N												2.9	UG216NL
		FC3-U2M25N												1.3	UG2M25NL
30	1⅛	FC3-U218N	3.375	4⅛	5	19/16	7/16	0	1⅜ ₁₆	19/64	...	27/64	141/64	4.6	UG218NL
	1⅜ ₁₆	FC3-U219N												4.5	UG219NL
	1¼	FC3-U2E20N												4.5	UG2E20NL
		FC3-U2M30N												2.0	UG2M30NL
35	1¼	FC3-U220N△	3.625	4⅜	5¼	149/64	7/16	⅜ ₁₆	11/16	131/64	...	15/32	159/64	4.7	UG220NL
	1⅝	FC3-U222N△												4.6	UG222NL
	17/16	FC3-U223N△												4.6	UG223NL
		FC3-U2M35N												2.1	UG2M35NL
40	1½	FC3-U224N△	3.625	4⅜	5¼	129/32	7/16	1/32	11/32	115/32	...	15/32	115/16	4.3	UG224NL
		FC3-U2M40N	92.08											2.0	UG2M40NL
45	1⅝	FC3-U226N△	4.250	5⅝	6⅝	21/32	½	0	11/16	19/16	...	15/32	163/64	6.3	UG226NL
	111/16	FC3-U227N△												6.3	UG227NL
	1¾	FC3-U228N△												6.2	UG228NL
		FC3-U2M45N												2.7	UG2M45NL
50	115/16	FC3-U231N△	4.500	5⅝	6⅝	23/32	½	11/64	113/64	141/64	...	5/8	25/32	7.4	UG231NL
		FC3-U2M50N	114.30											3.2	UG2M50NL
55	2	FC4-U232N△	4.500	5⅝	6⅝	2¼	½	1/32	11/32	121/32	...	5/8	217/64	7.7	UG232NL
		FC4-U2M55N	114.30												UG2M55NL
55	2	FC3-U232N△	5.000	6	7⅞	2¼	9/16	5/32	1	117/32	...	7/8	2⅞	9.9	UG232NL
	23/16	FC3-U235N△												8.8	UG235NL
		FC3-U2M55N												127.00	152.40	181.0	57.15	14	4.0	25.4	38.9	...	22.2	54.0		UG2M55NL
60	2¼	FC3-U236N	5.500	6½	7⅞	2½	9/16	0	1	1⅝	...	7/8	211/64	13.0	UG236NL
	2⅝	FC3-U238N												11.0	UG238NL
	27/16	FC3-U239N												10.8	UG239NL
		FC3-U2M60N	139.70	165.10	193.7	63.50	14	0.0	25.4	41.3	...	22.2	55.2		UG2M60NL
65	2½	FC3-U240N	6.375	7½	8¾	211/16	5/8	⅜ ₁₆	1⅜ ₁₆	113/16	43/16	11/16	23/16	17.0	UG240NL
	211/16	FC3-U243N												16.7	UG243NL
		FC3-U2M65N												161.92	190.50	222.2	68.26	16	4.8	30.2	46.0	106.4	27.0	55.6	7.7	UG2M65NL
75	2¾	FC3-U244N	6.375	7½	8¾	2⅞	5/8	⅜ ₁₆	11/16	113/16	4⅝	1¼	27/32	17.9	UG244NL
	215/16	FC3-U247N												17.7	UG247NL
	3	FC3-U2E48N												17.5	UG2E48NL
		FC3-U2M75N												8.1	UG2M75NL
85	37/16	FC3-U255N	7.375	8⅝	10¼	39/16	¾	0	1⅝	213/32	5⅜ ₁₆	15/32	225/32	34.0	UG255NL
	3½	FC3-U2E56N												33.6	UG2E56NL
		FC3-U2M85N												187.32	219.08	260.4	90.49	20	0.0	41.3	61.1	131.8	29.4	70.6	15.6	UG2M85NL
100	315/16	FC3-U263N	8.120	9⅝	10⅞	4¼	¾	0	2⅞	3⅞	515/16	1⅞	39/16	42.0	UG263NL
	4	FC3-U2E64N												41.5	UG2E64NL
		FC3-U2M100N												206.25	238.12	276.2	107.95	20	0.0	54.0	79.4	150.8	28.6	90.5	19.0	UG2M100NL

Bold face items are normally available from stock; please consult for availability of non-stock items.

Shaft sizes over 2 7/16" have collars.

Lubrication fitting tap size: for FC3-U2E20N and smaller units, 1/4"-28 UNF; for all other units, 1/8" PT.

■ N lip seals standard. H labyrinth seals available.

△ Available with E3 triple lip seals.

† Tolerance: +.000" –.002" (+0.00 mm –0.05 mm). Bore tolerance for mounting: +.002" –.000" (+0.05 mm –0.00 mm).

◆ Width dimension for closed end unit.

Selection guide, pages B-9, B-10.

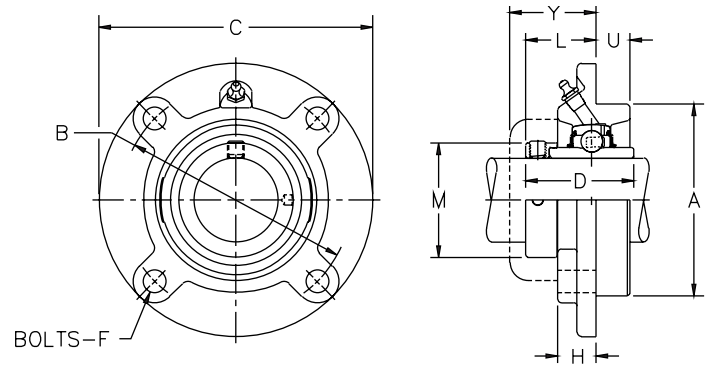
Load ratings, pages B-11, B-12.

Additional information, page B-75.

Standard Duty Ball Bearing Flanged Cartridge Units

FC3-Y200N

Cast Iron Housing
4-bolt Mounting
Alignable
Eccentric Cam Locking Collar
Relubricatable
Wide Inner Ring



Dimensions (inches/mm)

Shaft Diameter inches	Flanged cartridge number ■ Lip seals	A †	B	C	D	F Bolts	H	L	M	U	Y ◆	Unit wt. (lbs./kg.)	Bearing no.
7/8 15/16 1	FC3-Y214N△ FC3-Y215N△ FC3-Y216N△	3.000 76.20	3 5/8 92.08	4 3/8 111.1	1 3/4 44.45	3/8 10	5/8 15.9	1 1/8 28.6	1 1/2 38.1	1/2 12.7	1 3/8 34.9	3.1 1.4	YG214NL YG215NL YG216NL
1 1/8 1 3/16 1 1/4	FC3-Y218N FC3-Y219N FC3-Y2E20N	3.375 85.72	4 1/8 104.78	5 127.0	1 29/32 48.42	7/16 10	1 3/16 20.6	1 3/8 34.9	1 3/4 44.4	27/64 10.7	1 1/4 41.7	4.6 2.1	YG218NL YG219NL YG2E20NL
1 1/4 1 3/8 1 7/16	FC3-Y220N△ FC3-Y222N△ FC3-Y223N△	3.625 92.08	4 3/8 111.12	5 1/4 133.4	2 1/64 51.20	7/16 10	1 1/16 27.0	1 21/32 42.1	2 3/16 55.6	1 5/32 11.9	1 59/64 48.8	4.9 2.2	YG220NL YG222NL YG223NL
1 1/2	FC3-Y224N△	3.625 92.08	4 3/8 111.12	5 1/4 133.4	2 7/32 56.36	7/16 10	1 1/32 26.2	1 43/64 42.5	2 3/8 60.3	1 5/32 11.9	1 15/16 49.2	4.6 2.1	YG224NL
1 5/8 1 11/16 1 3/4	FC3-Y226N△ FC3-Y227N△ FC3-Y228N△	4.250 107.95	5 1/8 130.18	6 1/8 155.6	2 7/32 56.36	1/2 12	1 1/16 27.0	1 45/64 43.2	2 1/2 63.5	1 5/32 11.9	1 63/64 50.4	6.6 3.0	YG226NL YG227NL YG228NL
1 15/16	FC3-Y231N△	4.500 114.30	5 3/8 136.52	6 3/8 161.9	2 15/32 62.71	1/2 12	1 13/64 30.6	1 7/8 47.6	2 3/4 69.8	5/8 15.9	2 5/32 54.8	7.7 3.5	YG231NL
2	FC4-Y232N△	4.500 114.30	5 3/8 136.52	6 3/8 161.9	2 13/16 71.44	1/2 12	1 1/32 26.2	1 31/32 50.0	3 76.2	5/8 15.9	2 17/64 57.5	7.2 3.3	YG232NL
2 2 3/16	FC3-Y232N△ FC3-Y235N△	5.000 127.00	6 152.40	7 1/8 181.0	2 13/16 71.44	9/16 14	1 25.4	1 27/32 46.8	3 76.2	7/8 22.2	2 1/8 54.0	11.0 9.6	YG232NL YG235NL
2 1/4 2 3/8 2 7/16	FC3-Y236N FC3-Y238N FC3-Y239N	5.500 139.70	6 1/2 165.10	7 5/8 193.7	3 1/16 77.79	9/16 14	1 25.4	1 29/32 48.4	3 9/16 84.1	7/8 22.2	2 11/64 55.2	12.7 12.4 12.2	YG236NL YG238NL YG239NL

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size: for FC3-Y2E20N and smaller units, 1/4"-28 UNF; for all other sizes, 1/8" PT.

■ N lip seals standard. H labyrinth seals available.

△ Available with E3 triple lip seals.

† Tolerance: +.000" –.002" (+0.00 mm –0.05 mm). Bore tolerance for mounting +.002 –.000" (+0.05 mm –0.00 mm).

◆ Width dimension for closed end unit.

Selection guide, pages B-9, B-10.

Load ratings, pages B-11, B-12.

Additional information, page B-75.

Intermediate Ball Bearing Flanged Units

FX-W200E, FX-Y200N

FX-WG200E, FX-YG200N

High-test Iron Housing

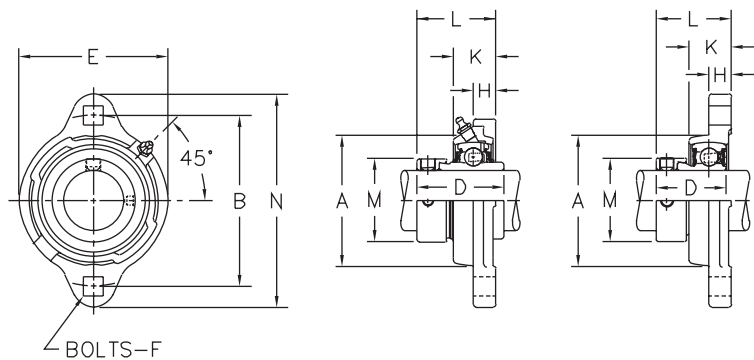
2-bolt (Carriage) Mounting

Alignable

Eccentric Cam Locking Collar

Optional Relubrication Feature

Extended and Wide Inner Ring



Dimensions (inches/mm)

Shaft dia. inches	Flanged unit number ●		A	B	D		E		F	H	K	L		M	N	Unit wt. (lbs./kg.)	
	Non- relubricatable	Non- relubricatable			W200 WG200	Y200 YG200	Non- relubri- catable	Relubri- catable	Carriage bolt size			W200 WG200	Y200 YG200			W200 WG200	Y200 YG200
	Relubricatable	Relubricatable															
1/2	FX-W2B08E	FX-Y2B08N	1 ²⁵ / ₃₂ 45.2	2 1/2 63.5	1 1/8 28.58	1 ¹⁵ / ₃₂ 37.31	2 ³ / ₁₆ 55.6	2 ³ / ₃₂ 53.2	1/4 ...	3/8 9.5	45/64 17.8	1 1/4 31.8	1 ¹⁹ / ₆₄ 32.9	1 1/8 28.6	3 ³ / ₁₆ 81.0	.5 0.2	.6 0.2
5/8	FX-WG2B08E	FX-YG2B08N															
	FX-W210E	FX-Y210N															
	FX-WG210E	FX-YG210N															
1 1/16	-----	FX-Y211N															
	-----	FX-YG211N															
3/4	FX-W212E	FX-Y212N	2 1/16 52.4	2 ¹³ / ₁₆ 71.4	1 ⁷ / ₃₂ 30.96	1 ²³ / ₃₂ 43.66	2 ¹⁵ / ₃₂ 62.7	2 ³ / ₈ 60.3	5/16 ...	2 ⁷ / ₆₄ 10.7	2 ⁵ / ₃₂ 19.8	1 ¹¹ / ₃₂ 34.1	1 ¹⁵ / ₃₂ 37.3	1 ¹⁵ / ₁₆ 33.3	3 ⁹ / ₁₆ 90.5	.7 0.3	.8 0.4
	FX-WG212E	FX-YG212N															
7/8	FX-W214E	FX-Y214N△	2 ⁹ / ₃₂ 57.9	3 76.2	1 ⁷ / ₃₂ 30.96	1 ³ / ₄ 44.45	2 ²³ / ₃₂ 69.0	2 ⁵ / ₈ 66.7	5/16 ...	2 ⁷ / ₆₄ 10.7	2 ⁵ / ₃₂ 19.8	1 ¹¹ / ₃₂ 34.1	1 ³¹ / ₆₄ 37.7	1 1/2 38.1	3 ³ / ₄ 95.2	.8 0.4	1.0 0.5
15/16	FX-WG214E	FX-YG214N△															
	FX-W215E	FX-Y215N△															
	FX-WG215E	FX-YG215N△															
1	FX-W216E	FX-Y216N△															
	FX-WG216E	FX-YG216N△															
1 1/8	FX-W218E	FX-Y218N	2 ²³ / ₃₂ 69.0	3 ⁹ / ₁₆ 90.5	1 ¹³ / ₃₂ 35.72	1 ²⁹ / ₃₂ 48.42	3 ³ / ₃₂ 78.6	3 ³ / ₃₂ 78.6	3/8 ...	1 ⁵ / ₃₂ 11.9	5 ⁷ / ₆₄ 22.6	1 ¹⁷ / ₃₂ 38.9	1 ²¹ / ₃₂ 42.1	1 ³ / ₄ 44.4	4 ⁷ / ₁₆ 112.7	1.2 0.5	1.4 0.6
1 3/16	FX-WG218E	FX-YG218N															
	FX-W219E	FX-Y219N															
	FX-WG219E	FX-YG219N															
	FX-W2E20E	FX-Y2E20N															
1 1/4	FX-WG2E20E	FX-YG2E20N															
1 1/4	FX-W220E	FX-Y220N△	3 ³ / ₈ 79.4	3 ¹⁵ / ₁₆ 100.0	1 ¹⁷ / ₃₂ 38.89	2 ¹ / ₆₄ 51.20	3 1/2 88.9	3 1/2 88.9	3/8 ...	1/2 12.7	1 ⁵ / ₁₆ 23.8	1 ²¹ / ₃₂ 42.1	1 ²⁵ / ₃₂ 45.2	2 ³ / ₁₆ 55.6	4 ¹³ / ₁₆ 122.2	1.8 0.8	2.0 0.9
	FX-WG220E	FX-YG220N△															
1 3/8	FX-W222E	FX-Y222N△															
	FX-WG222E	FX-YG222N△															
	FX-W223E	FX-Y223N△															
1 7/16	FX-WG223E	FX-YG223N△															

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size: for 3/4" and smaller shaft sizes, 10-32 UNF; for all other shafts, 1/4"-28 UNF.

Also available with wide U200N inner ring. Replace "Y" with "U"; i.e. FX-U2B08N. For dimension D and U see page B-30.

▲ Loading slots are on mounting face side for non-relubricatable units.

● For replacement bearing number, drop prefix FX and add suffix L.

■ N lip seals standard. H labyrinth seals available.

△ Available with E3 triple lip seals.

Selection guide, pages B-9, B-10.

Load ratings, pages B-11, B-12.

Additional information, page B-76.

Intermediate Ball Bearing Flanged Units

FXR-W200E, FXR-Y200N

FXR-WG200E, FXR-YG200N

High-test Iron Housing

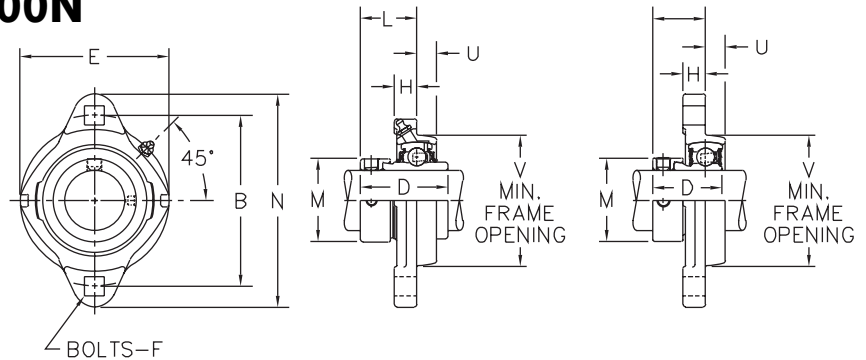
2-bolt (Carriage) Inboard Mounting

Alignable

Eccentric Cam Locking Collar

Optional Relubrication Feature

Extended and Wide Inner Ring



Dimensions (inches/mm)

Shaft dia. inches	Flanged unit number •		B	D		E	F□ Carriage bolt size	H	L		M	N	U	V	Unit wt. (lbs./kg.)	
	Non- relubricatable	Non- relubricatable		W200	Y200				W200	Y200					W200	Y200
	Relubricatable	Relubricatable		WG200	YG200				WG200	YG200					WG200	YG200
1/2	FXR-W2B08E	FXR-Y2B08N	2 1/2 63.5	1 1/8 28.58	1 15/32 37.31	2 3/16 55.6	1/4 ...	3/8 9.5	7/8 22.2	59/64 23.4	1 1/8 28.6	3 3/16 81.0	2 1/64 8.3	1 7/8 47.6	.5 0.2	.6 0.2
5/8	FXR-WG2B08E	FXR-YG2B08N														
1 1/16	FXR-W210E	FXR-Y210N														
	FXR-WG210E	FXR-YG210N														
	-----	FXR-Y211N														
	-----	FXR-YG211N														
3/4	FXR-W212E	FXR-Y212N	2 13/16 71.4	1 7/32 30.96	1 23/32 43.66	2 15/32 62.7	5/16 ...	27/64 10.7	59/64 23.4	1 3/64 26.6	1 5/16 33.3	3 3/16 90.5	23/64 9.1	2 5/32 54.8	.7 0.3	.8 0.4
7/8	FXR-W214E	FXR-Y214N△	3 76.2	1 7/32 30.96	1 3/4 44.45	2 23/32 69.0	5/16 ...	27/64 10.7	59/64 23.4	1 1/16 27.0	1 1/2 38.1	3 3/4 95.2	23/64 9.1	2 3/8 60.3	.8 0.4	1.0 0.5
15/16	FXR-W215E	FXR-Y215N△														
1	FXR-W216E	FXR-Y216N△														
	FXR-WG216E	FXR-YG216N△														
1 1/8	FXR-W218E	FXR-Y218N	3 9/16 90.5	1 13/32 35.72	1 29/32 48.42	3 3/32 78.6	3/8 ...	1 5/32 11.9	1 3/64 26.6	1 3/16 30.2	1 3/4 44.4	4 7/16 112.7	27/64 10.7	2 13/16 71.4	1.2 0.5	1.4 0.6
1 3/16	FXR-WG218E	FXR-YG218N														
	FXR-W219E	FXR-Y219N														
	FXR-WG219E	FXR-YG219N														
	FXR-W2E20E	FXR-Y2E20N														
	FXR-WG2E20E	FXR-YG3E20N														
1 1/4	FXR-W220E	FXR-Y220N△	3 15/16 100.0	1 17/32 38.89	2 1/64 51.20	3 1/2 88.9	3/8 ...	1 1/2 12.7	1 5/32 29.4	1 1/32 32.5	2 3/16 55.6	4 13/16 122.2	7/16 11.1	3 7/32 81.8	1.8 0.8	2.0 0.9
1 3/8	FXR-WG220E	FXR-YG220N△														
	FXR-W222E	FXR-Y222N△														
	FXR-WG222E	FXR-YG222N△														
	FXR-W223E	FXR-Y223N△														
1 7/16	FXR-WG223E	FXR-YG223N△														

Please consult for availability.

Lubrication fitting tap size: for 3/4" and smaller shaft sizes, 10-32 UNF; for all other shafts, 1/4"-28 UNF.

Also available with wide U200N inner ring. Replace "Y" with "U"; i.e. FXR-U2B08N. For dimension D and U see page B-30.

■ N lip seals standard. H labyrinth seals available.

△ Available with E3 triple lip seals.

● For replacement bearing number, drop prefix FX and add suffix L.

□ Short shank square neck carriage bolt is not recommended.

Selection guide, pages B-9, B-10.

Load ratings, pages B-11, B-12.

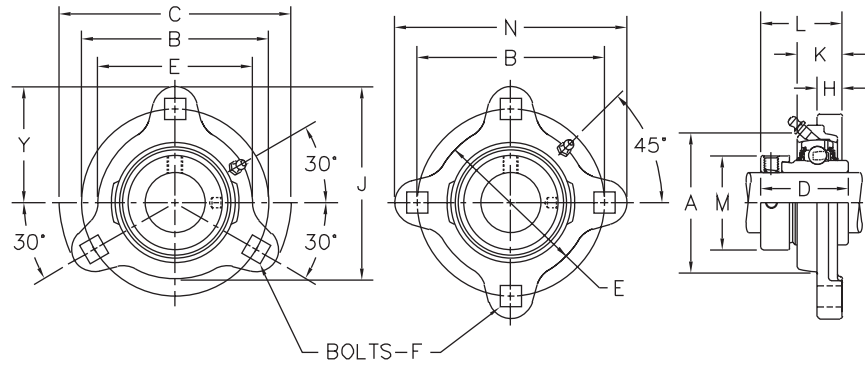
Additional information, page B-76.

Intermediate Ball Bearing Flanged Units

F-W200E, F-Y200N

F-WG200E, F-YG200N

High-test Iron Housing
3 and 4-bolt (Carriage) Mounting
Alignable
Eccentric Cam Locking Collar
Optional Relubrication Feature
Extended and Wide Inner Ring



Dimensions (inches/mm)

Style of housing	Shaft dia. inches	Flanged unit number ●				A		D				F		L				Unit wt. (lbs./kg.)			
		Non-relubricatable	Non-relubricatable	Non-relubricatable	Relu- brica- table	B	C	W200 WG200	Y200 YG200	E	Carriage bolt size	H	K	W200 WG200	Y200 YG200	M	N	Y	W200 WG200	Y200 YG200	
3-BOLT	1/2	F-W2B08E	F-Y2B08N	} 1 ²⁵ / ₃₂	1 ²⁹ / ₃₂	2 1/2	3 ³ / ₁₆	1 1/8	1 ¹⁵ / ₃₂	2 ³ / ₃₂	1/4	3/8	4 ⁵ / ₆₄	1 1/4	1 ¹⁹ / ₆₄	1 1/8	...	1 ¹⁹ / ₃₂	.5	.6	
	F-WG2B08E	F-YG2B08N																			
	F-W210E	F-Y210N																			
	F-WG210E	F-YG210N																			
	5/8	-----	F-Y211N	} 45.2	48.4	63.5	81.0	28.58	37.31	53.2	...	9.5	17.8	31.8	32.9	28.6	...	40.5	0.2	0.2	
	F-W210E	F-Y210N																			
	1 1/16	-----	F-YG211N	} 45.2	48.4	63.5	81.0	28.58	37.31	53.2	...	9.5	17.8	31.8	32.9	28.6	...	40.5	0.2	0.2	
	F-WG210E	F-YG210N																			
	3/4	F-W212E	F-Y212N	2 1/16	2 3/16	2 13/16	3 9/16	1 7/32	1 23/32	2 3/8	5/16	27/64	25/32	1 11/32	1 15/32	1 5/16	...	1 25/32	.7	.8	
		F-WG212E	F-YG212N	52.4	55.6	71.4	90.5	30.96	43.66	60.3	...	10.7	19.8	34.1	37.3	33.3	...	45.2	0.3	0.4	
	7/8	F-W214E	F-Y214N△	} 2 ⁹ / ₃₂	2 3/8	3	3 3/4	1 7/32	1 3/4	2 5/8	5/16	27/64	25/32	1 11/32	1 13/64	1 1/2	...	1 7/8	.8	1.0	
	F-WG214E	F-YG214N△																			
	1 5/16	F-W215E	F-Y215N△																		
	F-WG215E	F-YG215N△																			
	F-W216E	F-Y216N△	} 57.9	60.3	76.2	95.2	30.96	44.45	66.7	...	10.7	19.8	34.1	37.7	38.1	...	47.6	0.4	0.5		
F-WG216E	F-YG216N△																				
1 1/8	F-W218E	F-Y218N	} 2 ²³ / ₃₂	2 13/16	3 9/16	4 7/16	1 13/32	1 29/32	3 3/32	3/8	15/32	57/64	1 17/32	1 21/32	1 3/4	...	2 7/32	1.2	1.4		
F-WG218E	F-YG218N																				
1 3/16	F-W219E	F-Y219N																			
F-WG219E	F-YG219N																				
	F-W2E20E	F-Y2E20N	} 69.0	71.4	90.5	112.7	35.72	48.42	78.6	...	11.9	22.6	38.9	42.1	44.4	...	56.4	0.5	0.6		
1 1/4	F-WG2E20E	F-YG2E20N																			
1 1/4	F-W220E	F-Y220N△	} 3 1/8	3 7/32	3 15/16	4 13/16	1 17/32	2 1/64	3 1/2	3/8	1/2	15/16	1 21/32	1 25/32	2 3/16	...	2 13/32	1.8	2.0		
F-WG220E	F-YG220N△																				
1 3/8	F-W222E	F-Y222N△																			
F-WG222E	F-YG222N△																				
	F-W223E	F-Y223N△	} 79.4	81.8	100.0	122.2	38.89	51.20	88.9	...	12.7	23.8	42.1	45.2	55.6	...	61.1	0.8	0.9		
1 7/16	F-WG223E	F-YG223N△																			
1 1/2	F-W224E	F-Y224N△	3 15/32	3 21/32	4 11/16	5 13/16	1 23/32	2 7/32	3 7/8	1/2	5/8	1 1/8	1 29/32	2	2 3/8	5 13/16	...	2.8	3.0		
	F-WG224E	F-YG224N△	88.1	92.9	119.1	147.6	43.66	56.36	98.4	...	15.9	28.6	48.4	50.8	60.3	147.6	...	1.3	1.4		
1 5/8	F-W226E	F-Y226N△	} 3 11/16	3 13/16	4 3/4	5 7/8	1 23/32	2 7/32	4 7/32	1/2	5/8	1 1/8	1 29/32	2	2 1/2	5 7/8	...	2.9	3.1		
F-WG226E	F-YG226N△																				
1 11/16	F-W227E	F-Y227N△																			
F-WG227E	F-YG227N△																				
	F-W228E	F-Y228N△	} 93.7	96.8	120.6	149.2	43.66	56.36	107.2	...	15.9	28.6	48.4	50.8	63.5	149.2	...	1.3	1.4		
1 3/4	F-WG228E	F-YG228N△																			
1 15/16	F-W231E	F-Y231N△	} 3 7/8	4 1/16	5	6 1/8	1 23/32	2 15/32	4 15/32	1/2	5/8	1 1/8	1 29/32	2 1/8	2 3/4	6 1/8	...	3.1	3.6		
F-WG231E	F-YG231N△																				
2	F-W2E32E	F-Y2E32N△																			
F-WG2E32E	F-YG2E32N△																				

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size: for 3/4" and smaller shaft sizes, 10-32 UNF; for all other shafts, 1/4"-28 UNF.

Also available with wide U200N inner ring. Replace "Y" with "U"; i.e. F-U2B08N. For dimension D and U see page B-30.

■ N lip seals standard. H labyrinth seals available.

△ Available with E3 triple lip seals.

● For replacement bearing number, drop prefix F and add suffix L.

▲ Loading slots are on mounting face side for non-relubricatable units.

Selection guide, pages B-9, B-10.

Load ratings, pages B-11, B-12.

Additional information, page B-76.

Intermediate Ball Bearing Flanged Units

FR-W200E, FR-Y200N

FR-WG200E, FR-YG200N

High-test Iron Housing

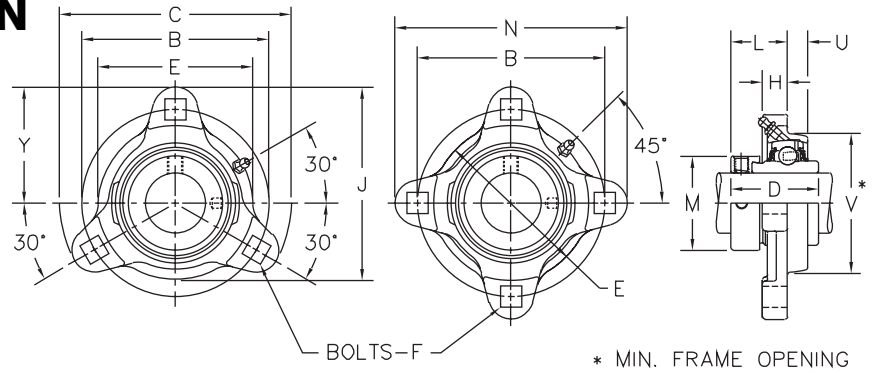
3 and 4-bolt (Carriage) Inboard Mounting

Alignable

Eccentric Cam Locking Collar

Optional Relubrication Feature

Extended and Wide Inner Ring



Dimensions (inches/mm)

Style of housing	Shaft dia. inches	Flanged unit number ●		B	C	D		E	F ■ Carriage bolt size	H	L		M	U	V	Y	Unit wt. (lbs./kg.)	
		Non-relubricatable Relubricatable	Non-relubricatable Relubricatable ■			W200 WG200	Y200 YG200				W200 WG200	Y200 YG200					W200 WG200	Y200 YG200
3-BOLT	1/2	FR-W2B08E	FR-Y2B08N	2 1/2 63.5	3 3/16 81.0	1 1/8 28.58	1 15/32 37.31	2 3/32 53.2	1/4 ...	3/8 9.5	7/8 22.2	59/64 23.4	1 1/8 28.6	2 1/64 8.3	1 7/8 47.6	1 19/32 40.5	.5 0.2	.6 0.2
	5/8	FR-WG2B08E	FR-YG2B08N															
		FR-W210E	FR-Y210N															
		FR-WG210E	FR-YG210N															
	1 1/16	-----	FR-Y211N															
		-----	FR-YG211N															
	3/4	FR-W212E	FR-Y212N	2 13/16 71.4	3 3/16 90.5	1 7/32 30.96	1 23/32 43.66	2 3/8 60.3	5/16 ...	27/64 10.7	59/64 23.4	1 3/64 26.6	1 5/16 33.3	23/64 9.1	2 5/32 54.8	1 25/32 45.2	.7 0.3	.8 0.4
		FR-WG212E	FR-YG212N															
	7/8	FR-W214E	FR-Y214N△	3 76.2	3 3/4 95.2	1 7/32 30.96	1 3/4 44.45	2 5/8 66.7	5/16 ...	27/64 10.7	59/64 23.4	1 1/16 27.0	1 1/2 38.1	23/64 9.1	2 3/8 60.3	1 7/8 47.6	.8 0.4	1.0 0.5
	15/16	FR-WG214E	FR-YG214N△															
		FR-W215E	FR-Y215N△															
		FR-WG215E	FR-YG215N△															
	1	FR-W216E	FR-Y216N△															
		FR-WG216E	FR-YG216N△															
	1 1/8	FR-W218E	FR-Y218N	3 3/16 90.5	4 7/16 112.7	1 13/32 35.72	1 25/32 48.42	3 3/32 78.6	3/8 ...	15/32 11.9	1 3/64 26.6	1 3/16 30.2	1 3/4 44.4	27/64 10.7	2 13/16 71.4	2 7/32 56.4	1.2 0.5	1.4 0.6
	1 3/16	FR-W219E	FR-Y219N															
		FR-WG219E	FR-YG219N															
	FR-W2E20E	FR-Y2E20N																
1 1/4	FR-WG2E20E	FR-YG2E20N																
1 1/4	FR-W220E	FR-Y220N△	3 15/16 100.0	4 13/16 122.2	1 17/32 38.89	2 1/64 51.20	3 1/2 88.9	3/8 ...	1/2 12.7	1 5/32 29.4	1 9/32 32.5	2 3/16 55.6	7/16 11.1	3 7/32 81.8	2 13/32 61.1	1.8 0.8	2.0 0.9	
1 3/8	FR-WG220E	FR-YG220N△																
	FR-W222E	FR-Y222N△																
	FR-WG222E	FR-YG222N△																
1 7/16	FR-W223E	FR-Y223N△																
	FR-WG223E	FR-YG223N△																
1 1/2	FR-W224E	FR-Y224N△	4 11/16 119.1	5 13/16 147.6	1 23/32 43.66	2 7/32 56.36	3 7/8 98.4	1/2 ...	5/8 15.9	1 9/32 32.5	1 3/8 34.9	2 3/8 60.3	1/2 12.7	3 9/16 90.5	...	2.8 1.3	3.0 1.4	
	FR-WG224E	FR-YG224N△																
1 5/8	FR-W226E	FR-Y226N△	4 3/4 120.6	5 7/8 149.2	1 23/32 43.66	2 7/32 56.36	2 7/32 107.2	1/2 ...	5/8 15.9	1 9/32 32.5	1 3/8 34.9	2 1/2 63.5	1/2 12.7	3 25/32 96.0	...	2.9 1.3	3.1 1.4	
1 11/16	FR-WG226E	FR-YG226N△																
	FR-W227E	FR-Y227N△																
	FR-WG227E	FR-YG227N△																
1 3/4	FR-W228E	FR-Y228N△																
	FR-WG228E	FR-YG228N△																
1 15/16	FR-W231E	FR-Y231N△	5 127.0	6 1/8 155.6	1 23/32 43.66	2 15/32 62.7	4 15/32 113.5	1/2 ...	5/8 15.9	1 9/32 32.5	1 1/2 38.1	2 3/4 69.8	1/2 12.7	3 31/32 100.8	...	3.1 1.4	3.6 1.6	
	FR-WG231E	FR-YG231N△																
	FR-W2E32E	FR-Y2E32N△																
	FR-WG2E32E	FR-YG2E32N△																

Please consult for availability.

Lubrication fitting tap size: for 3/4" and smaller shaft sizes, 10-32 UNF; for all other shafts, 1/4"-28 UNF.

Also available with wide U200N inner ring. Replace "Y" with "U"; i.e. FR-U2B08N. For dimension D and U see page B-30.

■ N lip seals standard. H labyrinth seals available.

△ Available with E3 triple lip seals.

● For replacement bearing number, drop prefix FR and add suffix L.

□ Short shank square neck carriage bolt is not recommended.

▲ For dimension N, see page B-45.

Selection guide, pages B-9, B-10.

Load ratings, pages B-11, B-12.

Additional information, page B-76.

Round Flanged Housings, 2-piece Formed Steel

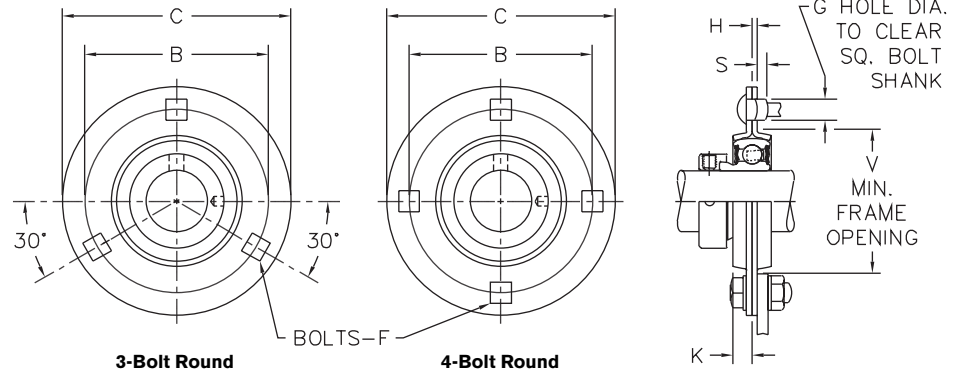
MS, MSC

3-bolt or 4-bolt (Carriage) Mounting
For Collar Mounted, Round, Square,
or Hex Bore Bearings

Alignable

Non-relubricatable

Bearing Not Included



Dimensions (inches/mm)

Round housing style	Housing half number ■	For collar mounted bearings		For round, square and hex bore bearings				B	C	F		G	H		K	S		V	Radial load rating of housing assembly lbs/newtons			
		Shaft diameter	Bearing size number	Shaft size			Basic size bearing			Carriage bolt size	Hole nominal ±.005" ±0.13 mm		Stock thickness	Carriage bolts								
				Round bore	Square bore	Hex bore								Short shank		Long shank						
		mm	in.																			
3-BOLT	40MSC1	17	1/2	2B08	...	...	...	...	2 1/2	3 3/16	1/4	9/32	1 3/32	.075	9/32	.006	.100	1 15/16	600			
	5/8		210	63.5					81.0	...	7.14	10.3	1.90	7.1	...	...	49.2	2 670				
	1 1/16		211																			
			2M17																			
	47MSC1	20	3/4	212	...	...	5/8	204	2 13/16	3 3/16	5/16	1 1/32	1/2	.083	5/16	.021	.115	2 3/16	700			
			2M20			1 1/16		71.4	90.5	...	8.73	12.7	2.11	7.9	...	...	55.6	3 110				
	52MSC1	25	7/8	214	...	...	7/8	205	3	3 3/4	5/16	1 1/32	1/2	.083	8.7	.021	.115	2 3/8	800			
	1 15/16		215	76.2					95.2	...	8.73	12.7	2.11	...					...	60.3	3 560	
	52MS2		1	216									.104	...				.000	.073	...	...	1100
				2M25									2.64	...				...	...	...	4 890	
62MSC1	30	1 1/8	218	...	...	1	206	3 3/16	4 7/16	3/8	1 3/32	1 9/32	.104	1 1/32	.011	.104	2 13/16	1100				
1 3/16		219	90.5					112.7	...	10.32	15.1	2.64	8.7	...	...	71.4	4 890					
1 1/4		2E20																				
		2M30																				
72MSC1	35	1 1/4	220	...	...	1 1/8	207	3 15/16	4 13/16	3/8	1 3/32	1 9/32	.104	9.5	.011	.104	3 1/8	1400				
1 3/8		222	100.0					122.2	...	10.32	15.1	2.64	...					...	6 230			
72MS2		1 7/16	223									.134	...				.000	.044	...	...	7 560	
72MS3			2M35									.149	...				.000	.014	...	...	1900	
								3.78										8 450				
4-BOLT	80MSC1	40	1 1/2	224	7/8	7/8	1 1/4	208	4 11/16	5 13/16	1/2	1 7/32	49/64	.134	1 3/32	.013	.107	3 3/16	1700			
				2M40	1 3/16	1 1/2		119.1	147.6	...	13.49	19.4	3.40	10.3	...	...	90.5	7 560				
	85MSC1	45	1 5/8	226	1 1/2	1 1/4	1 1/2	209	4 3/4	5 7/8	1/2	1 7/32	49/64	.134	7/16	.013	.107	3 13/16	1700			
	1 11/16		227	120.6					149.2	...	13.49	19.4	3.40	11.1	...	...	96.8	7 560				
1 3/4	228																					
90MSC1	50	1 15/16	231	1 3/8	1 3/4	1 5/8	210	5	6 1/8	1/2	1 7/32	49/64	.149	7/16	.000	.077	4	1900				
		2	2E32	1 3/4	1 1/8	1 15/16	127.0	155.6	...	13.49	19.4	3.78	11.1	...	...	101.6	8 450					
100MSC1	55	2	232	1 5/8	1 1/2	...	211	5 7/16	6 9/16	1/2	1 7/32	49/64	.149	1 5/32	.000	.077	4 7/16	1900				
2 3/16		235	138.1					166.7	...	13.49	19.4	3.78	11.9	...	...	112.7	8 450					
			2M55																			

Please consult for availability.

■ Assembly requires two housing halves.

Additional information, page B-76.

Triangular Flanged Housings, 2-piece Formed Steel

MSTR

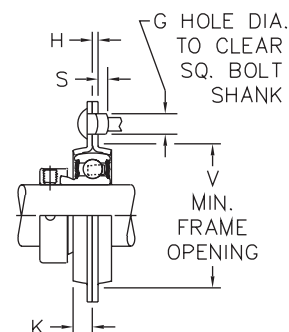
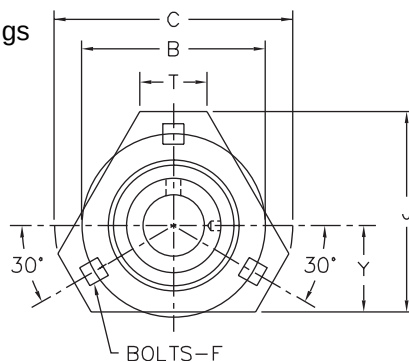
3-bolt (Carriage) Mounting

For Collar Mounted, Round, Square, or Hex Bore Bearings

Alignable

Non-relubricatable

Bearing Not Included



Dimensions (inches/mm)

Housing half number ■	For collar mounted bearings		For round, square and hex bore bearings					B	C	F		G	H		J	K	N	S		T	V	Y	Radial load rating of housing assembly lbs/newtons
	Shaft diameter		Bearing size number	Shaft size			Basic size bearing			Car- riage bolt size	Hole nominal ±.005" ±0.13 mm		Stock thick- ness	Carriage bolt									
	mm	in.		Round bore	Square bore	Hex bore								Short shank				Long shank					
47MSTR	20	¾	212 2M20	...	...	⅝ 1⅛	204	2⅜⅛ 71.4	3⅞⅛ 90.5	⅝⅛ ...	1⅜⅛ 8.73	½ 12.7	.083 2.11	3 76.2	⅝⅛ 7.9	3 76.2	.021 ...	.115 ...	1⅜⅛ 27.0	2⅜⅛ 55.6	1⅝⅛ 33.3	700 3 110	
52MSTR	25	7⅞⅛ 1⅝⅛ 1	214 215 216 2M25	...	...	7⅞⅛	205	3 76.2	3¾ 95.2	⅝⅛ ...	1⅜⅛ 8.73	½ 12.7	.083 2.11	3⅝⅛ 80.2	1⅜⅛ 8.7	3⅝⅛ 80.2	.021 ...	.115 ...	17⅞⅛ 28.2	2⅜⅛ 60.3	1⅞⅛ 34.9	800 3 560	
62MSTR	30	1⅞⅛ 1⅜⅛ 1¼	218 219 2E20 2M30	...	...	1	206	3⅞⅛ 90.5	47⅞⅛ 112.7	⅜⅛ ...	1⅜⅛ 10.32	1⅝⅛ 15.1	.104 2.64	3⅞⅛ 93.7	1⅜⅛ 8.7	3⅞⅛ 93.7	.011 ...	.104 ...	3⅜⅛ 24.6	2⅜⅛ 71.4	1½ 38.1	1100 4 890	

Please consult for availability.

■ Assembly requires two housing halves.

Additional information, page B-76.

Round Flanged Housings, 2-piece Formed Steel

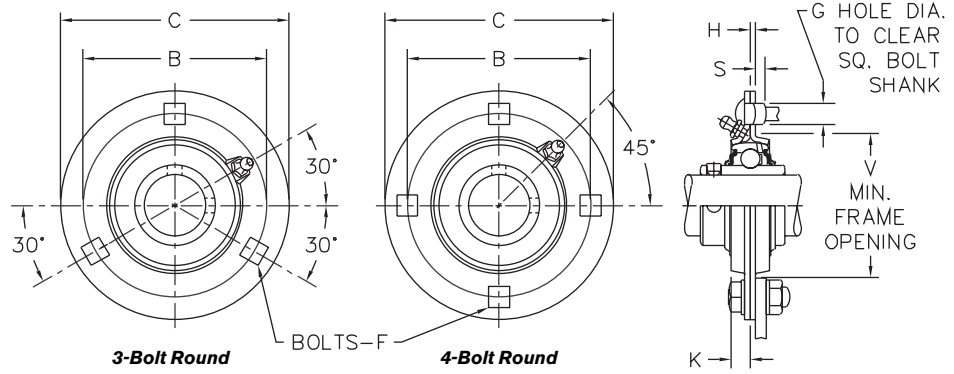
GMSA, GMSB

3-bolt or 4-bolt (Carriage) Mounting
For Collar Mounted, Round, Square,
or Hex Bore Bearings

Alignable

Relubricatable

Bearing Not Included



Dimensions (inches/mm)

Round housing style	Housing half number ■	For collar mounted bearings		For round, square and hex bore bearings				B	C	F		G	H Stock thick-ness	K	S		V	Radial load rating of housing assembly lbs/newtons									
		Shaft diameter	Bearing size number	Shaft size			Basic size bearing			Carriage bolt size	Hole▲ nominal ±.005" ±0.13 mm				Short shank	Long shank											
				Round bore	Square bore	Hex bore																					
																			mm	in.							
3-BOLT	G52MSA 52MSC1	{ 25	7/8 15/16 1	214 215 216 2M25	{ ... ... ...	... ... ...	7/8	205	{ 3 76.2	33/4 95.2	5/16	11/32 8.73 12.7	1/2 .083 2.11	11/32 8.7 ...	.021	.115	23/8 60.3	800 3 560									
	G62MSA G62MSB G62MSA-3 G62MSB-3		{ 30	13/8 13/16 11/4			218 219 2E20 2M30	{ ... ... ...		... ... ...	1	206	{ 39/16 90.5	47/16 112.7	3/8	13/32 10.32 15.1	19/32 2.64 .134 3.40	{ 3/8 9.5	.011 000 ...	.104 044 ...	{ 213/16 71.4	1100 4 890 1400 6 230					
	G72MSA G72MSB			{ 35			11/4 13/8 17/16				220 222 223 2M35	{ ... ... ...		... ... ...	11/8	207	{ 319/16 100.0		413/16 122.2	3/8		13/32 10.32 15.1	13/32 3.40 11.1	.000	.044	33/16 81.0	1400 6 230
	G80MSA G80MSB						{ 40				11/2				224 226 227 228 2M40 2M45	{ 7/8 13/16 111/2			7/8 1 11/8	11/4		208	{ 411/16 119.1	513/16 147.6	1/2	17/32 13.49 19.4	49/64 19.4 3.78	5/8 15.9 ...	.013 ... ...	.107 ... ...	33/16 90.5	1700 7 560
G85MSA G85MSB	{ 45	13/8 111/16 13/4			226 227 228 2M45	{ 11/2 45			11/4 11/2		11/2				209					{ 43/4 120.6		57/8 149.2		1/2	17/32 13.49 19.4	49/64 19.4 3.78	5/8 15.9 ...	.013 ... ...	.107 ... ...	33/16 96.8	1700 7 560
G90MSA G90MSB		{ 50	115/16 2		231 2E32 2M50			{ 13/8 13/4 115/16		11/8 15/8	210		{ 5 127.0		61/8 155.6			1/2			17/32 13.49 19.4	49/64 19.4 4.17		1/2 12.7 ...	.000	.077	4 101.6	1900 8 450
G100MSA G100MSB			{ 55	2 23/16	232 235 2M55						{ 15/8 23/16	11/2 ...		211	{ 57/16 138.1		63/16 166.7	1/2			17/32 13.49 19.4	49/64 19.4 4.93		5/8 15.9 ...	.000	.077	49/16 115.9	2300 10 230

Please consult for availability.

■ GMSA are housing halves with straight lube fittings; GMSB are housing halves without fittings. Assembly requires one of each.

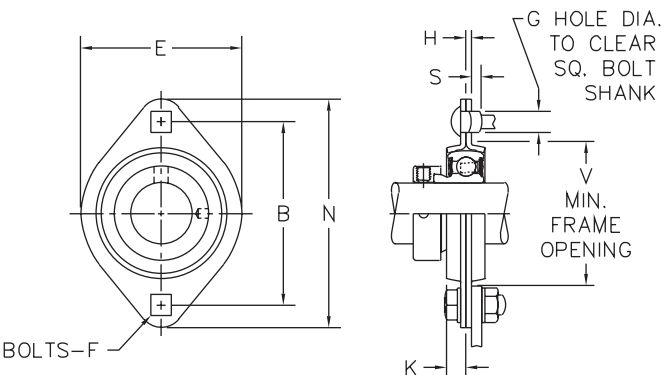
▲ G100MSA and G100MSB hole tolerance ±.015", ±.038 mm.

Additional information, page B-76.

Flanged Housings, 2-piece Formed Steel

MST

2-bolt (Carriage) Mounting
For Collar Mounted, Round, Square, or Hex Bore Bearings
Alignable
Non-relubricatable
Bearing Not Included



Dimensions (inches/mm)

Housing half number ■	For collar mounted bearings		For round, square and hex bore bearings					B	E	F		G	H Stock thick- ness	K	N	S		V	Radial load rating of housing assembly lbs/newtons
	Shaft diameter		Bearing size number	Shaft size			Basic size bearing			Car- riage bolt size	Hole nominal ±.005" ±0.13 mm					Carriage bolt			
	mm	in.		Round bore	Square bore	Hex bore										Short shank	Long shank		
40MST		½ ⅝ ⅞	2B08 210 211 2M17	} ...	} ...	} ...	} ...	2½	2⅝	¼	⅑	⅜	.075	⅑	3⅛	.006	.100	1⅞	600
	17							63.5	58.7	...	7.14	10.3	1.90	7.1	81.0	...	...	49.2	2 670
47MST		¾	212 2M20	} ...	} ...	⅝ ⅞	204	2⅜	2⅞	⅝	⅜	½	.083	⅝	3⅞	.021	.115	2⅞	700
	20							71.4	66.7	...	8.73	12.7	2.11	7.9	90.5	...	...	55.6	3 110
52MST		⅞ 1⅞	214 215 216 2M25	} ...	} ...	⅞	205	3	2⅝	⅝	⅜	½	.083	⅜	3¼	.021	.115	2⅞	800
	25							76.2	71.0	...	8.73	12.7	2.11	8.7	95.2	...	...	60.3	3 560
62MST		1⅞ 1⅜ 1¼	218 219 2E20 2M30	} ...	} ...	1	206	3⅞	3⅞	⅞	⅜	⅞	.104	⅜	4⅞	.011	.104	2⅜	1100
	30							90.5	84.1	...	10.32	15.1	2.64	8.7	112.7	...	...	71.4	4 890

Please consult for availability.

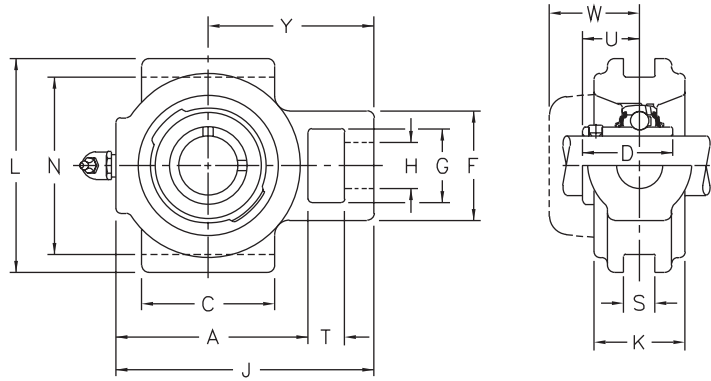
■ Assembly requires two housing halves.

Additional information, page B-76.

Standard Duty Ball Bearing Takeup Units

T3-U200N

Cast Iron Housing
Standard Slot Design
Alignable
Spring Locking
Relubricatable
Wide Inner Ring



Dimensions (inches/mm)

Shaft diameter		Takeup unit number	A	C	D	F	G	H	J	K	L	N +.000" -.015" (+0.00 -0.38)	S +.005" -.015" (+0.13 -0.38)	T	U	W ◆	Y	Unit wt. (lbs./kg.)	Bearing no.
mm	in.	Lip seals																	
17	1/2 5/8 11/16	T3-U2B08N T3-U210N T3-U211N T3-U2M17N	23/16	17/8	13/32	111/16	11/16	9/16	3	13/16	21/4	1.875	.281	1/2	41/64	113/64	115/16	1.0	UG2B08NL UG210NL UG211NL UG2M17NL
			55.6	47.6	27.78	42.9	27.0	14.3	76.2	20.6	57.2	47.62	7.14	12.7	16.3	30.6	49.2	0.4	
20	3/4	T3-U212N T3-U2M20N	21/2	17/8	19/32	111/16	11/16	9/16	35/16	15/16	25/8	2.125	.281	1/2	3/4	15/16	23/32	1.5	UG212NL UG2M20NL
			63.5	47.6	32.54	42.9	27.0	14.3	84.1	23.8	66.7	53.98	7.14	12.7	19.0	33.3	53.2	0.9	
25	7/8 15/16 1	T3-U214N T3-U215N T3-U216N T3-U2M25N	23/4	2	123/64	111/16	11/16	9/16	39/16	1	27/8	2.375	.281	1/2	51/64	15/16	27/32	2.0	UG214NL UG215NL UG216NL UG2M25NL
			69.8	50.8	34.53	42.9	27.0	14.3	90.5	25.4	73.0	60.32	7.14	12.7	20.2	33.3	56.4	0.9	
30	11/8 13/16 11/4	T3-U218N T3-U219N T3-U2E20N T3-U2M30N	31/4	23/8	19/16	17/8	11/8	5/8	43/16	13/32	31/2	2.875	.406	9/16	61/64	129/64	219/32	3.0	UG218NL UG219NL UG2E20NL UG2M30NL
			82.6	60.3	39.69	47.6	28.6	15.9	106.4	27.8	88.9	73.02	10.31	14.3	24.2	36.9	65.9	1.4	
35	11/4 13/8 17/16	T3-U220N T3-U222N T3-U223N T3-U2M35N	311/16	25/8	149/64	2	11/4	11/16	411/16	13/16	4	3.375	.406	5/8	17/64	135/64	27/8	3.5 3.4 3.4	UG220NL UG222NL UG223NL UG2M35NL
			93.7	66.7	44.85	50.8	31.8	17.5	119.1	30.2	101.6	85.72	10.31	15.9	28.2	39.3	73.0	1.5	
40	11/2	T3-U224N T3-U2M40N	41/16	27/8	129/32	2	11/4	11/16	57/8	111/32	47/8	3.500	.406	5/8	111/64	141/64	37/8	4.5 2.6	UG224NL UG2M40NL
			103.2	73.0	48.42	50.8	31.8	17.5	130.2	34.1	104.8	88.90	10.31	15.9	29.8	41.7	79.4		
45	15/8 111/16 13/4	T3-U226N T3-U227N T3-U228N T3-U2M45N	45/16	37/8	21/32	21/4	17/16	7/8	59/8	13/8	41/2	3.750	.406	5/8	115/64	121/32	31/4	5.3 5.3 5.2	UG226NL UG227NL UG228NL UG2M45NL
			109.5	79.4	51.59	57.2	36.5	22.2	136.5	34.9	114.3	95.25	10.31	15.9	31.4	42.1	82.6	2.3	
50	115/16	T3-U231N T3-U2M50N	49/16	31/4	23/32	21/4	17/16	7/8	59/8	113/32	43/4	4.000	.406	5/8	117/64	153/64	39/8	6.0 2.6	UG231NL UG2M50NL
			115.9	82.6	53.18	57.2	36.5	22.2	142.9	35.7	120.6	101.60	10.31	15.9	32.1	46.4	85.7		
55	2 23/16	T3-U232N T3-U235N T3-U2M55N	5	33/4	21/4	27/8	115/16	11/8	61/4	19/16	51/4	4.500	.531	3/4	113/32	21/64	325/32	7.6 7.5	UG232NL UG235NL UG2M55NL
			127.0	95.2	57.15	73.0	49.2	28.6	158.8	39.7	133.4	114.30	13.49	19.0	35.7	51.2	96.0	3.3	

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size: for 1 1/16" (17 mm) and smaller shafts, 1/4"-28 UNF; for all other shafts, 1/8" PT.

◆ Width dimension for closed end unit.

Selection guide, pages B-9, B-10.

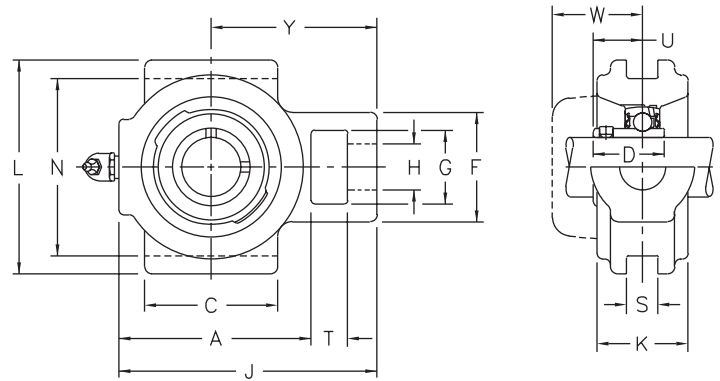
Load ratings, pages B-11, B-12.

Additional information, page B-75.

Intermediate Ball Bearing Takeup Units

T3-S200E

Cast Iron Housing
Standard Slot Design
Alignable
Spring Locking
Relubricatable
Extended Inner Ring



Dimensions (inches/mm)

Shaft diameter in.	Takeup unit number Lip seals	A	C	D	F	G	H	J	K	L	N +.000" -.015" (+0.00 -0.38)	S +.005" -.015" (+0.13 -0.38)	T	U	W ◆	Y	Unit wt. (lbs./kg.)	Bearing no.
3/4	T3-S212E	2 1/2 63.5	1 7/8 47.6	1 1/8 28.58	1 11/16 42.9	1 1/16 27.0	9/16 14.3	3 5/16 84.1	1 5/16 23.8	2 5/8 66.7	2.125 53.98	.281 7.14	1/2 12.7	3/4 19.0	1 5/16 33.3	2 3/32 53.2	1.5 0.9	SG212EL
7/8 1 5/16 1	T3-S214E T3-S215E T3-S216E	2 3/4 69.8	2 50.8	1 3/16 30.17	1 11/16 42.9	1 1/16 27.0	9/16 14.3	3 5/16 90.5	1 25.4	2 7/8 73.0	2.375 60.32	.281 7.14	1/2 12.7	1 3/16 20.6	1 5/16 33.3	2 7/32 56.4	2.0 0.9	SG214EL SG215EL SG216EL
1 1/8 1 3/8 1 1/4	T3-S218E T3-S219E T3-S2E20E	3 1/4 82.6	2 3/8 60.3	1 11/32 34.13	1 7/8 47.6	1 1/8 28.6	5/8 15.9	4 3/16 106.4	1 3/32 27.8	3 1/2 88.9	2.875 73.02	.406 10.31	9/16 14.3	6 1/64 24.2	1 29/64 36.9	2 19/32 65.9	3.0 1.4	SG218EL SG219EL SG2E20EL
1 1/4 1 3/8 1 7/16	T3-S220E T3-S222E T3-S223E	3 11/16 93.7	2 5/8 66.7	1 9/16 39.67	2 50.8	1 1/4 31.8	1 1/16 17.5	4 11/16 119.1	1 3/16 30.2	4 101.6	3.375 85.72	.406 10.31	5/8 15.9	1 7/64 28.2	1 35/64 39.3	2 7/8 73.0	3.5 3.4 3.4 1.5	SG220EL SG222EL SG223EL
1 1/2	T3-S224E	4 1/8 103.2	2 7/8 73.0	1 11/16 42.87	2 50.8	1 1/4 31.8	1 1/16 17.5	5 1/8 130.2	1 11/32 34.1	4 1/8 104.8	3.500 88.90	.406 10.31	5/8 15.9	1 13/64 30.6	1 41/64 41.7	3 1/8 79.4	4.5 2.6	SG224EL
1 5/8 1 11/16 1 3/4	T3-S226E T3-S227E T3-S228E	4 5/8 109.5	3 1/8 79.4	1 49/64 44.85	2 1/4 57.2	1 7/16 36.5	7/8 22.2	5 3/8 136.5	1 3/8 34.9	4 1/2 114.3	3.750 95.25	.406 10.31	5/8 15.9	1 15/64 31.4	1 21/32 42.1	3 1/4 82.6	5.3 5.3 5.2 2.3	SG226EL SG227EL SG228EL
1 15/16	T3-S231E	4 9/16 115.9	3 1/4 82.6	1 51/64 45.64	2 1/4 57.2	1 7/16 36.5	7/8 22.2	5 5/8 142.9	1 13/32 35.7	4 3/4 120.6	4.000 101.60	.406 10.31	5/8 15.9	1 17/64 32.1	1 53/64 46.4	3 3/8 85.7	6.0 2.6	SG231EL

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size: for 1 1/16" (17 mm) and smaller shafts, 1/4"-28 UNF; for all other shafts, 1/8" PT.

◆ Width dimension for closed end unit.

Selection guide, pages B-9, B-10.

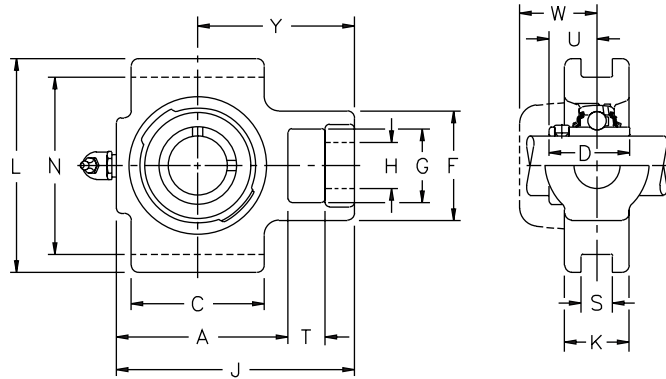
Load ratings, pages B-11, B-12.

Additional information, page B-76.

Standard Duty Ball Bearing Takeup Units

TH3-U200N

Cast Iron Housing
Wide Slot Design
Alignable
Spring Locking
Relubricatable
Wide Inner Ring



Dimensions (inches/mm)

Shaft diameter	Takeup unit number	A	C	D	F	G	H	J	K	L	N +0.000" -0.015" (+0.00 -0.38)	S +0.005" -0.015" (+0.13 -0.38)	T	U	W ◆	Y	Unit wt. (lbs./kg.)	Bearing no.
inches	Lip seals																	
3/4	TH3-U212N	2 ²⁷ / ₃₂ 72.2	2 1/4 57.2	1 9/32 32.54	1 7/8 47.6	1 1/4 31.8	3/4 19.0	3 31/32 100.8	1 1/16 27.0	3 3/8 92.1	3.000 76.20	.531 13.49	5/8 15.9	3/4 19.0	1 5/16 33.3	2 21/32 67.5	2.4 1.1	UG212NL
7/8 1 5/16 1	TH3-U214N TH3-U215N TH3-U216N	2 ²⁹ / ₃₂ 73.8	2 1/4 57.2	1 23/64 34.53	1 27/32 46.8	1 1/4 31.8	3/4 19.0	4 1/32 102.4	1 3/32 27.8	3 3/8 92.1	3.000 76.20	.531 13.49	5/8 15.9	5 1/64 20.2	1 5/16 33.3	2 21/32 67.5	2.7 1.2	UG214NL UG215NL UG216NL
1 1/8 1 3/16 1 1/4	TH3-U218N TH3-U219N TH3-U2E20N	3 11/32 84.9	2 1/2 63.5	1 1/16 39.69	2 3/16 55.6	1 7/16 36.5	7/8 22.2	4 15/32 113.5	1 3/32 27.8	4 1/8 104.8	3.500 88.90	.531 13.49	5/8 15.9	6 1/64 24.2	1 29/64 36.9	2 27/32 72.2	3.2 1.5	UG218NL UG219NL UG2E20NL
1 1/4 1 3/8 1 7/16	TH3-U220N TH3-U222N TH3-U223N	3 11/16 93.7	2 3/4 69.8	1 49/64 44.85	2 5/16 58.7	1 7/16 36.5	7/8 22.2	4 13/16 122.2	1 3/16 30.2	4 1/8 104.8	3.500 88.90	.531 13.49	5/8 15.9	1 7/64 28.2	1 35/64 39.3	2 31/32 75.4	4.0 1.8	UG220NL UG222NL UG223NL
1 1/2	TH3-U224N	4 3/16 106.4	3 1/4 82.6	1 29/32 48.42	2 27/32 72.2	1 15/16 49.2	1 1/8 28.6	5 9/16 141.3	1 5/16 33.3	4 3/4 120.6	3.969 100.81	.688 17.48	3/4 19.0	1 11/64 29.8	1 41/64 41.7	3 15/32 88.6	5.3 2.4	UG224NL
1 5/8 1 11/16 1 3/4	TH3-U226N TH3-U227N TH3-U228N	4 3/16 106.4	3 3/4 82.6	2 1/32 51.59	2 7/8 73.0	1 15/16 49.2	1 1/8 28.6	5 9/16 141.3	1 3/8 34.9	4 3/4 120.6	3.969 100.81	.688 17.48	3/4 19.0	1 15/64 31.4	1 21/32 42.1	3 15/32 88.6	5.3 2.4	UG226NL UG227NL UG228NL
1 15/16 2	TH3-U231N TH3-U2E32N	4 9/16 115.9	3 3/8 85.7	2 3/32 53.18	2 7/8 73.0	1 15/16 49.2	1 1/8 28.6	5 15/16 150.8	1 43/64 42.5	4 3/4 120.6	3.969 100.81	.688 17.48	3/4 19.0	1 17/64 32.1	1 25/32 45.2	3 19/32 91.3	6.6 3.0	UG231NL UG2E32NL
2 2 3/16	TH3-U232N TH3-U235N	5 1/16 138.1	4 101.6	2 1/4 57.15	3 19/32 91.3	2 1/2 63.5	1 3/8 34.9	7 7/16 188.9	1 3/4 44.4	5 7/8 149.2	5.094 129.39	1.062 26.97	1 1/4 31.8	1 13/32 35.7	2 1/64 51.2	4 23/32 119.8	13.5 6.1	UG232NL UG235NL
2 1/4 2 3/8 2 7/16	TH3-U236N TH3-U238N TH3-U239N	5 1/16 138.1	4 101.6	2 1/2 63.50	3 19/32 91.3	2 1/2 63.5	1 3/8 34.9	7 7/16 188.9	2 1/16 52.4	5 7/8 149.2	5.094 129.39	1.062 26.97	1 1/4 31.8	1 1/16 39.7	2 7/64 53.6	4 23/32 119.8	12.9 5.9	UG236NL UG238NL UG239NL

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size, 1/8" PT.

◆ Width dimension for closed end unit.

Selection guide, pages B-9, B-10.

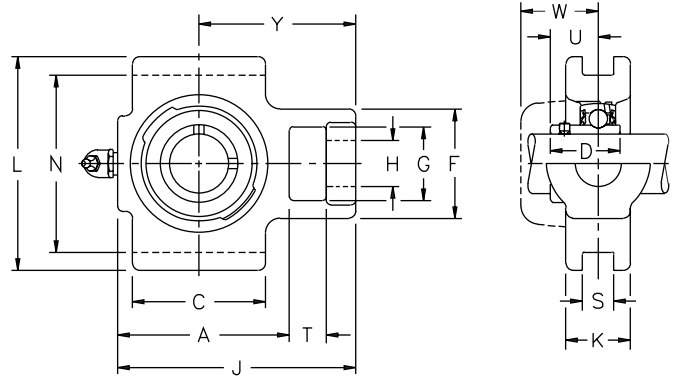
Load ratings, pages B-11, B-12.

Additional information, page B-75.

Intermediate Ball Bearing Takeup Units

TH3-S200E

Cast Iron Housing
Wide Slot Design
Alignable
Spring Locking
Relubricatable
Extended Inner Ring



Dimensions (inches/mm)

Shaft diameter	Takeup unit number	A	C	D	F	G	H	J	K	L	N +.000" -.015" (+0.00 -0.38)	S +.005" -.015" (+0.13 -0.38)	T	U	W ◆	Y	Unit wt. (lbs./kg.)	Bearing no.
inches	Lip seals																	
3/4	TH3-S212E	227/32 72.2	2 1/4 57.2	1 1/8 28.58	1 7/8 47.6	1 1/4 31.8	3/4 19.0	3 31/32 100.8	1 1/16 27.0	3 5/8 92.1	3.000 76.20	.531 13.49	5/8 15.9	3/4 19.0	1 5/16 33.3	2 21/32 67.5	2.4 1.1	SG212EL
7/8	TH3-S214E	229/32 73.8	2 1/4 57.2	1 3/16 30.17	1 27/32 46.8	1 1/4 31.8	3/4 19.0	4 1/32 102.4	1 3/32 27.8	3 5/8 92.1	3.000 76.20	.531 13.49	5/8 15.9	1 3/16 20.6	1 5/16 33.3	2 21/32 67.5	2.7 1.2	SG214EL
15/16	TH3-S215E																	SG215EL
1	TH3-S216E																	SG216EL
1 1/8	TH3-S218E	3 11/32 84.9	2 1/2 63.5	1 11/32 34.13	2 3/16 55.6	1 7/16 36.5	7/8 22.2	4 15/32 113.5	1 3/32 27.8	4 1/8 104.8	3.500 88.90	.531 13.49	5/8 15.9	6 1/64 24.2	1 29/64 36.9	2 27/32 72.2	3.2 1.5	SG218EL
1 3/16	TH3-S219E																	SG219EL
1 1/4	TH3-S2E20E																	SG2E20EL
1 1/4	TH3-S220E	3 11/16 93.7	2 3/4 69.8	1 9/16 39.67	2 5/16 58.7	1 7/16 36.5	7/8 22.2	4 13/16 122.2	1 3/16 30.2	4 1/8 104.8	3.500 88.90	.531 13.49	5/8 15.9	1 7/64 28.2	1 35/64 39.3	2 31/32 75.4	4.0 1.8	SG220EL
1 3/8	TH3-S222E																	SG222EL
1 7/16	TH3-S223E																	SG223EL
1 1/2	TH3-S224E	4 3/16 106.4	3 1/4 82.6	1 11/16 42.87	2 27/32 72.2	1 15/16 49.2	1 1/8 28.6	5 9/16 141.3	1 5/16 33.3	4 3/4 120.6	3.969 100.81	.688 17.48	3/4 19.0	1 13/64 30.6	1 41/64 41.7	3 15/32 88.6	5.3 2.4	SG224EL
1 5/8	TH3-S226E	4 3/16 106.4	3 1/4 82.6	1 49/64 44.85	2 7/8 73.0	1 15/16 49.2	1 1/8 28.6	5 9/16 141.3	1 3/8 34.9	4 3/4 120.6	3.969 100.81	.688 17.48	3/4 19.0	1 15/64 31.4	1 21/32 42.1	3 15/32 88.6	5.3 2.4	SG226EL
1 11/16	TH3-S227E																	SG227EL
1 3/4	TH3-S228E																	SG228EL
1 15/16	TH3-S231E	4 9/16 115.9	3 5/8 85.7	1 51/64 45.64	2 7/8 73.0	1 15/16 49.2	1 1/8 28.6	5 15/16 150.8	1 43/64 42.5	4 3/4 120.6	3.969 100.81	.688 17.48	3/4 19.0	1 17/64 32.1	1 25/32 45.2	3 19/32 91.3	6.6 3.0	SG231EL

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size, 1/8" PT.

◆ Width dimension for closed end unit.

Selection guide, pages B-9, B-10.

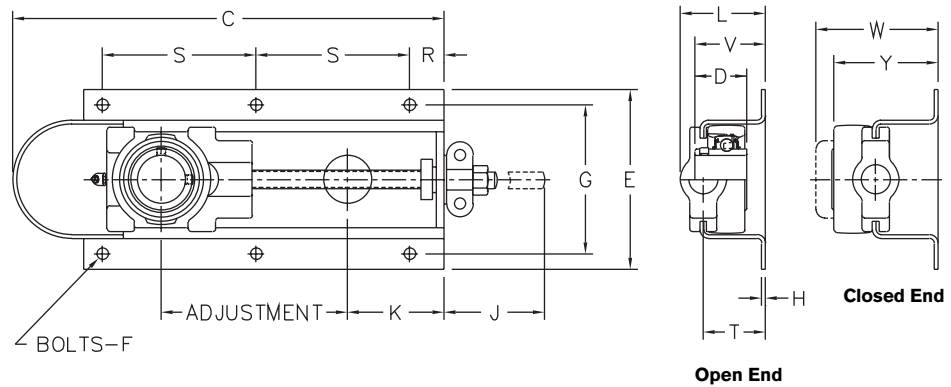
Load ratings, pages B-11, B-12.

Additional information, page B-75.

Standard Duty Ball Bearing Takeups

TAS3-U200N

Formed Steel Frame
Cast Iron Bearing Housing
Alignable
Spring Locking
Relubricatable
Wide Inner Ring
TA3-U200N Takeup Unit



Dimensions (inches/mm)

Shaft diameter	Adjustment	Takeup unit number	C	D	E	F	G	H	J	K	L	M	R	S	T	V	W	Y	Unit wt. (lbs./kg.)	Unit no.
mm	in.	Lip seals				Bolts								▲			●	●		
1 5/16	6	TAS3-U215N-6	13 1/4	1 23/64	4 7/8	5/16	4 1/8	1/8	7 3/16	3 3/8	2 5/16	1 3/4	1 1/2	4 1/2	1 5/8	1 5/16	3 37/64	2 27/32	7.5	TA3-U215N
25	152.4	TAS3-U216N-6	336.5	34.53	123.8	8	104.8	3.2	198.4	85.7	58.7	44.4	38.1	114.3	41.3	45.6	90.9	72.2	7.5	TA3-U216N
		TAS3-U2M25N-6	336.5	34.53	123.8	8	104.8	3.2	198.4	85.7	58.7	44.4	38.1	114.3	41.3	45.6	90.9	72.2	3.4	TA3-U2M25N
1 1/8	6	TAS3-U218N-6	15	1 1/16	6 1/4	3/8	5 1/4	3/16	8 3/16	3 11/16	2 7/8	2 3/32	1 5/8	4 7/8	2 1/8	2 11/32	4 19/64	3 1/2	11.0	TA3-U218N
1 1/16	6	TAS3-U219N-6	15	1 1/16	6 1/4	3/8	5 1/4	3/16	8 3/16	3 11/16	2 7/8	2 3/32	1 5/8	4 7/8	2 1/8	2 11/32	4 19/64	3 1/2	11.0	TA3-U219N
30	152.4	TAS3-U219N-12	21	1 1/16	6 1/4	3/8	5 1/4	3/16	8 3/16	3 11/16	2 7/8	2 3/32	1 5/8	4 7/8	2 1/8	2 11/32	4 19/64	3 1/2	15.0	TA3-U219N
	304.8	TAS3-U2M30N-6	381.0	39.69	158.8	10	133.4	4.8	208.0	93.7	73.0	53.2	41.3	123.8	54.0	59.5	109.1	88.9	5.0	TA3-U2M30N
		TAS3-U2M30N-12	533.4	39.69	158.8	10	133.4	4.8	360.4	93.7	73.0	53.2	41.3	136.5	54.0	59.5	109.1	88.9	6.8	TA3-U2M30N
1 1/4	6	TAS3-U220N-6	15	1 1/16	6 1/4	3/8	5 1/4	3/16	8 3/16	3 11/16	2 7/8	2 3/32	1 5/8	4 7/8	2 1/8	2 11/32	4 19/64	3 1/2	13.5	TA3-U220N
1 7/16	12	TAS3-U220N-12	21	1 1/16	6 1/4	3/8	5 1/4	3/16	8 3/16	3 11/16	2 7/8	2 3/32	1 5/8	4 7/8	2 1/8	2 11/32	4 19/64	3 1/2	15.2	TA3-U220N
	6	TAS3-U223N-6	15	1 1/16	6 1/4	3/8	5 1/4	3/16	8 3/16	3 11/16	2 7/8	2 3/32	1 5/8	4 7/8	2 1/8	2 11/32	4 19/64	3 1/2	13.0	TA3-U223N
35	152.4	TAS3-U223N-12	21	1 1/16	6 1/4	3/8	5 1/4	3/16	8 3/16	3 11/16	2 7/8	2 3/32	1 5/8	4 7/8	2 1/8	2 11/32	4 19/64	3 1/2	16.0	TA3-U223N
	304.8	TAS3-U2M35N-6	381.0	44.85	158.8	10	133.4	4.8	211.1	95.2	73.0	61.9	41.3	123.8	54.0	63.1	112.7	90.1	5.9	TA3-U2M35N
		TAS3-U2M35N-12	533.4	44.85	158.8	10	133.4	4.8	363.5	95.2	73.0	61.9	41.3	136.5	54.0	63.1	112.7	90.1	7.2	TA3-U2M35N
1 1/2	9	TAS3-U224N-9	19 3/4	1 29/32	7 7/8	3/8	6 5/8	1/4	11 1/4	4 1/2	3 3/8	2 11/16	1 5/8	5 6	2 3/4	3 1/16	5 5/32	4 3/8	24.0	TA3-U224N
	18	TAS3-U224N-18	28 3/4	1 29/32	7 7/8	3/8	6 5/8	1/4	20 1/4	4 1/2	3 3/8	2 11/16	1 5/8	5 6	2 3/4	3 1/16	5 5/32	4 3/8	31.0	TA3-U224N
40	228.6	TAS3-U2M40N-9	501.6	48.42	200.0	10	168.3	6.4	285.8	114.3	92.1	68.3	41.3	127.0	69.8	77.8	134.1	111.1	10.9	TA3-U2M40N
	457.2	TAS3-U2M40N-18	730.2	48.42	200.0	10	168.3	6.4	514.4	114.3	92.1	68.3	41.3	152.4	69.8	77.8	134.1	111.1	14.1	TA3-U2M40N
1 11/16	9	TAS3-U227N-9	19 3/4	2 1/32	7 7/8	3/8	6 5/8	1/4	11 1/4	4 1/2	3 3/8	2 11/16	1 5/8	5 6	2 3/4	3 1/16	5 5/32	4 3/8	25.5	TA3-U227N
	18	TAS3-U227N-18	28 3/4	2 1/32	7 7/8	3/8	6 5/8	1/4	20 1/4	4 1/2	3 3/8	2 11/16	1 5/8	5 6	2 3/4	3 1/16	5 5/32	4 3/8	32.0	TA3-U227N
1 3/4	9	TAS3-U228N-9	19 3/4	2 1/32	7 7/8	3/8	6 5/8	1/4	11 1/4	4 1/2	3 3/8	2 11/16	1 5/8	5 6	2 3/4	3 1/16	5 5/32	4 3/8	25.0	TA3-U228N
	18	TAS3-U228N-18	28 3/4	2 1/32	7 7/8	3/8	6 5/8	1/4	20 1/4	4 1/2	3 3/8	2 11/16	1 5/8	5 6	2 3/4	3 1/16	5 5/32	4 3/8	31.5	TA3-U228N
45	228.6	TAS3-U2M45N-9	501.6	41.59	200.0	10	168.3	6.4	284.2	117.5	92.1	73.0	41.3	127.0	69.8	77.8	138.1	114.3	11.3	TA3-U2M45N
	457.2	TAS3-U2M45N-18	730.2	41.59	200.0	10	168.3	6.4	512.8	117.5	92.1	73.0	41.3	152.4	69.8	77.8	138.1	114.3	14.5	TA3-U2M45N
1 5/16	9	TAS3-U231N-9	19 3/4	2 3/32	7 7/8	3/8	6 5/8	1/4	11 1/4	4 3/8	3 3/8	3 3/8	1 5/8	5 6	2 3/4	3 1/16	5 19/32	4 17/32	23.0	TA3-U231N
	18	TAS3-U231N-18	28 3/4	2 3/32	7 7/8	3/8	6 5/8	1/4	20 1/4	4 3/8	3 3/8	3 3/8	1 5/8	5 6	2 3/4	3 1/16	5 19/32	4 17/32	29.8	TA3-U231N
50	228.6	TAS3-U2M50N-9	501.6	53.18	200.0	10	168.3	6.4	285.8	117.5	92.1	79.4	41.3	127.0	69.8	77.8	142.1	115.1	10.4	TA3-U2M40N
	457.2	TAS3-U2M50N-18	730.2	53.18	200.0	10	168.3	6.4	514.4	117.5	92.1	79.4	41.3	152.4	69.8	77.8	142.1	115.1	13.5	TA3-U2M40N
2	9	TAS3-U232N-9	21 1/8	2 1/4	8 1/4	1/2	7 1/8	1/4	11 1/4	5 1/2	4 1/4	3 1/2	2 1/2	5 6	3 1/4	3 1/16	6 5/16	5 1/16	32.3	TA3-U232N
	18	TAS3-U232N-18	30 3/8	2 1/4	8 1/4	1/2	7 1/8	1/4	20 3/8	5 1/2	4 1/4	3 1/2	2 1/2	5 6	3 1/4	3 1/16	6 5/16	5 1/16	41.2	TA3-U232N
2 3/16	9	TAS3-U235N-9	21 1/8	2 1/4	8 1/4	1/2	7 1/8	1/4	11 1/4	5 1/2	4 1/4	3 1/2	2 1/2	5 6	3 1/4	3 1/16	6 5/16	5 1/16	29.9	TA3-U235N
	18	TAS3-U235N-18	30 3/8	2 1/4	8 1/4	1/2	7 1/8	1/4	20 3/8	5 1/2	4 1/4	3 1/2	2 1/2	5 6	3 1/4	3 1/16	6 5/16	5 1/16	39.0	TA3-U235N
55	228.6	TAS3-U2M55N-9	549.3	57.15	209.6	12	181.0	6.4	284.2	139.7	108.0	88.9	63.5	127.0	82.6	93.7	160.3	128.6	13.6	TA3-U2M55N
	457.2	TAS3-U2M55N-18	777.9	57.15	209.6	12	181.0	6.4	512.8	139.7	108.0	88.9	63.5	152.4	82.6	93.7	160.3	128.6	17.7	TA3-U2M55N

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size, 1/8" PT.

Closed end takeups available, suffix "C" (optional).

● On closed end takeup, bearing assembly is reversed.

▲ Frames with 6" (152.4 mm) adjustment have six holes.

Frames with 9" (228.6 mm) or 12" (304.8 mm) adjustment have eight holes.

Frames with 18" (457.2 mm) adjustment have ten holes.

Selection guide, pages B-9, B-10.

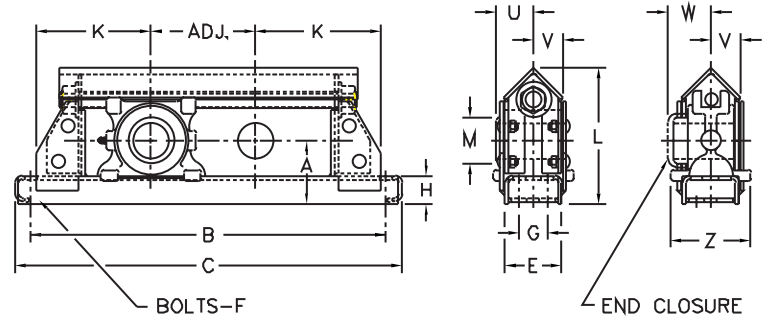
Load ratings, pages B-11, B-12.

Additional information, page B-75.

Standard Duty Ball Bearing Takeups

TDS3-U200N

Welded Steel Frame
Removable Top
Protected Screw
Cast Iron Bearing Housing
Alignable
Spring Locking
Relubricatable
Wide Inner Ring
TD3-U200N Takeup Units



Dimensions (inches/mm)

Shaft diameter	Adjustment	Takeup number	A	B	C	E	F	G	H	K	L	M	U	V	W	Z	Unit wt. (lbs./kg.)	Unit no.
mm inches	▲	Lip seals					Bolts											
50	12	TDS3-U231N-12	3 ¹⁵ / ₁₆	26 ¹ / ₂	28 ¹ / ₂	3	5	...	1 ³ / ₄	7 ¹ / ₄	8 ¹ / ₄	...	1 ¹⁷ / ₆₄	5 ⁵ / ₆₄	1 ¹⁵ / ₁₆	4 ¹ / ₈	41.0	TD3-U231N
	18	TDS3-U231N-18		32 ¹ / ₂	34 ¹ / ₂												47.0	
	24	TDS3-U231N-24		38 ¹ / ₂	40 ¹ / ₂												52.0	
	304.8	TDS3-U2M50N-12	100.0	673.1	723.9	76.2	16	...	44.4	184.2	209.6	...	32.1	21.8	49.2	104.8	18.6	TD3-U2M50N
	457.2	TDS3-U2M50N-18		825.5	876.3												21.3	
	609.6	TDS3-U2M50N-24		977.9	1028.7												23.6	
55	12	TDS3-U235N-12	4 ³ / ₁₆	27 ¹ / ₂	29 ¹ / ₂	3	5	...	1 ³ / ₄	7 ³ / ₄	8 ¹ / ₁₆	...	1 ¹³ / ₃₂	5 ⁵ / ₆₄	2 ³ / ₃₂	4 ¹ / ₈	45.0	TD3-U235N
	18	TDS3-U235N-18		33 ¹ / ₂	35 ¹ / ₂												51.0	
	24	TDS3-U235N-24		39 ¹ / ₂	41 ¹ / ₂												56.0	
	304.8	TDS3-U2M55N-12	106.4	698.5	749.3	76.2	16	...	44.4	196.8	220.7	...	35.7	21.8	53.3	104.8	20.4	TD3-U2M55N
	457.2	TDS3-U2M55N-18		850.9	901.7												23.1	
	609.6	TDS3-U2M55N-24		1003.3	1054.1												25.4	
60	12	TDS3-U239N-12	4 ³ / ₁₆	28 ¹ / ₂	30 ¹ / ₂	3	3/4	...	1 ³ / ₄	8 ¹ / ₄	9 ¹ / ₈	...	1 ⁹ / ₁₆	3 ¹ / ₃₂	2 ⁵ / ₃₂	4 ¹ / ₈	52.0	TD3-U239N
	18	TDS3-U239N-18		34 ¹ / ₂	36 ¹ / ₂												58.0	
	24	TDS3-U239N-24		40 ¹ / ₂	42 ¹ / ₂												63.0	
	30	TDS3-U239N-30	111.1	46 ¹ / ₂	48 ¹ / ₂	76.2	20	...	44.4	209.6	231.8	...	39.7	24.6	54.8	104.8	68.0	TD3-U2M60N
	304.8	TDS3-U2M60N-12		725.9	774.7												23.6	
	457.2	TDS3-U2M60N-18		876.3	927.1												38.6	
75	24	TDS3-U239N-24	5 ¹ / ₈	40 ¹ / ₂	42 ¹ / ₂	4	5	2	2	9 ¹ / ₄	10 ⁵ / ₈	4 ⁵ / ₈	1 ¹³ / ₁₆	1 ¹ / ₃₂	2 ¹³ / ₆₄	5 ¹ / ₈	76.0	TD3-U247N
	30	TDS3-U247N-30		48 ¹ / ₂	50 ¹ / ₂												85.0	
	304.8	TDS3-U2M75N-12		774.7	825.5	101.6	16	50.8	50.8	235.0	269.9	117.5	46.0	29.4	56.0	130.2	93.0	TD3-U2M75N
	457.2	TDS3-U2M75N-18	130.2	927.1	977.9												101.0	
	609.6	TDS3-U2M75N-24		1079.5	1130.3												34.5	
	762.0	TDS3-U2M75N-30		1231.9	1282.7												38.6	
85	12	TDS-U255N-12	5 ⁵ / ₈	32	34 ¹ / ₂	4	3/4	2	2	10	11 ¹³ / ₁₆	5 ⁵ / ₁₆	2 ¹ / ₈	1 ⁷ / ₁₆	2 ¹ / ₂	5 ⁵ / ₈	76.0	TD3-U255N
	18	TDS-U255N-18		38	40 ¹ / ₄												85.0	
	24	TDS-U255N-24		44	46 ¹ / ₄												93.0	
	30	TDS-U255N-30	142.9	50	52 ¹ / ₄	101.6	20	50.8	50.8	254.0	300.0	131.8	54.0	36.5	63.5	142.9	101.0	TD3-U2M85N
	304.8	TDS3-U2M85N-12		812.8	870.0												34.5	
	457.2	TDS3-U2M85N-18		965.2	1022.4												38.6	
100	24	TDS-U263N-24	7	48	50 ¹ / ₂	5	3/4	2 ¹ / ₂	2 ¹ / ₄	12	14 ¹¹ / ₁₆	5 ¹⁵ / ₁₆	2 ³⁷ / ₆₄	1 ⁴⁵ / ₆₄	3 ¹ / ₆₄	6 ⁷ / ₈	42.2	TD3-U263N
	30	TDS-U263N-30		54	56 ¹ / ₂												45.8	
	304.8	TDS3-U2M100N-12		914.4	977.9	127.0	20	63.5	57.2	304.8	373.1	150.8	65.5	43.2	76.6	174.6	42.2	TD3-U2M100N
	457.2	TDS3-U2M100N-18	177.8	1066.8	1130.3												45.8	
	609.6	TDS3-U2M100N-24		1219.2	1282.7												49.0	
	762.0	TDS3-U2M100N-30		1371.6	1435.1												52.6	

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size, ¹/₈" PT.

Closed end takeups available, suffix "C" (optional).

5 inch channel (DIM E) has hinged top construction.

▲ Takeups with adjustment of 18" (457.2 mm) or more have center supporting pad welded to bottom of frame.

Selection guide, pages B-9, B-10.

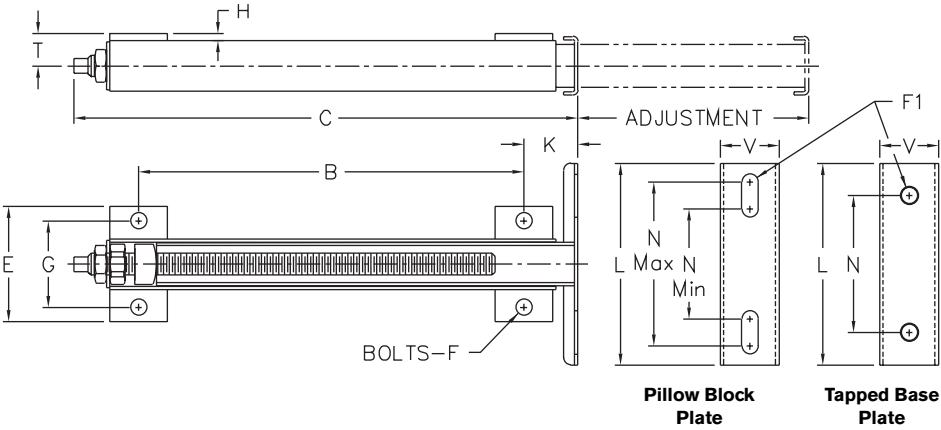
Load ratings, pages B-11, B-12.

Additional information, page B-75.

Standard Duty Ball Bearing Takeups

TP, TPT, TSP, TSPT

T-Frame Takeup
Protected Screw
Mild Steel or
AISI 304 Stainless Steel
Pillow Block Mounting or
Tapped Base Pillow Block Mounting
Pillow Block and Tapped Base
Pillow Block Units Not Included



Basic Series No.	Adjustment	B	C	E	F Bolts	G	H	K	T	Adj. Screw		Unit wt. lbs.	
										Sq. Drive	THD	Steel	Stainless
100	3	3 ⁹ / ₁₆	6 ⁷ / ₈	3 ¹ / ₁₆	3 ⁸ / ₁₆	2 ⁵ / ₈	1 ¹ / ₄	1 ¹ / ₂	7 ⁸ / ₁₆	3 ⁸ / ₁₆	5 ⁸ / ₁₆ -11	3.0	2.6
	6	7 ¹ / ₁₆	10 ³ / ₈									4.0	3.5
	9	11 ¹ / ₁₆	14 ³ / ₈									5.1	4.4
250	3	4 ³ / ₈	8 ¹ / ₂	4	1 ¹ / ₂	3	1 ¹ / ₄	1 ⁷ / ₈	1 ¹ / ₈	1 ¹ / ₂	3 ⁴ / ₁₆ -10	5.8	4.8
	6	7 ³ / ₈	11 ¹ / ₂									7.1	5.8
	9	10 ³ / ₈	14 ¹ / ₂									8.4	7.0
	12	13 ³ / ₈	17 ¹ / ₂									9.9	8.1
300	6	6 ¹ / ₈	11 ¹ / ₈	5 ¹ / ₄	5 ⁸ / ₁₆	4	1 ¹ / ₄	2 ³ / ₈	1 ¹ / ₂	1 ¹ / ₂	7 ⁸ / ₁₆ -9	11.0	11.4
	9	10 ¹ / ₈	15 ¹ / ₈									13.1	13.4
	12	14 ¹ / ₈	19 ¹ / ₈									16.0	16.5
	18	21 ¹ / ₈	26 ¹ / ₈									20.4	21.6
400	12	27 ³ / ₄	20	7 ¹ / ₂	3 ⁴ / ₁₆	5 ¹ / ₂	1 ¹ / ₄	3 ¹ / ₂	2 ¹ / ₈	Pinned Nut	1 ¹ / ₄ -7	42.9	...
	18	33 ³ / ₄	26									52.1	...
	24	39 ³ / ₄	32									61.3	...

Pillow Block Mounting*

Basic Series No.	Shaft dia.	T-Frame		F1 Bolts	L	N		V
		Steel	Stainless			Min.	Max.	
100	1/2 Thru 1	TP100-3	TSP100-3	3/8	5 1/4	2 15/16	4 5/16	1 1/2
		TP100-6	TSP100-6					
		TP100-9	TSP100-9					
250	1 1/8 Thru 1 3/4	TP250-3	TSP250-3	1/2	7	3 13/16	5 11/16	2 1/32
		TP250-6	TSP250-6					
		TP250-9	TSP250-9					
		TP250-12	TSP250-12					
300	1 15/16 Thru 2 7/16	TP300-6	TSP300-6	5/8	10	5 9/16	8 11/16	2 27/32
		TP300-9	TSP300-9					
		TP300-12	TSP300-12					
		TP300-18	TSP300-18					
400	2 1/2 Thru 3 1/2	TP400-12	-----	3/4	14	8 1/2	11 3/4	3 1/2
		TP400-18	-----					
		TP400-24	-----					

Tapped Base Mounting■

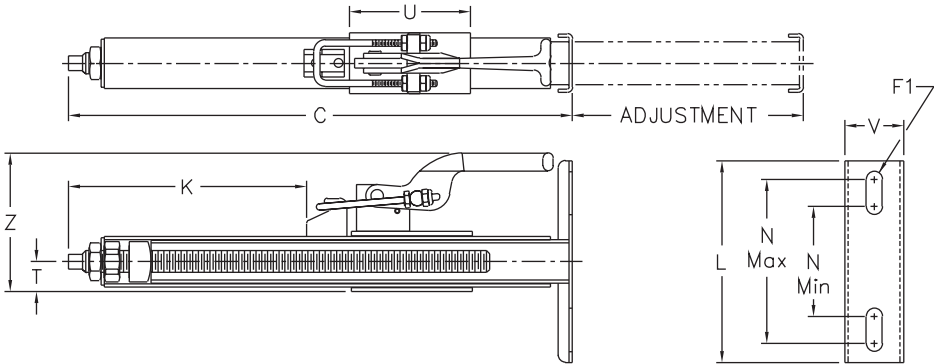
Shaft dia.	T-Frame		F1 Bolts	L	N	V
	Steel	Stainless				
3/4 Thru 1	TPT100-3	TSPT100-3	3/8	3	2	1 1/2
	TPT100-6	TSPT100-6				
	TPT100-9	TSPT100-9				
1 1/8 Thru 1 1/4	TPT2501-3	TSPT2501-3	7/16	4	3	1 1/2
	TPT2501-6	TSPT2501-6				
	TPT2501-9	TSPT2501-9				
	TPT2501-12	TSPT2501-12				
1 1/4 Thru 1 7/16	TPT2502-3	TSPT2502-3	1/2	4 1/4	3 3/4	2
	TPT2502-6	TSPT2502-6				
	TPT2502-9	TSPT2502-9				
	TPT2502-12	TSPT2502-12				
1 5/16 2	TPT2505-3	TSPT2505-3	5/8	5 1/2	4	2
	TPT2505-6	TSPT2505-6				
	TPT2505-9	TSPT2505-9				
	TPT2505-12	TSPT2505-12				
...	...	...	...	...	...	...
...	...	...	...	...	...	...

See footnotes on facing page.

Standard Duty Ball Bearing Takeups

TQP

T-Frame Takeup
Quick Release
Protected Screw
AISI 304 Stainless Steel
Pillow Block Mounting
Pillow Block Units Not Included



Shaft Dia.	T-Frame No.*	Adjust- ment	C	F1	K	L	N		T	U	V	Z	Adj. Screw		Unit wt. lbs.
							Min.	Max.					Sq Drive	THD	
1/2 Thru 1	TQP100-6	6	10 3/8	3/8	3 7/8	5 1/4	2 15/16	4 5/16	3/4	3	1 1/2	3 7/16	3/8	5/8-11	4.0
	TQP100-9	9	14 3/8		5 7/8					5					5.0
1 1/8 Thru 1 3/4	TQP250-6	6	11 1/2		1 9/16					4					7.0
	TQP250-9	9	14 1/2	1/2	3 1/16	7	3 13/16	5 11/16	1	6	2 1/32	4 7/8	1/2	3/4-10	8.2
	TQP250-12	12	17 1/2		4 9/16					8					9.5

Bold face items are normally available from stock; please consult for availability of non-stock items.

* For pillow block dimensions see page B-21.

■ For tapped base dimensions see page B-30.

Selection guide, pages B-9, B-10.

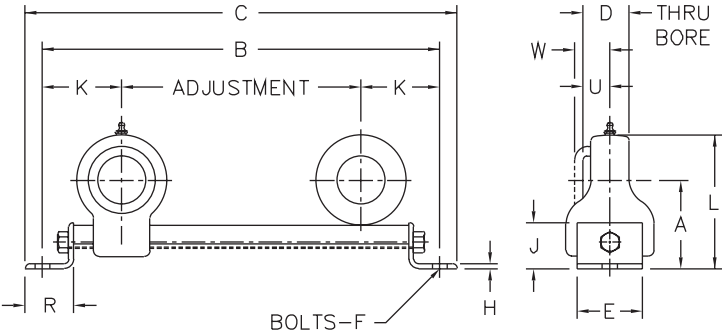
Load ratings, pages B-11, B-12.

Additional information, page B-75.

Standard Duty Ball Bearing Takeups

NT3-U200N

- Welded Channel Frame
- Protected Screw
- Cast Iron Bearing Housing
- Alignable
- Spring Locking
- Relubricatable
- Wide Inner Ring



Dimensions (inches/mm)

Shaft diameter		Adjustment	Takeup number		A	B	C	D	E	F Bolts	H	J	K	L	R	U	W	Unit wt. (lbs./kg.)
mm	in.																	
25	1 ⁵ / ₁₆	6	NT3-U215N-6	}	2 ³ / ₄	10 ⁷ / ₈	12 ¹ / ₄	1 ²³ / ₆₄	1 ³ / ₄	1 ¹ / ₂	3 ¹ / ₁₆	1 ¹ / ₂	2 ⁷ / ₁₆	4 ³ / ₁₆	2	5 ¹ / ₆₄	1 ⁹ / ₃₂	4.5
	1		NT3-U216N-6															4.5
		152.4	NT3-U2M25N-6		69.8	276.2	311.2	34.53	44.4	12	4.8	38.1	61.9	106.4	50.8	20.2	32.5	2.0
30	1 ³ / ₁₆	6	NT3-219N-6	}	3	10 ⁷ / ₈	12 ¹ / ₄	1 ⁹ / ₁₆	1 ³ / ₄	1 ¹ / ₂	3 ¹ / ₁₆	1 ¹ / ₂	2 ⁷ / ₁₆	4 ¹ / ₁₆	2	6 ¹ / ₆₄	1 ¹⁵ / ₃₂	5.0
			NT3-U2M30N-6															2.3
		152.4			76.2	276.2	311.2	39.69	44.4	12	4.8	38.1	61.9	119.1	50.8	24.2	37.3	
35	1 ⁷ / ₁₆	9	NT3-U223N-9	}	3 ¹ / ₁₆	14 ¹ / ₂	16 ¹ / ₂	1 ⁴⁹ / ₆₄	2 ¹ / ₄	1 ¹ / ₂	1 ¹ / ₄	2	2 ³ / ₄	5 ⁹ / ₁₆	2 ¹ / ₂	1 ⁷ / ₆₄	1 ⁹ / ₁₆	9.5
	12		NT3-U223N-12			17 ¹ / ₂	19 ¹ / ₂											10.0
		228.6	NT3-U2M35N-9			368.3	419.1											4.3
		304.8	NT3-U2M35N-12			444.5	495.3											4.5
50	1 ⁵ / ₁₆	9	NT3-U231N-9	}	4 ² / ₃₂	16	18 ¹ / ₂	2 ³ / ₃₂	3 ¹ / ₄	5 ⁸ / ₁₆	5 ⁵ / ₁₆	2 ¹ / ₂	3 ¹ / ₂	6 ²⁹ / ₃₂	3	1 ¹⁷ / ₆₄	1 ²⁵ / ₃₂	18.0
	12		NT3-U231N-12			19	21 ¹ / ₂											19.0
	18		NT3-U231N-18			25	27 ¹ / ₂											21.0
		228.6	NT3-U2M50N-9			406.4	469.9											8.2
		304.8	NT3-U2M50N-12			482.6	546.1											8.6
		457.2	NT3-U2M50N-18			635.0	698.5											9.5

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size, 1/8" PT.

Selection guide, pages B-9, B-10.

Load ratings, pages B-11, B-12.

Additional information, page B-75.

Universal Takeup Frames

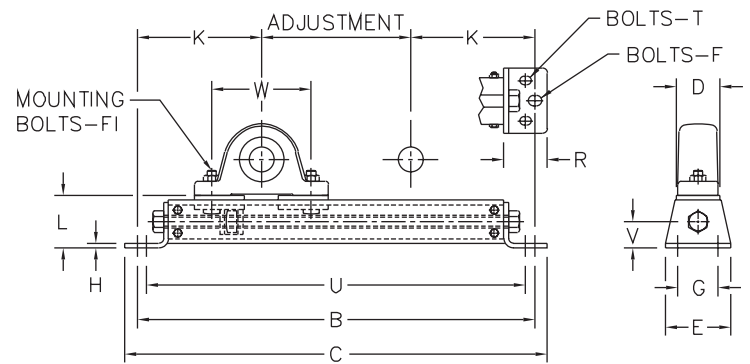
LC

Bolted Steel Frames

2 or 4-bolt Frame Mounting

Bolt Hole Centers Adjustable

Pillow Block Units Not Included



Dimensions (inches/mm)

Pillow block series*	Unit Mounting		Takeup frame number	Adjustment	B	C	D	E	F Bolts	G	H	K	L	R	T Bolts	U	V	W	
	Bolt dia. (F') and max. shaft size (A)																	Min.	Max.
	in.	mm																	
P3-U216N P3-U2M25N PL3-U216N PL3-U2M25N	3/8	10	LC1-6 LC1-9 LC1-12	6 9 12	16 19 22	17 20 23	1 3/4 44.5	2 5/8 66.7	3/8 10	1 5/8 41.3	3/16 4.8	5 127.0	2 1/8 54.0	1 3/4 44.5	5/16 8	15 1/4 18 1/4 21 1/4	1 1/16 27.0	3 76.2	5 15/16 127.0
1	25	152.4 228.6 304.8		406.4 482.6 558.8	431.8 508.0 584.2	387.4 436.6 539.8													
1 1/2	38	152.4 228.6 304.8		406.4 482.6 558.8	431.8 508.0 584.2	387.4 436.6 539.8													
1 3/4	41	152.4 228.6 304.8		406.4 482.6 558.8	431.8 508.0 584.2	387.4 436.6 539.8													
P3-U231N P3-U2M50N PL3-U231N PL3-U2M50N PH3-U219N PH3-U2M30N	1/2	12	LC2-6 LC2-9 LC2-12 LC2-18	6 9 12 18	19 1/8 22 1/8 25 1/8 31 1/8	20 1/4 23 1/4 26 1/4 32 1/4	2 3/8 60.3	3 1/8 79.4	1/2 12	2 1/8 54.0	1/4 6.4	6 9/16 166.7	2 11/16 68.3	2 3/16 55.6	3/8 10	18 1/8 21 1/8 24 1/8 30 3/8	1 11/32 34.1	3 3/4 95.2	7 1/4 184.2
1 1/4	30	152.4 228.6 304.8		406.4 482.6 558.8	431.8 508.0 584.2	387.4 436.6 539.8													
1 1/2	38	152.4 228.6 304.8		406.4 482.6 558.8	431.8 508.0 584.2	387.4 436.6 539.8													
1 3/4	41	152.4 228.6 304.8		406.4 482.6 558.8	431.8 508.0 584.2	387.4 436.6 539.8													
P3-U239N P3-U2M60N PL3-U235N PL3-U2M55N PH3-U235N PH3-U2M55N	5/8	16	LC3-9 LC3-12 LC3-18 LC3-24	9 12 18 24	25 1/8 28 1/8 34 1/8 40 1/8	26 1/8 29 1/8 35 1/8 41 1/8	3 76.2	4 101.6	5/8 16	2 3/4 69.8	5/8 7.9	8 3/32 207.2	3 1/8 84.1	2 3/4 69.8	1/2 12	24 1/8 27 1/8 33 1/8 39 1/8	1 5/8 41.3	4 1/4 108.0	9 228.6
1 1/4	30	228.6 304.8 457.2 609.6		406.4 482.6 558.8 1023.9	431.8 508.0 584.2 1055.7	387.4 436.6 539.8 992.2													
1 1/2	38	228.6 304.8 457.2 609.6		406.4 482.6 558.8 1023.9	431.8 508.0 584.2 1055.7	387.4 436.6 539.8 992.2													
1 3/4	41	228.6 304.8 457.2 609.6		406.4 482.6 558.8 1023.9	431.8 508.0 584.2 1055.7	387.4 436.6 539.8 992.2													

Bold face items are normally available from stock; please consult for availability of non-stock items.

* Nominal maximum size of pillow block to fit frame. Use dimensions A, D, and W as limits for fitting and mounting ball bearing pillow blocks.

Selection guide, pages B-9, B-10.

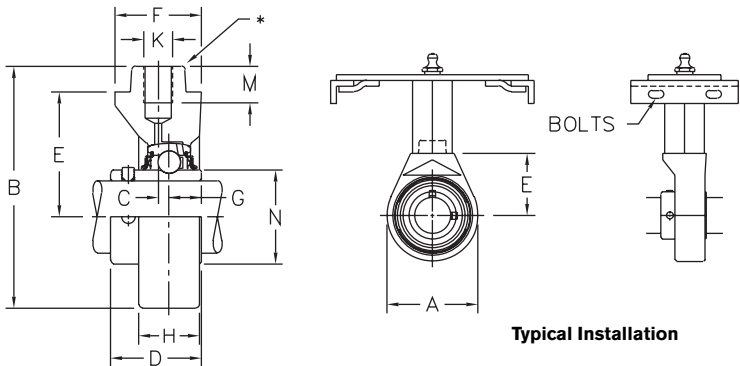
Load ratings, pages B-11, B-12.

Additional information, page B-75.

Standard Duty Screw Conveyor Hanger Bearing Units

HM3-U200

High-test Iron Housing
Alignable
Spring Locking
Relubricatable
Wide Inner Ring



Dimensions (inches/mm)

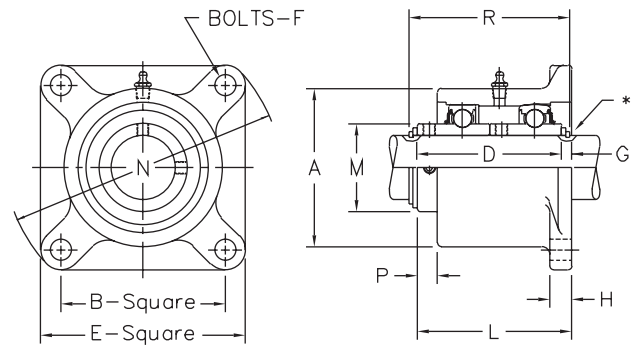
Shaft diameter	Hanger unit number	A	B	C	D	E ±.015" ±0.38 mm	F	G	H	Thread K	M	N	Unit wt. (lbs./kg.)	Bearing no.
1½	HM3-U224E3	3.88 98.6	5.19 131.8	.218 5.54	1.91 48.5	2.500 63.50	1.75 44.4	.734 18.64	.97 24.6	¾-10 NC —	1.00 25.4	2.083 52.91	5.0 2.3	UG224E3L
2	HM3-U2E32E3	4.38 111.3	5.44 138.2	.170 4.32	2.00 50.8	2.500 63.50	1.75 44.4	.828 21.03	.91 23.1	¾-10 NC —	1.00 25.4	2.475 62.86	6.3 2.9	BS225555
2⅞	HM3-U239N	5.25 133.4	7.00 177.8	.310 7.87	2.50 63.5	3.625 92.08	2.50 63.5	.938 23.83	1.75 44.4	⅞-9 NC —	1.06 26.9	3.012 76.50	11.3 5.1	UG239NL
3	HM3-U2E48N	6.12 155.6	7.44 189.0	.375 9.52	2.88 73.02	3.625 92.08	2.50 63.5	1.062 26.99	2.00 50.8	⅞-9 NC —	1.06 26.9	3.624 92.05	12.9 5.9	UG2E48NL
3⅞	HM3-U255N	7.50 190.5	9.25 235.0	.344 8.74	3.562 90.49	4.500 114.30	3.56 90.5	1.438 36.51	2.56 65.0	1⅞-12 NF —	1.88 47.8	4.158 105.61	24.8 11.3	UG255NL

Please consult for availability.
† Shaft sizes 1½"-2" to fit 1¼" square tubing; 2⅞"-3", 1¾" square, 3⅞", 2½" square.
Selection guide, pages B-9, B-10.
Load ratings, pages B-11, B-12.
Additional information, page B-75.

Standard Duty Screw Conveyor Trough End Units

FF 200

Cast Iron Housing
2 Ball Bearings
Spring Locking
Relubricatable



Dimensions (inches/mm)

Shaft diameter	Flanged unit number	Replacement bearing number	A	B	D	E	F	G	H	L	M	N	P	R	Unit wt. (lbs./kg.)
inches	Lip seals	■					Bolts								
1½	FF 224N	UR224A	4 101.6	4 101.60	3⅓ ₁₆ 96.84	5⅛ 130.2	½ 12	¼ 6.4	⅝ ₁₆ 14.3	4⅛ ₁₆ 103.2	...	6 ²⁵ / ₃₂ 172.2	½ 12.7	47/ ₃₂ 107.2	10.0 4.5
2	FF 232N	UR232A	4⅞ ₁₆ 125.4	5⅛ 130.17	4½ 114.30	6⅝ ₁₆ 161.9	⅝ ₁₆ 16	⅝ ₁₆ 7.9	1⅛ ₁₆ 17.5	4⅓ ₁₆ 122.2	...	8½ 215.9	⅝ ₁₆ 15.9	5⅓ ₃₂ 127.8	17.4 7.9
2⅜ ₁₆	FF 235N	UR235A													
27/ ₁₆	FF 239N	UR239A	5⅝ ₁₆ 136.5	5⅝ ₁₆ 142.88	5 127.00	6⅞ ₁₆ 174.6	⅝ ₁₆ 16	⅝ ₁₆ 7.9	1⅛ ₁₆ 17.5	5⅝ ₁₆ 134.9	...	97/ ₃₂ 234.2	1⅞ ₃₂ 15.1	517/ ₃₂ 140.5	20.8 9.4
2¾	FF 244N	UR244A	6⅝ ₁₆ 161.9	6 152.40	5¾ 146.05	7¾ 196.8	¾ 20	⅝ ₁₆ 7.9	¾ 19.0	6⅛ ₁₆ 154.0	4⅝ ₁₆ 117.5	10¼ 260.4	1⅛ ₁₆ 17.5	6⅞ ₃₂ 159.5	31.1 14.1
2⅞ ₁₆	FF 247N	UR247A													
3	FF 2E48N	UR2E48A													
37/ ₁₆	FF 255N	UR255A	7 177.8	6¾ 171.45	7⅛ 180.98	8⅞ ₁₆ 217.5	¾ 20	½ 12.7	1 25.4	7⅝ ₁₆ 193.7	5⅝ ₁₆ 131.8	11⅝ ₁₆ 288.9	¾ 19.0	7 ²³ / ₃₂ 196.0	50.2 22.8

Bold face items are normally available from stock; please consult for availability of non-stock items.

* Support thrust load (preferably in shear) with heavy duty snap ring and square face washer. See below.

Lubrication fitting tap size: for 27/₁₆" and smaller shafts, ¼" PT; for all other shafts, ⅜" PT.

■ Includes two bearings, with seals, and inner ring set screws or collar with set screws.

Selection guide, pages B-9, B-10.

Load ratings, pages B-11, B-12.

Additional information, page B-75.

Shaft Washer and Retaining Data. Not Furnished by Link-Belt Bearing Division.

Shaft Size (inches)	Heavy Series Retaining Ring Eaton Number	Sharp Cornered Thrust Washer		
		Bore (in.)	O.D. (in.)	Width (in.)
1½	344-1		2	.0625
2 and 2⅜ ₁₆	1071	(⅛ ₄ over the shaft diameter)	2½	.125
27/ ₁₆	1227		3	.125
2¾ to 3	5224		3½	.125
37/ ₁₆	5531		4⅛ ₁₆	.140

Spring Locking Ball Bearings

U200NL, UB200NL

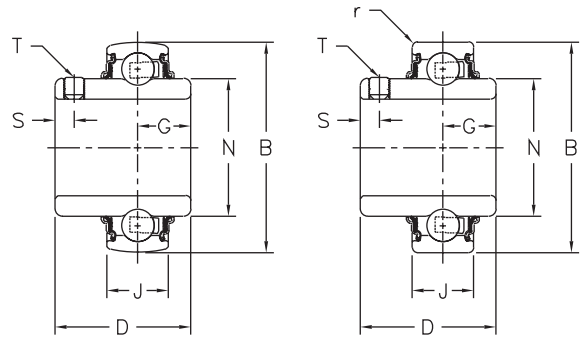
Spherical or Cylindrical O.D.

Sealed

Spring Locking

Non-relubricatable

Wide Inner Ring



U200NL

UB200NL

Dimensions (inches/mm)

Shaft diameter		Bearing number with set screws		Bore tolerance	B	D	G	J		N	r	S	T Tap Size
mm	inches	Spherical O.D.	Cylindrical O.D.					Cyl. O.D.	Spher. O.D.				
17	1/2	U2B08NL	UB2B08NL	+0.0006 -0.0000	1.5748	1 1/32	.4531	.4724	.5118	.941	.024	.15	10-32
	5/8	U210NL	UB210NL										
	11/16	U211NL	UB211NL										
		U2M17NL	UB2M17NL										
20	3/4	U212NL	UB212NL	+0.0007 -0.0000	1.8504	1 1/32	.5313	.5512	.5906	1.121	.039	.19	1/4-28
		U2M20NL	UB2M20NL	+0.018 -0.000	47.000	32.54	13.494	14.000	15.000	28.47	1.00	4.8	
25	7/8	U214NL△	UB214NL△	+0.0007 -0.0000	2.0472	1 23/64	.5625	.5906	.5906	1.313	.039	.22	1/4-28
	15/16	U215NL△	UB215NL△										
	1	U216NL△	UB216NL△										
		U2M25NL	UB2M25NL										
30	1 1/8	U218NL	UB218NL	+0.0007 -0.0000	2.4409	1 1/16	.6094	.6299	.7087	1.587	.039	.22	1/4-28
	1 1/16	U219NL	UB219NL										
	1 1/4	U2E20NL	UB2E20NL										
		U2M30NL	UB2M30NL										
35	1 1/4	U220NL△	UB220NL△	+0.0008 -0.0000	2.8346	1 49/64	.6563	.6693	.7480	1.847	.039	.25	5/16-24
	1 3/8	U222NL△	UB222NL△										
	1 7/16	U223NL△	UB223NL△										
		U2M35NL	UB2M35NL										
40	1 1/2	U224NL△	UB224NL△	+0.0008 -0.0000	3.1496	1 29/32	.7344	.7087	.8661	2.083	.039	.32	5/16-24
		U2M40NL	UB2M40NL	+0.020 -0.000	80.000	48.42	18.653	18.000	22.000	52.91	1.00	8.1	
45	1 5/8	U226NL△	UB226NL△	+0.0008 -0.0000	3.3465	2 1/32	.7969	.7480	.8661	2.281	.039	.32	5/16-24
	1 11/16	U227NL△	UB227NL△										
	1 3/4	U228NL△	UB228NL△										
		U2M45NL	UB2M45NL										
50	1 5/8	U231NL△	UB231NL△	+0.0008 -0.0000	3.5433	2 3/32	.8261	.7874	.8661	2.475	.039	.38	3/8-24
	2	U2E32NL△	UB2E32NL△										
		U2M50NL	UB2M50NL										
55	2	U232NL△	UB232NL△	+0.0009 -0.0000	3.9370	2 1/4	.8438	.8268	.9843	2.749	.059	.38	3/8-24
	2 3/16	U235NL△	UB235NL△										
		U2M55NL	UB2M55NL										
60	2 1/4	U236NL	UB236NL	+0.0009 -0.0000	4.3307	2 1/2	.9375	.8661	1.0630	3.012	.059	.38	3/8-24
	2 3/8	U238NL	UB238NL										
	2 7/16	U239NL	UB239NL										
		U2M60NL	UB2M60NL										

Please consult for availability.

◆ Max fillet radius of housing to clear bearing corner.

□ Bearing O.D. tolerance; for 1 1/2" and smaller shaft, +.0000"-.0005" (+0.000 mm -0.013 mm); 1 5/8" thru 2 11/16" shafts, +.0000"-.0006" (+0.000 mm -0.015 mm); 2 1/2" thru 3 1/2" shafts +.0000"-.0008" (+0.000 mm -0.020 mm); all other sizes, +.0000"-.0010" (+0.000 mm -0.025 mm).

■ N lip seals standard. H labyrinth seals available.

△ Available with E3 triple lip seals.

Selection guide, pages B-9, B-10.

Load ratings, pages B-11, B-12.

Additional information, page B-77.

Spring Locking Ball Bearings

UG200NL, UBG200NL

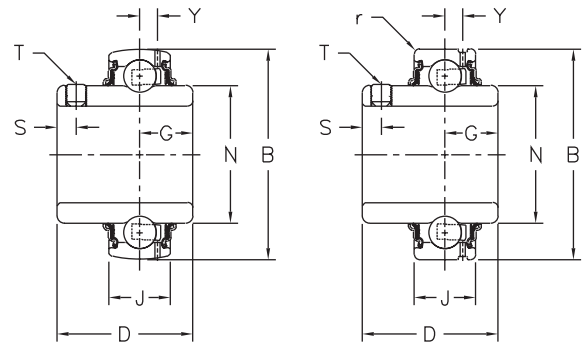
Spherical or Cylindrical O.D.

Sealed

Spring Locking

Relubricatable

Wide Inner Ring



UG200NL

UBG200NL

Dimensions (inches/mm)

Shaft diameter		Bearing number with set screws		Bore tolerance	B □	D	G	J		M Collar O.D.	N	r ◆	S	T Tap Size	Y
mm	inches	Spherical O.D.	Cylindrical O.D.					Cyl. O.D.	Spher. O.D.						
17	1/2	UG2B08NL	UBG2B08NL	+.0006 –.0000	1.5748	1 3/32	.4531	.4724	.5118	...	.941	.024	.15	10–32	.129
	5/8	UG210NL	UBG210NL												
	11/16	UG211NL	UBG211NL												
		UG2M17NL	UBG2M17NL												
20	3/4	UG212NL	UBG212NL	+.0007 –.0000	1.8504	1 9/32	.5313	.5512	.5906	...	1.121	.039	.19	1/4–28	.137
		UG2M20NL	UBG2M20NL												
25	7/8	UG214NL△	UBG214NL△	+.0007 –.0000	2.0472	1 23/64	.5625	.5906	.5906	...	1.313	.039	.22	1/4–28	.140
	15/16	UG215NL△	UBG215NL△												
	1	UG216NL△	UBG216NL△												
		UG2M25NL	UBG2M25NL												
30	1 1/8	UG218NL	UBG218NL	+.0007 –.0000	2.4409	1 9/16	.6094	.7087	.7087	...	1.587	.039	.22	1/4–28	.202
	1 3/16	UG219NL	UBG219NL												
	1 1/4	UG2E20NL	UBG2E20NL												
		UG2M30NL	UBG2M30NL												
35	1 1/4	UG220NL△	UBG220NL△	+.0008 –.0000	2.8346	1 49/64	.6563	.7480	.7480	...	1.847	.039	.25	5/16–24	.239
	1 3/8	UG222NL△	UBG222NL△												
	1 7/16	UG223NL△	UBG223NL△												
		UG2M35NL	UBG2M35NL												
40	1 1/2	UG224NL△	UBG224NL△	+.0008 –.0000	3.1496	1 29/32	.7344	.8268	.8661	...	2.083	.039	.32	5/16–24	.253
		UG2M40NL△	UBG2M40NL△												
45	1 5/8	UG226NL△	UBG226NL△	+.0008 –.0000	3.3465	2 1/32	.7969	.8661	.8661	...	2.281	.039	.32	5/16–24	.254
	1 11/16	UG227NL△	UBG227NL△												
	1 3/4	UG228NL△	UBG228NL△												
		UG2M45NL	UBG2M45NL												
50	1 15/16	UG231NL△	UBG231NL△	+.0008 –.0000	3.5433	2 3/32	.8281	.9055	.8661	...	2.475	.039	.38	3/8–24	.268
	2	UG2E32NL△	UBG2E32NL△												
		UG2M50NL	UBG2M50NL												
55	2	UG232NL△	UBG232NL△	+.0009 –.0000	3.9370	2 1/4	.8438	.9843	.9843	...	2.749	.059	.38	3/8–24	.295
	2 3/16	UG235NL△	UBG235NL△												
		UG2M55NL	UBG2M55NL												
60	2 1/4	UG236NL	UBG236NL	+.0009 –.0000	4.3307	2 1/2	.9375	1.0630	1.0630	...	3.012	.059	.38	3/8–24	.330
	2 3/8	UG238NL	UBG238NL												
	2 7/16	UG239NL	UBG239NL												
		UG2M60NL	UBG2M60NL												
65	2 1/2	UG240NL	...	+.0009 –.0000	4.7244	2 11/16	1.0000	...	1.0630	4 3/16	3.331	...	...	...	.343
	2 11/16	UG243NL	...												
		UG2M65NL	...												
75	2 3/4	UG244NL	...	+.0009 –.0000	5.1181	2 7/8	1.0625	...	1.1417	4 5/8	3.624	...	...	...	.367
	2 5/8	UG247NL	...												
	3	UG2E48NL	...												
		UG2M75NL	...												
85	3 7/16	UG255NL	...	+.0011 –.0000	5.9055	3 9/16	1.4375	...	1.3386	5 3/16	4.158	...	...	...	.415
	3 1/2	UG2E56NL	...												
		UG2M85NL	...												
100	3 15/16	UG263NL	...	+.0011 –.0000	7.0866	4 1/4	1.6719	...	1.5748	5 15/16	4.913	...	...	...	.504
	4	UG2E64NL	...												
		UG2M100NL	...												

See footnotes on facing page.

Collar Mounted Ball Bearings

Y200NL, YB200NL

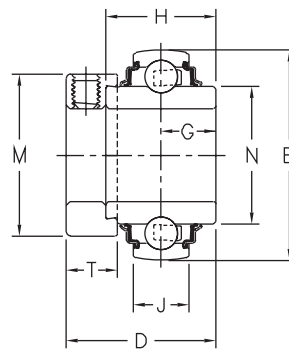
Spherical or Cylindrical O.D.

Sealed

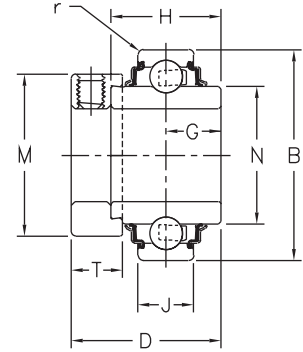
Eccentric Cam Locking Collar

Non-relubricatable

Wide Inner Ring



Y200NL



YB200NL

Dimensions (inches/mm)

Shaft diameter in.	Bearing number with collar		Collar number	Bore tolerance	B □	D	G	H	J		M	N	r ◆	T
	Spherical O.D.	Cylindrical O.D.							Cyl. O.D.	Spher. O.D.				
1/2	Y2B08NL	YB2B08NL	W2B08-5S	+0.0006 –0.0000 +0.015 –0.000	1.5748 40.000	1 15/32 37.31	.5469 13.891	1.0938 27.781	.4724 12.000	.5118 13.000	1 1/8 28.6	.941 23.90	.024 0.61	17/32 13.5
5/8	Y210NL	YB210NL	W210-5S											
11/16	Y211NL	YB211NL	W211-5S											
3/4	Y212NL	YB212NL	W212-5S	+0.0007 –0.0000 +0.018 –0.000	1.8504 47.000	1 23/32 43.66	.6719 17.066	1.3438 34.131	.5512 14.000	.5906 15.000	1 1/16 33.3	1.121 28.47	.039 1.00	18/32 13.5
7/8	Y214NL△	YB214NL△	W214-5S	+0.0007 –0.0000 +0.018 –0.000	2.0472 52.000	1 3/4 44.45	.6875 17.462	1.3750 34.925	.5906 15.000	.5906 15.000	1 1/2 38.1	1.313 33.35	.039 1.00	17/32 13.5
15/16	Y215NL△	YB215NL△	W215-5S											
1	Y216NL△	YB216NL△	W216-5S											
1 1/8	Y218NL	YB218NL	W218-5S	+0.0007 –0.0000 +0.018 –0.000	2.4409 62.000	1 29/32 48.42	.7188 18.256	1.4375 36.513	.6299 16.000	.7087 18.000	1 3/4 44.4	1.587 40.31	.039 1.00	5/8 15.9
1 1/16	Y219NL	YB219NL	W219-5S											
1 1/4	Y2E20NL	YB2E20NL	W2E20-5S											
1 1/4	Y220NL△	YB220NL△	W220-5S	+0.0008 –0.0000 +0.020 –0.000	2.8346 72.000	2 1/64 51.20	.7422 18.852	1.4844 37.703	.6693 17.000	.7480 19.000	2 3/16 55.6	1.847 46.91	.039 1.00	1 1/16 17.5
1 3/8	Y222NL△	YB222NL△	W222-5S											
1 7/8	Y223NL△	YB223NL△	W223-5S											
1 1/2	Y224NL△	YB224NL△	W224-5S	+0.0008 –0.0000 +0.020 –0.000	3.1496 80.000	2 7/32 56.36	.8438 21.431	1.6875 42.863	.7087 18.000	.8661 22.000	2 3/8 60.3	2.083 52.91	.039 1.00	23/32 18.2
1 5/8	Y226NL△	YB226NL△	W226-5S	+0.0008 –0.0000 +0.020 –0.000	3.3465 85.000	2 7/32 56.36	.8438 21.431	1.6875 42.863	.7480 19.000	.8661 22.000	2 1/2 63.5	2.281 57.94	.039 1.00	23/32 18.2
1 11/16	Y227NL△	YB227NL△	W227-5S											
1 3/4	Y228NL△	YB228NL△	W228-5S											
1 15/16	Y231NL△	YB231NL△	W231-5S	+0.0008 –0.0000 +0.020 –0.000	3.5433 90.000	2 15/32 62.71	.9688 24.606	1.9375 49.213	.7874 20.000	.8661 22.000	2 3/4 69.8	2.475 62.86	.039 1.00	23/32 18.2
2	Y2E32NL△	YB2E32NL△	W2E32-5S											
2	Y232NL△	YB232NL△	W232-5S											
2 3/16	Y235NL△	YB235NL△	W235-5S	+0.0009 –0.0000 +0.023 –0.000	3.9370 100.000	2 13/16 71.44	1.0938 27.781	2.1875 55.563	.8268 21.000	.9843 25.000	3 76.2	2.749 69.82	.059 1.50	13/16 20.6
2 1/4	Y236NL	YB236NL	W236-5S	+0.0009 –0.0000 +0.023 –0.000	4.3307 110.000	3 1/16 77.79	1.2188 30.956	2.4375 61.913	.8661 22.000	1.0630 27.000	3 1/4 82.6	3.012 76.50	.059 1.50	7/8 22.2
2 3/8	Y238NL	YB238NL	W238-5S											
2 7/16	Y239NL	YB239NL	W239-5S											

Please consult for availability.

◆ Max fillet radius of housing to clear bearing corner.

△ Available with E3 triple lip seals.

□ Bearing O.D. tolerance; for 1 1/2" and smaller shaft, +.0000" –.0005" (+0.000 mm –0.013 mm); all others +.0000" –.0006" (+0.000 mm –0.015 mm).

Selection guide, pages B-9, B-10.

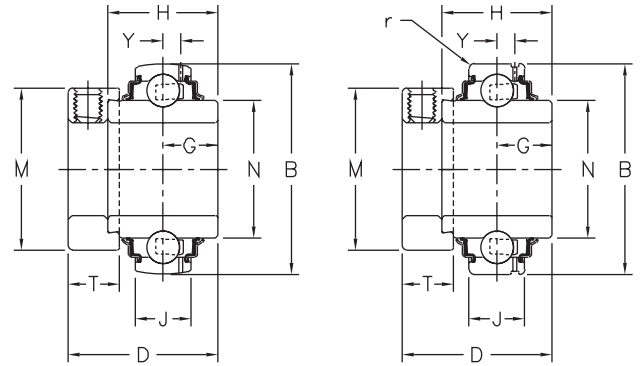
Load ratings, pages B-11, B-12.

Additional information, page B-77.

Collar Mounted Ball Bearing

YG200NL, YBG200NL

Spherical or Cylindrical O.D.
Sealed
Eccentric Cam Locking Collar
Relubricatable
Wide Inner Ring



YG200NL

YBG200NL

Dimensions (inches/mm)

Shaft diameter inches	Bearing number with collar ■		Collar number	Bore tolerance	B □	D	G	H	J		M	N	r ◆	Y
	Spherical O.D.	Cylindrical O.D.							Cyl. O.D.	Spher. O.D.				
1/2	YG2B08NL	YBG2B08NL	W2B08-5S	+0.0006 –0.0000 +0.015 –0.000	1.5748 40.000	1 15/32 37.31	.5469 13.891	1.0938 27.781	.4724 12.000	.5118 13.000	1 1/8 28.6	.941 23.90	.024 0.61	.129 3.28
5/8	YG210NL	YBG210NL	W210-5S											
11/16	YG211NL	YBG211NL	W211-5S											
3/4	YG212NL	YBG212NL	W212-5S	+0.0007 –0.0000 +0.018 –0.000	1.8504 47.000	1 23/32 43.66	.6719 17.066	1.3438 34.131	.5512 14.000	.5906 15.000	1 1/16 33.3	1.121 28.47	.039 1.00	.137 3.48
7/8	YG214NL △	YBG214NL△	W214-5S	+0.0007 –0.0000 +0.018 –0.000	2.0472 52.000	1 3/4 44.45	.6875 17.462	1.3750 34.925	.5906 15.000	.5906 15.000	1 1/2 38.1	1.313 33.35	.039 1.00	.140 3.56
15/16	YG215NL △	YBG215NL△	W215-5S											
1	YG216NL △	YBG216NL△	W216-5S											
1 1/8	YG218NL	YBG218NL	W218-5S	+0.0007 –0.0000 +0.018 –0.000	2.4409 62.000	1 29/32 48.42	.7188 18.256	1.4375 36.513	.7087 18.000	.7087 18.000	1 3/4 44.5	1.587 40.31	.039 1.00	.202 5.13
1 1/16	YG219NL	YBG219NL	W219-5S											
1 1/4	YG220NL	YBG220NL	W220-5S											
1 3/8	YG222NL △	YBG222NL△	W222-5S	+0.0008 –0.0000 +0.020 –0.000	2.8346 72.000	2 1/64 51.20	.7422 18.852	1.4844 37.703	.7480 19.000	.7480 19.000	2 3/16 55.6	1.847 46.91	.039 1.00	.239 6.07
1 1/2	YG223NL △	YBG223NL△	W223-5S											
	YG224NL △	YBG224NL△	W224-5S											
1 5/8	YG226NL △	YBG226NL△	W226-5S	+0.0008 –0.0000 +0.020 –0.000	3.1496 80.000	2 7/32 56.36	.8438 21.431	1.6875 42.863	.8268 21.000	.8661 22.000	2 3/8 60.3	2.083 52.91	.039 1.00	.253 6.43
1 11/16	YG227NL △	YBG227NL△	W227-5S											
1 3/4	YG228NL △	YBG228NL△	W228-5S											
1 15/16	YG231NL △	YBG231NL△	W231-5S	+0.0008 –0.0000 +0.020 –0.000	3.5433 90.000	2 15/32 62.71	.9688 24.606	1.9375 49.213	.9055 23.000	.8661 22.000	2 3/4 69.8	2.475 62.86	.039 1.00	.268 6.81
2	YG2E32NL △	YBG2E32NL△	W2E32-5S											
	YG232NL △	YBG232NL△	W232-5S											
2 1/8	YG235NL △	YBG235NL△	W235-5S	+0.0009 –0.0000 +0.023 –0.000	3.9370 100.000	2 13/16 71.44	1.0938 27.781	2.1875 55.563	.9843 25.000	.9843 25.000	3 76.2	2.749 69.82	.059 1.50	.295 7.49
2 3/16	YG236NL	YBG236NL	W236-5S											
	YG238NL	YBG238NL	W238-5S											
2 1/4	YG239NL	YBG239NL	W239-5S	+0.0009 –0.0000 +0.023 –0.000	4.3307 110.000	3 1/16 77.79	1.2188 30.956	2.4375 61.913	1.0630 27.000	1.0630 27.000	3 1/4 82.6	3.012 76.50	.059 1.50	.330 8.38
2 3/8	YG238NL	YBG238NL	W238-5S											
2 7/16	YG239NL	YBG239NL	W239-5S											

Bold face items are normally available from stock; please consult for availability of non-stock items.

■ N lip seals standard. H labyrinth seals available.

□ Bearing O.D. tolerance; for 1 1/2" and smaller shaft, +.0000" –.0005" (+0.000 mm –0.013 mm); all others +.0000" –.0006" (+0.000 mm –0.015 mm).

◆ Max fillet radius of housing to clear bearing corner.

△ Available with E3 triple lip seals.

Selection guide, pages B-9, B-10.

Load ratings, pages B-11, B-12.

Additional information, page B-77.

Collar Mounted Ball Bearings

W200EL, WB200EL

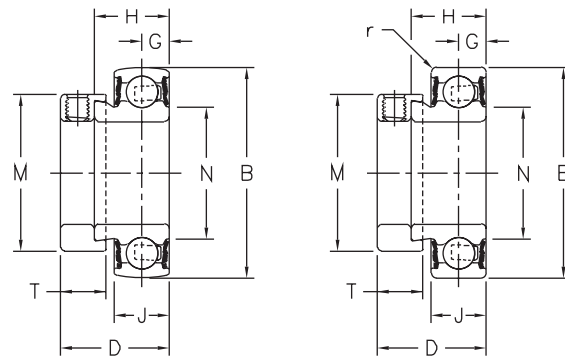
Spherical or Cylindrical O.D.

Sealed

Eccentric Cam Locking Collar

Non-relubricatable

Extended Inner Ring



W200UL

WB200UL

Dimensions (inches/mm)

Shaft diameter in.	Bearing number with collar		Collar number	Bore tolerance	B □	D	G	H	J	M	N	r ◆	T
	Spherical O.D.	Cylindrical O.D.											
1/2	W2B08EL	WB2B08EL	W2B08-5S	+0.0006 –0.0000 +0.015 –0.000	1.5748	1 1/8	.2559	.7500	.5118	1 1/8	.879	.024	17/32
5/8	W210EL	WB210EL	W210-5S		40.000	28.57	6.500	19.050	13.000	28.6	22.33	0.61	13.5
3/4	W212EL	WB212EL	W212-5S	+0.0007 –0.0000 +0.018 –0.000	1.8504	1 7/32	.2953	.8437	.5906	1 5/16	1.013	.039	17/32
					47.000	30.96	7.500	21.430	15.000	33.3	25.73	1.00	13.5
7/8	W214EL	WB214EL	W214-5S	+0.0007 –0.0000 +0.018 –0.000	2.0472	1 7/32	.2953	.8437	.5906	1 1/2	1.210	.039	17/32
15/16	W215EL	WB215EL	W215-5S		52.000	30.96	7.500	21.430	15.000	38.1	30.73	1.00	13.5
1	W216EL	WB216EL	W216-5S										
1 1/8	W218EL	WB218EL	W218-5S	+0.0007 –0.0000 +0.018 –0.000	2.4409	1 13/32	.3543	.9375	.7087	1 3/4	1.587	.039	5/8
1 1/16	W219EL	WB219EL	W219-5S		62.000	35.71	9.000	23.812	18.000	44.4	40.31	1.00	15.9
1 1/4	W2E20EL	WB2E20EL	W2E20-5S										
1 1/4	W220EL	WB220EL	W220-5S	+0.0008 –0.0000 +0.020 –0.000	2.8346	1 17/32	.3740	1.0000	.7480	2 3/16	1.847	.039	1 1/16
1 3/8	W222EL	WB222EL	W222-5S		72.000	38.89	9.500	25.400	19.000	55.6	46.91	1.00	17.5
1 7/16	W223EL	WB223EL	W223-5S										
1 1/2	W224EL	WB224EL	W224-5S	+0.0008 –0.0000 +0.020 –0.000	3.1496	1 23/32	.4330	1.1875	.8661	2 3/8	2.083	.039	23/32
					80.000	43.66	11.000	30.162	22.000	60.3	52.91	1.00	18.2
1 5/8	W226EL	WB226EL	W226-5S	+0.0008 –0.0000 +0.020 –0.000	3.3465	1 23/32	.4330	1.1875	.8661	2 1/2	2.109	.039	23/32
1 11/16	W227EL	WB227EL	W227-5S		85.000	43.66	11.000	30.162	22.000	63.5	53.57	1.00	18.2
1 3/4	W228EL	WB228EL	W228-5S										
1 5/16	W231EL	WB231EL	W231-5S	+0.0008 –0.0000 +0.020 –0.000	3.5433	1 23/32	.4330	1.1875	.8661	2 3/4	2.306	.039	23/32
2	W2E32EL	WB2E32EL	W2E32-5S		90.000	43.66	11.000	30.162	22.000	69.8	58.57	1.00	18.2

Bold face items are normally available from stock; please consult for availability of non-stock items.

◆ Max fillet radius of housing to clear bearing corners.

□ Bearing O.D. tolerance; for 1 1/2" and smaller shaft, +.0000" –.0005" (+0.000 mm –0.013 mm); all others +.0000" –.0006" (+0.000 mm –0.015 mm).

Selection guide, pages B-9, B-10.

Load ratings, pages B-11, B-12.

Additional information, page B-77.

Collar Mounted Ball Bearing

WG200EL, WBG200EL

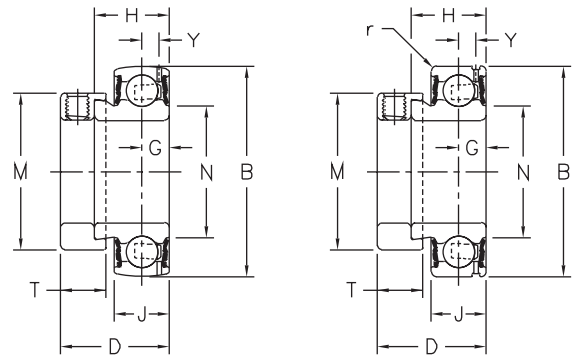
Spherical or Cylindrical O.D.

Sealed

Eccentric Cam Locking Collar

Relubricatable

Extended Inner Ring



WG200UL

WBG200UL

Dimensions (inches/mm)

Shaft diameter in.	Bearing number with collar		Collar number	Bore tolerance	B □	D	G	H	J	M	N	r ◆	T	Y
	Spherical O.D.	Cylindrical O.D.												
1/2	WG2B08EL WG210EL	WBG2B08EL	W2B08-5S	+0.0006 -0.0000 +0.015 -0.000	1.5748	1 1/8	.2559	.7500	.5118	1 1/8	.879	.024	17/32	.129
5/8		WBG210EL	W210-5S		40.000	28.57	6.500	19.050	13.000	28.6	22.33	0.61	13.5	3.28
3/4	WG212EL	WBG212EL	W212-5S	+0.0007 -0.0000 +0.018 -0.000	1.8504	1 7/32	.2953	.8437	.5906	1 5/16	1.013	.039	17/32	.137
					47.000	30.96	7.500	21.430	15.000	33.3	25.73	1.00	13.5	3.48
7/8	WG214EL WG215EL WG216EL	WBG214EL	W214-5S	+0.0007 -0.0000 +0.018 -0.000	2.0472	1 7/32	.2953	.8437	.5906	1 1/2	1.210	.039	17/32	.140
15/16		WBG215EL	W215-5S		52.000	30.96	7.500	21.430	15.000	38.1	30.73	1.00	13.5	3.56
1		WBG216EL	W216-5S											
1 1/8	WG218EL WG219EL WG2E20EL	WBG218EL	W218-5S	+0.0007 -0.0000 +0.018 -0.000	2.4409	1 13/32	.3543	.9375	.7087	1 3/4	1.587	.039	5/8	.202
1 1/16		WBG219EL	W219-5S		62.000	35.71	9.000	23.812	18.000	44.4	40.31	1.00	15.9	5.13
1 1/4		WBG2E20EL	W2E20-5S											
1 1/4	WG220EL WG222EL WG223EL	WBG220EL	W220-5S	+0.0008 -0.0000 +0.020 -0.000	2.8346	1 17/32	.3740	1.0000	.7480	2 3/16	1.847	.039	1 1/16	.239
1 3/8		WBG222EL	W222-5S		72.000	38.89	9.500	25.400	19.000	55.6	46.91	1.00	17.5	6.07
1 7/16		WBG223EL	W223-5S											
1 1/2	WG224EL	WBG224EL	W224-5S	+0.0008 -0.0000 +0.020 -0.000	3.1496	1 23/32	.4330	1.1875	.8661	2 3/8	2.083	.039	2 3/32	.253
					80.000	43.66	11.000	30.162	22.000	60.3	52.91	1.00	18.2	6.43
1 5/8	WG226EL WG227EL WG228EL	WBG226EL	W226-5S	+0.0008 -0.0000 +0.020 -0.000	3.3465	1 23/32	.4330	1.1875	.8661	2 1/2	2.109	.039	2 3/32	.254
1 11/16		WBG227EL	W227-5S		85.000	43.66	11.000	30.162	22.000	63.5	53.57	1.00	18.2	6.45
1 3/4		WBG228EL	W228-5S											
1 15/16	WG231EL WG2E32EL	WBG231EL	W231-5S	+0.0008 -0.0000 +0.020 -0.000	3.5433	1 23/32	.4330	1.1875	.8661	2 3/4	2.306	.039	2 3/32	.268
2		WBG2E32EL	W2E32-5S		90.000	43.66	11.000	30.162	22.000	69.8	58.57	1.00	18.2	6.81

Bold face items are normally available from stock; please consult for availability of non-stock items.

◆ Max fillet radius of housing to clear bearing corners.

□ Bearing O.D. tolerance; for 1 1/2" and smaller shaft, +.0000" -0.0005" (+0.000 mm -0.013 mm); all others +.0000" -0.0006" (+0.000 mm -0.015 mm).

Selection guide, pages B-9, B-10.

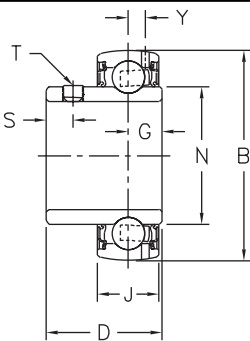
Load ratings, pages B-11, B-12.

Additional information, page B-77.

Spring Locking Ball Bearings

SG200EL

Spherical O.D.
Sealed
Spring Locking
Relubricatable
Extended Inner Ring



SG200EL

Dimensions (inches/mm)

Shaft diameter in.	Bearing number with set screws	Bore tolerance	B □	D	G	J	N	S	T Tap Size	Y
3/4	SG212EL	+0.0007 –0.0000 — —	1.8504 47.000	1 1/8 28.58	.3750 9.525	.5906 15.000	1.116 28.35	.24 6.1	10-32 —	.137 3.48
7/8 1 1/16 1	SG214EL SG215EL SG216EL	+0.0007 –0.0000 — —	2.0472 52.000	1 3/16 30.17	.3750 9.525	.5906 15.000	1.313 33.35	.24 6.1	10-32 —	.140 3.56
1 1/8 1 3/16 1 1/4	SG218EL SG219EL SG2E20EL	+0.0007 –0.0000 — —	2.4409 62.000	1 11/32 34.13	.3910 9.931	.7087 18.000	1.587 40.31	.32 8.1	1/4-28 —	.202 5.13
1 1/4 1 3/8 1 7/16	SG220EL SG222EL SG223EL	+0.0008 –0.0000 — —	2.8346 72.000	1 9/16 39.67	.4530 11.506	.7480 19.000	1.847 46.91	.34 8.6	1/4-28 —	.239 6.07
1 1/2	SG224EL	+0.0008 –0.0000 — —	3.1496 80.000	1 11/16 42.87	.4840 12.294	.8861 22.000	2.084 52.93	.34 8.6	5/16-24 —	.253 6.43
1 5/8 1 11/16 1 3/4	SG226EL SG227EL SG228EL	+0.0008 –0.0000 — —	3.3465 85.000	1 49/64 44.85	.5310 13.487	.8661 22.000	2.281 57.94	.36 9.1	5/16-24 —	.254 6.45
1 15/16	SG231EL	+0.0008 –0.0000 — —	3.5433 90.000	1 51/64 45.64	.5310 13.487	.8661 22.000	2.478 62.94	.38 9.6	5/16-24 —	.268 6.81

Bold face items are normally available from stock; please consult for availability of non-stock items.

□ Bearing O.D. tolerance; for 1 1/2" and smaller shaft, +.0000" –.0005" (+0.000 mm –0.013 mm); all others +.0000" –.0006" (+0.000 mm –0.015 mm).

◆ Max fillet radius of housing to clear bearing corner.

Selection guide, pages B-9, B-10.

Load ratings, pages B-11, B-12.

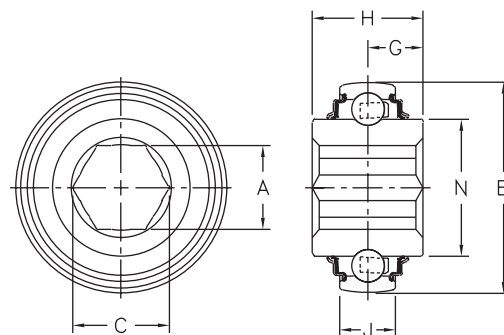
Additional information, page B-77.

Hex Bore Ball Bearings

Alignable Spherical O.D.

Lip Seals

Non-relubricatable



Dimensions (inches/mm)

Hex shaft size, inches	Bearing number	Industry number	A		B		C	G	H	J	N
			Across flats	Tolerance	Outside diameter	Tolerance					
1 ¹ / ₁₆	11K204N	(204KRRB2)	.695	+0.000	1.8504	+0.0000	.797	.412	.8250	.5906	1.121
			17.65		47.000		20.24	10.48	20.955	15.000	28.47
7 ¹ / ₈	14K205N	(205KRRB2)	.876		2.0472		1.010	.500	1.0000	.5906	1.313
			22.25		52.000		25.65	12.70	25.400	15.000	33.35
1	16K206N	(206KRRB6)	1.001	+0.005	2.4409	-0.0005	1.153	.472	.9449	.7087	1.587
			25.43		62.000		29.29	12.00	24.000	18.000	40.31
1 ¹ / ₈	18K207N	(207KRRB9)	1.126		2.8346		1.299	.742	1.4844	.7480	1.847
			28.60		72.000		32.99	18.85	37.704	19.000	46.91
1 ¹ / ₄	20K5-208E3△	(W208PPB16)	1.251	+0.13	3.1496	+0.0000	1.450	.718	1.4375	.7087	2.083
			31.78		80.000		36.83	18.26	36.512	18.000	52.91
1 ¹ / ₂	24K209N	(209KRRB2)	1.501		3.3465		1.732	.591	1.1811	.8661	2.281
			38.13		85.000		43.99	15.00	30.000	22.000	57.94
1 ⁵ / ₈	26K3-210E3△	(W210PPB7)	1.626	+0.000	3.5433	+0.0000	1.876	.594	1.1875	1.1875	2.475
			41.30		90.000		47.65	15.08	30.162	30.162	62.86

Please consult for availability.

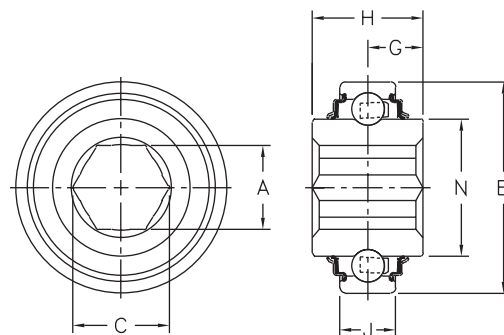
△ Type E3 triple lip seals are standard. On bearings 205, 207, and 209, type E3 seals are optional.

Hex Bore Ball Bearings

Cylindrical O.D.

Lip Seals

Non-relubricatable



Dimensions (inches/mm)

Hex shaft size, inches	Bearing number	Industry number	A		B		C	G	H	J	N
			Across flats	Tolerance	Outside diameter	Tolerance					
5 ¹ / ₈	10KB204N	(204KRR4)	.626	+0.000	1.8504	+0.0000	.728	.412	.8250	.5512	1.121
			15.90		47.000		18.49	10.48	20.955	14.000	28.47
1 ¹ / ₁₆	11KB204N	(204KRR2)	.695		1.8504		.797	.412	.8250	.5512	1.121
			17.65		47.000		20.24	10.48	20.955	14.000	28.47
7 ¹ / ₈	14KB205N	(205KRR2)	.876	+0.005	2.0472	-0.0005	1.010	.500	1.0000	.5906	1.313
			22.25		52.000		25.65	12.70	25.400	15.000	33.35
1	16KB206N	(206KRR6)	1.001		2.4409		1.153	.472	.9449	.6299	1.587
			25.43		62.000		29.29	12.00	24.000	16.000	40.31
1 ¹ / ₈	18KB207N	(207KRR9)	1.126	+0.13	2.8346	+0.0000	1.299	.742	1.4844	.6693	1.847
			28.60		72.000		32.99	18.85	37.704	17.000	46.91
1 ¹ / ₂	24KB209N	(209KRR2)	1.501		3.3465		1.732	.591	1.1811	.7480	2.281
			31.78		85.000		43.99	15.00	30.000	19.000	57.94
1 ⁵ / ₈	26KB3-210E3△	(W210PP7)	1.626	+0.000	3.5433	+0.0000	1.876	.594	1.1875	1.1875	2.475
			41.30		90.000		47.65	15.08	30.162	30.162	62.86

Please consult for availability.

△ Type E3 triple lip seals are standard. On bearings 205, 207, and 209, type E3 seals are optional.

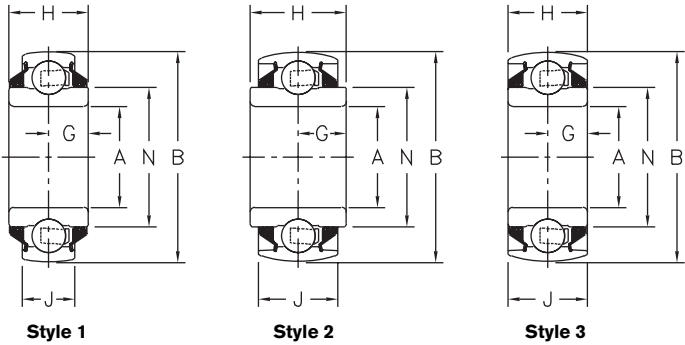
Selection guide, pages B-9, B-10.

Load ratings, pages B-11, B-12.

Additional information, page B-77.

Round Bore Ball Bearings

Alignable Spherical O.D.
Triple Lip Seals
Non-relubricatable



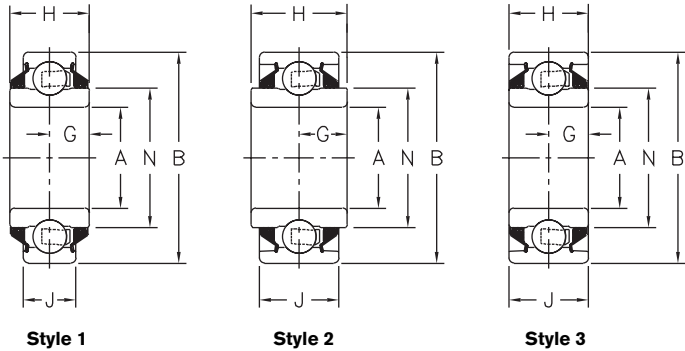
Dimensions (inches/mm)

Shaft diameter <i>mm inches</i>	Bearing number	Industry number	Style	A		B		G	H Inner ring width	J Outer ring width	N
				Bearing bore	Tolerance + .0000" +0.000 mm	Outside diameter	Tolerance + .0000" +0.000 mm				
7/8	14R4-208E3	(W208PPB14)	2	.890	−.010	3.438	‡	.719	1.4375	1.1875	2.083
				22.61	− 0.25	87.32		18.26	36.512	30.162	52.91
1 1/16	19R208E3	(W208PPB7)	1	1.1880	−.0005	3.1496	−.0005 − 0.013	.594	1.1875	.7087	2.083
				30.175	− 0.013	80.000		15.08	30.162	18.000	52.91
1 1/16	19R3-208E3	(W208PPB4)	3	1.1880	−.0005	3.1496		.594	1.1875	1.1875	2.083
				30.175	− 0.013	80.000		15.08	30.162	30.162	52.91
1 1/2	24R6-208E3	(W208PPB2)	2	1.5005	−.0005	3.1496	−.0006 − 0.015	.844	1.6875	1.1875	2.083
				30.113	− 0.013	80.000		21.43	42.862	30.162	52.91
1 1/2	24R3-209E3	(W209PPB4)	3	1.535	−.010	3.3465		.594	1.1875	1.1875	2.281
				38.99	− 0.25	85.000		15.08	30.162	30.162	57.94
1 1/2	24R4-209E3	(W209PPB6)	2	1.535	−.010	3.438	−.0006 − 0.015	.719	1.4375	1.1875	2.281
				38.99	− 0.25	87.32		18.26	36.512	30.162	57.94
45	R3-209E3	(W209PPB2)	3	1.7717	−.0005	3.3465		.594	1.1875	1.1875	2.281
				45.000	− 0.013	85.000		15.08	30.162	30.162	57.94
1 3/4	28R3-210E3	(W210PPB5)	3	1.785	−.010	3.5433	−.0006 − 0.015	.594	1.1875	1.1875	2.475
				45.34	− 0.25	90.000		15.08	30.162	30.162	62.86
1 5/16	31R3-210E3	(W210PPB2)	3	1.9380	−.0005	3.5433		.594	1.1875	1.1875	2.475
				49.225	− 0.013	90.000		15.08	30.162	30.162	62.86
2 3/16	35R3-211E3	(W211PPB2)	3	2.1880	−.0005	3.9370	−.0006 − 0.015	.656	1.3125	1.3125	2.749
				55.575	− 0.013	100.000		16.67	33.338	33.338	69.82

Please consult for availability.
‡ Unground spherical O.D. tolerance, ±.005" (±0.13 mm). Center portion of O.D. is cylindrical.

Round Bore Ball Bearings

Cylindrical O.D.
Triple Lip Seals
Non-relubricatable



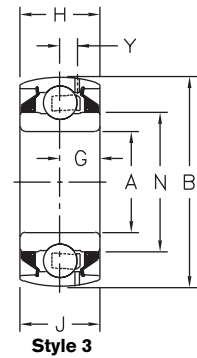
Dimensions (inches/mm)

Shaft diameter <i>mm inches</i>	Bearing number	Industry number	Style	A		B		G	H Inner ring width	J Outer ring width	N
				Bearing bore	Tolerance + .0000" +0.000 mm	Outside diameter	Tolerance + .0000" +0.000 mm				
1 1/16	19RB208E3	(W208PP7)	1	1.1880	− 0.0005 − 0.013	3.1496	−.0005 − 0.013	.594	1.1875	.7087	2.083
				30.175		80.000		15.08	30.162	18.000	52.91
1 1/16	19RB3-208E3	(W208PP4)	3	1.1880		3.1496		.594	1.1875	1.1875	2.083
				30.175		80.000		15.08	30.162	30.162	52.91
1 1/2	24RB6-208E3	(W208PP2)	2	1.5005	− 0.0005 − 0.013	3.1496	−.0005 − 0.013	.844	1.6875	1.1875	2.083
				38.113		80.000		21.43	42.862	30.162	52.91
1 1/2	24RB8-208E3	(W208PP10)	1	1.5005		3.1496		.844	1.6875	.8268	2.083
				38.113		80.000		21.43	42.862	21.000	52.91
1 5/16	31RB3-210E3	(W210PP2)	3	1.9380	−.0006 − 0.015	3.5433	−.0006 − 0.015	.594	1.1875	1.1875	2.475
				49.225		90.000		15.08	30.162	30.162	62.86
2 3/16	35RB3-211E3	(W211PP2)	3	2.1880		3.9370		.656	1.3125	1.3125	2.749
				55.575		100.000		16.67	33.338	33.338	69.82

Please consult for availability.
Selection guide, pages B-9, B-10.
Load ratings, pages B-11, B-12.
Additional information, page B-77.
B-71

Round Bore Ball Bearings

Alignable Spherical O.D.
Triple Lip Seals
Relubricatable



Style 3

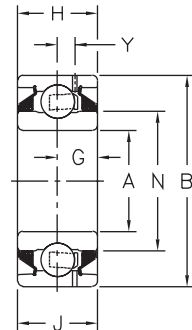
Dimensions (inches/mm)

Shaft diameter inches	Bearing number	Industry number	Style	A		B		G	H Inner ring width	J Outer ring width	N	Y	
				Bearing bore	Tolerance + .0000" +0.000 mm	Outside diameter	Tolerance + .0000" +0.000 mm						
45	1⅜	22RG3-210E3	(GW210PPB3)	3	1.4065 35.725	−.0005 − 0.013	3.5433 90.000	−.0006 − 0.015	.594 15.08	1.1875 30.162	1.1875 30.162	2.475 62.86	.255 6.48
	1½	24RG3-209E3	(GW209PPB4)	3	1.535 38.99	−.010 − 0.25	3.3465 85.000		.594 15.08	1.1875 30.162	1.1875 30.162	2.281 57.94	.248 6.30
	1⅝	26RG3-211E3	(GW211PPB4)	3	1.660 42.16	−.010 − 0.25	3.9370 100.000		.656 16.67	1.3125 33.338	1.3125 33.338	2.749 69.82	.267 6.78
		RG3-209E3	(GW209PPB2)	3	1.7717 45.000	−.0005 − 0.013	3.3465 85.000		.594 15.08	1.1875 30.162	1.1875 30.162	2.281 57.94	.248 6.30
	1¾	28RG3-210E3	(GW210PPB5)	3	1.785 45.34	−.010 − 0.25	3.5433 90.000		.594 15.08	1.1875 30.162	1.1875 30.162	2.475 62.86	.255 6.48
	1⅞	31RG3-210E3	(GW210PPB2)	3	1.9380 49.225	−.0005 − 0.013	3.5433 90.000		.594 15.08	1.1875 30.162	1.1875 30.162	2.475 62.86	.255 6.48
	2⅜	35RG3-211E3	(GW211PPB2)	3	2.1880 55.575	−.0005 − 0.013	3.9370 100.000		.656 16.67	1.3125 33.338	1.3125 33.338	2.749 69.82	.267 6.78

Please consult for availability.

Round Bore Ball Bearings

Cylindrical O.D.
Triple Lip Seals
Relubricatable



Style 3

Dimensions (inches/mm)

Shaft diameter inches	Bearing number	Industry number	Style	A		B		G	H Inner ring width	J Outer ring width	N	Y
				Bearing bore	Tolerance + .0000" +0.000 mm	Outside diameter	Tolerance + .0000" +0.000 mm					
1⅜	22RBG3-210E3	(GW210PP3)	3	1.4065 35.725	−.0005 − 0.013	3.5433 90.000	−.0006 −0.015	.594 15.08	1.1875 30.162	1.1875 30.162	2.475 62.86	.255 6.48
1⅝	26RBG3-211E3	(GW211PP4)	3	1.660 42.16	−.010 − 0.25	3.9370 100.000		.656 16.67	1.3125 33.338	1.3125 33.338	2.749 69.82	.267 6.78
1⅞	31RBG3-210E3	(GW210PP2)	3	1.9380 49.225	−.0005 − 0.013	3.5433 90.000		.594 15.08	1.1875 30.162	1.1875 30.162	2.475 62.86	.255 6.48
2⅜	35RBG3-211E3	(GW211PP2)	3	2.1880 55.575	−.0005 − 0.013	3.9370 100.000		.656 16.67	1.3125 33.338	1.3125 33.338	2.749 69.82	.267 6.78

Please consult for availability.

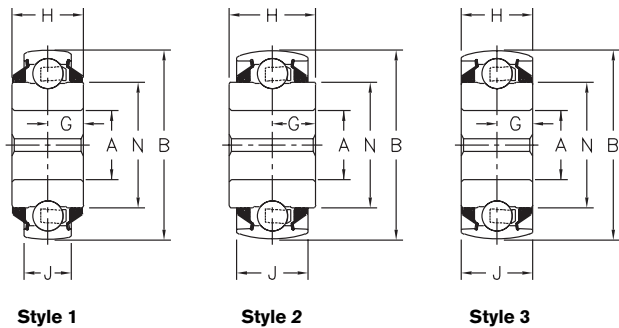
Selection guide, pages B-9, B-10.

Load ratings, pages B-11, B-12.

Additional information, page B-77.

Square Bore Ball Bearings

Alignable Spherical O.D.
Triple Lip Seals
Non-relubricatable



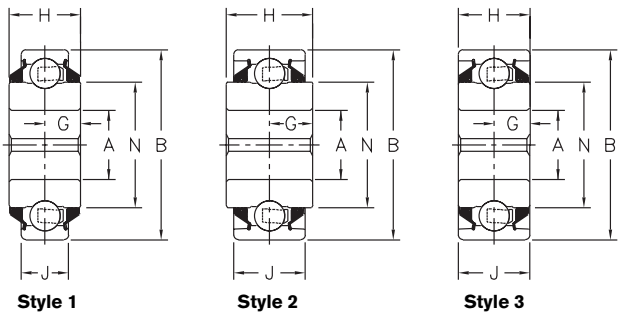
Dimensions (inches/mm)

Square Shaft size, inches	Bearing number	Industry number	Style	A		B		G	H	J	N
				Bearing bore	Tolerance	Outside diameter	Tolerance + .0000" +0.000 mm				
7/8	14S4-208E3	(W208PPB11)	2	.905	±.005 ±0.13	3.438	‡	.719	1.4375	1.1875	2.083
				22.99		87.32		18.26	36.512	30.162	52.91
1	16S5-208E3	(W208PPB6)	1	1.030		3.1496		.719	1.4375	.7087	2.083
				26.16		80.000		18.26	36.512	18.000	52.91
1	16S2-208E3	(W208PPB9)	2	1.030		3.1496		.719	1.4375	1.1875	2.083
				26.16		80.000	−.0005	18.26	36.512	30.162	52.91
1 1/8	18S5-2E08E3	(W208PPB5)	1	1.185		3.1496	− 0.013	.719	1.4375	.7087	2.083
				30.10		80.000		18.26	36.512	18.000	52.91
1 1/8	18S2-2E08E3	(W208PPB8)	2	1.185		3.1496		.719	1.4375	1.1875	2.083
				30.10		80.000		18.26	36.512	30.162	52.91
1 1/8	18S4-2E08E3	(W208PPB12)	2	1.185		3.438	‡	.719	1.4375	1.1875	2.083
				30.10		87.32		18.26	36.512	30.162	52.91
1 1/4	20S2-209E3	(W209PPB5)	2	1.280	±.005 ±0.13	3.3465	−.0006	.719	1.4375	1.1875	2.281
				32.51		85.000	− 0.015	18.26	36.512	30.162	57.94
1 1/4	20S4-209E3	(W209PPB7)	2	1.280		3.438	‡	.719	1.4375	1.1875	2.281
				32.51		87.32		18.26	36.512	30.162	57.94
1 1/2	24S3-211E3	(W211PPB3)	3	1.530		3.9370	−.0006	.656	1.3125	1.3125	2.749
				38.86		100.000	− 0.015	16.67	33.338	33.338	69.82

Please consult for availability.
‡ Unground spherical O.D. tolerance, ±.005" (±0.13 mm). Center portion of O.D. is cylindrical.

Square Bore Ball Bearings

Cylindrical O.D.
Triple Lip Seals
Non-relubricatable



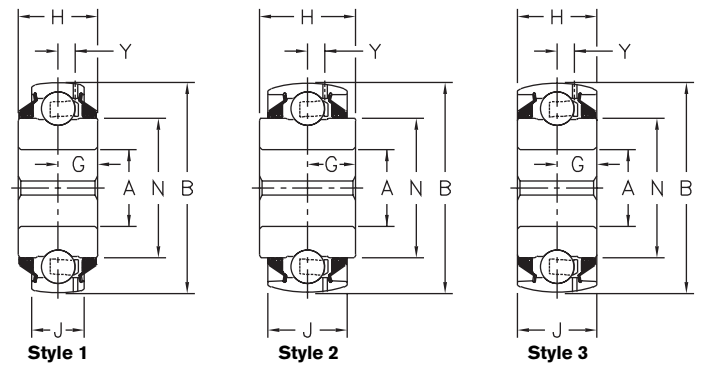
Dimensions (inches/mm)

Square Shaft size, inches	Bearing number	Industry number	Style	A		B		G	H	J	N
				Bearing bore	Tolerance	Outside diameter	Tolerance + .0000" +0.000 mm				
7/8	14SB5-208E3	(W208PP13)	1	.905	±.005 ±0.13	3.1496		.719	1.4375	.7087	2.083
				22.99		80.000		18.26	36.512	18.000	52.91
1	16SB5-208E3	(W208PP6)	1	1.030		3.1496		.719	1.4375	.7087	2.083
				26.16		80.000		18.26	36.512	18.000	52.91
1	16SB2-208E3	(W208PP9)	2	1.030		3.1496	−.0005	.719	1.4375	1.1875	2.083
				26.16		80.000	− 0.013	18.26	36.512	30.162	52.91
1 1/8	18SB5-2E08E3	(W208PP5)	1	1.185		3.1496		.719	1.4375	.7087	2.083
				30.10		80.000		18.26	36.512	18.000	52.91
1 1/8	18SB2-2E08E3	(W208PP8)	2	1.185		3.1496		.719	1.4375	1.1875	2.083
				30.10		80.000		18.26	36.512	30.162	52.91
1 1/2	24SB3-211E3	(W211PP3)	3	1.530	±.005 ±0.13	3.9370	−.0006	.656	1.3125	1.3125	2.749
				38.96		100.000	− 0.015	16.67	33.338	33.338	69.82

Please consult for availability.
Selection guide, pages B-9, B-10.
Load ratings, pages B-11, B-12.
Additional information, page B-77.

Square Bore Ball Bearings

Alignable Spherical O.D.
Triple Lip Seals
Relubricatable



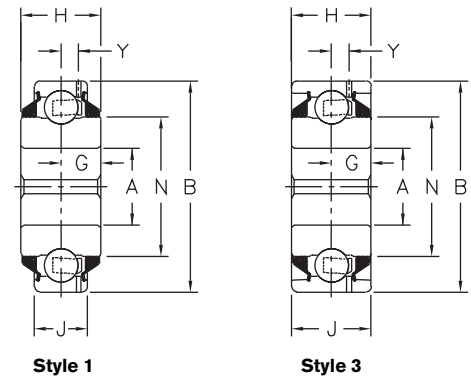
Dimensions (inches/mm)

Square Shaft size, inches	Bearing number	Industry number	Style	A		B		G	H Inner ring width	J Outer ring width	N	Y
				Bearing bore	Tolerance	Outside diameter	Tolerance					
1	16SG5-208E3	(GW208PPB6)	1	1.030	±.005 ±0.13	3.1496	+.0000 -.0005 +.0000 ±0.013 +.0000 -.0006 +.0000 -0.015	.719	1.4375	.8661	2.083	.253
				26.16		80.000		18.26	36.512	22.000	52.91	6.43
1 1/8	18SG5-2E08E3	(GW208PPB5)	1	1.185		3.1496		.719	1.4375	.8661	2.083	.253
				30.10		80.000		18.26	36.512	22.000	52.91	6.43
1 1/8	18SG2-2E08E3	(GW208PPB8)	2	1.185		3.1496		.719	1.4375	1.1875	2.083	.253
				30.10		80.000		18.26	36.512	30.162	52.91	6.43
1 1/4	20SG5-209E3	(GW209PPB8)	1	1.280	±.005 ±0.13	3.3465	+.0000 -.0006 +.0000 -0.015	.719	1.4375	.8661	2.281	.254
				32.51		85.000		18.26	36.512	22.000	57.94	6.45
1 1/2	24SG3-211E3	(GW211PPB3)	3	1.530		3.9370		.656	1.3125	1.3125	2.749	.267
				38.86		100.000		16.67	33.338	33.338	69.82	6.78

Please consult for availability.

Square Bore Ball Bearings

Cylindrical O.D.
Triple Lip Seals
Relubricatable



Dimensions (inches/mm)

Square Shaft size, inches	Bearing number	Industry number	Style	A		B		G	H Inner ring width	J Outer ring width	N	Y
				Bearing bore	Tolerance	Outside diameter	Tolerance					
1 1/4	20SBG5-209E3	(GW209PP8)	1	1.280	±.005 ±0.13	3.3465	+.0000 -.0006 +.0000 -0.015	.719	1.4375	.8661	2.281	.254
				32.51		85.000		18.26	36.512	22.000	57.94	6.45
1 1/2	24SBG3-211E3	(GW211PP3)	3	1.530		3.9370		.656	1.3125	1.3125	2.749	.267
				38.86		100.000		16.67	33.338	33.338	69.82	6.78

Please consult for availability.

Selection guide, pages B-9, B-10.

Load ratings, pages B-11, B-12.

Additional information, page B-77.

Additional Information

Series 3-U200, 3-Y200 Standard Duty Ball Bearing Units

Additional Features:

All 3-200 mounted units can be purchased with formed steel closed end caps on the collar side which cover all rotating elements. Two bearing seals are provided with all open or closed end units on series 3-U200 and 3-Y200. Closed end units require specially counter bored housings on these series. Closed end units are designated with the suffix C (i.e. P3-U231NC). Shafting should not extend beyond the bearing inner ring more than $\frac{1}{8}$ " (3.2 mm) when end caps are to be used. Closed end unit is not available for PT3 tapped base pillow blocks.

Series 3-200 mounted units have drilled or cored mounting bolt holes suitable for the inch or metric bolts listed. Drilled holes will be $\frac{1}{32}$ " (0.8 mm) larger than the largest inch shown. Cast slots in pillow blocks are normally $\frac{1}{16}$ " wider than the specified mounting bolt nominal diameter. It is expected that plain washers will be used under the bolt head to span the slot width and aid torquing. Narrow (N) series washers per ANSI B18.22.1-1981 (previously designated SAE series) are recommended. If wide series washers are

used, the full length of the slot may not be usable for positioning the unit.

Sealed bearings can be replaced in series 3-200 mounted units. It is normally recommended, however, that complete units be replaced to assure a good fit between the bearing O.D. and the housing bore.

Service instructions for mounting are included with each replacement bearing and should be carefully followed.

Operation:

Series 3-200 mounted units are prelubricated with a good quality petroleum grease of No. 2 consistency which has been tested for operational characteristics and stability for long shelf life. The service instructions packed with each unit provide guidelines for relubrication intervals and recommended greases. The lubricant furnished is generally limited to an operating temperature range of -20°F to $+200^{\circ}\text{F}$ (-29° to 93°C). The lip seals N and E3 should be limited to a temperature less than 225°F (107°C).

Where significant thrust loads are applied to Standard Duty Ball Bearing Units, thrust collars, spacers, shaft shoulders etc. should be utilized to support the thrust so that it is not transmitted through the locking collars.

Imposed radial loads should not exceed 25% of bearing basic load rating; where high speeds, thrust loads, or vibratory loads are unavoidable, consult Link-Belt Bearing Division.

Takeups:

The mounting of 3-200 pillow blocks on universal takeup frames is illustrated on page B-60. For replacement bearing units in takeups, specify takeup part number without prefix S and adjustment (i.e. TA3-U215N, TD3-U231N). Frames for takeup units must be securely fastened to their supports.

Mountings:

Two-bolt FX housings have fully machined mounting surfaces; for maximum stability, radial load should be along center line of bolts.

Recommended Shaft

Tolerances:

Shaft Diameter	Tolerance
$\frac{1}{2}$ "-2"	Nominal to $-.0005$ "
$2\frac{1}{16}$ "-4"	Nominal to $-.0010$ "
17 mm-50 mm	Nominal to -0.013 mm
55 mm-100 mm	Nominal to -0.025 mm

CAUTION

The above shaft tolerances are suitable for loads up to .18C and L_{10} life greater than 20,000 hours. For more severe conditions, consult Link-Belt Bearing Division.

The service life of a collar mounted bearing is largely dependent on shaft fit and may be expected to approach theoretical L_{10} life only if the bearing is press fitted to a shaft. A slip fit mounting in accordance with the shaft tolerances shown in table will provide generally acceptable service life on normal applications under light to moderate load and speed conditions. A shaft tolerance resulting in looser fits (such as with commercial shafting) may be expected to have greatly reduced reliability and increasing problems of shaft fret wear, bearing inner ring fracture and shaft

slippage. In general, looser fits than recommended are feasible only for very light loading and lower speeds. Prototype or field testing is strongly recommended if looser fits must be considered.

Shafting should be designed for adequate strength and stiffness for the intended application. It should be round, straight, free of nicks and burrs and of correct size.

Warning:

The correct selection of bearings or mounted units requires that the magnitude and nature of all loads, speeds, alignment, mounting, operating requirements, and maintenance be adequately considered. The selection of materials for and design of housings, shafting, fasteners, seals, and accessories, as well as provisions for installation and maintenance, must follow good engineering principles.

Housings must be selected and installed with regard to the degree and direction of the forces that will occur. Housings should

not be used under tension loads except with adequate safety factors. For this reason pillow blocks are best suited to withstand radial loads passing through the base. When heavy loads or shock loads are possible, it is most important to mount a unit so that the unit is directly and substantially supported other than through its mounting bolts. Where the line of force falls outside the base, such as with horizontal or uplift loads on pillow blocks, serious housing and fastener deflection or failure may occur. These conditions may require designs using different materials, fasteners, mounting design, stop bars, etc., together with proper safety factors.

When these conditions are unavoidable, Link-Belt Bearing Division should be consulted.

Service instructions are provided with shipments of bearings and are available on request. These instructions provide detailed information to aid in the proper installation, operation, and maintenance, and should be carefully read and followed. Failure to do so may result in unsatisfactory service as well as serious personal injury or property damage.

Additional Information

Series 3-W200, 3-S200, U200, W200, Y200 Intermediate Ball Bearing Units

Additional Features:

Series 3-W200, 3-S200, U200, W200, Y200 mounted units have cored or drilled mounting bolt holes suitable for the inch or metric round or carriage bolts listed. Drilled holes will be $\frac{1}{32}$ " (0.8 mm) larger than the largest inch shown. Cast slots in pillow blocks are normally $\frac{1}{16}$ " wider than the specified mounting bolt nominal diameter. It is expected that plain washers will be used under the bolt head to span the slot width and aid torquing. Narrow (N) series washers per ANSI B18.22.1-1981 (previously designated SAE series) are recommended. If wide series washers are used, the full length of the slot may not be usable for positioning the unit.

Two bolt FX high-test iron flanged housings have stabilizing pads for four-point load support. For maximum stability, the radial load should be in line with the centerline of the mounting bolts.

Sealed bearings can be replaced in series 3-W200, 3-S200, U200, W200, Y200 mounted units. It is normally recommended, however, that complete units be

replaced to assure a good fit between the bearing O.D. and the housing bore. Service instructions for mounting are included with each replacement bearing and should be carefully followed. Replacement bearings for intermediate mounted units are sealed and prelubricated. 3-W200 and 3-S200 intermediate ball bearing units are available with closed end caps, except for PT3-S200E and PT3-U200N.

Operation:

Series 3-W200, 3-S200, U200, W200 and Y200 intermediate ball bearing mounted units are prelubricated with a good quality petroleum grease of No. 2 consistency which has been tested for operational characteristics and stability for long shelf life. The service instructions packed with each unit provide guidelines for relubrication intervals and recommended greases. The lubricant furnished is generally limited to an operating temperature range of -20°F to $+200^{\circ}\text{F}$ (-29° to 93°C). Lip seals should be limited to a temperature less than 225°F (107°C).

Where significant thrust loads are applied to intermediate ball bearing units, thrust collars, spacers, shaft shoulders, etc. should be utilized to support the thrust so that it is not transmitted through the locking collars.

Imposed radial loads should not exceed .15C for S200 and W200 or .25C for U200 and Y200 bearings. Where high radial loads, high speeds, thrust loads or vibratory loads are unavoidable, consult the Link-Belt Bearing Division.

Formed steel housings have radial load ratings which should not be exceeded. Thrust ratings are basically 50% of the radial ratings. Loads other than down through the pillow block (style PS) base should be avoided.

Recommended Shaft Tolerances:

Shaft Diameter	Tolerance
$\frac{1}{2}$ "—2"	Nominal to $-.0005$ "
17 mm —50 mm	Nominal to -0.013 mm

CAUTION

The above shaft tolerances are suitable for loads up to .18C for series U200 and Y200 and loads up to .11C for series W200 and S200 and L_{10} life greater than 20,000 hours. For more severe conditions, consult Link-Belt Bearing Division.

The service life of a collar mounted bearing is largely dependent on shaft fit and may be expected to approach theoretical L_{10} life only if the bearing is press fitted to a shaft. A slip fit mounting in accordance with the shaft tolerances shown in table will provide generally acceptable service life on normal applications under light to moderate load and speed conditions. A shaft tolerance resulting in looser fits (such as with commercial shafting) may be expected to have greatly reduced reliability and increasing problems of shaft fret wear, bearing inner ring fracture and shaft

slippage. In general, looser fits than recommended are feasible only for very light loading and lower speeds. Prototype or field testing is strongly recommended if looser fits must be considered.

Shafting should be designed for adequate strength and stiffness for the intended application. It should be round, straight, free of nicks and burrs and of correct size.

Warning:

The correct selection of bearings or mounted units requires that the magnitude and nature of all loads, speeds, alignment, mounting, operating requirements, and maintenance be adequately considered. The selection of materials for and design of housings, shafting, fasteners, seals, and accessories, as well as provisions for installation and maintenance, must follow good engineering principles.

Housings must be selected and installed with regard to the degree and direction of the forces that will occur. Housings should

not be used under tension loads except with adequate safety factors. For this reason pillow blocks are best suited to withstand radial loads passing through the base. When heavy loads or shock loads are possible, it is most important to mount a unit so that the unit is directly and substantially supported other than through its mounting bolts. Where the line of force falls outside the base, such as with horizontal or uplift loads on pillow blocks, serious housing and fastener deflection or failure may occur. These conditions may require designs using different materials, fasteners, mounting design, stop bars,

etc., together with proper safety factors. When these conditions are unavoidable Link-Belt Bearing Division should be consulted.

Service instructions are provided with shipments of bearings and are available on request. These instructions provide detailed information to aid in the proper installation, operation, and maintenance, and should be carefully read and followed. Failure to do so may result in unsatisfactory service as well as serious personal injury or property damage.

Additional Information

Series U200, S200, W200, Y200, Collar/Set Screw Mounted Ball Bearings

Series Round, Square and Hex Bore Ball Bearings

Additional Features:

Cylindrical O.D. collar mounted or round, square and hex bore bearings are made for mounting in customer manufactured housings or machine frames. Dimensions for machined bores to hold cylindrical O.D. bearings are on page B-82.

Formed steel flanged housings consist of two housing halves in which can be mounted spherical O.D. collar mounted or round, square and hex bore bearings. Initial bearing alignment is obtained when the two halves are bolted around the bearing during mounting. It is best to position all bearings and housings correctly before final mounting bolt tightening.

Round, square and hex bore bearings are available in a variety of styles (1, 2, 3, etc.) to be completely adaptable for individual applications. Style 2 and 3 outer rings overhang the seal assemblies to give additional protection from fibre wrappage. Style 2 inner rings are extra long to act as spacers between machine components.

Operation:

Series 200 collar mounted and round, square and hex bore ball bearings are prelubricated with a good quality petroleum grease of No. 2 consistency which has been tested for operational characteristics and stability for long shelf life. Relubricatable bearings should be greased at a frequency depending on the

environment conditions prevalent. Recommendations for specific lubricants and relubrication intervals can be obtained from Link-Belt Bearing Division.

Imposed radial loads should not exceed .15C for S200 and W200 or .25C for U200 and Y200 bearings. Where high radial loads, high speeds, thrust loads or vibratory loads are unavoidable, consult the Link-Belt Bearing Division.

Shaft locking of round bore bearings is usually accomplished by clamping an assembly along the shaft.

Square bore bearings are finished for use with AISI hot rolled, carbon steel square bars with round corners. Hex bore bearings are finished for use with AISI cold drawn, carbon steel hex bars.

Recommended Shaft Tolerances For U200, S200, W200, Y200

Shaft Diameter	Tolerance
1/2"—2"	Nominal to -.0005"
17 mm —50 mm	Nominal to -0.013 mm

CAUTION The above shaft tolerances are suitable for loads up to .18C for series U200 and Y200 and loads up to .11C for series W200 and S200 and L₁₀ life greater than 20,000 hours. For more severe

conditions, consult Link-Belt Bearing Division.

The service life of a collar mounted bearing is largely dependent on shaft fit and may be expected to approach theoretical L₁₀ life only if the bearing is press fitted to a shaft. A slip fit mounting in accordance with the shaft tolerances shown in table will provide generally acceptable service life on normal applications under light to moderate load and speed conditions. A shaft tolerance resulting in looser fits (such as with

commercial shafting) may be expected to have greatly reduced reliability and increasing problems of shaft fret wear, bearing inner ring fracture and shaft slippage. In general, looser fits than recommended are feasible only for very light loading and lower speeds. Prototype or field testing is strongly recommended if looser fits must be considered.

Shafting should be designed for adequate strength and stiffness for the intended application. It should be round, straight, free of nicks and burrs and of correct size.

Warning:

The correct selection of bearings or mounted units requires that the magnitude and nature of all loads, speeds, alignment, mounting, operating requirements, and maintenance be adequately considered. The selection of materials for and design of housings, shafting, fasteners, seals, and accessories, as well as provisions for installation and maintenance, must follow good engineering principles.

Housings must be selected and installed with regard to the degree and direction of

the forces that will occur. Housings should not be used under tension loads except with adequate safety factors. For this reason pillow blocks are best suited to withstand radial loads passing through the base. When heavy loads or shock loads are possible, it is most important to mount a unit so that the unit is directly and substantially supported other than through its mounting bolts. Where the line of force falls outside the base, such as with horizontal or uplift loads on pillow blocks, serious housing and fastener deflection or failure may occur. These conditions may require designs using different materials,

fasteners, mounting design, stop bars, etc., together with proper safety factors. When these conditions are unavoidable Link-Belt Bearing Division should be consulted.

Service instructions are provided with shipments of bearings and are available on request. These instructions provide detailed information to aid in the proper installation, operation, and maintenance, and should be carefully read and followed. Failure to do so may result in unsatisfactory service as well as serious personal injury or property damage.

Nomenclature

Series 200

Standard Duty Ball Bearing Units

Symbol	Description	PL	3	U	2	E	20	H	C	K75
F	Flanged unit, 3 and 4 bolt	}	}	}	}	}	}	}	}	}
FB	Flanged bracket, 3 bolt									
FF	Flanged screw conveyor unit, 4-bolt									
FC	Flanged cartridge unit, 4-bolt round									
FX	Flanged unit, 2-bolt									
HM	Hanger, screw conveyor unit									
P	Pillow block, standard backing	}	}	}	}	}	}	}	}	}
PH	Pillow block, high backing									
PL	Pillow block, low backing									
PT	Pillow block, tapped base									
3	Integral bearing seals } For standard duty units	}	}	}	}	}	}	}	}	}
U	Wide inner ring, spring locking, relubricatable									
Y	Wide inner ring, eccentric cam locking collar, relubricatable									
2	Series 200 ball bearing designation	}	}	}	}	}	}	}	}	}
B	Inner ring bore equal to a bore of preceding smaller bearing group									
E	Inner ring bore equal to a bore of following larger bearing group									
20	Shaft diameter, in sixteenths of an inch	}	}	}	}	}	}	}	}	}
M50	Shaft diameter, metric series, in millimeters									
H	Floating labyrinth seals	}	}	}	}	}	}	}	}	}
N	Single lip seals									
E3	Triple lip seals									
C	Closed end unit	}	}	}	}	}	}	}	}	}
K75	Nickel plated housing									

Intermediate Duty Ball Bearing Units

Symbol	Description	W	F	U	G	2	E	20	N	K75
W	DURA-KLEAN housing	}	}	}	}	}	}	}	}	}
F	Flanged unit, 3 and 4 bolt									
FB3	Flanged bracket, 3 bolt									
FR	Flanged unit, 3 and 4-bolt, inboard mounting									
FS	Flanged unit, 3 and 4-bolt round, formed steel									
FSA	Flanged unit, 3-bolt triangular, formed steel									
FSX	Flanged unit, 2-bolt, formed steel	}	}	}	}	}	}	}	}	}
FX	Flanged unit, 2-bolt									
FXR	Flanged unit, 2-bolt inboard mounting									
PS	Pillow block, formed steel housing									
P3	Pillow block, standard backing	}	}	}	}	}	}	}	}	}
PL3	Pillow block, low backing									
S	Extended inner ring, spring locking	}	}	}	}	}	}	}	}	}
U	Wide inner ring, spring locking									
Y	Wide inner ring, eccentric cam locking collar									
W	Extended inner ring, eccentric cam locking collar									
None	Non-relubricatable bearing	}	}	}	}	}	}	}	}	}
G	Relubricatable bearing									
2	Series 200 ball bearing designation	}	}	}	}	}	}	}	}	}
B	Inner ring bore equal to a bore of preceding smaller bearing group									
E	Inner ring bore equal to a bore of following larger bearing group									
20	Shaft size in sixteenths of an inch	}	}	}	}	}	}	}	}	}
M30	Shaft diameter, metric series, in millimeters									
E	Molded single lip seals	}	}	}	}	}	}	}	}	}
H	Floating labyrinth seals									
N	Single lip seals									
U	Contact seals (W200 only)									
E3	Triple lip seals	}	}	}	}	}	}	}	}	}
K75	Nickel plated housing									

Continued next page.

Klean-Gard Units

Symbol	Description	K	FX - S	2	E	20	DC					
K	Polyamide housing material	}	}	}	}	}	}					
KL	Polypropylene housing material											
F	Four bolt flanged housing	}	}	}	}	}	}					
FX	Two bolt flanged housing											
P	Pillow Block											
S	Extended inner ring, spring locking	}			}	}	}					
2	Series 200 ball bearing designation	}										
E	Inner ring bore equal to a bore of following larger bearing group	}			}	}	}					
20	Shaft size in sixteenths of an inch	}										
M30	Shaft diameter, metric series, in millimeters	}			}	}	}					
None	Open end unit, basic unit	}										
C	Closed end unit, no auxiliary seals	}			}	}	}					
D	Open end unit, end cap with seals and rear auxiliary dual lip seal	}										
DC	Closed end unit, end cap and rear auxiliary dual lip seal	}										

Ball Bearing Takeup Units

Symbol	Description	TDS	3 - U	2	39	N	C - 18	
T	Takeup unit, standard slot	}	}	}	}	}	}	
TH	Takeup unit, wide slot							
TAS	Conveyor takeup, formed steel frame							
TDS	Conveyor takeup, hinged top, welded steel frame							
TGS	Conveyor elevator takeup, welded steel frame							
NT	Conveyor takeup, welded channel frame							
LC	Universal conveyor takeup frame, welded steel light duty frames only	}		}	}	}	}	
3	Bearing design, integral seals	}						
U	Wide inner ring, spring locking	}		}	}	}	}	
2	Series 200 ball bearing designation	}						
39	Shaft diameter, in sixteenths of an inch	}		}	}	}	}	
M60	Shaft diameter, metric series, in millimeters	}						
N	Single lip seals	}		}	}	}	}	
C	Closed end unit	}						
18	Takeup adjustment, inches	}		}	}	}	}	

For bearing nomenclature see following pages.

The nomenclature shown is provided to identify the basic and optional features of bearing and mounted unit assemblies. The most commonly specified variations are listed; however, availability of all variations cannot be assumed. Link-Belt Bearing Division should be consulted regarding optional features, availability, and the application requirements.

Nomenclature

Series U200, S200, W200, Y200

Collar Mounted Ball Bearings

Symbol	Description	U	B	G	2	B	08	H	L
S	Extended inner ring, spring locking	}	}	}	}	}	}	}	}
U	Wide inner ring, spring locking								
Y	Wide inner ring, eccentric cam collar								
W	Inner ring extended one side only, eccentric cam collar								
None	O.D. of outer ring is spherical	}	}	}	}	}	}	}	}
B	O.D. of outer ring is cylindrical								
None	Non-relubricatable	}	}	}	}	}	}	}	}
G	Relubricatable (two holes in outer ring@ 180°)								
2	Series 200 ball bearing designation	}	}	}	}	}	}	}	}
B	Inner ring bore equal to a bore of preceding smaller bearing group								
E	Inner ring bore equal to a bore of following larger bearing group								
08	Shaft diameter in sixteenths of an inch	}	}	}	}	}	}	}	}
M17	Shaft diameter, metric series, in millimeters								
E	Molded single lip seals	}	}	}	}	}	}	}	}
U	Contact seals (W200 only)								
N	Lip seals								
H	Floating labyrinth seals								
E3	Triple lip seals								
L1	Bearing without collar	}	}	}	}	}	}	}	}
L	Bearing with collar/set screws								

The nomenclature shown is provided to identify the basic and optional features of bearing and mounted unit assemblies. The most commonly specified variations are listed; however, availability of all variations cannot be assumed. Link-Belt Bearing Division should be consulted regarding optional features, availability, and the application requirements.

Nomenclature

Hex, Square, and Round Bores

Round, Square, Hex Bore Ball Bearings

Symbol	Description	31	R	B	G	3	-	2		10		E3
None	Bore is basic metric size	}										
31	Shaft size in sixteenths of an inch											
R	Bearing bore is round	}										
S	Bearing bore is square											
K	Bearing bore is hex											
None	O.D. of outer ring is spherical	}										
B	O.D. of outer ring is cylindrical											
None	Non-relubricatable	}										
G	Relubricatable (two holes in outer ring @ 180°)											
None	Metric width outer ring; basic inch width inner ring	}										
2	Basic inch width outer ring; intermediate inch width inner ring											
3	Basic inch width outer ring; basic inch width inner ring											
4	Basic inch width outer ring; unground spherical O.D. with flat ground cylindrical center; intermediate inch width inner ring											
5	Metric width outer ring; intermediate inch width inner ring											
6	Basic inch width outer ring; wide inch width inner ring											
7	Wide metric width outer ring; intermediate inch width inner ring											
8	Wide metric width outer ring; wide inch width inner ring											
2	Series 200 ball bearing designation											
E	Bore is .031 inch oversize											
10	One fifth of basic mm bore size											
None	Non-metallic retainer	}										
J	Formed steel retainer, two-piece											
N	Single lip seals	}										
E3	Triple lip seals											

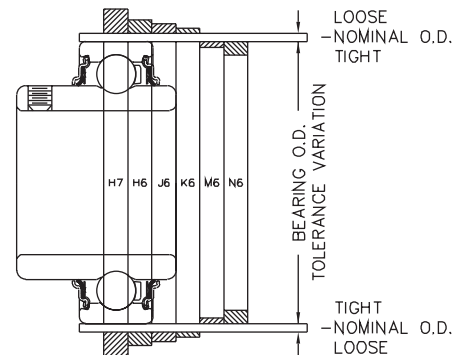
The nomenclature shown is provided to identify the basic and optional features of bearing and mounted unit assemblies. The most commonly specified variations are listed; however, availability of all variations cannot be assumed. Link-Belt Bearing Division should be consulted regarding optional features, availability, and the application requirements.

Housing Bearing Seat Diameters

For Cylindrical O.D. Ball Bearings

Class of fit selection

Housing construction	Operating condition	Class of fit	Remarks
Housing not split radially	Housing rotating in relation to direction of load	Normal and heady loads	N6
		Light loads	M6
		Heavy shock loads	K6
	Direction of load indeterminate	Normal and heavy loads where outer ring does not have to be axially displaceable	K6
		Normal and light loads where displaceability of outer ring is desirable	J6
Housing split or not split radially	Housing stationary in relation to direction of loads	Shock loads, temporary complete unloading	
		All loads	H6
		Housing not split radially	H7



■ For cast iron or steel housings. For housings of light metal, select tolerances which give slightly tighter fits than those shown.

Class of fit and housing bores (inches/μm)

Basic size		Nominal bearing O.D. and housing bore		Bearing O.D. tolerance Δ	Bearing/housing diameter fits▲											
					H7		H6		J6		K6		M6		N6	
					Tolerance		Tolerance		Tolerance		Tolerance		Tolerance		Tolerance	
W200, Y200, U200,	R200, S200, K200,	mm	inches		Fit	Housing bore	Fit	Housing bore	Fit	Housing bore	Fit	Housing bore	Fit	Housing bore	Fit	Housing bore
2M17 211	...	40	1.5748	+0.0000	.0000	-.0000	.00000	-.0000	.0002T	-.0002	.0005T	-.0005	.0008T	-.0008	.0011T	-.0011
2M20 212	204	47	1.8504	-.0005	.0015L	+0.0010	.0011L	+0.0006	.0009L	+0.0004	.0006L	+0.0001	.0003L	-.0002	.0000	-.0005
				+0	0	-0	0	-0	5T	-5	13T	-13	20T	-20	28T	-28
				-13	38L	+25	28L	+15	23L	+10	15L	+2	8L	-5	0	-13
2M25 216	205	52	2.0472	+0.0000	.0000	-.0000	.0000	-.0000	.0002T	-.0002	.0006T	-.0006	.0010T	-.0010	.0013T	-.0013
2M30 219	206	62	2.4409	-.0005	.0017L	+0.0012	.0012L	+0.0007	.0010L	+0.0005	.0006L	+0.0001	.0002L	-.0003	.0001T	-.0006
2M35 223	207	72	2.8346	+0	0	-0	0	-0	5T	-5	15T	-15	25T	-25	33T	-43
2M40 225	208	80	3.1496	-13	43L	+30	30L	+17	26L	+13	15L	+2	5L	-8	2T	-15
2M45 228	209	85	3.3465	+0.0000	.0000	-.0000	.0000	-.0000	.0002T	-.0002	.0007T	-.0007	.0012T	-.0012	.0016T	-.0016
2M50 231	210	90	3.5433	-.0006	.0020L	+0.0014	.0015L	+0.0009	.0013L	+0.0007	.0008L	+0.0002	.0003L	-.0003	.0001T	-.0007
2M55 235	211	100	3.9370	+0	0	-0	0	-0	5T	-5	18T	-18	30T	-30	40T	-40
2M60 239	...	110	4.3307	-15	50L	+35	38L	+23	33L	+18	20L	+5	8L	-8	3T	-18

Please consult for availability.

1μm = .001 mm

The appropriate housing bore for any class of fit can be easily determined by applying the housing tolerance to the nominal housing bore.

Example, (using basic size 211 and class of fit H7):

	inches	mm
Nominal housing bore	= 1.5748	40.000
Housing bore tolerance	= -.0000 + .0010	- 0.000 + 0.025
Resultant housing bore	= 1.5748 1.5758	40.000 40.025

▲ Symbol L indicates a loose or clearance fit. Symbol T indicates a tight or interference fit.

△ The arithmetical mean of the largest and smallest single diameter to be within tolerance shown. Allowable deviations from mean diameter per ANSI/ABMA Standard 20, latest printing.

Heavy Duty Ball Bearing Units

Contents

Series 300

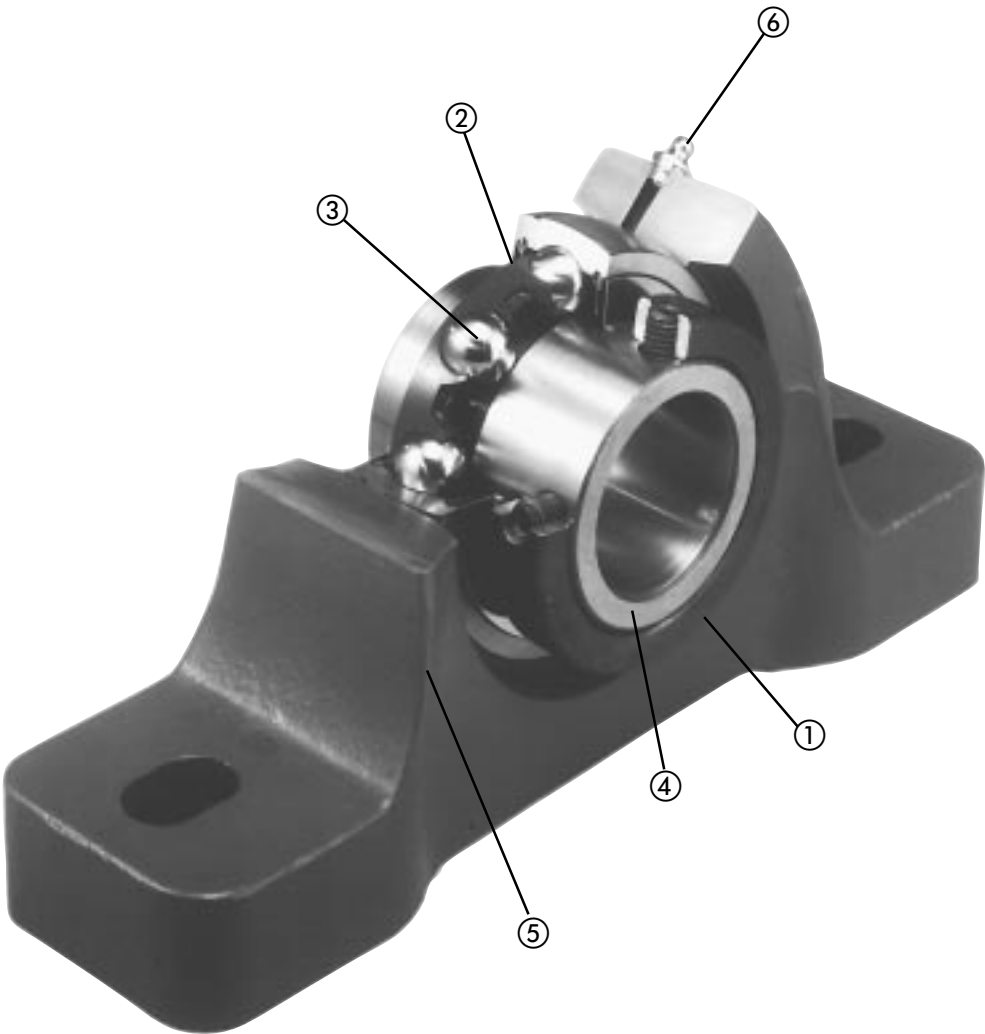
Introduction	C-1
Pictorial Index	C-3
Selection	C-5
Load Ratings	C-7
Dimensions	C-9
Replacements	C-16
Additional Information	C-17
Nomenclature	C-18

Series 300

Heavy Duty Ball Bearing Units

Series 300 wide inner ring ball bearing units are designed for heavy duty applications requiring high capacity and compactness. Manufactured from quality alloy bearing steel to precision tolerances, these bearings are used extensively on general industrial equipment, high speed fans and blowers and heavier duty power transmission and material handling equipment.

- ① Spring locking collar and two setscrews lock inner ring securely to shaft.
- ② Steel-clad molded Type H clearance seal.
- ③ Alignable, precision, deep groove ball bearing of quality alloy bearing steel provides high capacity for radial/thrust loads.
- ④ Wide inner ring for greater contact surface between shaft and bearing.
- ⑤ One-piece, cast iron housings available in many types for a variety of application requirements.
- ⑥ Prelubricated and relubricatable.



Heavy Duty Ball Bearings

Heavy series precision alignable ball bearings of deep groove construction with larger balls and thicker rings for high capacity and longer life. The extra inner ring width furnishes ultimate shaft and load support and concentricity for high speed precision application.

The spring locking collar design provides a secure grip of the wide inner ring bearing to

the shaft. The two set screws extend through the inner ring of the bearing and lock firmly into the shaft. Tightening the two set screws produces elastic strain in the spring locking collar resulting in a continuous pressure on the shaft.

Furnished with anti-rotation pin in the outer ring to prevent the outer ring from spinning in the bearing housing.



Bearing Mounted Molded Rubber Seal

TYPE H SEAL:

These molded rubber seals effectively retain lubricant and protect against contamination. An external seal guard enhances protection against contamination and protects the molded rubber seal. A snap ring locates and retains the molded rubber seal in the outer ring to ensure proper operation. This is an excellent non-contact seal for grease lubrication.



One-piece Cast Iron Housings

Compact, one-piece cast iron housings provide strength with minimum size and weight, and excellent rigidity. All housings are designed with standard mounting dimensions and have finished mounting surfaces for proper installation stability. Pillow blocks have slotted bolt holes with ample space provided for drilling dowel pin holes and are also available with high backing dimensions. Flanged and flanged

cartridge units have drilled mounting holes. Takeup units have machined slots for accurate adjustment.



Pillow Blocks, One-piece Housing

P-U300, PE-U300, P2-U300

Alignable pillow blocks with standard backing for shaft sizes $\frac{3}{4}$ " through $3\frac{15}{16}$ ". High backing units for shaft sizes from $\frac{7}{8}$ " through $3\frac{15}{16}$ ". Open or closed end, fixed or expansion type units. Furnished with bearing clearance seals for grease lubrication.

Load ratings on pages C-7 and C-8.

Dimensions on pages C-9 and C-10.

Additional information on page C-17.



Flanged Units

F-U300, FE-U300

Alignable units for shaft sizes $\frac{3}{4}$ " through $3\frac{15}{16}$ ". Open or closed end, fixed or expansion type units, drilled mounting holes, and machined surfaces. Furnished with bearing clearance seals for grease lubrication.

Load ratings on pages C-7 and C-8.

Dimensions on page C-11.

Additional information on page C-17.



Flanged Cartridge Units

FC-U300, FCE-U300

Alignable units for shaft sizes $\frac{3}{4}$ " through $3\frac{15}{16}$ ". Open or closed end, fixed or expansion type units, drilled mounting holes, and machined mounting surfaces. Furnished with bearing clearance seals for grease lubrication.

Load ratings on pages C-7 and C-8.

Dimensions on page C-12.

Additional information on page C-17.



Cartridge Units

C-U300, CE-U300

Alignable units for shaft sizes $\frac{3}{4}$ " through $3\frac{15}{16}$ ". Open or closed end, fixed or expansion type units. Furnished with bearing clearance seals for grease lubrication.

Load ratings on pages C-7 and C-8.

Dimensions on page C-13.

Additional information on page C-17.



Takeup Frames

LHD

Heavy duty welded steel takeup frames. For use in mounting heavy duty ball bearing pillow blocks listed on page C-9.

Dimensions on page C-15.

Additional information on page C-17.

Takeup Units

T-U300

Alignable units for takeup applications with shaft sizes $\frac{7}{8}$ " through $2\frac{15}{16}$ ". Open or closed end and without frames, guides, or adjusting screws, Furnished with bearing clearance seals for grease lubrication.

Load ratings on pages C-7 and C-8.

Dimensions on page C-14.

Additional information on page C-17.



Replacement Bearings

UG300L

Wide inner ring deep-groove single row ball bearings for shaft sizes $\frac{3}{4}$ " through $3\frac{15}{16}$ ". Furnished with spring locking collar, stainless steel flingers, and seals.

Load ratings on pages C-7 and C-8.

Dimensions on page C-16.

Additional information on page C-17.



Selection

Series 300

To select a bearing, determine the applied radial load, the applied thrust load, the desired Rating Life, and applicable operating conditions. The procedure shown here will aid in selecting a bearing to meet an L_{10} design life. The formulas for calculating life expectancy should be used to determine the Rating Life L_{10} for the bearing selected.

The selection procedures and rating formulas shown here are in agreement with The American Bearing Manufacturers Association Standards and ANSI/ABMA STD 9-1990. Ratings are based on fatigue life. The Rating Life L_{10} or fatigue life at 90% reliability is the usual basis for bearing selection.

For radial load applications only, Table 4, page C-8, can be used to select a bearing or to determine life expectancy.

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

Bearing Selection

Step 1 Determine an appropriate L_{10} design life.

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

Step 2 Determine a required $\left(\frac{C}{P}\right)$ from Table 1.

Step 3 Calculate the required C and select a ball bearing.

a For radial load only:

$$P = F_r$$

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

Select a ball bearing from Table 3, page C-7 with a basic load rating C equal to or greater than the required C.

b For combined radial and thrust loads when $\frac{F_a}{F_r}$ is 0.19 or less:

$$P = F_r$$

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

Select a ball bearing from Table 3, page C-7 with a basic load rating C equal to or greater than the required C.

c For combined radial and thrust loads when $\frac{F_a}{F_r}$ is greater than 0.19,

use the following trial method:

$$\text{Maximum } P = .56F_r + 2.30F_a$$

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

Select a trial ball bearing with a basic load rating C from Table 3, page C-7, approximately equal to the maximum required C.

$$\text{With this trial bearing calculate: } \frac{F_a}{Nd^2}$$

Determine X and Y from Table 2.

Calculate P for the trial bearing.

$$P = XF_r + YF_a$$

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

Consult Table 3, page C-7, basic load rating. If a smaller bearing meets or nearly meets the required C, its life expectancy can be calculated.

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

Selection Series 300

symbols for formulas:

C = basic load rating, pounds (or newtons)
 C_o = static load rating, pounds (or newtons)
 e = a reference value
 F_a = thrust load, pounds (or newtons)
 F_r = radial load, pounds (or newtons)
 L₁₀ = rating life, hours
 n = speed, revolutions per minute
 P = equivalent radial load, pounds (or newtons)
 X = radial factor
 Y = thrust factor

Table 1 • Relation of L₁₀ life and speed to $\left(\frac{C}{P}\right)$

Bearing life, hours L ₁₀	$\left(\frac{C}{P}\right)$ ratio									
	Speed, n									
	50	100	200	300	400	500	600	700	800	
3000	2.08	2.62	3.30	3.77	4.15	4.47	4.75	5.01	5.23	
4000	2.29	2.88	3.63	4.15	4.57	4.92	5.23	5.51	5.76	
5000	2.46	3.10	3.91	4.47	4.92	5.30	5.64	5.93	6.20	
6000	2.62	3.30	4.15	4.75	5.23	5.64	5.99	6.30	6.59	
8000	2.88	3.63	4.57	5.23	5.76	6.20	6.59	6.94	7.25	
10000	3.10	3.91	4.92	5.64	6.20	6.68	7.10	7.47	7.81	
12000	3.30	4.15	5.23	5.99	6.59	7.10	7.54	7.94	8.30	
14000	3.47	4.37	5.51	6.30	6.94	7.47	7.94	8.36	8.74	
16000	3.63	4.57	5.76	6.59	7.25	7.81	8.30	8.74	9.14	
18000	3.77	4.75	5.99	6.86	7.54	8.13	8.63	9.09	9.50	
20000	3.91	4.92	6.20	7.10	7.81	8.42	8.94	9.41	9.84	
25000	4.21	5.30	6.68	7.65	8.42	9.07	9.63	10.1	10.6	
30000	4.47	5.64	7.10	8.13	8.94	9.63	10.2	10.8	11.3	
35000	4.71	5.93	7.47	8.55	9.41	10.1	10.8	11.3	11.9	
40000	4.92	6.20	7.81	8.94	9.84	10.6	11.3	11.9	12.4	
45000	5.12	6.45	8.13	9.30	10.2	11.0	11.7	12.3	12.9	
50000	5.30	6.68	8.42	9.63	10.6	11.4	12.1	12.8	13.4	
60000	5.64	7.10	8.94	10.2	11.3	12.1	12.9	13.6	14.2	
70000	5.93	7.47	9.41	10.8	11.9	12.8	13.6	14.3	14.9	
80000	6.20	7.81	9.84	11.3	12.4	13.4	14.2	14.9	15.6	
90000	6.45	8.13	10.2	11.7	12.9	13.9	14.8	15.5	16.2	
100000	6.68	8.42	10.6	12.1	13.4	14.4	15.3	16.1	16.8	
150000	7.65	9.63	12.1	13.9	15.3	16.5	17.5	18.4	19.3	
200000	8.42	10.6	13.4	15.3	16.8	18.1	19.3	20.3	21.2	

	Speed, n									
	900	1000	1200	1500	1800	2400	3600	6000	10000	
3000	5.44	5.64	5.99	6.45	6.86	7.54	8.63	10.2	12.1	
4000	5.99	6.20	6.59	7.10	7.54	8.30	9.50	11.3	13.4	
5000	6.45	6.68	7.10	7.65	8.13	8.94	10.2	12.1	14.4	
6000	6.86	7.10	7.54	8.13	8.63	9.50	10.9	12.9	15.3	
8000	7.54	7.81	8.30	8.94	9.50	10.5	12.0	14.2	16.8	
10000	8.13	8.42	8.94	9.63	10.2	11.3	12.9	15.3	18.1	
12000	8.63	8.94	9.50	10.2	10.9	12.0	13.7	16.2	19.3	
14000	9.09	9.41	10.0	10.8	11.4	12.6	14.4	17.1	20.3	
16000	9.50	9.84	10.5	11.3	12.0	13.2	15.1	17.9	21.2	
18000	9.88	10.2	10.9	11.7	12.4	13.7	15.7	18.6	22.0	
20000	10.2	10.6	11.3	12.1	12.9	14.2	16.2	19.3	22.8	
25000	11.0	11.4	12.1	13.1	13.9	15.3	17.5	20.7	24.6	
30000	11.7	12.1	12.9	13.9	14.8	16.2	18.6	22.0	26.1	
35000	12.3	12.8	13.6	14.6	15.5	17.1	19.6	23.2	27.5	
40000	12.9	13.4	14.2	15.3	16.2	17.9	20.5	24.3	28.7	
45000	13.4	13.9	14.8	15.9	16.9	18.6	21.3	25.2	29.9	
50000	13.9	14.4	15.3	16.5	17.5	19.3	22.0	26.1	31.0	
60000	14.8	15.3	16.2	17.5	18.6	20.5	23.4	27.8	32.9	
70000	15.5	16.1	17.1	18.4	19.6	21.5	24.6	29.2	34.6	
80000	16.2	16.8	17.9	19.3	20.5	22.5	25.8	30.5	36.2	
90000	16.9	17.5	18.6	20.0	21.3	23.4	26.8	31.8	37.7	
100000	17.5	18.1	19.3	20.7	22.0	24.3	27.8	32.9	39.0	
150000	20.0	20.7	22.0	23.7	25.2	27.8	31.8	37.7	44.6	
200000	22.0	22.8	24.3	26.1	27.8	30.5	35.0	41.4	49.1	

basic formulas:

$$\left(\frac{C}{P}\right) = \left(\frac{L_{10} \times n \times 60}{1,000,000}\right)^{\frac{1}{3}}$$

$$L_{10} = \frac{\left(\frac{C}{P}\right)^3 \times 1,000,000}{n \times 60}$$

Life Expectancy

To calculate the Rating Life L₁₀ of any selected or trial bearing:

Step 1 Determine the equivalent radial load P.

a For radial load only:

$$P = F_r$$

b For combined radial and thrust load:

P = XF_r + YF_a using X and Y from Table 2 below.

Step 2 Calculate the ratio of basic load rating C to the equivalent radial load.

$$\frac{C}{P}$$

Step 3 Approximate the bearing life from Table 1.

Table 2 • X and Y factors for ball bearings

$\frac{F_a}{Nd^2}$	e	$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
		X	Y	X	Y
25	.19	1.0	0	.56	2.30
37.5	.21	1.0	0	.56	2.15
50	.22	1.0	0	.56	1.99
75	.24	1.0	0	.56	1.85
100	.26	1.0	0	.56	1.71
125	.27	1.0	0	.56	1.63
150	.28	1.0	0	.56	1.56
200	.30	1.0	0	.56	1.45
300	.34	1.0	0	.56	1.31
500	.38	1.0	0	.56	1.15
750	.42	1.0	0	.56	1.04
1000	.44	1.0	0	.56	1.00

For values between those in the table linear interpolation can be used. Nd² values are given in Table 3, p. C-7.

Life Adjustment

The Rating Life, L₁₀, may be modified for some applications in accordance with the formula

$$L_n = a_1 a_2 a_3 L_{10}$$

where L_n = Adjusted life for (100-n) % reliability,

a₁ = Life adjustment factor for reliability

a₂ = Life adjustment factor for material and processing

a₃ = Life adjustment factor for operating conditions.

For most normal applications, all factors will be taken as 1, and the Rating Life used as the selection basis or life estimate. In addition, as long as standard catalog bearings are used, a₂ will be normally set equal to one. The factor a₃ covers such things as lubrication, misalignment, and temperature. Some conditions that could yield a₃ significantly different than unity include speeds less than 20000 DN or greater than 200000 DN, temperatures below -40°F (-40°C) or above 275°F (135°C). For other possible conditions, as well as additional information on link adjustment factors, consult Link-Belt Bearing Division, Rexnord Corp.

Load Ratings

Series 300

Table 3 • Load ratings, speed limits and ball data

Shaft diameter	Bearing size number	C ₀ Static load rating		C Basic load rating		Approximate speed limit RPM	d Ball diameter	N Number of balls	Nd ²
inches		newtons	pounds	newtons	pounds	●	inches		
3/4	312	7 890	1770	12 370	2780	10950	3/8	7	.984
7/8 1 15/16 1	314 315 316	10 900	2450	16 460	3700	9350	7/16	7	1.34
1 1/8 1 3/16	318 319	15 700	3530	21 660	4870	8300	31/64	8	1.88
1 1/4 1 3/8 1 7/16	320 322 323	19 100	4290	25 620	5760	7550	17/32	8	2.26
1 1/2	324	24 000	5390	31 230	7020	7200	19/32	8	2.82
1 5/8 1 11/16 1 3/4	326 327 328	31 600	7110	40 750	9160	6200	11/16	8	3.78
1 15/16	331	37 800	8500	47 600	10700	5600	3/4	8	4.50
2 2 1/8 2 3/16	332 334 335	44 600	10000	55 200	12400	4950	13/16	8	5.28
2 1/4 2 7/16	336 339	51 900	11700	62 700	14100	4450	7/8	8	6.12
2 11/16 2 3/4	343 344	68 100	15300	80 100	18000	3950	1	8	8.00
2 15/16	347	77 100	17300	88 100	19800	3700	1 1/16	8	9.03
3 3 3/16	348 351	86 600	19500	93 900	21100	3400	1 1/8	8	10.1
3 7/16 3 1/2	355 356	107 200	24100	109 400	24600	3100	1 1/4	8	12.5
3 15/16	363	140 500	31600	133 400	30000	2750	1 7/16	8	16.5

If the load P is greater than .25C, Consult Link-Belt Bearing Division, Rexnord Corp.

● Based on grease lubrication and moderate load.
Additional information, page C-17.

Load Ratings Series 300

Table 4 • Radial load ratings in pounds at various RPM for appropriate L₁₀ life hours

Shaft diameter, inches	Bearing size number	L ₁₀ Min. life, hrs.	Radial load ratings, pounds																					
			Speed, RPM																					
			50	100	200	300	400	500	600	700	800	900	1000	1200	1500	1800	2000	2500	3000	3500	4000	5000		
¾	312	{	3000	....	....	....	....	675	628	589	558	536	514	497	469	436	408	397	369	347	330	316	294	
			8000	....	....	....	....	486	453	428	405	389	372	358	339	316	297	289	267	251	239	229	212	
			20000	....	567	453	394	361	336	316	300	286	276	267	251	233	220	213	197	186	177	170	158	
			40000	569	453	361	316	286	267	251	239	229	220	212	200	186	175	170	158	149	141	136	126	
7/8 1 1/16 1	{	314	{	3000					897	834	782	741	712	682	660	623	579	542	527	490	460	438	419	380
		315		8000			815	712	645	601	567	538	516	493	475	449	419	394	382	353	332	317	303	281
		316		20000		752	601	523	479	445	419	397	379	366	353	332	309	291	282	261	246	234	224	208
		40000		756	601	479	419	379	354	333	316	303	291	281	265	246	231	225	209	196	187	179	166	
1 1/8 1 3/16	{	318	{	3000					1170	1090	1020	974	935	896	867	818	760	711	692	643	604	575	550	511
		319		8000			1070	935	848	789	745	706	677	648	623	589	550	516	502	463	436	415	398	368
		20000		....	989	789	687	628	585	550	521	497	480	463	436	405	382	369	342	322	306	294	272	
		40000		994	789	628	550	497	464	436	414	397	381	368	347	323	303	294	273	257	244	234	217	
1 1/4 1 3/8 1 7/16	{	320	{	3000					1390	1290	1210	1150	1100	1050	1020	967	898	840	817	760	713	679	650	604
		322		8000			1260	1100	1001	932	881	834	800	765	737	696	650	610	593	547	515	490	469	435
		323		20000		1160	932	811	742	690	650	616	587	567	547	515	478	451	436	404	380	362	347	321
		40000		1170	932	742	650	587	548	515	489	469	450	434	410	381	358	347	322	303	288	276	256	
1 1/2	{	324	{	3000					1690	1570	1470	1400	1340	1290	1240	1170	1090	1020	995	925	868	826	791	735
		8000		....	....	1540	1340	1210	1130	1070	1010	974	932	897	847	791	742	721	666	626	596	571	529	
		20000		....	1420	1130	988	904	840	791	749	714	689	666	626	581	548	530	491	462	440	421	390	
		40000		1430	1130	904	791	714	666	627	595	570	548	528	499	463	435	422	391	368	350	336	311	
1 5/8 1 11/16 1 3/4	{	326	{	3000	....	....	....	....	2210	2050	1920	1820	1750	1680	1620	1530	1420	1330	1290	1200	1130	1070	1030	
		327		8000	....	....	2010	1750	1590	1480	1390	1320	1260	1210	1160	1100	1030	967	939	867	816	776	743	
		328		20000	....	1850	1480	1280	1170	1090	1030	976	930	898	867	816	757	714	690	639	601	572	548	
		40000		1860	1480	1170	1030	930	868	817	774	742	713	687	649	602	566	549	509	479	455	436		
1 15/16	{	331	{	3000	....	....	....	....	2580	2400	2250	2130	2040	1960	1890	1790	1660	1550	1510	1400	1320	1250	1200	
		8000		....	....	2340	2040	1850	1720	1630	1540	1480	1410	1360	1280	1200	1120	1090	1010	952	906	867		
		20000		....	2160	1720	1500	1370	1270	1200	1130	1080	1040	1010	952	883	833	805	745	702	667	640		
		40000		2170	1720	1370	1200	1080	1010	953	904	866	832	802	757	703	660	641	594	558	530	509		
2 2 1/8 2 3/16	{	332	{	3000	....	....	....	....	2990	2780	2600	2470	2370	2270	2200	2070	1920	1800	1750	1620	1530	1450		
		334		8000	....	....	2720	2370	2150	2000	1890	1790	1710	1640	1580	1490	1390	1300	1270	1170	1100	1040		
		20000		....	2510	2000	1740	1590	1480	1390	1310	1250	1210	1170	1100	1020	965	933	863	812	773			
		40000		2520	2000	1590	1390	1250	1170	1100	1040	1003	964	929	877	813	764	742	687	646	614			
2 1/4 2 7/16	{	336	{	3000	....	....	....	....	3400	3160	2960	2810	2690	2580	2500	2360	2190	2050	1990	1850	1730			
		339		8000	....	....	3090	2690	2440	2270	2140	2030	1950	1860	1790	1690	1580	1480	1440	1330	1250			
		20000		....	2850	2270	1970	1810	1680	1580	1500	1420	1380	1330	1250	1160	1090	1060	981	923				
		40000		2860	2270	1810	1580	1420	1330	1250	1180	1140	1090	1050	996	924	868	843	781	734				
2 11/16 2 3/4	{	343	{	3000	....	....	....	....	4340	4030	3780	3580	3440	3290	3190	3010	2790	2610	2540	2360				
		344		8000	....	....	3940	3440	3110	2900	2740	2590	2480	2380	2290	2160	2020	1890	1840	1690				
		20000		....	3640	2900	2520	2300	2140	2020	1910	1820	1760	1690	1590	1480	1390	1350	1250					
		40000		3650	2900	2300	2020	1820	1700	1600	1510	1450	1390	1340	1270	1170	1100	1070	995					
2 5/16	{	347	{	3000	....	....	....	....	4770	4440	4160	3940	3780	3620	3510	3310	3070	2870	2790	2590				
		8000		....	....	4340	3780	3430	3190	3010	2850	2730	2610	2520	2380	2220	2080	2020	1860					
		20000		....	4000	3190	2770	2530	2360	2220	2100	2000	1930	1860	1750	1630	1530	1480	1370					
		40000		4020	3190	2530	2220	2000	1870	1750	1660	1590	1530	1480	1390	1290	1210	1180	1090					
3 3 3/16	{	348	{	3000	....	....	....	....	5090	4730	4430	4200	4030	3860	3740	3520	3270	3060	2980	2760				
		351		8000	....	....	4620	4030	3650	3400	3210	3040	2910	2790	2680	2530	2360	2220	2150	1990				
		20000		....	4260	3400	2950	2700	2510	2360	2240	2130	2060	1990	1870	1730	1630	1580	1460					
		40000		4280	3400	2700	2360	2130	1990	1870	1770	1700	1630	1570	1480	1380	1290	1250	1160					
3 7/16 3 1/2	{	355	{	3000	....	....	....	....	5930	5510	5170	4900	4700	4500	4350	4110	3810	3570	3470					
		356		8000	....	....	5390	4700	4260	3960	3740	3540	3400	3250	3120	2950	2760	2580	2510					
		20000		....	4970	3960	3440	3150	2930	2760	2610	2490	2400	2320	2180	2020	1900	1840						
		40000		4990	3960	3150	2760	2490	2320	2180	2070	1980	1900	1830	1730	1600	1510	1460						
3 5/16	{	363	{	3000	....	....	....	....	7230	6720	6300	5970	5730	5490	5310	5010	4650	4350	4230					
		8000		....	....	6570	5730	5190	4830	4560	4320	4140	3960	3810	3600	3360	3150	3060						
		20000		....	6060	4830	4200	3840	3570	3360	3180	3030	2930	2820	2660	2460	2320	2240						
		40000		6090	4830	3840	3360	3030	2830	2660	2520	2420	2320	2240	2110	1960	1840	1780						

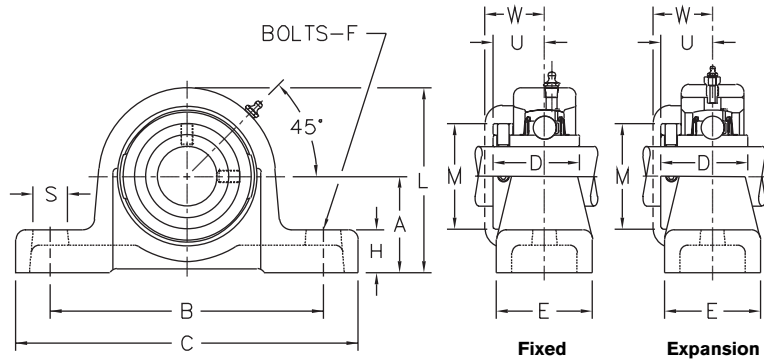
Operation in the high speed shaded areas requires frequent relubrication.

If the load P is greater than .25C, Consult Link-Belt Bearing Division, Rexnord Corp.

Heavy Duty Ball Bearing Pillow Blocks

P-U300, PE-U300

Cast Iron Housing
Standard Backing Height
Fixed or Expansion
Alignable
Spring Locking Collar
Relubricatable



Dimensions (inches/mm)

Shaft diameter inches	Pillow block number Δ		A + .000" - .010" + 0.00 - 0.25 mm	B	C	D	E $\square$	F Bolts	H	L		M	S	U	W $\blacklozenge$	Total axial expansion	Unit wt. (lbs./kg.)	Bearing no.
	Fixed	Expansion								Fixed	Expansion							
3/4	P-U312	PE-U312	1 5/8 41.28	5 127.0	6 1/2 165.1	1 15/32 37.31	1 3/4 44.4	1/2 12	1 3/16 20.6	3 1/16 77.8	3 3/16 81.0	1 5/8 41.3	7/8 22.2	2 7/32 21.4	1 5/64 26.6	3/16 4.8	3.0 1.4	UG312L
7/8 1 15/16 1	P-U314 P-U315 P-U316	PE-U314 PE-U315 PE-U316	1 7/8 47.62	5 1/2 139.7	7 177.8	1 43/64 42.46	2 50.8	1/2 12	7/8 22.2	3 9/16 90.5	3 23/32 94.4	2 50.8	7/8 22.2	63/64 25.0	1 15/64 31.4	3/16 4.8	4.0 1.8	UG314L UG315L UG316L
1 1/8 1 3/8	P-U318 P-U319	PE-U318 PE-U319	2 1/8 53.98	6 7/16 163.5	8 1/4 209.6	1 99/64 48.82	2 1/4 57.2	1/2 12	1 5/16 23.8	4 1/16 103.2	4 1/4 108.0	2 9/16 58.7	1 1/16 27.0	1 5/64 29.0	1 13/32 35.7	3/16 4.8	5.9 2.7	UG318L UG319L
1 1/4 1 3/8 1 7/8	P-U320 P-U322 P-U323	PE-U320 PE-U322 PE-U323	2 3/8 60.32	7 3/8 187.3	9 1/4 235.0	2 3/32 53.18	2 3/8 60.3	5/8 16	1 25.4	4 1/2 114.3	4 11/16 119.1	2 9/16 65.1	1 1/8 28.6	1 1/4 31.8	1 1/2 38.1	3/16 4.8	7.5 3.4	UG320L UG322L UG323L
1 1/2	P-U324	PE-U324	2 5/8 66.68	8 203.2	10 1/8 257.2	2 5/16 58.74	2 5/8 66.7	5/8 16	1 1/4 31.8	5 127.0	5 7/32 132.6	3 1/16 77.8	1 1/4 31.8	1 25/64 35.3	1 39/64 40.9	3/16 4.8	11.5 5.2	UG324L
1 5/8 1 11/16 1 3/4	P-U326 P-U327 P-U328	PE-U326 PE-U327 PE-U328	2 7/8 73.02	8 1/4 209.6	10 1/4 260.4	2 19/32 65.88	3 76.2	5/8 16	1 1/16 33.3	5 1/2 139.7	5 5/8 142.9	3 1/4 82.6	1 1/8 28.6	1 39/64 39.3	1 27/32 46.8	3/16 4.8	13.0 5.9	UG326L UG327L UG328L
1 15/16	P-U331	PE-U331	3 1/8 79.38	8 7/8 225.4	11 1/8 282.6	2 13/16 71.44	3 1/8 79.4	5/8 16	1 1/8 34.9	6 152.4	6 7/32 158.0	3 7/16 87.3	1 1/8 28.6	1 43/64 42.5	1 31/32 50.0	3/16 4.8	17.2 7.8	UG331L
2 2 1/8 2 3/16	P-U332 P-U334 P-U335	PE-U332 PE-U334 PE-U335	3 1/2 88.90	10 1/4 260.4	12 5/8 320.7	3 1/16 77.79	3 3/8 85.7	3/4 20	1 1/2 38.1	6 5/8 168.3	6 13/16 173.0	3 15/16 100.0	1 1/4 31.8	1 27/32 46.8	2 3/16 55.6	3/16 4.8	21.5 9.8	UG332L UG334L UG335L
2 1/4 2 7/16	P-U336 P-U339	PE-U336 PE-U339	3 5/8 92.08	11 1/4 285.8	13 3/4 349.2	3 5/16 84.14	3 1/2 88.9	3/4 20	1 5/8 41.3	7 1/8 181.0	7 3/16 182.6	4 3/16 106.4	1 3/8 34.9	1 15/16 49.2	2 7/16 61.9	3/16 4.8	27.5 12.5	UG336L UG339L
2 11/16 2 3/4	P-U343 P-U344	PE-U343 PE-U344	4 101.60	11 13/16 300.0	14 5/8 371.5	3 13/16 96.84	3 3/4 95.2	7/8 24	1 5/8 41.3	7 3/4 196.8	7 15/16 201.6	4 3/4 120.6	1 5/8 41.3	2 1/4 57.2	2 5/8 66.7	1/4 6.4	39.0 17.7	UG343L UG344L
2 15/16	P-U347	PE-U347	4 1/4 107.95	12 304.8	15 1/8 384.2	4 3/32 103.98	4 101.6	7/8 24	1 3/4 44.4	8 5/8 212.7	8 3/8 212.7	4 15/16 125.4	1 5/8 41.3	2 3/8 60.3	2 3/4 69.8	1/4 6.4	44.5 20.2	UG347L
3 3 3/16	P-U348 P-U351	PE-U348 PE-U351	4 9/16 115.89	12 1/4 311.2	15 5/8 390.5	4 13/32 111.92	4 5/16 105.6	7/8 24	1 15/16 49.2	9 228.6	9 228.6	5 1/16 144.5	1 5/8 41.3	2 19/32 65.9	3 76.2	3/8 9.5	53.0 24.0	UG348L UG351L
3 7/16 3 1/2	P-U355 P-U356	PE-U355 PE-U356	5 1/8 130.18	12 7/8 327.0	16 1/8 409.6	4 15/16 125.41	5 127.0	1 24	2 1/4 57.2	9 7/8 250.8	10 1/16 255.6	6 152.4	1 5/8 41.3	2 29/32 73.8	3 3/32 83.3	3/8 9.5	70.0 31.8	UG355L UG356L
3 15/16	P-U363	PE-U363	5 11/16 144.46	14 1/2 368.3	17 5/16 439.7	5 5/16 141.29	5 127.0	1 24	2 3/16 65.1	11 1/16 281.0	11 1/16 281.0	7 177.8	1 1/2 38.1	3 3/32 83.3	3 11/16 93.7	3/8 9.5	98.0 44.4	UG363L

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size: for all expansion units with 2 7/16" and smaller shafts, 1/4"-28 UNF; for other expansion units and all fixed units, 1/8" PT.

Δ 1 1/8 thru 2 15/16 shaft diameters also available with dual contact lip seals, add suffix N; i.e. P-U319N

$\blacklozenge$ Width dimension for closed end unit.

$\square$ Dimension E for PE-U326 thru PE-U328 is 2 3/4", PE-U336 and PE-U339 is 3 3/4".

Selection guide, pages C-5, C-6.

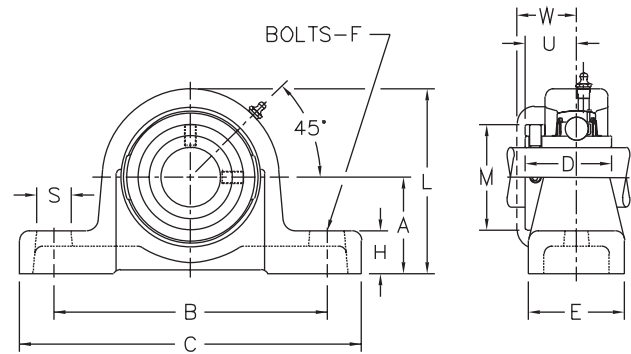
Load ratings, pages C-7, C-8.

Additional information, page C-17.

Heavy Duty Ball Bearing Pillow Blocks

P2-U300

Cast Iron Housing
High Backing Height
Alignable
Spring Locking Collar
Relubricatable



Dimensions (inches/mm)

Shaft diameter inches	Pillow block number △	A + .000" - .010" + 0.00 - 0.25 mm	B	C	D	E	F Bolts	H	L	M	S	U	W ◆	Unit wt. (lbs./kg.)	Bearing no.
7/8 15/16 1	P2-U314 P2-U315 P2-U316	2 50.80	5 1/2 139.7	7 177.8	1 3/64 42.46	2 50.8	1/2 12	7/8 22.2	3 1/16 93.7	2 50.8	7/8 22.2	6 3/64 25.0	1 15/64 31.4	4.2 1.9	UG314L UG315L UG316L
1 1/8 1 3/16	P2-U318 P2-U319	2 3/8 60.32	6 5/8 168.3	8 1/4 209.6	1 59/64 48.82	2 3/8 60.3	1/2 12	7/8 22.2	4 5/16 109.5	2 5/16 58.7	1 25.4	1 1/64 29.0	1 13/32 35.7	6.5 2.9	UG318L UG319L
1 1/4 1 3/8 1 7/16	P2-U320 P2-U322 P2-U323	2 3/4 69.85	8 1/4 209.6	10 1/8 257.2	2 3/32 53.18	2 3/4 69.8	5/8 16	1 5/16 23.8	4 7/8 123.8	2 9/16 65.1	1 1/8 28.6	1 1/4 31.8	1 1/2 38.1	8.9 4.0	UG320L UG322L UG323L
1 1/2	P-U324★	2 5/8 66.68	8 203.2	10 1/8 257.2	2 5/16 58.74	2 5/8 66.7	5/8 16	1 1/4 31.8	5 127.0	3 1/16 77.8	1 1/4 31.8	1 25/64 35.3	1 39/64 40.9	11.5 5.2	UG324L
1 5/8 1 11/16 1 3/4	P2-U326 P2-U327 P2-U328	3 1/8 79.38	9 228.6	11 279.4	2 19/32 65.88	3 76.2	5/8 16	1 3/16 30.2	5 3/4 146.0	3 1/4 82.6	1 1/8 28.6	1 35/64 39.3	1 27/32 46.8	14.0 6.4	UG326L UG327L UG328L
1 5/16	P-U331★	3 1/8 79.38	8 7/8 225.4	11 1/8 282.6	2 13/16 71.44	3 1/8 79.4	5/8 16	1 3/8 34.9	6 152.4	3 7/16 87.3	1 1/8 28.6	1 49/64 42.5	1 31/32 50.0	17.2 7.8	UG331L
2 2 1/8 2 3/16	P2-U332 P2-U334 P2-U335	3 3/4 95.25	10 1/4 260.4	12 5/8 320.7	3 1/16 77.79	3 3/8 85.7	3/4 20	1 7/16 36.5	6 7/8 174.6	3 15/16 100.0	1 3/8 34.9	1 27/32 46.8	2 3/16 55.6	22.9 10.4	UG332L UG334L UG335L
2 1/4 2 7/16	P2-U336 P2-U339	4 1/8 104.78	11 1/4 285.8	13 3/4 349.2	3 5/16 84.14	4 101.6	3/4 20	1 1/2 38.1	7 1/2 190.5	4 3/16 106.4	1 3/8 34.9	1 15/16 49.2	2 7/16 61.9	31.1 14.1	UG336L UG339L
2 11/16 2 3/4	P2-U343 P2-U344	4 9/16 115.89	12 304.8	14 13/16 376.2	3 13/16 96.84	4 3/8 111.1	7/8 24	1 3/4 44.4	8 7/16 214.3	4 3/4 120.6	1 3/8 34.9	2 1/4 57.2	2 5/8 66.7	44.0 20.0	UG343L UG344L
2 15/16	P2-U347	4 9/16 115.89	12 3/8 314.3	15 3/8 390.5	4 3/32 103.98	4 3/8 111.1	7/8 24	1 7/8 47.6	8 11/16 220.7	4 15/16 125.4	1 3/8 34.9	2 3/8 60.3	2 3/4 69.8	47.2 21.4	UG347L
3 3 1/16	P-U348★ P-U351★	4 9/16 115.89	12 1/4 311.2	15 3/8 390.5	4 13/32 111.92	4 5/16 105.6	7/8 24	1 15/16 49.2	9 228.6	5 11/16 144.5	1 3/8 41.3	2 19/32 65.9	3 76.2	53.0 24.0	UG348L UG351L
3 7/16	P-U355★	5 1/8 130.18	12 7/8 327.0	16 1/8 409.6	4 15/16 125.41	5 127.0	1 24	2 1/4 57.2	9 7/8 250.8	6 152.4	1 5/8 41.3	2 29/32 73.8	3 3/32 83.3	70.0 31.8	UG355L
3 5/16	P-U363★	5 11/16 144.46	14 1/2 368.3	17 9/16 439.7	5 9/16 141.29	5 1/2 139.7	1 24	2 9/16 65.1	11 1/16 281.0	7 177.8	1 1/2 38.1	3 3/32 83.3	3 11/16 93.7	98.0 44.4	UG363L

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size: 1/8" PT.

★ Same as P-U300 series.

△ 1 1/8 thru 2 15/16 shaft diameters also available with dual contact lip seals, add suffix N; i.e. P-U319N

◆ Width dimension for closed end unit.

Selection guide, pages C-5, C-6.

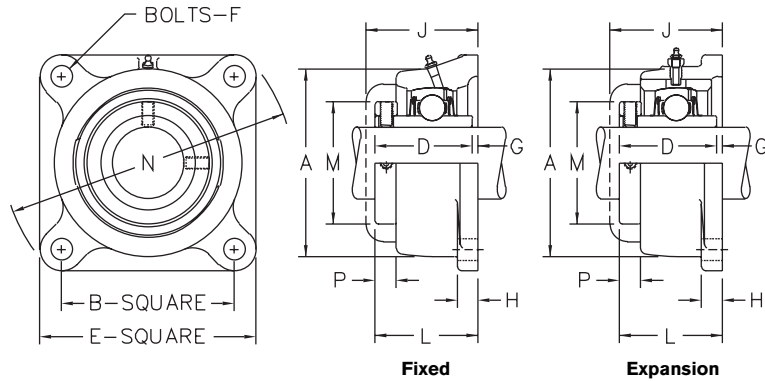
Load ratings, pages C-7, C-8.

Additional information, page C-17.

Heavy Duty Ball Bearing Flanged Units

F-U300, FE-U300

Cast Iron Housing
4-bolt Mounting
Fixed or Expansion
Alignable
Spring Locking Collar
Relubricatable



Dimensions (inches/mm)

Shaft diameter Inches	Flanged unit number Δ		A		B	D	E	F	G	H	J	L	M	N	P	Total axial expansion	Unit wt. (lbs./kg.)	Bearing no.
	Fixed	Expansion	Fixed	Expansion														
$\frac{3}{4}$	F-U312	...	$2\frac{3}{4}$ 69.8	$3\frac{1}{16}$ 77.8	$2\frac{7}{8}$ 73.02	$1\frac{15}{32}$ 37.31	$3\frac{7}{8}$ 98.4	$\frac{7}{16}$ 10	$\frac{1}{8}$ 3.2	$\frac{1}{2}$ 12.7	$1\frac{5}{64}$ 45.6	$1\frac{19}{32}$ 40.5	$1\frac{1}{8}$ 41.3	$5\frac{1}{16}$ 128.6	$1\frac{5}{64}$ 6.0	...	2.5 1.1	UG312L
$\frac{7}{8}$ $1\frac{1}{16}$ 1	F-U314 F-U315 F-U316	FE-U314 FE-U315 FE-U316	$3\frac{1}{4}$ 82.6	$3\frac{11}{16}$ 93.7	$3\frac{1}{2}$ 88.90	$1\frac{43}{64}$ 42.46	$4\frac{5}{8}$ 117.5	$\frac{1}{2}$ 12	$\frac{1}{8}$ 3.2	$\frac{9}{16}$ 14.3	$2\frac{3}{64}$ 52.0	$1\frac{5}{64}$ 45.6	2 50.8	$6\frac{1}{16}$ 154.0	$1\frac{9}{64}$ 7.5	$\frac{3}{16}$ 4.8	4.0 1.8	UG314L UG315L UG316L
$1\frac{1}{8}$ $1\frac{3}{16}$	F-U318 F-U319	FE-U318 FE-U319	$3\frac{5}{8}$ 92.1	$4\frac{1}{8}$ 104.8	$3\frac{13}{16}$ 96.84	$1\frac{59}{64}$ 48.82	$4\frac{15}{16}$ 125.4	$\frac{1}{2}$ 12	$\frac{1}{8}$ 3.2	$\frac{5}{8}$ 15.9	$2\frac{5}{16}$ 58.7	$2\frac{3}{64}$ 52.0	$2\frac{5}{16}$ 58.7	$6\frac{17}{32}$ 165.9	$2\frac{5}{64}$ 9.9	$\frac{3}{16}$ 4.8	4.7 2.1	UG318L UG319L
$1\frac{1}{4}$ $1\frac{3}{8}$ $1\frac{7}{16}$	F-U320 F-U322 F-U323	FE-U320 FE-U322 FE-U323	$4\frac{1}{16}$ 103.2	$4\frac{15}{32}$ 113.5	4 101.60	$2\frac{3}{32}$ 53.18	$5\frac{1}{8}$ 130.2	$\frac{1}{2}$ 12	$\frac{5}{32}$ 4.0	$\frac{5}{8}$ 15.9	$2\frac{1}{2}$ 63.5	$2\frac{1}{4}$ 57.2	$2\frac{9}{16}$ 65.1	$6\frac{25}{32}$ 172.2	$\frac{7}{16}$ 11.1	$\frac{9}{32}$ 7.1	6.0 2.7	UG320L UG322L UG323L
$1\frac{1}{2}$	F-U324	FE-U324	$4\frac{9}{16}$ 115.9	5 127.0	$4\frac{5}{8}$ 117.48	$2\frac{5}{16}$ 58.74	6 152.4	$\frac{5}{8}$ 16	$\frac{5}{32}$ 4.0	$\frac{5}{8}$ 15.9	$2\frac{11}{16}$ 68.3	$2\frac{15}{32}$ 62.7	$3\frac{1}{16}$ 77.8	$7\frac{29}{32}$ 200.8	$\frac{1}{2}$ 12.7	$\frac{9}{32}$ 7.1	8.5 3.8	UG324L
$1\frac{5}{8}$ $1\frac{11}{16}$ $1\frac{3}{4}$	F-U326 F-U327 F-U328	FE-U326 FE-U327 FE-U328	5 127.0	$5\frac{1}{2}$ 139.7	4 123.82	$2\frac{19}{32}$ 65.88	$6\frac{1}{4}$ 158.8	$\frac{5}{8}$ 16	$\frac{5}{32}$ 4.0	$1\frac{1}{16}$ 17.5	$3\frac{3}{64}$ 77.4	$2\frac{3}{4}$ 69.8	$3\frac{1}{4}$ 82.6	$8\frac{9}{32}$ 210.3	$3\frac{5}{64}$ 13.9	$\frac{3}{16}$ 4.8	10.2 4.6	UG326L UG327L UG328L
$1\frac{15}{16}$	F-U331	FE-U331	$5\frac{1}{2}$ 139.7	$5\frac{15}{16}$ 150.8	$5\frac{1}{8}$ 130.18	$2\frac{13}{16}$ 71.44	$6\frac{1}{2}$ 165.1	$\frac{5}{8}$ 16	$\frac{5}{32}$ 4.0	$1\frac{1}{16}$ 17.5	$3\frac{17}{64}$ 82.9	$2\frac{31}{32}$ 75.4	$3\frac{7}{16}$ 87.3	$8\frac{5}{8}$ 219.1	$3\frac{7}{64}$ 14.7	$\frac{3}{16}$ 4.8	12.2 5.5	UG331L
2 $2\frac{1}{8}$ $2\frac{3}{16}$	F-U332 F-U334 F-U335	FE-U332 FE-U334 FE-U335	6 152.4	$6\frac{3}{8}$ 161.9	$5\frac{3}{4}$ 146.05	$3\frac{1}{16}$ 77.79	$7\frac{9}{16}$ 185.7	$\frac{3}{4}$ 20	$\frac{5}{32}$ 4.0	$\frac{3}{4}$ 19.0	$3\frac{9}{16}$ 90.5	$3\frac{7}{32}$ 81.8	$3\frac{15}{16}$ 100.0	$9\frac{11}{16}$ 246.1	$2\frac{1}{32}$ 16.7	$\frac{3}{16}$ 4.8	16.5 7.5	UG332L UG334L UG335L
$2\frac{1}{4}$ $2\frac{7}{16}$	F-U336 F-U339	FE-U336 FE-U339	$6\frac{3}{8}$ 161.9	$6\frac{13}{16}$ 173.0	6 152.40	$3\frac{5}{16}$ 84.14	$7\frac{9}{8}$ 193.7	$\frac{3}{4}$ 20	$\frac{5}{32}$ 4.0	$\frac{3}{4}$ 19.0	$3\frac{31}{32}$ 100.8	$3\frac{15}{32}$ 88.1	$4\frac{3}{16}$ 106.4	$10\frac{1}{8}$ 257.2	$2\frac{1}{32}$ 16.7	$\frac{3}{16}$ 4.8	19.2 8.7	UG336L UG339L
$2\frac{11}{16}$ $2\frac{3}{4}$	F-U343 F-U344	FE-U343 FE-U344	$7\frac{7}{16}$ 185.7	$7\frac{3}{4}$ 196.8	7 177.80	$3\frac{13}{16}$ 96.84	$8\frac{7}{8}$ 225.4	$\frac{7}{8}$ 24	$\frac{5}{32}$ 4.0	$\frac{7}{8}$ 22.2	$4\frac{11}{32}$ 110.3	$3\frac{31}{32}$ 100.8	$4\frac{3}{4}$ 120.6	$11\frac{29}{32}$ 299.2	$\frac{3}{4}$ 19.0	$\frac{1}{4}$ 6.4	30.0 13.6	UG343L UG344L
$2\frac{15}{16}$	F-U347	FE-U347	$7\frac{7}{8}$ 200.0	$8\frac{1}{4}$ 209.6	$7\frac{1}{4}$ 184.15	$4\frac{3}{32}$ 103.98	$9\frac{1}{16}$ 230.2	$\frac{7}{8}$ 24	$\frac{7}{32}$ 5.6	$\frac{7}{8}$ 22.2	$4\frac{11}{16}$ 119.1	$4\frac{9}{16}$ 109.5	$4\frac{15}{16}$ 125.4	$12\frac{1}{16}$ 306.4	$\frac{7}{8}$ 22.2	$\frac{1}{4}$ 6.4	33.5 15.2	UG347L
$3\frac{7}{16}$ $3\frac{1}{2}$	F-U355 F-U356	FE-U355 FE-U356	$9\frac{1}{4}$ 235.0	$9\frac{7}{8}$ 250.8	$8\frac{1}{2}$ 215.90	$4\frac{15}{16}$ 125.41	11 279.4	1 24	$\frac{7}{32}$ 5.6	$1\frac{1}{4}$ 31.8	$5\frac{17}{32}$ 140.5	$5\frac{5}{32}$ 131.0	6 152.4	$14\frac{17}{32}$ 369.1	1 25.4	$\frac{3}{8}$ 9.5	58.0 26.3	UG355L UG356L
$3\frac{15}{16}$	F-U363	FE-U363	$10\frac{3}{8}$ 263.5	$10\frac{15}{16}$ 277.8	$9\frac{1}{2}$ 241.30	$5\frac{9}{16}$ 141.29	$12\frac{1}{8}$ 308.0	$1\frac{1}{8}$ 30	$\frac{7}{32}$ 5.6	$1\frac{3}{8}$ 34.9	$6\frac{3}{16}$ 157.2	$5\frac{25}{32}$ 146.8	7 177.8	$16\frac{1}{16}$ 408.0	$1\frac{3}{8}$ 27.8	$\frac{3}{8}$ 9.5	78.0 35.4	UG363L

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size: for all expansion units with $2\frac{7}{16}$ " and smaller shafts, $\frac{1}{4}$ "-28 UNF; for other expansion units and all fixed units, $\frac{1}{8}$ " PT.

Δ $1\frac{1}{8}$ thru $2\frac{15}{16}$ shaft diameters also available with dual contact lip seals, add suffix N; i.e. P-U319N

◆ Width dimension for closed end unit.

Selection guide, pages C-5, C-6.

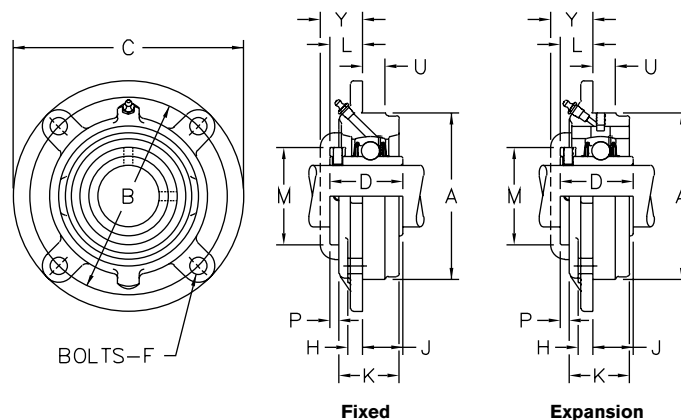
Load ratings, pages C-7, C-8.

Additional information, page C-17.

Heavy Duty Ball Bearing Flanged Cartridge Units

FC-U300, FCE-U300

Cast Iron Housing
Fixed or Expansion
Alignable
Spring Locking Collar
Relubricatable



Dimensions (inches/mm)

Shaft diameter inches	Flanged cartridge unit number Δ		A †	B	C	D	F Bolts	H	J	K	L	M	P	U	Y ◆	Total axial expansion	Unit wt. (lbs./kg.)	Bearing no.
	Fixed	Expansion																
3/4	FC-U312	...	3.125 79.38	3 3/4 95.25	4 1/2 114.3	1 15/32 37.31	5/16 8	7/16 11.1	1 3/16 20.6	1 7/32 31.0	2 1/32 16.7	1 5/8 41.3	1 3/64 5.2	1/2 12.7	55/64 21.8	...	3.0 1.4	UG312L
7/8 1 1/16 1	FC-U314	...	3.688	4 1/2	5 3/8	1 49/64	3/8	7/16	7/8	1 1/16	5/64	2	19/64	5/8	1 3/64	...	4.5	UG314L
	FC-U315	...	93.68	114.30	136.5	42.46	10	11.1	22.2	33.3	20.2	50.8	7.5	15.9	26.6	...	2.0	UG315L
	FC-U316	...																UG316L
1 1/8 1 3/16	FC-U318	...	4.125	5	6	1 59/64	7/16	7/16	3 1/32	1 7/16	6 1/64	2 5/16	2 5/64	5/8	1 7/32	...	6.0	UG318L
	FC-U319	...	104.78	127.00	152.4	48.82	10	11.1	24.6	36.5	24.2	58.7	9.9	15.9	31.0	...	2.7	UG319L
1 1/4 1 3/8 1 1/2	FC-U320	FCE-U320	4.500	5 3/8	6 3/8	2 3/32	7/16	7/16	1 3/32	1 9/16	1	2 9/16	7/16	5/8	1 1/4	1/4	7.5	UG320L
	FC-U322	FCE-U322	114.30	136.52	161.9	53.18	10	11.1	27.8	39.7	25.4	65.1	11.1	15.9	31.8	6.4	3.4	UG322L
	FC-U323	FCE-U323																UG323L
1 1/2	FC-U324	FCE-U324	5.000 127.00	6 152.40	7 1/8 181.0	2 5/16 58.74	1/2 12	1/2 12.7	1 11/64 29.8	1 23/32 43.6	1 9/64 29.0	3 1/16 77.8	1/2 12.7	5/8 15.9	1 23/64 34.5	1/4 6.4	10.0 4.5	UG324L
1 5/8 1 11/16 1 3/4	FC-U326	FCE-U326	5.500	6 1/2	7 7/8	2 19/32	1/2	1/2	1 19/64	1 59/64	1 19/64	3 1/4	3 5/64	3/4	1 19/32	1/4	12.2	UG326L
	FC-U327	FCE-U327	139.70	165.10	193.7	65.88	12	12.7	32.9	48.8	32.9	82.6	13.9	19.0	40.5	6.4	5.5	UG327L
	FC-U328	FCE-U328																UG328L
1 5/16	FC-U331	FCE-U331	6.000 152.40	7 177.80	8 1/8 206.4	2 13/16 71.44	1/2 12	9/16 14.3	1 25/64 35.3	2 1/8 54.0	1 27/64 36.1	3 7/16 87.3	9/16 14.3	7/8 22.2	1 23/32 43.6	1/4 6.4	15.0 6.8	UG331L
2 2 1/8 2 3/16	FC-U332	FCE-U332	6.375	7 7/8	9	3 1/16	5/8	5/8	1 17/32	2 9/32	1 17/32	3 15/16	2 1/32	1 5/16	1 7/8	1/4	19.5	UG332L
	FC-U334	FCE-U334	161.92	193.68	228.6	77.79	16	15.9	38.9	57.9	38.9	100.0	16.7	23.8	47.6	6.4	8.8	UG334L
	FC-U335	FCE-U335																UG335L
2 1/4 2 7/16	FC-U336	FCE-U336	6.875	8 1/8	9 1/2	3 3/16	5/8	5/8	1 11/16	2 15/32	1 5/8	4 3/16	2 1/32	1 5/16	2 1/8	1/4	23.5	UG336L
	FC-U339	FCE-U339	174.62	206.38	241.3	84.14	16	15.9	42.9	62.7	41.3	106.4	16.7	23.8	54.0	6.4	10.6	UG339L
2 11/16 2 3/4	FC-U343	FCE-U343	7.750	9	10 3/8	3 13/16	5/8	3/4	1 15/16	2 27/32	1 7/8	4 3/4	2 5/32	1 1/8	2 1/4	1 3/32	32.5	UG343L
	FC-U344	FCE-U344	196.85	228.60	263.5	96.84	16	19.0	49.2	72.2	47.6	120.6	19.8	28.6	57.2	10.3	14.7	UG344L
2 5/16	FC-U347	FCE-U347	8.250 209.55	9 1/2 241.30	10 7/8 276.2	4 3/32 103.98	5/8 16	3/4 19.0	2 3/32 53.2	3 1/8 79.4	2 50.8	4 15/16 125.4	3/4 19.0	1 1/8 28.6	2 3/8 60.3	1 3/32 10.3	37.0 16.8	UG347L
3 7/16 3 1/2	FC-U355	FCE-U355	9.875	11 3/8	12 7/8	4 15/16	3/4	7/8	2 17/32	3 11/16	2 13/32	6	1	1 1/4	2 25/32	1 3/32	64.0	UG355L
	FC-U356	FCE-U356	250.82	288.92	327.0	125.41	20	22.2	64.3	93.7	61.1	152.4	25.4	31.8	70.6	10.3	29.0	UG356L
3 15/16	FC-U363	FCE-U363	11.000 279.40	12 1/2 317.50	14 355.6	5 5/16 141.29	3/4 20	7/8 22.2	2 25/32 70.6	4 7/32 107.2	2 25/32 70.6	7 177.8	1 3/32 27.8	1 1/8 34.9	3 3/16 81.0	1 3/32 10.3	85.0 38.6	UG363L

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size for 1 1/16" and smaller shaft sizes, 1/4"-28; all other shafts, 1/8" PT.

† Tolerance: +.000" - .002" (+0.00 -0.05 mm). Bore tolerance for mounting: +.002" - .000" (+0.05 -0.00 mm).

Δ 1 1/8 thru 2 15/16 shaft diameters also available with dual contact lip seals, add suffix N; i.e. P-U319N

◆ Width dimension for closed end unit.

Selection guide, pages C-5, C-6.

Load ratings, pages C-7, C-8.

Additional information, page C-17.

Heavy Duty Ball Bearing Cartridge Units

C-U300, CE-U300

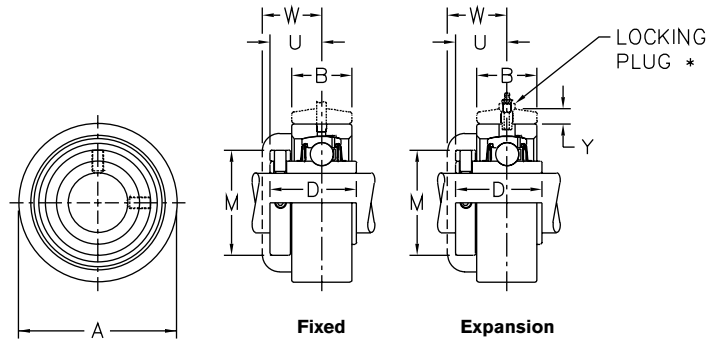
Steel Housing

Fixed or Expansion

Alignable

Spring Locking Collar

Relubricatable



Dimensions (inches/mm)

Shaft diameter inches	Cartridge unit number △		A †	B	D	M	U	W ◆	Y	Total axial expansion	Unit wt. (lbs./kg.)	Bearing no.
	Fixed	Expansion										
3/4	C-U312	CE-U312	2.469 62.71	1 1/32 29.37	1 15/32 37.31	1 1/8 41.3	27/32 21.4	1 3/64 26.6	3/8 9.5	3/16 4.8	1.2 0.5	UG312L
7/8	C-U314	CE-U314	3.000 76.20	1 1/4 31.75	1 43/64 42.46	2 50.8	63/64 25.0	1 15/64 31.4	3/8 9.5	3/16 4.8	2.0 0.9	UG314L UG315L UG316L
1 15/16	C-U315	CE-U315										
1	C-U316	CE-U316										
1 1/8	C-U318	CE-U318	3.438 87.32	1 3/8 34.92	1 59/64 48.82	2 5/16 58.7	1 1/64 29.0	1 13/32 35.7	1 3/32 10.3	3/16 4.8	2.7 1.2	UG318L UG319L
1 1/16	C-U319	CE-U319										
1 1/4	C-U320	CE-U320	3.750 95.25	1 1/2 38.10	2 3/32 53.18	2 9/16 65.1	1 1/4 31.8	1 1/2 38.1	9/16 14.3	3/16 4.8	3.5 1.6	UG320L UG322L UG323L
1 3/8	C-U322	CE-U322										
1 7/16	C-U323	CE-U323										
1 1/2	C-U324	CE-U324	4.188 106.38	1 21/32 42.07	2 5/16 58.74	3 1/16 77.8	1 25/64 35.3	1 39/64 40.9	9/16 14.3	3/16 4.8	5.0 2.3	UG324L
1 5/8	C-U326	CE-U326	4.594 116.69	1 27/32 46.83	2 19/32 65.88	3 1/4 82.6	1 35/64 39.3	1 27/32 46.8	9/16 14.3	3/16 4.8	6.5 2.9	UG326L UG327L UG328L
1 11/16	C-U327	CE-U327										
1 3/4	C-U328	CE-U328										
1 15/16	C-U331	CE-U331	5.000 127.00	2 1/32 51.59	2 13/16 71.44	3 7/16 87.3	1 43/64 42.5	1 31/32 50.0	1 9/32 15.1	3/16 4.8	7.7 3.5	UG331L
2	C-U332	CE-U332	5.375 136.52	2 3/16 55.56	3 1/16 77.79	3 15/16 100.0	1 27/32 46.8	2 3/16 55.6	1 1/16 17.5	3/16 4.8	9.7 4.4	UG332L UG334L UG335L
2 1/8	C-U334	CE-U334										
2 3/16	C-U335	CE-U335										
2 1/4	C-U336	CE-U336	5.781 146.84	2 3/8 60.32	3 5/16 84.14	4 3/16 106.4	1 15/16 49.2	2 7/16 61.9	2 3/32 18.2	3/16 4.8	12.0 5.4	UG336L UG339L
2 7/16	C-U339	CE-U339										
2 11/16	C-U343	CE-U343	6.562 166.67	2 3/4 69.85	3 13/16 96.84	4 3/4 120.6	2 1/4 57.2	2 5/8 66.7	1 3/16 20.6	1/4 6.4	17.0 7.7	UG343L UG344L
2 3/4	C-U344	CE-U344										
2 15/16	C-U347	CE-U347	6.969 177.01	3 76.20	4 3/32 103.98	4 15/16 125.4	2 3/8 60.3	2 3/4 69.8	1 3/16 20.6	3/8 9.5	19.7 8.9	UG347L
3	C-U348	CE-U348	7.594 192.89	3 1/16 80.96	4 13/32 111.92	5 1/16 144.5	2 19/32 65.9	3 76.2	1 25.4	3/8 9.5	26.9 12.2	UG348L UG351L
3 1/16	C-U351	CE-U351										
3 7/16	C-U355	CE-U355	8.375 212.72	3 9/16 90.49	4 15/16 125.41	6 152.4	2 29/32 73.8	3 3/32 83.3	1 25.4	3/8 9.5	35.5 16.1	UG355L UG356L
3 1/2	C-U356	CE-U356										
3 15/16	C-U363	CE-U363	9.375 238.12	4 1/16 103.17	5 9/16 141.29	7 177.8	3 9/32 83.3	3 1/16 93.7	1 25.4	3/8 9.5	49.5 22.4	UG363L

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size: for all expansion units with 2 7/16" and smaller shafts, 1/4"-28 UNF; for other expansion units and all fixed units, 1/8" PT.

* Locking plug thread sizes: for 2 7/16" and smaller shafts, 7/16"-20 UNF; for all others, 5/8"-18 UNF.

† Tolerance: +.000" - .002" (+0.00 -0.05 mm). Bore tolerance for mounting: +.002" - .000" (+0.05 -0.00 mm).

△ 1 1/8 thru 2 15/16 shaft diameters also available with dual contact lip seals, add suffix N; i.e. C-U319N

◆ Width dimension for closed end unit

Selection guide, pages C-5, C-6.

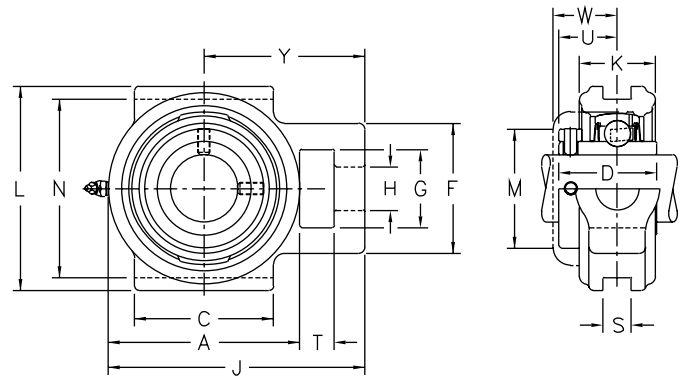
Load ratings, pages C-7, C-8.

Additional information, page C-17.

Heavy Duty Ball Bearing Takeup Units

T-U300

Cast Iron Housing
Machined Slots
Alignable
Spring Locking Collar
Relubricatable



Dimensions (inches/mm)

Shaft diameter inches	Takeup unit number [△]	A	C	D	F	G	H	J	K	L	M	N +.000" - .015" +0.00 -0.38 mm	S +.000" - .015" +0.00 -0.38 mm	T	U	W ◆	Y	Unit wt. (lbs./kg.)	Bearing no.
$\frac{7}{8}$ $\frac{15}{16}$ 1	T-U314 T-U315 T-U316	$3\frac{5}{16}$ 84.1	$2\frac{1}{4}$ 57.2	$1\frac{43}{64}$ 42.46	2 50.8	$1\frac{1}{4}$ 31.8	$\frac{3}{4}$ 19.0	$4\frac{3}{8}$ 111.1	$1\frac{3}{8}$ 34.9	$3\frac{3}{8}$ 92.1	2 50.8	3.000 76.20	.531 13.49	$\frac{5}{8}$ 15.9	$\frac{63}{64}$ 25.0	$1\frac{15}{64}$ 31.4	$2\frac{3}{4}$ 69.8	3.2 1.4	UG314L UG315L UG316L
$1\frac{1}{4}$ $1\frac{3}{8}$ $1\frac{7}{8}$	T-U320 T-U322 T-U323	4 101.6	$2\frac{3}{4}$ 69.8	$2\frac{3}{32}$ 53.18	$2\frac{3}{8}$ 60.3	$1\frac{7}{16}$ 36.5	$\frac{7}{8}$ 22.2	$5\frac{1}{4}$ 133.4	$1\frac{5}{8}$ 41.3	$4\frac{1}{8}$ 104.8	$2\frac{9}{16}$ 65.1	3.500 88.90	.531 13.49	$\frac{5}{8}$ 15.9	$1\frac{1}{4}$ 31.8	$1\frac{1}{2}$ 38.1	$3\frac{1}{4}$ 82.6	5.5 2.5	UG320L UG322L UG323L
$1\frac{1}{2}$	T-U324	$4\frac{5}{8}$ 117.5	$3\frac{1}{4}$ 82.6	$2\frac{5}{16}$ 58.74	$3\frac{3}{16}$ 81.0	$1\frac{15}{16}$ 49.2	$1\frac{1}{8}$ 28.6	$6\frac{1}{8}$ 155.6	$1\frac{25}{32}$ 45.2	$4\frac{7}{8}$ 123.8	$3\frac{1}{16}$ 77.8	4.125 104.78	.687 17.45	$\frac{3}{4}$ 19.0	$1\frac{25}{64}$ 35.3	$1\frac{39}{64}$ 40.9	$3\frac{13}{16}$ 96.8	8.5 3.8	UG324L
$1\frac{15}{16}$	T-U331	$5\frac{1}{2}$ 139.7	4 101.6	$2\frac{13}{16}$ 71.44	$3\frac{3}{4}$ 95.2	$2\frac{1}{4}$ 57.2	$1\frac{1}{4}$ 31.8	$7\frac{3}{8}$ 187.3	$2\frac{3}{16}$ 55.6	$5\frac{7}{8}$ 149.2	$3\frac{7}{16}$ 87.3	5.125 130.18	.812 20.62	1 25.4	$1\frac{43}{64}$ 42.5	$1\frac{31}{32}$ 50.0	$4\frac{5}{8}$ 117.5	13.7 6.2	UG331L
2 $2\frac{1}{8}$ $2\frac{3}{16}$	T-U332 T-U334 T-U335	$5\frac{13}{16}$ 147.6	$4\frac{1}{8}$ 104.8	$3\frac{1}{16}$ 77.79	$3\frac{3}{4}$ 95.2	$2\frac{1}{4}$ 57.2	$1\frac{1}{4}$ 31.8	$7\frac{3}{4}$ 196.8	$2\frac{3}{8}$ 60.3	$6\frac{1}{4}$ 158.8	$3\frac{15}{16}$ 100.0	5.500 139.70	.812 20.62	1 25.4	$1\frac{27}{32}$ 46.8	$2\frac{3}{16}$ 55.6	$4\frac{27}{32}$ 123.0	17.2 7.8	UG332L UG334L UG335L
$2\frac{1}{4}$ $2\frac{7}{16}$	T-U336 T-U339	$6\frac{1}{4}$ 158.8	$4\frac{1}{2}$ 114.3	$3\frac{5}{16}$ 84.14	$4\frac{1}{8}$ 104.8	$2\frac{1}{2}$ 63.5	$1\frac{3}{8}$ 34.9	$8\frac{5}{8}$ 219.1	$2\frac{9}{16}$ 65.1	$6\frac{3}{4}$ 171.4	$4\frac{3}{16}$ 106.4	6.000 152.40	1.062 26.97	$1\frac{3}{8}$ 34.9	$1\frac{15}{16}$ 49.2	$2\frac{7}{16}$ 61.9	$5\frac{7}{16}$ 138.1	20.0 9.1	UG336L UG339L
$2\frac{15}{16}$	T-U347	8 203.2	$5\frac{3}{4}$ 146.0	$4\frac{3}{32}$ 103.98	$4\frac{3}{4}$ 120.6	$2\frac{3}{4}$ 69.8	$1\frac{5}{8}$ 41.3	$10\frac{1}{2}$ 266.7	$3\frac{1}{4}$ 82.6	$8\frac{1}{4}$ 209.6	$4\frac{15}{16}$ 125.4	7.500 190.50	1.312 33.32	$1\frac{1}{4}$ 31.8	$2\frac{3}{8}$ 60.3	$2\frac{3}{4}$ 69.8	$6\frac{1}{2}$ 165.1	37.5 17.0	UG347L

Please consult for availability.

Lubrication fitting tap size: $\frac{1}{8}$ " PT.

[△] $1\frac{1}{4}$ thru $2\frac{15}{16}$ shaft diameters also available with dual contact lip seals, add suffix N; i.e. T-U320N

◆ Width dimension for closed end unit.

Selection guide, pages C-5, C-6.

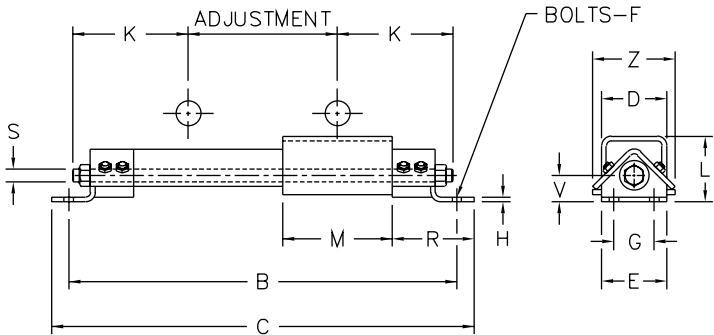
Load ratings, pages C-7, C-8.

Additional information, page C-17.

Heavy Duty Ball Bearing Takeups

LHD Type (Bearing Unit Not Included)

Welded Steel Frame
Protected Screw
P-U300 Bearing Unit Pillow Block



Dimensions (inches/mm)

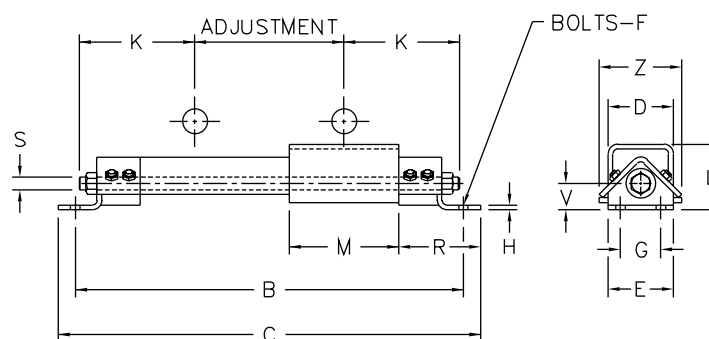
Shaft Sizes inches	Takeup Frame number	Adjust- ment	B	C	D	E	F bolts	G	H	K	L	M	R	S Rod Dia.	V	Z
7/8 Thru 1 15/16	LHD20-12	12	29	31	4 101.6	5 127.0	5/8 16	2 1/2 63.5	1/4 6.4	8 1/2 215.9	5 1/4 133.4	11 279.4	4 101.6	3/4 ...	2 50.8	6 1/4 158.8
	LHD20-18	18	35	37												
	LHD20-24	24	41	43												
	LHD20-30	30	47	49												
	LHD20-36	36	53	55												
	LHD20-48	48	65	67												
2 Thru 2 3/16	LHD25-12	12	32 3/4	35 1/4	5 127.0	5 1/2 139.7	5/8 16	3 76.2	3/8 9.5	10 3/8 263.5	6 1/4 158.8	13 1/4 336.6	5 127.0	1 ...	2 9/16 65.1	7 1/8 181.0
	LHD25-18	18	38 3/4	41 1/4												
	LHD25-24	24	44 3/4	47 1/4												
	LHD25-30	30	50 3/4	53 1/4												
	LHD25-36	36	56 3/4	59 1/4												
	LHD25-48	48	68 3/4	71 1/4												
2 1/4 Thru 2 7/16	LHD30-12	12	35 1/2	38 1/4	6 152.4	6 1/2 165.1	3/4 20	3 76.2	1/2 12.7	11 3/4 298.4	7 177.8	14 1/4 362.0	6 152.4	1 ...	2 1/2 63.5	9 228.6
	LHD30-18	18	41 1/2	44 1/4												
	LHD30-24	24	47 1/2	50 1/4												
	LHD30-30	30	53 1/2	56 1/4												
	LHD30-36	36	59 1/2	62 1/4												
	LHD30-48	48	71 1/2	74 1/4												
2 11/16 Thru 3 3/16	LHD35-12	12	37 1/4	40	6 152.4	6 1/2 165.1	3/4 20	3 76.2	1/2 12.7	12 5/8 320.7	7 177.8	16 406.4	6 152.4	1 1/4 ...	2 1/2 63.5	9 228.6
	LHD35-18	18	43 1/4	46												
	LHD35-24	24	49 1/4	52												
	LHD35-30	30	55 1/4	58												
	LHD35-36	36	61 1/4	64												
	LHD35-48	48	73 1/4	76												
3 7/16 Thru 3 15/16	LHD40-12	12	41 1/4	44	7 177.8	6 1/2 165.1	3/4 20	3 76.2	1/2 12.7	14 5/8 371.5	7 177.8	20 508.0	6 152.4	1 1/2 ...	2 1/8 54.0	9 13/16 249.2
	LHD40-18	18	47 1/4	50												
	LHD40-24	24	53 1/4	56												
	LHD40-30	30	59 1/4	62												
	LHD40-36	36	65 1/4	68												
	LHD40-48	48	77 1/4	80												

Bold face items are normally available from stock; please consult for availability of non-stock items.
Takeup frames can be furnished drilled to accommodate pillow block; order takeup frame drilled for " " pillow block; i.e. LHD20-12 drilled for P-U316.
Selection guide, pages C-5, C-6.
Load ratings, pages C-7, C-8.
Additional information, page C-17.

Replacement Ball Bearings

UG300L

Alignable Spherical O.D.
Bearing Seals
Spring Locking Collar
Relubricatable



Dimensions (inches/mm)

Shaft diameter inches	Bearing Number ★	Bearing bore tolerance	B	Bearing OD tolerance	D	G	J	M	N	T
3/4	UG312L		2.0472 52.000		1 15/32 37.31	5/8 15.88	.7874 20.000	1 1/8 41.3	1.194 30.33	1 1/32 8.7
		+0.0007 -0.0000		+0.0000 -0.0005						
7/8	UG314L	+0.018 -0.000		+0.000 -0.013						
1 15/16	UG315L		2.4409		1 43/64 42.46	1 1/16 17.46	.8661 22.000	2 50.8	1.451 46.86	1 3/32 10.3
1	UG316L		62.000							
1 1/8	UG318L	+0.0008 -0.0000	2.8346		1 59/64 48.82	25/32 19.84	.9449 24.000	2 5/16 58.7	1.708 43.38	1/2 12.7
1 1/16	UG319L	+0.0020 -0.0000	72.000	+0.0000 -0.0005						
1 1/4	UG320L			+0.000 -0.013						
1 3/8	UG322L	+0.0008 -0.0000	3.1496		2 3/32 53.18	27/32 21.43	1.0236 26.000	2 9/16 65.1	1.946 49.43	1/2 12.7
1 7/16	UG323L	+0.020 -0.0000	80.000							
1 1/2	UG324L	+0.0008 -0.0000	3.5433	+0.0000 -0.0006	2 5/16 58.74	59/64 23.42	1.1024 28.000	3 1/16 77.8	2.204 55.98	9/16 14.3
		+0.020 -0.0000	90.000	+0.000 -0.015						
1 5/8	UG326L									
1 11/16	UG327L		3.9370		2 19/32 65.88	1 3/64 26.59	1.1811 30.000	3 1/2 82.6	2.443 62.05	5/8 15.9
1 3/4	UG328L	+0.0009 -0.0000	100.000							
1 15/16	UG331L	+0.023 -0.0000	4.3307	+0.0000 -0.0006	2 13/16 71.44	1 9/64 28.97	1.2598 32.000	3 7/16 87.3	2.701 68.60	2 1/32 16.7
			110.000	+0.000 -0.015						
2	UG332L									
2 1/8	UG334L	+0.0009 -0.0000	4.7244		3 1/16 77.79	1 7/32 30.96	1.3386 34.000	3 15/16 100.0	2.959 75.16	3/4 19.0
2 3/16	UG335L	+0.0023 -0.0000	120.000							
2 1/4	UG336L	+0.0009 -0.0000	5.1181		3 5/16 84.14	1 3/8 34.92	1.4173 36.000	4 3/16 106.4	3.216 81.69	3/4 19.0
2 7/16	UG339L	+0.023 -0.0000	130.000	+0.0000 -0.0008						
2 11/16	UG343L	+0.011 -0.0000	5.9055	+0.000 -0.020	3 13/16 96.84	1 9/16 39.69	1.6142 41.000	4 3/4 120.6	3.732 94.79	7/8 22.2
2 3/4	UG344L	+0.028 -0.0000	150.000							
2 15/16	UG347L		6.2992		4 3/32 103.98	1 23/32 43.66	1.6929 43.000	4 15/16 125.4	3.990 101.35	7/8 22.2
		+0.0011 -0.0000	160.000	+0.0000 -0.0010						
3	UG348L	+0.028 -0.0000	6.6929	+0.000 -0.025	4 13/32 111.92	1 13/16 46.04	1.7717 45.000	5 1/16 144.5	4.247 107.87	1 25.4
3 3/16	UG351L		170.000							
3 7/16	UG355L		7.4806		4 15/16 125.41	2 1/32 51.59	1.9291 49.000	6 152.4	4.763 120.98	1 1/8 28.6
3 1/2	UG356L	+0.0011 -0.0000	190.000	+0.0000 -0.0012						
3 5/16	UG363L	+0.028 -0.0000	8.4646	+0.000 -0.030	5 9/16 141.29	2 9/32 57.94	2.1654 55.000	7 177.8	5.339 135.61	1 1/4 31.8
			215.000							

Bold face items are normally available from stock; please consult for availability of non-stock items.

★ Bearing sealed replacement bearing includes bearing, collar, seals, and two external seal flingers.

Selection guide, pages C-5, C-6.

Load ratings, pages C-7, C-8.

Additional information, page C-17.

Additional Information

Series 300

Additional Features:

All Series 300 mounted units can be purchased with a closed end cap in place of one seal, usually the collar side. End caps are made of heavy gauge steel and completely cover rotating elements on the closed end side. The bearing and grease condition can be inspected by removing the closed end cap. With the use of end caps, shafting should not extend more than 1/8" (3.2 mm) beyond the end of the bearing inner ring.

Series 300 units have drilled or cored mounting bolt holes suitable for the inch or metric bolts listed. Drilled holes will be 1/32" (0.8 mm) larger than the largest inch bolt shown. Cast slots in pillow blocks are normally 1/16" wider than the specified mounting bolt nominal diameter. It is expected that plain washers will be used under the bolt head to span the slot width and aid torquing. Narrow (N) series washers per ANSI B18.22.1-1981 (previously designated SAE series) are recommended. If wide series washers are used, the full length of the slot may not be usable for positioning the unit.

Bearings and seals can be replaced in all Series 300 mounted units. When UG300L replacement bearings are inserted in a housing, the Service Instructions for mounting should be closely followed. A copy is enclosed with each replacement UG300L. Replacement bearings are prelubricated.

Operation:

Series 300 solid housing units are prelubricated with a good quality petroleum grease of No. 2 consistency which has been tested for operational characteristics and stability for long shelf life. Service instructions packed with each unit provide guidelines for correct installation and for relubrication intervals. Greases tested for use in Series 300 units are listed and can be used for relubrication. The lubricant furnished by Rexnord Corporation is generally limited to an operating temperature range of -20°F to 200°F (-29°C to +93°C).

Imposed radial loads should not exceed .25C. Where high radial loads, high speeds, thrust loads or vibratory loads are unavoidable, consult the Link-Belt Bearing Division.

Care should be taken during relubrication to avoid the application of excessive grease pressure or volume. Use of automatic lubricators or hand grease guns is recommended.

Bearings furnished with all standard series 300 units have sufficient clearance (C3) for operation within stated speed limits.

Takeups:

For mounting P-U300 or PE-U300 series pillow blocks to universal takeup frames as illustrated on page B-60 or heavy duty welded steel frames as illustrated on page C-15.

Recommended Shaft Tolerances

Shaft Diameter	Tolerance
1/2"-2"	Nominal to -.0005"
2 1/8"-3 15/16"	Nominal to -.0010"

CAUTION The above shaft tolerances are suitable for loads up to .18C and L₁₀ life greater than 20,000 hours. For more severe conditions, consult Rexnord Corporation.

The service life of a collar mounted bearing is largely dependent on shaft fit and may be expected to approach theoretical L₁₀ life only if the bearing is press fitted to a shaft. A slip fit mounting in accordance with the shaft tolerances shown in table will provide generally acceptable service life on normal applications under light to moderate load and speed conditions. A shaft tolerance resulting in looser fits (such as with commercial shafting) may be expected to have greatly reduced

reliability and increasing problems of shaft fret wear, bearing inner ring fracture and shaft slippage. In general, looser fits than recommended are feasible only for very light loading and lower speeds. Prototype or field testing is strongly recommended if looser fits must be considered.

Shafting should be designed for adequate strength and stiffness for the intended application. It should be round, straight, free of nicks and burrs and of correct size.

Warning:

The correct selection of bearings or mounted units requires that the magnitude and nature of all loads, speeds, alignment, mounting, operating requirements, and maintenance be adequately considered. The selection of materials for and designs of housings, shafting, fasteners, seals, and accessories, as well as provisions for installation and maintenance, must follow good engineering principles.

Housings must be selected and installed with regard to the degree and direction of the forces that will occur. Housings should not be used under

tension loads except with adequate safety factors. For this reason pillow blocks are best suited to withstand radial loads passing through the base. When heavy loads or shock loads are possible, it is most important to mount a unit so that the unit is directly and substantially supported other than through its mounting bolts. Where the line of force falls outside the base, such as with horizontal or uplift loads on pillow blocks, serious housing and fastener deflections or failure may occur. These conditions may require designs using different materials, fasteners, mounting design, stop bars, etc., together with proper safety factors.

When these conditions are unavoidable, Link-Belt Bearing Division, Rexnord Corporation should be consulted.

Service instructions are provided with shipments of bearings and are available on request. These instructions provide detailed information to aid in the proper installation, operation, and maintenance, and should be carefully read and followed. Failure to do so may result in unsatisfactory service as well as serious personal injury or property damage.

Nomenclature

Series 300

Ball Bearing Units

Symbol	Description	P	E	-U	3	K	23	F	N	C	17H	4
C	Cartridge unit	}	}	}	}	}	}	}	}	}	}	}
F	Flanged unit; 4 bolt square											
FC	Flanged cartridge unit; 4 bolt round											
P	Pillow block; standard backing											
PL	Pillow block; low backing											
P2	Pillow block; high backing											
T	Takeup unit, slotted guides											
E	Expansion unit											
U	Bearing sealed unit, spring locking, relubricatable			}								
Y	Bearing sealed unit, eccentric cam locking collar, relubricatable											
3	300 series designation											
K	Adapter mounted											
23	Shaft diameter in 16ths on an inch											
F	Four bolt base pillow block											
none	Steel clad clearance seal								}	}	}	}
N	Molded double lip seal											
C	Closed end unit											
17H	Grease designation											
4	Clearance, other than standard											

Replacement Ball Bearing

Symbol	Description	UG	3	K	47	N	L					
UG	Wide inner ring, bearing seals, spring locking collar	}	}	}	}	}	}					
YG	Wide inner ring, bearing seals, eccentric cam locking collar											
3	300 series designation											
K	Adapter mounted											
47	Shaft diameter in 16ths of an inch											
none	Steel clad clearance seal					}	}					
N	Molded double lip seal											
L	Bearing assembly with collar and bearing seals						}					
L1	Bearing assembly without collar and with bearing seals											

The nomenclature shown is provided to identify the basic and optional features of bearing and mounted unit assemblies. The most commonly specified variations are listed; however, availability of all variations cannot be assumed. Link-Belt Bearing Division, Rexnord Corp. should be consulted regarding optional features, availability, and the application requirements.

Spherical Roller Bearing Units and Takeups

Contents

Series B22400

Introduction	D-1
Pictorial Index	D-3
Selection	D-5
Load Ratings	D-7
Dimensions	D-9
Replacement Bearings	D-26
Replacement Parts	D-62
Additional Information	D-68
Nomenclature	D-70

Series B22500

Introduction	D-27
Pictorial Index	D-29
Selection	D-31
Load Ratings	D-33
Dimensions	D-35
Replacement Bearings	D-40
Replacement Parts	D-64
Additional Information	D-68
Nomenclature	D-70

Max Mount™

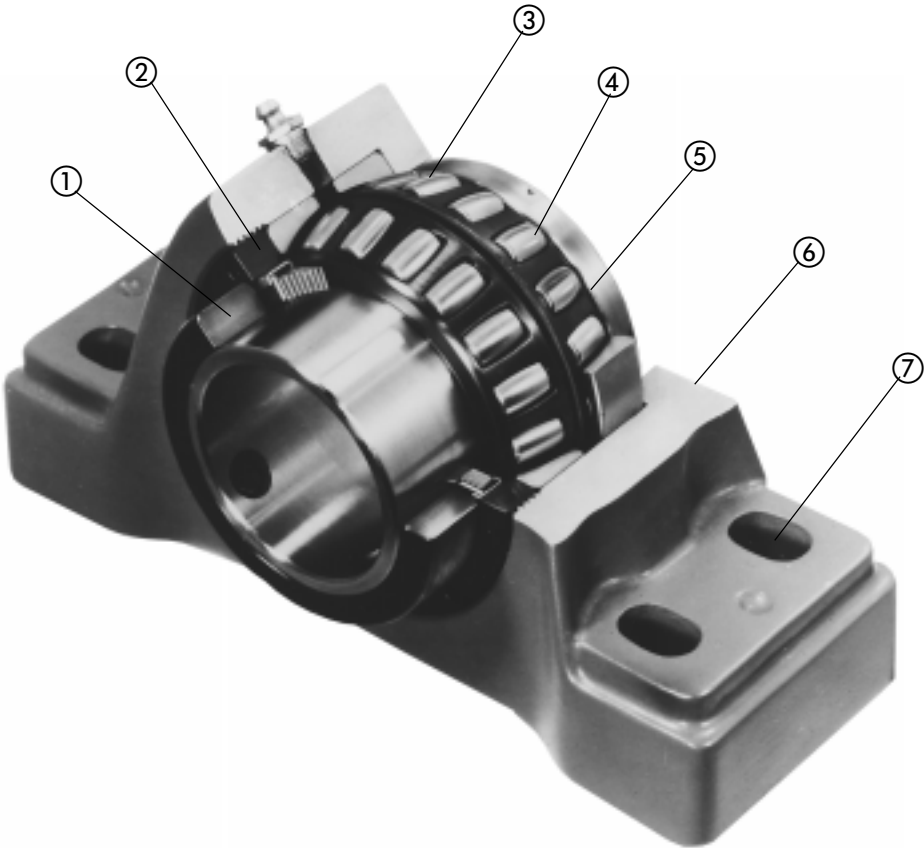
Series B22600

Introduction	D-41
Pictorial Index	D-43
Selection	D-45
Load Ratings	D-47
Dimensions	D-49
Replacement Bearings	D-61
Replacement Parts	D-66
Additional Information	D-69
Nomenclature	D-70

Series B22400 Spherical Roller Bearing Units and Takeups

Series B22400 collar mounted spherical roller bearing units provide economic and versatile arrangements for supporting shafts carrying substantial radial or combination radial and thrust loads. These units are especially adaptable for conveyors, elevators, general industrial machinery, heavier duty fans and blowers, power transmission applications, ditchers, trenchers, pavers and other such applications. Series B22400 units are easy to mount, sealed, prelubricated and do not require bearing adjustment during mounting.

- ① Spring locking collar locks inner ring securely to shaft.
- ② Choice of two seals, floating labyrinth Type H and spring-loaded lip Type E.
- ③ Long inner ring for high stability and load support.
- ④ Self-aligning double row spherical roller bearing adjusts $\pm 2^\circ$ to allow for alignment variations between shaft and supporting structure.
- ⑤ Double contoured retainer pockets assure accurate roller guidance and positive roller control.
- ⑥ Sturdy, compact one-piece cast iron or cast steel housing.
- ⑦ Slotted bolt holes in pillow block bases facilitate mounting; bottom of base is machined.



Spherical Roller Bearings

Series B22400 self-aligning double row spherical roller bearings have high LDN values and are designed to distribute the load over the symmetrical rollers, assuring positive tracking and smooth operation. The large roller complement provides high capacity for radial or combined radial-thrust loads. Osculation

clearance at the ends of the rollers compensates for shock loads and prevents destructive edge loading. These precision bearings with double contoured retainer pockets are designed to meet a broad range of application requirements.



Spring Locking Collar

The spring locking collar design provides a secure grip of the wide inner ring bearing to the shaft. The two set screws extend through the inner ring of the bearing and lock firmly onto the shaft. Installation is fast and simple. Correctly tightening the two set screws produces elastic strain in the spring

locking collar resulting in a continuous pressure on the set screw threads and providing a positive lock.



Seals

Two standard sealing systems are available. . . each offering maximum protection for the bearing.

Type H floating labyrinth seals have multiple self-centering rings held securely in a steel carrier. Type H seals are normally furnished.

Type E spring-loaded lip seals utilize a spring to provide uniform pressure for keeping the sealing lip in contact with the inner ring. Type E seals are normally used for liquid splash environments.

Seals are interchangeable and are designed for grease lubrication.



TYPE H SEAL



TYPE E SEAL

One-Piece Cast Iron or Cast Steel Housings

Compact one-piece housings provide for strength and load support. Scientifically contoured housing design provides superior rigidity. Cast iron or cast steel pillow blocks have two or four slotted bolt holes with ample space provided for drilling dowel pin holes. Flanged and flanged cartridge units have drilled

mounting holes and machined mounting surfaces for maximum stability. Cartridge units have cast iron or steel housings and are finished to precision tolerances. Takeup units have machined slots for smooth, precise operation. Pillow blocks, flanged, and cartridge units are available for fixed or expansion operation.



Series B22400

Spherical Roller Bearing Units

Pillow Blocks, cast iron

EP-B22400H*, EPE-B22400H*, EP-B22400FH*, EPE-B22400FH*
P-B22400H, PE-B22400H, P-B22400FH, PE-B22400FH
P-B22500FH, PE-22500FH

Self-aligning 2-bolt base pillow blocks for shaft sizes 1" through 4" and 25 mm through 100 mm, and 4-bolt base pillow blocks for shaft sizes 1⁵/₁₆" through 5" and 45 mm through 125 mm. Units are available for fixed or expansion mounting.

Load ratings on pages D-7 and D-8.

Dimensions on pages D-9 through D-12.

Additional information on page D-68.

***Self-aligning Type E Interchange**



Pillow Blocks, cast steel

PK-B22400H, PKE-B22400H, PK-B22400FH, PKE-B22400FH,
PK-B22500FH, PKE-B22500FH

Self-aligning 2-bolt base pillow blocks for shaft sizes 1³/₁₆" through 4" and 30 mm through 100 mm, 4-bolt base pillow blocks for shaft sizes 1⁵/₁₆" through 5" and 45 mm through 125 mm. Units are available for fixed or expansion mounting.

Load ratings on pages D-7 and D-8.

Dimensions on pages D-13 and D-14.

Additional information on page D-68.



Flanged Units, cast iron

EFR-B22400H*
F-B22400H, FE-B22400H

Self-aligning flanged units for shaft sizes 1" through 4" and 25 mm through 100 mm. Units are available for fixed or expansion mounting.

Load ratings on pages D-7 and D-8.

Dimensions on pages D-17 and D-18.

Additional information on page D-68.

***Self-aligning Type E Interchange**



Flanged Cartridge Units, cast iron

FC-B22400H*

Self-aligning flanged cartridge units for shaft sizes 1" through 4" and 25 mm through 100 mm. Units are available for fixed mounting.

Load ratings on pages D-7 and D-8.

Dimensions on page D-20.

Additional information on page D-68.

***Self-aligning Type E Interchange**



Cartridge Units, cast iron and steel

C-B22400H, CSE-B22400H

Self-aligning cartridge units. Cast iron housings for shaft sizes 1" through 3½" and 25 mm through 85 mm, steel housings for shaft sizes 1" through 4" and 25 mm through 100 mm. Cast iron cartridge units are for fixed mounting and steel cartridge units are available for fixed or expansion mounting.

Load ratings on pages D-7 and D-8.

Dimensions on pages D-15 and D-16.

Additional information on page D-68.



Takeup Units, cast iron

T-B22400H

Self-aligning units for takeup applications with shaft sizes 1" through 4" and 25 mm through 100 mm. Fixed units without frames, guides, or adjusting screws.

Load ratings on pages D-7 and D-8.

Dimensions on page D-21.

Additional information on page D-68.



Takeups, cast iron

DS-B22400H; DS-B22500H, LHD

DS-B22400H and DS-B22500H for shaft sizes 1½" through 4⅞" and 45 mm through 115 mm have welded steel adjustable frames.

LHD universal takeup frames use pillow blocks mounted to takeup frame. For shaft sizes 1⅜" through 5" and 25 mm through 125 mm.

Load ratings on pages D-7 and D-8.

Dimensions on pages D-22 through D-24.

Additional information on page D-68.



Replacement Bearings

B22400HL

Self-aligning double row spherical roller bearings with spring locking collars for shaft sizes 1" through 4" and 25 mm through 100 mm.

Load ratings on pages D-7 and D-8.

Dimensions on page D-26.

Additional information on page D-68.



Selection

Series B22400

To select a bearing, determine the applied radial load, the applied thrust load, the desired Rating Life, and applicable operating conditions. The procedure shown here will aid in selecting a bearing to meet an L_{10} design life. The formulas for calculating life expectancy should be used to determine the Rating Life L_{10} for the bearing selected.

The selection procedures and rating formulas shown here are in agreement with The American Bearing Manufacturers Association Standards and ANSI/ABMA Standards STD 11-1990. Ratings are based on fatigue life. The Rating Life L_{10} or fatigue life at 90% reliability is the usual basis for bearing selection.

For radial load applications only, Table 3, page D-8, can be used to select a bearing or to determine L_{10} life expectancy.

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

Bearing Selection

Step 1 Determine an appropriate L_{10} design life.

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

Step 2 Determine a required $\left(\frac{C}{P}\right)$ from Table 1.

Step 3 Calculate the required C and select a roller bearing.

a For radial load only:

$$P = F_r$$

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

Select a roller bearing from Table 2, page D-7 with a basic load rating C equal to or greater than the required C.

b For combined radial and thrust loads:

Select a trial roller bearing of the desired shaft size from Table 2, page D-7.

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

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

Calculate the equivalent radial load P

$$P = XF_r + YF_a$$

If $\frac{F_a}{F_r}$ is equal to or less than e, then $P = X_1F_r + Y_1F_a$

If $\frac{F_a}{F_r}$ is greater than e, then $P = X_2F_r + Y_2F_a$

For values of e, X_1 , Y_1 , X_2 , and Y_2 , see Table 2, page D-7.

Calculate the required C

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

Consult Table 2, page D-7, basic load rating. If a smaller bearing meets, or nearly meets, the required C, its life expectancy can be calculated.

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

Selection Series B22400

symbols for formulas:

C = basic load rating, pounds (or newtons)
 C_o = static load rating, pounds (or newtons)
 e = a reference value
 F_a = thrust load, pounds (or newtons)
 F_r = radial load, pounds (or newtons)
 L₁₀ = rating life, hours
 n = speed, revolutions per minute
 P = equivalent radial load, pounds (or newtons)
 X = radial factor
 Y = thrust factor

basic formulas:

$$\left(\frac{C}{P}\right) = \left(\frac{L_{10} \times n \times 60}{1,000,000}\right)^{3/10}$$

$$L_{10} = \frac{\left(\frac{C}{P}\right)^{10/3} \times 1,000,000}{n \times 60}$$

Table 1 • Relation of L₁₀ life and speed to $\left(\frac{C}{P}\right)$

Bearing life, hours L ₁₀	$\left(\frac{C}{P}\right)$ ratio									
	Speed, n									
	50	100	200	300	400	500	600	700	800	
3000	1.93	2.38	2.93	3.31	3.61	3.86	4.07	4.27	4.44	
4000	2.11	2.59	3.19	3.61	3.93	4.20	4.44	4.65	4.84	
5000	2.25	2.77	3.42	3.86	4.20	4.50	4.75	4.97	5.18	
6000	2.38	2.93	3.61	4.07	4.44	4.75	5.02	5.25	5.47	
8000	2.59	3.19	3.93	4.44	4.84	5.18	5.47	5.73	5.96	
10000	2.77	3.42	4.20	4.75	5.18	5.54	5.85	6.12	6.37	
12000	2.93	3.61	4.44	5.02	5.47	5.85	6.18	6.47	6.73	
14000	3.07	3.78	4.65	5.25	5.73	6.12	6.47	6.77	7.05	
16000	3.19	3.93	4.84	5.47	5.96	6.37	6.73	7.05	7.34	
18000	3.31	4.07	5.02	5.66	6.18	6.60	6.97	7.30	7.60	
20000	3.42	4.20	5.18	5.85	6.37	6.81	7.20	7.54	7.85	
25000	3.65	4.50	5.54	6.25	6.81	7.29	7.70	8.06	8.39	
30000	3.86	4.75	5.85	6.60	7.20	7.70	8.13	8.51	8.86	
35000	4.04	4.97	6.12	6.92	7.54	8.06	8.51	8.92	9.28	
40000	4.20	5.18	6.37	7.20	7.85	8.39	8.86	9.28	9.66	
45000	4.36	5.36	6.60	7.46	8.13	8.69	9.18	9.61	10.00	
50000	4.50	5.54	6.81	7.70	8.39	8.97	9.48	9.92	10.30	
60000	4.75	5.85	7.20	8.13	8.86	9.48	10.00	10.50	10.90	
70000	4.97	6.12	7.54	8.51	9.28	9.92	10.50	11.00	11.40	
80000	5.18	6.37	7.85	8.86	9.66	10.30	10.90	11.40	11.90	
90000	5.36	6.60	8.13	9.18	10.00	10.70	11.30	11.80	12.30	
100000	5.54	6.81	8.39	9.48	10.30	11.00	11.70	12.20	12.70	
150000	6.25	7.70	9.48	10.70	11.70	12.50	13.20	13.80	14.40	
200000	6.81	8.39	10.30	11.70	12.70	13.60	14.40	15.00	15.70	
	Speed, n									
	900	1000	1200	1500	1800	2400	3000	3600	6000	
3000	4.60	4.75	5.02	5.36	5.66	6.18	6.60	6.97	8.13	
4000	5.02	5.18	5.47	5.85	6.18	6.73	7.20	7.60	8.86	
5000	5.36	5.54	5.85	6.25	6.60	7.20	7.70	8.13	9.48	
6000	5.66	5.85	6.18	6.60	6.97	7.60	8.13	8.59	10.00	
8000	6.18	6.37	6.73	7.20	7.60	8.29	8.86	9.36	10.90	
10000	6.60	6.81	7.20	7.70	8.13	8.86	9.48	10.00	11.70	
12000	6.97	7.20	7.60	8.13	8.59	9.36	10.00	10.60	12.30	
14000	7.30	7.54	7.96	8.51	8.99	9.80	10.50	11.10	12.90	
16000	7.60	7.85	8.29	8.86	9.36	10.20	10.90	11.50	13.40	
18000	7.88	8.13	8.59	9.18	9.70	10.60	11.30	11.90	13.90	
20000	8.13	8.39	8.86	9.48	10.00	10.90	11.70	12.30	14.40	
25000	8.69	8.97	9.48	10.10	10.70	11.70	12.50	13.20	15.40	
30000	9.18	9.48	10.00	10.70	11.30	12.30	13.20	13.90	16.20	
35000	9.61	9.92	10.50	11.20	11.80	12.90	13.80	14.60	17.00	
40000	10.00	10.30	10.90	11.70	12.30	13.40	14.40	15.20	17.70	
45000	10.40	10.70	11.30	12.10	12.80	13.90	14.90	15.70	18.30	
50000	10.70	11.00	11.70	12.50	13.20	14.40	15.40	16.20	18.90	
60000	11.30	11.70	12.30	13.20	13.90	15.20	16.20	17.10	20.00	
70000	11.80	12.20	12.90	13.80	14.60	15.90	17.00	17.90	20.90	
80000	12.30	12.70	13.40	14.40	15.20	16.50	17.70	18.70	21.80	
90000	12.80	13.20	13.90	14.90	15.70	17.10	18.30	19.40	22.60	
100000	13.20	13.60	14.40	15.40	16.20	17.70	18.90	20.00	23.30	
150000	14.90	15.40	16.20	17.30	18.30	20.00	21.40	22.60	26.30	
200000	16.20	16.70	17.70	18.90	20.00	21.80	23.30	24.60	28.70	

Life Expectancy

To calculate the Rating Life L₁₀ of any selected or trial bearing:

Step 1 Determine the equivalent radial load P.

a For radial load only:

$$P = F_r$$

b For combined radial and thrust load:

$$P = XF_r + YF_a$$

If $\frac{F_a}{F_r}$ is equal to or less than e, then

$$P = X_1F_r + Y_1F_a$$

If $\frac{F_a}{F_r}$ is greater than e, then

$$P = X_2F_r + Y_2F_a$$

For values of e, X₁, Y₁, X₂, and Y₂, see Table 2, page D-7.

Step 2 Calculate the ratio of the basic load rating C to the equivalent radial load.

$$\frac{C}{P}$$

Step 3 Approximate the bearing life from Table 1.

Life Adjustment

The Rating Life, L₁₀, may be modified for some applications in accordance with the formula

$$L'_n = a_1 a_2 a_3 L_{10}$$

where L'_n = Adjusted life for (100-n) % reliability,
 a₁ = Life adjustment factor for reliability
 a₂ = Life adjustment factor for material and processing
 a₃ = Life adjustment factor for operating conditions.

For most normal applications, all factors will be taken as 1, and the Rating Life used as the selection basis or life estimate. In addition, as long as standard catalog bearings are used, a₂ will be normally set equal to one. The factor a₃ covers such things as lubrication, misalignment, and temperature. Some conditions that could yield a₃ significantly different than unity include speeds less than 20000 DN or greater than 200000 DN, temperatures below -40°F (-40°C) or above 275°F (135°C). For other possible conditions, as well as additional information on life adjustment factors, consult Link-Belt Bearing Division, Rexnord Corp.

Load Ratings Series B22400

Table 2 • Load ratings and speed limits

Shaft diameter		Bearing size number	C ₀ Static load rating		C Basic load rating		Approximate speed limit RPM ●	e	$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
mm	inches		newtons	pounds	newtons	pounds	H and E seals		X ₁	Y ₁	X ₂	Y ₂
25	1	B22416 B224M25	66 100	14900	51 200	11500	3500	.51	1.00	1.32	.67	1.96
30	1⅞ 1¼	B22419 B22420 B224M30	80 500	18100	60 900	13700	3000	.48	1.00	1.40	.67	2.08
35	1⅞ 1½	B22423 B22424 B224M35	93 200	20900	64 900	14600	2750	.44	1.00	1.54	.67	2.29
40	1½ 1⅞ 1⅞⅓ 1¾	B224B24 B22426 B22427 B22428 B224M40	127 700	28700	89 800	20200	2350	.45	1.00	1.51	.67	2.25
45 50	1¾ 1⅞⅓ 2	B224B28 B22431 B22432 B224M45 B225M50	147 700	33200	94 300	21200	2150	.40	1.00	1.68	.67	2.50
55	2⅞⅓ 2¼	B22435 B22436 B224M55	197 500	44400	117 400	26400	1950	.40	1.00	1.68	.67	2.50
60	2¼ 2⅞⅓ 2½	B224B36 B22439 B22440 B224M60	238 000	53500	139 700	31400	1750	.38	1.00	1.80	.67	2.68
65 70 75	2⅞⅓ 2¾ 2⅞⅓ 3	B22443 B22444 B22447 B22448 B224M65 B224M70 B224M75	318 000	71500	185 900	41800	1500	.38	1.00	1.79	.67	2.67
80 85	3⅞⅓ 3⅞⅓ 3½	B22451 B22455 B22456 B224M80 B224M85	403 400	90700	226 800	51000	1250	.38	1.00	1.77	.67	2.64
90 100	3⅞⅓ 3⅞⅓ 4	B22459 B22463 B22464 B224M90 B224M100	609 400	137000	351 800	79100	1100	.36	1.00	1.88	.67	2.79

For load ratings of 4 3/16" (110 through 125 mm), see series B22500 page D-33.

If the load P is greater than .25C, consult Link-Belt Bearing Division, Rexnord Corp.

For vertical shift application, consult Link-Belt Bearing Division, Rexnord Corp.

● Based on grease lubrication and moderate load.

Additional information, page D-68.

Load Ratings

Series B22400

Table 3 • Radial load ratings in pounds at various RPM for appropriate L₁₀ life hours

Shaft diameter		Bearing size number	L ₁₀ Minimum life, hours	Radial load ratings, pounds														
				Speed, RPM														
				50	100	200	300	500	700	900	1000	1200	1500	1800	2000	2500	3000	3500
25	1	B22416 B224M25	8000	.....	.....	.....	2590	2220	2000	1860	1800	1700	1600	1510	1470	1370	1300	1230
			20000	.....	2730	2220	1970	1690	1520	1410	1370	1300	1210	1140	1110	1040	985	941
			40000	2730	2220	1800	1600	1370	1230	1140	1110	1050	985	933	904	845	800	764
			100000	2080	1690	1370	1210	1040	941	872	845	800	749	709	687	642	608	580
30	1 ³ / ₁₆ 1 ¹ / ₄	B22419 B22420 B224M30	8000	.....	.....	.....	3080	2640	2390	2210	2140	2030	1900	1800	1740	1630	1540	1470
			20000	.....	3250	2640	2340	2010	1810	1690	1630	1540	1440	1370	1320	1240	1170	1110
			40000	3250	2640	2140	1900	1630	1480	1370	1320	1250	1170	1110	1080	1000	953	910
			100000	2480	2010	1630	1440	1240	1120	1030	1000	953	892	844	818	765	724	687
35	1 ⁷ / ₁₆ 1 ¹ / ₂	B22423 B22424 B224M35	8000	.....	.....	.....	3290	2820	2540	2360	2290	2170	2020	1920	1860	1740	1630	1540
			20000	.....	3470	2820	2500	2140	1930	1800	1740	1640	1540	1450	1410	1320	1240	1170
			40000	3470	2820	2290	2020	1740	1570	1450	1410	1330	1250	1180	1140	1070	1000	953
			100000	2630	2140	1740	1540	1320	1200	1100	1070	1010	950	900	872	815	765	724
40	1 ¹ / ₂ 1 ⁵ / ₈ 1 ¹¹ / ₁₆ 1 ³ / ₄	B224B24 B22426 B22427 B22428 B224M40	8000	.....	.....	.....	4540	3900	3520	3270	3170	3000	2800	2650	2570	2410	2240	2100
			20000	.....	4800	3900	3450	2960	2680	2480	2400	2280	2130	2010	1950	1810	1670	1550
			40000	4800	3900	3170	2800	2400	2180	2010	1950	1850	1730	1630	1590	1450	1320	1200
			100000	3640	2960	2400	2130	1820	1650	1530	1490	1400	1310	1240	1200	1070	953	872
45 50	1 ³ / ₄ 1 ⁵ / ₈ 2	B224B28 B22431 B22432 B224M45 B225M50	8000	.....	.....	.....	4770	4100	3700	3430	3320	3140	2940	2790	2700	2540	2370	2220
			20000	.....	5040	4100	3620	3110	2810	2600	2520	2390	2230	2110	2050	1890	1720	1570
			40000	5040	4100	3320	2940	2520	2280	2110	2050	1940	1810	1720	1670	1510	1350	1210
			100000	3830	3110	2520	2230	1910	1730	1600	1550	1480	1380	1300	1270	1140	1000	910
55	2 ³ / ₁₆ 2 ¹ / ₄	B22435 B22436 B224M55	8000	.....	.....	.....	5940	5100	4600	4280	4140	3920	3670	3470	3280	3080	2880	2680
			20000	.....	6280	5100	4510	3870	3500	3240	3140	2980	2790	2630	2410	2260	2140	2010
			40000	6280	5100	4140	3670	3140	2840	2630	2550	2410	2260	2140	2010	1870	1720	1580
			100000	4770	3870	3140	2790	2390	2160	2000	1940	1830	1710	1620	1510	1390	1270	1170
60	2 ¹ / ₄ 2 ⁷ / ₁₆ 2 ¹ / ₂	B224B36 B22439 B22440 B224M60	8000	.....	.....	.....	7070	6070	5480	5090	4920	4660	4360	4060	3860	3540	3310	3080
			20000	.....	7470	6070	5370	4600	4170	3860	3740	3540	3310	3030	2880	2690	2490	2290
			40000	7470	6070	4920	4360	3740	3380	3130	3030	2880	2690	2490	2290	2090	1890	1740
			100000	5670	4600	3740	3310	2840	2570	2380	2300	2190	2040	1900	1760	1620	1480	1340
65 70 75	2 ¹¹ / ₁₆ 2 ³ / ₄ 2 ¹⁵ / ₁₆ 3	B22443 B22444 B22447 B22448 B224M65 B224M70 B224M75	8000	.....	.....	.....	9410	8070	7300	6770	6550	6200	5800	5400	5100	4710	4410	4110
			20000	.....	9940	8070	7150	6130	5540	5140	4980	4710	4410	4110	3810	3510	3210	2910
			40000	9940	8070	6550	5800	4980	4500	4180	4040	3830	3580	3330	3080	2830	2580	2330
			100000	7550	6130	4980	4410	3780	3420	3170	3070	2910	2720	2530	2340	2150	1960	1770
80 85	3 ³ / ₁₆ 3 ⁷ / ₁₆ 3 ¹ / ₂	B22451 B22455 B22456 B224M80 B224M85	8000	.....	.....	.....	11400	9850	8900	8250	8000	7580	7160	6740	6320	5900	5480	5060
			20000	.....	12100	9850	8720	7480	6770	6270	6080	5750	5330	5000	4670	4250	3830	3410
			40000	12100	9850	8000	7090	6080	5500	5100	4930	4670	4370	4070	3770	3470	3170	2870
			100000	9210	7480	6080	5380	4610	4170	3870	3750	3550	3350	3150	2950	2750	2550	2350
90 100	3 ¹¹ / ₁₆ 3 ¹⁵ / ₁₆ 4	B22459 B22463 B22464 B224M90 B224M100	8000	.....	.....	.....	17800	15200	13800	12800	12400	11600	10800	10000	9200	8400	7600	6800
			20000	.....	18800	15200	13500	11600	10400	9730	9420	8800	8130	7460	6790	6120	5450	4780
			40000	18800	15200	12400	11000	9420	8520	7900	7650	7000	6300	5600	4900	4200	3500	2800
			100000	14200	11600	9420	8340	7160	6470	6000	5810	5200	4500	3800	3100	2400	1700	1000

For radial load ratings of 4³/₁₆" through 5" (110 mm through 125 mm), see series B22500 page D-34.

If the load P is greater than .25C, consult Link-Belt Bearing Division, Rexnord Corp.

Spherical Roller Bearing Pillow Blocks

P-B22400H, PE-B22400H

Cast Iron Housing

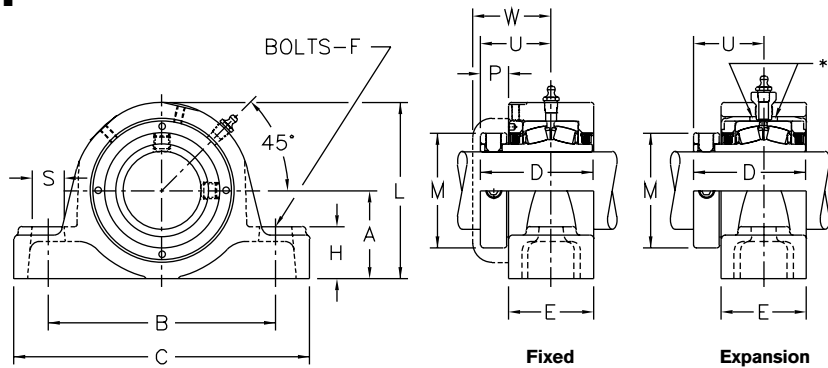
2-bolt Base

Fixed or Expansion

Self-aligning

Spring Locking Collar

Factory Adjusted and Sealed



Dimensions (inches/mm)

Shaft dia.		Pillow block number		A †	B	C	D	E	F Bolts	H ■	L		M	P	S	U	W ◆	Unit wt. (lbs./kg.)
mm	inches	Fixed	Expansion								Fixed	Expansion						
1		P-B22416H	PE-B22416H	1 ⁹ / ₁₆	4 ³ / ₈	5 ¹⁵ / ₁₆	2 ⁹ / ₁₆	2 ¹ / ₁₆	3 ³ / ₈	7 ⁷ / ₈	3 ¹ / ₈	3 ⁵ / ₁₆	2	17 ³ / ₃₂	5 ⁵ / ₈	1 ⁹ / ₁₆	1 ²⁹ / ₃₂	5
25		<i>P-B224M25H</i>	<i>PE-B224M25H</i>	39.67	111.1	150.8	65.09	52.4	10	22.2	79.4	84.1	50.8	13.5	15.9	39.7	48.4	2.1
1 ³ / ₁₆		P-B22419H	PE-B22419H	1 ³ / ₄	4 ³ / ₄	6 ⁵ / ₁₆	2 ¹¹ / ₁₆	2 ³ / ₁₆	3 ³ / ₈	1 ¹ / ₁₆	3 ¹ / ₂	3 ⁵ / ₈	2 ³ / ₁₆	17 ³ / ₃₂	5 ⁵ / ₈	1 ⁵ / ₈	1 ³¹ / ₃₂	6
30	1 ¹ / ₄	P-B22420H	PE-B22420H															6
		<i>P-B224M30H</i>	<i>PE-B224M30H</i>	44.45	120.6	160.3	68.26	55.6	10	27.0	88.9	92.1	55.6	13.5	15.9	41.3	50.0	2.9
1 ⁷ / ₁₆		P-B22423H	PE-B22423H	1 ⁷ / ₈	5	6 ⁷ / ₈	2 ⁷ / ₈	2 ¹ / ₄	1 ¹ / ₂	1 ¹ / ₁₆	3 ¹¹ / ₁₆	3 ⁷ / ₈	2 ¹ / ₂	2 ¹ / ₃₂	1 ³ / ₁₆	1 ²⁵ / ₃₂	2 ³ / ₁₆	7
35	1 ¹ / ₂	P-B22424H	PE-B22424H															7
		<i>P-B224M35H</i>	<i>PE-B224M35H</i>	47.62	127.0	174.6	73.02	57.2	12	30.2	93.7	98.4	63.5	16.7	20.6	45.2	55.6	3.2
1 ⁵ / ₈		P-B22426H	PE-B22426H	2 ¹ / ₈	5 ¹ / ₂	7 ³ / ₈	3 ¹ / ₈	2 ¹ / ₂	1 ¹ / ₂	1 ⁵ / ₁₆	4 ¹ / ₄	4 ³ / ₈	2 ³ / ₄	2 ¹ / ₃₂	1 ³ / ₁₆	1 ²⁹ / ₃₂	2 ¹ / ₄	10
40	1 ¹¹ / ₁₆	P-B22427H	PE-B22427H															10
	1 ³ / ₄	P-B22428H	PE-B22428H	53.98	139.7	187.3	79.38	63.5	12	33.3	108.0	111.1	69.8	16.7	20.6	48.4	57.2	10
		<i>P-B224M40H</i>	<i>PE-B224M40H</i>															10
1 ¹⁵ / ₁₆		P-B22431H	PE-B22431H	2 ¹ / ₄	6 ¹ / ₄	8 ³ / ₈	3 ¹ / ₈	2 ¹ / ₂	5 ⁵ / ₈	1 ³ / ₈	4 ⁹ / ₁₆	4 ⁹ / ₁₆	2 ¹⁵ / ₁₆	2 ¹ / ₃₂	1 ⁵ / ₁₆	1 ²⁹ / ₃₂	2 ⁹ / ₃₂	12
45	2	P-B22432H	PE-B22432H															12
		<i>P-B224M45H</i>	<i>PE-B224M45H</i>	57.15	158.8	212.7	79.38	63.5	16	34.9	115.9	115.9	74.6	16.7	23.8	48.4	57.9	5.5
50		<i>P-B224M50H</i>	<i>PE-B224M50H</i>															5.2
2 ³ / ₁₆		P-B22435H	PE-B22435H	2 ¹ / ₂	6 ³ / ₄	8 ⁷ / ₈	3 ⁵ / ₁₆	2 ⁹ / ₁₆	5 ⁵ / ₈	1 ⁵ / ₈	5	5	3 ³ / ₈	2 ⁵ / ₃₂	1 ⁵ / ₁₆	2 ¹ / ₁₆	2 ⁷ / ₁₆	14
55	2 ¹ / ₄	P-B22436H	PE-B22436H															14
		<i>P-B224M55H</i>	<i>PE-B224M55H</i>	63.50	171.4	225.4	84.14	65.1	16	41.3	127.0	127.0	85.7	19.8	23.8	52.4	61.9	6.5
2 ⁷ / ₁₆		P-B22439H	PE-B22439H	2 ³ / ₄	7 ¹ / ₈	9 ¹ / ₄	3 ¹ / ₂	2 ¹¹ / ₁₆	5 ⁵ / ₈	1 ⁵ / ₈	5 ¹ / ₂	5 ¹ / ₂	3 ³ / ₈	2 ⁷ / ₃₂	1 ⁵ / ₁₆	2 ³ / ₁₆	2 ⁹ / ₁₆	17
60	2 ¹ / ₂	P-B22440H	PE-B22440H															17
		<i>P-B224M60H</i>	<i>PE-B224M60H</i>	69.85	181.0	235.0	88.90	68.3	16	41.3	139.7	139.7	92.1	21.4	23.8	55.6	65.1	8.0
2 ¹¹ / ₁₆		P-B22443H	PE-B22443H	3 ¹ / ₄	8 ¹ / ₈	10 ⁷ / ₁₆	4	3 ³ / ₁₆	3 ³ / ₄	2	6 ⁷ / ₁₆	6 ⁷ / ₁₆	4 ³ / ₁₆	2 ⁷ / ₃₂	1 ¹ / ₁₆	2 ⁷ / ₁₆	2 ²⁵ / ₃₂	29
65	2 ³ / ₄	P-B22444H	PE-B22444H															29
	2 ¹⁵ / ₁₆	P-B22447H	PE-B22447H	82.55	206.4	265.1	101.60	81.0	20	57.2	163.5	163.5	106.4	21.4	27.0	61.9	70.6	29
70	3	P-B22448H	PE-B22448H															27
		<i>P-B224M65H</i>	<i>PE-B224M65H</i>	82.55	206.4	265.1	101.60	81.0	20	57.2	163.5	163.5	106.4	21.4	27.0	61.9	70.6	13.2
75		<i>P-B224M70H</i>	<i>PE-B224M70H</i>															13.0
		<i>P-B224M75H</i>	<i>PE-B224M75H</i>															12.5
3 ³ / ₁₆		P-B22451H	PE-B22451H	3 ³ / ₄	10	13	4 ³ / ₈	3 ⁷ / ₁₆	7 ⁷ / ₈	2 ¹ / ₄	7 ¹ / ₂	7 ¹ / ₂	5	1 ⁵ / ₁₆	1 ⁵ / ₈	2 ²¹ / ₃₂	3	43
80	3 ⁷ / ₁₆	P-B22455H	PE-B22455H															42
	3 ¹ / ₂	P-B22456H	PE-B22456H	95.25	254.0	330.2	111.12	87.3	24	57.2	190.5	190.5	127.0	23.8	41.3	67.5	76.2	41
85		<i>P-B224M80H</i>	<i>PE-B224M80H</i>															19.6
		<i>P-B224M85H</i>	<i>PE-B224M85H</i>															19.1
3 ¹¹ / ₁₆		P-B22459H	PE-B22459H	4 ¹ / ₄	11 ³ / ₄	15 ¹ / ₄	5 ¹ / ₁₆	4	1	2 ⁵ / ₈	8 ¹ / ₂	8 ¹ / ₂	5 ²⁹ / ₃₂	1 ¹ / ₁₆	2 ¹ / ₄	3 ¹ / ₁₆	3 ⁷ / ₁₆	61
90	3 ¹⁵ / ₁₆	P-B22463H	PE-B22463H															59
	4	P-B22464H	PE-B22464H	107.95	298.4	387.4	128.59	101.6	24	66.7	215.9	215.9	150.0	27.0	57.2	77.8	87.3	59
100		<i>P-B224M90H</i>	<i>PE-B224M90H</i>															28.7
		<i>P-B224M100H</i>	<i>PE-B224M100H</i>															26.9
3 ¹⁵ / ₁₆		PL-B22463H	—	4 ¹ / ₈	10 ⁷ / ₈	14 ¹ / ₄	5 ¹ / ₁₆	4	1	2 ¹ / ₂	8 ³ / ₈	—	5 ²⁹ / ₃₂	1 ¹ / ₁₆	1 ⁷ / ₈	3 ¹ / ₁₆	3 ⁷ / ₁₆	58
4		PL-B22464H	—															57
		<i>PL-B22464H</i>	<i>—</i>	104.78	276.2	362.0	128.59	101.6	24	63.5	212.7	—	150.0	27.0	47.6	77.8	87.3	

Bold face items are normally available from stock; please consult for availability of non-stock items.

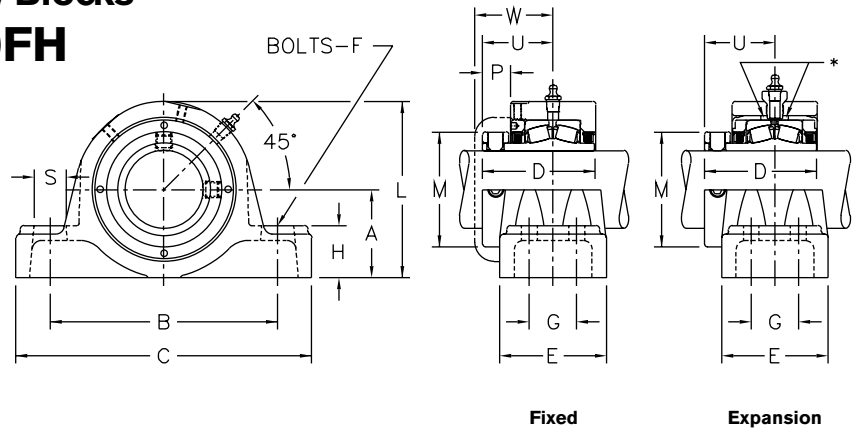
For replacement bearing numbers, see pages D-62, D-63.

Lubrication fitting tap size, 1/8" PT.

Spherical Roller Bearing Pillow Blocks

P-B22400FH, PE-B22400FH

Cast Iron Housing
4-bolt Base
Fixed or Expansion
Self-aligning
Spring Locking Collar
Factory Adjusted and Sealed



Dimensions (inches/mm)

Shaft dia.		Pillow block number		A	B	C	D	E	F	G	H	L	M	P	S	U	W	Unit wt.
mm	inches	Fixed	Expansion	†					Bolts								◆	(lbs./kg.)
1 15/16	2	P-B22431FH	PE-B22431FH	2 1/4	6 1/4	8 3/8	3 1/8	3 3/16	1/2	1 19/32	1 3/8	4 9/16	2 15/16	2 1/32	1 3/16	1 29/32	2 9/32	13
45	50	P-B22432FH	PE-B22432FH															13
		<i>P-B224M45FH</i>	<i>PE-B224M45FH</i>	57.15	158.8	212.7	79.38	81.0	12	40.5	34.9	115.9	74.6	16.7	20.6	48.4	57.9	6.3
		<i>P-B224M50FH</i>	<i>PE-B224M50FH</i>															5.9
2 3/16	2 1/4	P-B22435FH	PE-B22435FH	2 1/2	6 3/4	8 7/8	3 1/16	3 1/4	1/2	1 11/16	1 5/8	5	3 3/8	2 5/32	1 3/16	2 1/16	2 7/16	15
55		P-B22436FH	PE-B22436FH															15
		<i>P-B224M55FH</i>	<i>PE-B224M55FH</i>	63.50	171.4	225.4	84.14	82.6	12	42.9	41.3	127.0	85.7	19.8	20.6	52.4	61.9	6.9
		<i>P-B224M60FH</i>	<i>PE-B224M60FH</i>															
2 7/16	2 1/2	P-B22439FH	PE-B22439FH	2 3/4	7 1/8	9 1/4	3 1/2	3 3/8	1/2	1 3/4	1 3/4	5 1/2	3 5/8	2 7/32	1 3/16	2 3/16	2 9/16	19
60		P-B22440FH	PE-B22440FH															19
		<i>P-B224M60FH</i>	<i>PE-B224M60FH</i>	69.85	181.0	235.0	88.90	85.7	12	44.4	44.4	139.7	92.1	21.4	20.6	55.6	65.1	8.6
		<i>P-B224M65FH</i>	<i>PE-B224M65FH</i>															
2 11/16	2 3/4	P-B22443FH	PE-B22443FH	3 1/4	8 1/8	10 7/16	4	3 3/4	5/8	1 7/8	2 1/4	6 7/16	4 3/16	2 7/32	1 5/16	2 7/16	2 25/32	30
65		P-B22444FH	PE-B22444FH															30
		P-B22447FH	PE-B22447FH	82.55	206.4	265.1	101.60	95.2	16	47.6	57.2	163.5	106.4	21.4	23.8	61.9	70.6	29
70		P-B22448FH	PE-B22448FH															28
		<i>P-B224M65FH</i>	<i>PE-B224M65FH</i>	82.55	206.4	265.1	101.60	95.2	16	47.6	57.2	163.5	106.4	21.4	23.8	61.9	70.6	13.7
75		<i>P-B224M70FH</i>	<i>PE-B224M70FH</i>															13.5
		<i>P-B224M75FH</i>	<i>PE-B224M75FH</i>	95.25	254.0	330.2	111.12	104.8	20	50.8	57.2	190.5	127.0	23.8	38.1	67.5	76.2	13.0
		<i>P-B224M80FH</i>	<i>PE-B224M80FH</i>															
80		P-B22451FH	PE-B22451FH	3 3/4	10	13	4 3/8	4 1/8	3/4	2	2 1/4	7 1/2	5	1 5/16	1 1/2	2 21/32	3	45
		P-B22455FH	PE-B22455FH															43
85		P-B22456FH	PE-B22456FH	95.25	254.0	330.2	111.12	104.8	20	50.8	57.2	190.5	127.0	23.8	38.1	67.5	76.2	43
		<i>P-B224M85FH</i>	<i>PE-B224M85FH</i>															20.5
		<i>P-B224M90FH</i>	<i>PE-B224M90FH</i>	107.95	317.5	387.4	128.59	114.3	20	57.2	66.7	215.9	150.0	27.0	31.8	77.8	87.3	20.0
		<i>P-B224M100FH</i>	<i>PE-B224M100FH</i>															
3 11/16	4	P-B22459FH	PE-B22459FH	4 1/4	12 1/2	15 1/4	5 1/16	4 1/2	3/4	2 1/4	2 5/8	8 1/2	5 29/32	1 1/16	1 1/4	3 1/16	3 7/16	69
90		P-B22463FH	PE-B22463FH															67
100		P-B22464FH	PE-B22464FH	107.95	317.5	387.4	128.59	114.3	20	57.2	66.7	215.9	150.0	27.0	31.8	77.8	87.3	66
		<i>P-B224M90FH</i>	<i>PE-B224M90FH</i>															32.1
		<i>P-B224M100FH</i>	<i>PE-B224M100FH</i>	120.65	342.9	419.1	171.45	120.6	20	63.5	69.8	238.1	155.6	28.6	34.9	85.7	95.2	30.3
		<i>P-B224M110FH</i>	<i>PE-B224M110FH</i>															
4 3/16	4 1/2	P-B22567FH	PE-B22567FH	4 3/4	13 1/2	16 1/2	6 3/4	4 3/4	3/4	2 1/2	2 3/4	9 3/8	6 1/8	1 1/8	1 3/8	3 3/8	3 3/4	92
110		P-B22571FH	PE-B22571FH															88
115		P-B22572FH	PE-B22572FH	120.65	342.9	419.1	171.45	120.6	20	63.5	69.8	238.1	155.6	28.6	34.9	85.7	95.2	87
		<i>P-B225M110FH</i>	<i>PE-B225M110FH</i>															40.7
		<i>P-B225M115FH</i>	<i>PE-B225M115FH</i>	139.70	393.7	469.9	184.15	136.5	24	69.8	76.2	276.2	174.6	31.0	38.1	92.1	101.6	39.5
		<i>P-B225M125FH</i>	<i>PE-B225M125FH</i>															
4 15/16	5	P-B22579FH	PE-B22579FH	5 1/2	15 1/2	18 1/2	7 1/4	5 3/8	7/8	2 3/4	3	10 7/8	6 7/8	1 7/32	1 1/2	3 3/8	4	129
125		P-B22580FH	PE-B22580FH															128
		<i>P-B225M125FH</i>	<i>PE-B225M125FH</i>	139.70	393.7	469.9	184.15	136.5	24	69.8	76.2	276.2	174.6	31.0	38.1	92.1	101.6	58.1
		<i>P-B225M125FH</i>	<i>PE-B225M125FH</i>															

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-62 through D-65.

Lubrication fitting tap size, 1/8" PT.

All units available with type E lip seals.

† Tolerance, ±.005" (±0.13 mm).

* Expansion unit allows axial movement of 3/16" (4.8 mm) in either direction from centered position shown.

○ Series P-B22500FH pillow blocks have two spring locking collars (bearing dimensions, page D-40, load ratings, pages D-33, D-34).

◆ Width dimension for closed end unit.

Selection guide, pages D-5, D-6.

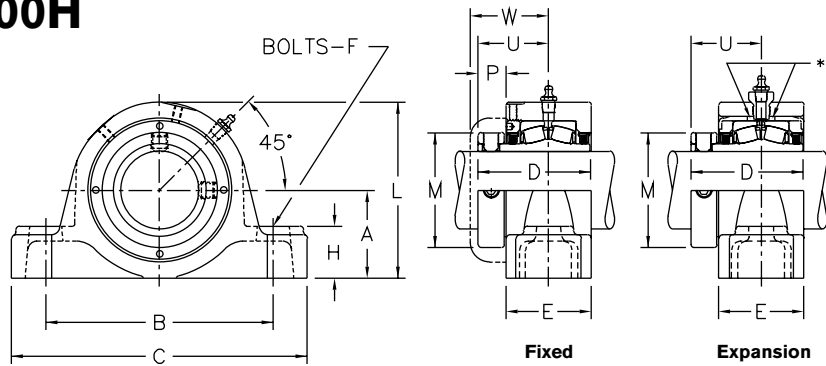
Load ratings, pages D-7, D-8.

Additional information, page D-68.

Spherical Roller Bearing Pillow Blocks

EP-B22400H, EPE-B22400H

Cast Iron Housing
2-Bolt Base
Fixed or Expansion
Self-aligning
Spring Locking Collar
Factory Adjusted and Sealed



Self-Aligning Type E Interchange

Dimensions (inches/mm)

Shaft dia. mm inches	Pillow block number		A †	B		C	D	E	F Bolts	H	L	M	P	U	W ◆	Unit wt. (lbs./kg.)
	Fixed	Expansion		min.	max.											
35	1 ⁷ / ₁₆ EP-B22423H <i>EP-B224M35H</i>	EPE-B22423H <i>EPE-B224M35H</i>	1 ⁷ / ₁₆ 47.62	4 ³ / ₄ 120.6	6 152.4	7 ³ / ₈ 187.3	2 ⁷ / ₈ 73.02	2 ¹ / ₄ 57.2	1 ¹ / ₂ 12	1 ¹ / ₈ 28.6	3 ⁷ / ₈ 98.4	2 ¹ / ₂ 63.5	2 ¹ / ₃₂ 16.7	1 ²⁵ / ₃₂ 45.2	2 ³ / ₁₆ 55.6	8 3.1
40	1 ¹ / ₂ EP-B224B24H	EPE-B224B24H	2 ¹ / ₈	5 ¹ / ₄	6 ¹ / ₂	7 ⁷ / ₈	3 ¹ / ₈	2 ¹ / ₂	1 ¹ / ₂	1 ¹ / ₄	4 ³ / ₈	2 ³ / ₄	2 ¹ / ₃₂	1 ²⁹ / ₃₂	2 ¹ / ₄	12
	1 ⁵ / ₈ EP-B22426H	EPE-B22426H														11
	1 ¹¹ / ₁₆ EP-B22427H <i>EP-B224M40H</i>	EPE-B22427H <i>EPE-B224M40H</i>														11 5.4
45	1 ³ / ₄ EP-B224B28H	EPE-B224B28H	2 ¹ / ₄	6 ¹ / ₁₆	7 ¹ / ₄	8 ⁷ / ₈	3 ¹ / ₈	2 ¹ / ₂	5 ⁸ / ₁₆	1 ⁵ / ₁₆	4 ⁹ / ₁₆	2 ¹⁵ / ₁₆	2 ¹ / ₃₂	1 ²⁹ / ₃₂	2 ⁹ / ₃₂	12
	1 ⁵ / ₈ EP-B22431H	EPE-B22431H														12
	2 EP-B22432H <i>EP-B224M45H</i>	EPE-B22432H <i>EPE-B224M45H</i>														12 5.5
50	EP-B22435H <i>EP-B224M50H</i>	EPE-B22435H <i>EPE-B224M50H</i>	2 ¹ / ₂ 57.15	6 ⁹ / ₁₆ 154.0	8 184.2	9 ⁵ / ₈ 225.4	3 ⁵ / ₈ 79.38	2 ⁹ / ₁₆ 63.5	5 ⁸ / ₁₆ 16	1 ¹ / ₂ 33.3	5 115.9	3 ³ / ₈ 74.6	2 ⁹ / ₃₂ 16.7	2 ¹ / ₁₆ 48.4	2 ⁷ / ₁₆ 57.9	15 5.2
55	EP-B22435H <i>EP-B224M55H</i>	EPE-B22435H <i>EPE-B224M55H</i>	2 ¹ / ₂ 63.50	6 ⁹ / ₁₆ 166.7	8 203.2	9 ⁵ / ₈ 244.5	3 ⁵ / ₈ 84.14	2 ⁹ / ₁₆ 65.1	5 ⁸ / ₁₆ 16	1 ¹ / ₂ 38.1	5 127.0	3 ³ / ₈ 85.7	2 ⁹ / ₃₂ 19.8	2 ¹ / ₁₆ 52.4	2 ⁷ / ₁₆ 61.9	15 6.6
60	2 ¹ / ₄ EP-B224B36H	EPE-B224B36H	2 ³ / ₄	6 ¹⁵ / ₁₆	8 ³ / ₄	10 ¹ / ₂	3 ¹ / ₂	2 ¹¹ / ₁₆	5 ⁸ / ₁₆	1 ⁵ / ₈	5 ¹ / ₂	3 ⁵ / ₈	2 ⁷ / ₃₂	2 ³ / ₁₆	2 ⁹ / ₁₆	18
	2 ⁷ / ₁₆ EP-B22439H	EPE-B22439H														17
	2 ¹ / ₂ EP-B22440H <i>EP-B224M60H</i>	EPE-B22440H <i>EPE-B224M60H</i>														17 8.2
65	2 ¹¹ / ₁₆ EP-B22443H	EPE-B22443H	3 ¹ / ₈	7 ¹³ / ₁₆	9 ³ / ₄	11 ¹³ / ₁₆	4	3 ³ / ₁₆	3 ⁴ / ₈	1 ⁷ / ₈	6 ⁵ / ₁₆	4 ³ / ₁₆	2 ⁷ / ₃₂	2 ⁷ / ₁₆	2 ²⁵ / ₃₂	29
	2 ³ / ₄ EP-B22444H	EPE-B22444H														29
	2 ¹⁵ / ₁₆ EP-B22447H <i>EP-B224M65H</i>	EPE-B22447H <i>EPE-B224M65H</i>														27
70	3 EP-B22448H <i>EP-B224M70H</i>	EPE-B22448H <i>EPE-B224M70H</i>	3 ¹ / ₈ 79.38	7 ¹³ / ₁₆ 198.4	9 ³ / ₄ 247.6	11 ¹³ / ₁₆ 300.0	4 101.60	3 ³ / ₁₆ 81.0	3 ⁴ / ₈ 20	1 ⁷ / ₈ 47.6	6 ⁵ / ₁₆ 160.3	4 ³ / ₁₆ 106.4	2 ⁷ / ₃₂ 21.4	2 ⁷ / ₁₆ 61.9	2 ²⁵ / ₃₂ 70.6	27 13.5
75	EP-B22451H <i>EP-B224M75H</i>	EPE-B22451H <i>EPE-B224M75H</i>	3 ¹ / ₈ 79.38	7 ¹³ / ₁₆ 198.4	9 ³ / ₄ 247.6	11 ¹³ / ₁₆ 300.0	4 101.60	3 ³ / ₁₆ 81.0	3 ⁴ / ₈ 20	1 ⁷ / ₈ 47.6	6 ⁵ / ₁₆ 160.3	4 ³ / ₁₆ 106.4	2 ⁷ / ₃₂ 21.4	2 ⁷ / ₁₆ 61.9	2 ²⁵ / ₃₂ 70.6	27 13.3
80	3 ³ / ₁₆ EP-B22455H	EPE-B22455H	3 ³ / ₄	9 ⁵ / ₁₆	11 ⁵ / ₁₆	13 ¹³ / ₁₆	4 ³ / ₈	3 ¹ / ₂	7 ⁸ / ₁₆	2 ¹ / ₄	7 ¹ / ₂	5	1 ⁵ / ₁₆	2 ²¹ / ₃₂	3	44
	3 ⁷ / ₁₆ EP-B22456H	EPE-B22456H														43
	3 ¹ / ₂ EP-B22456H <i>EP-B224M80H</i>	EPE-B22456H <i>EPE-B224M80H</i>														42
85	EP-B22456H <i>EP-B224M85H</i>	EPE-B22456H <i>EPE-B224M85H</i>	95.25	236.5	287.3	350.8	111.12	88.9	24	57.2	190.5	127.0	23.8	67.5	76.2	20.0 19.5

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-62, D-63.

Lubrication fitting tap size, 1/8" PT.

All units available with type E lip seals.

* Expansion unit allows axial movement of 3/16" (4.8 mm) in either direction from centered position shown.

† Tolerance, ±.005" (±0.13 mm).

◆ Width dimension for closed end unit.

Selection guide, pages D-5, D-6.

Load ratings, pages D-7, D-8.

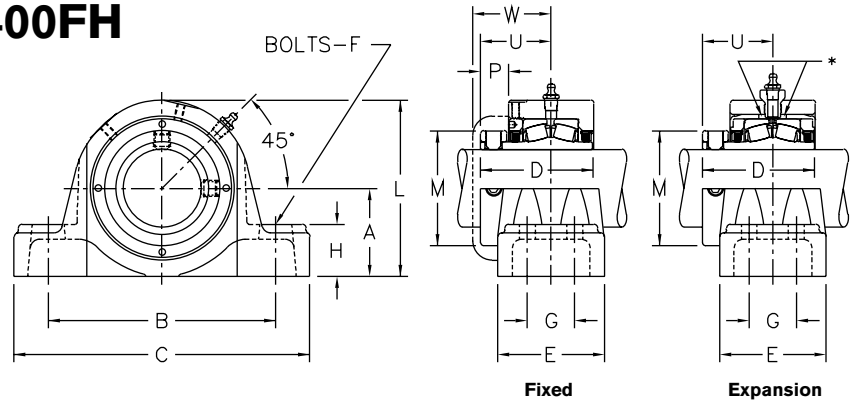
Additional information, page D-68.

Spherical Roller Bearing Pillow Blocks

EP-B22400FH, EPE-B22400FH

Cast Iron Housing
4-Bolt Base
Fixed or Expansion
Self-aligning
Spring Locking Collar
Factory Adjusted and Sealed

Self-Aligning Type E Interchange



Dimensions (inches/mm)

Shaft dia. mm inches	Pillow block number		A †	B		C	D	E	F Bolts	G	H	L	M	P	U	W ◆	Unit wt. (lbs./kg.)
	Fixed	Expansion		min.	max.												
60	2 1/4	EP-B224B36FH	2 3/4	6 15/16	8 3/4	10 1/2	3 1/2	3 3/8	5 1/8	1 7/8	1 5/8	5 1/2	3 3/8	2 7/32	2 3/16	2 9/16	21
	2 7/16	EP-B22439FH															
	2 1/2	EP-B22440FH															
		EP-B224M60FH															20
			69.85	176.2	222.2	266.7	88.90	92.1	16	47.6	41.3	139.7	92.1	21.4	55.6	65.1	8.8
65	2 11/16	EP-B22443FH	3 1/8	7 13/16	9 7/8	11 13/16	4	4 1/4	5 1/8	2 1/8	1 7/8	6 5/16	4 3/16	2 7/32	2 7/16	2 29/32	31
	2 3/4	EP-B22444FH															
	2 15/16	EP-B22447FH															
	3	EP-B22448FH															29
			79.38	198.4	250.8	300.0	101.60	108.0	16	54.0	47.6	160.3	106.4	21.4	61.9	70.6	14.0
70		EP-B224M70FH															13.8
75		EP-B224M75FH															13.3
80	3 3/16	EP-B22451FH	3 3/4	9 5/16	11 1/16	13 13/16	4 3/8	4 3/4	3 1/4	2 3/8	2 1/4	7 1/2	5	1 5/16	2 21/32	3	47
	3 7/16	EP-B22455FH															
	3 1/2	EP-B22456FH															
		EP-B224M80FH															45
			95.25	236.5	290.5	350.8	111.12	120.6	20	60.3	57.2	190.5	127.0	23.8	67.5	76.2	21.3
85		EP-B224M85FH															20.8
90	3 11/16	P-B22459FH	4 1/4	11 7/8	13	15 1/4	5 1/16	4 1/2	3 1/4	2 1/4	2 5/8	8 1/2	5 29/32	1 1/16	3 1/16	3 7/16	69
	3 15/16	P-B22463FH															
	4	P-B22464FH															
		P-B224M90FH															66
			107.95	301.6	330.2	387.4	128.59	114.3	20	57.2	66.7	215.9	150.0	27.0	77.8	87.3	32.1
100		P-B224M100FH															30.3
110	4 9/16	P-B22567FH [○]	4 3/4	12 3/4	14 1/8	16 1/2	6 3/4	4 3/4	3 1/4	2 1/2	2 3/4	9 3/8	6 1/8	1 1/8	3 3/8	3 3/4	92
	4 7/16	P-B22571FH [○]															
	4 1/2	P-B22572FH [○]															
		P-B225M110FH [○]															88
			120.65	323.8	358.8	419.1	171.45	120.6	20	63.5	69.8	238.1	155.6	28.6	85.7	95.2	40.7
115		P-B225M115FH [○]															39.5
125	4 15/16	P-B22579FH [○]	5 1/2	14 5/16	16 1/8	18 1/2	7 1/4	5 3/8	7 1/8	2 3/4	3	10 7/8	6 7/8	1 7/32	3 5/8	4	129
	5	P-B22580FH [○]															
		P-B225M125FH [○]															
																	128
			139.70	363.5	409.6	469.9	184.15	136.5	24	69.8	76.2	276.2	174.6	31.0	92.1	101.6	58.1

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-62 through D-65.

Lubrication fitting tap size, 1/8" PT.

All units available with type E lip seals.

* Expansion unit allows axial movement of 3/16" (4.8 mm) in either direction from centered position shown.

† Tolerance, ±.005" (±0.13 mm).

○ Series P-B22500FH pillow blocks have two spring locking collars (bearing dimensions, page D-40, load ratings, pages D-33, D-34).

◆ Width dimension for closed end unit.

Selection guide, pages D-5, D-6.

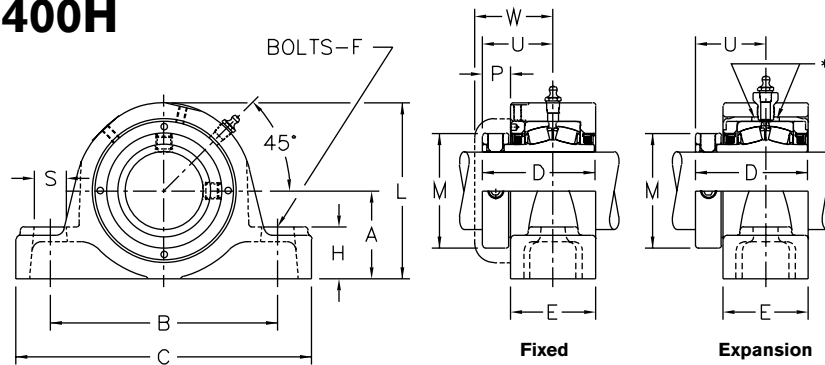
Load ratings, pages D-7, D-8.

Additional information, page D-68.

Spherical Roller Bearing Pillow Blocks

PK-B22400H, PKE-B22400H

Cast Steel Housing
2-Bolt Base
Fixed or Expansion
Self-aligning
Spring Locking Collar
Factory Adjusted and Sealed



Dimensions (inches/mm)

Shaft dia.		Pillow block number		A †	B	C	D	E	F Bolts	H	L		M	P	S	U	W ◆	Unit wt. (lbs./kg.)
mm	inches	Fixed	Expansion								Fixed	Expansion						
30	1 3/16 1 1/4	PK-B22419H PK-B22420H <i>PK-B224M30H</i>	...	1 3/4 44.45	4 3/4 120.6	6 5/16 160.3	2 11/16 68.26	2 3/16 55.6	3/8 10	1 1/16 27.0	3 1/2 88.9	3 5/8 92.1	2 3/16 55.6	1 7/32 13.5	5/8 15.9	1 5/8 41.3	1 31/32 50.0	7 3.2
35	1 7/16 1 1/2	PK-B22423H PK-B22424H <i>PK-B224M35H</i>	PKE-B22423H PKE-B22424H <i>PKE-B224M35H</i>	1 7/8 47.62	5 127.0	6 7/8 174.6	2 7/8 73.02	2 1/4 57.2	1/2 12	1 3/16 30.2	3 11/16 93.7	3 7/8 98.4	2 1/2 63.5	2 1/32 16.7	1 3/16 20.6	1 25/32 45.2	2 3/16 55.6	7 3.4
40	1 5/8 1 11/16 1 3/4	PK-B22426H PK-B22427H PK-B22428H <i>PK-B224M40H</i>	PKE-B22426H PKE-B22427H PKE-B22428H <i>PKE-B224M40H</i>	2 1/8 53.98	5 1/2 139.7	7 3/8 187.3	3 1/8 79.38	2 1/2 63.5	1/2 12	1 5/16 33.3	4 1/4 108.0	4 3/8 111.1	2 3/4 69.8	2 1/32 16.7	1 3/16 20.6	1 29/32 48.4	2 1/4 57.2	10 4.8
45	1 15/16 2	PK-B22431H PK-B22432H <i>PK-B224M45H</i>	PKE-B22431H PKE-B22432H <i>PKE-B224M45H</i>	2 1/4 57.15	6 1/4 158.8	8 3/8 212.7	3 1/8 79.38	2 1/2 63.5	5/8 16	1 3/8 34.9	4 9/16 115.9	4 9/16 115.9	2 15/16 74.6	2 1/32 16.7	1 5/16 23.8	1 29/32 48.4	2 3/4 57.9	12 5.8
50		<i>PK-B224M50H</i>	<i>PKE-B224M50H</i>															5.5
55	2 3/16 2 1/4	PK-B22435H PK-B22436H <i>PK-B224M55H</i>	PKE-B22435H PKE-B22436H <i>PKE-B224M55H</i>	2 1/2 63.50	6 3/4 171.4	8 7/8 225.4	3 5/16 84.14	2 9/16 65.1	5/8 16	1 5/8 41.3	5 127.0	5 127.0	3 3/8 85.7	2 5/32 19.8	1 5/16 23.8	2 1/16 52.4	2 7/16 61.9	16 7.1
60	2 7/16 2 1/2	PK-B22439H PK-B22440H <i>PK-B224M60H</i>	PKE-B22439H PKE-B22440H <i>PKE-B224M60H</i>	2 3/4 69.85	7 1/8 181.0	9 1/4 235.0	3 1/2 88.90	2 11/16 68.3	5/8 16	1 3/4 44.4	5 1/2 139.7	5 1/2 139.7	3 5/8 92.1	2 7/32 21.4	1 5/16 23.8	2 3/16 55.6	2 9/16 65.1	19 8.6
65	2 11/16 2 3/4 2 15/16	PK-B22443H PK-B22444H PK-B22447H PK-B22448H <i>PK-B224M65H</i>	PKE-B22443H PKE-B22444H PKE-B22447H PKE-B22448H <i>PKE-B224M65H</i>	3 1/4 82.55	8 1/8 206.4	10 7/16 265.1	4 101.60	3 3/16 81.0	3/4 20	2 1/4 57.2	6 7/16 163.5	6 7/16 163.5	4 3/16 106.4	2 7/32 21.4	1 1/16 27.0	2 7/16 61.9	2 25/32 70.6	30 13.7
70		<i>PK-B224M70H</i>	<i>PKE-B224M70H</i>															13.5
75		<i>PK-B224M75H</i>	<i>PKE-B224M75H</i>															13.0
80	3 3/16 3 7/16 3 1/2	PK-B22451H PK-B22455H PK-B22456H <i>PK-B224M80H</i>	PKE-B22451H PKE-B22455H PKE-B22456H <i>PKE-B224M80H</i>	3 3/4 95.25	10 254.0	13 330.2	4 3/8 111.12	3 7/16 87.3	7/8 24	2 1/4 57.2	7 1/2 190.5	7 1/2 190.5	5 127.0	1 5/16 23.8	1 5/8 41.3	2 21/32 67.5	3 76.2	45 20.2
85		<i>PK-B224M85H</i>	<i>PKE-B224M85H</i>															19.7
90	3 11/16 3 15/16	PK-B22459H PK-B22463H PK-B22464H <i>PK-B224M90H</i>	PKE-B22459H PKE-B22463H PKE-B22464H <i>PKE-B224M90H</i>	4 1/4 107.95	11 3/4 298.4	15 1/4 387.4	5 1/16 128.59	4 101.6	1 24	2 5/8 66.7	8 1/2 215.9	8 1/2 215.9	5 29/32 150.0	1 1/16 27.0	2 1/4 57.2	3 1/16 77.8	3 7/16 87.3	64 29.9
100		<i>PK-B224M100H</i>	<i>PKE-B224M100H</i>															28.1

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-62, D-63.

Lubrication fitting tap size, 1/8" PT.

All units available with type E lip seals.

† Tolerance, ±.005" (±0.13 mm).

* Expansion unit allows axial movement of 3/16" (4.8 mm) in either direction from centered position shown.

◆ Width dimension for closed end unit.

Selection guide, pages D-5, D-6.

Load ratings, pages D-7, D-8.

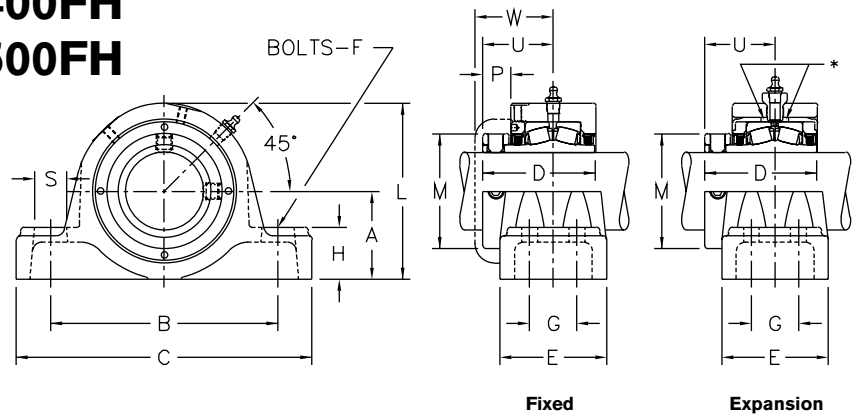
Additional information, page D-68.

Spherical Roller Bearing Pillow Blocks

PK-B22400FH, PKE-B22400FH

PK-B22500FH, PKE-B22500FH

Cast Steel Housing
4-Bolt Base
Fixed or Expansion
Self-aligning
Spring Locking Collar
Factory Adjusted and Sealed



Dimensions (inches/mm)

Shaft dia.		Pillow block number		A †	B	C	D	E	F Bolts	G	H	L	M	P	S	U	W ◆	Unit wt. (lbs./kg.)
mm	inches	Fixed	Expansion															
1 15/16	2	PK-B22431FH	PKE-B22431FH	2 1/4	6 1/4	8 3/8	3 1/8	3 3/16	1 1/2	1 11/32	1 3/8	4 9/16	2 15/16	2 1/32	1 3/16	1 29/32	2 9/32	13 13
45		PK-B22432FH	PKE-B22432FH															
50		PK-B224M45FH	PKE-B224M45FH															
		PK-B224M50FH	PKE-B224M50FH	57.15	158.8	212.7	79.38	81.0	12	40.5	34.9	115.9	74.6	16.7	20.6	48.4	57.9	6.1 5.8
2 3/16	2 1/4	PK-B22435FH	PKE-B22435FH	2 1/2	6 3/4	8 7/8	3 5/16	3 1/4	1 1/2	1 11/16	1 5/8	5	3 3/8	2 5/32	1 3/16	2 1/16	2 7/16	16 16
55		PK-B22436FH	PKE-B22436FH															
		PK-B224M55FH	PKE-B224M55FH															
		PK-B224M55FH	PKE-B224M55FH	63.50	171.4	225.4	84.14	82.6	12	42.9	41.3	127.0	85.7	19.8	20.6	52.4	61.9	7.3
2 7/16	2 1/2	PK-B22439FH	PKE-B22439FH	2 3/4	7 1/8	9 1/4	3 1/2	3 3/8	1 1/2	1 3/4	1 3/4	5 1/2	3 3/8	2 7/32	1 3/16	2 3/16	2 9/16	20 20
60		PK-B22440FH	PKE-B22440FH															
		PK-B224M60FH	PKE-B224M60FH															
		PK-B224M60FH	PKE-B224M60FH	69.85	181.0	235.0	88.90	85.7	12	44.4	44.4	139.7	92.1	21.4	20.6	55.6	65.1	9.3
2 11/16	2 3/4	PK-B22443FH	PKE-B22443FH	3 1/4	8 1/8	10 7/16	4	3 3/4	1 3/4	1 7/8	2 1/4	6 7/16	4 3/16	2 7/32	1 5/16	2 7/16	2 25/32	30 30
65		PK-B22444FH	PKE-B22444FH															
		PK-B22447FH	PKE-B22447FH															
		PK-B22448FH	PKE-B22448FH	82.55	206.4	265.1	101.60	95.2	16	47.6	57.2	163.5	106.4	21.4	23.8	61.9	70.6	13.7 13.5 13.0
70		PK-B224M65FH	PKE-B224M65FH															
75		PK-B224M70FH	PKE-B224M70FH															
		PK-B224M75FH	PKE-B224M75FH															
3 3/16	3 1/8	PK-B22451FH	PKE-B22451FH	3 3/4	10	13	4 3/8	4 1/8	3/4	2	2 1/4	7 1/2	5	1 5/16	1 1/2	2 21/32	3	49 47 47
80		PK-B22455FH	PKE-B22455FH															
		PK-B22456FH	PKE-B22456FH															
		PK-B224M80FH	PKE-B224M80FH	95.25	254.0	330.2	111.12	104.8	20	50.8	57.2	190.5	127.0	23.8	38.1	67.5	76.2	22.0 21.5
85		PK-B224M85FH	PKE-B224M85FH															
		PK-B224M85FH	PKE-B224M85FH															
3 11/16	3 5/8	PK-B22459FH	PKE-B22459FH	4 1/4	12 1/2	15 1/4	5 1/16	4 1/2	3/4	2 1/4	2 5/8	8 1/2	5 29/32	1 1/16	1 1/4	3 1/16	3 7/16	76 74 73
90		PK-B22463FH	PKE-B22463FH															
		PK-B22464FH	PKE-B22464FH															
		PK-B224M90FH	PKE-B224M90FH	107.95	317.5	387.4	128.59	114.3	20	57.2	66.7	215.9	150.0	27.0	31.8	77.8	87.3	35.2 33.5
100		PK-B224M90FH	PKE-B224M90FH															
		PK-B224M100FH	PKE-B224M100FH															
4 3/16	4 7/16	PK-B22567FH	PKE-B22567FH	4 3/4	13 1/2	16 1/2	6 3/4	4 3/4	3/4	2 1/2	2 3/4	9 3/8	6 1/8	1 1/8	1 3/8	3 3/8	3 3/4	97 93 92
110		PK-B22571FH	PKE-B22571FH															
		PK-B22572FH	PKE-B22572FH															
		PK-B225M110FH	PKE-B225M110FH	120.65	342.9	419.1	171.45	120.6	20	63.5	69.8	238.1	155.6	28.6	34.9	85.7	95.2	43.0 41.7
115		PK-B225M115FH	PKE-B225M115FH															
		PK-B225M115FH	PKE-B225M115FH															
4 15/16	5	PK-B22579FH	PKE-B22579FH	5 1/2	15 1/2	18 1/2	7 1/4	5 3/8	7/8	2 3/4	3	10 7/8	6 7/8	1 3/32	1 1/2	3 3/8	4	125 124
		PK-B22580FH	PKE-B22580FH															
125		PK-B225M125FH	PKE-B225M125FH															
		PK-B225M125FH	PKE-B225M125FH	139.70	393.7	469.9	184.15	136.5	24	69.8	76.2	276.2	174.6	31.0	38.1	92.1	101.6	56.6

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-62 through D-65.

Lubrication fitting tap size, 1/8" PT.

All units available with type E lip seals.

† Tolerance, ±.005" (±0.13 mm).

○ Series P-B22500FH pillow blocks have two spring locking collars (bearing dimensions, page D-40, load ratings, pages D-33, D-34).

* Expansion unit allows axial movement of 3/16" (4.8 mm) in either direction from centered position shown.

◆ Width dimension for closed end unit.

Selection guide, pages D-5, D-6.

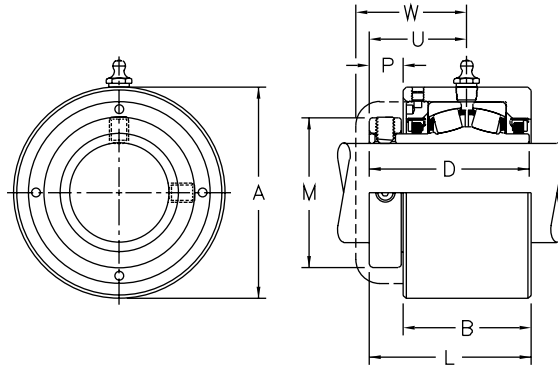
Load ratings, pages D-7, D-8.

Additional information, page D-68.

Spherical Roller Bearing Cartridge Units

C-B22400H

Cast Iron Housing
Self-aligning
Spring Locking Collar
Factory Adjusted and Sealed



Dimensions (inches/mm)

Shaft dia.		Cartridge unit number	A †	B	D	L	M	P	U	W ◆	Unit wt. (lbs./kg.)
mm	inches										
25	1	C-B22416H	3.000	2 ¹ / ₁₆	2 ⁹ / ₁₆	2 ¹⁹ / ₃₂	2	1 ⁷ / ₃₂	1 ⁹ / ₁₆	1 ²⁹ / ₃₂	3
		C-B224M25H	76.20	52.39	65.09	65.9	50.8	13.5	39.7	48.4	1.4
30	1 ³ / ₁₆	C-B22419H	3.219	2 ³ / ₁₆	2 ¹¹ / ₁₆	2 ²³ / ₃₂	2 ³ / ₁₆	1 ⁷ / ₃₂	1 ⁵ / ₈	1 ³¹ / ₃₂	4
	1 ¹ / ₄	C-B22420H									4
		C-B224M30H	81.76	55.56	68.26	69.0	55.6	13.5	41.3	50.0	1.7
35	1 ⁷ / ₁₆	C-B22423H	3.437	2 ¹ / ₄	2 ⁷ / ₈	2 ²⁹ / ₃₂	2 ¹ / ₂	2 ¹ / ₃₂	1 ²⁵ / ₃₂	2 ³ / ₁₆	4
	1 ¹ / ₂	C-B22424H									4
		C-B224M35H	87.30	57.15	73.02	73.8	63.5	16.7	45.2	55.6	2.1
40	1 ⁵ / ₈	C-B22426H	3.937	2 ¹ / ₂	3 ¹ / ₈	3 ⁵ / ₃₂	2 ³ / ₄	2 ¹ / ₃₂	1 ²⁹ / ₃₂	2 ¹ / ₄	6
	1 ¹¹ / ₁₆	C-B22427H									6
	1 ³ / ₄	C-B22428H									6
		C-B224M40H	100.00	63.50	79.38	80.2	69.8	16.7	48.4	57.2	2.9
45	1 ¹⁵ / ₁₆	C-B22431H	4.125	2 ¹ / ₂	3 ¹ / ₈	3 ⁵ / ₃₂	2 ¹⁵ / ₁₆	2 ¹ / ₃₂	1 ²⁹ / ₃₂	2 ⁹ / ₃₂	6
	2	C-B22432H									6
		C-B224M45H	104.78	63.50	79.38	80.2	74.6	16.7	48.4	57.9	3.1
50		C-B224M50H									3.0
55	2 ³ / ₁₆	C-B22435H	4.531	2 ⁹ / ₁₆	3 ³ / ₁₆	3 ¹¹ / ₃₂	3 ³ / ₈	2 ⁵ / ₃₂	2 ¹ / ₁₆	2 ⁷ / ₁₆	8
	2 ¹ / ₄	C-B22436H									8
		C-B224M55H	115.09	65.09	84.14	84.9	85.7	19.8	52.4	61.9	3.8
60	2 ⁷ / ₁₆	C-B22439H	5.000	2 ¹¹ / ₁₆	3 ¹ / ₂	3 ¹⁷ / ₃₂	3 ⁵ / ₈	2 ⁷ / ₃₂	2 ³ / ₁₆	2 ⁹ / ₁₆	10
	2 ¹ / ₂	C-B22440H									10
		C-B224M60H	127.00	68.26	88.90	89.7	92.1	21.4	55.6	65.1	4.8
65	2 ¹¹ / ₁₆	C-B22443H	5.875	3 ³ / ₁₆	4	4 ¹ / ₃₂	4 ³ / ₁₆	2 ⁷ / ₃₂	2 ⁷ / ₁₆	2 ²⁵ / ₃₂	18
	2 ³ / ₄	C-B22444H									17
	2 ¹⁵ / ₁₆	C-B22447H									16
	3	C-B22448H									16
		C-B224M65H									8.1
70		C-B224M70H	149.22	80.96	101.60	102.4	106.4	21.4	61.9	70.6	8.0
75		C-B224M75H									7.8
80	3 ³ / ₁₆	C-B22451H	6.750	3 ⁷ / ₁₆	4 ³ / ₈	4 ³ / ₈	5	1 ⁵ / ₁₆	2 ²¹ / ₃₂	3	25
	3 ⁷ / ₁₆	C-B22455H									23
	3 ¹ / ₂	C-B22456H									23
		C-B224M80H									11.2
85		C-B224M85H	171.45	87.31	111.12	111.1	127.0	23.8	67.5	76.2	11.0

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-62, D-63.

Lubrication fitting tap size, ¹/₈" PT.

All units available with type E lip seals.

† Tolerance, +.000" –.002" (+0.00 mm –0.05 mm); bore tolerance for mounting +.002" –.000" (+0.05 mm –0.00 mm).

◆ Width dimension for closed end unit.

Selection guide, pages D-5, D-6.

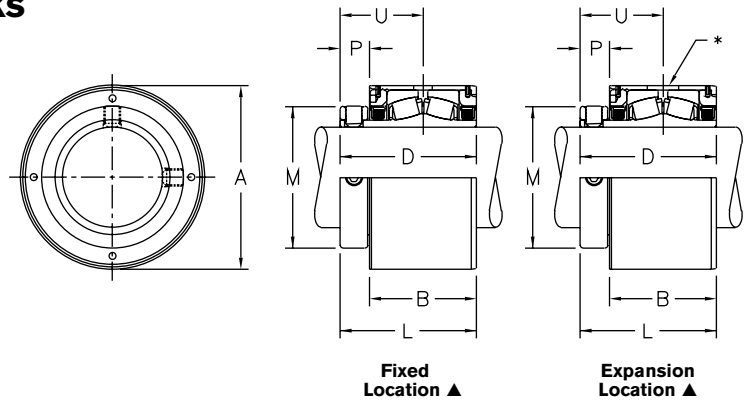
Load ratings, pages D-7, D-8.

Additional information, page D-68.

Spherical Roller Bearing Pillow Blocks

CSE-B22400H

Steel Housing
Fixed or Expansion
Self-aligning
Spring Locking Collar
Factory Adjusted and Sealed



Dimensions (inches/mm)

Shaft dia.		Cartridge unit number ▲	A †	B	D	L	M	P	U	Unit wt. (lbs./kg.)
mm	inches									
25	1	CSE-B22416H	2.665	2	2 ⁹ / ₁₆	2 ⁹ / ₁₆	2	9 ¹ / ₁₆	1 ¹ / ₁₆	3
		<i>CSE-B224M25H</i>	67.69	50.80	65.09	65.1	50.8	14.3	39.7	1.3
30	1 ³ / ₁₆	CSE-B22419H	2.915	2 ¹ / ₈	2 ¹ / ₁₆	2 ¹ / ₁₆	2 ³ / ₁₆	9 ¹ / ₁₆	1 ⁵ / ₈	4
	1 ¹ / ₄	CSE-B22420H								4
		<i>CSE-B224M30H</i>	74.04	53.98	68.26	68.3	55.6	14.3	41.3	1.7
35	1 ⁷ / ₁₆	CSE-B22423H	3.124	2 ³ / ₁₆	2 ⁷ / ₈	2 ⁷ / ₈	2 ¹ / ₂	1 ¹ / ₁₆	1 ²⁹ / ₃₂	4
	1 ¹ / ₂	CSE-B22424H								4
		<i>CSE-B224M35H</i>	79.35	55.56	73.02	73.0	63.5	17.5	45.2	1.8
40	1 ⁵ / ₈	CSE-B22426H	3.636	2 ⁷ / ₁₆	3 ¹ / ₈	3 ¹ / ₈	2 ³ / ₄	1 ¹ / ₁₆	1 ²⁹ / ₃₂	6
	1 ¹ / ₁₆	CSE-B22427H								5
	1 ³ / ₄	CSE-B22428H								5
		<i>CSE-B224M40H</i>	92.35	61.91	79.38	79.4	69.8	17.5	48.4	2.5
45	1 ¹⁵ / ₁₆	CSE-B22431H	3.833	2 ²⁵ / ₆₄	3 ¹ / ₈	3 ¹ / ₈	2 ¹⁵ / ₁₆	1 ¹ / ₁₆	1 ²⁹ / ₃₂	6
	2	CSE-B22432H								5
		<i>CSE-B224M45H</i>	97.36	60.72	79.38	79.4	74.6	17.5	48.4	2.6
50		<i>CSE-B224M50H</i>								2.3
55	2 ³ / ₁₆	CSE-B22435H	4.227	2 ¹ / ₂	3 ⁵ / ₁₆	3 ⁵ / ₁₆	3 ³ / ₈	1 ³ / ₁₆	2 ¹ / ₁₆	7
	2 ¹ / ₄	CSE-B22436H								7
		<i>CSE-B224M55H</i>	107.36	63.50	84.14	84.1	85.7	20.6	52.4	3.2
60	2 ⁷ / ₁₆	CSE-B22439H	4.621	2 ⁵ / ₈	3 ¹ / ₂	3 ¹ / ₂	3 ⁵ / ₈	7 ⁷ / ₈	2 ³ / ₁₆	8
	2 ¹ / ₂	CSE-B22440H								8
		<i>CSE-B224M60H</i>	117.37	66.68	88.90	88.9	92.1	22.2	55.6	3.9
65	2 ¹ / ₁₆	CSE-B22443H	5.407	3 ¹ / ₈	4	4	4 ¹ / ₁₆	7 ⁷ / ₈	2 ⁷ / ₁₆	14
	2 ³ / ₄	CSE-B22444H								14
	2 ¹ / ₁₆	CSE-B22447H	137.34	79.38	101.60	101.6	106.4	22.2	61.9	13
	3	CSE-B22448H								13
		<i>CSE-B224M65H</i>	137.34	79.38	101.60	101.6	106.4	22.2	61.9	6.6
70		<i>CSE-B224M70H</i>								6.4
75		<i>CSE-B224M75H</i>								5.9
80	3 ³ / ₁₆	CSE-B22451H	6.194	3 ⁷ / ₁₆	4 ³ / ₈	4 ³ / ₈	5	1 ⁵ / ₁₆	2 ² / ₁₆	20
	3 ⁷ / ₁₆	CSE-B22455H								18
	3 ¹ / ₂	CSE-B22456H	157.33	87.31	111.12	111.1	127.0	23.8	67.5	18
		<i>CSE-B224M80H</i>								9.0
85		<i>CSE-B224M85H</i>								8.6
90	3 ¹ / ₁₆	CSE-B22459H	7.375	4	5 ¹ / ₁₆	5 ¹ / ₁₆	5 ²⁹ / ₃₂	1 ¹ / ₁₆	3 ¹ / ₁₆	33
	3 ¹⁵ / ₁₆	CSE-B22463H								31
	4	CSE-B22464H	187.32	101.60	128.59	128.6	150.0	27.0	77.8	31
		<i>CSE-B224M90H</i>								15.9
100		<i>CSE-B224M100H</i>								14.1

Bold face items are normally available from stock; please consult for availability of non-stock items.

Steel cartridge units cannot be disassembled. For replacement, use entire new unit.

For 4³/₁₆" through 5" (110 mm through 125 mm) CSE-B22500, see page D-39.

All units available with type E lip seals.

† Tolerance, +.000" –.002" (+0.00 mm –0.05 mm); bore tolerance for mounting +.002" –.000" (+0.05 mm –0.00 mm).

* Plug diameter .531" (13.49 mm), engagement depth .125" ±.015" (3.18 ±0.38 mm), allows axial movement of 3¹/₁₆" (4.8 mm) in either direction from centered position on expansion units.

▲ Hole for fixed location and slot for expansion location in the same housing.

Selection guide, pages D-5, D-6.

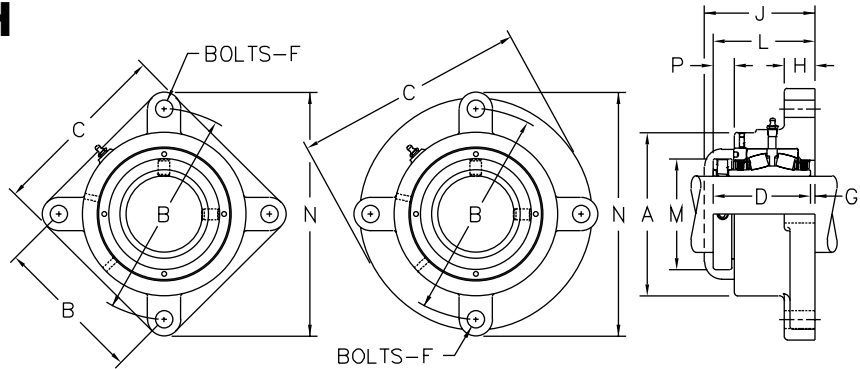
Load ratings, pages D-7, D-8.

Additional information, page D-68.

Spherical Roller Bearing Flanged Units

F-B22400H, FE-B22400H

Cast Iron Housing
3-bolt or 4-bolt Mounting
Fixed or Expansion
Self-aligning
Spring Locking Collar
Factory Adjusted and Sealed



Dimensions (inches/mm)

Type of Housing	Shaft dia.		Flanged unit number		A		B		C ▲	D	F Bolts	G ●	H 9/16	J ◆	L ●	M	N	P ●	Unit wt. (lbs./kg.)
	mm	inches	Fixed	Expansion	Fixed	Exp	Circle	Square											
3-BOLT ROUND	25	1	F-B22416H F-B224M25H	FE-B22416H FE-B224M25H	2 7/8 73.0	3 1/4 82.6	4 1/8 104.78	...	4 3/4 120.6	2 9/16 65.09	3/8 10	1/32 0.8	9/16 14.3	2 15/16 74.6	2 19/32 65.9	2 50.8	5 1/8 130.2	1 7/32 13.5	3 1.3
	30	1 3/16 1 1/4	F-B22419H F-B22420H F-B224M30H	FE-B22419H FE-B22420H FE-B224M30H	3 1/8 79.4	3 1/2 88.9	4 1/2 114.30	...	5 1/8 130.2	2 11/16 68.26	3/8 10	1/32 0.8	1 9/32 15.1	3 1/16 77.8	2 29/32 69.0	2 3/16 55.6	5 1/2 139.7	1 7/32 13.5	6 2.4
		1 7/16 1 1/2	F-B22423H F-B22424H F-B224M35H	FE-B22423H FE-B22424H FE-B224M35H	3 7/16 87.3	3 3/4 95.2	5 127.00	...	5 7/8 149.2	2 7/8 73.02	1/2 12	1/32 0.8	5/8 15.9	3 5/16 84.1	2 29/32 73.8	2 1/2 63.5	6 1/4 158.8	2 1/32 16.7	7 3.2
	35																		
4-BOLT ROUND	40	1 5/8 1 11/16 1 3/4	F-B22426H F-B22427H F-B22428H F-B224M40H	FE-B22426H FE-B22427H FE-B22428H FE-B224M40H	3 15/16 100.0	4 1/4 108.0	5 1/2 139.70	3 57/64 98.83	6 3/8 161.9	3 3/8 79.38	1/2 12	1/32 0.8	5/8 15.9	3 1/2 88.9	3 3/32 80.2	2 3/4 69.8	6 3/4 171.4	2 1/32 16.7	9 4.3
	45 50	1 15/16 2	F-B22431H F-B22432H F-B224M45H F-B224M50H	FE-B22431H FE-B22432H FE-B224M45H FE-B224M50H	4 1/4 108.0	4 1/2 114.3	5 3/4 146.05	4 1/16 103.17	6 11/16 169.9	3 3/8 79.38	1/2 12	1/16 1.6	1 1/16 17.5	3 9/16 90.5	3 3/16 81.0	2 15/16 74.6	7 177.8	2 1/32 16.7	10 5.0
																			4.7
	55	2 3/16 2 1/4	F-B22435H F-B22436H F-B224M55H	FE-B22435H FE-B22436H FE-B224M55H	4 7/8 123.8	4 7/8 123.8	6 3/8 161.92	4 1/2 114.30	7 3/8 187.3	3 5/16 84.14	5/8 16	3/32 2.4	1 1/16 17.5	3 25/32 96.0	3 1/32 86.5	3 3/8 85.7	7 3/4 196.8	2 5/32 19.8	14 6.5
	60	2 7/16 2 1/2	F-B22439H F-B22440H F-B224M60H	FE-B22439H FE-B22440H FE-B224M60H	5 3/8 136.5	5 3/8 136.5	6 3/4 171.45	4 9/64 121.06	7 3/4 196.8	3 1/2 88.90	5/8 16	3/32 2.4	3/4 19.0	3 31/32 100.8	3 19/32 91.3	3 3/8 92.1	8 1/8 206.4	2 7/32 21.4	17 7.9
	65 70 75	2 11/16 2 3/4 2 15/16 3	F-B22443H F-B22444H F-B22447H F-B22448H F-B224M65H F-B224M70H F-B224M75H	FE-B22443H FE-B22444H FE-B22447H FE-B22448H FE-B224M65H FE-B224M70H FE-B224M75H	6 1/4 158.8	6 1/4 158.8	7 7/8 200.02	5 9/16 141.27	9 1/8 231.8	4 101.60	3/4 20	3/32 2.4	7/8 22.2	4 7/16 112.7	4 3/32 104.0	4 3/16 106.4	9 1/2 241.3	2 7/32 21.4	28 12.7
																			12.5
																			12.0
	4-BOLT SQUARE	80	3 3/16 3 7/16 3 1/2	F-B22451H F-B22455H F-B22456H F-B224M80H F-B224M85H	FE-B22451H FE-B22455H FE-B22456H FE-B224M80H FE-B224M85H	7 3/8 187.3	7 3/8 187.3	9 1/2 241.30	6 23/32 170.64	8 5/8 219.1	4 3/8 111.12	3/4 20	3/16 4.8	1 3/8 34.9	4 29/32 124.6	4 9/16 115.9	5 127.0	11 7/16 290.5	1 5/16 23.8	41 18.6
85																			18.1
90 100		3 11/16 3 15/16 4	F-B22459H F-B22463H F-B22464H F-B224M90H F-B224M100H	FE-B22459H FE-B22463H FE-B22464H FE-B224M90H FE-B224M100H	8 1/8 206.4	8 3/8 212.7	10 3/4 273.05	7 39/64 193.28	9 3/4 247.6	5 1/16 128.59	7/8 24	5/32 4.0	1 1/2 38.1	5 5/8 142.9	5 29/32 132.6	5 29/32 150.0	12 29/32 327.8	1 1/32 26.2	59 27.7
																			25.9

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-62, D-63.

Lubrication fitting tap size, 1/8" PT.

All units available with type E lip seals.

Expansion unit allows axial movement of 3/16" (4.8 mm) in either direction from centered position shown.

● For expansion units, dimensions G, L, and P are minimum values. For maximum values, add .375" (9.5 mm).

▲ Cross flat dimension for 3/16" and larger shaft.

◆ Width dimension for closed end unit.

Selection guide, pages D-5, D-6.

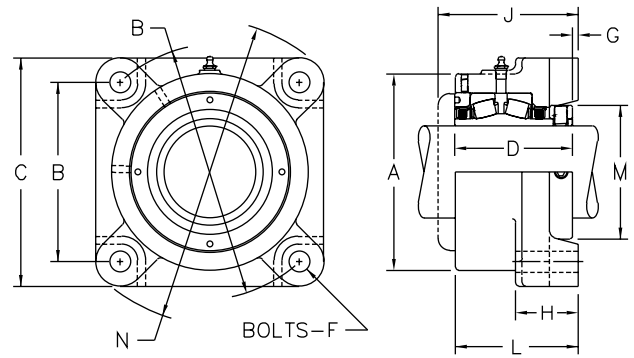
Load ratings, pages D-7, D-8.

Additional information, page D-68.

Spherical Roller Bearing Flanged Units

EFR-B22400H

Cast Iron Housing
Padded Flange
4-bolt Mounting
Self-aligning
Spring Locking Collar
Factory Adjusted and Sealed



Self-Aligning Type E Interchange

Dimensions (inches/mm)

Shaft dia.		Flanged unit number	A	B		C	D	F Bolts	G	H	J ◆	L	M	N	Unit wt. (lbs./kg.)
mm	inches			Circle	Square										
35	17/16	EFR-B22423H <i>EFR-B224M35H</i>	3 3/4	4 5/16	3 1/2	4 5/8	2 7/8	1/2	1/16	1 1/4	4 1/32	2 31/32	2 1/2	6 1/16	8
			95.2	125.81	88.9	117.5	73.02	12	1.6	31.8	102.4	75.4	63.5	154.0	3.4
40	1 1/2	EFR-B224B24H	4 1/4	5 53/64	4 1/8	5 1/2	3 3/8	1/2	1/8	1 3/8	4 9/32	3 3/32	2 3/4	7 7/32	11
	1 5/8	EFR-B22426H													11
	1 11/16	EFR-B22427H													10
		<i>EFR-B224M40H</i>													5.1
45	1 3/4	EFR-B224B28H	4 1/2	6 3/16	4 3/8	5 1/2	3 3/8	1/2	1/8	1 7/16	4 5/16	3 3/32	2 15/16	7 9/16	11
	1 15/16	EFR-B22431H													11
	2	EFR-B22432H													10
		<i>EFR-B224M45H</i> <i>EFR-B224M50H</i>													5.3 5.0
55	2 3/16	EFR-B22435H <i>EFR-B224M55H</i>	5	6 57/64	4 7/8	6 1/4	3 3/16	5/8	1/8	1 1/2	4 3/8	3 15/32	3 3/8	8 9/32	15
			127.0	175.03	123.8	158.8	84.14	16	3.2	38.1	117.5	88.1	85.7	210.3	7.1
60	2 1/4	EFR-B224B36H	5 3/8	7 19/32	5 3/8	6 3/4	3 1/2	5/8	3/16	1 11/16	4 15/16	3 23/32	3 5/8	8 31/32	18
	2 7/16	EFR-B22439H													17
	2 1/2	EFR-B22440H													17
		<i>EFR-B224M60H</i>													7.9
65	2 11/16	EFR-B22443H	6 1/4	8 31/64	6	7 3/8	4	3/4	3/16	1 13/16	5 13/32	4 7/32	4 3/16	10 1/8	26
	2 3/4	EFR-B22444H													25
	2 15/16	EFR-B22447H													24
	3	EFR-B22448H													24
		<i>EFR-B224M65H</i>													11.7
		<i>EFR-B224M70H</i> <i>EFR-B224M75H</i>													11.5 11.0
80	3 3/16	EFR-B22451H	7 3/8	9 59/64	7	8 3/4	4 3/8	3/4	3/32	1 15/16	5 3/4	4 15/32	5	11 21/32	42
	3 7/16	EFR-B22455H													41
	3 1/2	EFR-B22456H													40
		<i>EFR-B224M80H</i> <i>EFR-B224M85H</i>													18.9 18.4
90	3 11/16	EFR-B22459H	8 3/8	10 61/64	7 3/4	9 3/4	5 1/16	7/8	3/32	2 3/16	6 5/8	5 3/16	5 29/32	12 31/32	58
	3 15/16	EFR-B22463H													56
	4	EFR-B22464H													56
		<i>EFR-B224M90H</i> <i>EFR-B224M100H</i>													27.2 25.4

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-62, D-63.

Lubrication fitting tap size, 1/8" PT.

All units available with type E lip seals.

◆ Width dimension for closed end unit.

Selection guide, pages D-5, D-6.

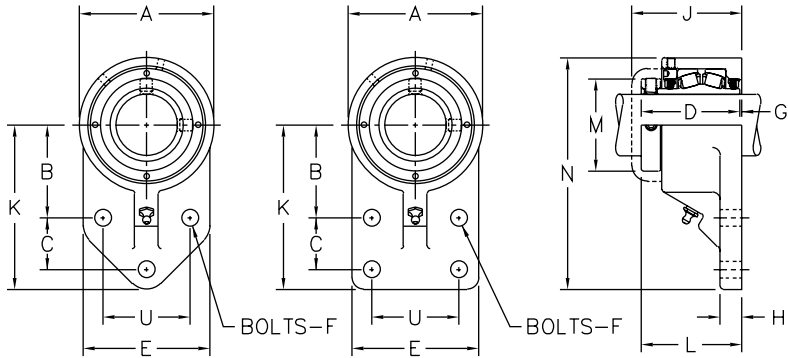
Load ratings, pages D-7, D-8.

Additional information, page D-68.

Spherical Roller Bearing Flanged Bracket Units

FB-B22400H

High-Test Iron Housing
3-bolt or 4-bolt Mounting
Self-aligning
Spring Locking Collar
Factory Adjusted and Sealed



Dimensions (inches/mm)

Type of Housing	Shaft dia.		Flanged bracket unit number	A	B	C	D	E	F Bolts	G	H	J 	K	L	M	N	U	Unit wt. (lbs./kg.)
	mm	inches																
3-BOLT	35	1 7/16	FB-B22423H FB-B22424H FB-B224M35H	37/16	2 3/8	1 1/4	2 7/8	3 1/4	1/2	1/32	5/8	3 5/16	4 1/4	2 29/32	2 1/2	5 31/32	2	6.4
		1 1/2																6.4
																		2.9
	45 50	1 15/16 2	FB-B22431H FB-B22432H FB-B224M45H FB-B224M50H	4 1/4	2 15/16	1 5/8	3 1/8	4	1/2	1/16	1 1/16	3 9/16	5 3/16	3 3/16	2 15/16	7 5/16	2 3/4	10.0
																		10.0
																		4.4 4.3
4-BOLT	60	2 7/16 2 1/2	FB-B22439H FB-B22440H FB-B224M60H	5 3/8	3 3/4	1 3/4	3 1/2	4 7/8	5/8	3/32	3/4	3 31/32	6 1/4	3 19/32	3 5/8	8 15/16	3	17.5
																		17.5
																		8.1
	65 70 75	2 11/16 2 3/4 2 15/16 3	FB-B22443H FB-B22444H FB-B22447H FB-B22448H FB-B224M65H FB-B224M70H FB-B224M75H	6 1/4	3 7/8	2 1/4	4	5 3/4	3/4	3/32	7/8	4 7/16	7	4 3/32	4 3/16	10 1/8	4	30.0
																		30.0
																		28.0
																		28.0
																		13.7
																		13.5
																		12.8

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-62, D-63.

Lubrication fitting tap size: for 1 1/2 and smaller shafts, 1/4"-28 UNF; for all other shafts, 1/8" PT.

All units available with type E lip seals.

◆ Width dimension for closed end unit.

Selection guide, pages D-5, D-6.

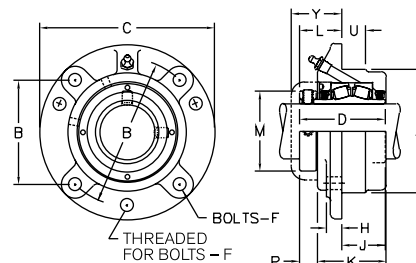
Load ratings, pages D-7, D-8.

Additional information, page D-68.

Spherical Roller Bearing Flanged Cartridge Units

FC-B22400H

Cast Iron Housing
Self-aligning
Spring Locking Collar
Factory Adjusted and Sealed
Jack Screw Holes for Removal



Self-Aligning Type E Interchange

Dimensions (inches/mm)

Shaft dia.		Flanged cartridge unit number	A †	B		C	D	F Bolts	H	J	K	L	M	P	U	Y ◆	Unit wt. (lbs./kg.)
mm	inches			Circle	Square												
25	1	FC-B22416H	3.000	3 ⁵ / ₈	2 ⁹ / ₁₆	4 ³ / ₈	2 ⁹ / ₁₆	5 ⁵ / ₁₆	7 ¹ / ₁₆	1 ¹ / ₄	2 ¹ / ₃₂	1 ⁹ / ₃₂	2	1 ⁷ / ₃₂	5 ⁵ / ₈	1 ⁵ / ₈	4
		<i>FC-B224M25H</i>	76.20	92.08	65.1	111.1	65.09	8	11.1	31.8	51.6	32.5	50.8	13.5	15.9	41.3	1.6
30	1 ³ / ₁₆	FC-B22419H	3.375	4 ¹ / ₈	2 ⁵⁹ / ₆₄	5	2 ¹ / ₁₆	3 ⁵ / ₁₆	7 ¹ / ₁₆	1 ²⁵ / ₆₄	2 ⁵ / ₃₂	1 ⁹ / ₃₂	2 ³ / ₁₆	1 ⁷ / ₃₂	3 ⁴ / ₈	1 ⁵ / ₈	5
	1 ¹ / ₄	<i>FC-B224M30H</i>	85.72	104.78	74.2	127.0	68.26	10	11.1	35.3	54.8	32.5	55.6	13.5	19.0	41.3	2.2
35	1 ⁷ / ₁₆	FC-B22423H	3.625	4 ³ / ₈	3 ³ / ₃₂	5 ¹ / ₄	2 ⁷ / ₈	3 ⁵ / ₁₆	1 ¹ / ₂	1 ²⁵ / ₆₄	2 ⁷ / ₃₂	1 ¹⁵ / ₃₂	2 ¹ / ₂	2 ¹ / ₃₂	3 ⁴ / ₈	1 ⁷ / ₈	6
	1 ¹ / ₂	<i>FC-B224M35H</i>	92.08	111.12	78.6	133.4	73.02	10	12.7	35.3	56.4	37.3	63.5	16.7	19.0	47.6	2.6
40	1 ⁵ / ₈	FC-B22426H	4.250	5 ¹ / ₈	3 ⁵ / ₈	6 ¹ / ₈	3 ¹ / ₈	7 ¹ / ₁₆	1 ¹ / ₂	1 ¹⁹ / ₃₂	2 ¹⁵ / ₃₂	1 ¹⁷ / ₃₂	2 ³ / ₄	2 ¹ / ₃₂	7 ¹ / ₈	1 ⁷ / ₈	9
	1 ¹ / ₁₆	<i>FC-B22427H</i>	107.95	130.18	92.1	155.6	79.38	10	12.7	40.5	62.7	38.9	69.8	16.7	22.2	47.6	3.8
45	1 ³ / ₄	FC-B22428H	4.500	5 ³ / ₈	3 ⁵ / ₁₆	6 ³ / ₈	3 ¹ / ₈	7 ¹ / ₁₆	9 ¹ / ₁₆	1 ¹⁹ / ₃₂	2 ¹⁵ / ₃₂	1 ¹⁷ / ₃₂	2 ¹⁵ / ₁₆	2 ¹ / ₃₂	7 ¹ / ₈	1 ²⁹ / ₃₂	9
		<i>FC-B224M40H</i>	114.30	136.52	96.4	161.9	79.38	10	14.3	40.5	62.7	38.9	74.6	16.7	22.2	48.4	4.0
50		<i>FC-B224M45H</i>															4.3
55	2 ³ / ₁₆	FC-B22435H	5.000	6	4 ¹ / ₄	7 ¹ / ₈	3 ⁵ / ₁₆	1 ¹ / ₂	9 ¹ / ₁₆	1 ²¹ / ₃₂	2 ¹⁷ / ₃₂	1 ²¹ / ₃₂	3 ³ / ₈	2 ⁵ / ₃₂	1	2 ¹ / ₃₂	12
	2 ¹ / ₄	<i>FC-B22436H</i>	127.00	152.40	107.9	181.0	84.14	12	14.3	42.1	64.3	42.1	85.7	19.8	25.4	51.6	5.6
60	2 ⁷ / ₁₆	FC-B22439H	5.500	6 ¹ / ₂	4 ¹⁹ / ₃₂	7 ⁷ / ₈	3 ¹ / ₂	1 ¹ / ₂	5 ⁵ / ₁₆	1 ¹¹ / ₁₆	2 ²¹ / ₃₂	1 ¹⁹ / ₁₆	3 ³ / ₈	7 ¹ / ₈	1	2 ⁵ / ₃₂	16
	2 ¹ / ₂	<i>FC-B22440H</i>	139.70	165.10	116.7	193.7	88.90	12	15.9	42.9	67.5	46.0	92.1	22.2	25.4	54.8	7.2
65	2 ¹ / ₁₆	FC-B22443H	6.375	7 ¹ / ₂	5 ¹⁹ / ₆₄	8 ³ / ₄	4	5 ⁵ / ₁₆	3 ³ / ₄	2 ¹ / ₃₂	3 ⁵ / ₃₂	1 ³ / ₃₂	4 ³ / ₁₆	2 ⁷ / ₃₂	1 ¹ / ₄	2 ⁵ / ₁₆	25
	2 ³ / ₄	<i>FC-B22444H</i>															25
70	2 ¹⁵ / ₁₆	FC-B22447H															24
	3	<i>FC-B22448H</i>															24
75		<i>FC-B224M65H</i>															11.6
		<i>FC-B224M70H</i>	161.92	190.50	134.5	222.2	101.60	16	19.0	51.6	80.2	50.0	106.4	21.4	31.8	58.7	11.4
80	3 ³ / ₁₆	FC-B22451H	7.375	8 ⁵ / ₈	6 ³ / ₃₂	10 ¹ / ₄	4 ³ / ₈	3 ³ / ₄	1 ⁵ / ₁₆	1 ¹⁵ / ₁₆	3 ³ / ₈	2 ⁷ / ₁₆	5	1 ⁵ / ₁₆	1 ¹ / ₄	2 ²⁵ / ₃₂	38
	3 ⁷ / ₁₆	<i>FC-B22455H</i>															37
85	3 ¹ / ₂	<i>FC-B22456H</i>															36
		<i>FC-B224M80H</i>	187.32	219.08	154.8	260.4	111.12	20	23.8	49.2	85.8	61.9	127.0	23.8	31.8	70.6	17.4
90		<i>FC-B224M85H</i>															16.9
100	3 ¹¹ / ₁₆	FC-B22459H	8.125	9 ³ / ₈	6 ⁵ / ₈	10 ⁷ / ₈	5 ¹ / ₁₆	3 ³ / ₄	1 ¹ / ₈	2 ¹³ / ₃₂	3 ³¹ / ₃₂	2 ²¹ / ₃₂	5 ²⁹ / ₃₂	1 ¹ / ₃₂	2	3 ¹ / ₁₆	52
	3 ⁹ / ₁₆	<i>FC-B22463H</i>															50
	4	<i>FC-B22464H</i>															50
		<i>FC-B224M90H</i>	206.38	238.12	168.3	276.2	128.59	20	28.6	61.1	101.1	67.5	150.0	26.2	50.8	77.8	24.6
		<i>FC-B224M100H</i>															22.8

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-62, D-63.

Lubrication fitting tap size, 1" & smaller shaft size, 1/4-28 UNF; for all others, 1/8" PT.

All units available with type E lip seals.

† Tolerance, +.000 –.002" (+0.00 mm –0.05 mm); bore tolerance for mounting +.002" –.000" (+0.05 mm –0.00 mm).

◆ Width dimension for closed end unit.

Selection guide, pages D-5, D-6.

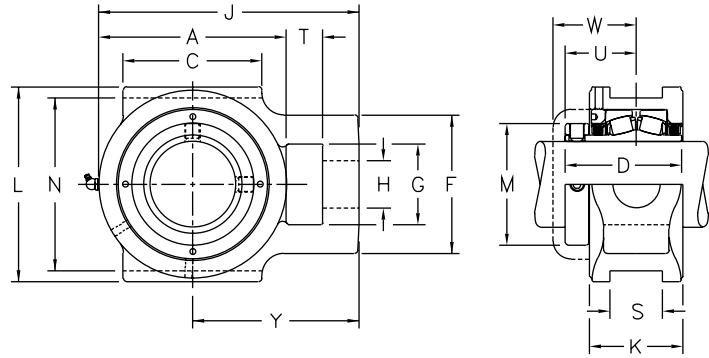
Load ratings, pages D-7, D-8.

Additional information, page D-68.

Spherical Roller Bearing Takeup Units

T-B22400H

Cast Iron Housing
Machined Slots
Self-aligning
Spring Locking Collar
Factory Adjusted Clearance



Dimensions (inches/mm)

Shaft dia.		Takeup unit number	A	C	D	F	G	H	J	K	L	M	N □	S □	T	U	W ◆	Y	Unit wt. (lbs./kg.)
mm	inches																		
25	1	T-B22416H	2 ¹⁵ / ₁₆	2 ¹ / ₄	2 ⁹ / ₁₆	2	1 ¹ / ₄	1 ³ / ₁₆	4	2 ¹ / ₁₆	3 ⁵ / ₈	2	3.000	.531	5 ⁸ / ₁₆	1 ⁹ / ₁₆	1 ²⁹ / ₃₂	2 ⁹ / ₁₆	4.4
		<i>T-B224M25H</i>	74.6	57.2	65.09	50.8	31.8	20.6	101.6	52.4	92.1	50.8	76.20	13.49	15.9	39.7	48.4	65.1	2.0
30	1 ³ / ₁₆	T-B22419H	3 ¹ / ₄	2 ¹ / ₂	2 ¹ / ₁₆	2 ⁵ / ₁₆	1 ⁷ / ₁₆	7 ⁸ / ₁₆	4 ⁷ / ₁₆	2 ³ / ₁₆	4 ¹ / ₈	2 ³ / ₁₆	3.500	.531	5 ⁸ / ₁₆	1 ⁸ / ₁₆	1 ³¹ / ₃₂	2 ¹³ / ₁₆	5.7
	1 ¹ / ₄	T-B22420H																	5.6
		<i>T-B224M30H</i>	82.6	63.5	68.26	58.7	36.5	22.2	112.7	55.6	104.8	55.6	88.90	13.49	15.9	41.3	50.0	71.4	2.6
35	1 ⁷ / ₁₆	T-B22423H	3 ¹ / ₂	2 ³ / ₄	2 ⁷ / ₈	2 ³ / ₈	1 ⁷ / ₁₆	7 ⁸ / ₁₆	4 ³ / ₄	2 ¹ / ₄	4 ¹ / ₈	2 ¹ / ₂	3.500	.531	5 ⁸ / ₁₆	1 ²⁵ / ₃₂	2 ³ / ₁₆	3	6.4
	1 ¹ / ₂	T-B22424H																	6.4
		<i>T-B224M35H</i>	88.9	69.8	73.02	60.3	36.5	22.2	120.6	57.2	104.8	63.5	88.90	13.49	15.9	45.2	55.6	76.2	2.9
40	1 ⁵ / ₈	T-B22426H	4 ¹ / ₈	3 ¹ / ₄	3 ¹ / ₈	3 ³ / ₁₆	1 ¹⁵ / ₁₆	1 ¹ / ₈	5 ¹ / ₁₆	2 ¹ / ₂	4 ³ / ₄	2 ³ / ₄	4.000	.687	3 ⁴ / ₁₆	1 ²⁹ / ₃₂	2 ¹ / ₄	3 ⁵ / ₈	9.7
	1 ¹¹ / ₁₆	T-B22427H																	9.5
	1 ³ / ₄	T-B22428H																	9.5
		<i>T-B224M40H</i>	104.8	82.6	79.38	81.0	49.2	28.6	144.5	63.5	120.6	69.8	101.60	17.46	19.0	48.4	57.2	92.1	4.5
45	1 ¹⁵ / ₁₆	T-B22431H	4 ³ / ₈	3 ³ / ₈	3 ¹ / ₈	3 ³ / ₁₆	1 ¹⁵ / ₁₆	1 ¹ / ₈	5 ¹⁵ / ₁₆	2 ¹ / ₂	4 ³ / ₄	2 ¹⁵ / ₁₆	4.000	.687	3 ⁴ / ₁₆	1 ²⁹ / ₃₂	2 ⁹ / ₃₂	3 ³ / ₄	9.9
	2	T-B22432H																	9.7
50		<i>T-B224M45H</i>	111.1	85.7	79.38	81.0	49.2	28.6	150.8	63.5	120.6	74.6	101.60	17.46	19.0	48.4	57.9	95.2	4.7
		<i>T-B224M50H</i>																	4.7
55	2 ³ / ₁₆	T-B22435H	5 ¹ / ₁₆	3 ³ / ₄	3 ⁵ / ₁₆	3 ³ / ₄	2 ¹ / ₄	1 ¹ / ₄	7	2 ⁹ / ₁₆	5 ¹ / ₄	3 ³ / ₈	4.500	.813	1	2 ¹ / ₁₆	2 ⁷ / ₁₆	4 ¹⁵ / ₃₂	14.1
	2 ¹ / ₄	T-B22436H																	14.1
		<i>T-B224M55H</i>	128.6	95.2	84.14	95.2	57.2	31.8	177.8	65.1	133.4	85.7	114.30	20.64	25.4	52.4	61.9	113.5	6.8
60	2 ⁷ / ₁₆	T-B22439H	5 ⁵ / ₁₆	4	3 ¹ / ₂	4 ¹ / ₈	2 ¹ / ₂	1 ³ / ₈	7 ¹³ / ₁₆	2 ¹ / ₁₆	5 ⁷ / ₈	3 ³ / ₈	5.125	1.063	1 ¹ / ₄	2 ³ / ₁₆	2 ⁹ / ₁₆	5 ¹ / ₃₂	18.0
	2 ¹ / ₂	T-B22440H																	17.8
		<i>T-B224M60H</i>	141.3	101.6	88.90	104.8	63.5	34.9	198.4	68.3	149.2	92.1	130.18	26.99	31.8	55.6	65.1	127.8	8.3
65	2 ¹ / ₁₆	T-B22443H	6 ⁷ / ₁₆	4 ³ / ₄	4	4 ³ / ₄	2 ³ / ₄	1 ⁵ / ₈	8 ¹⁵ / ₁₆	3 ³ / ₁₆	6 ¹ / ₁₆	4 ³ / ₁₆	5.937	1.812	1 ¹ / ₄	2 ⁷ / ₁₆	2 ²⁵ / ₃₂	5 ²⁹ / ₃₂	13.6
	2 ³ / ₄	T-B22444H																	13.5
	2 ¹⁵ / ₁₆	T-B22447H																	13.0
	3	T-B22448H																	12.9
70		<i>T-B224M65H</i>	163.5	120.6	101.60	120.6	69.8	41.3	227.0	81.0	169.9	106.4	150.81	46.02	31.8	61.9	70.6	145.2	6.6
75		<i>T-B224M70H</i>																	6.4
		<i>T-B224M75H</i>																	5.9
80	3 ⁷ / ₁₆	T-B22455H	7 ⁷ / ₈	5 ¹ / ₂	4 ³ / ₈	4 ⁷ / ₈	2 ⁷ / ₈	1 ⁷ / ₈	10	3 ³ / ₁₆	7 ¹³ / ₁₆	5	6.812	1.812	1 ⁹ / ₁₆	2 ²¹ / ₃₂	3	6 ⁵ / ₁₆	43.5
	3 ¹ / ₂	T-B22456H																	43.1
85		<i>T-B224M80H</i>	187.3	139.7	111.12	123.8	73.0	47.6	254.0	87.3	198.4	127.0	173.02	46.02	39.7	67.5	76.2	160.3	20.5
		<i>T-B224M85H</i>																	20.0
90	3 ¹⁵ / ₁₆	T-B22463H	8 ⁷ / ₈	7	5 ¹ / ₁₆	5 ¹ / ₄	3 ¹ / ₈	1 ⁷ / ₈	11 ⁷ / ₈	4	9 ⁵ / ₈	5 ²⁹ / ₃₂	8.625	2.062	1 ⁵ / ₈	3 ¹ / ₁₆	3 ³ / ₁₆	7 ⁷ / ₁₆	77
	4	T-B22464H																	76
100		<i>T-B224M90H</i>	225.4	177.8	128.59	133.4	79.4	47.6	301.6	101.6	244.5	150.0	219.08	52.37	41.3	77.8	87.3	188.9	34.9
		<i>T-B224M100H</i>																	34.5

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-62, D-63.

Lubrication fitting tap size, 1/8" PT.

All units available with type E lip seals.

□ Slots are machined, tolerance, +.005" (+0.13 mm -0.38 mm).

◆ Width dimension for closed end unit.

Selection guide, pages D-5, D-6.

Load ratings, pages D-7, D-8.

Additional information, page D-68.

Spherical Roller Bearing Takeups

LHD Type (Bearing Unit Not Included)

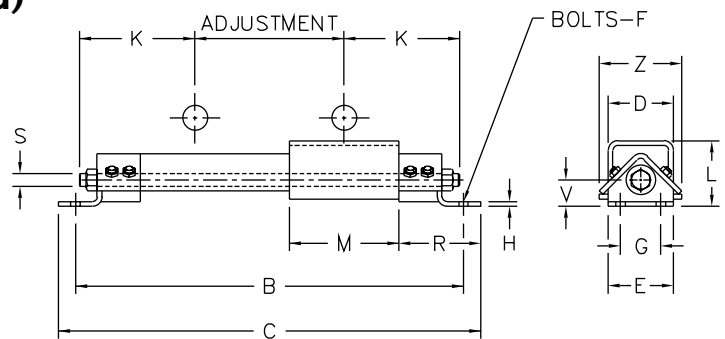
Welded Steel Frame

Protected Screw

P-B22400FH Pillow Block

P-B22500FH Pillow Block

P-B22600FH Pillow Block



Dimensions (inches/mm)

Shaft Sizes			Takeup frame number	Adjust- ment	B	C	D	E	F Bolts	G	H	K	L	M	R	S Rod Dia.	V	Z
P-B224 PK-B224 P-B226 PK-B226	EP-B224 EP-B225 EP-B226	P-B225																
1 ¹ / ₁₆ thru 2 ¹ / ₂	1 ⁷ / ₁₆ thru 2 ¹ / ₂	1 ⁷ / ₁₆ thru 2 ⁷ / ₁₆	LHD20-12 LHD20-18 LHD20-24 LHD20-30 LHD20-36 LHD20-48	12 18 24 30 36 48	29 35 41 47 53 65	31 37 43 49 55 67	4 101.6	5 127.0	5/8 16	2 ¹ / ₂ 63.5	1/4 6.4	8 ¹ / ₂ 215.9	5 ¹ / ₄ 133.4	11 279.4	4 101.6	3/4 ...	2 50.8	6 ¹ / ₄ 158.8
2 ¹ / ₁₆ thru 3	2 ¹ / ₁₆ thru 3	2 ¹ / ₁₆ thru 2 ¹ / ₁₆	LHD25-12 LHD25-18 LHD25-24 LHD25-30 LHD25-36 LHD25-48	12 18 24 30 36 48	32 ³ / ₄ 38 ³ / ₄ 44 ³ / ₄ 50 ³ / ₄ 56 ³ / ₄ 68 ³ / ₄	35 ¹ / ₄ 41 ¹ / ₄ 47 ¹ / ₄ 53 ¹ / ₄ 59 ¹ / ₄ 71 ¹ / ₄	5 127.0	5 ¹ / ₂ 139.7	5/8 16	3 76.2	3/8 9.5	10 ³ / ₈ 263.5	6 ¹ / ₄ 158.8	13 ³ / ₄ 336.6	5 127.0	1 ...	2 ⁹ / ₁₆ 65.1	7 ⁷ / ₈ 181.0
3 ³ / ₁₆ thru 3 ¹ / ₂	...	3 ⁷ / ₁₆	LHD30-12 LHD30-18 LHD30-24 LHD30-30 LHD30-36 LHD30-48	12 18 24 30 36 48	35 ¹ / ₂ 41 ¹ / ₂ 47 ¹ / ₂ 53 ¹ / ₂ 59 ¹ / ₂ 71 ¹ / ₂	38 ¹ / ₄ 44 ¹ / ₄ 50 ¹ / ₄ 56 ¹ / ₄ 62 ¹ / ₄ 74 ¹ / ₄	6 152.4	6 ¹ / ₂ 165.1	3/4 20	3 76.2	1/2 12.7	11 ¹ / ₄ 298.4	7 177.8	14 ¹ / ₄ 362.0	6 152.4	1 ...	2 ¹ / ₂ 63.5	9 228.6
3 ¹ / ₁₆ thru 4	3 ³ / ₁₆ thru 3 ¹ / ₂	3 ⁵ / ₁₆ thru 4 ¹ / ₂	LHD35-12 LHD35-18 LHD35-24 LHD35-30 LHD35-36 LHD35-48	12 18 24 30 36 48	37 ¹ / ₄ 43 ³ / ₄ 49 ¹ / ₄ 55 ¹ / ₄ 61 ¹ / ₄ 73 ¹ / ₄	40 46 52 58 64 76	6 152.4	6 ¹ / ₂ 165.1	3/4 20	3 76.2	1/2 12.7	12 ³ / ₈ 320.7	7 177.8	16 406.4	6 152.4	1 ¹ / ₄ ...	2 ¹ / ₂ 63.5	9 228.6
...	...	4 ¹ / ₁₆ thru 5	LHD40-12 LHD40-18 LHD40-24 LHD40-30 LHD40-36 LHD40-48	12 18 24 30 36 48	41 ¹ / ₄ 47 ¹ / ₄ 53 ¹ / ₄ 59 ¹ / ₄ 65 ¹ / ₄ 77 ¹ / ₄	44 50 56 62 68 80	7 177.8	6 ¹ / ₂ 165.1	3/4 20	3 76.2	1/2 12.7	14 ³ / ₈ 371.5	7 177.8	20 508.0	6 152.4	1 ¹ / ₂ ...	2 ¹ / ₂ 63.5	9 228.6
...	...	...	LHD50-12 LHD50-18 LHD50-24 LHD50-30 LHD50-36 LHD50-48	12 18 24 30 36 48	47 53 59 65 71 83	49 ¹ / ₂ 55 ¹ / ₂ 61 ¹ / ₂ 67 ¹ / ₂ 73 ¹ / ₂ 85 ¹ / ₂	8 ¹ / ₂ 215.9	7 177.8	7/8 24	4 101.6	1/2 12.7	17 ¹ / ₂ 444.5	7 ³ / ₄ 196.8	23 ¹ / ₂ 596.9	6 ³ / ₄ 171.4	1 ¹ / ₂ ...	3 ³ / ₈ 85.7	11 ¹ / ₄ 285.8

Bold face items are normally available from stock; please consult for availability of non-stock items.

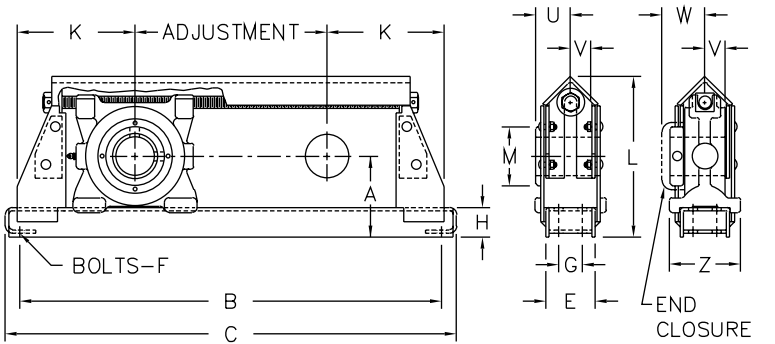
Takeup frames can be furnished drilled to accommodate pillow block; order takeup frame drilled for " " pillow block; i.e. LHD20-12 drilled for P-B22419FH.

For load ratings, see rating table for pillow block to be used.

Additional information, page D-68, D-69.

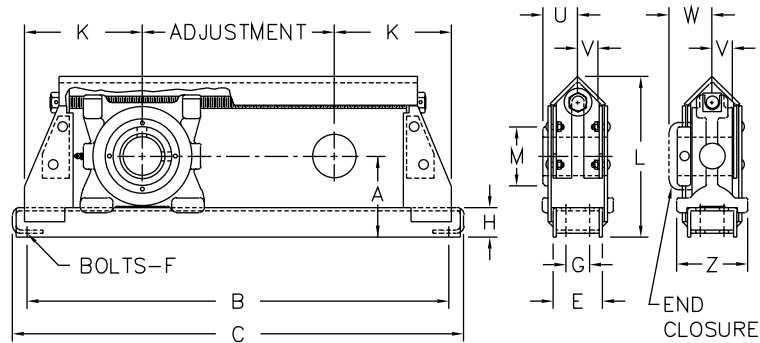
Spherical Roller Bearing Takeups
DS-B22400H, DS-B22500H

- Welded Steel Frame
- Removable Top
- Protected Screw
- Cast Iron Bearing Housing
- Self-aligning
- Spring Locking Collar
- Factory Adjusted and Sealed
- DS-B22400H or DS-B22500H Takeup Units



Dimensions (inches/mm)

Shaft dia.		Adjustment	Takeup unit	A	B	C	E	F	G	H	K	L	M	U	V	W	Z	Unit wt.
mm	inches	▲	number					Bolts								◆		(lbs./kg.)
45	1 ¹⁵ / ₁₆	12	DS-B22431H-12	3 ¹⁵ / ₁₆	26 ¹ / ₂	28 ¹ / ₂	3	5	...	1 ³ / ₄	7 ¹ / ₄	8 ¹ / ₄	2 ¹⁵ / ₁₆	1 ²⁹ / ₃₂	1 ¹ / ₄	2 ⁹ / ₃₂	4 ¹ / ₈	43
		18	DS-B22431H-18		32 ¹ / ₂	34 ¹ / ₂												49
		24	DS-B22431H-24		38 ¹ / ₂	40 ¹ / ₂												54
	50	304.8	DS-B224M45H-12	100	673.1	723.9	76.2	16	...	44.4	184.2	209.6	74.6	48.4	31.8	57.9	104.8	19.5
		457.2	DS-B224M45H-18		825.5	876.3												22.2
		609.6	DS-B224M45H-24		977.9	1028.7												24.5
55	2 ³ / ₁₆	12	DS-B22435H-12	4 ³ / ₁₆	27 ¹ / ₂	29 ¹ / ₂	3	5	...	1 ³ / ₄	7 ³ / ₄	8 ¹ / ₁₆	3	2 ¹ / ₁₆	1 ⁹ / ₃₂	2 ⁷ / ₁₆	4 ¹ / ₈	49
		18	DS-B22435H-18		33 ¹ / ₂	35 ¹ / ₂												55
		24	DS-B22435H-24		39 ¹ / ₂	41 ¹ / ₂												60
	60	304.8	DS-B224M55H-12	106.4	698.5	749.3	76.2	16	...	44.4	196.8	220.7	85.7	52.4	32.5	61.9	104.8	22.2
		457.2	DS-B224M55H-18		850.9	901.7												24.9
		609.6	DS-B224M55H-24		1003.3	1054.1												27.2
60	2 ⁷ / ₁₆	12	DS-B22439H-12	4 ³ / ₈	28 ¹ / ₂	30 ¹ / ₂	3	3	...	1 ³ / ₄	8 ¹ / ₄	9	3	2 ³ / ₁₆	1 ³ / ₈	2 ⁹ / ₁₆	4 ¹ / ₈	55
		18	DS-B22439H-18		34 ¹ / ₂	36 ¹ / ₂												61
		24	DS-B22439H-24		40 ¹ / ₂	42 ¹ / ₂												66
	70	304.8	DS-B224M60H-12	111.1	723.9	774.7	76.2	20	...	44.4	209.6	231.8	92.1	55.6	34.9	65.1	104.8	24.9
		457.2	DS-B224M60H-18		876.3	927.1												27.2
		609.6	DS-B224M60H-24		1028.7	1079.5												29.9
65	2 ¹ / ₁₆	12	DS-B22447H-12	5 ¹ / ₈	30 ¹ / ₂	32 ¹ / ₂	4	5	2	2	9 ¹ / ₄	10	4 ³ / ₁₆	2 ⁷ / ₁₆	1 ⁵ / ₈	2 ²⁵ / ₃₂	5 ¹ / ₈	80
		18	DS-B22447H-18		36 ¹ / ₂	38 ¹ / ₂												89
		24	DS-B22447H-24		42 ¹ / ₂	44 ¹ / ₂												97
	75	304.8	DS-B224M65H-12	130.2	774.7	825.5	101.6	16	50.8	50.8	235.0	269.9	106.4	61.9	41.3	70.6	130.2	36.3
		457.2	DS-B224M65H-18		927.1	977.9												40.4
		609.6	DS-B224M65H-24		1079.5	1130.3												44.4
70	2 ¹ / ₁₆	12	DS-B22447H-12	5 ¹ / ₈	30 ¹ / ₂	32 ¹ / ₂	4	5	2	2	9 ¹ / ₄	10	4 ³ / ₁₆	2 ⁷ / ₁₆	1 ⁵ / ₈	2 ²⁵ / ₃₂	5 ¹ / ₈	80
		18	DS-B22447H-18		36 ¹ / ₂	38 ¹ / ₂												89
		24	DS-B22447H-24		42 ¹ / ₂	44 ¹ / ₂												97
	75	304.8	DS-B224M65H-12	130.2	774.7	825.5	101.6	16	50.8	50.8	235.0	269.9	106.4	61.9	41.3	70.6	130.2	36.3
		457.2	DS-B224M65H-18		927.1	977.9												40.4
		609.6	DS-B224M65H-24		1079.5	1130.3												44.4
75	2 ¹ / ₁₆	12	DS-B22447H-12	5 ¹ / ₈	30 ¹ / ₂	32 ¹ / ₂	4	5	2	2	9 ¹ / ₄	10	4 ³ / ₁₆	2 ⁷ / ₁₆	1 ⁵ / ₈	2 ²⁵ / ₃₂	5 ¹ / ₈	80
		18	DS-B22447H-18		36 ¹ / ₂	38 ¹ / ₂												89
		24	DS-B22447H-24		42 ¹ / ₂	44 ¹ / ₂												97
	75	304.8	DS-B224M65H-12	130.2	774.7	825.5	101.6	16	50.8	50.8	235.0	269.9	106.4	61.9	41.3	70.6	130.2	36.3
		457.2	DS-B224M65H-18		927.1	977.9												40.4
		609.6	DS-B224M65H-24		1079.5	1130.3												44.4
75	2 ¹ / ₁₆	12	DS-B22447H-12	5 ¹ / ₈	30 ¹ / ₂	32 ¹ / ₂	4	5	2	2	9 ¹ / ₄	10	4 ³ / ₁₆	2 ⁷ / ₁₆	1 ⁵ / ₈	2 ²⁵ / ₃₂	5 ¹ / ₈	80
		18	DS-B22447H-18		36 ¹ / ₂	38 ¹ / ₂												89
		24	DS-B22447H-24		42 ¹ / ₂	44 ¹ / ₂												97
	75	304.8	DS-B224M65H-12	130.2	774.7	825.5	101.6	16	50.8	50.8	235.0	269.9	106.4	61.9	41.3	70.6	130.2	36.3
		457.2	DS-B224M65H-18		927.1	977.9												40.4
		609.6	DS-B224M65H-24		1079.5	1130.3												44.4
75	2 ¹ / ₁₆	12	DS-B22447H-12	5 ¹ / ₈	30 ¹ / ₂	32 ¹ / ₂	4	5	2	2	9 ¹ / ₄	10	4 ³ / ₁₆	2 ⁷ / ₁₆	1 ⁵ / ₈	2 ²⁵ / ₃₂	5 ¹ / ₈	80
		18	DS-B22447H-18		36 ¹ / ₂	38 ¹ / ₂												89
		24	DS-B22447H-24		42 ¹ / ₂	44 ¹ / ₂												97
	75	304.8	DS-B224M65H-12	130.2	774.7	825.5	101.6	16	50.8	50.8	235.0	269.9	106.4	61.9	41.3	70.6	130.2	36.3
		457.2	DS-B224M65H-18		927.1	977.9												40.4
		609.6	DS-B224M65H-24		1079.5	1130.3												44.4
75	2 ¹ / ₁₆	12	DS-B22447H-12	5 ¹ / ₈	30 ¹ / ₂	32 ¹ / ₂	4	5	2	2	9 ¹ / ₄	10	4 ³ / ₁₆	2 ⁷ / ₁₆	1 ⁵ / ₈	2 ²⁵ / ₃₂	5 ¹ / ₈	80
		18	DS-B22447H-18		36 ¹ / ₂	38 ¹ / ₂												89
		24	DS-B22447H-24		42 ¹ / ₂	44 ¹ / ₂												97
	75	304.8	DS-B224M65H-12	130.2	774.7	825.5	101.6	16	50.8	50.8	235.0	269.9	106.4	61.9	41.3	70.6	130.2	36.3
		457.2	DS-B224M65H-18		927.1	977.9												40.4
		609.6	DS-B224M65H-24		1079.5	1130.3												44.4
75	2 ¹ / ₁₆	12	DS-B22447H-12	5 ¹ / ₈	30 ¹ / ₂	32 ¹ / ₂	4	5	2	2	9 ¹ / ₄	10	4 ³ / ₁₆	2 ⁷ / ₁₆	1 ⁵ / ₈	2 ²⁵ / ₃₂	5 ¹ / ₈	80
		18	DS-B22447H-18		36 ¹ / ₂	38 ¹ / ₂												89
		24	DS-B22447H-24		42 ¹ / ₂	44 ¹ / ₂												97
	75	304.8	DS-B224M65H-12	130.2	774.7	825.5	101.6	16	50.8	50.8	235.0	269.9	106.4	61.9	41.3	70.6	130.2	36.3
		457.2	DS-B224M65H-18		927.1	977.9												40.4
		609.6	DS-B224M65H-24		1079.5	1130.3												44.4
75	2 ¹ / ₁₆	12	DS-B22447H-12	5 ¹ / ₈	30 ¹ / ₂	32 ¹ / ₂	4	5	2	2	9 ¹ / ₄	10	4 ³ / ₁₆	2 ⁷ / ₁₆	1 ⁵ / ₈	2 ²⁵ / ₃₂	5 ¹ / ₈	80
		18	DS-B22447H-18		36 ¹ / ₂	38 ¹ / ₂												89
		24	DS-B22447H-24		42 ¹ / ₂	44 ¹ / ₂												97
	75	304.8	DS-B224M65H-12	130.2	774.7	825.5	101.6	16	50.8	50.8	235.0	269.9	106.4	61.9	41.3	70.6	130.2	36.3
		457.2	DS-B224M65H-18		927.1	977.9												40.4
		609.6	DS-B224M65H-24		1079.5	1130.3												44.4
75	2 ¹ / ₁₆	12	DS-B22447H-12	5 ¹ / ₈	30 ¹ / ₂	32 ¹ / ₂	4	5	2	2	9 ¹ / ₄	10	4 ³ / ₁₆	2 ⁷ / ₁₆	1 ⁵ / ₈	2 ²⁵ / ₃₂	5 ¹ / ₈	80
		18	DS-B22447H-18		36 ¹ / ₂	38 ¹ / ₂												89
		24	DS-B22447H-24		42 ¹ / ₂	44 ¹ / ₂												97
	75	304.8	DS-B224M65H-12	130.2	774.7	825.5	101.6	16	50.8	50.8	235.0	269.9	106.4	61.9	41.3	70.6	130.2	36.3
		457.2	DS-B224M65H-18		927.1	977.9												40.4
		609.6	DS-B224M65H-24		1079.5	1130.3												44.4
75	2 ¹ / ₁₆	12	DS-B22447H-12	5 ¹ / ₈	30 ¹ / ₂	32 ¹ / ₂	4	5	2	2	9 ¹ / ₄	10	4 ³ / ₁₆	2 ⁷ / ₁₆	1 ⁵ / ₈	2 ²⁵ / ₃₂	5 ¹ / ₈	80
		18	DS-B22447H-18		36 ¹ / ₂	38 ¹ / ₂												89
		24	DS-B22447H-24		42 ¹ / ₂	44 ¹ / ₂												97
	75	304.8	DS-B224M65H-12	130.2	774.7	825.5	101.6	16	50.8	50.8	235.0	269.9	106.4	61.9	41.3	70.6	130.2	36.3
		457.2	DS-B224M65H-18		927.1	977.9												40.4
		609.6	DS-B224M65H-24		1079.5	1130.3												44.4
75	2 ¹ / ₁₆	12	DS-B22447H-12	5 ¹ / ₈	30 ¹ / ₂	32 ¹ / ₂	4	5	2	2	9 ¹ / ₄	10	4 ³ / ₁₆	2 ⁷ / ₁₆	1 ⁵ / ₈	2 ²⁵ / ₃₂	5 ¹ / ₈	80
		18	DS-B22447H-18		36 ¹ / ₂	38 ¹ / ₂												89
		24	DS-B22447H-24		42 ¹ / ₂	44 ¹ / ₂												97
	75	304.8	DS-B224M65H-12	130.2	774.7	825.5	101.6	16	50.8	50.8	235.0	269.9	106.4	61.9	41.3	70.6	130.2	36.3
		457.2	DS-B224M65H-18		927.1	977.9												40.4
		609.6	DS-B224M65H-24		1079.5	1130.3												44.4
75	2 ¹ / ₁₆	12	DS-B22447H-12	5 ¹ / ₈	30 ¹ / ₂	32 ¹ / ₂	4	5	2	2	9 ¹ / ₄	10	4 ³ / ₁₆	2 ⁷ / ₁₆	1 ⁵ / ₈	2 ²⁵ / ₃₂	5 ¹ / ₈	80
		18	DS-B22447H-18		36 ¹ / ₂	38 ¹ / ₂												89
		24	DS-B22447H-24		42 ¹ / ₂	44 ¹ / ₂												97
	75	304.8	DS-B224M65H-12	130.2	774.7	825.5	101.6	16	50.8	50.8	235.0	269.9	106.4	61.9	41.3	70.6	130.2	36.3
		457.2	DS-B224M65H-18		927.1	977.9												40.4
		609.6	DS-B224M65H-24		1079.5	1130.3												44.4
75	2 ¹ / ₁₆	12	DS-B22447H-12	5 ¹ / ₈	30 ¹ / ₂	32 ¹ / ₂	4	5	2	2	9 ¹ / ₄	10	4 ³ / ₁₆	2 ⁷ / ₁₆	1 ⁵ / ₈	2 ²⁵ / ₃₂	5 ¹ / ₈	80
		18	DS-B22447H-18		36 ¹ / ₂	38 ¹ / ₂												89
		24	DS-B2															



Dimensions (inches/mm)

Shaft dia. mm inches	Adjustment ▲	Takeup unit number	A	B	C	E	F Bolts	G	H	K	L	M	U	V	W ◆	Z	Unit wt. (lbs./kg.)
3 ⁷ / ₁₆	12	DS-B22455H-12	5 ⁵ / ₈	32	34 ¹ / ₄	4	3/4	2	2	10	11 ¹³ / ₁₆	5	2 ²¹ / ₃₂	1 ²³ / ₃₂	3	5 ⁵ / ₈	107
	18	DS-B22455H-18		38	40 ¹ / ₄												116
	24	DS-B22455H-24		44	46 ¹ / ₄												124
	30	DS-B22455H-30		50	52 ¹ / ₄												132
80	304.8	DS-B224M80H-12	142.9	812.8	870.0	101.6	20	50.8	50.8	254.0	300.0	127.0	67.5	43.6	76.2	142.9	48.5
	457.2	DS-B224M80H-18															52.6
	609.6	DS-B224M80H-24															56.2
	762.0	DS-B224M80H-30															59.9
85	304.8	DS-B224M85H-12	142.9	812.8	870.0	101.6	20	50.8	50.8	254.0	300.0	127.0	67.5	43.6	76.2	142.9	48.5
	457.2	DS-B224M85H-18															52.6
	609.6	DS-B224M85H-24															56.2
	762.0	DS-B224M85H-30															59.9
3 ¹⁵ / ₁₆	12	DS-B22463H-12	7	36	38 ¹ / ₂	5	3/4	2 ¹ / ₂	2 ¹ / ₄	12	14 ¹¹ / ₁₆	5 ²⁹ / ₃₂	3 ¹ / ₁₆	2	3 ⁷ / ₁₆	6 ⁷ / ₈	180
	18	DS-B22463H-18		42	44 ¹ / ₂												192
	24	DS-B22463H-24		48	50 ¹ / ₂												202
	30	DS-B22463H-30		54	56 ¹ / ₂												212
90	304.8	DS-B224M90H-12	177.8	914.4	977.9	127.0	20	63.5	57.2	304.8	373.1	150.0	77.8	50.8	87.3	174.6	81.6
	457.2	DS-B224M90H-18															87.1
	609.6	DS-B224M90H-24															91.6
	762.0	DS-B224M90H-30															96.2
100	304.8	DS-B224M100H-12	177.8	914.4	977.9	127.0	20	63.5	57.2	304.8	373.1	150.0	77.8	50.8	87.3	174.6	81.6
	457.2	DS-B224M100H-18															87.1
	609.6	DS-B224M100H-24															91.6
	762.0	DS-B224M100H-30															96.2
4 ⁷ / ₁₆	18	DS-B22571H-18 °	7 ¹ / ₂	42	44 ¹ / ₂	5	3/4	2 ¹ / ₂	2 ¹ / ₄	12	15 ¹¹ / ₁₆	6 ¹ / ₈	3 ³ / ₈	3 ³ / ₈	3 ³ / ₄	6 ⁷ / ₈	238
	24	DS-B22571H-24 °		48	50 ¹ / ₂												250
	30	DS-B22571H-30°		54	56 ¹ / ₂												263
110	457.2	DS-B225M110H-18°	190.5	1066.8	1130.3	127.0	20	63.5	57.2	304.8	398.5	155.6	85.7	85.7	95.2	174.6	108.0
	609.6	DS-B225M110H-24°															113.4
	762.0	DS-B225M110H-30°															119.3
115	457.2	DS-B225M115H-18°	190.5	1066.8	1130.3	127.0	20	63.5	57.2	304.8	398.5	155.6	85.7	85.7	95.2	174.6	108.0
	609.6	DS-B225M115H-24°															113.4
	762.0	DS-B225M115H-30°															119.3
4 ¹⁵ / ₁₆	18	DS-B22579H-18 °	10	47	50 ¹ / ₂	6	7/8	3	4	14 ¹ / ₂	20 ¹ / ₄	6 ⁷ / ₈	3 ⁵ / ₈	3 ⁵ / ₈	4	7 ⁷ / ₈	406
	24	DS-B22579H-24 °		53	56 ¹ / ₂												424
	30	DS-B22579H-30 °		59	62 ¹ / ₂												441
125	457.2	DS-B225M125H-18°	254.0	1193.8	1282.7	152.4	24	76.2	101.6	368.3	514.4	174.8	91.9	91.9	101.6	200.1	184.2
	609.6	DS-B225M125H-24°															192.3
	762.0	DS-B225M125H-30°															200.0

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-62 through D-65.

Lubrication fitting tap size, 1/8" PT.

All units available with type E lip seals.

◆ Width dimension for closed end unit.

5 inch channel (Dim E) has hinged top construction

▲ Takeups with adjustment of 18" (457.2 mm) or more have center supporting pad welded to bottom of frame.

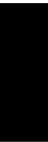
○ Series DS-B22500H takeups have two spring locking collars (bearing dimensions, page D-40, load rating, pages D-33, D-34, selection guide, pages D-31, D-32.

Selection guide, pages D-5, D-6.

Load ratings, pages D-7, D-8.

Additional information, page D-68.

Notes:

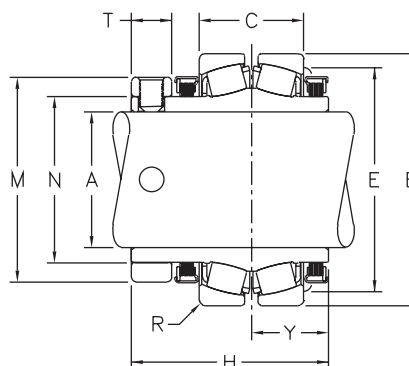


Replacement Spherical Roller Bearings

B22400HL

Self-aligning

Spring Locking Collar



Dimensions (inches/mm)

Shaft Sizes	Bearing number	A		B	C	E	H	M	N	R	T	Y	Unit wt. (lbs./kg.)
		mm	inches	+0.0010" -0.0000"	+0.025" ±0.64 mm	Shoulder diameter				Housing fillet			
1	B22416HL		1.0000	2.3750	1.188	2	2 ⁹ / ₁₆	2	1.307	.046	1/2	1	1.3
25	B224M25HL	25.000		60.325	30.18	50.8	65.09	50.8	33.20	1.17	12.7	25.40	0.6
1 ¹ / ₁₆	B22419HL		1.1875	2.6250	1.312	2 ⁵ / ₁₆	2 ¹¹ / ₁₆	2 ³ / ₁₆	1.532	.062	1/2	1 ¹ / ₁₆	1.8
1 ¹ / ₄	B22420HL		1.2500										
30	B224M30HL	30.000		66.675	33.32	58.7	68.26	55.6	38.91	1.57	12.7	26.99	0.8
1 ⁷ / ₁₆	B22423HL		1.4375	2.8345	1.310	2 ¹ / ₂	2 ⁷ / ₈	2 ¹ / ₂	1.745	.062	5/8	1 ³ / ₃₂	2.2
1 ¹ / ₂	B22424HL		1.5000										
35	B224M35HL	35.000		71.996	33.27	63.5	73.02	63.5	44.32	1.57	15.9	27.78	1.0
1 ¹ / ₂	B224B24HL		1.5000	3.3464	1.578	2 ⁷ / ₈	3 ¹ / ₈	2 ³ / ₄	2.027	.062	5/8	1 ⁷ / ₃₂	3.3
1 ⁵ / ₈	B22426HL		1.6250										
1 ¹¹ / ₁₆	B22427HL		1.6875										
1 ³ / ₄	B22428HL		1.7500										
40	B224M40HL	40.000		84.998	40.08	73.0	79.38	69.8	51.48	1.57	15.9	30.96	1.6
1 ³ / ₄	B224B28HL		1.7500	3.5433	1.526	3 ³ / ₁₆	3 ¹ / ₈	2 ¹⁵ / ₁₆	2.307	.078	5/8	1 ⁷ / ₃₂	3.5
1 ¹⁵ / ₁₆	B22431HL		1.9375										
2	B22432HL		2.0000										
45	B224M45HL	45.000		90.000	38.76	81.0	79.38	74.6	58.59	1.98	15.9	30.96	1.5
50	B224M50HL	50.000											
2 ³ / ₁₆	B22435HL		2.1875	3.9370	1.656	3 ¹ / ₂	3 ⁵ / ₁₆	3 ³ / ₈	2.620	.062	3/4	1 ¹ / ₄	4.7
2 ¹ / ₄	B22436HL		2.2500										
55	B224M55HL	55.000		100.000	42.06	88.9	84.14	85.7	66.55	1.57	19.0	31.75	2.2
2 ¹ / ₄	B224B36HL		2.2500	4.3307	1.750	3 ⁷ / ₈	3 ¹ / ₂	3 ⁵ / ₈	2.901	.078	1 ³ / ₁₆	1 ¹ / ₁₆	5.9
2 ⁷ / ₁₆	B22439HL		2.4375										
2 ¹ / ₂	B22440HL		2.5000										
60	B224M60HL	60.000		110.000	44.45	98.4	88.90	92.1	73.69	1.98	20.6	33.34	2.8
2 ¹¹ / ₁₆	B22443HL		2.6875	5.1172	2.125	4 ¹⁷ / ₃₂	4	4 ³ / ₁₆	3.370	.078	1 ³ / ₁₆	1 ¹ / ₁₆	10.3
2 ³ / ₄	B22444HL		2.7500										
2 ¹⁵ / ₁₆	B22447HL		2.9375										
3	B22448HL		3.0000										
65	B224M65HL	65.000		129.977	53.98	115.1	101.60	106.4	85.60	1.98	20.6	39.69	4.8
70	B224M70HL	70.000											
75	B224M75HL	75.000											
3 ³ / ₁₆	B22451HL		3.1875	5.9045	2.313	5 ¹¹ / ₃₂	4 ³ / ₈	5	3.975	.125	2 ⁷ / ₃₂	1 ²³ / ₃₂	14.4
3 ¹ / ₁₆	B22455HL		3.4375										
3 ¹ / ₂	B22456HL		3.5000										
80	B224M80HL	80.000		149.974	58.75	135.7	111.12	127.0	100.97	3.18	21.4	43.66	6.6
85	B224M85HL	85.000											
3 ¹ / ₁₆	B22459HL		3.6875	7.0856	2.750	6 ³ / ₈	5 ¹ / ₁₆	5 ²⁹ / ₃₂	4.561	.125	3 ¹ / ₃₂	2	25.2
3 ⁵ / ₁₆	B22463HL		3.9375										
4	B22464HL		4.0000										
90	B224M90HL	90.000		179.974	69.85	161.9	128.59	150.0	115.85	3.18	24.6	50.80	12.3
100	B224M100HL	100.000											

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearings for expansion units use complete CSE-B22400H per page D-16.

For B22500 replacement bearing 4³/₁₆" through 5" (110 mm through 125 mm), see page D-40.

* Includes bearing, two floating labyrinth seals, and one spring locking collar.

All bearings available with type E lip seals.

Selection guide, pages D-5, D-6.

Load ratings, pages D-7, D-8.

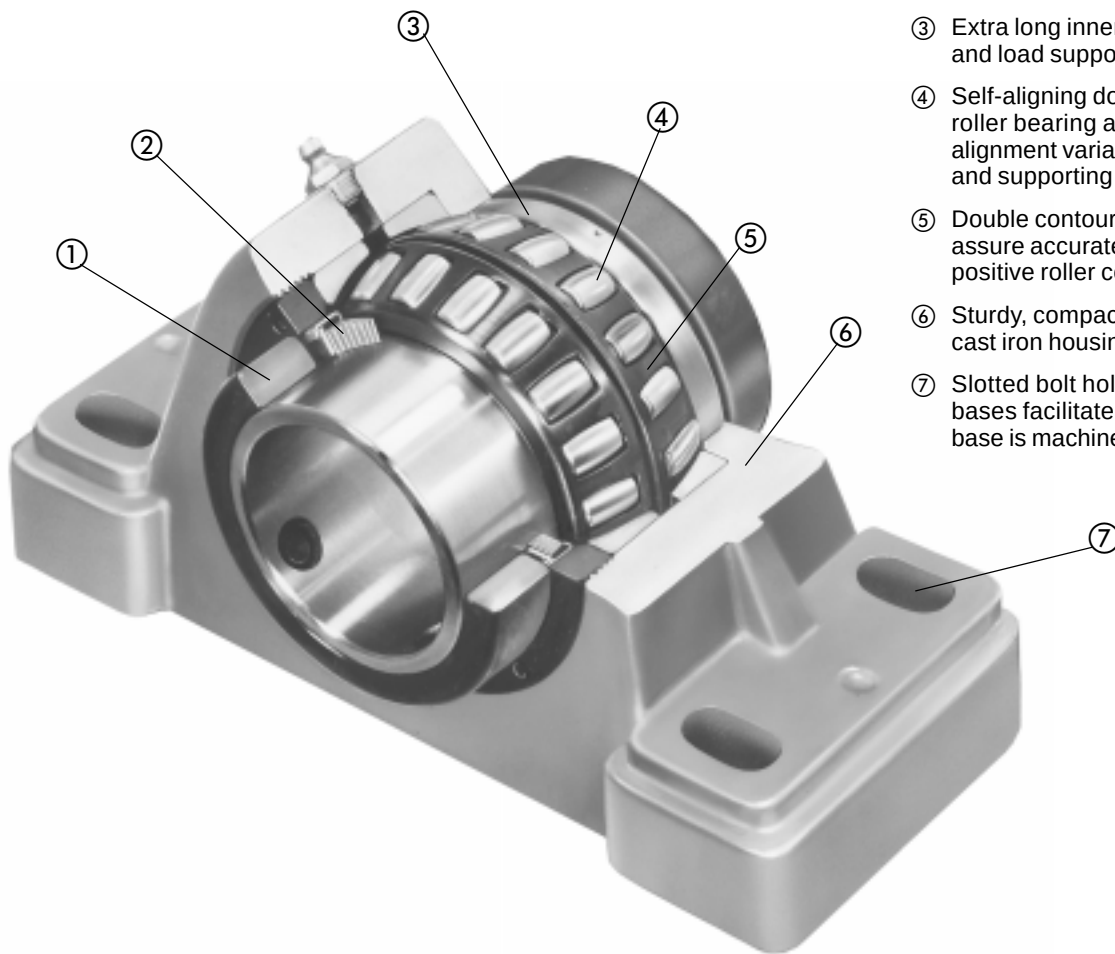
Additional information, page D-68.

‡ Use shims, threaded cover, or spacer ring to provide for adjustment. Housing must allow clearance for this adjustment on dimension C.

Series B22500

Spherical Roller Bearing Units

Series B22500 double collar mounted spherical roller bearing units will support shafts carrying substantial radial or combination radial and thrust loads. These units are adaptable for conveyors, elevators, general industrial machinery, heavier duty fans and blowers, power transmission applications, ditchers, trenchers, pavers and other applications. They differ from series B22400 units in that they have two locking collars and the pillow blocks have higher backing and longer bolt centers. Series B22500 units are easy to mount, sealed, prelubricated and do not require bearing adjustment during mounting.



- ① Two spring locking collars lock inner ring securely to shaft.
- ② Choice of two seals, floating labyrinth Type H, and spring-loaded lip Type E.
- ③ Extra long inner ring for high stability and load support.
- ④ Self-aligning double row spherical roller bearing adjusts $\pm 2^\circ$ to allow for alignment variations between shaft and supporting structure.
- ⑤ Double contoured retainer pockets assure accurate roller guidance and positive roller control.
- ⑥ Sturdy, compact one-piece high-test cast iron housing.
- ⑦ Slotted bolt holes in pillow block bases facilitate mounting; bottom of base is machined.

Spherical Roller Bearings

Series B22500 self-aligning double row spherical roller bearings have extra long inner rings, high LDN values and are designed to distribute the load over the symmetrical rollers, assuring positive tracking and smooth operation. The large roller complement provides high capacity for radial or combined radial-thrust loads.

Osculation clearance at the ends of the rollers compensates for shock loads and prevents destructive edge loading. These precision bearings with double contoured retainer pockets are designed to meet a broad range of application requirements.



Spring Locking Collars

The two spring locking collar design provides a secure grip of the extra long inner ring bearing to the shaft. The four set screws extend through the inner ring of the bearing and lock firmly onto the shaft. Installation is fast and simple. Correctly tightening the four set screws produces elastic strain in the spring

locking collars resulting in a continuous pressure on the set screw threads and providing a positive lock.



Seals

Two standard sealing systems are available. . . each offering maximum protection for the bearing.

Type H floating labyrinth seals have multiple self-centering rings held securely in a steel carrier. Type H seals are normally furnished.

Type E spring-loaded lip seals utilize a spring to provide uniform pressure for keeping the sealing lip in contact with the inner ring. Type E seals are normally used for liquid splash environments.

Seals are interchangeable and are designed for grease lubrication.



TYPE H SEAL



TYPE E SEAL

One-piece Cast Iron Housings

Compact one-piece housings provide for strength and load support. Scientifically contoured housing design provides superior rigidity. Pillow blocks have two or four slotted bolt holes with ample space provided for drilling dowel pin holes. Cartridge units have steel housings and

are finished to precision tolerances. Pillow blocks and cartridge units are available for fixed or expansion operation.



Series B22500

Spherical Roller Bearing Units

Pillow Blocks, cast iron

P-B22500H, PE-B22500H, EP-B22500H*, EPE-B22500H*
P-B22500FH, PE-B22500FH, EP-B22500FH*, EPE-B22500FH*

Self-aligning 2-bolt base pillow blocks for shaft sizes $1\frac{7}{16}$ " through $2\frac{15}{16}$ ", and 4-bolt base pillow blocks for shaft sizes $1\frac{15}{16}$ " through 5". Metric bores of 110, 115, and 125 mm available. Bearings have extra long inner ring and two spring locking collars. Units are available for fixed or expansion mounting.

Load ratings on pages D-33 and D-34.

Dimensions on page D-35.

Additional information on page D-68.

***Self-aligning Type E Interchange**



Pillow Blocks, cast steel

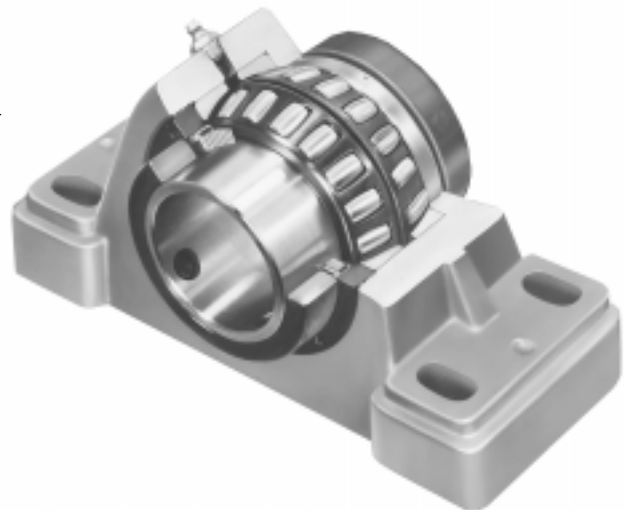
PK-B22500FH, PKE-B22500FH

Self-aligning 4-bolt base pillow blocks. Cast steel housing for shaft sizes $4\frac{3}{16}$ " through 5" and 110, 115, and 125 mm. Bearings have extra long inner ring and two spring locking collars. Units are available for fixed or expansion mounting.

Load ratings on pages D-33 and D-34.

Dimensions on page D-14.

Additional information on page D-68.



Flanged Units, cast iron

EF-B22500H*

Self-aligning flanged units for shaft sizes, $1\frac{7}{16}$ " through 4". Bearings have extra long inner ring and two spring locking collars.

Load ratings on pages D-33 and D-34.

Dimensions on page D-37.

Additional information on page D-68.

***Self-aligning Type E Interchange**



Cartridge Units, steel

CSE-B22500H

Self-aligning cartridge units for shaft sizes $1\frac{7}{16}$ " through 5" and 110, 115, and 125 mm. Bearings have extra long inner ring and two spring locking collars. Units are available for fixed or expansion mounting.

Load ratings on pages D-33 and D-34.

Dimensions on page D-39.

Additional information on page D-68.



Takeups, cast iron

DSH-B22500H

Self-aligning takeups for shaft sizes $1\frac{15}{16}$ " through $3\frac{15}{16}$ ". Bearings have extra long inner ring and two spring locking collars and are mounted in a one-piece cast iron housing. Takeups have extra heavy welded steel adjustable type frames.

Load ratings on pages D-33 and D-34.

Dimensions on page D-38.

Additional information on page D-68.



Replacement Bearings

B22500HL

Self-aligning double-row spherical roller bearing with extra long inner ring and two spring locking collars for shaft sizes $1\frac{7}{16}$ " through 5" and 110, 115, and 125 mm.

Load ratings on pages D-33 and D-34.

Dimensions on page D-40.

Additional information on page D-68.



Selection

Series B22500

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

The selection procedures and rating formulas shown here are in agreement with The American Bearing Manufacturers Association Standards and ANSI/ABMA Standards STD 11-1990. Ratings are based on fatigue life. The Rating Life L₁₀ or fatigue life at 90% reliability is the usual basis for bearing selection.

For radial load applications only, Table 3, page D-34, can be used to select a bearing or to determine L₁₀ life expectancy.

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

Bearing Selection

Step 1 Determine an appropriate L₁₀ design life.

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

Step 2 Determine a required $\left(\frac{C}{P}\right)$ from Table 1.

Step 3 Calculate the required C and select a roller bearing.

a For radial load only:

$$P = F_r$$

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

Select a roller bearing from Table 2, page D-33 with a basic load rating C equal to or greater than the required C.

b For combined radial and thrust loads:

Select a trial roller bearing of the desired shaft size from Table 2, page D-33.

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

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

Calculate the equivalent radial load P

$$P = XF_r + YF_a$$

if $\frac{F_a}{F_r}$ is equal to or less than e, then $P = X_1F_r + Y_1F_a$

If $\frac{F_a}{F_r}$ is greater than e, then $P = X_2F_r + Y_2F_a$

For values of e, X₁, Y₁, X₂, and Y₂, see Table 2, page D-31.

Calculate the required C

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

Consult Table 2, page D-33, basic load rating. If a smaller bearing meets, or nearly meets, the required C, its life expectancy can be calculated.

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

Selection

Series B22500

symbols for formulas:

C = basic load rating, pounds (or newtons)
 C_o = static load rating, pounds (or newtons)
 e = a reference value
 F_a = thrust load, pounds (or newtons)
 F_r = radial load, pounds (or newtons)
 L₁₀ = rating life, hours
 n = speed, revolutions per minute
 P = equivalent radial load, pounds (or newtons)
 X = radial factor
 Y = thrust factor

basic formulas:

$$\left(\frac{C}{P}\right) = \left(\frac{L_{10} \times n \times 60}{1,000,000}\right)^{3/10}$$

$$L_{10} = \frac{\left(\frac{C}{P}\right)^{10/3} \times 1,000,000}{n \times 60}$$

Table 1 • Relation of L₁₀ life and speed to $\left(\frac{C}{P}\right)$

Bearing life, hours L ₁₀	$\left(\frac{C}{P}\right)$ ratio									
	Speed, n									
	50	100	200	300	400	500	600	700	800	
3000	1.93	2.38	2.93	3.31	3.61	3.86	4.07	4.27	4.44	
4000	2.11	2.59	3.19	3.61	3.93	4.20	4.44	4.65	4.84	
5000	2.25	2.77	3.42	3.86	4.20	4.50	4.75	4.97	5.18	
6000	2.38	2.93	3.61	4.07	4.44	4.75	5.02	5.25	5.47	
8000	2.59	3.19	3.93	4.44	4.84	5.18	5.47	5.73	5.96	
10000	2.77	3.42	4.20	4.75	5.18	5.54	5.85	6.12	6.37	
12000	2.93	3.61	4.44	5.02	5.47	5.85	6.18	6.47	6.73	
14000	3.07	3.78	4.65	5.25	5.73	6.12	6.47	6.77	7.05	
16000	3.19	3.93	4.84	5.47	5.96	6.37	6.73	7.05	7.34	
18000	3.31	4.07	5.02	5.66	6.18	6.60	6.97	7.30	7.60	
20000	3.42	4.20	5.18	5.85	6.37	6.81	7.20	7.54	7.85	
25000	3.65	4.50	5.54	6.25	6.81	7.29	7.70	8.06	8.39	
30000	3.86	4.75	5.85	6.60	7.20	7.70	8.13	8.51	8.86	
35000	4.04	4.97	6.12	6.92	7.54	8.06	8.51	8.92	9.28	
40000	4.20	5.18	6.37	7.20	7.85	8.39	8.86	9.28	9.66	
45000	4.36	5.36	6.60	7.46	8.13	8.69	9.18	9.61	10.00	
50000	4.50	5.54	6.81	7.70	8.39	8.97	9.48	9.92	10.30	
60000	4.75	5.85	7.20	8.13	8.86	9.48	10.00	10.50	10.90	
70000	4.97	6.12	7.54	8.51	9.28	9.92	10.50	11.00	11.40	
80000	5.18	6.37	7.85	8.86	9.66	10.30	10.90	11.40	11.90	
90000	5.36	6.60	8.13	9.18	10.00	10.70	11.30	11.80	12.30	
100000	5.54	6.81	8.39	9.48	10.30	11.00	11.70	12.20	12.70	
150000	6.25	7.70	9.48	10.70	11.70	12.50	13.20	13.80	14.40	
200000	6.81	8.39	10.30	11.70	12.70	13.60	14.40	15.00	15.70	
	Speed, n									
	900	1000	1200	1500	1800	2400	3000	3600	6000	
3000	4.60	4.75	5.02	5.36	5.66	6.18	6.60	6.97	8.13	
4000	5.02	5.18	5.47	5.85	6.18	6.73	7.20	7.60	8.86	
5000	5.36	5.54	5.85	6.25	6.60	7.20	7.70	8.13	9.48	
6000	5.66	5.85	6.18	6.60	6.97	7.60	8.13	8.59	10.00	
8000	6.18	6.37	6.73	7.20	7.60	8.29	8.86	9.36	10.90	
10000	6.60	6.81	7.20	7.70	8.13	8.86	9.48	10.00	11.70	
12000	6.97	7.20	7.60	8.13	8.59	9.36	10.00	10.60	12.30	
14000	7.30	7.54	7.96	8.51	8.99	9.80	10.50	11.10	12.90	
16000	7.60	7.85	8.29	8.86	9.36	10.20	10.90	11.50	13.40	
18000	7.88	8.13	8.59	9.18	9.70	10.60	11.30	11.90	13.90	
20000	8.13	8.39	8.86	9.48	10.00	10.90	11.70	12.30	14.40	
25000	8.69	8.97	9.48	10.10	10.70	11.70	12.50	13.20	15.40	
30000	9.18	9.48	10.00	10.70	11.30	12.30	13.20	13.90	16.20	
35000	9.61	9.92	10.50	11.20	11.80	12.90	13.80	14.60	17.00	
40000	10.00	10.30	10.90	11.70	12.30	13.40	14.40	15.20	17.70	
45000	10.40	10.70	11.30	12.10	12.80	13.90	14.90	15.70	18.30	
50000	10.70	11.00	11.70	12.50	13.20	14.40	15.40	16.20	18.90	
60000	11.30	11.70	12.30	13.20	13.90	15.20	16.20	17.10	20.00	
70000	11.80	12.20	12.90	13.80	14.60	15.90	17.00	17.90	20.90	
80000	12.30	12.70	13.40	14.40	15.20	16.50	17.70	18.70	21.80	
90000	12.80	13.20	13.90	14.90	15.70	17.10	18.30	19.40	22.60	
100000	13.20	13.60	14.40	15.40	16.20	17.70	18.90	20.00	23.30	
150000	14.90	15.40	16.20	17.30	18.30	20.00	21.40	22.60	26.30	
200000	16.20	16.70	17.70	18.90	20.00	21.80	23.30	24.60	28.70	

Life Expectancy

To calculate the Rating Life L₁₀ of any selected or trial bearing:

Step 1 Determine the equivalent radial load P.

a For radial load only:

$$P = F_r$$

b For combined radial and thrust load:

$$P = XF_r + YF_a$$

If $\frac{F_a}{F_r}$ is equal to or less than e, then

$$P = X_1F_r + Y_1F_a$$

If $\frac{F_a}{F_r}$ is greater than e, then

$$P = X_2F_r + Y_2F_a$$

For values of e, X₁, Y₁, X₂, and Y₂, see the bearing rating Table 2, page D-33.

Step 2 Calculate the ratio of the basic load rating C to the equivalent radial load.

$$\frac{C}{P}$$

Step 3 Approximate the bearing life from Table 1.

Life Adjustment

The Rating Life, L₁₀, may be modified for some applications in accordance with the formula

$$L'_n = a_1 a_2 a_3 L_{10}$$

where L'_n = Adjusted life for (100-n) % reliability,
 a₁ = Life adjustment factor for reliability
 a₂ = Life adjustment factor for material and processing
 a₃ = Life adjustment factor for operating conditions.

For most normal applications, all factors will be taken as 1, and the Rating Life used as the selection basis or life estimate. In addition, as long as standard catalog bearings are used, a₂ will be normally set equal to one. The factor a₃ covers such things as lubrication, misalignment, and temperature. Some conditions that could yield a₃ significantly different than unity include speeds less than 20000 DN or greater than 200000 DN, temperatures below -40°F (-40°C) or above 275°F (135°C). For other possible conditions, as well as additional information on life adjustment factors, consult Link-Belt Bearing Division, Rexnord Corp.

Load Ratings Series B22500

Table 2 • Load ratings and speed limits

Shaft diameter		Bearing size number	C ₀ Static load rating		C Basic load rating		Approximate speed limit RPM ●	e	$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
mm	inches		newtons	pounds	newtons	pounds	H and E seals		X ₁	Y ₁	X ₂	Y ₂
	17/16	B22523	93 200	20900	64 900	14600	2750	.44	1.00	1.54	.67	2.29
	111/16	B22527	127 700	28700	89 800	20200	2350	.45	1.00	1.51	.67	2.25
	115/16	B22531	147 700	33200	94 300	21200	2150	.40	1.00	1.68	.67	2.50
	2 23/16	B22532 B22535	197 500	44400	117 400	26400	1950	.40	1.00	1.68	.67	2.50
	27/16	B22539										
	211/16 215/16	B22543 B22547	318 000	71500	185 900	41800	1500	.38	1.00	1.79	.67	2.67
	37/16	B22555										
	315/16 4	B22563 B22564	609 400	137000	351 800	79100	1100	.36	1.00	1.88	.67	2.79
	43/16 47/16 41/2	B22567 B22571 B22572 B225M110 B225M115										
110 115			790 200	178000	419 400	94300	1000	.38	1.00	1.80	.67	2.68
	415/16 5	B22579 B22580 B225M125	944 700	212000	520 400	117000	900	.37	1.00	1.83	.67	2.72
125												

If the load P is greater than .25C, consult Link-Belt Bearing Division, Rexnord Corp.

* Based on grease lubrication and moderate load.
Additional information, page D-68.

Load Ratings

Series B22500

Table 3 • Radial load ratings in pounds at various RPM for appropriate L₁₀ life hours

Shaft diameter		Bearing size number	L ₁₀ Minimum life, hours	Radial load ratings, pounds												
				Speed, RPM												
mm	inches			50	100	200	300	500	700	900	1000	1200	1500	1800	2000	2500
1 ⁷ / ₁₆	B22523		8000				3290	2820	2540	2360	2290	2170	2020	1920	1860	1740
			20000		3470	2820	2500	2140	1930	1800	1740	1640	1540	1450	1410	1320
			40000	3470	2820	2290	2020	1740	1570	1450	1410	1330	1250	1180	1140	1070
			100000	2630	2140	1740	1540	1320	1200	1100	1070	1010	950	900	872	815
1 ¹¹ / ₁₆	B22527		8000				4540	3900	3520	3270	3170	3000	2800	2650	2570	
			20000		4800	3900	3450	2960	2680	2480	2400	2280	2130	2010	1950	
			40000	4800	3900	3170	2800	2400	2180	2010	1950	1850	1730	1630	1590	
			100000	3640	2960	2400	2130	1820	1650	1530	1490	1400	1310	1240	1200	
1 ¹⁵ / ₁₆	B22531		8000				4770	4100	3700	3430	3320	3140	2940	2790	2700	
			20000		5040	4100	3620	3110	2810	2600	2520	2390	2230	2110	2050	
			40000	5040	4100	3320	2940	2520	2280	2110	2050	1940	1810	1720	1670	
			100000	3830	3110	2520	2230	1910	1730	1600	1550	1480	1380	1300	1270	
2 2 ³ / ₁₆	B22532 B22535		8000				5940	5100	4600	4280	4140	3920	3670	3470		
			20000		6280	5100	4510	3870	3500	3240	3140	2980	2790	2630		
			40000	6280	5100	4140	3670	3140	2840	2630	2550	2410	2260	2140		
			100000	4770	3870	3140	2790	2390	2160	2000	1940	1830	1710	1620		
2 ⁷ / ₁₆	B22539		8000				7070	6070	5480	5090	4920	4660	4360			
			20000		7470	6070	5370	4600	4170	3860	3740	3540	3310			
			40000	7470	6070	4920	4360	3740	3380	3130	3030	2880	2690			
			100000	5670	4600	3740	3310	2840	2570	2380	2300	2190	2040			
2 ¹¹ / ₁₆ 2 ¹⁵ / ₁₆	B22543 B22547		8000				9410	8070	7300	6770	6550	6200	5800			
			20000		9940	8070	7150	6130	5540	5140	4980	4710	4410			
			40000	9940	8070	6550	5800	4980	4500	4180	4040	3830	3580			
			100000	7550	6130	4980	4410	3780	3420	3170	3070	2910	2720			
3 ⁷ / ₁₆	B22555		8000				11400	9850	8900	8250	8000	7580				
			20000		12100	9850	8720	7480	6770	6270	6080	5750				
			40000	12100	9850	8000	7090	6080	5500	5100	4930	4670				
			100000	9210	7480	6080	5380	4610	4170	3870	3750	3550				
3 ¹⁵ / ₁₆ 4	B22563 B22564		8000				17800	15200	13800	12800	12400					
			20000		18800	15200	13500	11600	10400	9730	9420					
			40000	18800	15200	12400	11000	9420	8520	7900	7650					
			100000	14200	11600	9420	8340	7160	6470	6000	5810					
4 ³ / ₁₆ 4 ⁷ / ₁₆ 4 ¹ / ₂ 110 115	B22567 B22571 B22572 B225M110 B225M115		8000				21200	18200	16400	15200	14800					
			20000		22400	18200	16100	13800	12500	11600	11200					
			40000	22400	18200	14800	13100	11200	10100	9420	9120					
			100000	17000	13800	11200	9950	8530	7710	7150	6930					
4 ⁹ / ₁₆ 5 125	B22579 B22580 B225M125		8000				26300	22500	20400	18900						
			20000		27800	22500	20000	17100	15500	14300						
			40000	27800	22500	18300	16200	13900	12600	11700						
			100000	21100	17100	13900	12300	10500	9580	8880						

If the load P is greater than .25C, consult Link-Belt Bearing Division, Rexnord Corp.

Spherical Roller Bearing Pillow Blocks

P-B22500H, PE-B22500H

P-B22500FH, PE-B22500FH

Cast Iron Housing

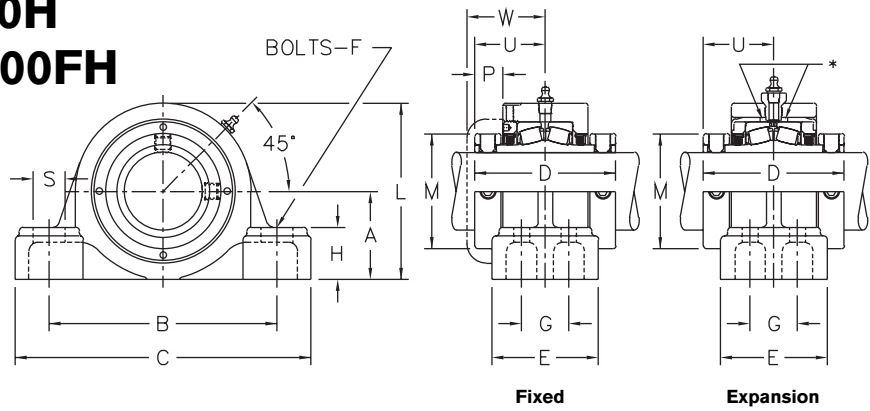
2- or 4-Bolt Base

Fixed or Expansion

Self-aligning

Two Spring Locking Collars

Factory Adjusted and Sealed



Dimensions (inches/mm)

Shaft dia.		Pillow block number Δ		A	B	C	D	E	F	G	H	L	M	P	S	U	W	Unit wt.
mm	inches	Fixed	Expansion	†					Bolts								◆	(lbs./kg.)
2-bolt base																		
17/16	P-B22523H	PE-B22523H		2 1/8	5 7/8	7 7/8	3 9/16	2 1/2	1/2	...	1 3/8	4 1/8	2 1/2	1 1/16	7/8	1 25/32	2 3/16	10
				53.98	149.2	200.0	90.49	63.5	12	...	34.9	104.8	63.5	17.5	22.2	45.2	55.6	—
1 11/16	P-B22527H	PE-B22527H		2 5/16	6 1/2	8 9/16	3 13/16	2 13/16	1/2	...	1 1/2	4 19/32	2 3/4	2 3/32	7/8	1 29/32	2 1/4	12
				58.74	165.1	217.5	96.84	71.4	12	...	38.1	116.7	69.8	18.2	22.2	48.4	57.2	—
1 15/16	P-B22531H	PE-B22531H		2 1/2	7	9 1/4	3 13/16	2 7/8	5/8	...	1 11/16	4 7/8	2 15/16	2 3/32	1 1/8	1 29/32	2 3/32	14
				63.50	177.8	235.0	96.84	73.0	16	...	42.9	123.8	74.6	18.2	28.6	48.4	57.9	—
2	P-B22532H	PE-B22532H	}	2 3/4	7 1/2	9 15/16	4 1/8	3 1/8	5/8	...	2	5 15/32	3 3/8	2 5/32	1 1/8	2 1/16	2 7/16	21
2 3/16	P-B22535H	PE-B22535H																20
				69.85	190.5	252.4	104.78	79.4	16	...	50.8	138.9	85.7	19.8	28.6	52.4	61.9	—
2 7/16	P-B22539H	PE-B22539H		3	8 1/4	10 3/4	4 3/8	3 3/8	3/4	...	2 1/8	5 7/8	3 3/8	1 3/16	1 1/4	2 3/16	2 9/16	24
				76.20	209.6	273.0	111.12	85.7	20	...	54.0	149.2	92.1	20.6	31.8	55.6	65.1	—
2 11/16	P-B22543H	PE-B22543H	}	3 1/2	9 3/4	12 7/8	4 7/8	3 7/8	7/8	...	2 5/16	6 15/16	4 3/16	2 3/32	1 5/8	2 7/16	2 25/32	39
2 15/16	P-B22547H	PE-B22547H																37
				88.90	247.6	327.0	123.82	98.4	24	...	58.7	176.2	106.4	23.0	41.3	61.9	70.6	—
4-bolt Base																		
1 15/16	P-B22531FH	PE-B22531FH		2 1/2	7	9	3 13/16	3 13/16	1/2	2 1/4	1 11/16	4 7/8	2 15/16	2 3/32	7/8	1 29/32	2 9/32	16
				63.50	177.8	228.6	96.84	96.8	12	57.2	42.9	123.8	74.6	18.2	22.2	48.4	57.9	—
2	P-B22532FH	PE-B22532FH	}	2 3/4	7 1/2	9 15/16	4 1/8	4	5/8	2 1/4	2	5 15/32	3 3/8	2 5/32	1 1/8	2 1/16	2 7/16	22
2 3/16	P-B22535FH	PE-B22535FH																22
				69.85	190.5	252.4	104.78	101.6	16	57.2	50.8	138.9	85.7	19.8	28.6	52.4	61.9	—
2 7/16	P-B22539FH	PE-B22539FH		3	8 1/4	10 3/4	4 3/8	4 3/8	5/8	2 3/8	2 1/8	5 7/8	3 3/8	1 3/16	1 1/8	2 3/16	2 9/16	26
				76.20	209.6	269.9	111.12	111.1	16	66.7	54.0	149.2	92.1	20.6	28.6	55.6	65.1	—
2 11/16	P-B22543FH	PE-B22543FH	}	3 1/2	9 3/4	12 7/8	4 7/8	4 3/4	3/4	2 3/4	2 5/16	6 15/16	4 3/16	2 7/32	1 1/2	2 7/16	2 25/32	38
2 15/16	P-B22547FH	PE-B22547FH																36
				88.90	247.6	320.7	123.82	120.6	20	69.8	58.7	176.2	106.4	21.4	38.1	61.9	70.6	—
3 7/16	P-B22555FH	PE-B22555FH		4	11 1/2	14 1/4	5 5/8	5	3/4	3	2 1/2	7 31/32	5	1 5/16	1 1/2	2 21/32	3	56
				101.60	292.1	362.0	134.94	127.0	20	76.2	63.5	202.4	127.0	23.8	38.1	67.5	76.2	—
3 15/16	P-B22563FH	PE-B22563FH	}	4 7/8	12 1/4	15 5/8	6 1/8	5 5/8	7/8	3 3/8	2 7/8	8 13/16	5 29/32	1 1/16	1 3/4	3 1/16	3 7/16	76
4	P-B22564FH	PE-B22564FH																76
				112.71	311.2	396.9	155.58	142.9	24	85.7	73.0	223.8	150.0	27.0	44.4	77.8	87.3	—
4 3/16	P-B22567FH▲	PE-B22567FH▲	}	4 3/4	13 1/2	16 1/2	6 3/4	4 3/4	3/4	2 1/2	2 3/4	9 3/8	6 1/8	1 1/8	1 3/8	3 3/8	3 3/4	92
4 7/16	P-B22571FH▲	PE-B22571FH▲																88
4 1/2	P-B22572FH▲	PE-B22572FH▲																87
110	P-B22579FH▲	PE-B22579FH▲																—
115	P-B22580FH▲	PE-B22580FH▲	}	5 1/2	15 1/2	18 1/2	7 1/4	5 3/8	7/8	2 3/4	3	10 7/8	6 7/8	1 7/32	1 1/2	3 5/8	4	129
	P-B225M110FH▲	PE-B225M110FH▲																128
	P-B225M115FH▲	PE-B225M115FH▲																—
				120.65	342.9	419.1	171.45	120.6	20	63.5	69.8	238.1	155.6	28.6	34.9	85.7	95.2	40.7
125	P-B22579FH▲	PE-B22579FH▲	}	5 1/2	15 1/2	18 1/2	7 1/4	5 3/8	7/8	2 3/4	3	10 7/8	6 7/8	1 7/32	1 1/2	3 5/8	4	129
	P-B22580FH▲	PE-B22580FH▲																128
	P-B225M125FH▲	PE-B225M125FH▲																—
				139.70	393.7	469.9	184.15	136.5	24	69.8	76.2	276.2	174.6	31.0	38.1	92.1	101.6	58.1

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-64, D-65.

Lubrication fitting tap size, 1/8" PT.

All units available with type E lip seals.

† Tolerance, ±.005" (±0.13 mm).

▲ Also available with cast steel housings. See page D-14.

Δ LHD sliding base takeup can be drilled for P-B22500H pillow blocks, see page D-22.

* Expansion unit allows axial movement of 3/16" (4.8 mm) in either direction from centered position shown.

◆ Width dimension for closed end unit.

Selection guide, pages D-31, D-32.

Load ratings, pages D-33, D-34.

Additional information, page D-68.

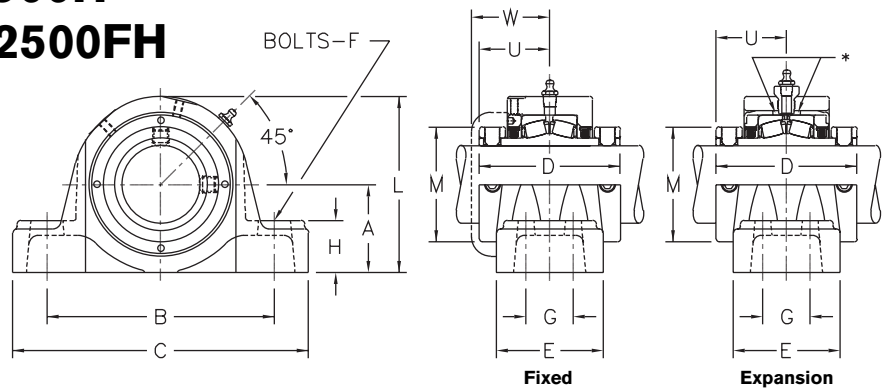
Spherical Roller Bearing Pillow Blocks

EP-B22500H, EPE-B22500H

EP-B22500FH, EPE-B22500FH

Cast Iron Housing
2 or 4-Bolt Base
Fixed or Expansion
Self-aligning
Two Spring Locking Collars
Factory Adjusted and Sealed

Self-Aligning Type E Interchange



Dimensions (inches/mm)

Shaft dia. inches	Pillow block number Δ		A †	B		C	D	E	F	G	H	L	M	U	W ◆	Unit wt.
	Fixed	Expansion		min.	max.											
2-bolt base																
1 ⁷ / ₁₆	EP-B22523H	EPE-B22523H	1 ⁷ / ₈ 47.62	4 ³ / ₄ 120.6	6 152.4	7 ³ / ₈ 187.3	3 ⁹ / ₁₆ 90.49	2 ¹ / ₄ 57.2	1 ¹ / ₂ 12	... ...	1 ¹ / ₈ 28.6	3 ⁷ / ₈ 98.4	2 ¹ / ₂ 63.5	1 ²⁹ / ₃₂ 45.2	2 ³ / ₁₆ 55.6	8 —
1 ¹¹ / ₁₆	EP-B22527H	EPE-B22527H	2 ¹ / ₈ 53.98	5 ¹ / ₂ 139.7	6 ¹ / ₂ 165.1	7 ⁷ / ₈ 200.0	3 ¹³ / ₁₆ 96.84	2 ¹ / ₂ 63.5	1 ¹ / ₂ 12	... ...	1 ¹ / ₄ 31.8	4 ³ / ₈ 111.1	2 ³ / ₄ 69.8	1 ²⁹ / ₃₂ 48.4	2 ¹ / ₄ 57.2	12 —
1 ¹⁵ / ₁₆	EP-B22531H	EPE-B22531H	2 ¹ / ₄ 57.15	6 ¹ / ₁₆ 154.0	7 ¹ / ₄ 184.2	8 ⁷ / ₈ 225.4	3 ¹³ / ₁₆ 96.84	2 ¹ / ₂ 63.5	5 ⁸ / ₁₆ 16	... ...	1 ⁵ / ₁₆ 33.3	4 ⁹ / ₁₆ 115.9	2 ¹⁵ / ₁₆ 74.6	1 ²⁹ / ₃₂ 48.4	2 ³ / ₃₂ 57.9	13 —
2 ³ / ₁₆	EP-B22535H	EPE-B22535H	2 ¹ / ₂ 63.50	6 ⁹ / ₁₆ 166.7	8 203.2	9 ⁵ / ₈ 244.5	4 ¹ / ₈ 104.78	2 ⁹ / ₁₆ 65.1	5 ⁸ / ₁₆ 16	... ...	1 ¹ / ₂ 38.1	5 127.0	3 ³ / ₈ 85.7	2 ¹ / ₁₆ 52.4	2 ⁷ / ₁₆ 61.9	16 —
2 ⁷ / ₁₆	EP-B22539H	EPE-B22539H	2 ³ / ₄ 69.85	6 ¹⁵ / ₁₆ 176.2	8 ³ / ₄ 222.2	10 ¹ / ₂ 266.7	4 ³ / ₈ 111.12	2 ¹¹ / ₁₆ 68.3	5 ⁸ / ₁₆ 16	... ...	1 ⁵ / ₈ 41.3	5 ¹ / ₂ 139.7	3 ³ / ₈ 92.1	2 ³ / ₁₆ 55.6	2 ⁹ / ₁₆ 65.1	18 —
2 ¹¹ / ₁₆ 2 ¹⁵ / ₁₆	EP-B22543H EP-B22547H	EPE-B22543H EPE-B22547H	3 ¹ / ₈ 79.38	7 ¹³ / ₁₆ 198.4	9 ³ / ₄ 247.6	11 ¹¹ / ₁₆ 296.9	4 ⁷ / ₈ 123.82	3 ¹³ / ₁₆ 96.8	3 ⁴ / ₁₆ 20	... ...	1 ⁷ / ₈ 47.6	6 ⁵ / ₁₆ 160.3	4 ³ / ₁₆ 106.4	2 ⁷ / ₁₆ 61.9	2 ²⁵ / ₃₂ 70.6	31 29 —
3 ¹ / ₁₆	EP-B22555H	EPE-B22555H	3 ³ / ₄ 96.25	9 ⁹ / ₁₆ 236.5	11 ⁵ / ₁₆ 287.3	13 ¹³ / ₁₆ 350.8	5 ⁵ / ₁₆ 134.9	3 ¹ / ₂ 88.9	7 ⁸ / ₁₆ 24	... ...	2 ¹ / ₄ 57.2	7 ¹ / ₂ 190.5	5 127.0	2 ²¹ / ₃₂ 67.5	3 76.2	45 —
4-bolt base																
2 ⁷ / ₁₆	EP-B22539FH	EPE-B22539FH	2 ³ / ₄ 69.85	6 ¹⁵ / ₁₆ 176.2	8 ³ / ₄ 222.2	10 ¹ / ₂ 266.7	4 ³ / ₈ 111.12	3 ³ / ₈ 92.1	5 ⁸ / ₁₆ 16	1 ⁷ / ₈ 47.6	1 ⁵ / ₈ 41.3	5 ¹ / ₂ 139.7	3 ³ / ₈ 92.1	2 ³ / ₁₆ 55.6	2 ⁹ / ₁₆ 65.1	21 —
2 ¹¹ / ₁₆ 2 ¹⁵ / ₁₆	EP-B22543FH EP-B22547FH	EPE-B22543FH EPE-B22547FH	3 ¹ / ₈ 79.38	7 ¹³ / ₁₆ 198.4	9 ³ / ₄ 247.6	11 ¹³ / ₁₆ 300.0	4 ⁷ / ₈ 123.82	4 ¹ / ₄ 108.0	5 ⁸ / ₁₆ 16	2 ¹ / ₈ 54.0	1 ⁷ / ₈ 47.6	6 ⁵ / ₁₆ 160.3	4 ³ / ₁₆ 106.4	2 ⁷ / ₁₆ 61.9	2 ²⁵ / ₃₂ 70.6	33 31 —
3 ¹ / ₁₆	EP-B22555FH	EPE-B22555FH	3 ³ / ₄ 96.25	9 ⁹ / ₁₆ 236.5	11 ⁷ / ₁₆ 290.5	13 ¹³ / ₁₆ 350.8	5 ⁵ / ₁₆ 134.94	4 ³ / ₄ 120.6	3 ⁴ / ₁₆ 20	2 ³ / ₈ 60.3	2 ¹ / ₄ 57.2	7 ¹ / ₂ 190.5	5 127.0	2 ²¹ / ₃₂ 67.5	3 76.2	48 —
3 ¹⁵ / ₁₆ 4	EP-B22563FH EP-B22564FH	EPE-B22563FH EPE-B22564FH	4 ¹ / ₄ 107.95	11 ⁷ / ₈ 301.6	13 330.2	15 ¹ / ₄ 387.4	6 ¹ / ₈ 155.58	4 ¹ / ₂ 114.3	3 ⁴ / ₁₆ 20	2 ¹ / ₄ 57.2	2 ³ / ₈ 66.7	8 ¹ / ₂ 215.9	5 ²⁹ / ₃₂ 150.0	3 ¹ / ₁₆ 77.8	3 ⁷ / ₁₆ 87.3	71 70 —
4 ³ / ₁₆ 4 ⁷ / ₁₆ 4 ¹ / ₂	P-B22567FH▲ P-B22571FH▲ P-B22572FH▲	PE-B22567FH▲ PE-B22571FH▲ PE-B22572FH▲	4 ³ / ₄ 120.65	12 ³ / ₄ 323.9	14 ¹ / ₈ 358.8	16 ¹ / ₂ 419.1	6 ³ / ₄ 171.45	4 ³ / ₄ 120.6	3 ⁴ / ₁₆ 20	2 ¹ / ₂ 63.5	2 ³ / ₄ 69.8	9 ³ / ₈ 238.1	6 ¹ / ₈ 155.6	3 ³ / ₈ 85.7	3 ³ / ₄ 95.2	92 88 87
4 ¹⁵ / ₁₆ 5	P-B22579FH▲ P-B22580FH▲	PE-B22579FH▲ PE-B22580FH▲	5 ¹ / ₂ 139.70	14 ⁵ / ₁₆ 363.6	16 ¹ / ₈ 409.6	18 ¹ / ₂ 469.9	7 ¹ / ₄ 184.15	5 ⁵ / ₈ 136.5	7 ⁸ / ₁₆ 24	2 ³ / ₄ 69.8	3 76.2	10 ⁷ / ₈ 276.2	6 ⁷ / ₈ 174.6	3 ⁵ / ₈ 92.1	4 101.6	129 128

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-64, D-65.

Lubrication fitting tap size, 1/8" PT.

All units available with type E lip seals.

* Expansion unit allows axial movement of 3/16" (4.8 mm) in either direction from centered position shown.

▲ Also available with cast steel housings. See page D-14.

△ LHD sliding base takeup can be drilled for EP-B22500H pillow blocks, see page D-22.

† Tolerance, ±.005" (±0.13 mm).

◆ Width dimension for closed end unit.

Selection guide, pages D-31, D-32.

Load ratings, pages D-33, D-34.

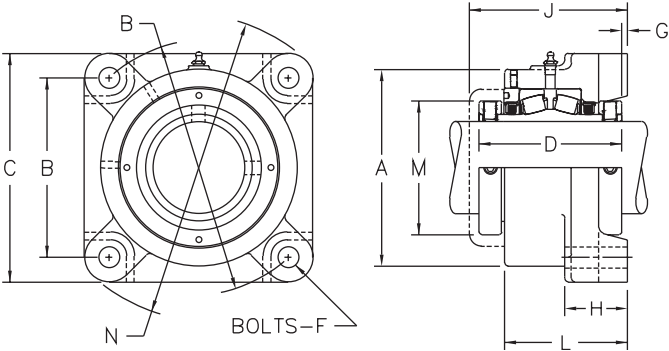
Additional information, page D-68.

Spherical Roller Bearing Flanged Units

EF-B22500H

Cast Iron Housing
Padded Flange
4-Bolt Mounting
Self-aligning
Two Spring Locking Collars
Factory Adjusted and Sealed

Self-Aligning Type E Interchange



Dimensions (inches/mm)

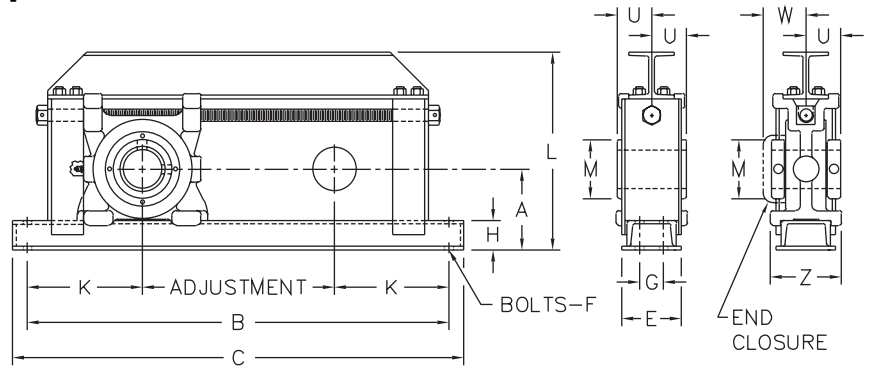
Shaft dia. inches	Flanged unit number	A	B	C	D	F	G	H	J ◆	L	M	N	Unit wt.
17/16	EF-B22523H	33/4 95.2	31/2 88.9	43/8 117.5	39/16 90.49	1/2 12	1/16 1.6	11/4 31.8	41/32 102.4	231/32 75.4	21/2 63.5	61/16 154.0	8 —
111/16	EF-B22527H	41/4 108.0	41/8 104.8	51/2 139.7	313/16 96.84	1/2 12	1/8 3.2	13/8 34.9	49/32 108.7	39/32 83.3	23/4 69.8	77/32 183.4	11 —
115/16	EF-B22531H	41/2 114.3	43/8 111.1	51/2 139.7	313/16 96.84	1/2 12	1/8 3.2	17/16 36.5	49/16 109.5	39/32 83.3	215/16 74.6	75/16 185.7	12 —
23/16	EF-B22535H	5 127.0	47/8 123.8	61/4 158.8	41/8 104.78	5/8 16	1/8 3.2	11/2 38.1	45/8 117.5	315/32 88.1	33/8 85.7	89/32 210.3	16 —
27/16	EF-B22539H	53/8 136.5	53/8 136.5	63/4 171.4	43/8 111.12	5/8 16	3/16 4.8	111/16 42.9	415/16 125.4	323/32 94.5	33/8 92.1	831/32 227.8	18 —
211/16 215/16	EF-B22543H EF-B22547H	61/4 158.8	6 152.4	75/8 193.7	47/8 123.82	3/4 20	3/16 4.8	113/16 46.0	513/16 137.3	47/32 107.3	43/16 106.4	101/8 275.2	28 26 —
37/16	EF-B22555H	73/8 187.3	7 177.8	83/4 222.2	55/16 134.94	3/4 20	3/32 2.4	115/16 49.2	53/4 146.0	415/32 113.5	5 127.0	1121/32 296.1	44 —
315/16 4	EF-B22563H EF-B22564H	83/8 212.7	73/4 196.8	93/4 247.6	61/8 155.58	7/8 24	3/32 2.4	23/16 55.6	65/8 168.3	53/16 131.8	529/32 150.0	1231/32 329.4	60 59 —

Please consult for availability.
For replacement bearing numbers, see pages D-64, D-65.
Lubrication fitting tap size, 1/8" PT.
All units available with type E lip seals.
◆ Width dimension for closed end unit.
Selection guide, pages D-31, D-32.
Load ratings, pages D-33, D-34.
Additional information, page D-68.

Spherical Roller Bearing Takeups

DSH-B22500H

Extra-Strength Welded Steel Frame
Cast Iron Bearing Housing
Self-aligning
Two Spring Locking Collars
Factory Adjusted and Sealed



Dimensions (inches/mm)

Shaft dia. inches	Adjustment		Takeup number	A	B	C		E	F Bolts	G	H	K	L	M	U	W ◆	Z	Unit wt. (lbs.)	
1 ¹⁵ / ₁₆	12	304.8	DSH-B22531H-12	3 ¹⁵ / ₁₆ 100.0	27 ¹ / ₂	698.5	29 ¹ / ₂	749.3	3 ¹ / ₂ 88.9	5/8 16	... ...	1 ³ / ₄ 44.4	7 ³ / ₄ 196.8	10 ⁵ / ₁₆ 269.9	2 ¹⁵ / ₁₆ 74.6	1 ²⁹ / ₃₂ 48.4	2 ⁹ / ₃₂ 57.9	4 ¹ / ₈ 104.8	78
	18	457.2	DSH-B22531H-18		33 ¹ / ₂	850.9	35 ¹ / ₂	901.7											88
	24	609.6	DSH-B22531H-24		39 ¹ / ₂	1003.3	41 ¹ / ₂	1054.1											98
2 ³ / ₁₆	12	304.8	DSH-B22535H-12	4 ⁷ / ₁₆ 112.7	27 ¹ / ₂	698.5	29 ¹ / ₂	749.3	4 ¹ / ₂ 114.3	5/8 16	... ...	2 50.8	7 ³ / ₄ 196.8	11 ¹ / ₄ 285.8	3 ³ / ₈ 85.7	2 ¹ / ₁₆ 52.4	2 ⁷ / ₁₆ 61.9	5 ¹ / ₄ 133.4	83
	18	457.2	DSH-B22535H-18		33 ¹ / ₂	850.9	35 ¹ / ₂	901.7											93
	24	609.6	DSH-B22535H-24		39 ¹ / ₂	1003.3	41 ¹ / ₂	1054.1											103
2 ⁷ / ₁₆	12	304.8	DSH-B22539H-12	4 ⁵ / ₈ 117.5	28 ¹ / ₂	723.9	30 ¹ / ₂	774.7	4 ¹ / ₂ 114.3	3/4 20	... ...	2 50.8	8 ¹ / ₄ 209.6	12 ¹³ / ₁₆ 325.4	3 ⁵ / ₈ 92.1	2 ³ / ₁₆ 55.6	2 ⁹ / ₁₆ 65.1	5 ¹ / ₄ 133.4	105
	18	457.2	DSH-B22539H-18		34 ¹ / ₂	876.3	36 ¹ / ₂	927.1											118
	24	609.6	DSH-B22539H-24		40 ¹ / ₂	1028.7	42 ¹ / ₂	1079.5											132
2 ¹⁵ / ₁₆	12	304.8	DSH-B22547H-12	5 ¹ / ₈ 130.2	30 ¹ / ₂	774.7	32 ¹ / ₂	825.5	4 ¹ / ₂ 114.3	5/8 16	2 50.8	2 50.8	9 ¹ / ₄ 235.0	13 ¹⁵ / ₁₆ 354.0	4 ³ / ₈ 106.4	2 ⁷ / ₁₆ 61.9	2 ²⁹ / ₃₂ 70.6	5 ¹ / ₄ 133.4	125
	18	457.2	DSH-B22547H-18		36 ¹ / ₂	927.1	38 ¹ / ₂	977.9											140
	24	609.6	DSH-B22547H-24		42 ¹ / ₂	1079.5	44 ¹ / ₂	1130.3											155
	30	762.0	DSH-B22547H-30		48 ¹ / ₂	1231.9	50 ¹ / ₂	1282.7											170
	36	914.4	DSH-B22547H-36		54 ¹ / ₂	1384.3	56 ¹ / ₂	1435.1											185
3 ⁷ / ₁₆	12	304.8	DSH-B22555H-12	5 ⁵ / ₈ 142.9	32	812.8	34 ¹ / ₄	870.0	4 ¹ / ₂ 114.3	3/4 20	2 50.8	2 50.8	10 254.0	15 ¹ / ₁₆ 382.6	5 127.0	2 ² / ₁₆ 67.5	3 76.2	5 ⁵ / ₈ 142.9	146
	18	457.2	DSH-B22555H-18		38	965.2	40 ¹ / ₄	1022.4											162
	24	609.6	DSH-B22555H-24		44	1117.6	46 ¹ / ₄	1174.8											178
	30	762.0	DSH-B22555H-30		50	1270.0	52 ¹ / ₄	1327.2											194
	36	914.4	DSH-B22555H-36		56	1422.4	58 ¹ / ₄	1479.6											210
3 ¹⁵ / ₁₆	12	304.8	DSH-B22563H-12	7 177.8	36	914.4	38 ¹ / ₂	977.9	5 ¹ / ₂ 139.7	3/4 20	2 ¹ / ₂ 63x5	2 ¹ / ₄ 57.2	12 304.8	17 ¹ / ₁₆ 433.4	5 ²⁹ / ₃₂ 150.0	3 ¹ / ₁₆ 77.8	3 ⁷ / ₁₆ 87.3	6 ⁷ / ₈ 174.6	260
	18	457.2	DSH-B22563H-18		42	1066.8	44 ¹ / ₂	1130.3											278
	24	609.6	DSH-B22563H-24		48	1219.2	50 ¹ / ₂	1282.7											296
	30	762.0	DSH-B22563H-30		54	1371.6	56 ¹ / ₂	1435.1											314
	36	914.4	DSH-B22563H-36		60	1524.0	62 ¹ / ₂	1587.5											332

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-64, D-65.

Lubrication fitting tap size, 1/8" PT.

All units available with type E lip seals.

◆ Width dimension for closed end unit.

Selection guide, pages D-31, D-32.

Load ratings, pages D-33, D-34.

Additional information, page D-68.

Spherical Roller Bearing Cartridge Units

CSE-B22500H

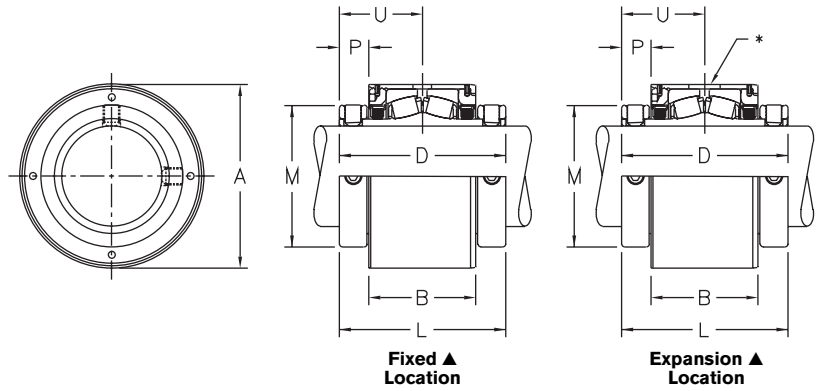
Steel Housing

Fixed or Expansion

Self-aligning

Two Spring Locking Collars

Factory Adjusted and Sealed



Dimensions (inches/mm)

Shaft dia.		Cartridge unit number ▲	A	B	D	L	M	P	U	Unit wt. (lbs./kg.)
mm	inches									
	1 ⁷ / ₁₆	CSE-B22523H	3.124 79.35	2 ³ / ₁₆ 55.56	3 ⁹ / ₁₆ 90.49	3 ⁹ / ₁₆ 90.5	2 ¹ / ₂ 63.5	1 ¹ / ₁₆ 17.5	1 ²⁵ / ₃₂ 45.2	4.2 —
	1 ¹¹ / ₁₆	CSE-B22527H	3.636 92.35	2 ⁷ / ₁₆ 61.91	3 ¹³ / ₁₆ 96.84	3 ¹³ / ₁₆ 96.8	2 ³ / ₄ 69.8	1 ¹ / ₁₆ 17.5	1 ²⁹ / ₃₂ 48.4	5.6 —
	1 ¹⁵ / ₁₆	CSE-B22531H	3.833 97.36	2 ²⁵ / ₆₄ 60.72	3 ¹³ / ₁₆ 96.84	3 ¹³ / ₁₆ 96.8	2 ¹⁵ / ₁₆ 74.6	1 ¹ / ₁₆ 17.5	1 ²⁹ / ₃₂ 48.4	6.1 —
	2	CSE-B22532H	4.227 107.36	2 ¹ / ₂ 63.50	4 ¹ / ₈ 104.78	4 ¹ / ₈ 104.8	3 ³ / ₈ 85.7	1 ³ / ₁₆ 20.6	2 ¹ / ₁₆ 52.4	9.0 8.7
	2 ³ / ₁₆	CSE-B22535H								
	2 ⁷ / ₁₆	CSE-B22539H	4.621 117.37	2 ⁵ / ₈ 66.68	4 ³ / ₈ 111.12	4 ³ / ₈ 111.1	3 ⁵ / ₈ 92.1	7 ⁷ / ₈ 22.2	2 ³ / ₁₆ 55.6	10.1 —
	2 ¹¹ / ₁₆	CSE-B22543H	5.407 137.34	3 ¹ / ₈ 79.38	4 ⁷ / ₈ 123.82	4 ⁷ / ₈ 123.8	4 ³ / ₁₆ 106.4	7 ⁷ / ₈ 22.2	2 ⁷ / ₁₆ 61.9	16.4 15.3
	2 ¹⁵ / ₁₆	CSE-B22547H								
	3 ⁷ / ₁₆	CSE-B22555H	6.194 157.33	3 ⁷ / ₁₆ 87.31	5 ⁵ / ₁₆ 134.94	5 ⁵ / ₁₆ 134.9	5 127.0	1 ⁵ / ₁₆ 23.8	2 ²¹ / ₃₂ 67.5	21.1 —
	3 ¹⁵ / ₁₆	CSE-B22563H	7.375 187.32	4 101.60	6 ¹ / ₈ 155.58	6 ¹ / ₈ 155.6	5 ²⁹ / ₃₂ 150.0	1 ¹ / ₁₆ 27.0	3 ¹ / ₁₆ 77.8	36.1 35.6
	4	CSE-B22564H								
	4 ³ / ₁₆	CSE-B22567H	7.769	4 ⁹ / ₁₆	6 ³ / ₄	6 ³ / ₄	6 ¹ / ₈	1 ¹ / ₃₂	3 ³ / ₈	52.8 50.6 49.9
	4 ⁷ / ₁₆	CSE-B22571H								
	4 ¹ / ₂	CSE-B22572H								
110		CSE-B225M110H	197.33	115.89	171.45	171.4	155.6	27.8	85.7	— —
115		CSE-B225M115H								
	4 ¹⁵ / ₁₆	CSE-B22579H	8.753	4 ⁷ / ₈	7 ¹ / ₄	7 ¹ / ₄	6 ⁷ / ₈	1 ¹ / ₁₆	3 ⁵ / ₈	55.3 54.7
	5	CSE-B22580H								
125		CSE-B225M125H	222.33	123.82	184.15	184.2	174.6	30.2	92.1	—

Bold face items are normally available from stock; please consult for availability of non-stock items.

Steel cartridge units cannot be disassembled. For replacement, use entire new unit.

All units available with type E lip seals.

▲ Hole for fixed location and slot for expansion location in the same housing.

† Tolerance, 4" and smaller shaft diameters, +.000" –.002" (+0.00 mm –0.05 mm); Larger than 4" shaft, +.000 –.003" (+0.00 mm –0.08 mm); Bore tolerance for mounting, +.002" –.000" (+0.05 mm –0.00 mm).

* Plug diameter .531" (13.49 mm), engagement depth .125" ±.015" (3.18 ±.038 mm), allows axial movement of 3¹/₁₆" (4.8 mm) in either direction from centered position on expansion units.

Selection guide, pages D-31, D-32.

Load ratings, pages D-31, D-34.

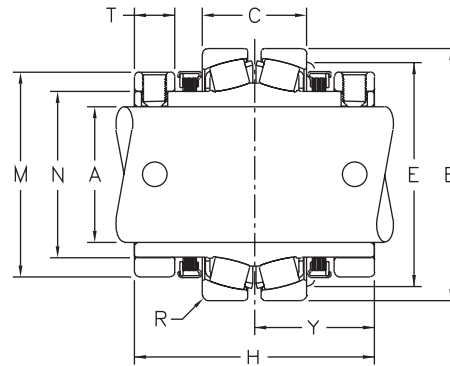
Additional information, page D-68.

Replacement Spherical Roller Bearings

B22500HL

Self-aligning

Two Spring Locking Collars



Dimensions (inches/mm)

Shaft Sizes mm inches	Bearing number *	A		B	C	E	H	M	N	R	T	Y	Unit wt. (lbs./kg.)
		mm +0.025 -0.000	inches +0.0010" -0.0000"	+0.0010" -0.0000" +0.025 mm -0.000	±0.025" ±0.64 mm ‡	Shoulder diameter				Housing fillet			
1 ¹ / ₁₆	B22523HL		1.4375	2.8345 71.996	1.310 33.27	2 ¹ / ₂ 63.5	3 ⁹ / ₁₆ 90.49	2 ¹ / ₂ 63.5	1.745 44.32	.062 1.57	5 ¹ / ₈ 15.9	1 ²⁵ / ₃₂ 45.24	2.4 —
1 ¹ / ₈	B22527HL		1.6875	3.3464 84.998	1.578 40.08	2 ⁷ / ₈ 73.0	3 ¹³ / ₁₆ 96.84	2 ³ / ₄ 69.8	2.027 51.48	.062 1.57	5 ¹ / ₈ 15.9	1 ²⁹ / ₃₂ 48.42	3.5 —
1 ¹ / ₄	B22531HL		1.9375	3.5433 90.000	1.526 38.76	3 ¹ / ₁₆ 81.0	3 ¹³ / ₁₆ 96.84	2 ¹⁵ / ₁₆ 74.6	2.307 58.59	.078 1.98	5 ¹ / ₈ 15.9	1 ²⁹ / ₃₂ 48.42	3.8 —
2	B22532HL		2.0000	3.9370 100.000	1.656 42.06	3 ¹ / ₂ 88.9	4 ¹ / ₈ 104.78	3 ³ / ₈ 85.7	2.620 66.55	.062 1.57	3 ¹ / ₄ 19.0	2 ¹ / ₁₆ 52.39	6.2 5.5
2 ³ / ₁₆	B22535HL		2.1875										
2 ⁷ / ₁₆	B22539HL		2.4375	4.3307 110.000	1.750 44.45	3 ⁷ / ₈ 98.4	4 ³ / ₈ 111.12	3 ³ / ₈ 92.1	2.901 73.69	.078 1.98	1 ³ / ₁₆ 20.6	2 ³ / ₁₆ 55.56	7.2 —
2 ¹ / ₂	B22543HL		2.6875	5.1172 129.977	2.125 53.98	4 ¹⁷ / ₃₂ 115.1	4 ⁷ / ₈ 123.82	4 ³ / ₁₆ 106.4	3.370 85.60	.078 1.98	1 ³ / ₁₆ 20.6	2 ⁷ / ₁₆ 61.91	11.6 10.6
2 ¹⁵ / ₁₆	B22547HL		2.9375										
3 ¹ / ₁₆	B22555HL		3.4375	5.9045 149.974	2.313 58.75	5 ¹ / ₃₂ 135.7	5 ⁵ / ₁₆ 134.94	5 127.0	3.975 100.97	.125 3.18	2 ⁷ / ₃₂ 21.4	2 ² / ₃₂ 67.47	15.7 —
3 ¹⁵ / ₁₆	B22563HL		3.9375	7.0856 179.974	2.750 69.85	6 ³ / ₈ 161.9	6 ¹ / ₈ 155.58	5 ²⁹ / ₃₂ 150.0	4.561 115.85	.125 3.18	3 ¹ / ₃₂ 24.6	3 ¹ / ₁₆ 77.79	26.9 26.4
4	B22564HL		4.0000										
4 ³ / ₁₆	B22567HL		4.1875	7.4792	2.974	6 ⁵ / ₈	6 ³ / ₄	6 ¹ / ₈	5.000	.125	1	3 ³ / ₈	38.2 36.0 35.3
4 ⁷ / ₁₆	B22571HL		4.4375										
4 ¹ / ₂	B22572HL		4.5000										
110	B225M110HL	110.000	189.972	75.54	168.3	171.45	155.6	127.00	3.18	25.4	85.72	16.3 16.0	
115	B225M115HL	115.000											
4 ¹⁵ / ₁₆	B22579HL		4.9375	8.4634	3.437	7 ¹ / ₂	7 ¹ / ₄	6 ⁷ / ₈	5.594	.125	1 ³ / ₃₂	3 ³ / ₈	41.6 40.7
5	B22580HL		5.0000										
125	B225M125HL	125.000	214.970	87.30	190.5	184.15	174.6	142.08	3.18	27.8	92.08	18.4	

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearings for expansion units see CSE-B22500H unit shown on page D-39.

All bearings available with type E lip seals.

* Includes bearing, two floating labyrinth seals, and two spring locking collars.

‡ Use shims, threaded cover, or spacer ring to provide for adjustment. Housing must allow clearance for this adjustment on dimension C.

Selection guide, pages D-31, D-32.

Load ratings, pages D-33, D-34.

Additional information, page D-68.

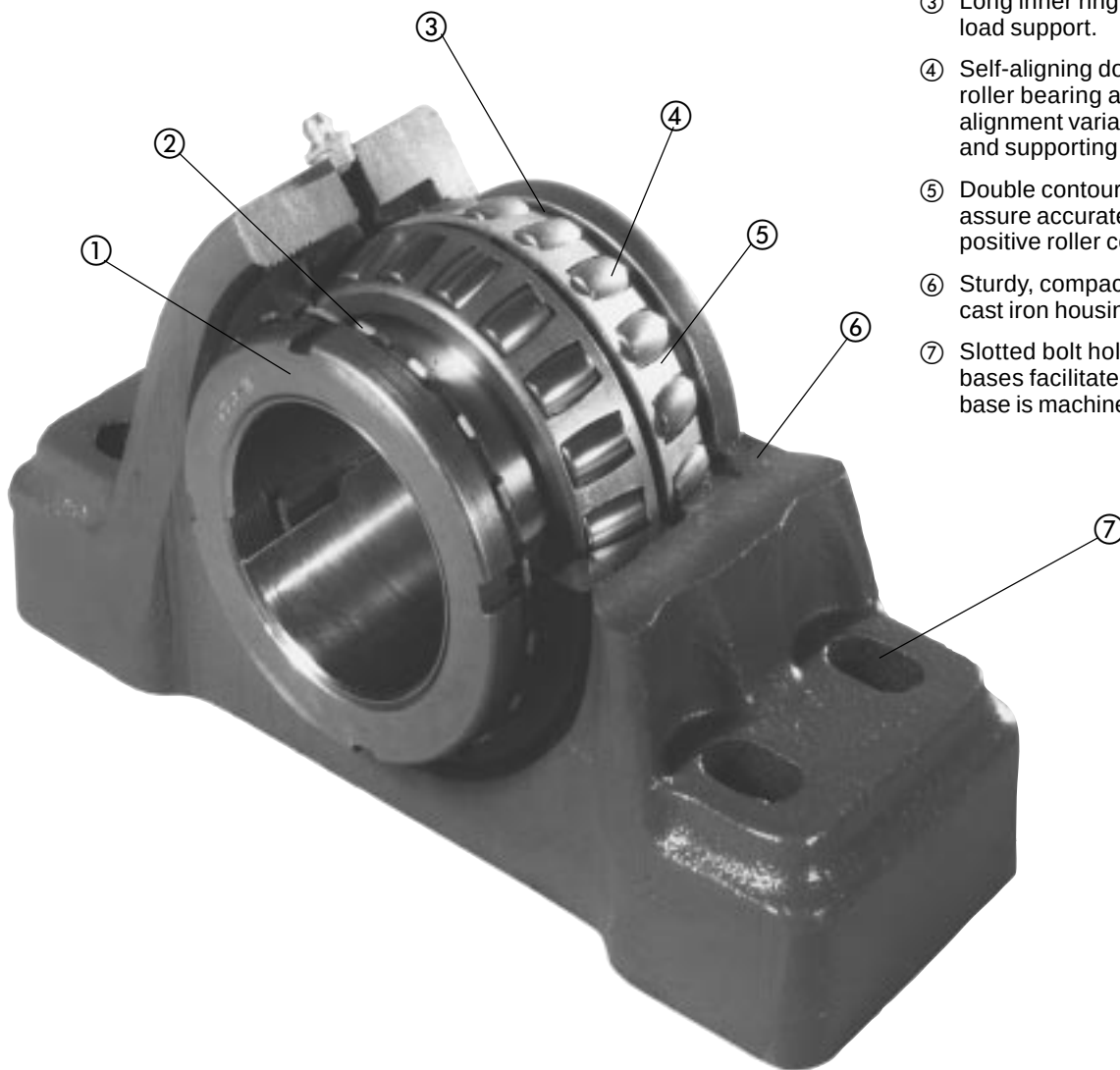
Max Mount™

Series B22600

Spherical Roller Bearing Units

Series B22600 adapter mounted spherical roller bearing units will support shafts carrying substantial radial or combination radial and thrust loads. These units are adaptable for conveyors, elevators, general industrial machinery, heavier duty fans and blowers, power transmission applications, ditchers, trenchers, pavers and other applications. They differ from series B22400 & B22500 units in that they have a tapered adapter mounting system. Series B22600 units are easy to mount, sealed, prelubricated and do not require bearing adjustment during mounting.

- ① Tapered adapter mounting system.
- ② Choice of two seals, floating labyrinth Type H, and spring-loaded lip Type E.
- ③ Long inner ring for high stability and load support.
- ④ Self-aligning double row spherical roller bearing adjusts $\pm 2^\circ$ to allow for alignment variations between shaft and supporting structure.
- ⑤ Double contoured retainer pockets assure accurate roller guidance and positive roller control.
- ⑥ Sturdy, compact one-piece high-test cast iron housing.
- ⑦ Slotted bolt holes in pillow block bases facilitate mounting; bottom of base is machined.



Spherical Roller Bearings

Series B22600 self-aligning double row spherical roller bearings have high LDN values and are designed to distribute the load over the symmetrical rollers, assuring positive tracking and smooth operation. The large roller complement provides high capacity for radial or combined radial-thrust loads. Osculation clearance at the

ends of the rollers compensates for shock loads and prevents destructive edge loading. These precision bearings with double contoured retainer pockets are designed to meet a broad range of application requirements.



Adapter Mount

The B22600 adapter mounting provides better concentricity and shaft control, increasing service life. Where Turned, Ground and Polished shafting is the norm on collar-mounted units, the maximized mounting power of the B22600 allows for Commercial Grade Shafting compatibility (a commonly used grade of shafting due to its price and availability).

Shaft damage from set screws is eliminated with the B22600's improved mounting design. Shaft damage from the bearing inner ring fretting to the shaft (the result of a clearance or loose fit) is also eliminated. These improvements facilitate easier bearing removal, replacement bearing installation and longer shaft service life.

Seals

Two standard sealing systems are available. . . each offering maximum protection for the bearing.

Type H floating labyrinth seals have multiple self-centering rings held securely in a steel carrier. Type H seals are normally furnished.

Type E spring-loaded lip seals utilize a spring to provide uniform pressure for keeping the sealing lip in contact with the inner ring. Type E seals are normally used for liquid splash environments.

Seals are interchangeable and are designed for grease lubrication.



TYPE H SEAL



TYPE E SEAL

One-Piece Cast Iron or Cast Steel Housings

Compact one-piece housings provide for strength and load support. Scientifically contoured housing design provides superior rigidity. Cast iron or cast steel pillow blocks have two or four slotted bolt holes with ample space provided for drilling dowel pin holes. Flanged and flanged cartridge units have drilled

mounting holes and machined mounting surfaces for maximum stability. Cartridge units have steel housings and are finished to precision tolerances. Takeup units have machined slots for smooth, precise operation. Pillow blocks, flanged, and cartridge units are available for fixed or expansion operation.



Max Mount™

Series B22600

Spherical Roller Bearing Units

Pillow Blocks, cast iron

EP-B22600H*, EPE-B22600H*, EP-B22600FH*, EPE-B22600FH*
P-B22600H, PE-B22600H, P-B22600FH, PE-B22600FH

Self-aligning 2-bolt base pillow blocks for shaft sizes $1\frac{7}{16}$ " through $3\frac{15}{16}$ " and 4-bolt base pillow blocks for shaft sizes $1\frac{15}{16}$ " through $4\frac{15}{16}$ ". Units are available for fixed or expansion mounting.

Load ratings on pages D-47 and D-48.

Dimensions on pages D-49 through D-52.

Additional information on page D-69.

***Self-aligning Type E Interchange**



Pillow Blocks, cast steel

PK-B22600H, PKE-B22600H, PK-B22600FH, PKE-B22600FH

Self-aligning 2-bolt base pillow blocks for shaft sizes $1\frac{7}{16}$ " through $3\frac{15}{16}$ ", 4-bolt base pillow blocks for shaft sizes $1\frac{15}{16}$ " through $4\frac{15}{16}$ ". Units are available for fixed or expansion mounting.

Load ratings on pages D-47 and D-48.

Dimensions on pages D-53 and D-54.

Additional information on page D-69.



Flanged Units, cast iron

EF-B22600H,* FB-B22600H
F-B22600H, FE-B22600H

Self-aligning flanged units for shaft sizes $1\frac{7}{16}$ " through $3\frac{15}{16}$ ". Units are available for fixed or expansion mounting.

Load ratings on pages D-47 and D-48.

Dimensions on pages D-56 through D-58.

Additional information on page D-69.

***Self-aligning Type E Interchange**



Flanged Cartridge Units, cast iron

FC-B22600H*

Self-aligning flanged cartridge units for shaft sizes $1\frac{7}{16}$ " through $3\frac{15}{16}$ ". Units are available for fixed mounting.

Load ratings on pages D-47 and D-48.

Dimensions on page D-59.

Additional information on page D-69.

***Self-aligning Type E Interchange**



Cartridge Units, steel

CSE-B22600H

Self-aligning cartridge units. Steel housings for shaft sizes $1\frac{7}{16}$ " through $3\frac{15}{16}$ ". Steel cartridge units are available for fixed or expansion mounting.

Load ratings on pages D-47 and D-48.

Dimensions on pages D-55.

Additional information on page D-69.



Takeup Units, cast iron

T-B22600H

Self-aligning units for takeup applications with shaft sizes $1\frac{7}{16}$ " through $3\frac{15}{16}$ ". Fixed units without frames, guides, or adjusting screws.

Load ratings on pages D-47 and D-48.

Dimensions on page D-60.

Additional information on page D-69.



Replacement Bearings

B22600HL

Self-aligning double row spherical roller bearings with adapter assembly for shaft sizes $1\frac{7}{16}$ " through $4\frac{15}{16}$ ".

Load ratings on pages D-47 and D-48.

Dimensions on page D-61.

Additional information on page D-69.



Selection

Max Mount™

Series B22600

To select a bearing, determine the applied radial load, the applied thrust load, the desired Rating Life, and applicable operating conditions. The procedure shown here will aid in selecting a bearing to meet an L_{10} design life. The formulas for calculating life expectancy should be used to determine the Rating Life L_{10} for the bearing selected.

The selection procedures and rating formulas shown here are in agreement with The American Bearing Manufacturers Association Standards and ANSI/ABMA Standards STD 11-1990. Ratings are based on fatigue life. The Rating Life L_{10} or fatigue life at 90% reliability is the usual basis for bearing selection.

For radial load applications only, Table 3, page D-48, can be used to select a bearing or to determine L_{10} life expectancy.

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

Bearing Selection

Step 1 Determine an appropriate L_{10} design life.

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

Step 2 Determine a required $\left(\frac{C}{P}\right)$ from Table 1.

Step 3 Calculate the required C and select a roller bearing.

a For radial load only:

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

Select a roller bearing from Table 2, page D-47 with a basic load rating C equal to or greater than the required C.

b For combined radial and thrust loads:

Select a trial roller bearing of the desired shaft size from Table 2, page D-47.

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

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

Calculate the equivalent radial load P

$$P = XF_r + YF_a$$

If $\frac{F_a}{F_r}$ is equal to or less than e, then $P = X_1F_r + Y_1F_a$

If $\frac{F_a}{F_r}$ is greater than e, then $P = X_2F_r + Y_2F_a$

For values of e, X_1 , Y_1 , X_2 , and Y_2 , see Table 2, page D-47.

Calculate the required C

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

Consult Table 2, page D-47, basic load rating. If a smaller bearing meets, or nearly meets, the required C, its life expectancy can be calculated.

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

Selection

Max Mount™

Series B22600

symbols for formulas:

C = basic load rating, pounds (or newtons)
 C_o = static load rating, pounds (or newtons)
 e = a reference value
 F_a = thrust load, pounds (or newtons)
 F_r = radial load, pounds (or newtons)
 L₁₀ = rating life, hours
 n = speed, revolutions per minute
 P = equivalent radial load, pounds (or newtons)
 X = radial factor
 Y = thrust factor

Table 1 • Relation of L₁₀ life and speed to $\left(\frac{C}{P}\right)$

Bearing life, hours L ₁₀	$\left(\frac{C}{P}\right)$ ratio									
	Speed, n									
	50	100	200	300	400	500	600	700	800	
3000	1.93	2.38	2.93	3.31	3.61	3.86	4.07	4.27	4.44	
4000	2.11	2.59	3.19	3.61	3.93	4.20	4.44	4.65	4.84	
5000	2.25	2.77	3.42	3.86	4.20	4.50	4.75	4.97	5.18	
6000	2.38	2.93	3.61	4.07	4.44	4.75	5.02	5.25	5.47	
8000	2.59	3.19	3.93	4.44	4.84	5.18	5.47	5.73	5.96	
10000	2.77	3.42	4.20	4.75	5.18	5.54	5.85	6.12	6.37	
12000	2.93	3.61	4.44	5.02	5.47	5.85	6.18	6.47	6.73	
14000	3.07	3.78	4.65	5.25	5.73	6.12	6.47	6.77	7.05	
16000	3.19	3.93	4.84	5.47	5.96	6.37	6.73	7.05	7.34	
18000	3.31	4.07	5.02	5.66	6.18	6.60	6.97	7.30	7.60	
20000	3.42	4.20	5.18	5.85	6.37	6.81	7.20	7.54	7.85	
25000	3.65	4.50	5.54	6.25	6.81	7.29	7.70	8.06	8.39	
30000	3.86	4.75	5.85	6.60	7.20	7.70	8.13	8.51	8.86	
35000	4.04	4.97	6.12	6.92	7.54	8.06	8.51	8.92	9.28	
40000	4.20	5.18	6.37	7.20	7.85	8.39	8.86	9.28	9.66	
45000	4.36	5.36	6.60	7.46	8.13	8.69	9.18	9.61	10.00	
50000	4.50	5.54	6.81	7.70	8.39	8.97	9.48	9.92	10.30	
60000	4.75	5.85	7.20	8.13	8.86	9.48	10.00	10.50	10.90	
70000	4.97	6.12	7.54	8.51	9.28	9.92	10.50	11.00	11.40	
80000	5.18	6.37	7.85	8.86	9.66	10.30	10.90	11.40	11.90	
90000	5.36	6.60	8.13	9.18	10.00	10.70	11.30	11.80	12.30	
100000	5.54	6.81	8.39	9.48	10.30	11.00	11.70	12.20	12.70	
150000	6.25	7.70	9.48	10.70	11.70	12.50	13.20	13.80	14.40	
200000	6.81	8.39	10.30	11.70	12.70	13.60	14.40	15.00	15.70	
	Speed, n									
	900	1000	1200	1500	1800	2400	3000	3600	6000	
3000	4.60	4.75	5.02	5.36	5.66	6.18	6.60	6.97	8.13	
4000	5.02	5.18	5.47	5.85	6.18	6.73	7.20	7.60	8.86	
5000	5.36	5.54	5.85	6.25	6.60	7.20	7.70	8.13	9.48	
6000	5.66	5.85	6.18	6.60	6.97	7.60	8.13	8.59	10.00	
8000	6.18	6.37	6.73	7.20	7.60	8.29	8.86	9.36	10.90	
10000	6.60	6.81	7.20	7.70	8.13	8.86	9.48	10.00	11.70	
12000	6.97	7.20	7.60	8.13	8.59	9.36	10.00	10.60	12.30	
14000	7.30	7.54	7.96	8.51	8.99	9.80	10.50	11.10	12.90	
16000	7.60	7.85	8.29	8.86	9.36	10.20	10.90	11.50	13.40	
18000	7.88	8.13	8.59	9.18	9.70	10.60	11.30	11.90	13.90	
20000	8.13	8.39	8.86	9.48	10.00	10.90	11.70	12.30	14.40	
25000	8.69	8.97	9.48	10.10	10.70	11.70	12.50	13.20	15.40	
30000	9.18	9.48	10.00	10.70	11.30	12.30	13.20	13.90	16.20	
35000	9.61	9.92	10.50	11.20	11.80	12.90	13.80	14.60	17.00	
40000	10.00	10.30	10.90	11.70	12.30	13.40	14.40	15.20	17.70	
45000	10.40	10.70	11.30	12.10	12.80	13.90	14.90	15.70	18.30	
50000	10.70	11.00	11.70	12.50	13.20	14.40	15.40	16.20	18.90	
60000	11.30	11.70	12.30	13.20	13.90	15.20	16.20	17.10	20.00	
70000	11.80	12.20	12.90	13.80	14.60	15.90	17.00	17.90	20.90	
80000	12.30	12.70	13.40	14.40	15.20	16.50	17.70	18.70	21.80	
90000	12.80	13.20	13.90	14.90	15.70	17.10	18.30	19.40	22.60	
100000	13.20	13.60	14.40	15.40	16.20	17.70	18.90	20.00	23.30	
150000	14.90	15.40	16.20	17.30	18.30	20.00	21.40	22.60	26.30	
200000	16.20	16.70	17.70	18.90	20.00	21.80	23.30	24.60	28.70	

basic formulas:

$$\left(\frac{C}{P}\right) = \left(\frac{L_{10} \times n \times 60}{1,000,000}\right)^{3/10}$$

$$L_{10} = \frac{\left(\frac{C}{P}\right)^{10/3} \times 1,000,000}{n \times 60}$$

Life Expectancy

To calculate the Rating Life L₁₀ of any selected or trial bearing:

Step 1 Determine the equivalent radial load P.

a For radial load only:

$$P = F_r$$

b For combined radial and thrust load:

$$P = XF_r + YF_a$$

If $\frac{F_a}{F_r}$ is equal to or less than e, then

$$P = X_1F_r + Y_1F_a$$

If $\frac{F_a}{F_r}$ is greater than e, then

$$P = X_2F_r + Y_2F_a$$

For values of e, X₁, Y₁, X₂, and Y₂, see Table 2, page D-47.

Step 2 Calculate the ratio of the basic load rating C to the equivalent radial load.

$$\frac{C}{P}$$

Step 3 Approximate the bearing life from Table 1.

Life Adjustment

The Rating Life, L₁₀, may be modified for some applications in accordance with the formula

$$L_n = a_1 a_2 a_3 L_{10}$$

where L_n = Adjusted life for (100-n) % reliability,

a₁ = Life adjustment factor for reliability

a₂ = Life adjustment factor for material and processing

a₃ = Life adjustment factor for operating conditions.

For most normal applications, all factors will be taken as 1, and the Rating Life used as the selection basis or life estimate. In addition, as long as standard catalog bearings are used, a₂ will be normally set equal to one. The factor a₃ covers such things as lubrication, misalignment, and temperature. Some conditions that could yield a₃ significantly different than unity include speeds less than 20000 DN or greater than 200000 DN, temperatures below -40°F (-40°C) or above 275°F (135°C). For other possible conditions, as well as additional information on life adjustment factors, consult Link-Belt Bearing Division, Rexnord Corp.

Load Ratings Max Mount™ Series B22600

Table 2 • Load ratings and speed limits

Shaft diameter inches	Bearing size number	C ₀ Static load rating		C Basic load rating		Approximate speed limit RPM ●	e	$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
		<i>newtons</i>	pounds	<i>newtons</i>	pounds	H and E seals		X ₁	Y ₁	X ₂	Y ₂
17/16	B22623	93 200	20900	64 900	14600	2750	.44	1.00	1.54	.67	2.29
115/16	B22631	147 700	33200	94 300	21200	2150	.40	1.00	1.68	.67	2.50
23/16	B22635	197 500	44400	117 400	26400	1950	.40	1.00	1.68	.67	2.50
27/16	B22639	238 000	53500	139 700	31400	1750	.38	1.00	1.80	.67	2.68
211/16 215/16	B22643 B22647	318 000	71500	185 900	41800	1500	.38	1.00	1.79	.67	2.67
37/16	B22655	403 400	90700	226 800	51000	1250	.38	1.00	1.77	.67	2.64
315/16	B22663	609 400	137000	351 800	79100	1100	.36	1.00	1.88	.67	2.79
47/16	B22671	790 200	178000	419 400	94300	1000	.38	1.00	1.80	.67	2.68
415/16	B22679	944 700	212000	520 400	117000	900	.37	1.00	1.83	.67	2.72

If the load P is greater than .25C, consult Link-Belt Bearing Division, Rexnord Corp.

For vertical shift application, consult Link-Belt Bearing Division, Rexnord Corp.

● Based on grease lubrication and moderate load.

Additional information, page D-69.

Load Ratings

Max Mount™

Series B22600

Table 3 • Radial load ratings in pounds at various RPM for appropriate L₁₀ life hours

Shaft diameter inches	Bearing size number	L ₁₀ Minimum life, hours	Radial load ratings, pounds														
			Speed, RPM														
			50	100	200	300	500	700	900	1000	1200	1500	1800	2000	2500	3000	3500
1 ⁷ / ₁₆	B22623	8000	....	....	....	3290	2820	2540	2360	2290	2170	2020	1920	1860	1740		
		20000	....	3470	2820	2500	2140	1930	1800	1740	1640	1540	1450	1410	1320		
		40000	3470	2820	2290	2020	1740	1570	1450	1410	1330	1250	1180	1140	1070		
		100000	2630	2140	1740	1540	1320	1200	1100	1070	1010	950	900	872	815		
1 ¹⁵ / ₁₆	B22631	8000	....	....	....	4770	4100	3700	3430	3320	3140	2940	2790	2700			
		20000	....	5040	4100	3620	3110	2810	2600	2520	2390	2230	2110	2050			
		40000	5040	4100	3320	2940	2520	2280	2110	2050	1940	1810	1720	1670			
		100000	3830	3110	2520	2230	1910	1730	1600	1550	1480	1380	1300	1270			
2 ³ / ₁₆	B22635	8000	....	....	....	5940	5100	4600	4280	4140	3920	3670	3470				
		20000	....	6280	5100	4510	3870	3500	3240	3140	2980	2790	2630				
		40000	6280	5100	4140	3670	3140	2840	2630	2550	2410	2260	2140				
		100000	4770	3870	3140	2790	2390	2160	2000	1940	1830	1710	1620				
2 ⁷ / ₁₆	B22639	8000	....	....	....	7070	6070	5480	5090	4920	4660	4360					
		20000	....	7470	6070	5370	4600	4170	3860	3740	3540	3310					
		40000	7470	6070	4920	4360	3740	3380	3130	3030	2880	2690					
		100000	5670	4600	3740	3310	2840	2570	2380	2300	2190	2040					
2 ¹¹ / ₁₆ 2 ¹³ / ₁₆	B22643 B22647	8000	....	....	....	9410	8070	7300	6770	6550	6200	5800					
		20000	....	9940	8070	7150	6130	5540	5140	4980	4710	4410					
		4000	9940	8070	6550	5800	4980	4500	4180	4040	3830	3580					
		100000	7550	6130	4980	4410	3780	3420	3170	3070	2910	2720					
3 ⁷ / ₁₆	B22655	8000	....	....	....	11400	9850	8900	8250	8000	7580						
		20000	....	12100	9850	8720	7480	6770	6270	6080	5750						
		40000	12100	9850	8000	7090	6080	5500	5100	4930	4670						
		100000	9210	7480	6080	5380	4610	4170	3870	3750	3550						
3 ¹⁵ / ₁₆	B22663	8000	....	....	....	17800	15200	13800	12800	12400							
		20000	....	18800	15200	13500	11600	10400	9730	9420							
		40000	18800	15200	12400	11000	9420	8520	7900	7650							
		100000	14200	11600	9420	8340	7160	6470	6000	5810							
4 ⁷ / ₁₆	B22671	8000	....	....	....	21200	18200	16400	15200	14800							
		20000	....	....	22400	18200	15100	13800	12500	11600	11200						
		40000	....	22400	18200	14800	13100	11200	10100	9420	9120						
		100000	....	17000	13800	11200	9950	8530	7710	7150	6930						
4 ⁵ / ₁₆	B22679	8000	....	....	....	26300	22500	20400	18900								
		20000	....	....	27800	22500	20000	17100	15500	14300							
		40000	....	27800	22500	18300	16200	13900	12600	11700							
		100000	....	2100	17100	13900	12300	10500	9580	8880							

If the load P is greater than .25C, consult Link-Belt Bearing Division, Rexnord Corp.

Spherical Roller Bearing Pillow Blocks

Max Mount™

P-B22600H, PE-B22600H

Cast Iron Housing

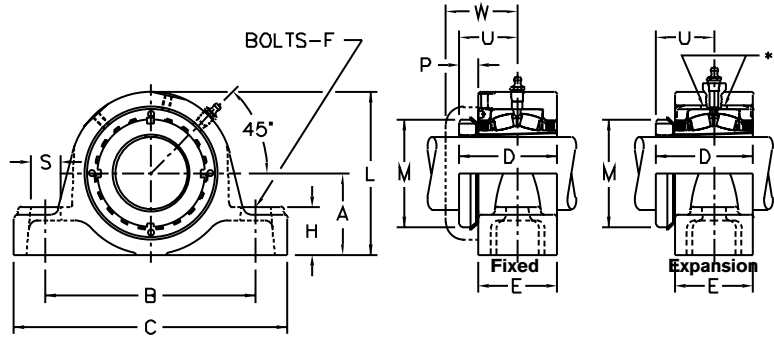
2-bolt Base

Fixed or Expansion

Self-aligning

Adapter Mounted

Factory Adjusted and Sealed



Dimensions (inches/mm)

Shaft dia. inches	Pillow block number△		A †	B	C	D ●	E	F Bolts	H ■	L		M	P ●	S	U ●	W ◆	Unit wt. (lbs./kg.)
	Fixed	Expansion								Fixed	Expansion						
17/16	P-B22623H	PE-B22623H	17/16 47.62	5 127.0	67/16 174.6	2.708 68.78	21/4 57.2	1/2 12	13/16 30.2	311/16 93.7	37/8 98.4	21/4 57.2	9/16 14.3	13/16 20.6	143/64 42.5	23/16 55.6	7 3.2
115/16	P-B22631H	PE-B22631H	21/4 57.15	61/4 158.8	83/8 212.7	3.075 78.10	21/2 63.5	5/8 16	13/8 34.9	49/16 115.9	49/16 115.9	231/32 75.4	43/64 17.1	15/16 23.8	155/64 47.2	29/32 57.9	12 5.4
23/16	P-B22635H	PE-B22635H	21/2 63.50	63/4 171.4	87/8 225.4	3.159 80.24	29/16 65.1	5/8 16	15/8 41.3	5 127.0	5 127.0	35/32 80.2	21/32 16.7	15/16 23.8	19/32 30.7	27/16 61.9	14 6.4
27/16	P-B22639H	PE-B22639H	23/4 69.85	71/8 181.0	91/4 235.0	3.362 85.39	211/16 68.3	5/8 16	15/8 41.3	51/2 139.7	51/2 139.7	35/8 92.1	43/64 17.1	15/16 23.8	23/64 52.0	29/16 65.1	17 7.7
211/16	P-B22643H	PE-B22643H	33/4 82.55	83/8 206.4	107/16 265.1	3.863 98.12	33/16 81.0	3/4 20	2 57.2	67/16 163.5	67/16 163.5	45/32 105.6	3/4 19.1	11/16 27.0	219/64 58.3	225/32 70.6	29 13.2 27 12.2
215/16	P-B22647H	PE-B22647H															
37/16	P-B22655H	PE-B22655H	33/4 95.25	10 254.0	13 330.2	4.306 109.37	37/16 87.3	7/8 24	21/4 57.2	71/2 190.5	71/2 190.5	415/16 125.4	7/8 22.2	15/8 41.3	29/16 65.1	3 76.2	42 19.1
315/16	P-B22663H	PE-B22663H	41/4 107.95	113/4 298.4	151/4 387.4	4.944 125.58	4 101.6	1 24	25/8 66.7	81/2 215.9	81/2 215.9	57/16 138.1	19/16 23.8	21/4 57.2	215/16 74.6	37/16 87.3	59 26.9

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-66, D-67.

Lubrication fitting tap size, 1/8" PT.

with type E lip seals.

* Expansion unit allows axial movement of 3/16" (4.8 mm) in either direction from centered position shown.

† Tolerance, ±.005" (±0.13 mm).

■ Dimension H for PE-B22639H is 13/4"; Dimension H for PE-B22643H thru PE-B22647H is 21/4".

◆ Width dimension for closed end unit.

△ LHD Sliding Base Takeup can be drilled for P-B22600H pillow blocks, see page D-22

● Dimensions based on unmounted condition.

Selection guide, page D-45, D4-6.

Load ratings, pages D-47, D-48. All units available

Additional information, page D-69.

Spherical Roller Bearing Pillow Blocks

Max Mount™

P-B24600FH, PE-B22600FH

Cast Iron Housing

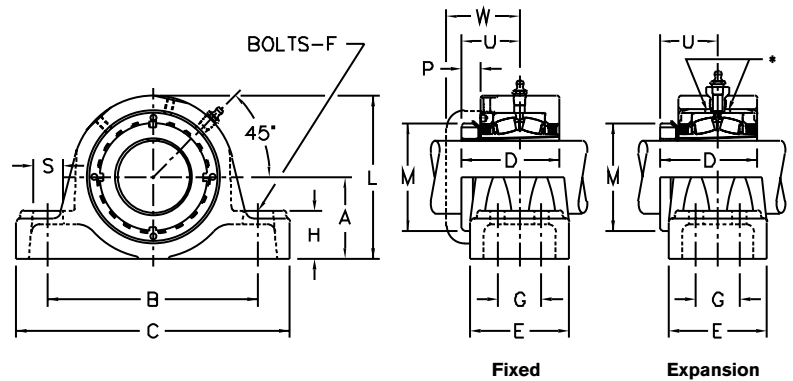
4-bolt Base

Fixed or Expansion

Self-aligning

Adapter Mounted

Factory Adjusted and Sealed



Dimensions (inches/mm)

Shaft dia. inches	Pillow block number		A †	B	C	D ●	E	F Bolts	G	H	L	M	P ●	S	U ●	W ◆	Unit wt. (lbs./kg.)
	Fixed	Expansion															
1 ¹⁵ / ₁₆	P-B22631FH	PE-B22631FH	2 ¹ / ₄ 57.15	6 ¹ / ₄ 158.8	8 ³ / ₈ 212.7	3.075 78.10	3 ³ / ₁₆ 81.0	1 ¹ / ₂ 12	1 ¹¹ / ₃₂ 40.5	1 ³ / ₈ 34.9	4 ⁹ / ₁₆ 115.9	2 ³¹ / ₃₂ 75.4	4 ³ / ₆₄ 17.1	1 ³ / ₁₆ 20.6	1 ⁵⁵ / ₆₄ 47.2	2 ⁹ / ₃₂ 57.9	13 5.9
2 ³ / ₁₆	P-B22635FH	PE-B22635FH	2 ¹ / ₂ 63.50	6 ³ / ₄ 171.4	8 ⁷ / ₈ 225.4	3.159 80.24	3 ¹ / ₄ 82.6	1 ¹ / ₂ 12	1 ¹¹ / ₁₆ 42.9	1 ⁵ / ₈ 41.3	5 127.0	3 ⁵ / ₃₂ 80.2	2 ¹ / ₃₂ 16.7	1 ³ / ₁₆ 20.6	1 ⁹ / ₃₂ 30.7	2 ⁷ / ₁₆ 61.9	15 6.8
2 ⁷ / ₁₆	P-B22639FH	PE-B22639FH	2 ³ / ₄ 69.85	7 ¹ / ₈ 181.0	9 ¹ / ₄ 235.0	3.362 85.39	3 ³ / ₈ 85.7	1 ¹ / ₂ 12	1 ³ / ₄ 44.4	1 ³ / ₄ 44.4	5 ¹ / ₂ 139.7	3 ⁵ / ₈ 92.1	4 ³ / ₆₄ 17.1	1 ³ / ₁₆ 20.6	2 ³ / ₆₄ 52.0	2 ⁹ / ₁₆ 65.1	19 8.6
2 ¹¹ / ₁₆	P-B22643FH	PE-B22643FH	3 ¹ / ₄ 82.55	8 ¹ / ₈ 206.4	10 ⁷ / ₁₆ 265.1	3.863 98.12	3 ³ / ₄ 95.2	5 ⁸ / ₁₆ 16	1 ⁷ / ₈ 47.6	2 ¹ / ₄ 57.2	6 ⁷ / ₁₆ 163.5	4 ⁵ / ₃₂ 105.6	3 ⁴ / ₁₆ 19.1	1 ⁵ / ₁₆ 23.8	2 ¹⁹ / ₆₄ 58.3	2 ²⁵ / ₃₂ 70.6	30 13.6
2 ¹⁵ / ₁₆	P-B22647FH	PE-B22647FH															29 13.2
3 ⁷ / ₁₆	P-B22655FH	PE-B22655FH	3 ³ / ₄ 95.25	10 254.0	13 330.2	4.306 109.37	4 ¹ / ₈ 104.8	3 ⁴ / ₁₆ 20	2 50.8	2 ¹ / ₄ 57.2	7 ¹ / ₂ 190.5	4 ¹⁵ / ₁₆ 125.4	7 ⁸ / ₁₆ 22.2	1 ¹ / ₂ 38.1	2 ⁹ / ₁₆ 65.1	3 76.2	43 19.5
3 ¹⁵ / ₁₆	P-B22663FH	PE-B22663FH	4 ¹ / ₄ 107.95	12 ¹ / ₂ 317.5	15 ¹ / ₄ 387.4	4.944 125.58	4 ¹ / ₂ 114.3	3 ⁴ / ₁₆ 20	2 ¹ / ₄ 57.2	2 ⁵ / ₈ 66.7	8 ¹ / ₂ 215.9	5 ⁷ / ₁₆ 138.1	1 ⁵ / ₁₆ 23.8	1 ¹ / ₄ 31.8	2 ¹⁵ / ₁₆ 74.6	3 ⁷ / ₁₆ 87.3	67 30.3
4 ⁷ / ₁₆	P-B22671FH	PE-B22671FH	4 ³ / ₄ 120.65	13 ¹ / ₂ 342.9	16 ¹ / ₂ 419.1	5.534 140.56	4 ³ / ₄ 120.6	3 ⁴ / ₁₆ 20	2 ¹ / ₂ 63.5	2 ³ / ₄ 69.8	9 ³ / ₈ 238.1	6 ¹ / ₈ 155.6	1 ³ / ₃₂ 27.8	1 ³ / ₈ 34.9	3 ¹¹ / ₃₂ 84.9	3 ³ / ₄ 95.2	88 39.9
4 ¹⁵ / ₁₆	P-B22679FH	PE-B22679FH	5 ¹ / ₂ 139.70	15 ¹ / ₂ 393.7	18 ¹ / ₂ 469.9	6.056 153.82	5 ³ / ₈ 136.5	7 ⁸ / ₁₆ 24	2 ³ / ₄ 69.8	3 76.2	10 ⁷ / ₈ 276.2	6 ³ / ₄ 171.4	1 ³ / ₁₆ 30.2	1 ¹ / ₂ 38.1	3 ²¹ / ₃₂ 92.9	4 101.6	128 58.1

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-66 through D-67.

Lubrication fitting tap size, 1/8" PT.

All units available with type E lip seals.

† Tolerance, ±.005" (±0.13 mm).

* Expansion unit allows axial movement of 3/16" (4.8 mm) in either direction from centered position shown.

● Dimensions based on unmounted condition.

◆ Width dimension for closed end unit.

Selection guide, pages D-45, D-46.

Load ratings, pages D-47, D-48.

Additional information, page D-69.

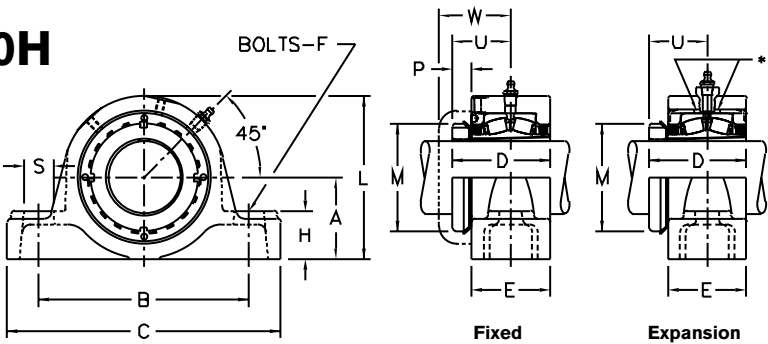
Spherical Roller Bearing Pillow Blocks

Max Mount™

EP-B22600H, EPE-B22600H

Cast Iron Housing
2-Bolt Base
Fixed or Expansion
Self-aligning
Adapter Mounted
Factory Adjusted and Sealed

Self-Aligning Type E Interchange



Dimensions (inches/mm)

Shaft dia. inches	Pillow block number△		A †	B		C	D ●	E	F Bolts	H	L	M	P ●	U ●	W ◆	Unit wt. (lbs./kg.)
	Fixed	Expansion		min.	max.											
17⁄16	EP-B22623H	EPE-B22623H	17⁄16 47.62	43⁄4 120.6	6 152.4	73⁄8 187.3	2.708 68.78	21⁄4 57.2	1⁄2 12	11⁄8 28.6	37⁄8 98.4	21⁄4 57.2	9⁄16 14.3	143⁄64 42.5	23⁄16 55.6	8 3.1
115⁄16	EP-B22631H	EPE-B22631H	21⁄4 57.15	61⁄16 154.0	71⁄4 184.2	87⁄8 225.4	3.075 78.10	21⁄2 63.5	5⁄8 16	15⁄16 33.3	49⁄16 115.9	231⁄32 75.4	43⁄64 17.1	155⁄64 47.2	29⁄32 57.9	12 5.5
23⁄16	EP-B22635H	EPE-B22635H	21⁄2 63.50	69⁄16 166.7	8 203.2	95⁄8 244.5	3.159 80.24	29⁄16 65.1	5⁄8 16	11⁄2 38.1	5 127.0	35⁄32 80.2	21⁄32 16.7	19⁄32 30.7	27⁄16 61.9	15 6.8
27⁄16	EP-B22639H	EPE-B22639H	23⁄4 69.85	615⁄16 176.2	83⁄4 222.2	101⁄2 266.7	3.362 85.39	211⁄16 68.3	5⁄8 16	15⁄8 41.3	51⁄2 139.7	35⁄8 92.1	43⁄64 17.1	23⁄64 52.0	29⁄16 65.1	17 7.7
211⁄16	EP-B22643H	EPE-B22643H	31⁄8 79.38	713⁄16 198.4	93⁄4 247.6	1113⁄16 300.0	3.863 98.12	33⁄16 81.0	3⁄4 20	17⁄8 47.6	65⁄16 160.3	45⁄32 105.6	3⁄4 19.1	219⁄64 58.3	225⁄32 70.6	29 27 13.3
215⁄16	EP-B22647H	EPE-B22647H														12.2
37⁄16	EP-B22655H	EPE-B22655H	33⁄4 95.25	99⁄16 236.5	115⁄16 287.3	1313⁄16 350.8	4.306 109.37	31⁄2 88.9	7⁄8 24	21⁄4 57.2	71⁄2 190.5	415⁄16 125.4	7⁄8 22.2	29⁄16 65.1	3 76.2	43 19.5

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-66, D-67.

Lubrication fitting tap size, 1⁄8" PT.

All units available with type E lip seals.

* Expansion unit allows axial movement of 3⁄16" (4.8 mm) in either direction from centered position shown.

† Tolerance, ±.005" (±0.13 mm).

△ LHD Sliding Base Takeup can be drilled for P-B22600H pillow blocks, see page D-22.

● Dimensions based on unmounted condition.

◆ Width dimension for closed end unit.

Selection guide, pages D-45, D-46.

Load ratings, pages D-47, D-48.

Additional information, page D-69.

Spherical Roller Bearing Pillow Blocks

Max Mount™

EP-B22600FH, EPE-B22600FH

Cast Iron Housing

4-Bolt Base

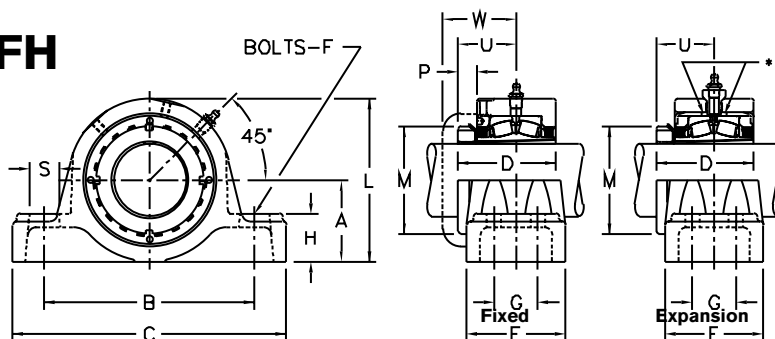
Fixed or Expansion

Self-aligning

Adapter Mounted

Factory Adjusted and Sealed

Self-Aligning Type E Interchange



Dimensions (inches/mm)

Shaft dia. inches	Pillow block number		A †	B		C	D ●	E	F Bolts	G	H	L	M	P ●	U ●	W ◆	Unit wt. (lbs./kg.)
	Fixed	Expansion		min.	max.												
27/16	EP-B22639FH	EPE-B22639FH	23/4 69.85	615/16 176.2	83/4 222.2	101/2 266.7	3.362 85.39	35/8 92.1	5/8 16	17/8 47.6	15/8 41.3	51/2 139.7	35/8 92.1	43/64 17.1	23/64 52.0	29/16 65.1	20 9.1
211/16 215/16	EP-B22643FH EP-B22647FH	EPE-B22643FH EPE-B22647FH	31/8 79.38	713/16 198.4	97/8 250.8	1113/16 300.0	3.863 98.12	41/4 108.0	5/8 16	21/8 54.0	17/8 47.6	65/16 160.3	45/32 105.6	3/4 19.1	219/64 58.3	225/32 70.6	31 14.0 29 13.1
37/16	EP-B22655FH	EPE-B22655FH	33/4 95.25	95/16 236.5	1115/16 290.5	1313/16 350.8	4.306 109.37	43/4 120.6	3/4 20	23/8 60.3	21/4 57.2	71/2 190.5	419/16 125.4	7/8 22.2	29/16 65.1	3 76.2	46 20.9
315/16	P-B22663FH	PE-B22663FH	41/4 107.95	117/8 301.6	13 330.2	151/4 387.4	4.944 125.58	41/2 114.3	3/4 20	21/4 57.2	25/8 66.7	81/2 215.9	57/16 138.1	15/16 23.8	215/16 74.6	37/16 87.3	67 30.4
47/16	P-B22671FH	PE-B22671FH	43/4 120.65	123/4 323.8	141/8 358.8	161/2 419.1	5.534 140.56	43/4 120.6	3/4 20	21/2 63.5	23/4 69.8	93/8 238.1	61/8 155.6	13/32 27.8	311/32 84.9	33/4 95.2	88 39.5
415/16	P-B22679FH	PE-B22679FH	51/2 139.70	145/16 363.5	161/8 409.6	181/2 469.9	6.056 153.82	53/8 136.5	7/8 24	23/4 69.8	3 76.2	107/8 276.2	63/4 171.4	13/16 30.2	321/32 92.9	4 101.6	128 58.1

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-66 through D-67.

Lubrication fitting tap size, 1/8" PT.

All units available with type E lip seals.

* Expansion unit allows axial movement of 3/16" (4.8 mm) in either direction from centered position shown.

† Tolerance, ±.005" (±0.13 mm).

● Dimensions based on unmounted condition.

◆ Width dimension for closed end unit.

Selection guide, pages D-45, D-46.

Load ratings, pages D-47, D-48.

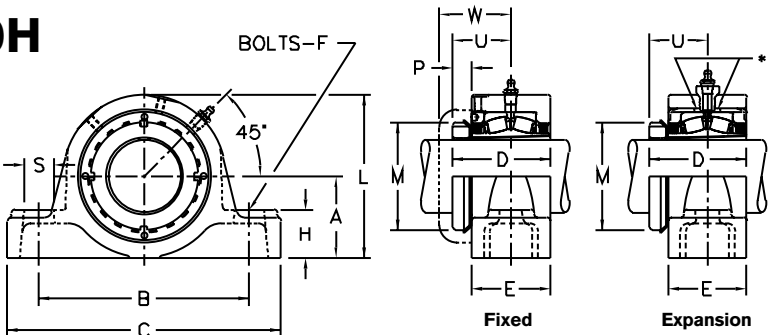
Additional information, page D-69.

Spherical Roller Bearing Pillow Blocks

Max Mount™

PK-B22600H, PKE-B22600H

Cast Steel Housing
2-Bolt Base
Fixed or Expansion
Self-aligning
Adapter Mounted
Factory Adjusted and Sealed



Dimensions (inches/mm)

Shaft dia. inches	Pillow block number△		A †	B	C	D ●	E	F Bolts	H	L		M	P ●	S	U ●	W ◆	Unit wt. (lbs./kg.)
	Fixed	Expansion								Fixed	Expansion						
17/16	PK-B22623H	PKE-B22623H	17/8 47.62	5 127.0	67/8 174.6	2.708 68.78	21/4 52.2	1/2 12	13/16 30.2	311/16 93.7	37/8 98.4	21/4 52.2	9/16 14.3	13/16 20.6	143/64 42.5	23/16 55.6	7 3.2
115/16	PK-B22631H	PKE-B22631H	21/4 57.15	61/4 158.8	83/8 212.7	3.075 78.10	21/2 63.5	5/8 16	13/8 34.9	49/16 115.9	49/16 115.9	231/32 75.4	43/64 17.1	15/16 23.8	155/64 47.2	29/32 57.9	12 5.4
23/16	PK-B22635H	PKE-B22635H	21/2 63.50	63/4 171.4	87/8 225.4	3.159 80.24	29/16 65.1	5/8 16	15/8 41.3	5 127.0	5 127.0	35/32 80.2	21/32 16.7	15/16 23.8	19/32 30.7	27/16 61.9	16 7.3
27/16	PK-B22639H	PKE-B22639H	23/4 69.85	71/8 181.0	91/4 235.0	3.362 85.39	211/16 68.3	5/8 16	13/4 44.4	51/2 139.7	51/2 139.7	35/8 92.1	43/64 17.1	15/16 23.8	23/64 52.0	29/16 65.1	18 8.2
211/16	PK-B22643H	PKE-B22643H	31/4 82.55	81/8 206.4	107/16 265.1	3.863 98.12	33/16 81.0	3/4 20	21/4 57.2	67/16 163.5	67/16 163.5	45/32 105.6	3/4 19.1	11/16 27.0	219/64 58.3	225/32 70.6	30 13.6
215/16	PK-B22647H	PKE-B22647H															
37/16	PK-B22655H	PKE-B22655H	33/4 95.25	10 254.0	13 330.2	4.306 109.37	37/16 87.3	7/8 24	21/4 57.2	71/2 190.5	71/2 190.5	415/16 125.4	7/8 22.2	13/8 41.3	29/16 65.1	3 76.2	43 19.5
315/16	PK-B22663H	PKE-B22663H	41/4 107.95	113/4 298.4	151/4 387.4	4.944 125.58	4 101.6	1 24	25/8 66.7	81/2 215.9	81/2 215.9	57/16 138.1	15/16 23.8	21/4 57.2	215/16 74.6	37/16 87.3	62 28.1

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-66, D-67.

Lubrication fitting tap size, 1/8" PT.

All units available with type E lip seals.

† Tolerance, ±.005" (±0.13 mm).

* Expansion unit allows axial movement of 3/16" (4.8 mm) in either direction from centered position shown.

△ LHD Sliding Base Takeup can be drilled for PK-B22600H pillow blocks, see page D-22.

● Dimensions based on unmounted condition.

◆ Width dimension for closed end unit.

Selection guide, pages D-45, D-46.

Load ratings, pages D-47, D-48.

Additional information, page D-69.

Spherical Roller Bearing Pillow Blocks

Max Mount™

PK-B22600FH, PKE-B22600FH

Cast Steel Housing

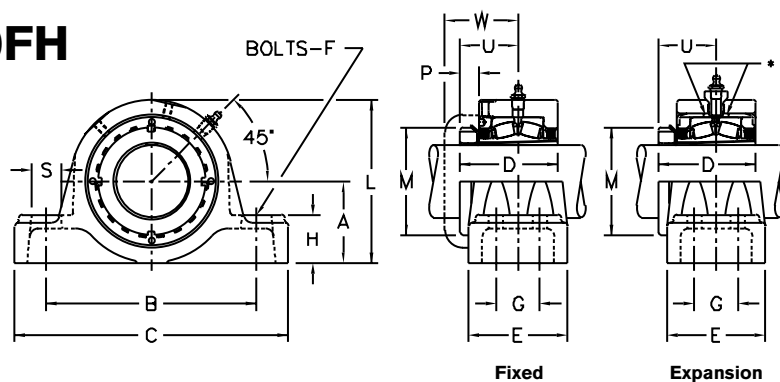
4-Bolt Base

Fixed or Expansion

Self-aligning

Adapter Mounted

Factory Adjusted and Sealed



Dimensions (inches/mm)

Shaft dia. inches	Pillow block number		A †	B	C	D ●	E	F Bolts	G	H	L	M	P ●	S	U ●	W ◆	Unit wt. (lbs./kg.)
	Fixed	Expansion															
1 ¹⁵ / ₁₆	PK-B22631FH	PKE-B22631FH	2 ¹ / ₄ 57.15	6 ¹ / ₄ 158.8	8 ³ / ₈ 212.7	3.075 78.10	3 ³ / ₁₆ 81.0	1 ¹ / ₂ 12	1 ¹⁹ / ₃₂ 40.5	1 ³ / ₈ 34.9	4 ⁹ / ₁₆ 115.9	2 ³¹ / ₃₂ 75.4	4 ³ / ₆₄ 17.1	1 ³ / ₁₆ 20.6	1 ⁵⁵ / ₆₄ 47.2	2 ⁹ / ₃₂ 57.9	13 5.9
2 ³ / ₁₆	PK-B22635FH	PKE-B22635FH	2 ¹ / ₂ 63.50	6 ³ / ₄ 171.4	8 ⁷ / ₈ 225.4	3.159 80.24	3 ¹ / ₄ 82.6	1 ¹ / ₂ 12	1 ¹¹ / ₁₆ 42.9	1 ⁵ / ₈ 41.3	5 127.0	3 ⁵ / ₃₂ 80.2	2 ¹ / ₃₂ 16.7	1 ³ / ₁₆ 20.6	1 ⁹ / ₃₂ 30.7	2 ⁷ / ₁₆ 61.9	16 7.3
2 ⁷ / ₁₆	PK-B22639FH	PKE-B22639FH	2 ³ / ₄ 69.85	7 ¹ / ₈ 181.0	9 ¹ / ₄ 235.0	3.362 85.39	3 ³ / ₈ 85.7	1 ¹ / ₂ 12	1 ¹ / ₄ 44.4	1 ³ / ₄ 44.4	5 ¹ / ₂ 139.7	3 ⁵ / ₈ 92.1	4 ³ / ₆₄ 17.1	1 ³ / ₁₆ 20.6	2 ³ / ₆₄ 52.0	2 ⁹ / ₁₆ 65.1	20 9.3
2 ¹¹ / ₁₆	PK-B22643FH	PKE-B22643FH	3 ¹ / ₄ 82.55	8 ¹ / ₈ 206.4	10 ⁷ / ₁₆ 265.1	3.863 98.12	3 ³ / ₄ 95.2	5 ¹ / ₈ 16	1 ⁷ / ₈ 47.6	2 ¹ / ₄ 57.2	6 ⁷ / ₁₆ 163.5	4 ⁵ / ₃₂ 105.6	3 ¹ / ₄ 19.1	1 ⁵ / ₁₆ 23.8	2 ¹⁹ / ₆₄ 58.3	2 ²⁵ / ₃₂ 70.6	30 29
2 ¹⁵ / ₁₆	PK-B22647FH	PKE-B22647FH															13.6 13.2
3 ¹ / ₁₆	PK-B22655FH	PKE-B22655FH	3 ³ / ₄ 95.25	10 254.0	13 330.2	4.306 109.37	4 ¹ / ₈ 104.8	3 ¹ / ₄ 20	2 ¹ / ₄ 50.8	2 ¹ / ₄ 57.2	7 ¹ / ₂ 190.5	4 ¹⁵ / ₁₆ 125.4	7 ¹ / ₈ 22.2	1 ¹ / ₂ 38.1	2 ⁹ / ₁₆ 65.1	3 76.2	47 21.3
3 ¹⁵ / ₁₆	PK-B22663FH	PKE-B22663FH	4 ¹ / ₄ 107.95	12 ¹ / ₂ 317.5	15 ¹ / ₄ 387.4	4.944 125.58	4 ¹ / ₂ 114.3	3 ¹ / ₄ 20	2 ¹ / ₄ 57.2	2 ⁵ / ₈ 66.7	8 ¹ / ₂ 215.9	5 ⁷ / ₁₆ 138.1	1 ⁵ / ₁₆ 23.8	1 ¹ / ₄ 31.8	2 ¹⁵ / ₁₆ 74.6	3 ⁷ / ₁₆ 87.3	74 33.5
4 ⁷ / ₁₆	PK-B22671FH	PKE-B22671FH	4 ³ / ₄ 120.65	13 ¹ / ₂ 342.9	16 ¹ / ₂ 419.1	5.534 140.56	4 ³ / ₄ 120.6	3 ¹ / ₄ 20	2 ¹ / ₂ 63.5	2 ³ / ₄ 69.8	9 ³ / ₈ 238.1	6 ¹ / ₈ 155.6	1 ³ / ₃₂ 27.8	1 ³ / ₈ 34.9	3 ¹¹ / ₃₂ 84.9	3 ³ / ₄ 95.2	93 42.2
4 ¹⁵ / ₁₆	PK-B22679FH	PKE-B22679FH	5 ¹ / ₂ 139.70	15 ¹ / ₂ 393.7	18 ¹ / ₂ 469.9	6.056 153.82	5 ³ / ₈ 136.5	7 ¹ / ₈ 24	2 ³ / ₄ 69.8	3 76.2	10 ⁷ / ₈ 276.2	6 ³ / ₄ 171.4	1 ¹ / ₂ 30.2	1 ¹ / ₂ 38.1	3 ²¹ / ₃₂ 92.9	4 101.6	124 56.2

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-66 through D-67.

Lubrication fitting tap size, 1/8" PT.

All units available with type E lip seals.

† Tolerance, ±.005" (±0.13 mm).

* Expansion unit allows axial movement of 3/16" (4.8 mm) in either direction from centered position shown.

● Dimensions based on unmounted condition.

◆ Width dimension for closed end unit.

Selection guide, pages D-45, D-46.

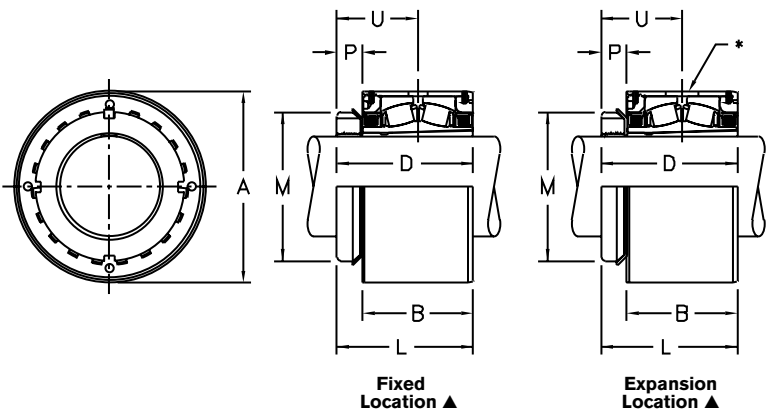
Load ratings, pages D-47, D-48.

Additional information, page D-69.

Spherical Roller Bearing Cartridge Units

Max Mount™ CSE-B22600H

Steel Housing
Fixed or Expansion
Self-aligning
Adapter Mounted
Factory Adjusted and Sealed



Dimensions (inches/mm)

Shaft dia. inches	Cartridge unit number ▲	A †	B	D ●	L	M	P ●	U ●	Unit wt. (lbs./kg.)
17/16	CSE-B22623H	3.124 79.35	23/16 55.56	2.708 68.78	23/4 69.9	21/4 57.2	9/16 14.3	143/64 42.5	4 1.8
115/16	CSE-B22631H	3.833 97.36	229/64 60.72	3.075 78.10	31/16 77.8	231/32 75.4	43/64 17.1	155/64 47.2	5 2.3
23/16	CSE-B22635H	4.227 107.36	21/2 63.50	3.159 80.24	35/32 80.2	35/32 80.2	21/32 16.7	19/32 30.7	7 3.2
27/16	CSE-B22639H	4.621 117.37	25/8 66.68	3.362 85.39	319/64 83.7	35/8 92.1	43/64 17.1	23/64 52.0	8 3.6
211/16	CSE-B22643H	5.407 137.34	31/8 79.38	3.863 98.12	37/8 98.4	45/32 105.6	3/4 19.1	219/64 58.3	14 13
215/16	CSE-B22647H								6.4 5.9
37/16	CSE-B22655H	6.194 157.33	37/16 87.31	4.306 109.37	45/16 109.5	415/16 125.4	7/8 22.2	29/16 65.1	18 8.2
315/16	CSE-B22663H	7.375 187.32	4 101.60	4.944 125.58	415/16 125.4	57/16 138.1	15/16 23.8	215/16 74.6	31 14.1
47/16	CSE-B22671H	7.769 197.33	49/16 115.89	5.534 140.56	521/32 143.7	61/8 155.6	13/32 27.8	311/32 84.9	51 23.1
415/16	CSE-B22679H	8.753 222.33	47/8 123.82	6.056 153.82	61/16 154.0	63/4 171.4	13/16 30.2	321/32 92.9	55 24.9

Bold face items are normally available from stock; please consult for availability of non-stock items.
Steel cartridge units cannot be disassembled. For replacement, use entire new unit.

All units available with type E lip seals.

† Tolerance, +.000" –.002" (+0.00 mm –0.05 mm); bore tolerance for mounting +.002" –.000" (+0.05 mm –0.00 mm).

* Plug diameter .531" (13.49 mm), engagement depth .125" ±.015" (3.18 ±0.38 mm), allows axial movement of 3/16" (4.8 mm) in either direction from centered position on expansion units.

● Dimensions based on unmounted condition.

▲ Hole for fixed location and slot for expansion location in the same housing.

Selection guide, pages D-45, D-46.

Load ratings, pages D-47, D-48.

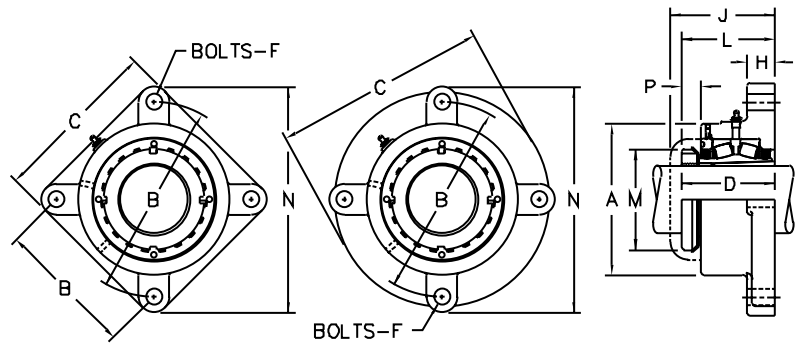
Additional information, page D-69.

Spherical Roller Bearing Flanged Units

Max Mount™

F-B22600H, FE-B22600H

Cast Iron Housing
3-bolt or 4-bolt Mounting
Fixed or Expansion
Self-aligning
Adapter Mounted
Factory Adjusted and Sealed



Dimensions (inches/mm)

Type of Housing	Shaft dia. inches	Flanged unit number		A		B		C	D	F	H	J	L	M	N	P	Unit wt. (lbs./kg.)
		Fixed	Expansion†	Fixed	Exp	Circle	Square	▲	●	Bolts		◆	●			●	
3-BOLT ROUND	1 ⁷ / ₁₆	F-B22623H	FE-B22623H	3 ⁷ / ₁₆ 87.3	3 ³ / ₄ 95.2	5 127.00	...	5 ⁷ / ₈ 149.2	2.708 68.78	1 ¹ / ₂ 12	5 ⁵ / ₈ 15.9	3 ⁵ / ₁₆ 84.1	2 ¹³ / ₁₆ 71.4	2 ¹ / ₄ 57.2	6 ¹ / ₄ 158.8	9 ⁹ / ₁₆ 14.3	7 3.2
	1 ⁵ / ₁₆	F-B22631H	FE-B22631H	4 ¹ / ₄ 108.0	4 ¹ / ₂ 114.3	5 ³ / ₄ 146.05	4 ¹ / ₁₆ 103.17	6 ¹¹ / ₁₆ 169.9	3.075 78.10	1 ¹ / ₂ 12	1 ¹ / ₁₆ 17.5	3 ⁹ / ₁₆ 90.5	3 ¹³ / ₆₄ 81.4	2 ³¹ / ₃₂ 75.4	7 177.8	4 ³ / ₆₄ 17.1	10 4.5
4-BOLT ROUND	2 ³ / ₁₆	F-B22635H	FE-B22635H	4 ⁷ / ₈ 123.8	4 ⁷ / ₈ 123.8	6 ³ / ₈ 161.92	4 ¹ / ₂ 114.30	7 ³ / ₈ 187.3	3.159 80.24	5 ⁵ / ₈ 16	1 ¹ / ₁₆ 17.5	3 ²⁹ / ₃₂ 96.0	3 ⁹ / ₃₂ 83.3	3 ⁵ / ₃₂ 80.2	7 ³ / ₄ 196.8	2 ¹ / ₃₂ 16.7	14 6.5
	2 ⁷ / ₁₆	F-B22639H	FE-B22639H	5 ³ / ₈ 136.5	5 ³ / ₈ 136.5	6 ³ / ₄ 171.45	4 ⁹ / ₆₄ 121.06	7 ³ / ₄ 196.8	3.362 85.39	5 ⁵ / ₈ 16	3 ⁴ / ₄ 19.0	3 ³¹ / ₃₂ 100.8	3 ²⁷ / ₆₄ 86.9	3 ⁵ / ₈ 92.1	8 ¹ / ₈ 206.4	4 ³ / ₆₄ 17.1	17 7.9
	2 ¹¹ / ₁₆	F-B22643H	FE-B22643H	6 ¹ / ₄	6 ¹ / ₄	7 ⁷ / ₈	5 ⁹ / ₁₆	9 ¹ / ₈	3.863	3 ⁴ / ₄	7 ⁵ / ₈	4 ⁷ / ₁₆	4	4 ⁵ / ₃₂	9 ¹ / ₂	3 ⁴ / ₄	27 26
	2 ¹⁵ / ₁₆	F-B22647H	FE-B22647H	158.8	158.8	200.02	141.27	231.8	98.12	20	22.2	112.7	101.6	105.6	241.3	19.1	12.2 11.8
4-BOLT SQUARE	3 ⁷ / ₁₆	F-B22655H	FE-B22655H	7 ³ / ₈ 187.3	7 ³ / ₈ 187.3	9 ¹ / ₂ 241.30	6 ²³ / ₃₂ 170.64	8 ⁵ / ₈ 219.1	4.306 109.37	3 ⁴ / ₄ 20	1 ³ / ₈ 34.9	4 ²⁹ / ₃₂ 124.6	4 ¹ / ₂ 114.3	4 ¹⁵ / ₁₆ 125.4	11 ⁷ / ₁₆ 290.5	7 ⁷ / ₈ 22.2	39 17.7
	3 ¹⁵ / ₁₆	F-B22663H	FE-B22663H	8 ¹ / ₈ 206.4	8 ³ / ₈ 212.7	10 ³ / ₄ 273.05	7 ³⁹ / ₆₄ 193.28	9 ³ / ₄ 247.6	4.944 125.58	7 ⁸ / ₈ 24	1 ¹ / ₂ 38.1	5 ⁵ / ₈ 142.9	5 ¹ / ₈ 130.2	5 ⁷ / ₁₆ 138.1	12 ²⁹ / ₃₂ 327.8	1 ⁵ / ₁₆ 23.8	57 25.9

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-66, D-67.

Lubrication fitting tap size, 1/8" PT.

All units available with type E lip seals.

Expansion unit allows axial movement of 3/16" (4.8 mm) in either direction from centered position shown.

† For expansion units, dimensions G, L, and P are minimum values. For maximum values, add .375" (9.5 mm).

● Dimensions based on unmounted condition.

▲ Cross flat dimension for 3 3/16" and larger shaft.

◆ Width dimension for closed end unit.

Selection guide, pages D-45, D-46.

Load ratings, pages D-47, D-48.

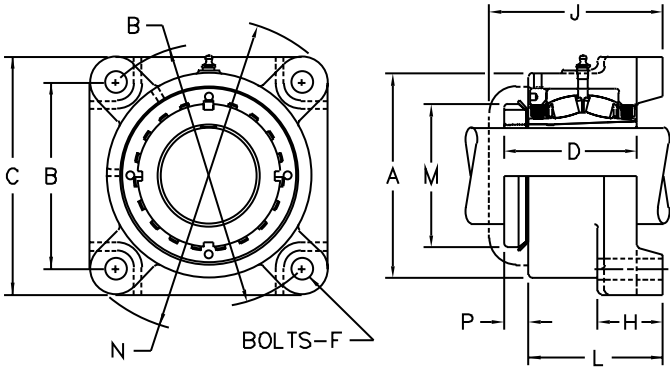
Additional information, page D-69.

Spherical Roller Bearing Flanged Units

Max Mount™

EF-B22600H

Cast Iron Housing
Padded Flange
4-bolt Mounting
Self-aligning
Adapter Mounted
Factory Adjusted and Sealed



Self-Aligning Type E Interchange

Dimensions (inches/mm)

Shaft dia. inches	Flanged unit number	A	B		C	D ●	F Bolts	H	J ◆	L ●	M	N	P ●	Unit wt. (lbs./kg.)
			Circle	Square										
1 ⁷ / ₁₆	EF-B22623H	3 ³ / ₄ 95.2	4 ⁶¹ / ₆₄ 125.81	3 ¹ / ₂ 88.9	4 ⁵ / ₈ 117.5	2.708 68.78	1 ¹ / ₂ 12	1 ¹ / ₄ 31.8	4 ¹ / ₃₂ 102.4	3 ⁵ / ₈ 92.1	2 ¹ / ₄ 57.2	6 ¹ / ₁₆ 154.0	9 ¹ / ₁₆ 14.3	8 3.6
1 ¹⁵ / ₁₆	EF-B22631H	4 ¹ / ₂ 114.3	6 ³ / ₁₆ 157.18	4 ³ / ₈ 111.1	5 ¹ / ₂ 139.7	3.075 78.10	1 ¹ / ₂ 12	1 ¹ / ₁₆ 36.5	4 ⁹ / ₁₆ 109.5	3 ¹⁵ / ₁₆ 100.0	2 ³¹ / ₃₂ 75.4	7 ⁵ / ₁₆ 185.7	4 ³ / ₆₄ 17.1	11 5.0
2 ³ / ₁₆	EF-B22635H	5 127.0	6 ⁵⁷ / ₆₄ 175.03	4 ⁷ / ₈ 123.8	6 ¹ / ₄ 158.8	3.159 80.24	5 ⁸ / ₁₆ 16	1 ¹ / ₂ 38.1	4 ⁹ / ₁₆ 117.5	4 ¹ / ₄ 108.0	3 ³ / ₃₂ 80.2	8 ⁹ / ₃₂ 210.3	2 ¹ / ₃₂ 16.7	15 6.8
2 ⁷ / ₁₆	EF-B22639H	5 ⁵ / ₈ 136.5	7 ¹⁹ / ₃₂ 192.89	5 ³ / ₈ 136.5	6 ³ / ₄ 171.4	3.362 85.39	5 ⁸ / ₁₆ 16	1 ¹¹ / ₁₆ 42.9	4 ¹⁵ / ₁₆ 125.4	4 ⁹ / ₁₆ 115.9	3 ⁵ / ₈ 92.1	8 ³¹ / ₃₂ 227.8	4 ³ / ₆₄ 17.1	17 7.7
2 ¹¹ / ₁₆	EF-B22643H	6 ¹ / ₄ 158.8	8 ³ / ₆₄ 215.49	6 152.4	7 ⁵ / ₈ 193.7	3.863 98.12	3 ⁴ / ₁₆ 20	1 ¹³ / ₁₆ 46.0	5 ¹³ / ₃₂ 137.3	5 ¹ / ₁₆ 128.6	4 ⁵ / ₃₂ 105.6	10 ¹ / ₈ 257.2	3 ⁴ / ₁₆ 19.1	25 11.5
2 ¹⁵ / ₁₆	EF-B22647H		8 ³ / ₆₄ 215.49	6 152.4	7 ⁵ / ₈ 193.7	3.863 98.12	3 ⁴ / ₁₆ 20	1 ¹³ / ₁₆ 46.0	5 ¹³ / ₃₂ 137.3	5 ¹ / ₁₆ 128.6	4 ⁵ / ₃₂ 105.6	10 ¹ / ₈ 257.2	3 ⁴ / ₁₆ 19.1	24 11.0
3 ⁷ / ₁₆	EF-B22655H	7 ³ / ₈ 187.3	9 ⁵⁹ / ₆₄ 251.23	7 177.8	8 ³ / ₄ 222.2	4.306 109.37	3 ⁴ / ₁₆ 20	1 ¹⁵ / ₁₆ 49.2	5 ³ / ₄ 146.0	5 ¹³ / ₃₂ 137.3	4 ¹⁵ / ₁₆ 125.4	11 ²¹ / ₃₂ 296.1	7 ⁸ / ₁₆ 22.2	41 18.6
3 ¹⁵ / ₁₆	EF-B22663H	8 ³ / ₈ 212.7	10 ⁶¹ / ₆₄ 278.21	7 ³ / ₄ 196.8	9 ³ / ₄ 247.6	4.944 125.58	7 ⁸ / ₁₆ 24	2 ³ / ₁₆ 55.6	6 ⁵ / ₈ 168.3	6 ⁷ / ₃₂ 158.0	5 ⁷ / ₁₆ 138.1	12 ³¹ / ₃₂ 329.4	1 ⁵ / ₁₆ 23.8	56 25.4

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-66, D-67.

Lubrication fitting tap size, 1/8" PT.

All units available with type E lip seals.

* Expansion unit allows axial movement of 3/16" (4.8 mm) in either direction from centered position shown.

● Dimensions based on unmounted condition.

◆ Width dimension for closed end unit.

Selection guide, pages D-45, D-46.

Load ratings, pages D-47, D-48.

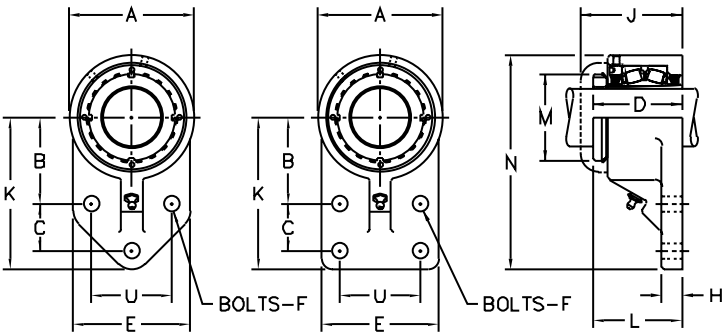
Additional information, page D-69.

Spherical Roller Bearing Flanged Bracket Units

Max Mount™

FB-B22600H

High-Test Iron Housing
3-bolt or 4-bolt Mounting
Self-aligning
Adapter Mounted
Factory Adjusted and Sealed



Dimensions (inches/mm)

Type of Housing	Shaft dia. inches	Flanged bracket unit number	A	B	C	D	E	F Bolts	H	J	K	L	M	N	U	Unit wt. (lbs./kg.)
3-BOLT	1 ⁷ / ₁₆	FB-B22623H	3 ⁷ / ₁₆ 87.3	2 ³ / ₈ 60.3	1 ¹ / ₄ 31.8	2.708 68.78	3 ¹ / ₄ 82.6	1 ¹ / ₂ 12	5 ⁵ / ₈ 15.9	3 ⁵ / ₁₆ 84.1	4 ¹ / ₄ 108.0	2 ¹³ / ₁₆ 71.4	2 ¹ / ₄ 57.2	5 ³¹ / ₃₂ 151.6	2 50.8	6.4 2.9
	1 ¹⁵ / ₁₆	FB-B22631H	4 ¹ / ₄ 108.0	2 ¹⁵ / ₁₆ 74.6	1 ⁵ / ₈ 41.3	3.075 78.10	4 101.6	1 ¹ / ₂ 12	1 ¹ / ₁₆ 17.5	3 ⁹ / ₁₆ 90.5	5 ³ / ₁₆ 131.8	3 ¹³ / ₆₄ 81.4	2 ³¹ / ₃₂ 75.4	7 ⁹ / ₁₆ 185.7	2 ³ / ₄ 69.8	10.0 4.4
4-BOLT	2 ⁷ / ₁₆	FB-B22639H	5 ³ / ₈ 136.5	3 ³ / ₄ 95.2	1 ³ / ₄ 44.4	3.159 80.24	4 ⁷ / ₈ 123.8	5 ⁵ / ₈ 16	3 ⁴ / ₈ 19.0	3 ³¹ / ₃₂ 100.8	6 ¹ / ₄ 158.8	3 ⁹ / ₃₂ 83.3	3 ⁵ / ₃₂ 80.2	8 ¹⁵ / ₁₆ 227.0	3 76.2	17.5 7.9
	2 ¹¹ / ₁₆	FB-B22643H	6 ¹ / ₄ 158.8	3 ³ / ₈ 98.4	2 ¹ / ₄ 57.2	3.362 85.39	5 ³ / ₄ 146.0	3 ³ / ₄ 20	7 ⁵ / ₈ 22.2	4 ⁷ / ₁₆ 112.7	7 177.8	3 ²⁷ / ₆₄ 86.9	3 ⁵ / ₈ 92.1	10 ¹ / ₈ 257.2	4 101.6	30.0 28.0
	2 ¹⁵ / ₁₆	FB-B22647H														13.7 12.8

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-66, D-67.

Lubrication fitting tap size: for 1 1/2 and smaller shafts, 1/4"-28 UNF; for all other shafts, 1/8" PT.

All units available with type E lip seals.

● Dimensions based on unmounted condition.

◆ Width dimension for closed end unit.

Selection guide, pages D-45, D-46.

Load ratings, pages D-47, D-48.

Additional information, page D-69.

Spherical Roller Bearing Flanged Cartridge Units

Max Mount™

FC-B22600H

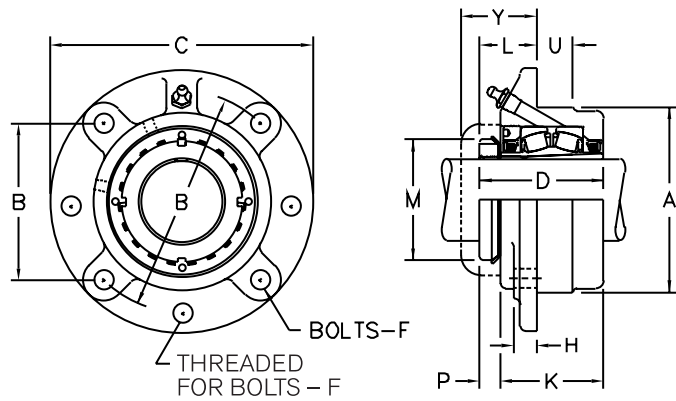
Cast Iron Housing

Self-aligning

Adapter Mounted

Factory Adjusted and Sealed

Jack Screws for Removal



Self-Aligning Type E Interchange

Dimensions (inches/mm)

Shaft dia. inches	Flanged cartridge unit number	A †	B		C	D	F Bolts	H	J	K	L	M	P	U	Y ◆	Unit wt. (lbs./kg.)
			Circle	Square												
1 ⁷ / ₁₆	FC-B22623H	3.625 92.08	4 ³ / ₈ 111.12	3 ³ / ₃₂ 78.6	5 ¹ / ₄ 133.4	2.708 68.78	3/8 10	1/2 12.7	1 ²⁵ / ₆₄ 35.3	2 ⁷ / ₃₂ 56.4	1 ³ / ₈ 60.3	2 ¹ / ₄ 57.2	9/16 14.3	3/4 19.0	1 ⁷ / ₈ 47.6	6 2.6
1 ¹⁵ / ₁₆	FC-B22631H	4.500 114.30	5 ³ / ₈ 136.52	3 ⁵ / ₆₄ 96.4	6 ³ / ₈ 161.9	3.075 78.10	7/16 10	9/16 14.3	1 ¹⁹ / ₃₂ 40.5	2 ¹⁵ / ₃₂ 62.7	1 ³⁵ / ₆₄ 39.3	2 ³¹ / ₃₂ 75.4	4 ³ / ₆₄ 17.1	7/8 22.2	1 ²⁹ / ₃₂ 48.4	9 4.0
2 ³ / ₁₆	FC-B22635H	5.000 127.00	6 152.40	4 ¹ / ₄ 107.9	7 ¹ / ₈ 181.0	3.159 80.24	1/2 12	9/16 14.3	1 ²¹ / ₃₂ 42.1	2 ¹⁷ / ₃₂ 64.3	1 ¹⁷ / ₃₂ 38.9	3 ⁵ / ₃₂ 80.2	2 ¹ / ₃₂ 16.7	1 25.4	2 ¹ / ₃₂ 51.6	12 5.4
2 ⁷ / ₁₆	FC-B22639H	5.500 139.70	6 ¹ / ₂ 165.10	4 ¹⁹ / ₃₂ 116.7	7 ⁵ / ₈ 193.7	3.362 85.39	1/2 12	5/8 15.9	1 ¹¹ / ₁₆ 42.9	2 ²¹ / ₃₂ 67.5	1 ³⁹ / ₆₄ 40.9	3 ³ / ₈ 92.1	4 ³ / ₆₄ 17.1	1 25.4	2 ⁵ / ₃₂ 54.8	16 7.2
2 ¹¹ / ₁₆	FC-B22643H	6.375 161.92	7 ¹ / ₂ 190.50	5 ¹⁹ / ₆₄ 134.5	8 ³ / ₄ 222.2	3.863 98.12	5/8 16	3/4 19.0	2 ¹ / ₃₂ 51.6	3 ⁵ / ₃₂ 80.2	1 ⁷ / ₈ 44.4	4 ⁵ / ₃₂ 105.6	3/4 19.1	1 ¹ / ₄ 31.8	2 ⁵ / ₁₆ 58.7	25 11.4
2 ¹⁵ / ₁₆	FC-B22647H			6 ³ / ₃₂ 154.8											2 ²⁵ / ₃₂ 70.6	24 11.0
3 ⁷ / ₁₆	FC-B22655H	7.375 187.32	8 ⁵ / ₈ 219.08	6 ³ / ₃₂ 154.8	10 ¹ / ₄ 260.4	4.306 109.37	3/4 20	1 ⁵ / ₁₆ 23.8	1 ¹⁵ / ₁₆ 49.2	3 ¹³ / ₃₂ 86.5	2 ²³ / ₆₄ 59.9	4 ¹⁵ / ₁₆ 125.4	7/8 22.2	1 ¹ / ₄ 31.8	2 ²⁵ / ₃₂ 70.6	37 16.9
3 ¹⁵ / ₁₆	FC-B22663H	8.125 206.38	9 ³ / ₈ 238.12	6 ⁵ / ₈ 168.3	10 ⁷ / ₈ 276.2	4.944 125.58	3/4 20	1 ¹ / ₈ 28.6	2 ¹³ / ₃₂ 61.1	3 ³¹ / ₃₂ 101.1	2 ⁹ / ₁₆ 65.1	5 ⁷ / ₁₆ 138.1	1 ⁵ / ₁₆ 23.8	2 50.8	3 ¹ / ₁₆ 77.8	50 22.8

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-66, D-67.

Lubrication fitting tap size, 1/8" PT.

All units available with type E lip seals.

† Tolerance, +.000 –.002" (+0.00 mm –0.05 mm); bore tolerance for mounting +.002" –.000" (+0.05 mm –0.00 mm).

● Dimensions based on unmounted condition.

◆ Width dimension for closed end unit.

Selection guide, pages D-45, D-46.

Load ratings, pages D-47, D-48.

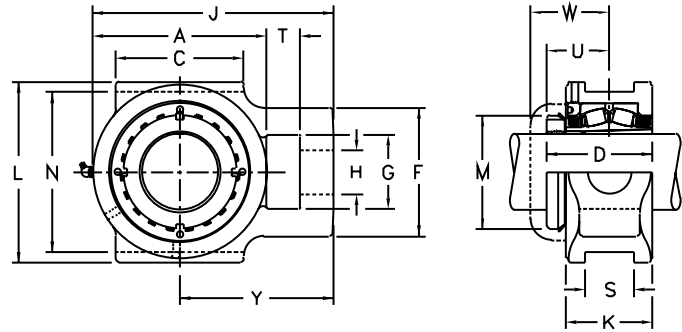
Additional information, page D-69.

Spherical Roller Bearing Takeup Units

Max Mount™

T-B22600H

Cast Iron Housing
Machined Slots
Self-aligning
Adapter Mounted
Factory Adjusted Clearance



Dimensions (inches/mm)

Shaft dia. inches	Takeup unit number	A	C	D ●	F	G	H	J	K	L	M	N □	S □	T	U ●	W ◆	Y	Unit wt. (lbs./kg.)
1 ⁷ / ₁₆	T-B22623H	3 ¹ / ₂ 88.9	2 ³ / ₄ 69.8	2.708 68.78	2 ³ / ₈ 60.3	1 ⁷ / ₁₆ 36.5	7 ⁸ / ₁₆ 22.2	4 ³ / ₄ 120.6	2 ¹ / ₄ 57.2	4 ¹ / ₈ 104.8	2 ¹ / ₄ 57.2	3.500 88.90	.531 13.49	5 ⁸ / ₁₆ 15.9	1 ⁴³ / ₆₄ 42.5	2 ³ / ₁₆ 55.6	3 76.2	6.4 2.9
1 ¹⁵ / ₁₆	T-B22631H	4 ³ / ₈ 111.1	3 ³ / ₈ 85.7	3.075 78.10	3 ³ / ₁₆ 81.0	1 ¹⁵ / ₁₆ 49.2	1 ¹ / ₈ 28.6	5 ¹⁵ / ₁₆ 150.8	2 ¹ / ₂ 63.5	4 ³ / ₄ 120.6	2 ³ / ₃₂ 75.4	4.000 101.60	.687 17.46	3 ⁴ / ₁₆ 19.0	1 ⁵⁵ / ₆₄ 47.2	2 ⁹ / ₃₂ 57.9	3 ³ / ₄ 95.2	9.7 4.4
2 ³ / ₁₆	T-B22635H	5 ¹ / ₁₆ 128.6	3 ³ / ₄ 95.2	3.159 80.24	3 ³ / ₄ 95.2	2 ¹ / ₄ 57.2	1 ¹ / ₄ 31.8	7 177.8	2 ⁹ / ₁₆ 65.1	5 ¹ / ₄ 133.4	3 ³ / ₃₂ 80.2	4.500 114.30	.813 20.64	1 25.4	1 ⁹ / ₃₂ 30.7	2 ⁷ / ₁₆ 61.9	4 ¹⁵ / ₃₂ 113.5	14.1 6.4
2 ⁷ / ₁₆	T-B22639H	5 ⁹ / ₁₆ 141.3	4 101.6	3.362 85.39	4 ¹ / ₈ 104.8	2 ¹ / ₂ 63.5	1 ³ / ₈ 34.9	7 ¹³ / ₁₆ 198.4	2 ¹ / ₁₆ 68.3	5 ⁷ / ₈ 149.2	3 ³ / ₈ 92.1	5.125 130.18	1.063 26.99	1 ¹ / ₄ 31.8	2 ³ / ₆₄ 52.0	2 ⁹ / ₁₆ 65.1	5 ¹ / ₃₂ 127.8	17.8 8.3
2 ¹¹ / ₁₆	T-B22643H	6 ⁷ / ₁₆ 163.5	4 ³ / ₄ 120.6	3.863 98.12	4 ³ / ₄ 120.6	2 ³ / ₄ 69.8	1 ⁵ / ₈ 41.3	8 ¹⁵ / ₁₆ 227.0	3 ³ / ₁₆ 81.0	6 ¹ / ₁₆ 169.9	4 ⁵ / ₃₂ 105.6	5.937 150.81	1.812 46.02	1 ¹ / ₄ 31.8	2 ¹⁹ / ₆₄ 58.3	2 ²⁵ / ₃₂ 70.6	5 ²³ / ₃₂ 145.2	13.5 6.1
2 ¹⁵ / ₁₆	T-B22647H																	13.0 5.9
3 ⁷ / ₁₆	T-B22655H	7 ³ / ₈ 187.3	5 ¹ / ₂ 139.7	4.306 109.37	4 ⁷ / ₈ 123.8	2 ⁷ / ₈ 73.0	1 ⁷ / ₈ 47.6	10 254.0	3 ⁷ / ₁₆ 87.3	7 ¹³ / ₁₆ 198.4	4 ¹⁵ / ₁₆ 125.4	6.812 173.02	1.812 46.02	1 ⁹ / ₁₆ 39.7	2 ⁹ / ₁₆ 65.1	3 76.2	6 ⁵ / ₁₆ 160.3	43.1 19.6
3 ¹⁵ / ₁₆	T-B22663H	8 ⁷ / ₈ 225.4	7 177.8	4.944 125.58	5 ¹ / ₄ 133.4	3 ¹ / ₈ 79.4	1 ⁷ / ₈ 47.6	11 ⁷ / ₈ 301.6	4 101.6	9 ⁵ / ₈ 244.5	5 ⁷ / ₁₆ 138.1	8.625 219.08	2.062 52.37	1 ⁵ / ₈ 41.3	2 ¹⁵ / ₁₆ 74.6	3 ⁷ / ₁₆ 87.3	7 ⁷ / ₁₆ 188.9	76 34.5

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing numbers, see pages D-67, D-68.

Lubrication fitting tap size, 1/8" PT.

All units available with type E lip seals.

□ Slots are machined, tolerance, +.005" –.015" (+0.13 mm –0.38 mm).

● Dimensions based on unmounted condition.

◆ Width dimension for closed end unit.

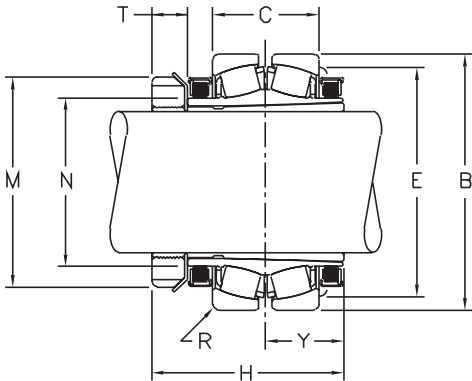
Selection guide, pages D-45, D-46.

Load ratings, pages D-47, D-48.

Additional information, page D-69.

Replacement Spherical Roller Bearings
Max Mount™
B22600HL

Self-aligning
Adapter Mounted



Dimensions (inches/mm)

Shaft Sizes inches	Bearing number *	B +.0010" -.0000" +0.025 -0.000 mm	C ±.025" ±0.64 mm ‡	E Shoulder diameter	H ●	M ●	N	R Housing fillet	T	Y	Unit wt. (lbs./kg.)
1 ⁷ / ₁₆	B22623HL	2.8345 71.996	1.310 33.27	2 ¹ / ₂ 63.5	2.708 68.78	2 ¹ / ₄ 57.2	1.745 44.32	.062 1.57	1 ¹ / ₂ 12.7	1 ³ / ₃₂ 27.78	2.1 1.0
1 ¹⁵ / ₁₆	B22631HL	3.5433 90.000	1.526 38.76	3 ³ / ₁₆ 81.0	3.075 78.10	2 ³ / ₃₂ 75.4	2.307 58.59	.078 1.98	9 ¹ / ₁₆ 14.3	1 ⁷ / ₃₂ 30.96	3.3 1.5
2 ³ / ₁₆	B22635HL	3.9370 100.000	1.656 42.06	3 ¹ / ₂ 88.9	3.159 80.24	3 ⁵ / ₃₂ 80.2	2.620 66.55	.062 1.57	1 ⁹ / ₃₂ 15.1	1 ¹ / ₄ 31.75	4.5 2.1
2 ⁷ / ₁₆	B22639HL	4.3307 110.000	1.750 44.45	3 ⁷ / ₈ 98.4	3.362 85.39	3 ⁵ / ₈ 92.1	2.901 73.69	.078 1.98	5 ⁵ / ₈ 15.9	1 ⁵ / ₁₆ 33.34	5.9 2.8
2 ¹¹ / ₁₆	B22643HL	5.1172 129.977	2.125 53.98	4 ¹⁷ / ₃₂ 115.1	3.863 98.12	4 ⁵ / ₃₂ 105.6	3.370 85.60	.078 1.98	4 ³ / ₆₄ 17.1	1 ⁹ / ₁₆ 39.69	10.1 4.6 9.0 4.1
2 ¹⁵ / ₁₆	B22647HL										
3 ¹ / ₁₆	B22655HL	5.9045 149.974	2.313 58.75	5 ¹ / ₃₂ 135.7	4.306 109.37	4 ¹⁵ / ₁₆ 125.4	3.975 100.97	.125 3.18	5 ¹ / ₆₄ 20.2	1 ²³ / ₃₂ 43.66	12.8 5.8
3 ¹⁵ / ₁₆	B22663HL	7.0856 179.974	2.750 69.85	6 ³ / ₈ 161.9	4.944 125.58	5 ⁷ / ₁₆ 138.1	4.561 115.85	.125 3.18	5 ⁵ / ₆₄ 21.8	2 50.80	23.2 10.5
4 ⁷ / ₁₆	B22671HL	7.4792 189.972	2.974 75.54	6 ³ / ₈ 168.3	5.534 140.56	6 ¹ / ₈ 155.6	5.000 127.00	.125 3.18	6 ¹ / ₆₄ 24.2	3 ³ / ₈ 85.72	36.0 16.3
4 ¹⁵ / ₁₆	B22679HL	8.4634 214.970	3.437 87.30	7 ¹ / ₂ 190.5	6.056 153.82	6 ³ / ₄ 171.4	5.594 142.08	.125 3.18	1 ¹ / ₆₄ 25.8	3 ⁵ / ₈ 92.08	40.7 18.9

Bold face items are normally available from stock; please consult for availability of non-stock items.
For replacement bearings for expansion units use complete CSE-B22600H per page D-55.

* Includes bearing, two floating labyrinth seals and one adapter assembly.

● Dimensions based on unmounted condition. All bearings available with type E lip seals.

Selection guide, pages D-45, D-46.

Load ratings, pages D-47, D-48.

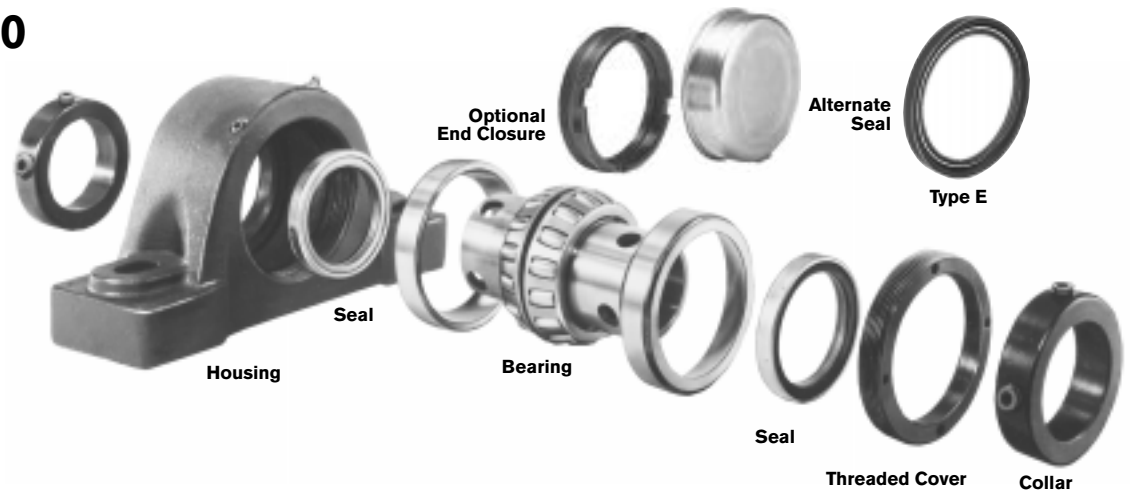
Additional information, page D-69.

‡ Use shims, threaded cover, or spacer ring to provide for adjustment. Housing must allow clearance for this adjustment on dimension C.

Spherical Roller Bearing Unit Replacement Parts

Series B22400

Fixed Type



Shaft diameter <i>mm inches</i>	Basic Bearing Designation ▲	Repair kit ■	Components in repair kit			Threaded cover for open end	Threaded cover for closed end	End closure *	Housing number ▲
			Spherical roller bearing	Type H multi-disc labyrinth seals (2 reqd.) ■	Collar with setscrews				
25	1 B22416 B224M25	B22416HL B224M25HL	B22416 B224M25	B22417-3H	B22416-5S	B22417-7	B22417-7C	B22417-6	P-B22417-0
30	1 1/16 1 1/4 B22419 B22420 B224M30	B22419HL B22420HL B224M30HL	B22419 B22420 B224M30	B22420-3H	B22420-5S	B22420-7	B22420-7C	B22420-6	P-B22420-0
35	1 1/16 1 1/2 B22423 B22424 B224M35	B22423HL B22424HL B224M35HL	B22423 B22424 B224M35	B22424-3H	B22424-5S	B22424-7	B22424-7C	B22424-6	P-B22424-0
40	1 1/2 1 5/8 1 11/16 1 3/4 B224B24 B22426 B22427 B22428 B224M40	B224B24HL B22426HL B22427HL B22428HL B224M40HL	B224B24 B22426 B22427 B22428 B224M40	B22428-3H	B22524-5S B22428-5S B22428-5S B22428-5S B22428-5S	B22428-7	B22428-7C	B22428-6	P-B22428-0
45	1 3/4 1 5/8 2 B224B28 B22431 B22432 B224M45	B224B28HL B22431HL B22432HL B224M45HL	B224B28 B22431 B22432 B224M45	B22432-3H	B22528-5S B22432-5S B22432-5S B22432-5S B22432-5S	B22432-7	B22432-7C	B22432-6	P-B22432-0
50	B224M50	B224M50HL	B224M50						
55	2 3/16 2 1/4 B22435 B22436 B224M55	B22435HL B22436HL B224M55HL	B22435 B22436 B224M55	B22436-3H	B22435-5S B22436-5S B22436-5S	B22436-7	B22436-7C	B22436-6	P-B22436-0
60	2 1/4 2 7/16 2 1/2 B224B36 B22439 B22440 B224M60	B224B36HL B22439HL B22440HL B224M60HL	B224B36 B22439 B22440 B224M60	B22440-3H	B22536-5S B22440-5S B22440-5S B22440-5S	B22440-7	B22440-7C	B22440-6	P-B22440-0
65	2 11/16 2 3/4 2 5/8 3 B22443 B22444 B22447 B22448 B224M65	B22443HL B22444HL B22447HL B22448HL B224M65HL	B22443 B22444 B22447 B22448 B224M65	B22448-3H	B22443-5S B22448-5S B22448-5S B22448-5S B22448-5S	B22448-7	B22448-7C	B22448-6	P-B22448-0
70	B224M70	B224M70HL	B224M70						
75	B224M75	B224M75HL	B224M75						
80	3 3/16 3 7/16 3 1/2 B22451 B22455 B22456 B224M80	B22451HL B22455HL B22456HL B224M80HL	B22451 B22455 B22456 B224M80	B22456-3H	B22551-5S B22456-5S B22456-5S B22551-5S B22456-5S	B22456-7	B22456-7C	B22456-6	P-B22456-0
85	B224M85	B224M85HL	B224M85						
90	3 11/16 3 5/8 4 B22459 B22463 B22464 B224M90	B22459HL B22463HL B22464HL B224M90HL	B22459 B22463 B22464 B224M90	B22464-3H	B22464-5S	B22464-7	B22464-7C	B22464-6	P-B22464-0
100	B224M100	B224M100HL	B224M100						

▲ For variations in type and material, use prefix:

T — takeup unit
EFR — padded flanged unit
EP — pillow block, cast iron
F — flanged unit

FB — flanged bracket unit
FC — flanged cartridge unit
C — cartridge unit, cast iron

P — pillow block, cast iron
PK — pillow block, cast steel
PL — pillow block, low backing
DS — takeup unit

P-B22432-0 For construction features, use suffix:

F — 4-bolt base pillow block
(on 1 5/16" and larger shafts only)

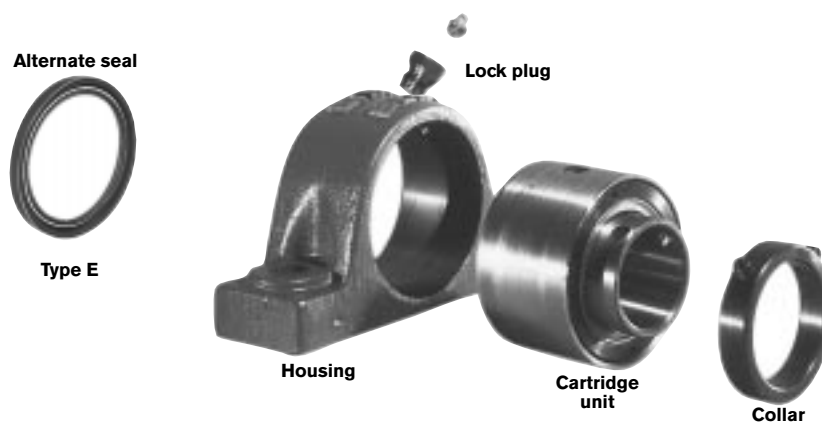
* Closed end units are assembled with two seals.

■ Floating labyrinth seals, suffix H, are furnished with B22400HL repair kits. For spring-loaded lip type seals specify B22400EL.

Spherical Roller Bearing Unit Replacement Parts

Series B22400

Expansion Type

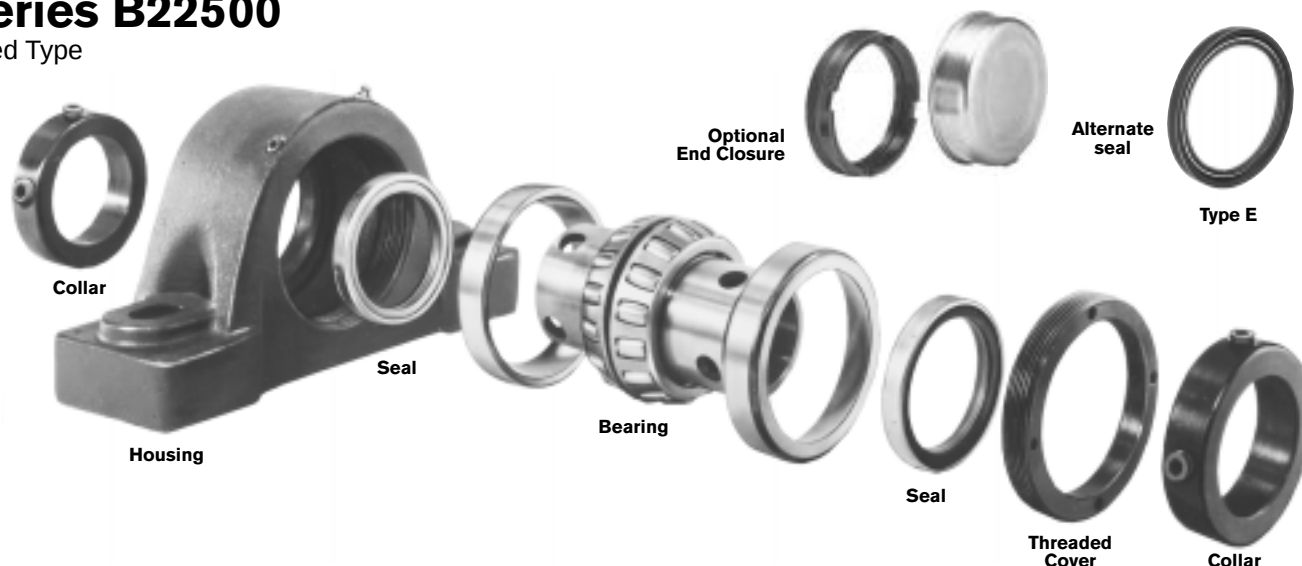


Shaft diameter		Pillow block number ▲	Basic Bearing Designation	Repair kit ■	Components in repair kit		Locking plug number		Housing number ▲
mm	inches				Type H	Collar with setscrews	For pillow block	For flanged unit	
					multi-disc labyrinth seals (2 reqd.)				
25	1	PE-B22416H PE-B224M25H	B22416 B224M25	CSE-B22416H CSE-B224M25H	B22417-3H	B22416-5S	B22440-8A	B22440-8A	PE-B22417-OE
	1 1/16	PE-B22419H PE-B22420H PE-B224M30H	B22419 B22420 B224M30	CSE-B22419H CSE-B22420H CSE-B224M30H					
30	1 1/4	PE-B22419H PE-B22420H PE-B224M30H	B22419 B22420 B224M30	CSE-B22419H CSE-B22420H CSE-B224M30H	B22420-3H	B22420-5S	B22440-8A	B22440-8A	PE-B22420-OE
	1 1/2	PE-B22423H PE-B22424H PE-B224M35H	B22423 B22424 B224M35	CSE-B22423H CSE-B22424H CSE-B224M35H					
35	1 3/8	PE-B22423H PE-B22424H PE-B224M35H	B22423 B22424 B224M35	CSE-B22423H CSE-B22424H CSE-B224M35H	B22424-3H	B22424-5S	B22440-8A	B22440-8A	PE-B22424-OE
	1 5/8	PE-B224B24H PE-B22426H PE-B22427H PE-B22428H PE-B224M40H	B224B24 B22426 B22427 B22428 B224M40	CSE-B224B24H CSE-B22426H CSE-B22427H CSE-B22428H CSE-B224M40H					
40	1 5/8	PE-B224B24H PE-B22426H PE-B22427H PE-B22428H PE-B224M40H	B224B24 B22426 B22427 B22428 B224M40	CSE-B224B24H CSE-B22426H CSE-B22427H CSE-B22428H CSE-B224M40H	B22428-3H	B22524-5S B22428-5S B22428-5S B22428-5S B22428-5S	B22440-8A	B22440-8A	PE-B22428-OE
	2	PE-B224B28H PE-B22431H PE-B22432H PE-B224M45H PE-B224M50H	B224B28 B22431 B22432 B224M45 B224M50	CSE-B224B28H CSE-B22431H CSE-B22432H CSE-B224M45H CSE-B224M50H					
45	1 7/8	PE-B224B28H PE-B22431H PE-B22432H PE-B224M45H PE-B224M50H	B224B28 B22431 B22432 B224M45 B224M50	CSE-B224B28H CSE-B22431H CSE-B22432H CSE-B224M45H CSE-B224M50H	B22432-3H	B22528-5S B22432-5S B22432-5S B22432-5S B22432-5S	B22440-8A	B22440-8A	PE-B22432-OE
	2 1/16	PE-B22435H PE-B22436H PE-B224M55H	B22435 B22436 B224M55	CSE-B22435H CSE-B22436H CSE-B224M55H					
50	2 1/8	PE-B22435H PE-B22436H PE-B224M55H	B22435 B22436 B224M55	CSE-B22435H CSE-B22436H CSE-B224M55H	B22436-3H	B22435-5S B22436-5S B22436-5S	B22440-8A	B22440-8A	PE-B22436-OE
	2 1/4	PE-B224B36H PE-B22439H PE-B22440H PE-B224M60H	B224B36 B22439 B22440 B224M60	CSE-B224B36H CSE-B22439H CSE-B22440H CSE-B224M60H					
55	2 1/4	PE-B224B36H PE-B22439H PE-B22440H PE-B224M60H	B224B36 B22439 B22440 B224M60	CSE-B224B36H CSE-B22439H CSE-B22440H CSE-B224M60H	B22440-3H	B22536-5S B22440-5S B22440-5S B22440-5S	B22440-8A	B22440-8A	PE-B22440-OE
	2 3/8	PE-B22443H PE-B22444H PE-B22447H PE-B22448H PE-B224M65H PE-B224M70H PE-B224M75H	B22443 B22444 B22447 B22448 B224M65 B224M70 B224M75	CSE-B22443H CSE-B22444H CSE-B22447H CSE-B22448H CSE-B224M65H CSE-B224M70H CSE-B224M75H					
60	2 3/8	PE-B22443H PE-B22444H PE-B22447H PE-B22448H PE-B224M65H PE-B224M70H PE-B224M75H	B22443 B22444 B22447 B22448 B224M65 B224M70 B224M75	CSE-B22443H CSE-B22444H CSE-B22447H CSE-B22448H CSE-B224M65H CSE-B224M70H CSE-B224M75H	B22448-3H	B22443-5S B22448-5S B22448-5S B22448-5S B22443-5S B22448-5S B22448-5S	B22448-8A	B22448-8A	PE-B22448-OE
	2 7/8	PE-B22451H PE-B22455H PE-B22456H PE-B224M80H PE-B224M85H	B22451 B22455 B22456 B224M80 B224M85	CSE-B22451H CSE-B22455H CSE-B22456H CSE-B224M80H CSE-B224M85H					
65	2 7/8	PE-B22451H PE-B22455H PE-B22456H PE-B224M80H PE-B224M85H	B22451 B22455 B22456 B224M80 B224M85	CSE-B22451H CSE-B22455H CSE-B22456H CSE-B224M80H CSE-B224M85H	B22456-3H	B22551-5S B22456-5S B22456-5S B22551-5S B22456-5S	B22572-8A	B22572-8A	PE-B22456-OE
	3	PE-B22459H PE-B22463H PE-B22464H PE-B224M90H PE-B224M100H	B22459 B22463 B22464 B224M90 B224M100	CSE-B22459 CSE-B22463 CSE-B22464 CSE-B224M90H CSE-B224M100H					
70	3	PE-B22459H PE-B22463H PE-B22464H PE-B224M90H PE-B224M100H	B22459 B22463 B22464 B224M90 B224M100	CSE-B22459 CSE-B22463 CSE-B22464 CSE-B224M90H CSE-B224M100H	B22464-3H	B22464-5S	B22448-8A	B22572-8A	PE-B22464-OE
	3 1/8	PE-B22459H PE-B22463H PE-B22464H PE-B224M90H PE-B224M100H	B22459 B22463 B22464 B224M90 B224M100	CSE-B22459 CSE-B22463 CSE-B22464 CSE-B224M90H CSE-B224M100H					
75	3 1/8	PE-B22459H PE-B22463H PE-B22464H PE-B224M90H PE-B224M100H	B22459 B22463 B22464 B224M90 B224M100	CSE-B22459 CSE-B22463 CSE-B22464 CSE-B224M90H CSE-B224M100H	B22464-3H	B22464-5S	B22448-8A	B22572-8A	PE-B22464-OE
	3 1/4	PE-B22459H PE-B22463H PE-B22464H PE-B224M90H PE-B224M100H	B22459 B22463 B22464 B224M90 B224M100	CSE-B22459 CSE-B22463 CSE-B22464 CSE-B224M90H CSE-B224M100H					
80	3 1/4	PE-B22459H PE-B22463H PE-B22464H PE-B224M90H PE-B224M100H	B22459 B22463 B22464 B224M90 B224M100	CSE-B22459 CSE-B22463 CSE-B22464 CSE-B224M90H CSE-B224M100H	B22464-3H	B22464-5S	B22448-8A	B22572-8A	PE-B22464-OE
	3 3/8	PE-B22459H PE-B22463H PE-B22464H PE-B224M90H PE-B224M100H	B22459 B22463 B22464 B224M90 B224M100	CSE-B22459 CSE-B22463 CSE-B22464 CSE-B224M90H CSE-B224M100H					
85	3 3/8	PE-B22459H PE-B22463H PE-B22464H PE-B224M90H PE-B224M100H	B22459 B22463 B22464 B224M90 B224M100	CSE-B22459 CSE-B22463 CSE-B22464 CSE-B224M90H CSE-B224M100H	B22464-3H	B22464-5S	B22448-8A	B22572-8A	PE-B22464-OE
	3 7/8	PE-B22459H PE-B22463H PE-B22464H PE-B224M90H PE-B224M100H	B22459 B22463 B22464 B224M90 B224M100	CSE-B22459 CSE-B22463 CSE-B22464 CSE-B224M90H CSE-B224M100H					
90	3 7/8	PE-B22459H PE-B22463H PE-B22464H PE-B224M90H PE-B224M100H	B22459 B22463 B22464 B224M90 B224M100	CSE-B22459 CSE-B22463 CSE-B22464 CSE-B224M90H CSE-B224M100H	B22464-3H	B22464-5S	B22448-8A	B22572-8A	PE-B22464-OE
	4	PE-B22459H PE-B22463H PE-B22464H PE-B224M90H PE-B224M100H	B22459 B22463 B22464 B224M90 B224M100	CSE-B22459 CSE-B22463 CSE-B22464 CSE-B224M90H CSE-B224M100H					
100	4	PE-B22459H PE-B22463H PE-B22464H PE-B224M90H PE-B224M100H	B22459 B22463 B22464 B224M90 B224M100	CSE-B22459 CSE-B22463 CSE-B22464 CSE-B224M90H CSE-B224M100H	B22464-3H	B22464-5S	B22448-8A	B22572-8A	PE-B22464-OE
	4 1/8	PE-B22459H PE-B22463H PE-B22464H PE-B224M90H PE-B224M100H	B22459 B22463 B22464 B224M90 B224M100	CSE-B22459 CSE-B22463 CSE-B22464 CSE-B224M90H CSE-B224M100H					

Spherical Roller Bearing Unit Replacement Parts

Series B22500

Fixed Type



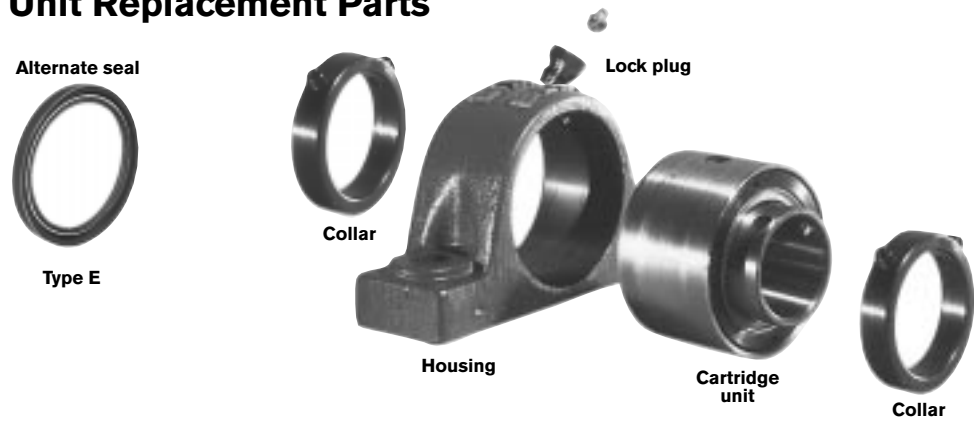
Shaft diameter mm inches	Basic Bearing Designation ▲	Repair kit ■	Components in repair kit			Threaded cover for open end	Threaded cover for closed end	End closure	Housing number ▲
			Spherical roller bearing	Type H multi-disc labyrinth seals (2 reqd.)■	Collar with setscrews (2 included)				
17/16	B22523	B22523HL	B22523	B22424-3H	B22424-5S	B22424-7	B22424-7C	B22424-6	P-B22523-0
111/16	B22527	B22527HL	B22527	B22428-3H	B22428-5S	B22428-7	B22428-7C	B22428-6	P-B22527-0
115/16	B22531	B22531HL	B22531	B22432-3H	B22432-5S	B22432-7	B22432-7C	B22432-6	P-B22531-0
2	B22532	B22532HL	B22532	B22436-3H	B22435-5S	B22436-7	B22436-7C	B22436-6	P-B22535-0
23/16	B22535	B22535HL	B22535						
27/16	B22539	B22539HL	B22539	B22440-3H	B22440-5S	B22440-7	B22440-7C	B22440-6	P-B22539-0
211/16	B22543	B22543HL	B22543	B22448-3H	B22443-5S B22448-5S	B22448-7	B22448-7C	B22448-6	P-B22547-0
215/16	B22547	B22547HL	B22547						
37/16	B22555	B22555HL	B22555	B22456-3H	B22456-5S	B22456-7	B22456-7C	B22456-6	P-B22556F-0
315/16	B22563	B22563HL	B22563	B22464-3H	B22464-5S	B22464-7	B22464-7C	B22464-6	P-B22564F-0
4	B22564	B22564HL	B22564						
43/16	B22567	B22567HL	B22567	B22572-3H	B22571-5S B22571-5S B22572-5S B22571-5S B22572-5S	B22572-7	B22572-7C	B22572-6	P-B22572F-0
47/16	B22571	B22571HL	B22571						
41/2	B22572	B22572HL	B22572						
110	B225M110	B225M110HL	B225M110						
115	B225M115	B225M115HL	B225M115						
415/16	B22579	B22579HL	B22579	B22580-3H	B22580-5S	B22580-7	B22580-7C	B22580-6	P-B22580F-0
5	B22580	B22580HL	B22580						
125	B225M125	B225M125HL	B225M125						

- ▲ For variations in type and material, use prefix: P-B22531 -0 For construction features, use suffix: F — 4-bolt base pillow block
- P — pillow block, cast iron
- PK — pillow block, cast steel (on 115/16" and larger shafts only)
- (for 43/16", 110 mm and larger shaft only)
- DSH — takeup unit
- Floating labyrinth seals, suffix H, are furnished with B22500HL repair kits. For spring-loaded lip type seals specify B22500EL.
- * Closed end units are assembled with two seals.

Spherical Roller Bearing Unit Replacement Parts

Series B22500

Expansion Type



Shaft diameter		Pillow block number	Basic Bearing Designation	Repair kit ■	Components in repair kit		Locking plug number	Housing number ▲
mm	inches				Type H multi-disc labyrinth seals (2 reqd.)■	Collar with setscrews (2 included)		
	1 ⁷ / ₁₆	PE-B22523H	B22523	CSE-B22523H	B22424-3H	B22424-5S	B22440-8A	PE-B22523-OE
	1 ¹¹ / ₁₆	PE-B22527H	B22527	CSE-B22527H	B22428-3H	B22428-5S	B22448-8A	PE-B22527-OE
	1 ⁵ / ₈	PE-B22531H	B22531	CSE-B22531H	B22432-3H	B22432-5S	B22448-8A	PE-B22531-OE
	2	PE-B22532H	B22532	CSE-B22532H	B22436-3H	B22435-5S	B22448-8A	PE-B22535-OE
	2 ³ / ₁₆	PE-B22535H	B22535	CSE-B22535H				
	2 ⁷ / ₁₆	PE-B22539H	B22539	CSE-B22539H	B22440-3H	B22440-5S	B22448-8A	PE-B22539-OE
	2 ¹¹ / ₁₆	PE-B22543H	B22543	CSE-B22543H	B22448-3H	B22443-5S B22448-5S	B22572-8A	PE-B22547-OE
	2 ⁵ / ₈	PE-B22547H	B22547	CSE-B22547H				
	3 ⁷ / ₁₆	PE-B22555FH	B22555	CSE-B22555H	B22456-3H	B22456-5S	B22580-8A	PE-B22556F-OE
	3 ¹⁵ / ₁₆	PE-B22563FH	B22563	CSE-B22563H	B22464-3H	B22464-5S	B22572-8A	PE-B22564F-OE
	4	PE-B22564FH	B22564	CSE-B22564H				
110 115	4 ³ / ₁₆	PE-B22567FH	B22567	CSE-B22567H	B22572-3H	B22571-5S B22571-5S B22572-5S B22571-5S B22572-5S	B22572-8A	PE-B22572F-OE
	4 ⁷ / ₁₆	PE-B22571FH	B22571	CSE-B22571H				
	4 ¹ / ₂	PE-B22572FH	B22572	CSE-B22572H				
		PE-B225M110FH	B225M110	CSE-B225M110H				
		PE-B225M115FH	B225M115	CSE-B225M115H				
125	4 ¹⁵ / ₁₆	PE-B22579FH	B22579	CSE-B22579H	B22580-3H	B22580-5S	B22580-8A	PE-B22580F-OE
	5	PE-B22580FH	B22580	CSE-B22580H				
		PE-B225M125FH	B225M125	CSE-B225M125H				

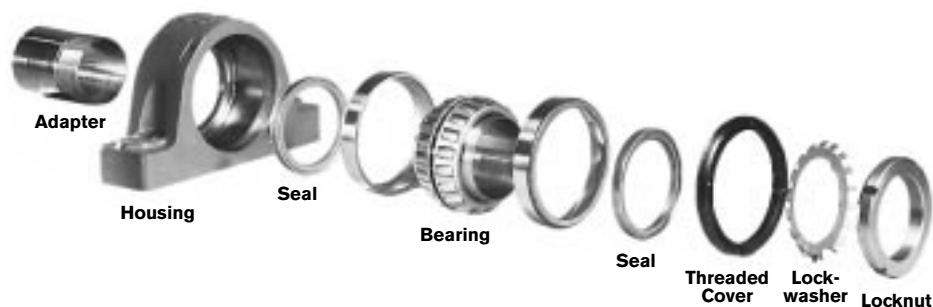
Expansion units cannot be furnished with closed end caps.
4³/₁₆" , 110 mm and larger shafts are available with cast steel housing, use prefix PKE i.e., PKE-B22567FH.
▲ For pillow block with 4-bolt base, use suffix F (on 1⁵/₈" and larger shafts only).
■ Floating labyrinth seals, suffix H, are furnished with CSE-B22500H repair kits. For spring-loaded lip type seals specify CSE-B22500E.

Spherical Roller Bearing Unit Replacement Parts

Max Mount™

Series B22600

Fixed Type



Shaft diameter inches	Basic Bearing Designation ▲	Repair kit ■	Components in repair kit			Threaded cover for open end	Threaded cover for closed end	End closure *	Housing number ▲
			Spherical roller bearing	Type H multi-disc labyrinth seals (2 reqd.)■	Adapter assembly†				
1 ⁷ / ₁₆	B22623	B22623HL	B22623	B22424-3H	SNW623-1 ⁷ / ₁₆	B22424-7	B22424-7C	B22424-6	P-B22424-0
1 ¹⁵ / ₁₆	B22631	B22631HL	B22631	B22432-3H	SNW631-1 ¹⁵ / ₁₆	B22432-7	B22432-7C	B22432-6	P-B22432-0
2 ³ / ₁₆	B22635	B22635HL	B22635	B22436-3H	SNW635-2 ³ / ₁₆	B22436-7	B22436-7C	B22436-6	P-B22436-0
2 ⁷ / ₁₆	B22639	B22639HL	B22639	B22440-3H	SNW639-2 ⁷ / ₁₆	B22440-7	B22440-7C	B22440-6	P-B22440-0
2 ¹¹ / ₁₆ 2 ¹⁵ / ₁₆	B22643 B22647	B22643HL B22647HL	B22643 B22647	B22448-3H	SNW647-2 ¹¹ / ₁₆ SNW647-2 ¹⁵ / ₁₆	B22448-7	B22448-7C	B22448-6	P-B22448-0
3 ⁷ / ₁₆	B22655	B22655HL	B22655		SNW655-3 ⁷ / ₁₆				
3 ¹⁵ / ₁₆	B22663	B22663HL	B22663	B22464-3H	SNW663-3 ¹⁵ / ₁₆	B22464-7	B22464-7C	B22464-6	P-B22464-0
4 ⁷ / ₁₆	B22671	B22671HL	B22671	B22572-3H	SNW671-4 ⁷ / ₁₆	B22572-7	B22572-7C	B22572-6	P-B22572F-0
4 ¹⁵ / ₁₆	B22679	B22679HL	B22679	B22580-3H	SNW679-4 ¹⁵ / ₁₆	B22580-7	B22580-7C	B22580-6	P-B22580F-0

▲For variations in type and material, use prefix:

T — takeup unit FB— flanged bracket unit
EF — padded flanged unit FC— flanged cartridge unit
EP — pillow block, cast iron
F — flanged unit

P— pillow block, cast iron
PK— pillow block, cast steel

P-B22631 -0 For construction features, use suffix:
F— 4-bolt base pillow block
(on 1¹⁵/₁₆" and larger shafts only)
* Closed end units are assembled with two seals.

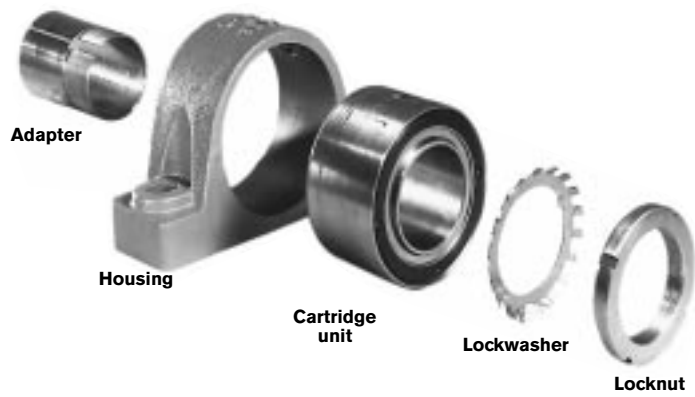
■ Floating labyrinth seals, suffix H, are furnished with B22600HL repair kits. For spring-loaded lip type seals specify B22600EL.

† Adapter assembly consists of adapter, lockwasher and locknut.

Spherical Roller Bearing Unit Replacement Parts

Max Mount™ B22600

Expansion Type



Shaft diameter inches	Pillow block number ▲	Basic Bearing Designation	Repair kit ■	Components in repair kit		Locking plug number		Housing number ▲
				Type H ■ multi-disc labyrinth seals (2 reqd.)	Adapter assembly†	For pillow block	For flanged unit	
1 ⁷ / ₁₆	PE-B22623H	B22623	CSE-B22623H	B22424-3H	SNW623-1 ⁷ / ₁₆	B22440-8A	B22440-8A	PE-B22424-OE
1 ¹⁵ / ₁₆	PE-B22631H	B22631	CSE-B22631H	B22432-3H	SNW631-1 ¹⁵ / ₁₆	B22440-8A	B22440-8A	PE-B22432-OE
2 ³ / ₁₆	PE-B22635H	B22635	CSE-B22635H	B22436-3H	SNW635-2 ³ / ₁₆	B22440-8A	B22440-8A	PE-B22436-OE
2 ⁷ / ₁₆	PE-B22639H	B22639	CSE-B22639H	B22440-3H	SNW639-2 ⁷ / ₁₆	B22440-8A	B22440-8A	PE-B22440-OE
2 ¹¹ / ₁₆ 2 ¹⁵ / ₁₆	PE-B22643H PE-B22647H	B22643 B22647	CSE-B22643H CSE-B22647H	B22448-3H	SNW647-2 ¹¹ / ₁₆ SNW647-2 ¹⁵ / ₁₆	B22448-8A	B22448-8A	PE-B22448-OE
3 ⁷ / ₁₆	PE-B22655H	B22655	CSE-B22655H					
3 ¹⁵ / ₁₆	PE-B22663H	B22663	CSE-B22663H	B22464-3H	SNW663-3 ¹⁵ / ₁₆	B22448-8A	B22572-8A	PE-B22464-OE
4 ⁷ / ₁₆	PE-B22671H	B22671	CSE-B22671H	B22572-3H	SNW671-4 ⁷ / ₁₆	B22572-8A		PE-B22572F-OE
4 ¹⁵ / ₁₆	PE-B22679H	B22679	CSE-B22679H	B22580-3H	SNW679-4 ¹⁵ / ₁₆	B22580-8A		PE-B22580F-OE

- ▲ For variations in type and material, use prefix: PE-B22631 -0 For construction features, use suffix:
- FE — flanged unit PE — pillow block, cast iron _____ F — 4-bolt base pillow block
- EPE — pillow block, cast iron PKE — pillow block, cast steel (on 1¹⁵/₁₆" and larger shafts only)
- Floating labyrinth seals, suffix H, are furnished with CSE-B22600H repair kits. For spring-loaded lip type seals specify CSE-B22600E.
- † — Adapter assembly consists of adapter, lockwasher and locknut.

Additional Information

Series B22400 and B22500

Housing End Closures:

All fixed type B22400 and B22500 mounted units can be purchased with formed steel closed end caps on the collar side which covers all rotating elements. Two housing seals are provided to protect the bearing during mounting or in case of accidental cap removal. Closed end units have a special extended threaded cover for mounting the end cap. They are designated with the suffix HHC or EEC (i.e., P-B22431HHC). Shafting should not extend beyond the end of the bearing inner ring more than $\frac{1}{8}$ " (3.2 mm) when end caps are to be used.

Housing Mounting:

Series B22400 and B22500 mounted units have drilled or cored mounting bolt holes suitable for the inch or metric bolts listed. Drilled holes will be $\frac{1}{32}$ " (0.8 mm) larger than the largest inch bolt shown. Cast slots in pillow blocks are normally $\frac{1}{16}$ " wider than the specified mounting bolt nominal diameter. It is expected that plain washers will be used under the bolt head to span the slot width and aid torquing. Narrow (N) series washers per ANSI B18.22.1-1981 (previously designated SAE series) are recommended. If wide series washers are used, the full length of the slot may not be usable for positioning the unit.

Replacement Parts:

Bearings and seals can be replaced in Series B22400 and B22500 mounted units (except CSE units). Replacement parts are listed on pages D-62 through D-65. Service instructions for mounting are included with each unit or replacement bearing and should be closely followed. Replacement bearings are not prelubricated but are coated with a mineral base preservative and should be further protected from moisture and dirt, especially during installation.

Operation:

Series B22400 and B22500 mounted units are prelubricated with a good quality petroleum grease of No. 2 consistency which has been tested for operational characteristics and stability for long shelf life. The service instructions packed with each unit provide guidelines for relubrication intervals and recommended greases. The lubricant furnished is generally limited to an operating temperature range of -20°F to $+200^{\circ}\text{F}$ (-29° to 93°C). The lip seal E should be limited to a temperature less than 225°F (107°C).

Where significant thrust loads are applied to B22400 or B22500 mounted units, thrust collars, spacers, shaft shoulders etc.

should be utilized to support the thrust so that it is not transmitted through the locking collars and set screws.

These units have a misalignment capability of $\pm 2^{\circ}$. They are factory adjusted with sufficient clearance for operation within stated speed limits.

Takeups:

The mounting of B22400 and B22500 pillow blocks on universal LHD takeup frames is illustrated on page D-22. Smaller pillow blocks can be mounted on LC frames, see page B-60.

Fixed and Expansion Units:

Fixed and expansion type units are available in series B22400 and B22500 pillow blocks and flanged units. As these units are designed for slip fitted shafts, collar mounted, two fixed units can usually be applied to a shaft. Expansion units are recommended for use on one end of longer shafts, where supports are not steel or where significant temperature differentials are expected between shafts and mounting structures.

Recommended Shaft Tolerances

Shaft Diameter	Tolerance
1"-2"	Nominal to $-.0005$ "
2 $\frac{1}{16}$ "-5"	Nominal to $-.0010$ "
17 mm-50 mm	Nominal to -0.013 mm
55 mm-125 mm	Nominal to -0.025 mm

CAUTION

The above shaft tolerances are suitable for loads up to .18 C and an L_{10} life greater than 20,000 hours. For more severe conditions, consult Rexnord

Corporation.

The service life of a collar mounted bearing is largely dependent on shaft fit and may be expected to approach theoretical L_{10} life only if the bearing is press fitted to a shaft. A slip fit mounting in accordance with the shaft tolerances shown in table will provide generally acceptable service life on normal applications under light to moderate load and speed conditions. A shaft tolerance resulting in looser fits (such as with commercial shafting) may be expected to have greatly reduced reliability and increasing problems of shaft fret wear,

bearing inner ring fracture and shaft slippage. In general, looser fits than recommended are feasible only for very light loading and lower speeds. Prototype or field testing is strongly recommended if looser fits must be considered.

Shafting should be designed for adequate

strength and stiffness for the intended application. It should be round, straight, free of nicks and burrs and of correct size.

Warning:

The correct selection of bearings or mounted units requires that the magnitude and nature of all loads, speeds, alignment, mounting, operating requirements, and maintenance be adequately considered. The selection of materials for and design of housings, shafting, fasteners, seals, and accessories, as well as provisions for installation and maintenance, must follow good engineering principles.

Housings must be selected and installed with regard to the degree and direction of the forces that will occur. Housings should not be used under tension loads except with adequate safety factors. For this reason pillow blocks are best suited to withstand radial loads passing through the base. When heavy loads or shock loads are possible, it is most important to mount a unit so that the unit is directly and substantially supported other than through its mounting bolts. Where the line of force falls outside the base, such as with horizontal or uplift loads on pillow blocks, serious housing and fastener deflection or failure

may occur. These conditions may require designs using different materials, fasteners, mounting design, stops bars, etc., together with proper safety factors. When these conditions are unavoidable Link-Belt Bearing Division, Rexnord Corp. should be consulted.

Service instructions are provided with shipments of bearings and are available on request. These instructions provide detailed information to aid in the proper installation, operation, and maintenance, and should be carefully read and followed. Failure to do so may result in unsatisfactory service as well as serious personal injury or property damage.

Additional Information

Max Mount™ Series B22600

Housing End Closures:

All fixed type B22600 mounted units can be purchased with formed steel closed end caps on the collar side which covers all rotating elements. Two housing seals are provided to protect the bearing during mounting or in case of accidental cap removal. Closed end units have a special extended threaded cover for mounting the end cap. They are designated with the suffix HHC or EEC (i.e., P-B22631HHC). Shafting should not extend beyond the end of the bearing inner ring more than 1/8" (3.2 mm) when end caps are to be used.

Housing Mounting:

Series B22600 mounted units have drilled or cored mounting bolt holes suitable for the inch or metric bolts listed. Drilled holes will be 1/32" (0.8 mm) larger than the largest inch bolt shown. Cast slots in pillow blocks are normally 1/16" wider than the specified mounting bolt nominal diameter. It is expected that plain washers will be used under the bolt head to span the slot width and aid torquing. Narrow (N) series washers per ANSI B18.22.1-1981 (previously designated SAE series) are recommended. If wide series washers are used, the full length of the slot may not be usable

for positioning the unit.

Replacement Parts:

Bearings and seals can be replaced in Series B22600 mounted units (except CSE units). Replacement parts are listed on pages D-66 and D-67. Service instructions for mounting are included with each unit or replacement bearing and should be closely followed. Replacement bearings are not prelubricated but are coated with a mineral base preservative and should be further protected from moisture and dirt, especially during installation.

Operation:

Series B22600 mounted units are prelubricated with a good quality petroleum grease of No. 2 consistency which has been tested for operational characteristics and stability for long shelf life. The service instructions packed with each unit provide guidelines for relubrication intervals and recommended greases. The lubricant furnished is generally limited to an operating temperature range of -20°F to +200°F (-29° to 93°C). The lip seal E should be limited to a temperature less than 225°F (107°C).

Where significant thrust loads are applied to B22600 mounted units, thrust collars, spacers, shaft shoulders etc. should be utilized to support the thrust so that it is not transmitted through the locking collars and set screws.

These units have a misalignment capability of ±2°. They are factory adjusted with sufficient clearance for operation within stated speed limits.

Takeups:

The mounting of B22600 pillow blocks on universal LHD takeover frames is illustrated on page D-22. Smaller pillow blocks can be mounted on LC frames, see page B-60.

Fixed and Expansion Units:

Fixed and expansion type units are available in series B22600 pillow blocks and flanged units. Expansion units are recommended for use on one end of the shaft, unless special consideration is taken into account for axial movement when mounting the adapter assemblies. In the case of fixed units only, consult the Link-Belt Bearing Division for proper mounting instructions.

Recommended Shaft Tolerances

Shaft Diameter	Tolerance
1"-2"	Nominal to -.003"
2 1/16"-4"	Nominal to -.004"
3 1/16"-5"	Nominal to -.005"
17 mm-50 mm	Nominal to -0.076 mm
55 mm-100 mm	Nominal to -0.102 mm
110 mm-125 mm	Nominal to -0.127 mm

CAUTION

The above shaft tolerances are suitable for loads up to .18C and an L10 life greater than 20,000 hours. For more severe conditions, consult the Rexnord Corporation.

The service life of an adapter mounted bearing is largely dependent on a correctly tightened adapter. Improperly tightened bearings and adapter assemblies may slip or turn on the shaft. The proper procedure for tightening the adapter assembly is specified in the service instructions B-RBU-47. Refer to

these instructions before mounting the B22600 series bearings.

The shafting should be designed for adequate strength and stiffness for the intended application. It should be round, straight, free of nicks and burrs and of the correct size.

Warning:

The correct selection of bearings or mounted units requires that the magnitude and nature of all loads, speeds, alignment, mounting, operating requirements, and maintenance be adequately considered. The selection of materials for and design of housings, shafting, fasteners, seals, and accessories, as well as provisions for installation and maintenance, must follow good engineering principles.

Housings must be selected and installed with regard to the degree and direction of the forces that will occur. Housings should not be used under tension loads except with adequate safety factors. For this reason pillow blocks are best suited to withstand radial loads passing through the base. When heavy loads or shock loads are possible, it is most important to mount a unit so that the unit is directly and substantially supported other than through its mounting bolts. Where the line of force falls

outside the base, such as with horizontal or uplift loads on pillow blocks, serious housing and fastener deflection or failure may occur. These conditions may require designs using different materials, fasteners, mounting design, stops bars, etc., together with proper safety factors. When these conditions are unavoidable Link-Belt Bearing Division, Rexnord Corp. should be consulted.

Nomenclature

Series B22400, B22500 and B22600

Spherical Roller Bearing Units

Symbol	Description	P	E	-B22	4	39	F	H	C	17H
C	Cartridge unit									
CSE	Cartridge unit; steel housing									
EF	Flanged unit; 4-bolt square									
EP	Pillow block; cast iron									
F	Flanged unit; 3- and 4-bolt									
FB	Flanged bracket unit									
FC	Flanged cartridge unit; 4-bolt round									
P	Pillow block									
PK	Pillow block; cast steel housing									
T	Takeup unit, slotted guides									
DS	Takeup, conveyor, hinged top, welded steel frame									
DSH	Takeup, conveyor, extra strength, welded steel frame									
R	Collar opposite cover (B22400 only)									
E	Expansion unit (not used with CSE symbol)									
B22	Spherical roller bearing; extended inner ring separable outer rings									
4	400 series designation (one locking collar)									
5	500 series designation (two locking collars)									
6	600 series designation (adapter mounted)									
B	Inner ring bore equal to a bore of preceding smaller bearing group									
39	Shaft diameter in 16ths of an inch									
M55	Metric series, bore in mm									
F	Four bolt base pillow block									
H	Floating labyrinth seal									
E	Spring-loaded lip seal (For closed end units use (2) i.e.: HHC)									
C	Closed end unit									
18	Takeup adjustment, inches									
17H	Grease designation									

The nomenclature shown is provided to identify the basic and optional features of bearing and mounted unit assemblies. The most commonly specified variations are listed; however, availability of all variations cannot be assumed. Link-Belt Bearing Division, Rexnord Corp. should be consulted regarding optional features, availability, and the application requirements.

Spherical Roller Bearing Pillow Blocks and Takeups

Contents

**Series 6600, 6800,
SAF22600, 7600, 7800,
SAF22300**

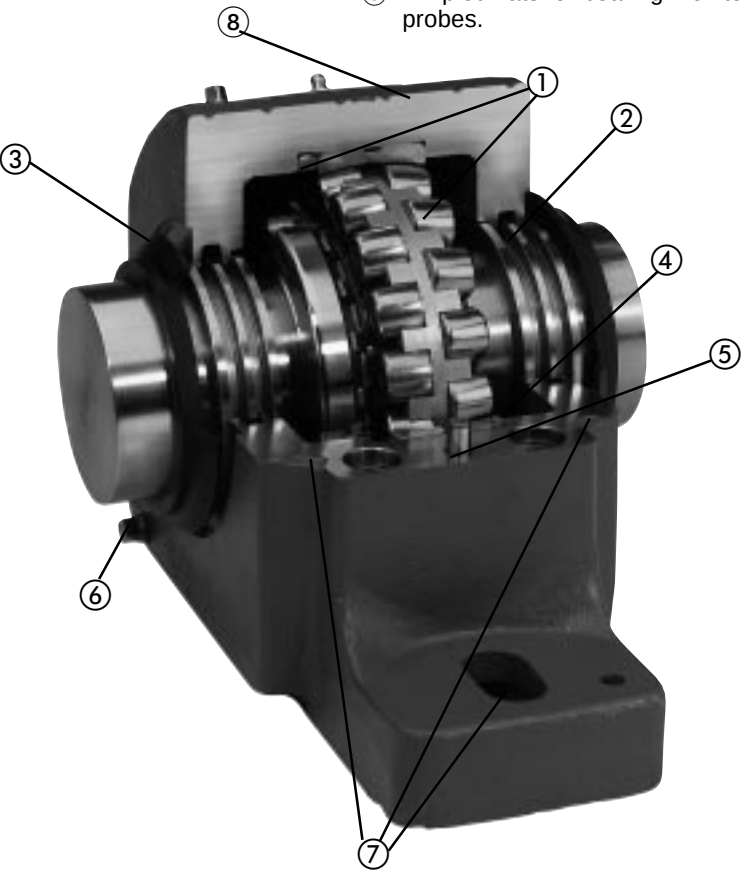
Introduction E-1
Product Index E-3
Selection E-7
Load Ratings E-9
Dimensions E-15
Nomenclature E-27
Replacement Parts E-29
Additional Information E-34

Series 6600, 6800, 6900, SAF22600, 7600, 7800, 7900, SAF22300

Spherical Roller Bearing Pillow Blocks and Takeups

Self-aligning spherical roller bearing pillow blocks and takeups provide high load carrying capacity for radial or combination radial and thrust loads. They are designed for use on conveyors, dryers, road building equipment, runout tables, fans, crushers, hammer-mills and many other high-precision, heavy-duty applications.

- ① Spherical roller bearings may be direct or adapter mounted. Housings have provision for fixed or expansion mounting.
- ② Choice of seals — Type R multi-labyrinth, D5 Pentac®, or Type D8 independently flushable seals — effectively retain lubricant and exclude contaminants.
- ③ Removable housing cap facilitates bearing mounting, inspection and maintenance.
- ④ Mating surfaces are machined. Caps and bases matched and marked.
- ⑤ Base and cap are dowelled for accurate assembly and security.
- ⑥ Oil or grease lubrication ready. Large lubricant reservoir in base prolongs lubrication interval.
- ⑦ Slotted bolt holes in base facilitate mounting; machined finish on base for firm seating on supporting surface. Pry slots for easy cap removal.
- ⑧ Dimpled flats for bearing monitor probes.



A Seal Choice for Every Environment

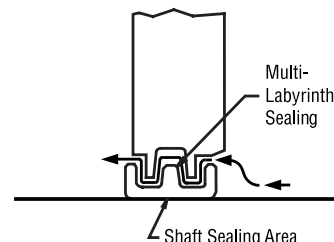
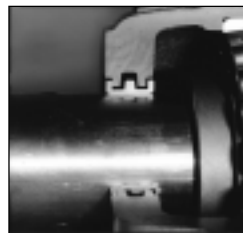
Select the proper seal from Link-Belt's seal menu.

	Triple Ring R Seal	PenTac D5 Seal	Taconite D8 Seal	Wash Down T Seal
Dirt/Dust	✓	✓✓	✓✓✓	✓
Speed	✓✓✓	✓✓	✓	✓✓
Wash Down	✓	✓✓	✓✓	✓✓✓

✓ Good ✓✓ Better ✓✓✓ Best

Metal Triple-Ring R Seal

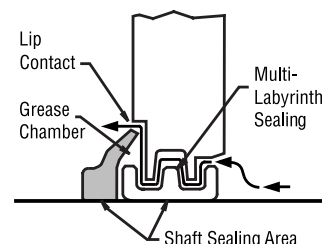
This industry standard seal provides a labyrinth grease chamber between the housing grooves and the seal rings. Operates at high speed; good for moderate dust, dirt or moisture.



D5 PenTac 5-Point Sealing System

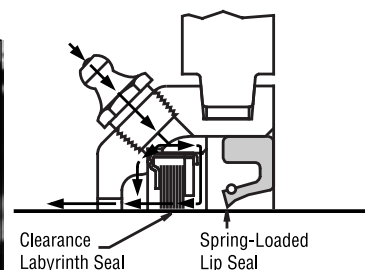
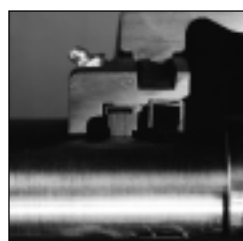
Rugged contact lip seal, molded on a Kevlar® body, rotates with the shaft. The PenTac seal acts as a flinger, keeping debris away from the seal area, and provides five seal points.

- 1 - Seals shaft
- 2 - Seals housing
- 3 - Creates a grease chamber to prevent bearing contamination
- 4 - Acts as a flinger
- 5 - Grease chambers created by multi-labyrinth chamber



D8 Taconite Sealing System

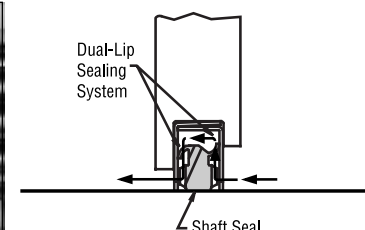
A rugged cast carrier protects a metal labyrinth outboard seal and a spring-loaded inboard seal. When independently lubricated, the D8 system directs the grease between the two seals, purging all contaminants before they can reach the bearing chamber. Thousands are in use in the toughest applications worldwide.



Exclusive T Water Seal

Available on special order, this patented seal was developed for use on equipment which experiences constant water splash or frequent wash down. The unique T-shaped lip seal rides in a stainless steel carrier and rotates with the shaft. It seals the shaft and its one-way, double-contact lips allow for grease purge from the bearing chamber, but prevent the reverse flow of water or debris. Link Belt's T seal is the standard in the environmental equipment industry.

Link Belt Bearing offers Pillow Blocks with special features for severe wash down environments. Black Rilsan Nylon 11 coated housings, stainless steel hardware and end caps or solid closed end housings, and the patented T contact water seal are the standard features of the BP-LB6800C series. Units may be further modified to meet specific needs.



Shaft	Part Number	Shaft	Part Number
17/16"	BP-LB6823	33/16"	BP-LB6851*
23/16"	BP-LB6835*	315/16"	BP-LB6863F
27/16"	BP-LB6839*	41/2"	BP-LB6872F
211/16"	BP-LB6843*	415/16"	BP-LB6879F
215/16"	BP-LB6847*		

*For four-bolt base add suffix "F".
Unit with one side solid cast closed, add "C" suffix.

Series P-LB6800, P-LB6600, P-LB6900, SAF22600

Pillow Blocks

P-LB6800R 2-bolt base pillow blocks for shafts 1 $\frac{7}{16}$ " through 3 $\frac{1}{2}$ ",
40 mm through 90 mm.

P-LB6800FR 4-bolt base pillow block for shafts 2 $\frac{7}{16}$ " through 8",
65 mm through 200 mm.

These pillow blocks have Series 22200LBK tapered bore spherical roller bearings with adapter assemblies. They are available with open or closed ends, fixed or expansion type, for grease or oil lubrication.

Load ratings on pages E-9 through E-12.

Dimensions on pages E-15 and E-16.

Additional information on page E-34.

Pillow Blocks

P-LB6600FR 4-bolt base pillow blocks for shafts 8 $\frac{7}{16}$ " through 10 $\frac{1}{2}$ ", 220 mm through 300 mm.

These pillow blocks have Series 23000LBK tapered bore spherical roller bearing with adapter assemblies. They are available with open or closed ends, fixed or expansion type, for grease or oil lubrication.

Load ratings on pages E-10 through E-12.

Dimensions on page E-16.

Additional information on page E-34.

Pillow Blocks

P-LB6800D8 2-bolt base pillow blocks for shafts 1 $\frac{7}{16}$ " through 3 $\frac{1}{2}$ ".

P-LB6800FD8 4-bolt base pillow blocks for shafts 2 $\frac{7}{16}$ " through 8".

P-LB6600FD8 4-bolt base pillow blocks for shafts 8 $\frac{7}{16}$ " through 10 $\frac{1}{2}$ ".

These pillow blocks are equipped with type D8 sealing systems for extreme adverse operating conditions and have Series 22200LBK or 23000LBK tapered bore spherical roller bearings with adapter assemblies. They are available with open or closed ends, fixed or expansion type, for grease lubrication.

Load ratings on pages E-9 through E-12.

Dimensions on pages E-17 and E-18.

Additional information on page E-34.

Pillow Blocks

P-LB6900R 2-bolt base pillow blocks for shafts 1 $\frac{7}{16}$ " through 2 $\frac{15}{16}$ ".

P-LB6900FR 2-bolt base pillow blocks for shafts 2 $\frac{3}{16}$ " through 2 $\frac{15}{16}$ ".

SAF22600 4-bolt base pillow blocks for shafts 3 $\frac{3}{16}$ " through 5 $\frac{15}{16}$ ".

These pillow blocks have Series 22300LBK tapered bore spherical roller bearings with adapter assemblies. They are available with open or closed ends, fixed or expansion type, for grease or oil lubrication.

Load ratings on pages E-13 and E-14.

Dimensions on page E-23.

Additional information on page E-34.

Series P-LB7800, P-LB7600, P-LB7900, SAF22300 Series DS-LB6800

Pillow Blocks

P-LB7800R 2-bolt base pillow blocks with bearing bores 2.9528" (75 mm) through 3.9370" (100 mm).

P-LB7800FR 4-bolt base pillow blocks with bearing bores 2.9528" (75 mm) through 8.6614" (220 mm).

These pillow blocks have Series 22200LB cylindrical bore spherical roller bearings for direct shaft mounting. They are available with open or closed ends, fixed or expansion type, for grease or oil lubrication.

Load ratings on pages E-9 through E-12.

Dimensions on page E-21.

Additional information on page E-34.

Pillow Blocks

P-LB7600FR 4-bolt base pillow blocks with bearing bores 9.4488" (240 mm) through 11.0236" (280 mm).

These pillow blocks have Series 23000LB cylindrical bore spherical roller bearings for direct shaft mounting. They are available with open or closed ends, fixed or expansion type, for grease or oil lubrication.

Load ratings on pages E-10 and E-12.

Dimensions on page E-21.

Additional information on page E-34.

Pillow Blocks

P-LB7900R 2-bolt base pillow block with bearing bores 1.7717" (45 mm) through 3.3465" (85 mm).

P-LB7900FR 4-bolt base pillow block with bearing bores 2.5591" (65 mm) through 3.3465" (85 mm).

SAF22300 4-bolt base pillow blocks with bearing bores 3.5433" (90 mm) through 6.6929" (170 mm).

These pillow blocks have Series 22300LB cylindrical bore spherical roller bearings for direct shaft mounting. They are available with open or closed ends, fixed or expansion type, for grease or oil lubrication.

Load ratings on pages E-13 and E-14.

Dimensions on page E-24.

Additional information on page E-34.

Takeups

DS-LB6800 conveyor takeups with hinged top welded steel frame and Series 22200LBK tapered bore spherical roller bearings with adapter assemblies. Bearing bores are parallel to the base of the frame. They are available with open or closed ends, fixed or expansion type, for grease lubrication.

LHD heavy duty sliding base welded steel frame are available for pillow block mounting.

Load ratings on pages E-9 through E-12.

Dimensions on pages E-25 and E-26.

Additional information on page E-34.

Series PK-LB6800, PK-LB6600

Pillow Blocks

PK-LB6800FR 4-bolt base pillow block for shafts 2⁷/₁₆" through 8", 65 mm through 200 mm.

These cast steel pillow blocks have Series 22200LBK tapered bore spherical roller bearings with adapter assemblies. They are available with open or closed ends, fixed or expansion type, for grease or oil lubrication.

Load ratings on pages E-9 through E-12.

Dimensions on page E-19.

Additional information on page E-34.

Pillow Blocks

PK-LB6600FR 4-bolt base pillow blocks for shafts 8⁷/₁₆" through 10¹/₂", 220 mm through 260 mm.

These cast steel pillow blocks have Series 23000LBK tapered bore spherical roller bearings with adapter assemblies. They are available with open or closed ends, fixed or expansion type, for grease or oil lubrication.

Load ratings on pages E-10 through E-12.

Dimensions on page E-19.

Additional information on page E-34.

Pillow Blocks

PK-LB6800FD8 4-bolt base pillow blocks for shafts 2⁷/₁₆" through 8". PK-LB6600FD8 4-bolt base pillow blocks for shafts 8⁷/₁₆" through 10¹/₂".

The cast steel pillow blocks are equipped with type D8 independently flushable seals for extreme adverse operating conditions and have Series 22200LBK or 23000LBK tapered bore spherical roller bearings with adapter assemblies. They are available with open or closed ends, fixed or expansion type, for grease lubrication.

Load ratings on pages E-9 through E-12.

Dimensions on page E-20.

Additional information on page E-34.

Series PK-LB7800, PK-LB7600

Pillow Blocks

PK-LB7800FR 4-bolt base pillow blocks with bearing bores
2.9528" (75 mm) through 8.6614" (220 mm).

These cast steel pillow blocks have Series 22200LB cylindrical bore spherical roller bearings for direct shaft mounting. They are available with open or closed ends, fixed or expansion type, for grease or oil lubrication.

Load ratings on pages E-9 through E-12.

Dimensions on page E-22.

Additional information on page E-34.

Pillow Blocks

PK-LB7600FR 4-bolt base pillow block with bearing bores
9.4488" (240 mm) through 11.0236" (280 mm).

These cast steel pillow blocks have Series 23000LB cylindrical bore spherical roller bearings for direct shaft mounting. They are available with open or closed ends, fixed or expansion type, for grease or oil lubrication.

Load ratings on pages E-10 through E-12.

Dimensions on page E-22.

Additional information on page E-34.

Selection

Series 6600, 6800, 6900, 7600, 7800, 7900, 22600, 22300

To select a pillow block, determine the applied radial load, the applied thrust load, the desired Rating Life, the required minimum shaft size, and applicable operating conditions. The procedure shown here will aid in selecting a pillow block to meet an L_{10} design life. The formulas for calculating life expectancy should be used to determine the Rating Life L_{10} for the pillow block selected. Spherical roller bearing pillow blocks are available in Series 6600, 6800, 22600, 7600, 7800, and 22300. Because a number of series

are available, several different pillow blocks that will fulfill and L_{10} life requirement can often be chosen.

Some of the factors to consider when choosing between series are: cost, speed limit, minimum shaft diameter, thrust load, space limitations, and type of shaft mounting.

The selection procedures and rating formulas shown here are in agreement with The American Bearing Manufacturers Association Standards and ANSI/ABMA Standards STD 11-1990. Ratings

are based on fatigue life. The Rating Life L_{10} or fatigue life at 90% reliability is the usual basis for bearing selection.

For radial load applications only, Table 3, page E-11 and Table 5, page E-14 can be used to select a unit or to determine L_{10} life expectancy.

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

Bearing Selection

Step 1 Determine an appropriate L_{10} design life.

Type of service	Operating time, hours per year	Design life, years	L_{10} design life, hours
Heavy seasonal usage	1,400 to 1,600	4-6	8,000
Industrial—8 hour shift	2,000	10	20,000
Industrial—16 hour shift	4,000	10	40,000
Industrial—continuous	8,700	10	80,000 to 100,000
Industrial—High reliability	—	—	120,000 to 300,000

Step 2 Determine a required $\left(\frac{C}{P}\right)$ from Table 1.

Step 3 Calculate the required C and select a roller bearing pillow block.

a For radial load only:

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

Select a roller bearing pillow block from Table 2, page E-9, or Table 4, page E-13 having a basic load rating C equal to or greater than the required C.

b For combined radial and thrust loads:

Select a roller bearing pillow block of the desired shaft size from Table 2, page E-9 or Table 4, E-13.

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

$\frac{F_a}{F_r}$

Calculate the equivalent radial load P

$P = XF_r + YF_a$

If $\frac{F_a}{F_r}$ is equal to or less than e, then $P = X_1F_r + Y_1F_a$

If $\frac{F_a}{F_r}$ is greater than e, then $P = X_2F_r + Y_2F_a$

For values of e, X_1 , Y_1 , X_2 , and Y_2 , see Table 2, page E-9 or Table 4, page E-13.

Calculate the required C

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

Consult the bearing rating Table 2, page E-9 or Table 4, page E-13 to see if the selected bearing meets or exceeds the required C. The life expectancy of other sizes and series of bearings can be calculated similarly.

Selection

Series 6600, 6800, 6900, 7600, 7800, 7900, 22600, 22300

symbols for formulas:

C = basic load rating, pounds (or newtons)
 C_o = static load rating, pounds (or newtons)
 e = a reference value
 F_a = thrust load, pounds (or newtons)
 F_r = radial load, pounds (or newtons)
 L₁₀ = rating life, hours
 n = speed, revolutions per minute
 P = equivalent radial load, pounds (or newtons)
 X = radial factor
 Y = thrust factor

basic formulas:

$$\left(\frac{C}{P}\right) = \left(\frac{L_{10} \times n \times 60}{1,000,000}\right)^{3/10} \quad L_{10} = \frac{\left(\frac{C}{P}\right)^{10/3} \times 1,000,000}{n \times 60}$$

Table 1 • Relation of L₁₀ life and speed to $\left(\frac{C}{P}\right)$

Bearing life, hours L ₁₀	$\left(\frac{C}{P}\right)$ ratio									
	Speed, n									
	50	100	200	300	400	500	600	700	800	
3000	1.93	2.38	2.93	3.31	3.61	3.86	4.07	4.27	4.44	
4000	2.11	2.59	3.19	3.61	3.93	4.20	4.44	4.65	4.84	
5000	2.25	2.77	3.42	3.86	4.20	4.50	4.75	4.97	5.18	
6000	2.38	2.93	3.61	4.07	4.44	4.75	5.02	5.25	5.47	
8000	2.59	3.19	3.93	4.44	4.84	5.18	5.47	5.73	5.96	
10000	2.77	3.42	4.20	4.75	5.18	5.54	5.85	6.12	6.37	
12000	2.93	3.61	4.44	5.02	5.47	5.85	6.18	6.47	6.73	
14000	3.07	3.78	4.65	5.25	5.73	6.12	6.47	6.77	7.05	
16000	3.19	3.93	4.84	5.47	5.96	6.37	6.73	7.05	7.34	
18000	3.31	4.07	5.02	5.66	6.18	6.60	6.97	7.30	7.60	
20000	3.42	4.20	5.18	5.85	6.37	6.81	7.20	7.54	7.85	
25000	3.65	4.50	5.54	6.25	6.81	7.29	7.70	8.06	8.39	
30000	3.86	4.75	5.85	6.60	7.20	7.70	8.13	8.51	8.86	
35000	4.04	4.97	6.12	6.92	7.54	8.06	8.51	8.92	9.28	
40000	4.20	5.18	6.37	7.20	7.85	8.39	8.86	9.28	9.66	
45000	4.36	5.36	6.60	7.46	8.13	8.69	9.18	9.61	10.00	
50000	4.50	5.54	6.81	7.70	8.39	8.97	9.48	9.92	10.30	
60000	4.75	5.85	7.20	8.13	8.86	9.48	10.00	10.50	10.90	
70000	4.97	6.12	7.54	8.51	9.28	9.92	10.50	11.00	11.40	
80000	5.18	6.37	7.85	8.86	9.66	10.30	10.90	11.40	11.90	
90000	5.36	6.60	8.13	9.18	10.00	10.70	11.30	11.80	12.30	
100000	5.54	6.81	8.39	9.48	10.30	11.00	11.70	12.20	12.70	
150000	6.25	7.70	9.48	10.70	11.70	12.50	13.20	13.80	14.40	
200000	6.81	8.39	10.30	11.70	12.70	13.60	14.40	15.00	15.70	
	Speed, n									
	900	1000	1200	1500	1800	2400	3000	3600	6000	
3000	4.60	4.75	5.02	5.36	5.66	6.18	6.60	6.97	8.13	
4000	5.02	5.18	5.47	5.85	6.18	6.73	7.20	7.60	8.86	
5000	5.36	5.54	5.85	6.25	6.60	7.20	7.70	8.13	9.48	
6000	5.66	5.85	6.18	6.60	6.97	7.60	8.13	8.59	10.00	
8000	6.18	6.37	6.73	7.20	7.60	8.29	8.86	9.36	10.90	
10000	6.60	6.81	7.20	7.70	8.13	8.86	9.48	10.00	11.70	
12000	6.97	7.20	7.60	8.13	8.59	9.36	10.00	10.60	12.30	
14000	7.30	7.54	7.96	8.51	8.99	9.80	10.50	11.10	12.90	
16000	7.60	7.85	8.29	8.86	9.36	10.20	10.90	11.50	13.40	
18000	7.88	8.13	8.59	9.18	9.70	10.60	11.30	11.90	13.90	
20000	8.13	8.39	8.86	9.48	10.00	10.90	11.70	12.30	14.40	
25000	8.69	8.97	9.48	10.10	10.70	11.70	12.50	13.20	15.40	
30000	9.18	9.48	10.00	10.70	11.30	12.30	13.20	13.90	16.20	
35000	9.61	9.92	10.50	11.20	11.80	12.90	13.80	14.60	17.00	
40000	10.00	10.30	10.90	11.70	12.30	13.40	14.40	15.20	17.70	
45000	10.40	10.70	11.30	12.10	12.80	13.90	14.90	15.70	18.30	
50000	10.70	11.00	11.70	12.50	13.20	14.40	15.40	16.20	18.90	
60000	11.30	11.70	12.30	13.20	13.90	15.20	16.20	17.10	20.00	
70000	11.80	12.20	12.90	13.80	14.60	15.90	17.00	17.90	20.90	
80000	12.30	12.70	13.40	14.40	15.20	16.50	17.70	18.70	21.80	
90000	12.80	13.20	13.90	14.90	15.70	17.10	18.30	19.40	22.60	
100000	13.20	13.60	14.40	15.40	16.20	17.70	18.90	20.00	23.30	
150000	14.90	15.40	16.20	17.30	18.30	20.00	21.40	22.60	26.30	
200000	16.20	16.70	17.70	18.90	20.00	21.80	23.30	24.60	28.70	

Life Expectancy

To calculate the Rating Life L₁₀ of any selected or trial bearing:

Step 1 Determine the equivalent radial load P.

a For radial load only:

$$P = F_r$$

b For combined radial and thrust load:

$$P = XF_r + YF_a$$

If $\frac{F_a}{F_r}$ is equal to or less than e, then

$$P = X_1F_r + Y_1F_a$$

If $\frac{F_a}{F_r}$ is greater than e, then

$$P = X_2F_r + Y_2F_a$$

For values of e, X₁, Y₁, X₂, and Y₂, consult the appropriate bearing rating Table 2, page E-9 or Table 4, page E-13.

Step 2 Calculate the ratio of the basic load rating C to the equivalent radial load.

$$\frac{C}{P}$$

Step 3 Approximate the bearing life from Table 1.

Life Adjustment

The Rating Life, L₁₀, may be modified for some applications in accordance with the formula

$$L_n = a_1 a_2 a_3 L_{10}$$

where L_n = Adjusted life for (100-n) % reliability,
 a₁ = Life adjustment factor for reliability
 a₂ = Life adjustment factor for material and processing
 a₃ = Life adjustment factor for operating conditions.

For most normal applications, all factors will be taken as 1, and the Rating Life used as the selection basis or life estimate. In addition, as long as standard catalog bearings are used, a₂ will be normally set equal to one. The factor a₃ covers such things as lubrication, misalignment, and temperature. Some conditions that could yield a₃ significantly different than unity include speeds less than 20000 DN or greater than 200000 DN, temperatures below -40°F (-40°C) or above 275°F (135°C). For other possible conditions, as well as additional information on life adjustment factors, consult Link-Belt Bearing Division, Rexnord Corp.

Selection

Series 6600, 6800, 7600, 7800

Table 2 • Load ratings and speed limits

Basic unit number				Bearing size number	C ₀ Static load rating	C Basic load rating	Approximate speed limit RPM				e	F _r /F _e ≤ e		F _r /F _e > e	
Adapter mounted		Direct shaft mounted					oil	grease	D5 PenTac [™] 1mm Push-in ■	X ₁		Y ₁	X ₂	Y ₂	
Shaft diameter inches/mm	number	Bearing seat mm	number												pounds/ newtons	pounds/ newtons
1 ⁷ / ₁₆ 1 ¹ / ₂ 40	LB6823 LB6824 LB68M40	... ... ...	... ... ...	22209LB	23600 105000	20800 92500	6200	5300	5300	.26	1.00	2.6	.67	3.9	
1 ¹¹ / ₁₆ 1 ³ / ₄ 45	LB6827 LB6828 LB68M45	... ... ...	... ... ...	22210LB	25500 113000	22000 97900	5500	5000	5000	.26	1.00	2.8	.67	4.2	
1 ¹⁵ / ₁₆ 2 50	LB6831 LB6832 LB68M50	... ... ...	... ... ...	22211LB	32500 145000	27000 120000	5000	4500	4500	.23	1.00	2.9	.67	4.4	
2 ³ / ₁₆ 60	LB6835 LB68M60	... ...	... ...	22213LB	46500 207000	38000 169000	4300	3800	3800	.24	1.00	2.8	.67	4.2	
2 ⁷ / ₁₆ 65	LB6839 LB68M65	75	LB7875	22215LB	53000 236000	41500 185000	3700	3400	3400	.22	1.00	3.1	.67	4.6	
2 ¹¹ / ₁₆ 70	LB6843 LB68M70	80	LB7880	22216LB	58500 260000	46500 207000	3500	3200	3200	.22	1.00	3.1	.67	4.7	
2 ¹⁵ / ₁₆ 3 75	LB6847 LB6848 LB68M75	85	LB7885	22217LB	73500 327000	58500 260000	3250	3000	3000	.22	1.00	3.0	.67	4.5	
3 ³ / ₁₆ 80	LB6851 LB68M80	90	LB7890	22218LB	81500 363000	64000 285000	3000	2600	2600	.23	1.00	2.9	.67	4.3	
3 ⁷ / ₁₆ 3 ¹ / ₂ 90	LB6855 LB6856 LB68M90	100	LB78100	22220LB	104000 463000	80000 356000	2800	2200	2200	.24	1.00	2.8	.67	4.2	
3 ¹¹ / ₁₆ 3 ¹⁵ / ₁₆ 4 100	LB6859 LB6863 LB6864 LB68M100	110	LB78110	22222LB	132000 587000	102000 454000	2500	2000	2000	.25	1.00	2.7	.67	4.0	
4 ³ / ₁₆ 110	LB6867 LB68M110	120	LB78120	22224LB	163000 725000	120000 534000	2300	1900	1900	.25	1.00	2.7	.67	4.0	
4 ⁷ / ₁₆ 4 ¹ / ₂ 115	LB6871 LB6872 LB68M115	130	LB78130	22226LB	196000 872000	143000 636000	2100	1800	1800	.26	1.00	2.6	.67	3.9	
4 ¹⁵ / ₁₆ 5 125	LB6879 LB6880 LB68M125	140	LB78140	22228LB	228000 1010000	166000 738000	1950	1700	1700	.25	1.00	2.7	.67	4.0	

Continued on facing page.

Table 2 • Load ratings and speed limits (continued)

Basic unit number					Bearing size number	C ₀ Static load rating	C Static load rating	Approximate speed limit RPM			e	F _a /F _r ≤ e		F _a /F _r > e	
Adapter mounted		Direct shaft mounted		oil				grease	D5 PenTac™ 1mm Push-In ■	X ₁		Y ₁	X ₂	Y ₂	
Shaft diameter mm/inches	number	Bearing seat mm	number												
135	5 ³ / ₁₆ LB6883 LB68M135	150	LB78150	22230LB	270000 1200000	190000 845000	1850	1600	1600	.25	1.00	2.7	.67	4.0	
140	5 ⁷ / ₁₆ LB6887 LB68M140	160	LB78160	22232LB	310000 1380000	216000 961000	1700	1500	1500	.26	1.00	2.6	.67	3.9	
150	5 ¹⁵ / ₁₆ 6 LB6895 LB6896 LB68M150	170	LB78170	22234LB	345000 1530000	250000 1110000	1600	1300	1300	.26	1.00	2.6	.67	3.9	
160	6 ⁷ / ₁₆ 6 ¹ / ₂ LB68103 LB68104 LB68M160	180	LB78180	22236LB	365000 1620000	255000 1130000	1500	1300	1300	.25	1.00	2.7	.67	4.0	
170	6 ¹⁵ / ₁₆ 7 LB68111 LB68112 LB68M170	190	LB78190	22238LB	415000 1850000	270000 1200000	1400	1200	1200	.28	1.00	2.4	.67	3.6	
180	7 ³ / ₁₆ LB68115 LB68M180	200	LB78200	22240LB	450000 2000000	300000 1330000	1300	1100	1100	.29	1.00	2.3	.67	3.5	
200	7 ¹ / ₂ 7 ¹⁵ / ₁₆ 8 LB68120 LB68127 LB68128 LB68M200	220	LB78220	22244LB	550000 2450000	365000 1620000	1200	1000	1000	.29	1.00	2.3	.67	3.5	
220	8 ⁷ / ₁₆ 8 ¹ / ₂ 8 ¹⁵ / ₁₆ 9 LB66135 LB66136 LB66143 LB66144 LB66M220	240	LB76240	23048LB	490000 2180000	260000 1160000	1100	1000	100	.25	1.00	2.7	.67	4.1	
260	9 ⁷ / ₁₆ 9 ¹ / ₂ 9 ¹⁵ / ₁₆ 10 10 ⁷ / ₁₆ 10 ¹ / ₂ LB66B151 LB66B152 LB66159 LB66160 LB66167 LB66168 LB66M260	280	LB76280	23056LB	670000 2980000	345000 1530000	950	850	850	.25	1.00	2.7	.67	4.1	

● Speed limits are based on the following:

1. Type R seals properly aligned.
 - a. For the type B seals, limit is 800 surface feet per minute (4.0 m/s) with good alignment.
 - b. For type D8 seals, limit is 1500 surface feet per minute (7.6 m/s) with good alignment.
 2. Proper operating internal clearance.
 3. Adequate lubrication and maintenance (special lubricants and/or more frequent relubrication may be required).
 4. Normal room temperature environment and no extraneous heat sources, such that bearing operating temperature does not exceed 100°C (212°F).
 5. Equivalent radial load not greater than 7% of C.
 6. Axial load, if any, not greater than 20% of radial load.
- Additional information, page E-34.

- D5 Pentac™ speed limits in the chart are based on pushing the Pentac™ seal against the housing face a distance of 1mm as specified by the service instructions. The Pentac™ seal can be pressed in a distance of 2mm for high contaminant environments. The speed limit at a 2mm "Push-In" distance should be limited to 80% of those listed in the chart.

Load Ratings

Series 6600, 6800, 7600, 7800

Table 3 • Radial load ratings in pounds at various RPM for appropriate L₁₀ life hours

Adapter mounted	Direct shaft mounted	L ₁₀ Minimum life, hours	Radial load ratings, pounds														
			Speed, RPM														
			50	250	500	750	900	1200	1500	1800	2000	2500	3000	3500	4000	4500	5000
LB6823 LB6824 LB68M40	—	}	3000	10800	6640	5390	4770	4520	4150	3880	3670	3560	3330	3150	3010	2890	2700
			8000	8020	4950	4020	3560	3370	3090	2890	2740	2650	2480	2350	2240	2150	2010
			20000	6090	3760	3050	2700	2560	2350	2200	2080	2010	1880	1780	1700	1640	1530
			40000	4950	3050	2480	2200	2080	1910	1780	1690	1640	1530	1450	1380	1330	1280
LB6827 LB6828 LB68M45	—	}	100000	3760	2320	1880	1670	1580	1450	1350	1280	1240	1160	1100	1050	1000	944
			3000	11400	7020	5700	5050	4780	4390	4100	3880	3760	3520	3330	3180	3060	2950
			8000	8480	5230	4250	3760	3560	3270	3060	2890	2800	2620	2480	2370	2280	2200
			20000	6440	3970	3230	2860	2710	2480	2320	2200	2130	1990	1890	1800	1730	1620
LB6831 LB6832 LB68M50	—	}	40000	5230	3230	2620	2320	2200	2020	1890	1790	1730	1620	1530	1460	1410	1360
			100000	3970	2450	1990	1760	1670	1530	1430	1360	1310	1230	1160	1110	1060	998
			3000	14000	8620	7000	6200	5870	5380	5030	4770	4620	4320	4090	3900	3750	3620
			8000	10400	6420	5220	4620	4370	4010	3750	3550	3440	3220	3050	2910	2790	2700
LB6835 LB68M60	—	}	20000	7910	4880	3960	3510	3320	3050	2850	2700	2610	2440	2310	2210	2120	2050
			40000	6420	3960	3220	2850	2700	2470	2310	2190	2120	1990	1880	1800	1720	1660
			100000	4880	3010	2440	2160	2050	1880	1760	1660	1610	1510	1430	1360	1310	1260
			3000	19700	12100	9850	8720	8260	7580	7090	6710	6500	6080	5760	5500	5280	5100
LB6839 LB68M65	LB7875	}	8000	14600	9040	7340	6500	6150	5640	5280	5000	4840	4530	4290	4090	3930	3800
			20000	11100	6870	5580	4940	4670	4290	4010	3800	3680	3440	3260	3110	2990	2840
			40000	9040	5580	4530	4010	3800	3480	3260	3080	2990	2790	2650	2530	2430	2340
			100000	6870	4240	3440	3050	2880	2650	2470	2340	2270	2120	2010	1910	1840	1760
LB6843 LB68M70	LB7880	}	3000	21500	13200	10800	9530	9020	8270	7740	7330	7100	6640	6290	6000	5800	5600
			8000	16000	9870	8020	7100	6720	6160	5770	5460	5290	4950	4680	4470	4300	4100
			20000	12200	7500	6090	5390	5110	4680	4380	4150	4020	3760	3560	3400	3240	3080
			40000	9870	6090	4950	4380	4150	3800	3560	3370	3260	3050	2890	2760	2600	2440
LB6847 LB6848 LB68M75	LB7885	}	100000	7500	4630	3760	3330	3150	2890	2700	2560	2480	2320	2200	2090	1990	1890
			3000	24100	14800	12100	10700	10100	9270	8670	8210	7950	7440	7040	6720	6400	6080
			8000	17900	11100	8980	7950	7530	6910	6460	6120	5930	5540	5250	5010	4770	4530
			20000	13600	8400	6820	6040	5720	5250	4910	4650	4500	4210	3990	3810	3630	3450
LB6851 LB68M80	LB7890	}	40000	11100	6820	5540	4910	4650	4260	3990	3770	3660	3420	3240	3090	2940	2790
			100000	8400	5180	4210	3730	3530	3240	3030	2870	2780	2600	2460	2340	2220	2100
			3000	30300	18700	15200	13400	12700	11700	10900	10300	10000	9360	8860	8360	7860	7360
			8000	22500	13900	11300	10000	9470	8690	8130	7690	7460	6970	6600	6100	5600	5100
LB6855 LB6856 LB68M90	LB78100	}	20000	17100	10600	8580	7600	7200	6600	6170	5850	5660	5300	5010	4700	4390	4080
			40000	13900	8580	6970	6170	5850	5360	5010	4750	4600	4300	4070	3840	3610	3380
			100000	10600	6520	5300	4690	4440	4070	3810	3610	3490	3270	3090	2910	2730	2550
			3000	33100	20400	16600	14700	13900	12800	11900	11300	10900	10200	9690	9180	8670	8160
LB6859 LB6863 LB6864 LB68M100	LB78110	}	8000	24700	15200	12400	10900	10400	9510	8890	8420	8160	7630	7220	6810	6400	6000
			20000	18700	11600	9390	8320	7870	7220	6750	6400	6200	5790	5490	5190	4890	4590
			40000	15200	9390	7630	6750	6400	5870	5490	5190	5030	4710	4460	4210	3960	3710
			100000	11600	7130	5790	5130	4860	4460	4170	3950	3820	3580	3390	3200	3010	2820
LB6867 LB68M110	LB78120	}	3000	41400	25500	20700	18400	17400	15900	14900	14100	13700	12800	12000	11200	10400	9600
			8000	30800	19000	15500	13700	13000	11900	11100	10500	10200	9540	8880	8220	7560	6900
			20000	23400	14500	11700	10400	9840	9030	8440	7990	7750	7240	6730	6220	5710	5200
			40000	19000	11700	9540	8440	7990	7330	6860	6490	6290	5880	5470	5060	4650	4240
LB6867 LB68M110	LB78120	}	100000	14500	8920	7240	6410	6070	5570	5210	4930	4780	4470	4160	3850	3540	3230
			3000	52800	32600	26400	23400	22200	20300	19000	18000	17400	16300	15300	14300	13300	12300
			8000	39300	24300	19700	17400	16500	15200	14200	13400	13000	12200	11400	10600	9800	9000
			20000	29900	18400	15000	13300	12500	11500	10800	10200	9870	9240	8610	7980	7350	6720
LB6867 LB68M110	LB78120	}	40000	24300	15000	12200	10800	10200	9350	8740	8280	8020	7500	6980	6460	5940	5420
			100000	18400	11400	9240	8180	7740	7100	6640	6290	6090	5700	5310	4920	4530	4140
LB6867 LB68M110	LB78120	}	3000	62100	38300	31100	27500	26100	23900	22400	21200	20500	19500	18500	17500	16500	15500
			8000	46300	28500	23200	20500	19400	17800	16700	15800	15300	14300	13300	12300	11300	10300
			20000	35100	21700	17600	15600	14800	13500	12700	12000	11600	10600	9600	8600	7600	6600
			40000	28500	17600	14300	12700	12000	11000	10300	9740	9440	8440	7440	6440	5440	4440
LB6867 LB68M110	LB78120	}	100000	21700	13400	10900	9620	9110	8360	7810	7400	7170	6170	5170	4170	3170	2170

Continued on facing page.

Load Ratings

Series 6600, 6800, 7600, 7800

Table 3 • Radial load ratings in pounds at various RPM for appropriate L₁₀ life hours

Basic unit number		L ₁₀ Minimum life, hours	Radial load ratings, pounds															
Adapter mounted	Direct shaft mounted		Speed, RPM															
			50	250	500	750	900	1200	1500	1800	2000	2500	3000	3500	4000	4500	5000	
LB6871	LB78130	}	3000	74000	45600	37100	32800	31100	28500	26700	25200	24500						
LB6872			8000	55100	34000	27600	24500	23200	21200	19900	18800	18200						
LB68M115			20000	41900	25800	21000	18600	17600	16100	15100	14300	13800						
			40000	34000	21000	17000	15100	14300	13100	12300	11600	11200						
			100000	25800	15900	12900	11500	10900	9960	9310	8820	8540						
LB6879	LB78140	}	3000	85900	53000	43000	38100	36100	33100	31000	29300							
LB6880			8000	64000	39500	32100	28400	26900	24700	23100	21800							
LB68M125			20000	48600	30000	24400	21600	20400	18700	17500	16600							
			40000	39500	24400	19800	17500	16600	15200	14200	13500							
			100000	30000	18500	15000	13300	12600	11600	10800	10200							
LB6883	LB78150	}	3000	98300	60600	49300	43600	41300	37900	35400	33500							
LB68M135			8000	73200	45200	36700	32500	30800	28200	26400	25000							
			20000	55600	34300	27900	24700	23400	21400	20100	19000							
			40000	45200	27900	22600	20100	19000	17400	16300	15400	11700						
			100000	34300	21200	17200	15200	14400	13200	12400								
LB6887	LB78160	}	3000	112000	68900	56000	49600	46900	43100	40300								
LB68M140			8000	83300	51400	41700	36900	35000	32100	30000								
			20000	63200	39000	31700	28100	26600	24400	22800								
			40000	51400	31700	25700	22800	21600	19800	18500								
			100000	39000	24100	19600	17300	16400	15000	14100								
LB6895	LB78170	}	3000	129000	79800	64800	57400	54300	49800	46600								
LB6896			8000	96400	59500	48300	42800	40500	37100	34700								
LB68M150			20000	73200	45200	36700	32500	30800	28200	26400								
			40000	59500	36700	29800	26400	25000	22900	21400	16300							
			100000	45200	27900	22600	20000	19000	17400									
LB68103	LB78180	}	3000	132000	81400	66100	58500	55400	50800									
LB68104			8000	98300	60600	49300	43600	41300	37900									
LB68M160			20000	74700	46100	37400	33100	31400	28800									
			40000	60600	37400	30400	26900	25500	23400									
			100000	46100	28400	23100	20400	19400	17800									
LB68111	LB78190	}	3000	140000	86200	70000	62000	58700	53800									
LB68112			8000	104000	64200	52200	46200	43700	40100									
LB68M170			20000	79100	48800	39600	35100	33200	30500									
			40000	64200	39600	32200	28500	27000	24700									
			100000	48800	30100	24400	21600	20500	18800									
LB68115	LB78200	}	3000	155000	95800	77800	68900	65200	59800									
LB68M180			8000	116000	71300	58000	51300	48600	44600									
			20000	87800	54200	44000	39000	36900	33900									
			40000	71300	44000	35800	31700	30000	27500									
			100000	54200	33400	27200	24100	22800	20900									
LB68120	LB78220	}	3000	189000	117000	94600	83800	79300	72800									
LB68127			8000	141000	86800	70500	62400	59100	54200									
LB68128			20000	107000	65900	53600	47400	44900	41200									
LB68M200			40000	86800	53600	43500	38500	36500	33500									
			100000	65900	40700	33000	29300	27700	25400									
LB66135	LB76240	}	3000	134000	83000	67400	59700	56500										
LB66136			8000	100000	61800	50200	44500	42100										
LB66143			20000	76100	47000	38200	33800	32000										
LB66144			40000	61800	38200	31000	27400	26000										
LB66M220			100000	47000	29000	23500	20800	19700										
LB66151	LB76280	}	3000	178000	110000	89400	79200	75000										
LB66152			8000	133000	82000	66600	59000	55900										
LB66159			20000	101000	62300	50600	44800	42400										
LB66160			40000	82000	50600	41100	36400	34500										
LB66167			100000	62300	38500	31200	27700	26200										
LB66M260																		

Operation in the high speed shaded areas may require oil lubrication.

Load Ratings

Series 6900, 7900, SAF22600, SAF22300

Table 4 • Load ratings and speed limits

Basic unit number				Bearing size number	C ₀ Static load rating	C Basic load rating	Approximate speed limit RPM		e	$\frac{F_a}{F_r} \leq e$		$\frac{F_a}{F_r} > e$	
Adapter mounted		Direct shaft mounted					oil	grease		X ₁	Y ₁	X ₂	Y ₂
Shaft diameter inches	number	Bearing seat mm	number										
1 ⁷ / ₁₆ 1½	LB6923 LB6924	45	LB7945	22309LB	40000 178000	35500 158000	4800	3800	.36	1.00	1.9	.67	2.8
1 ¹¹ / ₁₆	LB6927	50	LB7950	22310LB	48000 214000	42500 189000	4300	3400	.36	1.00	1.9	.67	2.8
1 ¹⁵ / ₁₆ 2	LB6931 LB6932	55	LB7955	22311LB	57000 254000	50000 222000	4000	3200	.36	1.00	1.9	.67	2.8
2 ³ / ₁₆	LB6935	65	LB7965	22313LB	80000 356000	65500 291000	3400	2600	.34	1.00	2.0	.67	3.0
2 ⁷ / ₁₆ 2½	LB6939 LB6940	75	LB7975	22315LB	98000 436000	83000 369000	3000	2200	.34	1.00	2.0	.67	3.0
2 ¹¹ / ₁₆	LB6943	80	LB7980	22316LB	112000 498000	93000 414000	2800	2000	.34	1.00	2.0	.67	3.0
2 ¹⁵ / ₁₆	LB6947	85	LB7985	22317LB	122000 543000	102000 454000	2600	1900	.33	1.00	2.0	.67	3.0
3 ³ / ₁₆	22618-303	90	22318	22318LB	140000 623000	114000 507000	2400	1800	.33	1.00	2.0	.67	3.0
3 ⁷ / ₁₆ 3½	22620-307 22620-308	100	22320	22320LB	183000 814000	146000 649000	2200	1700	.34	1.00	2.0	.67	3.0
3 ¹⁵ / ₁₆ 4	22622-315 22622-400	110	22322	22322LB	236000 1050000	180000 801000	2000	1600	.33	1.00	2.1	.67	3.1
4 ³ / ₁₆	22624-403	120	22324	22324LB	260000 1160000	204000 907000	1800	1400	.33	1.00	2.1	.67	3.1
4 ⁷ / ₁₆	22626-407	130	22326	22326LB	305000 1360000	236000 1050000	1700	1300	.33	1.00	2.1	.67	3.1
4 ¹⁵ / ₁₆ 5	22628-415 22628-500	140	22328	22328LB	360000 1600000	275000 1220000	1500	1100	.34	1.00	2.0	.67	3.0
5 ³ / ₁₆	22630-503	150	22330	22330LB	405000 1800000	310000 1380000	1400	1000	.33	1.00	2.0	.67	3.0
5 ⁷ / ₁₆	22632-507	160	22332	22332LB	425000 1890000	325000 1450000	1300	950	.37	1.00	1.8	.67	2.7
5 ¹⁵ / ₁₆	22634-515	170	22334	22334LB	475000 2110000	360000 1600000	1300	950	.37	1.00	1.8	.67	2.7

If the load P is greater than .25C, consult Link-Belt Bearing Division, Rexnord Corp.

● Speed limits are based on the following:

1. Type R seals properly aligned.
 - a. For the type B seals, limit is 800 surface feet per minute (4.0 m/s) with good alignment.
 - b. For type D8 seals, limit is 1500 surface feet per minute (7.6 m/s) with good alignment.
 2. Proper operating internal clearance.
 3. Adequate lubrication and maintenance (special lubricants and/or more frequent relubrication may be required).
 4. Normal room temperature environment and no extraneous heat sources, such that bearing operating temperature does not exceed 100°C (212°F).
 5. Equivalent radial load not greater than 7% of C.
 6. Axial load, if any, not greater than 20% of radial load.
- Additional information, page E-34.

Load Ratings

Series 6900, SAF22600, 7900, SAF22300

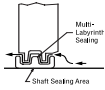
Table 5 • Radial load ratings in pounds at various RPM for appropriate L₁₀ life hours

Basic unit number		L ₁₀ Minimum life, hours	Radial load ratings, pounds															
Adapter mounted	Direct shaft mounted		Speed, RPM															
			50	100	300	500	750	900	1000	1200	1500	1800	2000	2500	3000	3500	4000	
LB6923 LB6924	LB7945	{ 3000 8000 20000 40000	18400 13700 10400 8440	14900 11100 8440 6860	10700 7990 6070 4930	9200 6860 5210 4230	8150 6070 4610 3750	7720 5750 4370 3550	7480 5570 4230 3440	7080 5270 4010 3250	6620 4930 3750 3040	6270 4670 3550 2880	6070 4520 3440 2790	5680 4230 3210 2610	5380 4010 3040 2470	5130 3830 2910 2360	4930 3670 2790 2270	
LB6927	LB7950	{ 8000 20000 40000 100000	22000 16400 12400 10100	17900 13300 10100 8210	12800 9570 7270 5900	11000 8210 6240 5070	9760 7270 5520 4490	9240 6880 5230 4250	8950 6670 5070 4110	8470 6310 4800 3900	7920 5900 4490 3640	7500 5590 4250 3450	7270 5420 4110 3340	6800 5070 3850 3130	6440 4800 3640 2960	6150 4580 3480 2830	5900 4400 3340 2710	
LB6931 LB6932	LB7955	{ 3000 8000 20000 40000	25900 19300 14600 11900	21000 15700 11900 9660	15100 11300 8550 6950	13000 9660 7340 5960	11500 8550 6500 5280	10900 8100 6150 5000	10500 7850 5960 4840	9970 7430 5640 4580	9320 6950 5280 4290	8830 6580 5000 4060	8550 6370 4840 3930	8000 5960 4530 3680	7570 5640 4290 3480	7230 5390 4090 3320	6950 5180 3930 3190	
LB6935	LB7965	{ 3000 8000 20000 40000	33900 25200 19200 15600	27500 20500 15600 12700	19800 14700 11200 9100	17000 12700 9610 7810	15000 11200 8510 6910	14200 10600 8060 6540	13800 10300 7810 6340	13100 9730 7390 6000	12200 9100 6910 5620	11600 8620 6540 5320	11200 8350 6340 5150	10500 7810 5930 4820	9920 7390 5620 4560	9470 7060 5360 4350		
LB6939 LB6940	LB7975	{ 3000 8000 20000 40000	42900 32000 24300 19700	34900 26000 19700 16000	25100 18700 14200 11500	21500 16000 12200 9890	19100 14200 10800 8760	18000 13400 10200 8290	17500 13000 9890 8040	16500 12300 9370 7610	15500 11500 8760 7120	14700 10900 8290 6740	14200 10600 8040 6530	13300 9890 7520 6100	12600 9370 7120 5780			
LB6943	LB7980	{ 3000 8000 20000 40000	48100 35800 27200 22100	39100 29100 22100 18000	28100 20900 15900 12900	24100 18000 13600 11100	21300 15900 12100 9820	20200 15100 11400 9290	19600 14600 11100 9000	18500 13800 10500 8520	17300 12900 9820 7970	16400 12200 9290 7550	15900 11900 9000 7310	14900 11100 8420 6840				
LB6947	LB7985	{ 3000 8000 20000 40000	52800 39300 29900 24300	42900 31900 24300 19700	30800 23000 17400 14200	26400 19700 15000 12200	23400 17400 13300 10800	22200 16500 12500 10200	21500 16000 12200 9870	20300 15200 11500 9350	19000 14200 10800 8740	18000 13400 10200 8280	17400 13000 9870 8020	16300 12200 9240 7500				
22618	22318	{ 3000 8000 20000 40000	59000 43900 33400 27100	47900 35700 27100 22000	34400 25700 19500 15800	29600 22000 16700 13600	26200 19500 14800 12000	24800 18500 14000 11400	24000 17900 13600 11000	22700 16900 12900 10400	21300 15800 12000 9770	20100 15000 11400 9250	19500 14500 11000 8960					
22620	22320	{ 3000 8000 20000 40000	75500 56300 42700 34700	61300 45700 34700 28200	44100 32900 25000 20300	37900 28200 21400 17400	33500 25000 19000 15400	31700 23600 18000 14600	30700 22900 17400 14100	29100 21700 16500 13400	27200 20300 15400 12500	25800 19200 14600 11800	25000 18600 14100 11500					
22622	22322	{ 3000 8000 20000 40000	93100 69400 52700 42800	75600 56400 42800 34800	54400 40500 30800 25000	46700 34800 23400 21500	41300 30800 23400 19000	39100 29100 22100 18000	37900 28200 21500 17400	35900 26700 20300 16500	33600 25000 19000 15400	31800 23700 18000 14600	30800 22900 17400 14200					
22624	22324	{ 3000 8000 20000 40000	106000 78600 59700 48500	85700 63900 48500 39400	61600 45900 34900 28300	52900 39400 29900 24300	46800 34900 26500 21500	44300 33000 25100 20400	43000 32000 24300 19700	40700 30300 23000 18700	38000 28300 21500 17500	36000 26800 20400 16600						
22626	22326	{ 3000 8000 20000 40000	122000 91000 69100 56100	99200 73900 56100 45600	71300 53100 40400 32800	61200 45600 34600 28100	54200 40400 30700 24900	51300 38200 29000 23600	49700 37000 29000 22800	47100 35100 26600 21600	44000 32800 24900 20200							
22628	22328	{ 3000 8000 20000 40000	142000 106000 80500 65400	116000 86100 65400 53100	83100 61900 47000 38200	71300 53100 40400 32800	63100 47000 35700 29000	59800 44500 33800 27500	57900 43100 32800 26600	54800 40900 31000 25200	51300 38200 29000 23600							
22630	22330	{ 3000 8000 20000 40000	160000 119000 90800 73700	130000 97000 73700 59900	93700 69800 53000 43100	80400 59900 45500 36900	71200 53000 40300 32700	67400 50200 38100 31000	65300 48600 36900 30000	61800 46100 35000 28400								
22632	22332	{ 3000 8000 20000 40000	173000 129000 98100 79700	141000 105000 79700 64700	101000 75400 57300 46500	86900 64700 49200 39900	76900 57300 43500 35400	72800 54200 41200 33500	70500 52600 39900 32400	66800 49800 37800 30700								
22634	22334	{ 3000 8000 20000 40000	178000 133000 101000 82000	145000 108000 82000 66600	104000 77700 59000 47900	89400 66600 50600 41100	79200 59000 44800 36400	75000 55900 42400 34500	72700 54100 41100 33400	68800 51200 38900 31600								

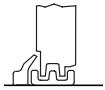
Operation in the high speed shaded areas may require oil lubrication.

Spherical Roller Bearing Pillow Blocks

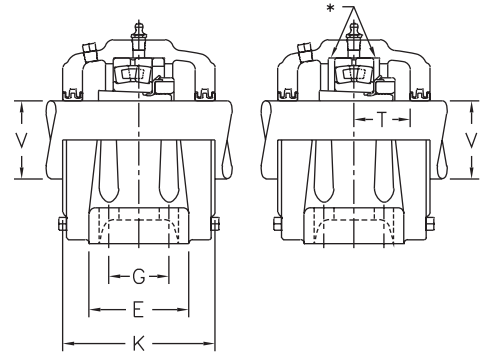
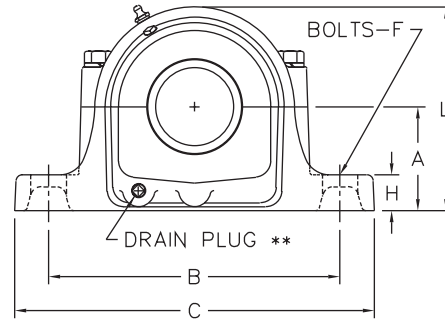
P-LB6800R, P-LB6800FR, P-LB6600FR



Triple-Ring R Seal (P-LB6800 R)
Three-point sealing with metal seal ring



D5 Pentac® Seal (P-LB6800 D5)
Five-point sealing with Kevlar® body lip seal plus metal seal ring



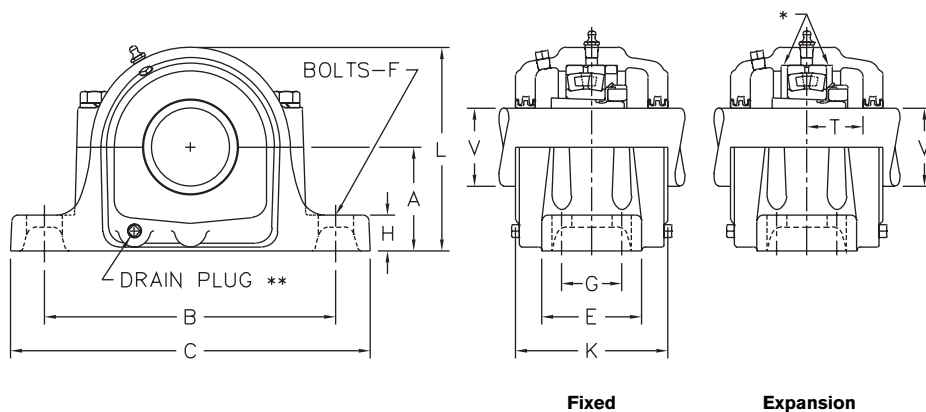
Fixed

Expansion

Dimensions (inches/mm)

Shaft diameter		Pillow block number	Bearing number	A	B		C	E	F Bolts	G	H	K	K □	L	T ■	P ●	Unit wt. (lbs./kgs.)
mm	inches				max.	min.											
40	17/16	P-LB6823R	22209LBK	2 1/4	7	6 1/4	8 1/4	2 3/8	1/2	....	13/16	3 3/8	4 3/8	4 3/8	1 1/16	6 1/4	11
	1 1/2	P-LB6824R		57.15	177.8	158.8	209.6	60.3	12	....	20.6	92.1	111.1	111.1	27.0	158.8	11
		P-LB68M40R															5.0
45	1 11/16	P-LB6827R	22210LBK	2 1/2	7	6 1/2	8 1/4	2 3/8	1/2	....	15/16	3 3/8	4 3/8	4 3/4	1 1/8	6 3/8	12
	1 3/4	P-LB6828R		63.50	177.8	165.1	209.6	60.3	12	....	23.8	92.1	111.1	120.6	28.6	168.3	12
		P-LB68M45R															5.4
50	1 15/16	P-LB6831R	22211LBK	2 3/4	7 7/8	7 3/8	9 5/8	2 3/4	5/8	....	15/16	3 7/8	4 13/16	5 1/4	1 3/16	7 1/4	14
	2	P-LB6832R		69.85	200.0	187.3	244.5	69.8	16	....	23.8	98.4	122.2	133.4	30.2	184.2	14
		P-LB68M50R															6.4
60	2 3/16	P-LB6835R	22213LBK	3	9 1/2	8 3/8	11	3 1/4	5/8	....	1	4 3/8	5 15/16	5 15/16	1 13/32	8 3/4	22
		P-LB68M60R		76.20	241.3	206.4	279.4	82.6	16	....	25.4	111.1	128.6	150.8	35.7	209.6	10.0
65	2 7/16	P-LB6839R	22215LBK	3 1/4	9 5/8	8 5/8	11 1/4	3 3/8	5/8	....	1 1/8	4 3/4	5 41/64	6 3/8	1 15/32	8 3/8	27
		P-LB6839FR		82.55	244.5	219.1	285.8	79.4	16	....	28.6	120.6	143.3	161.9	37.3	212.7	12.2
		P-LB68M65R															
70	2 11/16	P-LB6843R	22216LBK	3 1/2	11	9 5/8	13	3 1/2	3/4	....	1 1/4	5 1/4	6 11/64	7	1 1/2	9 1/2	38
		P-LB6843FR		88.90	279.4	244.5	330.2	88.9	20	....	31.8	133.4	156.8	177.8	38.1	241.3	17.2
		P-LB68M70R															
75	2 15/16	P-LB6847R	22217LBK	3 3/4	11	9 7/8	13	3 1/2	3/4	....	1 1/4	5	5 51/64	7 5/16	1 19/32	10	42
	3	P-LB6847FR		95.25	279.4	250.8	330.2	88.9	20	....	31.8	127.0	147.2	185.7	40.5	254.0	19.0
		P-LB6848R															
80	3 3/16	P-LB6851R	22218LBK	4	11 3/4	10 3/4	13 3/4	3 7/8	3/4	....	1 5/8	5 7/8	7 1/64	7 15/16	1 3/4	10 1/2	47
		P-LB6851FR		101.60	298.4	260.4	349.2	98.4	20	....	33.3	149.2	178.2	201.6	44.4	266.7	21.3
		P-LB68M80R															
90	3 7/16	P-LB6855R	22220LBK	4 1/2	13 3/8	11 5/8	15 1/4	4 3/8	7/8	....	1 1/2	6	6 61/64	8 7/8	1 29/32	11 3/4	71
	3 1/2	P-LB6855FR		114.30	333.4	295.3	387.4	111.1	24	....	38.1	152.4	176.6	225.4	48.4	298.4	30.8
		P-LB6856R															
100	3 11/16	P-LB6859FR	22222LBK	4 15/16	14 1/2	12 5/8	16 1/2	4 3/4	3/4	2 3/4	1 5/8	6 1/2	7 35/64	9 5/8	2 1/8	12 1/4	87
	3 15/16	P-LB6863FR		125.41	368.3	320.7	419.1	120.6	20	69.8	41.3	165.1	191.7	244.5	54.0	311.2	39.5
	4	P-LB6864FR															
110	4 3/16	P-LB6867FR	22224LBK	5 1/4	14 1/2	13 3/4	16 1/2	4 3/4	3/4	2 3/4	1 3/4	7 1/8	8 3/16	10 7/16	2 5/8	13 1/2	104
		P-LB68M110FR		133.35	368.3	336.6	419.1	120.6	20	69.8	44.4	181.0	208.0	265.1	57.9	342.9	47.2
115	4 7/16	P-LB6871FR	22226LBK	6	16	14 5/8	18 3/8	5 1/8	7/8	3 1/4	1 7/8	7 3/4	8 53/64	11 11/32	2 15/32	14 1/2	149
	4 1/2	P-LB6872FR		152.40	406.4	371.5	466.7	130.2	24	82.6	47.6	196.8	224.2	288.1	62.7	368.3	63.5
		P-LB68M115FR															
125	4 15/16	P-LB6879FR	22228LBK	6	17 7/8	16	20 3/8	5 7/8	1	3 3/8	1 15/16	7 3/4	8 39/64	11 13/16	2 5/8	15 1/2	167
	5	P-LB6880FR		152.40	435.0	406.4	511.2	149.2	24	85.7	49.2	196.8	220.7	300.0	66.7	393.7	71.2
		P-LB68M125FR															

Continued on facing page.



Dimensions (inches/mm) - continued

V Shaft diameter	Pillow block number	Bearing number	A	B		C	E	F Bolts	G	H	K	K □	L	T ■	P ●	Unit wt. (lbs./kgs.)
				max.	min.											
135	5 ³ / ₁₆ P-LB6883FR P-LB68M135FR	22230LBK	6 ⁵ / ₁₆ 160.34	18 ¹ / ₄ 463.6	17 431.8	21 ¹ / ₄ 539.8	6 ¹ / ₄ 158.8	1 24	3 ³ / ₄ 95.2	2 50.8	8 ¹ / ₈ 206.4	9 17/64 235.4	12 ⁹ / ₁₆ 319.1	2 ³ / ₄ 69.8	16 406.4	187 84.8
140	5 ⁷ / ₁₆ P-LB6887FR P-LB68M140FR	22232LBK	6 ¹¹ / ₁₆ 169.86	19 ¹ / ₄ 489.0	17 ³ / ₈ 441.3	22 558.8	6 ¹ / ₄ 158.8	1 24	3 ³ / ₄ 95.2	2 50.8	8 ¹ / ₂ 215.9	9 ³⁵ / ₆₄ 242.5	13 ³ / ₈ 339.7	2 ³¹ / ₃₂ 75.4	17 431.8	221 94.8
150	5 ¹⁵ / ₁₆ P-LB6895FR P-LB6896FR P-LB68M150FR	22234LBK	7 ¹ / ₁₆ 179.39	21 ⁵ / ₈ 549.3	19 ³ / ₈ 492.1	24 ³ / ₄ 628.6	6 ³ / ₄ 171.4	1 24	4 ¹ / ₄ 108.0	2 ¹ / ₈ 54.0	9 ¹ / ₄ 235.0	10 ⁹ / ₁₆ 261.9	14 ¹ / ₄ 362.0	3 ¹ / ₈ 79.4	18 457.2	280 119.8
	6 ⁷ / ₁₆ P-LB68103FR P-LB68104FR P-LB68M160FR		7 ¹ / ₂ 190.50	23 ⁵ / ₈ 600.1	20 ⁷ / ₈ 530.2	26 ³ / ₄ 679.4	7 ¹ / ₈ 181.0	1 24	4 ⁵ / ₈ 117.5	2 ¹ / ₈ 54.0	9 ⁵ / ₈ 244.5	10 ¹¹ / ₁₆ 271.5	14 ¹⁵ / ₁₆ 379.4	3 ⁵ / ₃₂ 80.2	18 ³ / ₄ 476.2	304 137.9
170	6 ¹⁵ / ₁₆ P-LB68111FR P-LB68112FR P-LB68M170FR	22238LBK	7 ⁷ / ₈ 200.02	24 ³ / ₈ 619.1	21 ⁵ / ₈ 549.3	28 711.2	7 ¹ / ₂ 190.5	1 ¹ / ₄ 30	4 ¹ / ₂ 114.3	2 ³ / ₈ 60.3	10 ¹ / ₄ 260.4	11 ³ / ₁₆ 284.2	15 ¹⁵ / ₁₆ 401.6	3 ⁵ / ₁₆ 84.1	20 ¹ / ₂ 520.7	370 167.8
180	7 ³ / ₁₆ P-LB68115FR P-LB68M180FR	22240LBK	8 ¹ / ₄ 209.55	25 635.0	22 ¹ / ₂ 571.5	29 ¹ / ₂ 749.3	8 203.2	1 ¹ / ₄ 30	5 127.0	2 ³ / ₈ 60.3	11 279.4	11 ⁷ / ₈ 301.6	16 ³ / ₄ 425.4	3 ¹⁸ / ₃₂ 89.7	22 ¹ / ₄ 565.2	450 204.1
200	7 ¹ / ₂ P-LB68120FR P-LB68127FR P-LB68128FR P-LB68M200FR	22244LBK	9 ¹ / ₂ 241.30	27 ⁷ / ₈ 708.0	24 ³ / ₄ 628.6	32 ³ / ₄ 831.8	8 ³ / ₄ 222.2	1 ¹ / ₂ 36	5 ¹ / ₄ 133.4	2 ³ / ₄ 69.8	11 ³ / ₁₆ 284.2	12 ⁵ / ₁₆ 312.7	18 ⁹ / ₁₆ 471.5	3 ¹³ / ₁₆ 96.8	24 ¹ / ₂ 622.3	675 665 301.6
	8 ⁷ / ₁₆ P-LB66135FR P-LB66136FR P-LB66144FR P-LB66M220FR	23048LBK	8 ¹ / ₄ 209.55	25 635.0	22 ¹ / ₂ 571.5	29 ¹ / ₂ 749.3	8 203.2	1 ¹ / ₄ 30	5 127.0	2 ³ / ₈ 60.3	11 279.4	12 ⁵ / ₁₆ 312.7	16 ³ / ₄ 425.4	3 ¹³ / ₁₆ 96.8	22 ¹ / ₄ 565.2	430 195.0
220	9 ⁷ / ₁₆ P-LB66B151FR	23056LBK	9 ¹ / ₂ 241.30	27 ⁷ / ₈ 708.0	24 ³ / ₄ 628.6	32 ³ / ₄ 831.8	8 ³ / ₄ 222.2	1 ¹ / ₂ 36	5 ¹ / ₄ 133.4	2 ³ / ₄ 69.8	11 ³ / ₄ 298.4	13 ¹ / ₁₆ 331.8	19 ¹ / ₁₆ 484.2	4 ¹ / ₄ 108.0	24 ¹ / ₂ 622.3	550
	9 ¹ / ₂ P-LB66B152FR															545
	9 ¹⁵ / ₁₆ P-LB66159FR															540
	10 P-LB66160FR															530
	10 ⁷ / ₁₆ P-LB66167FR															515
260	10 ¹ / ₂ P-LB66168FR P-LB66M260FR		241.30	708.0	628.6	831.8	222.2	36	133.4	69.8	298.4	331.8	484.2	108.0	622.3	510 247.2

Bold face items are normally available from stock; please consult for availability of non-stock items.

Lubrication fitting tap size: for 4¹/₂" (115 mm) and smaller shafts, 1/8" PT; for all other shafts 1/4" PT.

* Expansion type block provides 1/4" (6.4 mm) total axial movement for 1³/₄" (40 mm) and smaller shafts. All larger sizes provide 3/8" (9.5 mm). Fixed bearing is offset in relation to housing centerline.

** Drain plug tap size: for 3³/₁₆" (80 mm) and smaller shafts, 1/8" PT; for 3⁷/₁₆" (90 mm) through 6" (150 mm) shafts, 1/4" PT; for all other shafts, 1/2" PT.

■ Recommended dimension from bearing centerline to shaft face for closed end unit. Minimum Extension of shaft beyond locknut, .06 inch.

● Recommended dimension for cap removal

Selection guide, pages E-7, E-8.

Load ratings, pages E-9 through E-12.

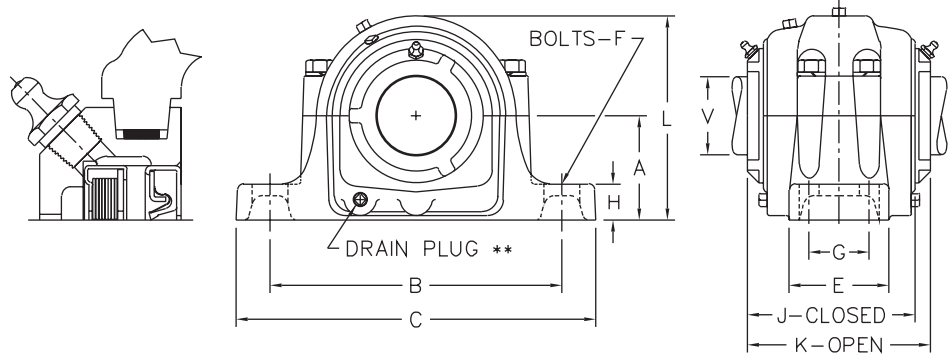
Additional information, page E-34.

□ Width for D5 Pentac™ 5 point sealing system.

Spherical Roller Bearing Pillow Blocks

P-LB6800D8, P-LB6800FD8, P-LB6600FD8

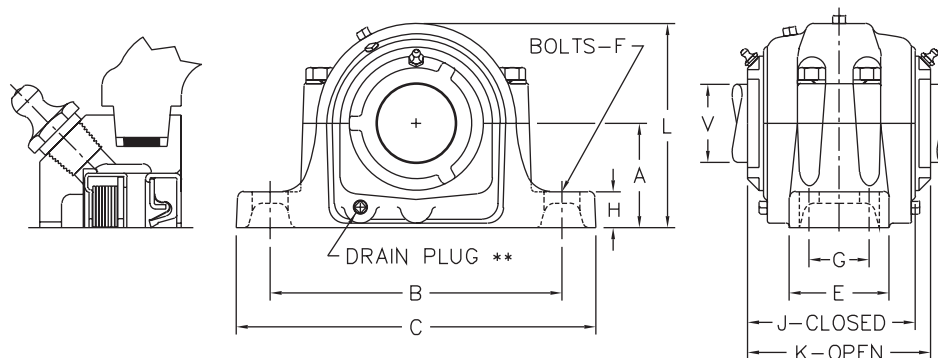
Two-piece Cast Iron Housing
2 or 4-bolt Base
Independently Flushable Seals
Self-aligning
Tapered Adapter Mounted
Grease Lubrication



Dimensions (inches/mm)

V Shaft diameter ▲	Pillow block number	Bearing number	A	B		C	E	F Bolts	G	H	K	L	T ■	P ●	J	Unit wt. (lbs./kgs.)
				max.	min.											
1 ⁷ / ₁₆	P-LB6823D8 P-LB6824D8	22209LBK	2 ¹ / ₄	7	6 ¹ / ₄	8 ¹ / ₄	2 ³ / ₈	1/2	....	1 ³ / ₁₆	5	4 ³ / ₈	1 ¹ / ₁₆	6 ¹ / ₄	4 ⁷ / ₁₆	12
1 ¹ / ₂			57.15	177.8	158.8	209.6	60.3	12	....	20.6	127.0	111.1	27.0	158.8	112.7	5.4
1 ¹¹ / ₁₆	P-LB6827D8	22210LBK	2 ¹ / ₂	7	6 ¹ / ₂	8 ¹ / ₄	2 ³ / ₈	1/2	....	1 ⁵ / ₁₆	4 ¹⁵ / ₁₆	4 ³ / ₄	1 ¹ / ₈	6 ⁵ / ₈	4 ¹³ / ₃₂	13
			63.50	177.8	165.1	209.6	60.3	12	....	23.8	125.4	120.6	28.6	168.3	111.9	5.9
1 ¹⁵ / ₁₆	P-LB6831D8 P-LB6832D8	22211LBK	2 ³ / ₄	7 ⁷ / ₈	7 ³ / ₈	9 ⁹ / ₈	2 ³ / ₄	5/8	....	1 ⁵ / ₁₆	5 ⁵ / ₁₆	5 ¹ / ₄	1 ³ / ₁₆	7 ¹ / ₄	4 ²³ / ₃₂	16
2			69.85	200.0	187.3	244.5	69.8	16	....	23.8	134.9	133.4	30.2	184.2	119.8	7.3
2 ³ / ₁₆	P-LB6835D8	22213LBK	3	9 ¹ / ₂	8 ¹ / ₈	11	3 ¹ / ₄	5/8	....	1	5 ⁵ / ₈	5 ¹⁵ / ₁₆	1 ¹³ / ₃₂	8 ¹ / ₄	5 ¹ / ₈	24
			76.20	241.3	206.4	279.4	82.6	16	....	25.4	142.9	150.8	35.7	209.6	130.2	10.9
2 ⁷ / ₁₆	P-LB6839D8 P-LB6839FD8	22215LBK	3 ¹ / ₄	9 ⁵ / ₈	8 ⁵ / ₈	11 ¹ / ₄	3 ³ / ₈	5/8	....	1 ¹ / ₈	5 ¹⁵ / ₁₆	6 ³ / ₈	1 ¹⁵ / ₃₂	8 ³ / ₈	5 ¹⁷ / ₃₂	30
			82.55	244.5	219.1	285.8	79.4	16	....	28.6	150.9	161.9	37.3	212.7	140.5	13.6
2 ¹¹ / ₁₆	P-LB6843D8	22216LBK	3 ¹ / ₂	11	9 ⁵ / ₈	13	3 ¹ / ₂	3/4	....	1 ¹ / ₄	6 ⁹ / ₁₆	7	1 ¹ / ₂	9 ¹ / ₂	6 ¹ / ₃₂	42
			88.90	279.4	244.5	330.2	88.9	20	....	31.8	166.7	177.8	38.1	241.3	153.2	19.1
2 ¹⁵ / ₁₆	P-LB6847D8 P-LB6847FD8 P-LB6848D8	22217LBK	3 ³ / ₄	11	9 ⁷ / ₈	13	3 ¹ / ₂	3/4	....	1 ¹ / ₄	6 ³ / ₈	7 ⁵ / ₁₆	1 ¹⁹ / ₃₂	10	5 ¹¹ / ₁₆	47
3			95.25	279.4	250.8	330.2	88.9	20	....	31.8	161.9	185.7	40.5	254.0	144.5	21.3
3 ³ / ₁₆	P-LB6851D8 P-LB6851FD8	22218LBK	4	11 ³ / ₄	10 ¹ / ₄	13 ³ / ₄	3 ⁷ / ₈	3/4	....	1 ⁵ / ₁₆	7 ³ / ₈	7 ¹⁵ / ₁₆	1 ³ / ₄	10 ¹ / ₂	6 ³ / ₄	52
			101.60	298.4	260.4	349.2	98.4	20	....	33.3	187.3	201.6	44.4	266.7	171.4	23.6
3 ⁷ / ₁₆	P-LB6855D8 P-LB6855FD8	22220LBK	4 ¹ / ₂	13 ³ / ₈	11 ⁵ / ₈	15 ¹ / ₄	4 ³ / ₈	7/8	....	1 ¹ / ₂	7 ⁵ / ₁₆	8 ⁷ / ₈	1 ²⁹ / ₃₂	11 ³ / ₄	6 ²¹ / ₃₂	79
			114.30	333.4	295.3	387.4	111.1	24	....	38.1	185.7	225.4	48.4	298.4	169.1	35.8
3 ¹¹ / ₁₆	P-LB6859FD8 P-LB6863FD8	22222LBK	4 ¹⁵ / ₁₆	14 ¹ / ₂	12 ⁵ / ₈	16 ¹ / ₂	4 ³ / ₄	3/4	2 ³ / ₄	1 ⁵ / ₈	7 ¹⁵ / ₁₆	9 ⁵ / ₈	2 ¹ / ₈	12 ¹ / ₄	7 ⁷ / ₃₂	98
3 ¹⁵ / ₁₆			125.41	368.3	320.7	419.1	120.6	20	69.8	41.3	201.6	244.5	54.0	311.2	183.4	44.5
4 ³ / ₁₆	P-LB6867FD8	22224LBK	5 ¹ / ₄	14 ¹ / ₂	13 ¹ / ₄	16 ¹ / ₂	4 ³ / ₄	3/4	2 ³ / ₄	1 ³ / ₄	8 ⁹ / ₁₆	10 ⁷ / ₁₆	2 ⁹ / ₃₂	13 ¹ / ₂	7 ³¹ / ₃₂	116
			133.35	368.3	336.6	419.1	120.6	20	69.8	44.4	217.5	265.1	57.9	342.9	253.2	52.6
4 ⁷ / ₁₆	P-LB6871FD8	22226LBK	6	16	14 ⁵ / ₈	18 ³ / ₈	5 ¹ / ₈	7/8	3 ¹ / ₄	1 ⁷ / ₈	9 ⁷ / ₃₂	11 ¹⁹ / ₃₂	2 ¹⁵ / ₃₂	14 ¹ / ₂	8 ³¹ / ₆₄	165
			152.40	406.4	371.5	466.7	130.2	24	82.6	47.6	234.2	294.5	62.7	368.3	215.5	74.8
4 ¹⁵ / ₁₆	P-LB6879FD8	22228LBK	6	17 ⁷ / ₈	16	20 ¹ / ₈	5 ⁷ / ₈	1	3 ³ / ₈	1 ¹⁵ / ₁₆	8 ¹⁵ / ₁₆	11 ¹³ / ₁₆	2 ⁵ / ₈	15 ¹ / ₂	8 ⁷ / ₃₂	184
			152.40	435.0	406.4	511.2	149.2	24	85.7	49.2	227.0	300.0	66.7	393.7	208.8	83.5

Continued on facing page.



Dimensions (inches/mm) - continued

V Shaft diameter ▲	Pillow block number	Bearing number	A	B		C	E	F Bolts	G	H	K	L	T ■	P ●	J	Unit wt. (lbs./kgs.)
				max.	min.											
57/16	P-LB6887FD8	22232LBK	611/16 169.86	191/4 489.0	173/8 441.3	22 558.8	61/4 158.8	1 24	33/4 95.2	2 50.8	913/16 249.2	133/8 339.7	231/32 69.8	17 431.8	99/32 232.6	244 110.7
515/16 6	P-LB6895FD8 P-LB6896FD8	22234LBK	71/16 179.39	215/8 549.3	193/8 492.1	243/4 628.6	63/4 171.4	1 24	41/4 108.0	21/8 54.0	11 279.4	141/4 362.0	31/8 79.4	18 457.2	105/8 257.2	309 140.2
67/16 61/2	P-LB68103FD8 P-LB68104FD8	22236LBK	71/2 190.50	233/8 600.1	207/8 530.2	263/4 679.4	71/8 181.0	1 24	45/8 117.5	21/8 54.0	113/8 288.9	1415/16 379.4	33/32 80.2	183/4 476.2	1011/16 271.5	322 146.1
615/16 7	P-LB68111FD8 P-LB68112FD8	22238LBK	77/8 200.02	243/8 619.1	215/8 549.3	28 711.2	71/2 190.5	11/4 30	41/2 114.3	23/8 60.3	121/16 306.4	1513/16 401.6	35/16 84.1	201/2 520.7	1111/32 288.1	411 186.4
71/2 715/16 8	P-LB68120FD8 P-LB68127FD8 P-LB68128FD8	22244LBK	91/2 241.30	277/8 708.0	243/4 628.6	323/4 831.8	83/4 222.2	11/2 36	51/4 133.4	23/4 69.8	133/16 335.0	189/16 471.5	313/16 96.8	241/2 622.3	123/16 309.6	750 340.2
87/16 81/2 9	P-LB66135FD8 P-LB66136FD8 P-LB66144FD8	23048LBK	81/4 209.55	25 635.0	221/2 571.5	291/2 749.3	8 203.2	11/4 30	5 127.0	23/8 60.3	1211/16 322.3	163/4 425.4	313/16 96.8	221/4 565.2	123/32 305.6	478 216.8
91/2 101/2	P-LB66B152FD8 P-LB66168FD8	23056LBK	91/2 241.30	277/8 708.0	243/4 628.6	323/4 831.8	83/4 222.2	11/2 36	51/4 133.4	23/4 69.8	147/16 366.7	191/16 484.2	41/4 108.0	241/2 622.3	133/32 337.3	605 274.4

Bold face items are normally available from stock; please consult for availability of non-stock items.

Seal assembly lubrication fitting tap size: 13/4" and smaller shafts, 1/4-28; all other 1/8" PT.

▲ Recommended shaft finish under D8 lip seals, 10-20 micro inches, obtain by straight plunge grinding or polishing with fine (000) Emery leaving no spiraling marks. Not required for low speed shafts.

△ Cast steel housing is standard.

Expansion type block provides 1/4" (6.4 mm) total axial movement for 13/4" (40 mm) and smaller shafts. All larger shafts, 3/8" (9.5 mm). Fixed bearing is offset in relation to housing centerline.

■ See cross section, page E-15; footnote, page E-16.

● Recommended dimension for cap removal

** Drain plug tap size: for 33/16" (80 mm) and smaller shafts, 1/8" PT; for 37/16" (90 mm) through 6" (150 mm) shafts, 1/4" PT; for all other shafts, 1/2" PT.

Selection guide, pages E-7, E-8.

Load ratings, pages E-9 through E-12.

Additional information, page E-34.

Spherical Roller Bearing Pillow Blocks

PK-LB6800FR, PK-LB6600FR

Two-piece Cast Steel Housing

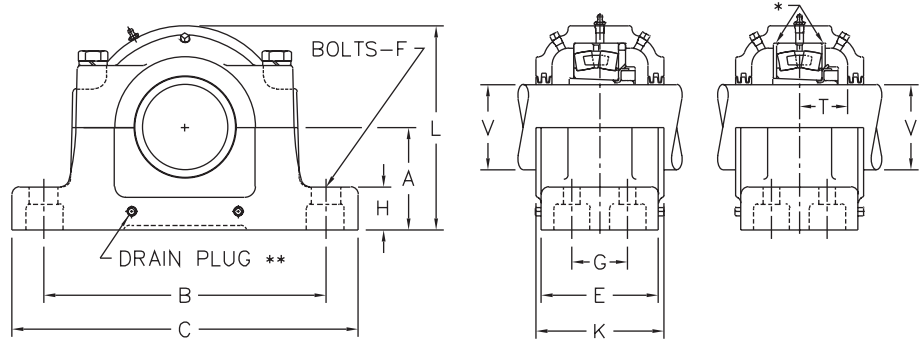
4-bolt Base

Fixed or Expansion

Self-aligning

Tapered Adapter Mounted

Grease or Oil Lubrication



Dimensions (inches/mm)

V Shaft diameter	Pillow block number	Bearing number	A	B		C	E	F Bolts	G	H	K	L	T ■	P ●	Unit wt. (lbs./kgs.)
				max.	min.										
65 27 ¹ / ₁₆	PK-LB6839FR PK-LB68M65FR	22215LBK	3 ¹ / ₄ 82.55	9 ⁵ / ₁₆ 244.5	8 ⁵ / ₁₆ 219.1	11 ¹ / ₄ 285.8	4 ³ / ₈ 111.1	1 ¹ / ₂ 12	17 ¹ / ₈ 47.6	1 ¹ / ₂ 38.1	4 ³ / ₄ 120.6	6 ³ / ₈ 161.9	1 ¹⁵ / ₃₂ 37.3	10 ¹ / ₄ 260.4	37 16.8
70 2 ¹ / ₁₆	PK-LB6843FR PK-LB68M70FR	22216LBK	3 ¹ / ₂ 88.90	11 279.4	9 ⁹ / ₁₆ 244.5	13 330.2	4 ⁷ / ₈ 123.8	5 ⁵ / ₈ 16	2 50.8	1 ⁵ / ₈ 41.3	5 ¹ / ₄ 133.4	7 177.8	1 ¹ / ₂ 38.1	11 279.4	51 23.1
75 2 ¹⁵ / ₁₆ 3	PK-LB6847FR PK-LB6848FR PK-LB68M75FR	22217LBK	3 ³ / ₄ 95.25	11 279.4	9 ⁷ / ₈ 250.8	13 330.2	4 ⁷ / ₈ 123.8	5 ⁵ / ₈ 16	2 50.8	1 ⁵ / ₈ 41.3	5 ¹ / ₄ 133.4	7 ³ / ₈ 187.3	1 ¹⁹ / ₃₂ 40.5	11 ¹ / ₂ 292.1	51 23.1
90 3 ⁷ / ₁₆ 3 ¹ / ₂	PK-LB6855FR PK-LB6856FR PK-LB68M90FR	22220LBK	4 ¹ / ₂ 114.30	13 ³ / ₈ 333.4	11 ⁵ / ₈ 295.3	15 ¹ / ₄ 387.4	6 152.4	3 ³ / ₄ 20	2 ³ / ₈ 60.3	1 ⁷ / ₈ 47.6	6 ¹ / ₂ 165.1	8 ¹³ / ₁₆ 223.8	1 ²⁹ / ₃₂ 48.4	13 ³ / ₄ 349.2	97 44.0
100 3 ¹¹ / ₁₆ 3 ⁵ / ₁₆ 4	PK-LB6859FR PK-LB6863FR PK-LB6864FR PK-LB68M100FR	22222LBK	4 ¹⁵ / ₁₆ 125.41	14 ¹ / ₂ 368.3	12 ⁵ / ₈ 320.7	16 ¹ / ₂ 419.1	6 ¹ / ₂ 165.1	3 ³ / ₄ 20	2 ³ / ₄ 69.8	2 50.8	7 177.8	9 ³ / ₄ 247.6	2 ¹ / ₈ 54.0	15 ¹ / ₄ 387.4	112 50.8
115 4 ⁷ / ₁₆ 4 ¹ / ₂	PK-LB6871FR PK-LB6872FR PK-LB68M115FR	22226LBK	6 152.40	16 406.4	14 ⁵ / ₈ 371.5	18 ³ / ₈ 466.7	7 ¹ / ₄ 184.2	7 ⁷ / ₈ 24	3 ¹ / ₄ 82.6	2 ¹ / ₄ 57.2	7 ³ / ₄ 196.8	11 ¹ / ₂ 292.1	2 ¹⁵ / ₃₂ 62.7	18 ¹ / ₄ 463.6	200 196 88.9
125 4 ¹⁵ / ₁₆ 5	PK-LB6879FR PK-LB6880FR PK-LB68M125FR	22228LBK	6 152.40	17 ¹ / ₈ 435.0	16 406.4	20 ¹ / ₈ 511.2	6 ⁷ / ₈ 174.6	1 24	3 ³ / ₈ 85.7	2 ¹ / ₂ 63.5	7 ¹ / ₂ 190.5	11 ¹⁵ / ₁₆ 303.2	2 ⁵ / ₈ 66.7	19 ¹ / ₄ 489.0	207 93.9
140 5 ⁷ / ₁₆	PK-LB6887FR PK-LB68M140FR	22232LBK	6 ¹¹ / ₁₆ 169.86	19 ¹ / ₄ 489.0	17 ³ / ₈ 441.3	22 558.8	8 203.2	1 24	3 ³ / ₄ 95.2	2 ³ / ₄ 69.8	8 ¹ / ₂ 215.9	13 ¹ / ₂ 342.9	2 ³¹ / ₃₂ 75.4	20 ¹ / ₂ 520.7	270 122.5
150 5 ¹⁵ / ₁₆ 6	PK-LB6895FR PK-LB6896FR PK-LB68M150FR	22234LBK	7 ¹ / ₁₆ 179.39	21 ⁵ / ₈ 549.3	19 ³ / ₈ 492.1	24 ³ / ₄ 628.6	8 ³ / ₄ 222.2	1 24	4 ¹ / ₄ 108.0	3 76.2	9 ¹ / ₄ 235.0	14 ¹ / ₄ 362.0	3 ¹ / ₈ 79.4	22 ¹ / ₄ 565.2	368 166.9
160 6 ⁷ / ₁₆ 6 ¹ / ₂	PK-LB68103FR PK-LB68104FR PK-LB68M160FR	22236LBK	7 ¹ / ₂ 190.50	23 ³ / ₈ 600.1	20 ⁷ / ₈ 530.2	26 ³ / ₄ 679.4	9 ¹ / ₈ 231.8	1 24	4 ⁵ / ₈ 117.5	3 ¹ / ₄ 82.6	9 ⁵ / ₈ 244.5	14 ¹⁵ / ₁₆ 379.4	3 ⁵ / ₃₂ 80.2	23 ¹ / ₄ 590.6	390 176.9
170 6 ¹⁵ / ₁₆ 7	PK-LB68111FR PK-LB68112FR PK-LB68M170FR	22238LBK	7 ⁷ / ₈ 200.02	24 ³ / ₈ 619.1	21 ⁵ / ₈ 549.3	28 711.2	9 ³ / ₄ 247.6	1 ¹ / ₄ 30	4 ¹ / ₂ 114.3	3 ¹ / ₄ 82.6	10 ¹ / ₄ 260.4	15 ¹³ / ₁₆ 401.6	3 ⁵ / ₁₆ 84.1	25 635.0	470 213.2
200 7 ¹ / ₂ 7 ¹⁵ / ₁₆ 8	PK-LB68120FR PK-LB68127FR PK-LB68128FR PK-LB68M200FR	22244LBK	9 ¹ / ₂ 241.30	27 ⁵ / ₈ 701.7	25 ⁷ / ₈ 657.2	32 812.8	12 304.8	1 ³ / ₄ 48	7 ¹ / ₄ 184.2	4 101.6	12 ⁵ / ₈ 320.7	18 ¹¹ / ₁₆ 474.7	3 ¹³ / ₁₆ 96.8	29 ¹ / ₄ 743.0	875 830 376.5
220 8 ¹ / ₂ 9	PK-LB66136FR PK-LB66144FR PK-LB66M220FR	23048LBK	8 ¹ / ₄ 209.55	25 635.0	22 ¹ / ₂ 571.5	29 ¹ / ₂ 749.3	10 ³ / ₈ 263.5	1 ¹ / ₄ 30	5 127.0	3 ¹ / ₂ 88.9	11 279.4	16 ¹ / ₂ 419.1	3 ¹³ / ₁₆ 96.8	26 ¹ / ₂ 673.1	562 528 240.4
260 9 ¹ / ₂ 9 ¹⁵ / ₁₆ 10 10 ¹ / ₂	PK-LB66B152FR PK-LB66159FR PK-LB66160FR PK-LB66168FR PK-LB66M260FR	23056LBK	9 ¹ / ₂ 241.30	27 ⁵ / ₈ 701.7	25 ⁷ / ₈ 657.2	32 812.8	12 304.8	1 ³ / ₄ 48	7 ¹ / ₄ 184.2	4 101.6	12 ⁵ / ₈ 320.7	18 ¹¹ / ₁₆ 474.7	4 ¹ / ₄ 108.0	29 ¹ / ₄ 743.0	800 790 780 770 358.3

Bold face items are normally available from stock; please consult

for availability of non-stock items.

Lubrication fitting tap size: 1/4" PT.

* Expansion type block provides 1/4" (6.4 mm) total axial movement for 1 3/4" (40 mm) and smaller shafts. All larger shafts, 3/8" (9.5 mm). Fixed bearing is offset in relation to housing centerline.

**Drain plug tap size: for 6" (160 mm) and smaller shafts, 1/4" PT; for all other shafts, 1/2" PT.

■ Recommended dimension from bearing centerline to shaft face for closed end unit. Minimum Extension of shaft beyond locknut, .06 inch.

● Recommended dimension for cap removal

Selection guide, pages E-7, E-8.

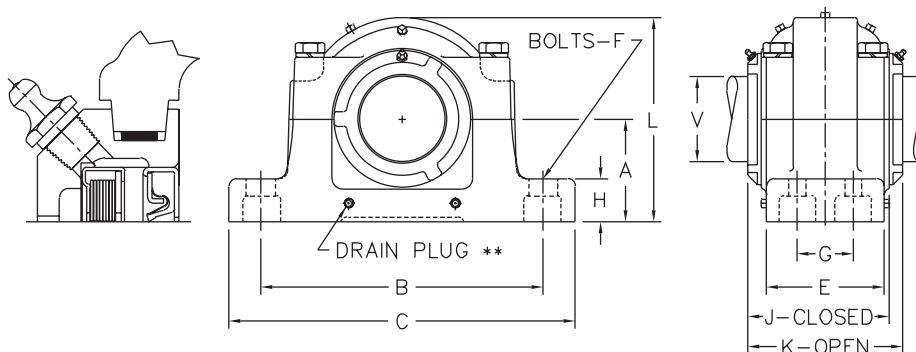
Load ratings, pages E-9 through E-12.

Additional information, page E-34.

Spherical Roller Bearing Pillow Blocks

PK-LB6800FD8, PK-LB6600FD8

Two-piece Cast Steel Housing
4-bolt Base
Independently Flushable Seals
Self-aligning
Tapered Adapter Mounted
Grease Lubrication



Dimensions (inches/mm)

V Shaft diameter ▲	Pillow block number	Bearing number	A	B		C	E	F Bolts	G	H	K	L	T ■	P ●	J	Unit wt. (lbs./kgs.)
				max.	min.											
27/16	PK-LB6839FD8	22215LBK	3 1/4 82.55	9 5/8 244.5	8 3/8 219.1	11 1/4 285.8	4 3/8 111.1	1/2 12	1 7/8 47.6	1 1/2 38.1	6 1/16 154.0	6 3/8 161.9	1 15/32 37.3	10 1/4 260.4	5 17/32 140.5	41 18.6
2 15/16 3	PK-LB6847FD8 PK-LB6848FD8	22217LBK	3 3/4 95.25	11 279.4	9 7/8 250.8	13 330.2	4 7/8 123.8	5/8 16	2 50.8	1 5/8 41.3	6 5/8 168.3	7 3/8 187.3	1 19/32 40.5	11 1/2 292.1	6 1/16 154.0	57 25.9
4 7/16	PK-LB6871FD8	22226LBK	6 152.40	16 406.4	14 3/8 371.5	18 3/8 466.7	7 1/4 184.2	7/8 24	3 1/4 82.6	2 1/4 57.2	9 1/4 235.0	11 1/2 292.1	2 15/32 62.7	18 1/4 363.6	8 3/8 219.1	222 100.7
4 15/16	PK-LB6879FD8	22228LBK	6 152.40	17 1/8 435.0	16 406.4	20 1/8 511.2	6 7/8 174.6	1 24	3 3/8 85.7	2 1/2 63.5	9 228.6	11 15/16 303.2	2 5/8 66.7	19 1/4 489.0	8 3/8 212.7	230 104.3
6 7/16	PK-LB68103FD8	22236LBK	7 1/2 190.50	23 3/8 600.1	20 7/8 530.2	26 3/4 679.4	9 1/8 231.8	1 24	4 3/8 117.5	3 1/4 82.6	11 3/8 288.9	14 15/16 379.4	3 5/32 80.2	23 3/4 590.6	10 11/16 261.9	433 196.4

Please consult for availability.

Seal assembly lubrication fitting tap size: 1/8" PT.

▲ Recommended shaft finish under D8 lip seals, 10-20 micro inches, obtain by straight plunge grinding or polishing with fine (000) Emery leaving no spiraling marks. Not required for low speed shafts.

Expansion type block provides 3/8" (9.5 mm) total axial movement. Fixed bearing is offset in relation to housing centerline (see cross-sections, page E-19).

■ See cross section and footnote, page E-19.

● Recommended dimension for cap removal.

** Drain plug tap size: for 6" and smaller shafts, 1/4" PT; for all other shafts, 1/2" PT.

Selection guide, pages E-7, E-8.

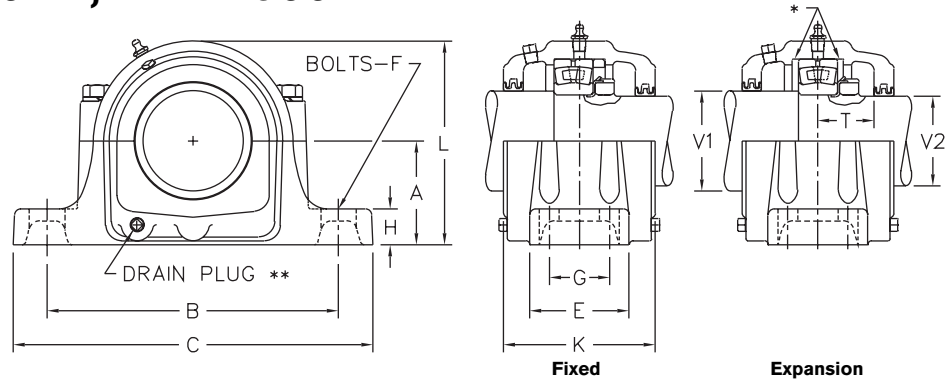
Load ratings, pages E-9 through E-12.

Additional information, page E-34.

Spherical Roller Bearing Pillow Blocks

P-LB7800R, P-LB7800FR, P-LB7600FR

Two-piece Cast Iron Housing
2 or 4-bolt Base
Fixed or Expansion
Self-aligning
Direct Shaft Mounted
Grease or Oil Lubrication



Dimensions (inches/mm)

Bearing bore diameter	Shaft diameter		Pillow block number	Bearing number	A	B		C	E	F Bolts	G	H	K □	L	T ■	P ●	Unit wt. (lbs./kgs.)
	V1	V2				max.	min.										
2.9528 75.000	3 ⁷ / ₁₆	2 ¹³ / ₁₆	P-LB7875R P-LB7875FR	22215LB	3 ¹ / ₄	9 ⁵ / ₁₆	8 ⁵ / ₁₆	11 ¹ / ₄	3 ¹ / ₈	5 ⁵ / ₁₆ 12	1 ¹ / ₈ 47.6	1 ¹ / ₈	4 ³ / ₄	6 ³ / ₈	1 ¹⁵ / ₃₂	8 ³ / ₈	35
					82.55	244.5	219.1	285.8	79.4	16	20	28.6	120.6	161.9	37.3	212.7	15.9
3.1496 80.000	3 ³ / ₈	3	P-LB7880R P-LB7880FR	22216LB	3 ¹ / ₂	11	9 ⁵ / ₁₆	13	3 ¹ / ₂	3 ³ / ₈ 20	2 ¹ / ₈ 50.8	1 ¹ / ₄	5 ¹ / ₄	7	1 ¹ / ₂	9 ¹ / ₂	35
					88.90	279.4	244.5	330.2	88.9	16	20	31.8	133.4	177.8	38.1	241.3	15.9
3.3465 85.000	3 ¹⁵ / ₁₆	3 ³ / ₁₆	P-LB7885R P-LB7885FR	22217LB	3 ³ / ₄	11	9 ⁵ / ₁₆	13	3 ¹ / ₂	3 ³ / ₈ 20	2 ¹ / ₈ 50.8	1 ¹ / ₄	5	7 ¹ / ₁₆	1 ¹⁵ / ₃₂	10	40
					95.25	279.4	250.8	330.2	88.9	16	20	31.8	127.0	185.7	40.5	254.0	18.1
3.5433 90.000	4 ¹ / ₈	3 ³ / ₈	P-LB7890R P-LB7890FR	22218LB	4	11 ⁵ / ₁₆	10 ⁵ / ₁₆	13 ³ / ₄	3 ⁷ / ₈	3 ³ / ₈ 20	2 ¹ / ₈ 54.0	1 ¹ / ₁₆	5 ⁵ / ₈	7 ¹ / ₁₆	1 ¹ / ₄	10 ¹ / ₂	42
					101.60	295.3	263.5	349.2	98.4	16	20	33.3	149.2	201.6	44.4	266.7	19.1
3.9370 100.000	4 ¹ / ₂	3 ¹³ / ₁₆	P-LB78100R P-LB78100FR	22220LB	4 ¹ / ₂	13 ⁵ / ₁₆	11 ⁵ / ₁₆	15 ¹ / ₄	4 ³ / ₈ 111.1	7 ⁵ / ₈ 24	2 ³ / ₈ 60.3	1 ¹ / ₂	6	8 ⁵ / ₈	1 ²⁹ / ₃₂	11 ³ / ₄	62
					114.30	333.4	295.1	387.4	114.3	20	24	38.1	152.4	225.4	48.4	298.4	28.1
4.3307 110.000	4 ⁷ / ₈	4 ³ / ₁₆	P-LB78110FR	22222LB	4 ¹⁵ / ₁₆	14 ¹ / ₂	12 ⁵ / ₁₆	16 ¹ / ₂	4 ³ / ₄	3 ⁴ / ₈ 20	2 ³ / ₄ 69.8	1 ⁵ / ₈	6 ¹ / ₂	9 ⁵ / ₈	2 ¹ / ₈	12 ¹ / ₄	78
					125.41	368.3	320.7	419.1	120.6	20	24	41.3	165.1	222.5	54.0	311.2	35.4
4.7244 120.000	5 ⁵ / ₁₆	4 ⁹ / ₁₆	P-LB78120FR	22224LB	5 ¹ / ₄	14 ¹ / ₂	13 ¹ / ₄	16 ¹ / ₂	4 ³ / ₄	3 ⁴ / ₈ 20	2 ³ / ₄ 69.8	1 ³ / ₄	7 ¹ / ₈	10 ¹ / ₁₆	2 ⁹ / ₃₂	13 ¹ / ₂	102
					133.35	368.3	336.6	419.1	120.6	20	24	44.4	181.0	265.1	57.9	342.9	46.3
5.1181 130.000	5 ⁷ / ₈	4 ¹⁵ / ₁₆	P-LB78130FR	22226LB	6	16	14 ⁵ / ₁₆	18 ³ / ₈	5 ¹ / ₈	7 ⁵ / ₈ 24	3 ¹ / ₄ 82.6	1 ⁷ / ₈	7 ³ / ₄	11 ¹⁹ / ₃₂	2 ¹⁵ / ₃₂	14 ¹ / ₂	141
					152.40	406.4	371.5	466.7	130.2	24	24	47.6	196.8	294.5	62.7	368.3	64.0
5.5118 140.000	6 ¹ / ₄	5 ⁵ / ₁₆	P-LB78140FR	22228LB	6	17 ¹ / ₈	16	20 ¹ / ₈	5 ⁷ / ₈	1 24	3 ³ / ₈ 85.7	1 ¹⁵ / ₁₆	7 ³ / ₄	11 ¹³ / ₁₆	2 ⁵ / ₈	15 ¹ / ₂	162
					152.40	435.0	406.4	511.2	149.2	24	24	49.2	196.8	300.0	66.7	393.7	73.5
5.9055 150.000	6 ⁵ / ₈	5 ³ / ₄	P-LB78150FR	22230LB	6 ⁵ / ₁₆	18 ¹ / ₄	17	21 ¹ / ₄	6 ¹ / ₄	1 24	3 ³ / ₄ 95.2	2	8 ¹ / ₈	12 ⁹ / ₁₆	2 ³ / ₄	16	182
					160.34	463.6	431.8	539.8	158.8	24	24	50.8	206.4	319.1	69.8	406.4	82.6
6.2992 160.000	7	6 ¹ / ₁₆	P-LB78160FR	22232LB	6 ¹¹ / ₁₆	19 ¹ / ₄	17 ³ / ₈	22	6 ¹ / ₄	1 24	3 ³ / ₄ 95.2	2	8 ¹ / ₂	13 ³ / ₈	2 ³¹ / ₃₂	17	202
					169.86	489.0	441.3	558.8	158.8	24	24	50.8	215.9	339.7	75.4	431.8	91.6
6.6929 170.000	7 ¹ / ₁₆	6 ⁷ / ₁₆	P-LB78170FR	22234LB	7 ¹ / ₁₆	21 ⁵ / ₁₆	19 ³ / ₈	24 ¹ / ₄	6 ³ / ₄	1 24	4 ¹ / ₄ 108.0	2 ¹ / ₈	9 ¹ / ₄	14 ¹ / ₄	3 ¹ / ₈	18	240
					179.39	549.3	492.1	628.6	171.4	24	24	54.0	235.0	362.0	79.4	457.2	108.9
7.0866 180.000	7 ¹³ / ₁₆	6 ⁷ / ₈	P-LB78180FR	22236LB	7 ¹ / ₂	23 ³ / ₈	20 ⁷ / ₈	26 ³ / ₄	7 ¹ / ₈	1 24	4 ³ / ₈ 117.5	2 ¹ / ₈	9 ⁵ / ₈	14 ¹⁵ / ₁₆	3 ³ / ₃₂	18 ³ / ₄	279
					190.50	600.1	530.2	679.4	181.0	24	24	54.0	244.5	379.4	80.2	476.2	126.6
7.4803 190.000	8 ³ / ₈	7 ¹ / ₄	P-LB78190FR	22238LB	7 ⁷ / ₈	24 ³ / ₈	21 ⁵ / ₈	28	7 ¹ / ₂	1 ¹ / ₄ 30	4 ¹ / ₂ 114.3	2 ³ / ₈	10 ¹ / ₄	15 ¹³ / ₁₆	3 ⁵ / ₁₆	20 ¹ / ₂	345
					200.02	619.1	549.3	711.2	190.5	30	30	60.3	260.4	401.6	84.1	520.7	156.5
7.8740 200.000	8 ³ / ₄	7 ⁵ / ₈	P-LB78200FR	22240LB	8 ¹ / ₄	25	22 ¹ / ₂	29 ¹ / ₂	8	1 ¹ / ₄ 30	5 127.0	2 ³ / ₈	11	16 ³ / ₄	3 ¹⁷ / ₃₂	22 ¹ / ₄	415
					209.55	635.0	571.5	749.3	203.2	30	30	60.3	279.4	425.4	89.7	565.2	188.2
8.6614 220.000	9 ⁹ / ₁₆	8 ⁵ / ₁₆	P-LB78220FR	22244LB	9 ¹ / ₂	27 ⁷ / ₈	24 ³ / ₄	32 ³ / ₄	8 ³ / ₄	1 ¹ / ₂ 36	5 ¹ / ₄ 133.4	2 ³ / ₄	11 ³ / ₈	18 ⁹ / ₁₆	3 ¹ / ₁₆	24 ¹ / ₂	620
					241.30	708.0	628.6	831.8	222.2	36	36	69.8	284.2	471.5	96.8	622.3	281.2
9.4488 240.000	10 ¹ / ₂	9 ⁹ / ₁₆	P-LB76240FR	23048LB	8 ³ / ₄	25	22 ¹ / ₂	29 ¹ / ₂	8	1 ¹ / ₄ 30	5 127.0	2 ³ / ₈	11	16 ³ / ₄	3 ¹ / ₁₆	22 ¹ / ₄	430
					209.55	635.0	571.5	749.3	203.2	30	30	60.3	279.4	425.4	96.8	565.2	195.0
11.0236 280.000	12	10 ³ / ₄	P-LB76280FR	23056LB	9 ¹ / ₂	27 ⁷ / ₈	24 ³ / ₄	32 ³ / ₄	8 ³ / ₄	1 ¹ / ₂ 36	5 ¹ / ₄ 133.4	2 ³ / ₄	11 ³ / ₈	19 ¹ / ₁₆	4 ¹ / ₄	24 ¹ / ₂	595
					241.30	708.0	628.6	831.8	222.2	36	36	69.8	298.4	484.2	108.0	622.3	269.9

Please consult for availability. Lubrication fitting tap size: for 3.5433" (90 mm) and smaller shafts, 1/8" PT, for all other shafts, 1/4" PT.

* Expansion type block provides 3/8" (9.5 mm) total axial movement. Fixed bearing is offset in relation to housing centerline.

** Drain plug tap size: for 3.5433" (90 mm) and smaller bores, 1/8" PT; for 3.9370" (100 mm) through 6.6929" (170 mm) bores, 1/4" PT; for all other bores, 1/2" PT.

□ See footnote, page E-16.

● Recommended dimension for cap removal.

■ Recommended dimension from bearing centerline to shaft face for closed end unit. Minimum extension of shaft beyond locknut, .06 inch.

Selection guide, pages E-7, E-8.

Load ratings, pages E-9 through E-12.

Additional information, page E-34.

Recommended bearing seat diameters, pages F-11, F-12.

Spherical Roller Bearing Pillow Blocks

PK-LB7800FR, PK-LB7600FR

Two-piece Cast Steel Housing

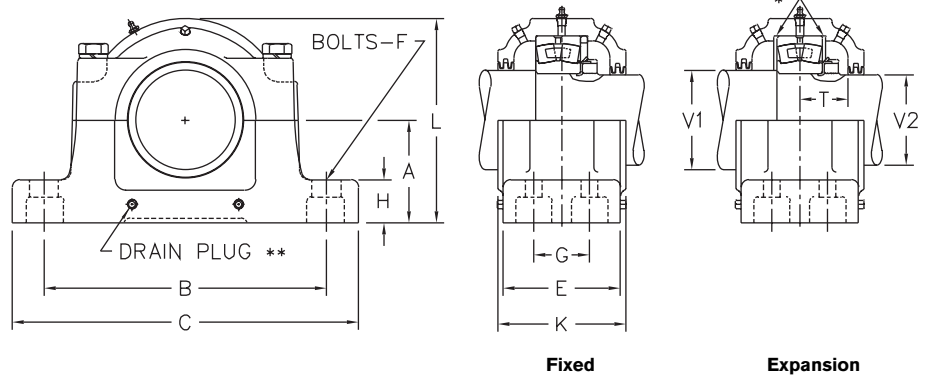
4-bolt Base

Fixed or Expansion

Self-aligning

Direct Shaft Mounted

Grease or Oil Lubrication



Dimensions (inches/mm)

Bearing bore diameter	Shaft diameter		Pillow block number	Bearing number	A	B		C	E	F Bolts	G	H	K	L	T ■	P ●	Unit wt. (lbs./kgs.)
	V1	V2				max.	min.										
2.9528 75.000	37/16	2 13/16	PK-LB7875FR	22215LB	3 1/4 82.55	9 5/8 244.5	8 5/8 219.1	11 1/4 285.8	4 3/8 111.1	1/2 12	1 7/8 47.6	1 1/2 38.1	4 3/4 120.6	6 3/8 161.9	1 15/32 37.3	10 1/4 260.4	35 15.9
3.1496 80.000	3 5/8	3	PK-LB7880FR	22216LB	3 1/2 88.90	11 279.4	9 5/8 244.5	13 330.2	4 7/8 123.8	5/8 16	2 50.8	1 5/8 41.3	5 1/4 133.4	7 177.8	1 1/2 38.1	11 279.4	48 21.8
3.3465 85.000	3 15/16	3 3/16	PK-LB7885FR	22217LB	3 3/4 95.25	11 279.4	9 7/8 250.8	13 330.2	4 7/8 123.8	5/8 16	2 50.8	1 5/8 41.3	5 1/4 133.4	7 3/8 187.3	1 19/32 40.5	11 1/2 292.1	50 22.7
3.9370 100.000	4 1/2	3 13/16	PK-LB78100FR	22220LB	4 1/2 114.30	13 1/8 333.4	11 5/8 295.3	15 1/4 387.4	6 152.4	3/4 20	2 3/8 60.3	1 7/8 47.6	6 1/2 165.1	8 13/16 223.8	1 29/32 48.4	13 3/4 349.2	85 38.6
4.3307 110.000	4 7/8	4 3/16	PK-LB78110FR	22222LB	4 15/16 125.41	14 1/2 368.3	12 5/8 320.7	16 1/2 419.1	6 1/2 165.1	3/4 20	2 3/4 69.8	2 50.8	7 177.8	9 3/4 247.6	2 1/8 54.0	15 1/4 387.4	105 47.6
5.1181 130.000	5 7/8	4 15/16	PK-LB78130FR	22226LB	6 16 152.40	14 5/8 406.4	18 3/8 371.5	7 1/4 466.7	7 5/8 184.2	3 1/4 24	2 1/4 82.6	7 3/4 57.2	11 1/2 196.8	2 15/32 292.1	18 1/4 62.7	187 463.6	84.8
5.5118 140.000	6 1/4	5 5/16	PK-LB78140FR	22228LB	6 17 1/8 152.40	16 435.0	20 1/8 406.4	6 7/8 511.2	1 174.6	3 3/8 24	2 1/2 85.7	7 1/2 63.5	11 15/16 190.5	2 5/8 303.2	19 1/4 66.7	190 489.0	86.2
6.2992 160.000	7	6 1/16	PK-LB78160FR	22232LB	6 11/16 169.86	19 1/4 489.0	17 3/8 441.3	22 558.8	8 203.2	1 24	3 3/4 95.2	2 3/4 69.8	8 1/2 215.9	13 1/2 342.9	2 31/32 75.4	20 1/2 520.7	250 113.4
6.6929 170.000	7 7/16	6 7/16	PK-LB78170FR	22234LB	7 1/16 179.39	21 5/8 549.3	19 3/8 492.1	24 3/4 628.6	8 3/4 222.2	1 24	4 1/4 108.0	3 76.2	9 1/4 235.0	14 1/4 362.0	3 1/8 79.4	22 1/4 565.2	344 156.0
7.0866 180.000	7 13/16	6 7/8	PK-LB78180FR	22236LB	7 1/2 190.50	23 3/8 600.1	20 7/8 530.2	26 3/4 679.4	9 1/8 231.8	1 24	4 5/8 117.5	3 3/4 82.6	9 5/8 244.5	14 15/16 379.4	3 5/32 80.2	23 1/4 590.6	365 165.6
7.4803 190.000	8 3/8	7 1/4	PK-LB78190FR	22238LB	7 7/8 200.02	24 3/8 619.1	21 1/8 549.3	28 711.2	9 3/4 247.6	1 1/4 30	4 1/2 114.3	3 3/4 82.6	10 1/4 260.4	15 13/16 401.6	3 5/16 84.1	25 635.0	450 204.1
8.6614 220.000	9 9/16	8 5/16	PK-LB78220FR	22244LB	9 1/2 241.30	27 7/8 701.7	25 5/8 657.2	32 812.8	12 304.8	1 3/4 48	7 1/4 184.2	4 101.6	12 5/8 320.7	18 11/16 474.7	3 13/16 96.8	29 1/4 743.0	770 349.3
9.4488 240.000	10 1/2	9 3/16	PK-LB76240FR	23048LB	8 1/4 209.55	25 635.0	22 1/2 571.5	29 1/2 749.3	10 3/8 263.5	1 1/4 30	5 127.0	3 1/2 88.9	11 279.4	16 1/2 419.1	3 13/16 96.8	26 1/2 673.1	530 240.4
11.0236 280.000	12	10 3/4	PK-LB76280FR	23056LB	9 1/2 241.30	27 3/8 701.7	25 3/8 657.2	32 812.8	12 304.8	1 3/4 48	7 1/4 184.2	4 101.6	12 3/8 320.7	18 11/16 474.7	4 1/4 108.0	29 1/4 743.0	745 337.9

Please consult for availability.

Lubrication fitting tap size: 1/4" PT.

* Expansion type block provides 3/8" (9.5 mm) total axial movement. Fixed bearing is offset in relation to housing centerline.

** Drain plug tap size: for 6.6929" (170 mm) and smaller bores, 1/2" PT; for all other bores, 1/2" PT.

■ Recommended dimension from bearing centerline to shaft face for closed end unit. Minimum extension of shaft beyond locknut, .06 inch.

● Recommended dimension for cap removal.

Selection guide, pages E-7, E-8.

Load ratings, pages E-9 through E-12.

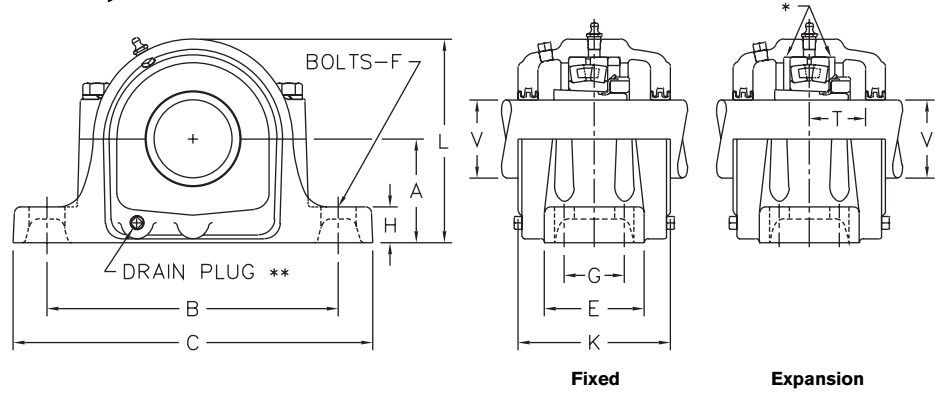
Additional information, page E-34.

Recommended bearing seat diameters, pages F-11, F-12.

Spherical Roller Bearing Pillow Blocks

P-LB6900R, P-LB6900FR, SAF22600

Two-piece Cast Iron Housing
2 or 4-bolt Base
Fixed or Expansion
Self-aligning
Tapered Adapter Mounted
Grease or Oil Lubrication



Dimensions (inches/mm)

V Shaft diameter inches	Pillow block number	Bearing number	A	B		C	E	F Bolts	G	H	K	L	T ■	P ●	Unit wt. (lbs./kgs.)
				max.	min.										
1 ⁷ / ₁₆ 1 ¹ / ₂	P-LB6923R P-LB6924R	22309LBK	2 ³ / ₄ 69.85	8 203.2	7 ¹ / ₄ 184.2	9 ⁵ / ₈ 244.5	2 ³ / ₄ 69.8	5 ⁸ / ₁₆ 16	....	1 25.4	4 ¹ / ₈ 104.8	5 ³ / ₈ 136.5	1 ⁵ / ₁₆ 33.3	7 ¹ / ₂ 190.5	20 9.1
1 ¹¹ / ₁₆	P-LB6927R		3 76.20	9 228.6	7 ³ / ₄ 196.8	10 ⁵ / ₈ 269.9	2 ³ / ₄ 69.8	5 ⁸ / ₁₆ 16	....	1 ¹ / ₈ 28.6	4 ¹ / ₂ 114.3	5 ⁷ / ₈ 149.2	1 ¹⁵ / ₃₂ 37.3	7 ⁷ / ₈ 200.0	23 10.4
1 ¹⁵ / ₁₆ 2	P-LB6931R P-LB6932R	22311LBK	3 ¹ / ₄ 82.55	9 ¹ / ₂ 241.3	8 ¹ / ₈ 206.4	11 279.4	3 ¹ / ₈ 79.4	5 ⁸ / ₁₆ 16	....	1 ³ / ₁₆ 30.2	4 ³ / ₄ 120.6	6 ⁵ / ₁₆ 160.3	1 ¹ / ₁₆ 39.7	8 ¹ / ₂ 215.9	28 12.7
2 ³ / ₁₆	P-LB6935R P-LB6935FR		3 ¹ / ₂ 88.90	11 279.4	9 ⁵ / ₈ 244.5	13 330.2	3 ¹ / ₂ 88.9	3 ⁴ / ₈ 20 16	 2 50.8	1 ¹ / ₄ 31.8	5 ¹ / ₄ 133.4	7 177.8	1 ²³ / ₃₂ 43.7	9 ⁵ / ₈ 244.5	41 18.6
2 ⁷ / ₁₆ 2 ¹ / ₂	P-LB6939R P-LB6939FR P-LB6940R P-LB6940FR	22315LBK	4 101.60	11 ⁵ / ₈ 295.3	10 ³ / ₈ 263.5	13 ³ / ₄ 349.2	3 ⁷ / ₈ 98.4	3 ⁴ / ₈ 20 16	 2 ¹ / ₈ 54.0	1 ¹ / ₁₆ 33.3	5 ⁷ / ₈ 149.2	7 ¹⁵ / ₁₆ 201.6	1 ¹⁵ / ₁₆ 49.2	10 ¹ / ₂ 266.7	52 23.6
2 ¹¹ / ₁₆	P-LB6943R P-LB6943FR		4 ¹ / ₄ 107.95	12 ⁵ / ₈ 320.7	10 ⁵ / ₈ 269.9	14 ¹ / ₄ 362.0	3 ⁷ / ₈ 98.4	3 ⁴ / ₈ 20 16	 2 ¹ / ₄ 54.0	1 ¹ / ₁₆ 33.3	6 ¹ / ₈ 155.6	8 ³ / ₈ 212.7	2 50.8	11 ¹ / ₄ 285.8	59 26.8
2 ¹⁵ / ₁₆	P-LB6947R P-LB6947FR	22317LBK	4 ¹ / ₂ 114.30	13 ³ / ₈ 333.4	11 ⁵ / ₈ 295.3	15 ¹ / ₄ 387.4	4 ³ / ₈ 111.1	7 ⁵ / ₈ 24 20	 2 ³ / ₈ 60.3	1 ¹ / ₂ 38.1	6 ¹ / ₂ 165.1	8 ⁷ / ₈ 225.4	2 ¹ / ₂ 63.5	11 ³ / ₄ 298.4	71 32.2
3 ³ / ₁₆	SAF22618-303	22318LBK	4 ³ / ₄ 120.65	13 ¹ / ₂ 342.9	12 304.8	15 ¹ / ₂ 393.7	4 ³ / ₈ 111.1	3 ⁴ / ₈ 20	2 ¹ / ₄ 57.2	2 50.8	6 ⁷ / ₈ 174.6	9 ¹ / ₄ 235.0	2 ⁷ / ₃₂ 56.4	12 ¹ / ₄ 311.2	97 44.0
3 ⁷ / ₁₆ 3 ¹ / ₂	SAF22620-307 SAF22620-308	22320LBK	5 ¹ / ₄ 133.35	14 ¹ / ₂ 368.3	13 ³ / ₄ 336.6	16 ¹ / ₂ 419.1	4 ³ / ₄ 120.6	3 ⁴ / ₈ 20	2 ³ / ₄ 69.8	1 ³ / ₄ 44.4	7 ¹ / ₈ 181.0	10 ⁷ / ₁₆ 265.1	2 ⁷ / ₁₆ 61.9	13 ¹ / ₂ 342.9	111 50.3
3 ¹⁵ / ₁₆ 4	SAF22622-315 SAF22622-400		6 152.40	16 406.4	14 ⁵ / ₈ 371.5	18 ⁵ / ₈ 466.7	5 ¹ / ₈ 130.2	7 ⁵ / ₈ 24	3 ¹ / ₄ 82.6	1 ⁷ / ₈ 47.6	7 ³ / ₄ 196.8	11 ¹¹ / ₁₆ 296.9	2 ²¹ / ₃₂ 67.5	14 ¹ / ₂ 368.3	149 67.6
4 ³ / ₁₆	SAF22624-403	22324LBK	6 ⁵ / ₁₆ 160.84	18 ¹ / ₄ 463.6	17 431.8	21 ¹ / ₄ 539.8	6 ¹ / ₄ 158.8	1 24	3 ³ / ₄ 95.2	2 ¹ / ₂ 63.5	8 ³ / ₈ 212.7	12 ¹ / ₂ 317.5	2 ¹³ / ₁₆ 71.4	16 406.4	225 102.1
4 ⁷ / ₁₆	SAF22626-407	22326LBK	6 ¹¹ / ₁₆ 169.86	19 ¹ / ₄ 489.0	17 ³ / ₈ 441.3	22 558.8	6 ¹ / ₄ 158.8	1 24	3 ³ / ₄ 95.2	2 ⁵ / ₈ 66.7	8 ³ / ₄ 222.3	13 ⁵ / ₈ 338.1	3 ⁵ / ₁₆ 84.1	17 431.8	228 103.5
4 ¹⁵ / ₁₆ 5	SAF22628-415 SAF22628-500	22328LBK	7 ¹ / ₁₆ 179.39	21 ⁵ / ₈ 549.3	19 ³ / ₈ 492.1	24 ³ / ₄ 628.6	6 ³ / ₄ 171.4	1 24	4 ¹ / ₄ 108.0	2 ³ / ₄ 69.8	9 ⁵ / ₈ 244.5	14 ³ / ₁₆ 360.4	3 ¹ / ₄ 82.6	18 457.2	330 149.7
5 ³ / ₁₆	SAF22630-503		7 ¹ / ₂ 190.50	23 ³ / ₈ 600.1	20 ⁷ / ₈ 530.2	26 ³ / ₄ 679.4	7 ¹ / ₈ 181.0	1 24	4 ⁵ / ₈ 117.5	3 76.2	9 ³ / ₄ 247.6	14 ⁷ / ₈ 377.8	3 ⁷ / ₁₆ 87.3	18 ³ / ₄ 476.2	375 170.1
5 ⁷ / ₁₆	SAF22632-507	22332LBK	7 ⁷ / ₈ 200.02	24 ³ / ₈ 619.1	21 ⁵ / ₈ 549.3	28 711.2	7 ¹ / ₂ 190.5	1 ¹ / ₄ 30	4 ¹ / ₂ 114.3	3 ¹ / ₈ 79.4	10 ³ / ₄ 273.0	15 ¹¹ / ₁₆ 398.5	3 ⁵ / ₈ 92.1	20 ¹ / ₂ 520.7	430 195.0
5 ¹⁵ / ₁₆	SAF22634-515	22334LBK	8 ¹ / ₄ 209.55	25 635.0	22 ¹ / ₂ 571.5	29 ¹ / ₂ 749.3	8 203.2	1 ¹ / ₄ 30	5 127.0	3 ³ / ₈ 85.7	11 ¹ / ₄ 285.8	16 ¹ / ₂ 419.1	3 ³ / ₄ 95.2	22 ¹ / ₄ 565.2	515 233.6

Please consult for availability.

Lubrication fitting tap size: for 2¹¹/₁₆" and smaller shafts, 1/8" PT; for all other shafts, 1/4" PT.

* Expansion type block provides 3/8" (9.5 mm) total axial movement. Fixed bearing is offset in relation to housing centerline.

** Drain plug tap size: for 2¹¹/₁₆" (70 mm) and smaller shafts, 1/8" PT; for all other shafts, 1/4" PT.

■ Recommended dimension from bearing centerline to shaft face for closed end unit. Minimum extension of shaft beyond locknut, .06 inch.

● Recommended dimension for cap removal.

Selection guide, pages E-7, E-8.

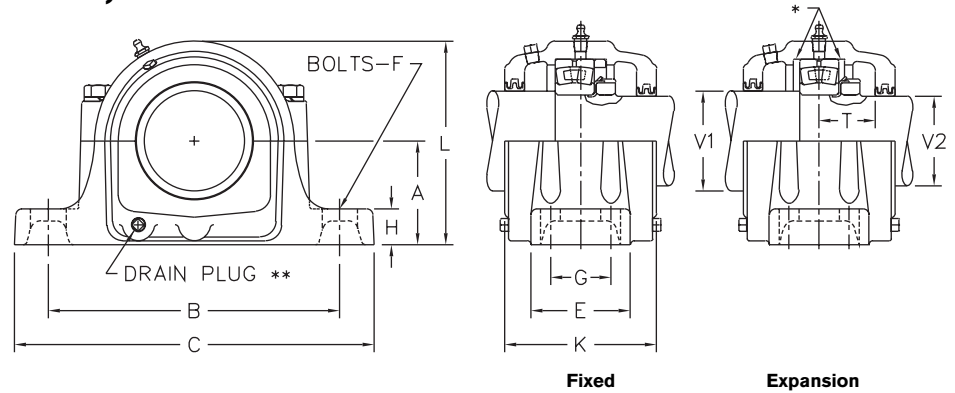
Load ratings, pages E-13, E-14.

Additional information, page E-34.

Spherical Roller Bearing Pillow Blocks

P-LB7900R, P-LB7900FR, SAF22300

Two-piece Cast Iron Housing
2 or 4-bolt Base
Fixed or Expansion
Self-aligning
Direct Shaft Mounted
Grease or Oil Lubrication



Dimensions (inches/mm)

Bearing bore diameter	Shaft diameter		Pillow block number ▲	Bearing number	A	B		C	E	F Bolts	G	H	K	L	T ■	P	Unit wt. (lbs./kgs.)
	V1	V2				max.	min.										
1.7717 45.000	2 1/8	1 1/16	P-LB7945R	22309LB	2 3/4 69.85	8 203.2	7 1/4 184.2	9 5/8 244.5	2 3/4 69.8	5/8 16	....	1 25.4	4 1/8 104.8	5 3/8 136.5	1 1/16 33.3	7 1/2 190.5	18 8.2
1.9685 50.000	2 3/8	1 7/8	P-LB7950R	22310LB	3 76.20	9 228.6	7 3/4 196.8	10 5/8 269.9	2 3/4 69.8	5/8 16	....	1 1/8 28.6	4 1/2 114.3	5 7/8 149.2	1 15/32 37.3	7 7/8 200.0	22 10.0
2.1654 55.000	2 9/16	2 1/16	P-LB7955R	22311LB	3 1/4 82.55	9 1/2 241.3	8 1/8 206.4	11 279.4	3 1/8 79.4	5/8 16	....	1 3/16 30.2	4 3/4 120.6	6 5/16 160.3	1 1/16 39.7	8 1/2 215.9	27 12.2
2.5591 65.000	3 1/16	2 7/16	P-LB7965R P-LB7965FR	22313LB	3 1/2 88.90	11 279.4	9 5/8 244.5	13 330.2	3 1/2 5/8 88.9	3/4 20 16	 50.8	1 1/4 31.8	5 1/4 133.4	7 177.8	1 23/32 43.7	9 5/8 244.5	39 17.7
2.9528 75.000	3 7/16	2 13/16	P-LB7975R P-LB7975FR	22315LB	4 101.60	11 5/8 295.3	10 3/8 263.5	13 3/4 349.2	3 7/8 98.4	3/4 20 16	 54.0	1 5/16 33.3	5 7/8 149.2	7 15/16 201.6	1 15/16 49.2	10 1/2 266.7	50 22.7
3.1496 80.000	3 5/8	3	P-LB7980R P-LB7980FR	22316LB	4 1/4 107.95	12 5/8 320.7	10 3/8 269.9	14 1/4 362.0	3 7/8 98.4	3/4 20 16	 54.0	1 5/16 33.3	6 1/8 155.6	8 3/8 212.7	2 50.8	11 1/4 285.8	58 26.3
3.3465 85.000	3 15/16	3 3/16	P-LB7985R P-LB7985FR	22317LB	4 1/2 114.30	13 1/8 333.4	11 1/8 295.3	15 1/4 387.4	4 3/8 111.1	7/8 24 20	 60.3	1 1/2 38.1	6 1/2 165.1	8 7/8 225.4	2 1/2 63.5	11 3/4 298.4	71 32.2
3.5433 90.000	4 1/8	3 3/8	SAF22318	22318LB	4 3/4 120.65	13 1/2 342.9	12 304.8	15 1/2 393.7	4 3/8 111.1	3/4 20	2 1/4 57.2	2 50.8	6 7/8 174.6	9 3/16 233.4	2 7/32 56.4	12 1/4 311.2	94 42.6
3.9370 100.000	4 1/2	3 13/16	SAF22320	22320LB	5 1/4 133.35	14 1/2 368.3	13 3/4 336.6	16 1/2 419.1	4 3/4 120.6	3/4 20	2 3/4 69.8	1 3/4 44.4	7 1/8 181.0	10 7/16 265.1	2 7/16 61.9	13 1/2 342.9	118 53.6
4.3307 110.000	4 7/8	4 3/16	SAF22322	22322LB	6 152.40	16 406.4	14 3/8 371.5	18 3/8 466.7	5 1/8 130.2	7/8 24	3 1/4 82.6	1 7/8 47.6	7 3/4 196.8	11 11/16 296.9	2 21/32 67.5	14 1/2 368.3	147 66.7
4.7244 120.000	5 1/16	4 9/16	SAF22324	22324LB	6 5/16 160.34	18 1/4 463.6	17 431.8	21 1/4 339.8	6 1/4 158.8	1 24	3 3/4 95.2	2 1/2 63.5	8 3/8 212.7	12 1/2 317.5	2 13/16 71.4	16 406.4	215 97.5
5.1181 130.000	5 7/8	4 15/16	SAF22326	22326LB	6 11/16 169.86	19 1/4 489.0	17 3/8 441.3	22 558.8	6 1/4 158.8	1 24	3 3/4 95.2	2 5/8 66.7	8 3/4 222.3	13 5/16 338.1	3 5/16 84.1	17 431.8	215 97.6
5.5118 140.000	6 1/4	5 5/16	SAF22328	22328LB	7 1/16 179.39	21 5/8 549.3	19 3/8 492.1	24 3/4 628.6	6 3/4 171.4	1 24	4 1/4 108.0	2 3/4 69.8	9 3/8 238.1	14 3/16 360.4	3 1/4 82.6	18 457.2	320 145.2
5.9055 150.000	6 3/8	5 3/4	SAF22330	22330LB	7 1/2 190.50	23 3/8 600.1	20 7/8 530.2	26 3/4 679.4	7 1/8 181.0	1 24	4 3/8 117.5	3 76.2	9 3/4 247.6	14 7/8 377.8	3 7/16 87.3	18 3/4 476.2	350 158.8
6.2992 160.000	7	6 1/16	SAF22332	22332LB	7 7/8 200.02	24 3/8 619.1	21 3/8 549.3	28 711.2	7 1/2 190.5	1 1/4 30	4 1/2 114.3	3 1/8 79.4	10 3/4 273.0	15 11/16 398.5	3 3/8 92.1	20 1/2 520.7	410 186.0
6.6929 170.000	7 7/16	6 7/16	SAF22334	22334LB	8 1/4 209.55	25 635.0	22 1/2 571.5	29 1/2 749.3	8 203.2	1 1/4 30	5 127.0	3 3/8 85.7	11 1/4 285.8	16 1/2 419.1	3 3/4 95.2	22 1/4 565.2	485 220.2

Please consult for availability.

Lubrication fitting tap size: for 3.1496" (80 mm) and smaller bores, 1/8" PT; for all other bores, 1/4" PT.

* Expansion type block provides 5/8" (9.5 mm) total axial movement. Fixed bearing is offset in relation to housing centerline.

** Drain plug tap size: for 3.1496" (80 mm) and smaller bores, 1/8" PT; for 3.346" (85 mm) through 4.3307" (110 mm) bores, 1/4" PT; for 4.7244" (120 mm) through 6.2992" (160 mm) bores, 3/8" PT; for all other bores, 1/2" PT.

■ Recommended dimension from bearing centerline to shaft face for closed end unit. Minimum extension of shaft beyond locknut, .06 inch.

▲ SAF pillow blocks include locknut and lockwasher, for P-LB pillow blocks with locknut and lockwasher add suffix "T2" ie P-LB7945RT2.

Selection guide, pages E-7, E-8. Load ratings, pages E-13, E-14.

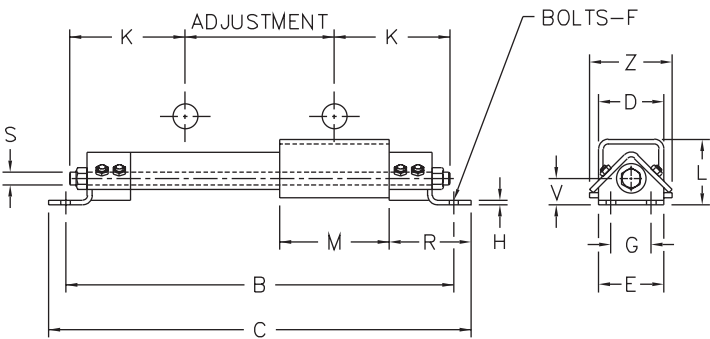
Additional information, page E-34.

Recommended bearing seat diameters, pages F-11, F-12.

Spherical Roller Bearing Takeups

LHD Type (Bearing Unit Not Included)

Welded Steel Frame
Protected Screw
P-LB6800 Bearing Unit Pillow Block
P-LB7800 Pillow Block



Shaft Sizes		Takeup frame number	Adjust- ment	B	C	D	E	F Bolts	G	H	K	L	M	R	S rod dia.	V	Z
inches	mm																
17/16 thru 23/16	...	LHD20-12	12	29	31	4	5	5/8	2 1/2	1/4	8 1/2	5 1/4	11	4	3/4	2	6 1/4
		LHD20-18	18	35	37												
		LHD20-24	24	41	43												
		LHD20-30	30	47	49												
		LHD20-36	36	53	55												
		LHD20-48	48	65	67												
27/16 thru 3	75 thru 85	LHD25-12	12	32 3/4	35 1/4	5	5 1/2	5/8	3	3/8	10 3/8	6 1/4	13 1/4	5	1	2 9/16	7 1/8
		LHD25-18	18	38 3/4	41 1/4												
		LHD25-24	24	44 3/4	47 1/4												
		LHD25-30	30	50 3/4	53 1/4												
		LHD25-36	36	56 3/4	59 1/4												
		LHD25-48	48	68 3/4	71 1/4												
33/16	90	LHD30-12	12	35 1/2	38 3/4	6	6 1/2	3/4	3	1/2	11 3/4	7	14 1/4	6	1	2 1/2	9
		LHD30-18	18	41 1/2	44 1/4												
		LHD30-24	24	47 1/2	50 1/4												
		LHD30-30	30	53 1/2	56 1/4												
		LHD30-36	36	59 1/2	62 1/4												
		LHD30-48	48	71 1/2	74 1/4												
37/16 thru 3 1/2	100	LHD35-12	12	37 1/4	40	6	6 1/2	3/4	3	1/2	12 5/8	7	16	6	1 1/4	2 1/2	9
		LHD35-18	18	43 3/4	46												
		LHD35-24	24	49 3/4	52												
		LHD35-30	30	55 1/4	58												
		LHD35-36	36	61 1/4	64												
		LHD35-48	48	73 3/4	76												
311/16 thru 4 1/2	110 thru 130	LHD40-12	12	41 1/4	44	7	6 1/2	3/4	3	1/2	14 5/8	7	20	6	1 1/2	2 1/2	9
		LHD40-18	18	47 1/4	50												
		LHD40-24	24	53 3/4	56												
		LHD40-30	30	59 3/4	62												
		LHD40-36	36	65 1/4	68												
		LHD40-48	48	77 3/4	80												
415/16 thru 57/16	140 thru 160	LHD50-12	12	47	49 1/2	8 1/2	7	7/8	4	1/2	17 1/2	7 3/4	23 1/2	6 3/4	1 1/2	3 3/8	11 1/4
		LHD50-18	18	53	55 1/2												
		LHD50-24	24	59	61 1/2												
		LHD50-30	30	65	67 1/2												
		LHD50-36	36	71	73 1/2												
		LHD50-48	48	83	85 1/2												

Bold face items are normally available from stock; please consult for availability of non-stock items.
Takeup frames can be furnished drilled to accommodate pillow block; order takeup frame drilled for " " pillow block, i.e. LHD25-12 drilled for P-LB6839R.
For load ratings, see rating table for pillow block to be used.
Additional information, page E-34.

Spherical Roller Bearing Takeups

DS-LB6800

Welded Steel Frame

Hinged Top

Protected Screw

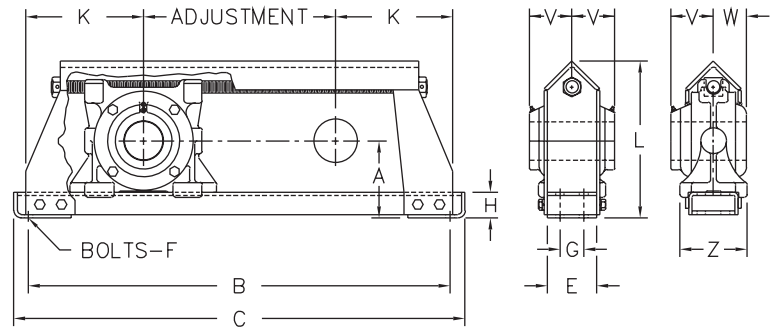
Cast Iron Bearing Housing

Self-aligning

Tapered Adapter Mounted

Independently Flushable Seals

TD-LB6800D8 Takeup Unit



Shaft diameter	Adjustment #	Takeup number	Bearing number	A	B	C	E	F Bolts	G	H	K	L	V	W	Z	Unit Wt. (lbs./kgs.)
27/16	12	DS-LB6839-12 DS-LB6839-18 DS-LB6839-24 DS-LB6839-30	22215LBK	5 1/8	30 1/2	32 1/2	4	5/8	2	2	9 1/4	10 7/8	3 15/32	2 19/32	5 5/8	94
	18			130.2	36 1/2	38 1/2										103
	24				42 1/2	44 1/2										111
	30				48 1/2	50 1/2										119
	304.8				774.7	825.5										42.6
	457.2				927.1	977.9										46.7
2 15/16	609.6	DS-LB6847-12 DS-LB6847-18 DS-LB6847-24 DS-LB6847-30	22217LBK	5 5/8	32	34 1/4	4	3/4	2	2	10	11 13/16	3 1/2	2 5/8	5 5/8	120
	762.0			142.9	38	40 1/4										130
					44	46 1/4										145
					50	52 1/4										155
	304.8				812.8	870.0										54.4
	457.2				965.2	1022.4										59.0
3 7/16	609.6	DS-LB6855-12 DS-LB6855-18 DS-LB6855-24 DS-LB6855-30	22220LBK	7	36	38 1/2	5	3/4	2 1/2	2 1/4	12	14 11/16	4 1/8	3 1/4	6 7/8	206
	762.0			177.8	42	44 1/2										218
					48	50 1/2										230
					54	56 1/2										242
	304.8				914.4	977.9										93.4
	457.2				1066.8	1130.3										98.9
3 15/16	609.6	DS-LB6863-12 DS-LB6863-18 DS-LB6863-24 DS-LB6863-30	22222LBK	7 1/2	36	38 1/2	5	3/4	2 1/2	2 1/4	12	15 11/16	4 3/8	3 1/2	6 7/8	255
	762.0			190.5	42	44 1/2										270
					48	50 1/2										285
					54	56 1/2										300
	304.8				914.4	977.9										115.7
	457.2				1066.8	1130.3										122.5
4 7/16	609.6	DS-LB6871-18 DS-LB6871-24 DS-LB6871-30	22226LBK	10	47	50 1/2	6	7/8	3	4	14 1/2	20 1/4	4 7/8	3 3/4	7 7/8	414
	762.0			254.0	53	56 1/2										432
					59	62 1/2										450
					1193.8	1282.7										187.8
	304.8				1346.2	1435.1										196.0
	457.2				1498.6	1587.5										204.1
4 15/16	609.6	DS-LB6879-18 DS-LB6879-24 DS-LB6879-30	22228LBK	10 1/2	49	52 1/2	6	1	3	4	15 1/2	21 1/8	4 3/4	3 27/32	7 7/8	475
	762.0			266.7	55	58 1/2										494
					61	64 1/2										515
					1244.6	1333.5										215.5
	304.8				1397.0	1485.9										224.1
	457.2				1549.4	1638.3										233.6
5 15/16	609.6	DS-LB6895-18 DS-LB6895-24 DS-LB6895-30 DS-LB6895-42	22234LBK	12 1/8	55 7/8	60 1/4	7 1/2	1 1/4	3 3/4	4	18 15/16	25 1/2	5 33/64	4 1/2	9 7/8	708
	762.0			308.0	61 7/8	66 1/4										726
					67 7/8	72 1/4										746
					79 7/8	84 1/4										784
	304.8				1419.2	1530.4										321.1
	457.2				1571.6	1682.8										329.3
5 1/2	609.6				1724.0	1835.2	190.5	30	95.2	101.6	481.0	647.7	140.1	114.3	250.8	338.4
	1066.8				2028.8	2140.0										355.6

Bold face items are normally available from stock; please consult for availability of non-stock items.

Expansion types block provides 3/8" (9.5 mm) total axial movement. Fixed bearing is offset in relation to housing bore centerline.

Standard seal arrangement, D8 type.

4" channel (Dim E) has removable top construction (see page D-23).

Takeups with adjustment of 18" (457.2 mm) or more have center supporting pad welded to bottom of frame.

Selection guide, page E-7, E-8.

Load ratings, page E-9.

Additional information, page E-34.

Nomenclature

Series 6600, 6800, 6900, 7600, 7800, 7900

Pillow blocks

Symbol	Description	P	E - LB	79	65	F	B	C	-T2/	3
BP	Pillow block; two-piece; black Rilsan nylon II coated	}	}	}	}	}	}	}	}	}
P	Pillow block; two-piece									
PK	Pillow block; two-piece cast steel housing (66, 68, 76 and 78 series)									
E	Expansion Mounting									
LB	Spherical roller bearing									
66	Adapter mounted with 23000LBK bearing			}	}	}	}	}	}	}
68	Adapter mounted with 22200LBK bearing									
69	Adapter mounted with 22300LBK bearing									
76	Direct shaft mounted with 23000LB bearing									
78	Direct shaft mounted with 22200LB bearing									
79	Direct shaft mounted with 22300LB bearing									
M	Metric bore adapter mount									
39	Shaft diameter in 16ths of an inch — adapter mounted			}	}	}	}	}	}	}
65	Inner ring bore in millimeters — direct shaft mounted									
60	Shaft diameter in millimeters — adapter mounted									
F	Four bolt base pillow block									
None	"T" Water seals	}	}	}	}	}	}	}	}	}
D5	Pentac™ 5-point seals									
D8	Independently flushable seal									
B	Felt contact seal									
R	Multi-labyrinth seal									
C	Closed end unit									
T2	Locknut and washer included (76, 78, 79 series)									
2	Internal clearance less than C0	}	}	}	}	}	}	}	}	}
0	Basic C0 internal clearance									
None	Internal clearance greater than C0 (standard)									
4	Internal clearance greater than C3									

Takeups

Symbol	Description	DS	E	LB	68	39	C	12
DS	Takeup, welded steel frame, hinged top							
E	Expansion unit							
LB	Spherical roller bearing							
68	Adapter mounted with 22200LBK bearing							
39	Shaft diameter in 16ths of an inch — adapter mounted							
None	D8 independently flushable seal (standard)							
C	Closed end unit							
12	Takeup adjustment, inches							

The nomenclature shown is provided to identify the basic and optional features of bearing and mounted unit assemblies. The most commonly specified variations are listed; however, availability of all variations cannot be assumed. Link-Belt Bearing Division, Rexnord Corp. should be consulted regarding optional features, availability, and the application requirements.

Nomenclature

Series SAF22600, SAF22300

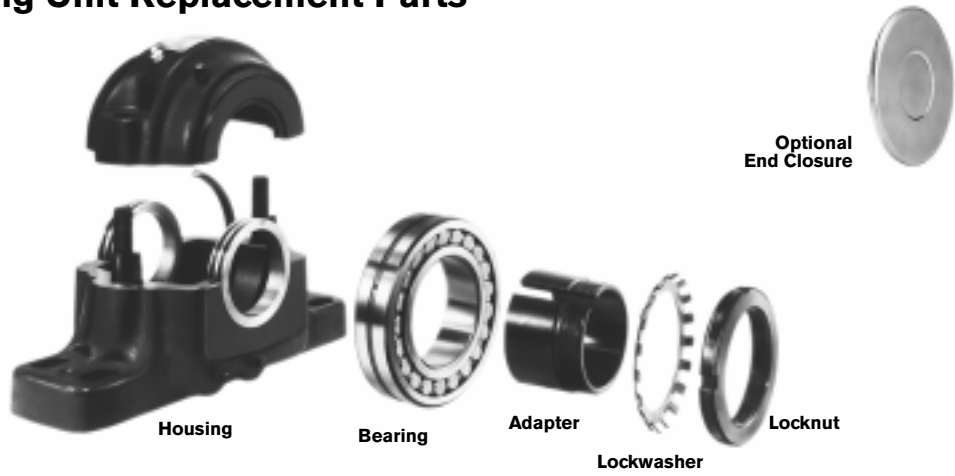
Pillow blocks

Symbol	Description	F	SAF	226	17	-215 /
F	Four bolt base					
SAF	Pillow block; two-piece; inch series; labyrinth seal					
None	Gray Iron	} Housing Material				
S	Cast Steel					
None	Fixed Unit — Furnish with spacer ring	}				
E	Expansion Unit					
223	Direct shaft mounted with 22300LB spherical roller bearing	}				
226	Adapter mounted with 22300LBK spherical roller bearing					
17	One-fifth bearing bore diameter in mm					
C	Closed end unit					
T	Lockwasher and locknut <i>NOT INCLUDED</i> (22300 Series)					
None	Direct shaft mounted shaft size	}				
215	Adapter mounted shaft size in inch and 1/16, i.e., 215 is 2 ¹⁵ / ₁₆ inch shaft size					
2	Internal clearance less than C0	} Radial Clearance				
0	Basic internal clearance					
None	Internal clearance greater than C0 (standard)					
4	Internal clearance greater than C3					

The nomenclature shown is provided to identify the basic and optional features of bearing and mounted unit assemblies. The most commonly specified variations are listed; however, availability of all variations cannot be assumed. Link-Belt Bearing Division, Rexnord Corp. should be consulted regarding optional features, availability, and the application requirements.

Spherical Roller Bearing Unit Replacement Parts

Series 6600, 6800



Pillow block number ▲	Shaft diameter inches	Spherical roller bearing number	Labyrinth seal number ■	Adapter assembly number	C-spacer number	End closure ‡	Housing number ▲ (Bearing and adapter assembly not included)
P-LB6823R	17/16	22209LBK/W33/C3	LB6923-3R	H309023	6824-4	LB6924-6R	P-LB6823R-02
P-LB6824R	1 1/2		LB6924-3R	H309024			P-LB6824R-02
P-LB6827R	1 11/16		LB6927-3R	H310027			P-LB6827R-02
P-LB6828R	1 3/4	22210LBK/W33/C3	LB6928-3R	H310028	6828-4	LB6928-6R	P-LB6828R-02
P-LB6831R	1 15/16		LB6931-3RA	H311031			P-LB6831R-02
P-LB6832R	2		LB6932-3R	H311032			P-LB6832R-02
P-LB6835R	2 3/16	22211LBK/W33/C3	LB6935-3RA	H313035	6932-4	LB6936-6R	P-LB6835R-02
P-LB6839R*	2 7/16		LB6839-3RA	H315039			P-LB6839R-02*
P-LB6843R*	2 11/16		LB6843-3RA	H316043			P-LB6843R-02*
P-LB6847R*	2 15/16	22217LBK/W33/C3	LB6847-3RA	H317047	6848-4	LB6848-6R	P-LB6847R-02*
P-LB6848R*	3		LB6848-3R	H318051			P-LB6848R-02*
P-LB6851R*	3 3/16		LB6851-3R	H320055			P-LB6851R-02*
P-LB6855R*	3 7/16	22220LBK/W33/C3	LB6855-3RA	H320056	6856-4	LB6856-6R	P-LB6855R-02*
P-LB6856R*	3 1/2		LB6856-3R	H322063			P-LB6856R-02*
P-LB6859FR	3 11/16		LB6859-3R	H322064			P-LB6859FR-02
P-LB6863FR	3 15/16	22222LBK/W33/C3	LB6863-3RA	H3124067	6864-4	LB6864-6R	P-LB6863FR-02
P-LB6864FR	4		LB6864-3R	H3126071			P-LB6864FR-02
P-LB6867FR	4 3/16		LB6867-3R	H3126072			P-LB6867FR-02
P-LB6871FR	4 7/16	22226LBK/W33/C3	LB6871-3RA	H3128079	6872-4	LB6872-6R	P-LB6871FR-02
P-LB6872FR	4 1/2		LB6872-3R	H3128080			P-LB6872FR-02
P-LB6879FR	4 15/16		LB6879-3R	H3130083			P-LB6879FR-02
P-LB6880FR	5	22228LBK/W33/C3	LB6880-3R	H3132087	6880-4	LB6880-6R	P-LB6880FR-02
P-LB6883FR	5 3/16		LB6883-3R	H3134095			P-LB6883FR-02
P-LB6887FR	5 7/16		LB6887-3R	H3134096			P-LB6887FR-02
P-LB6895FR	5 15/16	22234LBK/W33/C3	LB6895-3R	H3136103	6896-4	LB6896-6R	P-LB6895FR-02
P-LB6896FR	6		LB6896-3R	H3136104			P-LB6896FR-02
P-LB68103FR	6 7/16		LB68103-3R	H3138111			P-LB68103FR-02
P-LB68104FR	6 1/2	22236LBK/W33/C3	LB68104-3R	H3138112	68104-4	LB68104-6R	P-LB68104FR-02
P-LB68111FR	6 15/16		LB68111-3R	H3140115			P-LB68111FR-02
P-LB68112FR	7		LB68112-3R	H3144120			P-LB68112FR-02
P-LB68115FR	7 3/16	22240LBK/W33/C3	LB68115-3R	H3144127	68116-4	LB68116-6R	P-LB68115FR-02
P-LB68120FR	7 1/2		LB68120-3R	SNW44-7 1/2			P-LB68120FR-02
P-LB68127FR	7 15/16		LB68127-3R	SNW44-7 15/16			P-LB68127FR-02
P-LB68128FR	8	23048LBK/W33/C3	LB68128-3R	SNW44-8	66144-4	LB66144-6R	P-LB68128FR-02
P-LB66135FR	8 7/16		LB66135-3R	SNP3048-8 7/16			P-LB66135FR-02
P-LB66136FR	8 1/2		LB66136-3R	SNP3048-9 1/2			P-LB66136FR-02
P-LB66144FR	9	23056LBK/W33/C3	LB66144-3R	SNP3048-9	66168-4	LB66152-6R	P-LB66144FR-02
P-LB66B151FR	9 7/16		LB66B151-3R	SNP3056-9 7/16			P-LB66B151FR-02
P-LB66B152FR	9 1/2		LB66B152-3R	SNP3056-9 1/2			P-LB66B152FR-02
P-LB66159FR	9 15/16		LB66159-3R	SNP3056-9 15/16		LB66160-6R	P-LB66159FR-02
P-LB66160FR	10		LB66160-3R	SNP3056-10			P-LB66160FR-02
P-LB66167FR	10 7/16		LB66167-3R	SNP3056-10 7/16			P-LB66167FR-02
P-LB66168FR	10 1/2		LB66168-3R	SNP3056-10 1/2		LB66168-6R	P-LB66168FR-02

▲ For variations in type of housing, use prefix:

P—pillow block, cast iron

PK —pillow block, cast steel, 4-bolt base

E —Expansion mounting; C-spacer not required.

■ Labyrinth seals, suffix R, are furnished unless otherwise specified. For optional seals, use suffix B for contact type (4 halves required).

‡ Closed end unit (suffix C) requires one seal and one end closure.

* 2-bolt base listed. For 4-bolt base add suffix F; i.e., P-LB6839FR pillow block or P-LB6839FR-02 housing.

For construction features, use suffix:

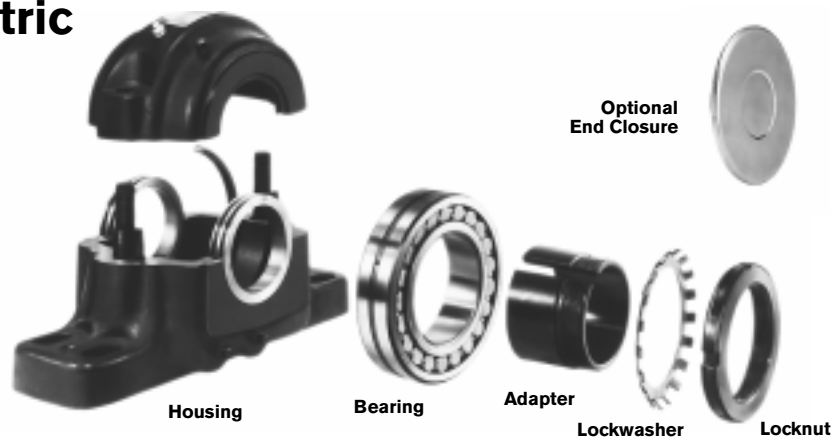
F — 4-bolt base pillow block

M4 — Cast steel housing material.

C — End closure included

Spherical Roller Bearing Unit Replacement Parts

Series 66M00, 68M00 Metric



Pillow block number	Shaft diameter mm	Spherical roller bearing number	Labyrinth seal number	Adapter assembly number	C-spacer number	End closure ‡	Housing number ▲ (Bearing and adapter assembly not included)
P-LB68M40R	40	22209LBK/W33/C3	LB69M40-3R	H309	6824-4	LB6928-6R	P-LB68M40R-02
P-LB68M45R	45	22210LBK/W33/C3	LB69M45-3R	H310	6828-4	LB6928-6R	P-LB68M45R-02
P-LB68M50R	50	22211LBK/W33/C3	LB69M50-3R	H311	6924-4	LB6932-6R	P-LB68M50R-02
P-LB68M60R	60	22213LBK/W33/C3	LB69M60-3R	H313	6932-4	LB69M60-6R	P-LB68M60R-02
P-LB68M65R*	65	22215LBK/W33/C3	LB68M65-3R	H315	6840-4	LB68M65-6R	P-LB68M65R-02*
P-LB68M70R*	70	22216LBK/W33/C3	LB68M70-3R	H316	6844-4	LB6844-6R	P-LB68M70R-02*
P-LB68M75R*	75	22217LBK/W33/C3	LB68M75-3R	H317	6948-4	LB6848-6R	P-LB68M75R-02*
P-LB68M80R*	80	22218LBK/W33/C3	LB68M80-3R	H318	6852-4	LB6852-6R	P-LB68M80R-02*
P-LB68M90R*	90	22220LBK/W33/C3	LB68M90-3R	H320	6856-4	LB6856-6R	P-LB68M90R-02*
P-LB68M100FR	100	22222LBK/W33/C3	LB6863-3R	H322	6864-4	LB6864-6R	P-LB68M100FR-02
P-LB68M110FR	110	22224LBK/W33/C3	LB68M110-3R	H3124	6868-4	LB6872-6R	P-LB68M110FR-02
P-LB68M115FR	115	22226LBK/W33/C3	LB68M115-3R	H3126	6872-4	LB6872-6R	P-LB68M115FR-02
P-LB68M125FR	125	22228LBK/W33/C3	LB68M125-3R	H3128	6880-4	LB6880-6R	P-LB68M125FR-02
P-LB68M135FR	135	22230LBK/W33/C3	LB68M135-3R	H3130	6884-4	LB6884-6R	P-LB68M135FR-02
P-LB68M140FR	140	22232LBK/W33/C3	LB68M140-3R	H3132	6892-4	LB6888-6R	P-LB68M140FR-02
P-LB68M150FR	150	22234LBK/W33/C3	LB68M150-3R	H3134	6896-4	LB6896-6R	P-LB68M150FR-02
P-LB68M160FR	160	22236LBK/W33/C3	LB68M160-3R	H3136	68104-4	LB68104-6R	P-LB68M160FR-02
P-LB68M170FR	170	22238LBK/W33/C3	LB68M170-3R	H3138	68112-4	LB68112-6R	P-LB68M170FR-02
P-LB68M180FR	180	22240LBK/W33/C3	LB68M180-3R	H3140	68116-4	LB68116-6R	P-LB68M180FR-02
P-LB68M200FR	200	22244LBK/W33/C3	LB68M200-3R	H3144	68128-4	LB68128-6R	P-LB68M200FR-02
P-LB66M220FR	220	23048LBK/W33/C3	LB66M220-3R	H3048	66144-4	LB66144-6R	P-LB66M220FR-02
P-LB66M260FR	260	23056LBK/W33/C3	LB66M260-3R	H3056	66168-4	LB66168-6R	P-LB66M260FR-02

▲ For variations in type of housing, use prefix:

P—pillow block, cast iron

PK — pillow block, cast steel, 4-bolt base

E —Expansion mounting; C-spacer not required.

‡ Closed end unit (suffix C) requires one seal and one end closure.

* 2-bolt base listed. For 4-bolt base add suffix F; i.e., P-LB68M65FR pillow block or P-LB68M65FR-02 housing.

P-LB68M40R-02

For construction features, use suffix:

F — 4-bolt base pillow block

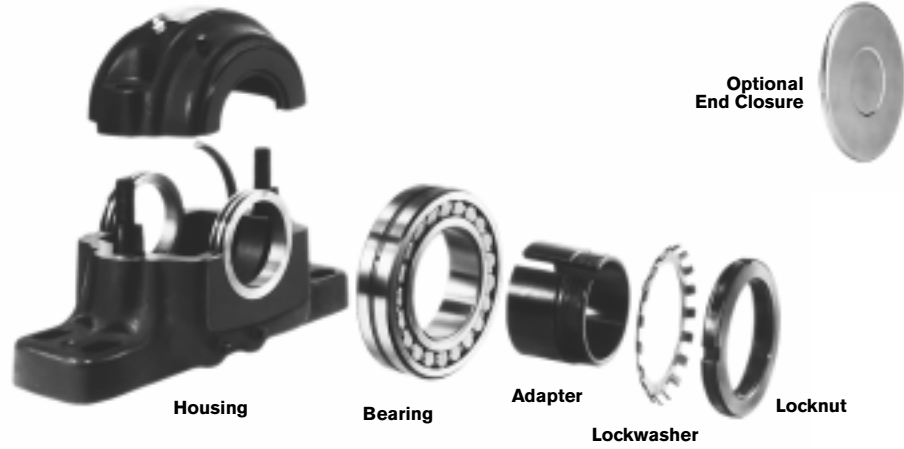
M4 — Cast steel housing material.

C — End closure included

Spherical Roller Bearing Unit Replacement Parts

Series P-LB6900,

SAF22600



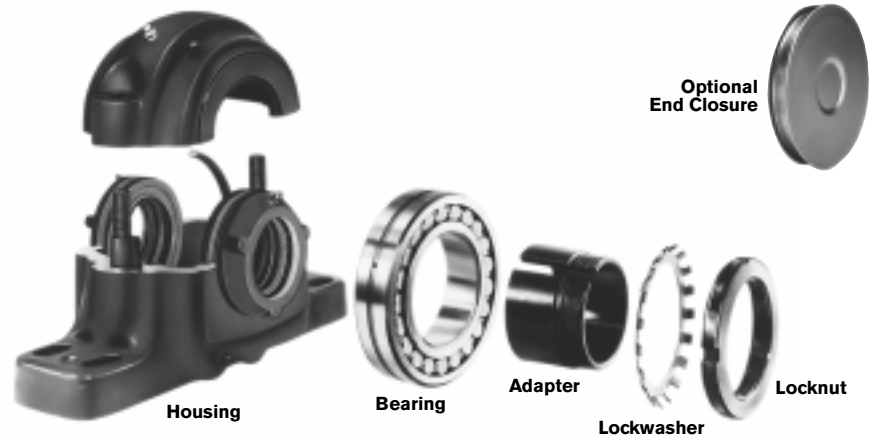
Pillow block number	Shaft diameter inches	Spherical roller bearing number	Labyrinth seal number	Adapter assembly number	C-spacer number	End closure ‡	Housing number ▲ (Bearing and adapter assembly not included)
P-LB6923R	1 ⁷ / ₁₆ }	22309LBK/W33/C3	{ LB6923-3R	SNW109-1 ⁷ / ₁₆ }	6924-4	LB6924-6R	P-LB6923R-02
P-LB6924R	1 ¹ / ₂ }		{ LB6924-3R	SNW109-1 ¹ / ₂ }			P-LB6924R-02
P-LB6927R	1 ¹¹ / ₁₆ }	22310LBK/W33/C3	{ LB6927-3R	SNW110-1 ¹¹ / ₁₆ }	6928-4	LB6928-6R	P-LB6927R-02
P-LB6931R	1 ¹⁵ / ₁₆ }		{ LB6931-3RA	SNW111-1 ¹⁵ / ₁₆ }			P-LB6931R-02
P-LB6932R	2 }	22311LBK/W33/C3	{ LB6932-3R	SNW111-2 }	6932-4	LB6932-6R	P-LB6932R-02
P-LB6935R*	2 ³ / ₁₆ }	22313LBK/W33/C3	{ L6935-3R	SNW113-2 ³ / ₁₆ }	6844-4	LB6936-6R	P-LB6935R-02*
P-LB6939R*	2 ⁷ / ₁₆ }		{ LB6839-3RA	SNW115-2 ⁷ / ₁₆ }			P-LB6939R-02*
P-LB6940R*	2 ¹ / ₂ }	22315LBK/W33/C3	{ LB6840-3R	SNW115-2 ¹ / ₂ }	6852-4	LB6840-6R	P-LB6940R-02*
P-LB6943R*	2 ¹¹ / ₁₆ }	22316LBK/W33/C3	{ LB6843-3RA	SNW116-2 ¹¹ / ₁₆ }	6944-4	LB6844-6R	P-LB6943R-02*
P-LB6947R*	2 ¹⁵ / ₁₆ }	22317LBK/W33/C3	{ L6947-3R	SNW117-2 ¹⁵ / ₁₆ }	6856-4	LB6848-6R	P-LB6947R-02*
SAF22618-303	3 ³ / ₁₆ }	22318LBK/W33/C3	{ LB6851-3R	SNW118-3 ³ / ₁₆ }	L6956-4	LB6852-6R	SAF618-303-02
SAF22620-307	3 ⁷ / ₁₆ }		{ LB6855-3RA	SNW120-3 ⁷ / ₁₆ }			SAF620-307-02
SAF22620-308	3 ¹ / ₂ }	22320LBK/W33/C3	{ LB6856-3R	SNW120-3 ¹ / ₂ }	6868-4	LB6856-6R	SAF620-308-02
SAF22622-315	3 ¹⁵ / ₁₆ }		{ LB6863-3RA	SNW122-3 ¹⁵ / ₁₆ }			SAF622-315-02
SAF22622-400	4 }	22322LBK/W33/C3	{ LB6864-3R	SNW122-4 }	6964-4	LB6864-6R	SAF622-400-02
SAF22624-403	4 ³ / ₁₆ }	22324LBK/W33/C3	{ LB6867-3R	SNW124-4 ³ / ₁₆ }	L6968-4	LB6868-6R	SAF624-403-02
SAF22626-407	4 ⁷ / ₁₆ }	22326LBK/W33/C3	{ LB6871-3RA	SNW126-4 ⁷ / ₁₆ }	L6972-4	LB6872-6R	SAF626-407-02
SAF22628-415	4 ¹⁵ / ₁₆ }		{ LB6879-3R	SNW128-4 ¹⁵ / ₁₆ }			SAF628-415-02
SAF22628-500	5 }	22328LBK/W33/C3	{ LB6880-3R	SNW128-5 }	L6980-4	LB6880-6R	SAF628-500-02
SAF22630-503	5 ³ / ₁₆ }	22330LBK/W33/C3	{ LB6883-3R	SNW130-5 ³ / ₁₆ }	L6984-4	LB6884-6R	SAF630-503-02
SAF22632-507	5 ⁷ / ₁₆ }	22332LBK/W33/C3	{ LB6887-3R	SNW132-5 ⁷ / ₁₆ }	L6988-4	LB6888-6R	SAF632-507-02
SAF22634-515	5 ¹⁵ / ₁₆ }	22334LBK/W33/C3	{ LB6895-3R	SNW134-5 ¹⁵ / ₁₆ }	L6996-4	LB6896-6R	SAF634-515-02

‡ Closed end unit (suffix C) requires one seal and one end closure.

* 2-bolt base listed. For 4-bolt base add suffix F; i.e., P-LB6935FR pillow block or P-L6935FR-02 housing.

Spherical Roller Bearing Unit Replacement Parts

Series 6600D8, 6800D8



Pillow block number ▲	Shaft diameter inches	Spherical roller bearing number	Type DB Seal assembly number	Adapter assembly number	C-spacer number	End closure ‡	Housing number ▲ (Bearing and adapter assembly not included)
P-LB6823D8	1 ¹ / ₁₆	22209LBK/W33/C3	LB6923D8	SNW09-1 ¹ / ₁₆	6824-4	LB6924D8-6	P-LB6823D8-02
P-LB6824D8	1 ¹ / ₂		LB6924D8	SNW09-1 ¹ / ₂			P-LB6824D8-02
P-LB6827D8	1 ¹¹ / ₁₆	22210LBK/W33/C3	LB6927D8	SNW10-1 ¹¹ / ₁₆	6828-4	LB6928D8-6	P-LB6827D8-02
P-LB6831D8	1 ¹⁵ / ₁₆		LB6931D8	SNW11-1 ¹⁵ / ₁₆	6924-4	LB6932D8-6	P-LB6831D8-02
P-LB6832D8	2	22213LBK/W33/C3	LB6932D8	SNW11-2	6932-4	LB6936D8-6	P-LB6832D8-02
P-LB6835D8	2 ³ / ₁₆		LB6935D8	SNW13-2 ³ / ₁₆			P-LB6835D8-02
P-LB6839D8*	2 ⁷ / ₁₆	22215LBK/W33/C3	LB6839D8	SNW15-2 ⁷ / ₁₆	6840-4	LB6840D8-6	P-LB6839D8-02*
P-LB6843D8*	2 ¹¹ / ₁₆		LB6843D8	SNW16-2 ¹¹ / ₁₆	6844-4	LB6840D8-6	P-LB6843D8-02*
P-LB6847D8*	2 ¹⁵ / ₁₆	22217LBK/W33/C3	LB6847D8	SNW17-2 ¹⁵ / ₁₆	6848-4	LB6848D8-6	P-LB6847D8-02*
P-LB6848D8*	3		LB6848D8	SNW17-3			P-LB6848D8-02*
P-LB6851D8*	3 ¹ / ₁₆	22218LBK/W33/C3	LB6851D8	SNW18-3 ¹ / ₁₆	6852-4	LB6852D8-6	P-LB6851D8-02*
P-LB6855D8*	3 ⁷ / ₁₆		LB6855D8	SNW20-3 ⁷ / ₁₆	6856-4	LB6856D8-6	P-LB6855D8-02*
P-LB6856D8*	3 ¹ / ₂	22220LBK/W33/C3	LB6856D8	SNW20-3 ¹ / ₂			P-LB6856D8-02*
P-LB6859FD8	3 ¹¹ / ₁₆		LB6859D8	SNW22-3 ¹¹ / ₁₆	6864-4	LB6868D8-6	P-LB6859FD8-02
P-LB6863FD8	3 ¹⁵ / ₁₆	22222LBK/W33/C3	LB6863D8	SNW22-3 ¹⁵ / ₁₆			P-LB6863FD8-02
P-LB6867FD8	4 ³ / ₁₆		LB6867D8	SNW24-4 ³ / ₁₆	6868-4	LB6868D8-6	P-LB6867FD8-02
P-LB6871FD8	4 ⁷ / ₁₆	22226LBK/W33/C3	LB6871D8	SNW26-4 ⁷ / ₁₆	6872-4	LB6880D8-6	P-LB6871FD8-02
P-LB6879FD8	4 ¹⁵ / ₁₆		LB6879D8	SNW28-4 ¹⁵ / ₁₆	6880-4	LB6880D8-6	P-LB6879FD8-02
P-LB6887FD8	5 ¹ / ₁₆	22232LBK/W33/C3	LB6887D8	SNW32-5 ¹ / ₁₆	6892-4	LB6888D8-6	P-LB6887FD8-02
P-LB6895FD8	5 ¹⁵ / ₁₆		LB6895D8	SNW34-5 ¹⁵ / ₁₆	6896-4	LB68104D8-6	P-LB6895FD8-02
P-LB6896FD8	6	22234LBK/W33/C3	LB6896D8	SNW34-6			P-LB6896FD8-02
P-LB68103FD8	6 ⁷ / ₁₆		LB68103D8	SNW36-6 ⁷ / ₁₆	68104-4	LB68104D8-6	P-LB68103FD8-02
P-LB68111FD8	6 ¹⁵ / ₁₆	22238LBK/W33/C3	LB68111D8	SNW38-6 ¹⁵ / ₁₆	68112-4	LB68112D8-6	P-LB68111FD8-02
P-LB68112FD8	7		LB68112D8	SNW38-7			P-LB68112FD8-02
P-LB68120FD8	7 ¹ / ₂	22244LBK/W33/C3	L68120D8	SNW44-7 ¹ / ₂	68128-4	LB68128D8-6	P-LB68120FD8-02
P-LB68127FD8	7 ¹⁵ / ₁₆		L68127D8	SNW44-7 ¹⁵ / ₁₆			P-LB68127FD8-02
P-LB68128FD8	8	23048LBK/W33/C3	L68128D8	SNW44-8	66144-4	LB66144D8-6	P-LB68128FD8-02
P-LB66135FD8	8 ⁷ / ₁₆		LB66135D8	SNP3048-8 ⁷ / ₁₆			P-LB66135FD8-02
P-LB66136FD8	8 ¹ / ₂	23056LBK/W33/C3	LB66136D8	SNP3048-8 ¹ / ₂	66168-4	LB66168D8-6	P-LB66136FD8-02
P-LB66144FD8	9		LB66144D8	SNP3048-9			P-LB66144FD8-02
P-LB66B152FD8	9 ¹ / ₂	23056LBK/W33/C3	LB66152D8	SNP3056-9 ¹ / ₂			P-LB66B152FD8-02
P-LB66168FD8	10 ¹ / ₂		LB66168D8	SNP3056-10 ¹ / ₂			P-LB66168FD8-02

▲ For variations in type of housing, use prefix:

P—pillow block, cast iron

PK—pillow block, cast steel, 4-bolt base

E—Expansion mounting;

‡ Closed end unit (suffix C) requires one seal and one end closure.

* 2-bolt base listed. For 4-bolt base add suffix F; i.e., P-LB6839FD8 pillow block or P-LB6839FD8-02 housing.

P-LB6839 D8-02

For construction features, use suffix:

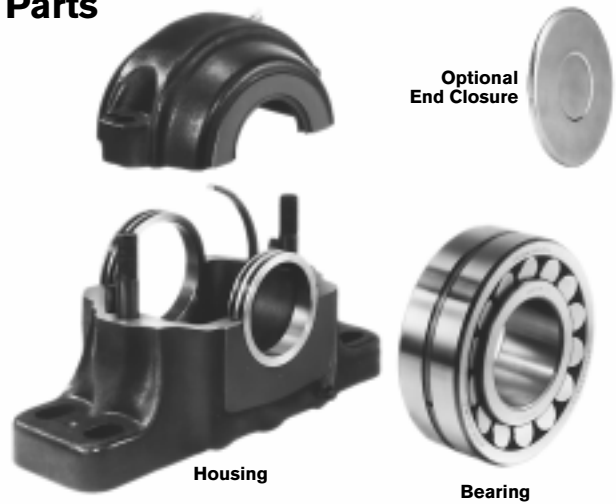
F — 4-bolt base pillow block

M4 — Cast steel housing material.

C-spacer not required.

Spherical Roller Bearing Unit Replacement Parts

Series 7600, 7800, P-LB7900, SAF22300



Series 7600, 7800

Pillow block number	Bore diameter, inches	Spherical roller bearing number	Labyrinth seal number		C-spacer number	End closure ‡	Housing number ▲ (Bearing and adapter assembly not included)
			V1 shaft	V2 shaft			
P-LB7875R*	2.9528	22215LB/W33/C3	L7875-3R1	LB7875-3R2	6840-4	LB6844-6R	P-LB7875R-02*
P-LB7880R*	3.1496	22216LB/W33/C3	L7880-3R1	LB6848-3R	6844-4	LB6848-6R	P-LB7880R-02*
P-LB7885R*	3.3465	22217LB/W33/C3	L7885-3R1	L7885-3R2	6848-4	L7885-6R	P-LB7885R-02*
P-LB7890R*	3.5433	22218LB/W33/C3	LB6866-3R	L7890-3R2	6852-4	LB6852-6R	P-LB7890R-02*
P-LB78100R*	3.9370	22220LB/W33/C3	LB6872-3R	L78100-3R2	6856-4	L78100-6R	P-LB78100R-02*
P-LB78110FR	4.3307	22222LB/W33/C3	LB6878-3R	LB6867-3R	6864-4	LB6868-6R	P-LB78110FR-02
P-LB78120FR	4.7244	22224LB/W33/C3	LB68B85-3R	LB78120-3R2	6868-4	LB6872-6R	P-LB78120FR-02
P-LB78130FR	5.1181	22226LB/W33/C3	L78130-3R1	LB6879-3R	6872-4	LB6880-6R	P-LB78130FR-02
P-LB78140FR	5.5118	22228LB/W33/C3	L78140-3R1	LB68B85-3R	6880-4	LB6884-6R	P-LB78140FR-02
P-LB78150FR	5.9055	22230LB/W33/C3	L78150-3R1	L78150-3R2	6884-4	L78150-6R	P-LB78150FR-02
P-LB78160FR	6.2992	22232LB/W33/C3	LB68112-3R	LB78160-3R2	6892-4	LB6896-6R	P-LB78160FR-02
P-LB78170FR	6.6929	22234LB/W33/C3	L78170-3R1	LB68103-3R	6896-4	LB68104-6R	P-LB78170FR-02
P-LB78180FR	7.0866	22236LB/W33/C3	LB68125-3R	LB68110-3R	68104-4	LB68112-6R	P-LB78180FR-02
P-LB78190FR	7.4803	22238LB/W33/C3	L78190-3R1	LB68116-3R	68112-4	LB68116-6R	P-LB78190FR-02
P-LB78200FR	7.8740	22240LB/W33/C3	L78200-3R1	L78200-3R2	68116-4	L78200-6R	P-LB78200FR-02
P-LB78220FR	8.6614	22244LB/W33/C3	L78220-3R1	L78220-3R2	68128-4	L78220-6R	P-LB78220FR-02
P-LB76240FR	9.4488	23048LB/W33/C3	LB66168-3R	LB76240-3R2	66144-4	LB76240-6R	P-LB76240FR-02
P-LB76280FR	11.0236	23056LB/W33/C3	LB76280-3R1	LB76280-3R2	66168-4	LB76280-6R	P-LB76280FR-02

▲ For variations in type of housing, use prefix:

P—pillow block, cast iron

PK—pillow block, cast steel, 4-bolt base

E—Expansion mounting;

‡ Closed end unit (suffix C) requires one seal and one end closure.

* 2-bolt base listed. For 4-bolt base add suffix F; i.e., P-LB7875FR pillow block or P-LB7875FR-02 housing.

P-LB7875 -02

For construction features, use suffix:

F — 4-bolt base pillow block

M4 — Cast steel housing material.

C-spacer not required.

Series P-LB7900, SAF22300

Pillow block number	Bore diameter, inches	Spherical roller bearing number	Labyrinth seal number		C-spacer number	End closure ‡	Housing number ▲ (Bearing and adapter assembly not included)
			V1 shaft	V2 shaft			
P-LB7945R	1.7717	22309LB/W33/C3	LB6934-3R	LB6927-3R	6924-4	LB6928-6R	P-LB7945R-02
P-LB7950R	1.9685	22310LB/W33/C3	L7950-3R1	LB6930-3R	6928-4	LB6932-6R	P-LB7950R-02
P-LB7955R*	2.1654	22311LB/W33/C3	LB7955-3R1	LB6933-3R	6932-4	LB6936-6R	P-LB7955R-02*
P-LB7965R*	2.5591	22313LB/W33/C3	LB7965-3R1	LB6839-3RA	6844-4	LB6840-6R	P-LB7965R-02*
P-LB7975R*	2.9528	22315LB/W33/C3	L7875-3R1	LB7875-3R2	6852-4	LB6844-6R	P-LB7975R-02*
P-LB7980R*	3.1496	22316LB/W33/C3	L7880-3R1	LB6848-3R	6944-4	LB6848-6R	P-LB7980R-02*
P-LB7985R*	3.3465	22317LB/W33/C3	L7885-3R1	L7885-3R2	6856-4	L7885-6R	P-LB7985R-02*
SAF22318	3.5433	22318LB/W33/C3	LB6866-3R	L7890-3R2	L6956-4	LB6852-6R	SAF318-02
SAF22320	3.9370	22320LB/W33/C3	LB6872-3R	L78100-3R2	6868-4	L78100-6R	SAF320-02
SAF22322	4.3307	22322LB/W33/C3	LB6878-3R	LB6867-3R	6964-4	LB6868-6R	SAF322-02
SAF22324	4.7244	22324LB/W33/C3	LB68B85-3R	LB78120-3R2	L6968-4	LB6872-6R	SAF324-02
SAF22326	5.1181	22326LB/W33/C3	L78130-3R1	LB6879-3R	L6972-4	LB6880-6R	SAF326-02
SAF22328	5.5118	22328LB/W33/C3	L78140-3R1	LB68B85-3R2	L6980-4	LB6884-6R	SAF328-02
SAF22330	5.9055	22330LB/W33/C3	L78150-3R1	L78150-3R2	L6984-4	L78150-6R	SAF330-02
SAF22332	6.2992	22332LB/W33/C3	LB68112-3R	LB78160-3R2	L6988-4	LB6896-6R	SAF332-02
SAF22334	6.6929	22334LB/W33/C3	L78170-3R1	LB68103-3R	L6996-4	LB68104-6R	SAF334-02

‡ Closed end unit (suffix C) requires one seal assembly and one end closure.

* 2-bolt base listed. For 4-bolt base add suffix F; i.e., P-LB7955FR pillow block or P-L7955FR-02 housing.

Additional Information

Series 6600, 6800, 7600, 7800, 22600, 22300

Housing End Closures:

All pillow blocks and takeups are available with standard end closures, designated with the suffix C (i.e. PE-LB6847FRC). The end closure takes the place of one of the seals. For series 7600, 7800 and SAF22300 the end cap fits in the V2 side. On closed end units, shafting should not extend beyond the end of the adapter sleeve or locknut face more than 1/8".

Pillow Block Mounting:

Pillow blocks have cored mounting bolt holes suitable to clear the largest inch or metric bolt shown. Cast slots in pillow blocks are normally 1/16" wider than the specified mounting bolt nominal diameter. It is expected that plain washers will be used under the bolt head to span the slot width and aid torquing. Narrow (N) series washers per ANSI B18.22.1-1981 (previously designated SAE series) are recommended. If wide series washers are used, the full length of the slot may not be usable for positioning the unit.

Replacement Parts:

Bearings and seals can be replaced in these units. Replacement parts are listed on pages E-29 through E-33. When replacing bearings, be sure to use one with the same clearance specification.

Metric locknuts and sleeves have different threads than inch locknuts and sleeves, and are not interchangeable.

Operation:

Units of these series are not prelubricated. The [service instructions packed with each unit of replacement bearing](#) provide guidelines for relubrication intervals and recommended lubricants. The type A or B felt contact seal should be limited to temperature less than 225°F (107°C) and to grease lubrication only.

These pillow blocks are designed for use with grease, static oil or circulating oil lubrication. With circulation systems, the standard drain holes will probably require enlarging.

Where significant thrust loads must be carried by adapter mounted bearings, the use of shaft shoulder rings is recommended to transmit the thrust from the bearings to the shaft. Consult Link-Belt Bearing Division.

Imposed radial loads should not exceed .25C. Where high radial loads, high speeds, thrust loads or vibratory loads are unavoidable, consult the Link-Belt Bearing Division.

Spherical roller bearings with other than standard clearance (C3) are frequently required due to application conditions. The nomenclature page (E-27) shows bearing clearance specifications. Spherical roller bearing clearances are listed on pages F-15 and F-16.

Takeups:

Pillow blocks can be mounted on type LHD universal takeup frames illustrated on page E-25. Protected screw takeups type DS-LB6800 are on page E-26.

Fixed and Expansion Units:

Important: The application of these spherical roller bearing units requires the use of one fixed and one expansion mounting on a shaft. For fixed pillow blocks, spacer rings are used which move the bearing to one side of the pillow block center line. Bearings should be centered in expansion units during mounting unless special application conditions dictate otherwise. To avoid premature failure, care should be taken not to force the bearings to thrust against or away from each other during mounting or operation. Expansion units are designated by adding the prefix "E". Example—PE-LB6863FR.

Shaft Fits and Tolerances:

For direct shaft mounted units Series 7600, 7800, 7900, and 22300 refer to Shaft Bearing Seat Diameters pages F-11 and F-12.

Shaft diameters for V1 and V2 shafts on 7600, 7800, 7900, and 22300 series and for adapter mounted units should be held to the following regular commercial tolerances:

Shaft Diameter	Recommended Tolerance
... through 2"	Nominal to $-.003"$ (-0.07 mm)
2 1/16" through 4"	Nominal to $-.004"$ (-0.10 mm)
4 1/16" through 6"	Nominal to $-.005"$ (-0.13 mm)
6 1/16" through 13"	Nominal to $-.006"$ (-0.15 mm)

Warning:

The correct selection of bearings or mounted units requires that the magnitude and nature of all loads, speeds, alignment, mounting, operating requirements, and maintenance be adequately considered. The selection of materials for and design of housings, shafting, fasteners, seals, and accessories, as well as provisions for installation and maintenance, must follow good engineering principles.

Housings must be selected and installed with regard to the degree and direction of the forces that will occur. Housings

should not be used under tension loads except with adequate safety factors. For this reason pillow blocks are best suited to withstand radial loads passing through the base. When heavy loads or shock loads are possible, it is most important to mount a unit so that the unit is directly and substantially supported other than through its mounting bolts. Where the line of force falls outside the base, such as with horizontal or uplift loads on pillow blocks, serious housing and fastener deflection or failure may occur. These conditions may require designs using different materials, fasteners, mounting

design, stop bars, etc., together with proper safety factors. When these conditions are unavoidable Link-Belt Bearing Division, Rexnord Corp. should be consulted.

Service instructions are provided with shipments of bearings and are available on request. These instructions provide detailed information to aid in the proper installation, operation, and maintenance, and should be carefully read and followed. Failure to do so may result in unsatisfactory service as well as serious personal injury or property damage.

Spherical Roller Bearings

Contents

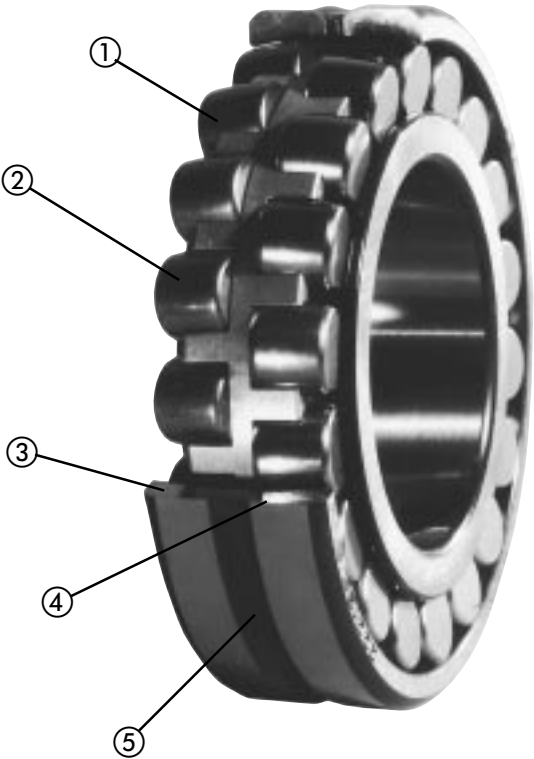
Series 22200, 22300, 23000, 23100, 23200

Introduction	F-1
Selection	F-3
Load Ratings	F-5
Dimensions	F-7
Shaft Diameters	F-11
Housing Diameters	F-13
Radial Clearances	F-15
Additional Information	F-17
Nomenclature	F-18

Series 22200, 22300, 23000 Spherical Roller Bearings

Self-aligning and self-contained spherical roller bearings provide high capacity for heavy-duty and high-precision applications. They are used extensively on earth-moving equipment, vibrating screens, steel mill and paper mill equipment, embossing rolls, printing presses, and torque converters.

- ① Positive roller guidance is provided from rugged retainer design.
- ② Large high-capacity rollers for extended bearing life.
- ③ Controlled raceway curvatures afford precise osculation clearance preventing roller edge loading.
- ④ Micro-finished raceways assure smooth operation.
- ⑤ Outer ring groove and three symmetrically spaced holes for maximum lubrication access.



Spherical Roller Bearings

Series 22200, 22300, 23000

Spherical Roller Bearings

22200LB, 22200LBK

Double-row self-aligning spherical roller bearings with cylindrical or tapered bores for direct shaft mounting. Available with bores from 45 mm, (1.7717") to 220 mm, (8.6614"), inclusive.

22200LBK with Adapter Assembly

Double-row self-aligning spherical roller bearings with tapered bores for adapter mounting. Available for shaft sizes 1 $\frac{7}{16}$ " through 8".

Load ratings on page F-5.

Dimensions on pages F-7 and F-8.

Additional information on page F-17.

Spherical Roller Bearings

22300LB, 22300LBK

Double-row self-aligning spherical roller bearings with cylindrical or tapered bores for direct shaft mounting. Available with bores 40 mm, (1.5748") to 220 mm, (8.6614"), inclusive.

22300LBK with Adapter Assembly

Double-row self-aligning spherical roller bearings with tapered bores for adapter mounting. Available for shaft sizes 1 $\frac{3}{16}$ " through 7 $\frac{5}{16}$ ".

Load ratings on page F-6.

Dimensions on pages F-9 and F-10.

Additional information on pages F-17.

Spherical Roller Bearings

23000LB, 23000LBK

Double-row self-aligning spherical roller bearings with cylindrical or tapered bores for direct shaft mounting. Available with bores from 120 mm, (4.7244") to 300 mm, (11.8110"), inclusive.

23000LBK with Adapter Assembly

Double-row self-aligning spherical roller bearings with tapered bores for adapter mounting. Available for shaft sizes 4 $\frac{3}{16}$ " through 11".

Load ratings, consult Link-Belt Bearings Division.

Dimensions on pages F-9 and F-10.

Additional information on page F-17.

Selection

Series 22200, 22300, 23000

To select a bearing, determine the applied radial load, the applied thrust load, the desired Rating Life, and applicable operating conditions. The procedure shown here will aid in selecting a bearing to meet an L_{10} design life. The formulas for calculating life expectancy should be used to determine the Rating Life L_{10} for the bearing selected. Spherical roller bearings are available in five series with cylindrical bores for direct shaft mounting and tapered bores for direct shaft or

adapter mounting. Bearings in several series may fulfill the L_{10} life requirements. However, speed limit, minimum shaft diameter, thrust load, and space limitations may be determining factors in final selection.

The selection procedures and rating formulas shown here are in agreement with The American Bearing Manufacturers Association Standards and ANSI/ABMA Standards STD 11-1990. Ratings are

based on fatigue life. The Rating Life L_{10} or fatigue life at 90% reliability is the usual basis for bearing selection.

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

Bearing Selection

Step 1 Determine an appropriate L_{10} design life.

Type of service	Operating time, hours per year	Design life, years	L_{10} design life, hours
Heavy seasonal usage	1,400 to 1,600	4-6	8,000
Industrial—8 hour shift	2,000	10	20,000
Industrial—16 hour shift	4,000	10	40,000
Industrial—continuous	8,700	10	80,000 to 100,000
Industrial—High reliability	—	—	120,000 to 300,000

Step 2 Determine a required $\left(\frac{C}{P}\right)$ from Table 1.

Step 3 Calculate the required C and select a spherical roller bearing.

a For radial load only:

$$P = F_r$$

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

Select a spherical roller bearing having a basic load rating C equal to or greater than the required C from the appropriate series.

b For combined radial and thrust loads:

Select a spherical roller bearing with the appropriate characteristics and the desired shaft size, pages F-7 thru F-10.

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

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

Calculate the equivalent radial load P

$$P = XF_r + YF_a$$

If $\frac{F_a}{F_r}$ is equal to or less than e, then $P = X_1F_r + Y_1F_a$

If $\frac{F_a}{F_r}$ is greater than e, then $P = X_2F_r + Y_2F_a$

For values of e, X_1 , Y_1 , X_2 , and Y_2 , consult the appropriate bearing rating tables, pages F-5 and F-6.

Calculate the required C

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

Consult the bearing rating table to see if the selected bearing meets or exceeds the required C. The life expectancy of the selected bearing or other sizes and series of bearings can be calculated.

Selection

Series 22200, 22300, 23000

symbols for formulas:

C = basic load rating, pounds (or newtons)
 C_o = static load rating, pounds (or newtons)
 e = a reference value
 F_a = thrust load, pounds (or newtons)
 F_r = radial load, pounds (or newtons)
 L₁₀ = rating life, hours
 n = speed, revolutions per minute
 P = equivalent radial load, pounds (or newtons)
 X = radial factor
 Y = thrust factor

basic formulas:

$$\left(\frac{C}{P}\right) = \left(\frac{L_{10} \times n \times 60}{1,000,000}\right)^{3/10}$$

$$L_{10} = \frac{\left(\frac{C}{P}\right)^{10/3} \times 1,000,000}{n \times 60}$$

Table 1 • Relation of L₁₀ life and speed to $\left(\frac{C}{P}\right)$

Bearing life, hours L ₁₀	$\left(\frac{C}{P}\right)$ ratio									
	Speed, n									
	50	100	200	300	400	500	600	700	800	
3000	1.93	2.38	2.93	3.31	3.61	3.86	4.07	4.27	4.44	
4000	2.11	2.59	3.19	3.61	3.93	4.20	4.44	4.65	4.84	
5000	2.25	2.77	3.42	3.86	4.20	4.50	4.75	4.97	5.18	
6000	2.38	2.93	3.61	4.07	4.44	4.75	5.02	5.25	5.47	
8000	2.59	3.19	3.93	4.44	4.84	5.18	5.47	5.73	5.96	
10000	2.77	3.42	4.20	4.75	5.18	5.54	5.85	6.12	6.37	
12000	2.93	3.61	4.44	5.02	5.47	5.85	6.18	6.47	6.73	
14000	3.07	3.78	4.65	5.25	5.73	6.12	6.47	6.77	7.05	
16000	3.19	3.93	4.84	5.47	5.96	6.37	6.73	7.05	7.34	
18000	3.31	4.07	5.02	5.66	6.18	6.60	6.97	7.30	7.60	
20000	3.42	4.20	5.18	5.85	6.37	6.81	7.20	7.54	7.85	
25000	3.65	4.50	5.54	6.25	6.81	7.29	7.70	8.06	8.39	
30000	3.86	4.75	5.85	6.60	7.20	7.70	8.13	8.51	8.86	
35000	4.04	4.97	6.12	6.92	7.54	8.06	8.51	8.92	9.28	
40000	4.20	5.18	6.37	7.20	7.85	8.39	8.86	9.28	9.66	
45000	4.36	5.36	6.60	7.46	8.13	8.69	9.18	9.61	10.00	
50000	4.50	5.54	6.81	7.70	8.39	8.97	9.48	9.92	10.30	
60000	4.75	5.85	7.20	8.13	8.86	9.48	10.00	10.50	10.90	
70000	4.97	6.12	7.54	8.51	9.28	9.92	10.50	11.00	11.40	
80000	5.18	6.37	7.85	8.86	9.66	10.30	10.90	11.40	11.90	
90000	5.36	6.60	8.13	9.18	10.00	10.70	11.30	11.80	12.30	
100000	5.54	6.81	8.39	9.48	10.30	11.00	11.70	12.20	12.70	
150000	6.25	7.70	9.48	10.70	11.70	12.50	13.20	13.80	14.40	
200000	6.81	8.39	10.30	11.70	12.70	13.60	14.40	15.00	15.70	
	Speed, n									
	900	1000	1200	1500	1800	2400	3000	3600	6000	
3000	4.60	4.75	5.02	5.36	5.66	6.18	6.60	6.97	8.13	
4000	5.02	5.18	5.47	5.85	6.18	6.73	7.20	7.60	8.86	
5000	5.36	5.54	5.85	6.25	6.60	7.20	7.70	8.13	9.48	
6000	5.66	5.85	6.18	6.60	6.97	7.60	8.13	8.59	10.00	
8000	6.18	6.37	6.73	7.20	7.60	8.29	8.86	9.36	10.90	
10000	6.60	6.81	7.20	7.70	8.13	8.86	9.48	10.00	11.70	
12000	6.97	7.20	7.60	8.13	8.59	9.36	10.00	10.60	12.30	
14000	7.30	7.54	7.96	8.51	8.99	9.80	10.50	11.10	12.90	
16000	7.60	7.85	8.29	8.86	9.36	10.20	10.90	11.50	13.40	
18000	7.88	8.13	8.59	9.18	9.70	10.60	11.30	11.90	13.90	
20000	8.13	8.39	8.86	9.48	10.00	10.90	11.70	12.30	14.40	
25000	8.69	8.97	9.48	10.10	10.70	11.70	12.50	13.20	15.40	
30000	9.18	9.48	10.00	10.70	11.30	12.30	13.20	13.90	16.20	
35000	9.61	9.92	10.50	11.20	11.80	12.90	13.80	14.60	17.00	
40000	10.00	10.30	10.90	11.70	12.30	13.40	14.40	15.20	17.70	
45000	10.40	10.70	11.30	12.10	12.80	13.90	14.90	15.70	18.30	
50000	10.70	11.00	11.70	12.50	13.20	14.40	15.40	16.20	18.90	
60000	11.30	11.70	12.30	13.20	13.90	15.20	16.20	17.10	20.00	
70000	11.80	12.20	12.90	13.80	14.60	15.90	17.00	17.90	20.90	
80000	12.30	12.70	13.40	14.40	15.20	16.50	17.70	18.70	21.80	
90000	12.80	13.20	13.90	14.90	15.70	17.10	18.30	19.40	22.60	
100000	13.20	13.60	14.40	15.40	16.20	17.70	18.90	20.00	23.30	
150000	14.90	15.40	16.20	17.30	18.30	20.00	21.40	22.60	26.30	
200000	16.20	16.70	17.70	18.90	20.00	21.80	23.30	24.60	28.70	

Life Expectancy

To calculate the Rating Life L₁₀ of any selected or trial bearing:

Step 1 Determine the equivalent radial load P.

a For radial load only:

$$P = F_r$$

b For combined radial and thrust load:

$$P = XF_r + YF_a$$

If $\frac{F_a}{F_r}$ is equal to or less than e, then

$$P = X_1F_r + Y_1F_a$$

If $\frac{F_a}{F_r}$ is greater than e, then

$$P = X_2F_r + Y_2F_a$$

For values of e, X₁, Y₁, X₂, and Y₂, consult the appropriate bearing rating table, pages F-5 thru F-6.

Step 2 Calculate the ratio of the basic load rating C to the equivalent radial load.

$$\frac{C}{P}$$

Step 3 Approximate the bearing life from Table 1.

Life Adjustment

The Rating Life, L₁₀, may be modified for some applications in accordance with the formula

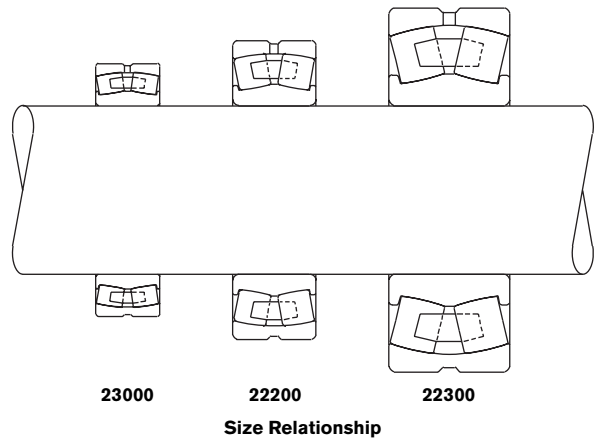
$$L'_n = a_1 a_2 a_3 L_{10}$$

where L'_n = Adjusted life for (100-n) % reliability,
 a₁ = Life adjustment factor for reliability
 a₂ = Life adjustment factor for material and processing
 a₃ = Life adjustment factor for operating conditions.

For most normal applications, all factors will be taken as 1, and the Rating Life used as the selection basis or life estimate. In addition, as long as standard catalog bearings are used, a₂ will be normally set equal to one. The factor a₃ covers such things as lubrication, misalignment, and temperature. Some conditions that could yield a₃ significantly different than unity include speeds less than 20000 DN or greater than 200000 DN, temperatures below -40°F (-40°C) or above 275°F (135°C). For other possible conditions, as well as additional information on life adjustment factors, consult Link-Belt Bearing Division, Rexnord Corp.

Load Ratings

Series 22200LB, 22200LBK



Load ratings and speed limits

Bearing number		C ₀ Static load rating		C Basic load rating		Speed Limit, rpm		e	F _a / F _r ≤ e		F _a / F _r > e	
Cylindrical bore	Tapered bore	newtons	pounds	newtons	pounds	Grease	Oil		X ₁	Y ₁	X ₂	Y ₂
22209LB	22209LBK	105000	23600	92500	20800	5300	6200	.26	1.00	2.6	.67	3.9
22210LB	22210LBK	113000	25500	97900	22000	5000	5500	.26	1.00	2.8	.67	4.2
22211LB	22211LBK	145000	32500	120000	27000	4500	5000	.23	1.00	2.9	.67	4.4
22212LB	22212LBK	180000	40500	151000	34000	4000	4500	.24	1.00	2.8	.67	4.2
22213LB	22213LBK	207000	46500	169000	38000	3800	4300	.24	1.00	2.8	.67	4.2
22214LB	22214LBK	222000	50000	178000	40000	3600	4000	.23	1.00	2.9	.67	4.4
22215LB	22215LBK	236000	53000	185000	41500	3400	3700	.22	1.00	3.1	.67	4.6
22216LB	22216LBK	260000	58500	207000	46500	3200	3500	.22	1.00	3.1	.67	4.7
22217LB	22217LBK	327000	73500	260000	58500	3000	3250	.22	1.00	3.0	.67	4.5
22218LB	22218LBK	363000	81500	285000	64000	2600	3000	.23	1.00	2.9	.67	4.3
22219LB	22219LBK	400000	90000	316000	71000	2400	2900	.24	1.00	2.9	.67	4.3
22220LB	22220LBK	463000	104000	356000	80000	2200	2800	.24	1.00	2.8	.67	4.2
22222LB	22222LBK	587000	132000	454000	102000	2000	2500	.25	1.00	2.7	.67	4.0
22224LB	22224LBK	725000	163000	534000	120000	1900	2300	.25	1.00	2.7	.67	4.0
22226LB	22226LBK	872000	196000	636000	143000	1800	2100	.26	1.00	2.6	.67	3.9
22228LB	22228LBK	1010000	228000	738000	166000	1700	1950	.25	1.00	2.7	.67	4.0
22230LB	22230LBK	1200000	270000	845000	190000	1600	1850	.25	1.00	2.7	.67	4.0
22232LB	22232LBK	1380000	310000	961000	216000	1500	1700	.26	1.00	2.6	.67	3.9
22234LB	22234LBK	1530000	345000	1110000	250000	1300	1600	.26	1.00	2.6	.67	3.9
22236LB	22236LBK	1620000	365000	1130000	255000	1300	1500	.25	1.00	2.7	.67	4.0
22238LB	22238LBK	1850000	415000	1200000	270000	1200	1400	.28	1.00	2.4	.67	3.6
22240LB	22240LBK	2000000	450000	1330000	300000	1100	1300	.29	1.00	2.3	.67	3.5
22244LB	22244LBK	2450000	550000	1620000	365000	1000	1200	.29	1.00	2.3	.67	3.5

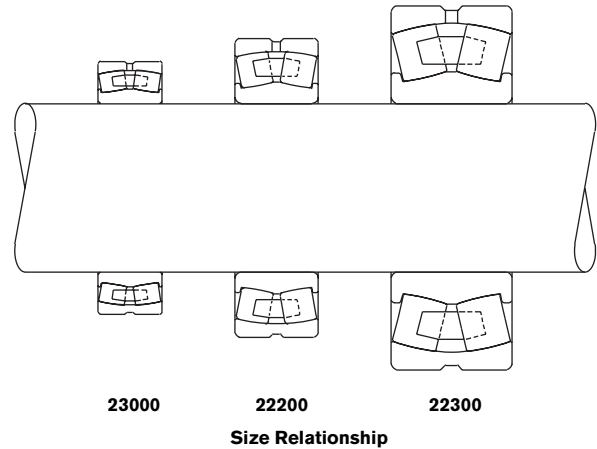
If the load P is greater than .25C, consult Link-Belt Bearing Division, Rexnord Corp.

Speed limits are based on the following:

1. Negligible seal torque (e.g., non-contact seals)
 2. Proper operating internal clearance.
 3. Adequate lubrication and maintenance (special lubricants and/or more frequent relubrication may be required).
 4. Normal room temperature environment and no extraneous heat sources, such that bearing operating temperature does not exceed 100°C (212°F).
 5. Equivalent radial load not greater than 7% of C.
 6. Axial load, if any, not greater than 20% of radial load.
- Additional information, page F-17.

Load Ratings

Series 22300LB, 22300LBK



Load ratings and speed limits

Bearing number		C ₀ Static load rating		C Basic load rating		Speed Limit, rpm		e	F _a / F _r ≤ e		F _a / F _r > e	
Cylindrical bore	Tapered bore	newtons	pounds	newtons	pounds	Grease	Oil		X ₁	Y ₁	X ₂	Y ₂
22308LB	22308LBK	145000	32500	129000	29000	4500	5600	.36	1.00	1.9	.67	2.8
22309LB	22309LBK	178000	40000	158000	35500	3800	4800	.36	1.00	1.9	.67	2.8
22310LB	22310LBK	214000	48000	189000	42500	3600	4300	.36	1.00	1.9	.67	2.8
22311LB	22311LBK	254000	57000	222000	50000	3200	4000	.36	1.00	1.9	.67	2.8
22312LB	22312LBK	302000	68000	260000	58500	3000	3800	.35	1.00	1.9	.67	2.8
22313LB	22313LBK	356000	80000	291000	65500	2600	3400	.34	1.00	2.0	.67	3.0
22314LB	22314LBK	378000	85000	320000	72000	2400	3200	.34	1.00	2.0	.67	3.0
22315LB	22315LBK	436000	98000	369000	83000	2200	3000	.34	1.00	2.0	.67	3.0
22316LB	22316LBK	498000	112000	414000	93000	2000	2800	.34	1.00	2.0	.67	3.0
22317LB	22317LBK	543000	122000	454000	102000	1900	2600	.33	1.00	2.0	.67	3.0
22318LB	22318LBK	623000	140000	507000	114000	1800	2400	.33	1.00	2.0	.67	3.0
22319LB	22319LBK	681000	153000	556000	125000	1800	2400	.33	1.00	2.0	.67	3.0
22320LB	22320LBK	814000	183000	649000	146000	1700	2200	.34	1.00	2.0	.67	3.0
22322LB	22322LBK	1050000	236000	801000	180000	1600	2000	.33	1.00	2.1	.67	3.1
22324LB	22324LBK	1160000	260000	907000	204000	1400	1800	.33	1.00	2.1	.67	3.1
22326LB	22326LBK	1360000	305000	1050000	236000	1300	1700	.33	1.00	2.1	.67	3.1
22328LB	22328LBK	1600000	360000	1220000	275000	1100	1500	.34	1.00	2.0	.67	3.0
22330LB	22330LBK	1800000	405000	1380000	310000	1000	1400	.33	1.00	2.0	.67	3.0
22332LB	22332LBK	1890000	425000	1450000	325000	950	1300	.37	1.00	1.8	.67	2.7
22334LB	22334LBK	2110000	475000	1600000	360000	950	1300	.37	1.00	1.8	.67	2.7
22336LB	22336LBK	2360000	530000	1730000	390000	900	1200	.37	1.00	1.8	.67	2.7
22338LB	22338LBK	2540000	570000	1850000	415000	850	1100	.37	1.00	1.8	.67	2.7
22340LB	22340LBK	2800000	630000	2070000	465000	850	1100	.36	1.00	1.9	.67	2.8
22344LB	22344LBK	3340000	750000	2360000	530000	700	900	.35	1.00	2.0	.67	2.9

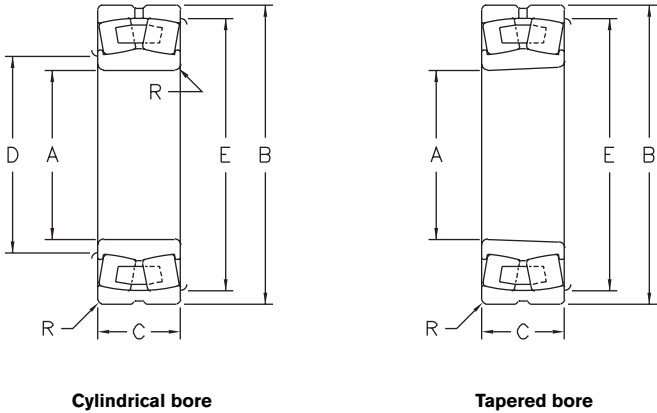
If the load P is greater than .25C, consult Link-Belt Bearing Division, Rexnord Corp.

Speed limits are based on the following:

1. Negligible seal torque (e.g., non-contact seals)
 2. Proper operating internal clearance.
 3. Adequate lubrication and maintenance (special lubricants and/or more frequent relubrication may be required).
 4. Normal room temperature environment and no extraneous heat sources, such that bearing operating temperature does not exceed 100°C (212°F).
 5. Equivalent radial load not greater than 7% of C.
 6. Axial load, if any, not greater than 20% of radial load.
- Additional information, page F-17.

Spherical Roller Bearings
22200LB, 22200LBK

Cylindrical or Tapered Bore
Roller Riding Retainers
Self-aligning
High Capacity



Dimensions

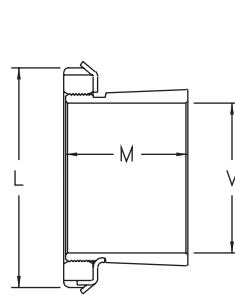
Bearing number		A		B		C		D		E		R		Unit weight
Cylindrical bore	Tapered bore +	Bore diameter		Outside diameter		Width		Shaft shoulder diameter min.		Housing shoulder diameter max.		Housing & shaft fillet radius#		
		mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	
22209LB	22209LBK	45.000	1.7717	85.000	3.3465	23.000	.9055	53	2.1	77	3.0	1.00	.039	1.3
22210LB	22210LBK	50.000	1.9685	90.000	3.5433	23.000	.9055	58	2.3	82	3.2	1.00	.039	1.4
22211LB	22211LBK	55.000	2.1654	100.000	3.9370	25.000	.9843	65	2.6	91	3.6	1.50	.059	1.9
22212LB	22212LBK	60.000	2.3622	110.000	4.3307	28.000	1.1024	70	2.8	101	4.0	1.50	.059	2.6
22213LB	22213LBK	65.000	2.5591	120.000	4.7244	31.000	1.2205	74	2.9	111	4.4	1.50	.059	3.4
22214LB	22214LBK	70.000	2.7559	125.000	4.9213	31.000	1.2205	79	3.1	116	4.6	1.50	.059	3.7
22215LB	22215LBK	75.000	2.9528	130.000	5.1181	31.000	1.2205	84	3.3	121	4.8	1.50	.059	3.9
22216LB	22216LBK	80.000	3.1496	140.000	5.5118	33.000	1.2992	90	3.5	129	5.1	2.00	.079	4.9
22217LB	22217LBK	85.000	3.3465	150.000	5.9055	36.000	1.4173	95	3.7	139	5.5	2.00	.079	6.1
22218LB	22218LBK	90.000	3.5433	160.000	6.2992	40.000	1.5748	100	3.9	149	5.9	2.00	.079	7.6
22219LB	22219LBK	95.000	3.7402	170.000	6.6929	43.000	1.6929	107	4.2	157	6.2	2.00	.079	9.5
22220LB	22220LBK	100.000	3.9370	180.000	7.0866	46.000	1.8110	112	4.4	167	6.6	2.00	.079	11.4
22222LB	22222LBK	110.000	4.3307	200.000	7.8740	53.000	2.0866	122	4.8	187	7.4	2.00	.079	16.6
22224LB	22224LBK	120.000	4.7244	215.000	8.4646	58.000	2.2835	132	5.2	203	8.0	2.00	.079	20.2
22226LB	22226LBK	130.000	5.1181	230.000	9.0551	64.000	2.5197	144	5.7	217	8.5	2.50	.098	25.1
22228LB	22228LBK	140.000	5.5118	250.000	9.8425	68.000	2.6772	154	6.1	236	9.3	2.50	.098	32.4
22230LB	22230LBK	150.000	5.9055	270.000	10.6299	73.000	2.8740	164	6.5	256	10.1	2.50	.098	40.9
22232LB	22232LBK	160.000	6.2992	290.000	11.4173	80.000	3.1496	174	6.9	276	10.9	2.50	.098	52.0
22234LB	22234LBK	170.000	6.6929	310.000	12.2047	86.000	3.3858	188	7.4	293	11.5	3.00	.118	64.6
22236LB	22236LBK	180.000	7.0866	320.000	12.5984	86.000	3.3858	199	7.8	303	11.9	3.00	.118	67.4
22238LB	22238LBK	190.000	7.4803	340.000	13.3858	92.000	3.6220	209	8.2	322	12.7	3.00	.118	81.9
22240LB	22240LBK	200.000	7.8740	360.000	14.1732	98.000	3.8583	218	8.6	342	13.5	3.00	.118	95.0
22244LB	22244LBK	220.000	8.6614	400.000	15.7480	108.000	4.2520	239	9.4	383	15.1	3.00	.118	133.0

Bold face items are normally available from stock; please consult for availability of non-stock items.
+ Tapered bore, 1:12 on diameter.
Largest fillet radius that will clear bearing corners.
Selection guide, pages F-3, F-4.
Load ratings, page F-5.
Additional information, page F-17.
Shaft and housing bearing seat diameters, pages F-11 through F-14.

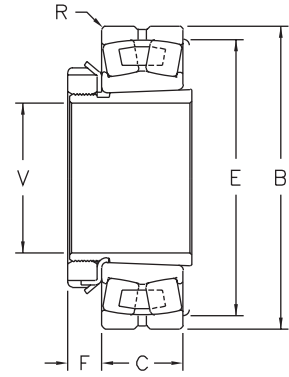
Spherical Roller Bearings

22200LBK

Adapter Mounted
Roller Riding Retainers
Self-aligning
High Capacity



SNW
adapter assembly



Tapered bore bearing with
SNW adapter assembly

Adapter assembly dimensions

Bearing number	Adapter assembly number	V Shaft diameter	L		F		M		Adapter weight
		in.	mm	in.	mm	in.	mm	in.	
Tapered bore +									lbs.
22209LBK	H309023, H309024	1 ⁷ / ₁₆ , 1 ¹ / ₂	65.0	2.56	11.3	.44	39.0	1.54	.7
22210LBK	H310027, H310028	1 ¹¹ / ₁₆ , 1 ³ / ₄	70.0	2.76	12.3	.48	42.0	1.65	.8
22211LBK	H311031, H311032	1 ¹⁵ / ₁₆ , 2	75.0	2.95	12.5	.49	45.0	1.77	.9
22212LBK	.....	....	....	....	....	....	....	....	—
22213LBK	H313035	2 ³ / ₁₆	85.0	3.35	13.5	.53	50.0	1.97	1.5
22214LBK	.....	....	....	....	....	....	....	....	—
22215LBK	H315039	2 ⁷ / ₁₆	95.0	3.86	14.5	.57	55.0	2.16	2.4
22216LBK	H316043	2 ¹¹ / ₁₆	105.0	4.13	16.8	.66	59.0	2.32	2.4
22217LBK	H317047, H317048	2 ¹⁵ / ₁₆ , 3	110.0	4.33	17.8	.70	63.0	2.48	3.0
22218LBK	H318051	3 ³ / ₁₆	120.0	4.72	17.8	.70	65.0	2.56	3.2
22219LBK	SNW19-3 ⁵ / ₁₆	3 ⁵ / ₁₆	125.4	4.94	21.0	.83	70.2	2.77	3.5
22220LBK	H320055, H320056	3 ⁷ / ₁₆ , 3 ¹ / ₂	130.0	5.12	19.8	.78	71.0	2.80	4.4
22222LBK	H322059	3 ¹¹ / ₁₆	145.0	5.71	20.8	.82	74.0	3.03	5.0
22224LBK	H322063, H322064	3 ¹⁵ / ₁₆ , 4							
22226LBK	H3124067	4 ³ / ₁₆							
22228LBK	H3126071, H3126072	4 ⁷ / ₁₆ , 4 ¹ / ₂							
22228LBK	H3128079, H3128080	4 ¹⁵ / ₁₆ , 5	180.0	7.09	24.0	.94	97.0	3.82	10.2
22230LBK	H3130083	5 ³ / ₁₆	195.0	7.68	26.0	1.02	111.0	4.37	13.2
22232LBK	H3132087	5 ⁷ / ₁₆	210.0	8.27	27.5	1.08	119.0	4.68	15.7
22234LBK	H3134095, H3134096	5 ¹⁵ / ₁₆ , 6	220.0	8.66	28.5	1.12	122.0	4.80	17.8
22236LBK	H3136103	6 ⁷ / ₁₆	230.0	9.06	29.5	1.16	131.0	5.16	17.6
22238LBK	H3138111, H3138112	6 ¹⁵ / ₁₆ , 7	240.0	9.45	30.5	1.20	141.0	5.55	18.6
22240LBK	H3140115	7 ³ / ₁₆	250.0	9.84	31.5	1.24	150.0	5.91	30.0
22244LBK	H3144120, H3144127	7 ¹ / ₂ , 7 ¹⁵ / ₁₆	280.0	11.02	35.0	1.38	161.0	6.34	33.0
	SNW44-8	8	279.4	11.00	36.1	1.42	150.0	5.91	31.0

Bold face items are normally available from stock; please consult for availability of non-stock items.

+ Tapered bore, 1:12 on diameter.

Selection guide, pages F-3, F-4.

Load ratings, page F-5.

Additional information, page F-17.

Housing bearing seat diameters, pages F-13 and F-14.

Spherical Roller Bearings

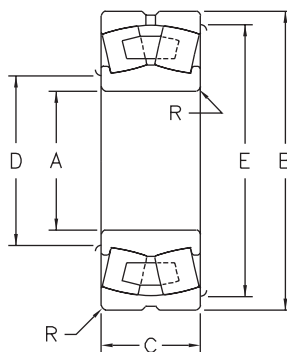
22300LB, 22300LBK, 23000LB, 23000LBK

Cylindrical or Tapered Bore

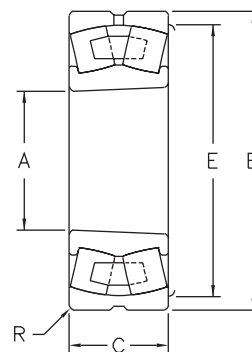
Roller Riding Retainers

Self-aligning

Extra High Capacity



Cylindrical bore



Tapered bore

Dimensions

Bearing number		A		B		C		D		E		R		Unit weight
Cylindrical bore	Tapered bore +	Bore diameter		Outside diameter		Width		Shaft shoulder diameter min.		Housing shoulder diameter max.		Housing & shaft fillet radius#		
		mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.		lbs.
22308LB	22308LBK	40.000	1.5748	90.000	3.5433	33.000	1.2992	49	1.9	81	3.2	1.50	.059	2.8
22309LB	22309LBK	45.000	1.7717	100.000	3.9370	36.000	1.4173	55	2.2	91	3.6	1.50	.059	3.1
22310LB	22310LBK	50.000	1.9685	110.000	4.3307	40.000	1.5748	60	2.4	100	3.9	2.00	.079	4.0
22311LB	22311LBK	55.000	2.1654	120.000	4.7244	43.000	1.6929	66	2.6	110	4.3	2.00	.079	5.2
22312LB	22312LBK	60.000	2.3622	130.000	5.1181	46.000	1.8110	73	2.9	118	4.6	2.00	.079	6.6
22313LB	22313LBK	65.000	2.5591	140.000	5.5118	48.000	1.8898	78	3.1	128	5.0	2.00	.079	7.9
22314LB	22314LBK	70.000	2.7559	150.000	5.9055	51.000	2.0079	83	3.3	138	5.4	2.00	.079	9.8
22315LB	22315LBK	75.000	2.9528	160.000	6.2992	55.000	2.1654	88	3.5	148	5.8	2.00	.079	11.9
22316LB	22316LBK	80.000	3.1496	170.000	6.6929	58.000	2.2835	93	3.7	157	6.2	2.00	.079	14.1
22317LB	22317LBK	85.000	3.3465	180.000	7.0866	60.000	2.3622	100	3.9	166	6.5	2.50	.098	16.3
22318LB	22318LBK	90.000	3.5433	190.000	7.4803	64.000	2.5197	104	4.1	176	6.9	2.50	.098	19.5
22319LB	22319LBK	95.000	3.7402	200.000	7.8740	67.000	2.6378	109	4.3	186	7.3	2.50	.098	22.6
22320LB	22320LBK	100.000	3.9370	215.000	8.4646	73.000	2.8740	115	4.5	201	7.9	2.50	.098	28.9
22322LB	22322LBK	110.000	4.3307	240.000	9.4488	80.000	3.1496	124	4.9	226	8.9	2.50	.098	40.0
22324LB	22324LBK	120.000	4.7244	260.000	10.2362	86.000	3.3858	135	5.3	246	9.7	2.50	.098	49.0
22326LB	22326LBK	130.000	5.1181	280.000	11.0236	93.000	3.6614	149	5.9	262	10.3	3.00	.118	62.5
22328LB	22328LBK	140.000	5.5118	300.000	11.8110	102.000	4.0157	159	6.3	283	11.1	3.00	.118	78.2
22330LB	22330LBK	150.000	5.9055	320.000	12.5984	108.000	4.2520	169	6.6	303	11.9	3.00	.118	92.0
22332LB	22332LBK	160.000	6.2992	340.000	13.3858	114.000	4.4882	180	7.1	322	12.7	3.00	.118	110.0
22334LB	22334LBK	170.000	6.6929	360.000	14.1732	120.000	4.7244	188	7.4	342	13.5	3.00	.118	129.0
22336LB	22336LBK	180.000	7.0866	380.000	14.9606	126.000	4.9606	199	7.8	363	14.3	3.00	.118	153.0
22338LB	22338LBK	190.000	7.4803	400.000	15.7480	132.000	5.1968	213	8.4	379	14.9	4.00	.157	176.0
22340LB	22340LBK	200.000	7.8740	420.000	16.5354	138.000	5.4331	223	8.8	399	15.7	4.00	.157	200.0
22344LB	22344LBK	220.000	8.6614	460.000	18.1102	145.000	5.7087	243	9.6	439	17.3	4.00	.157	287.0
23048LB■	23048LBK■	240.000	9.4488	360.000	14.1732	92.000	3.6220	254	10.0	346	13.6	2.50	.098	74.6
23056LB■	23056LBK■	280.000	11.0236	420.000	16.5354	106.000	4.1732	299	11.8	402	15.8	3.00	.118	117.6
23060LB■	23060LBK■	300.000	11.8110	460.000	18.1102	118.000	4.6457	319	12.6	443	17.4	3.00	.118	163.3

Bold face items are normally available from stock; please consult for availability of non-stock items.

+ Tapered bore, 1:12 on diameter.

Largest fillet radius that will clear bearing corners.

Selection guide, pages F-3, F-4.

Load ratings, page F-6.

■ Load ratings, consult Link-Belt Bearing Division, Rexnord Corp.

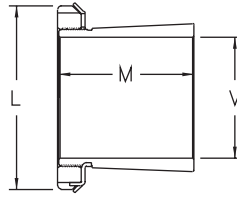
Additional information, page F-17.

Shaft and housing bearing seat diameters, pages F-11 through F-14.

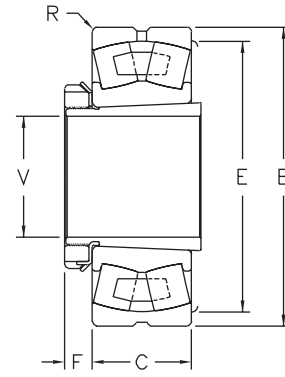
Spherical Roller Bearings

22300LBK, 23000LBK

Adapter Mounted
Roller Riding Retainers
Self-aligning
Extra High Capacity



**SNW
adapter assembly**



**Tapered bore bearing with
SNW adapter assembly**

Adapter assembly dimensions

Bearing number	Adapter assembly number ★	V Shaft diameter		L		F max.		M		Adapter weight
		in.	mm	in.	mm	in.	mm	in.		
Tapered bore +									lbs.	
22308LBK	{	SNW108	1 ³ / ₁₆	57.2	2.25	13.1	.52	51.2	2.02	1.3
22309LBK		H2309023	1 ⁷ / ₁₆	65.0	2.56	11.3	.44	50.0	1.97	1.4
		SNW109	1 ¹ / ₂	64.3	2.53	13.1	.52	54.4	2.14	1.4
22310LBK	{	H2310027	1 ¹ / ₁₆	70.0	2.76	12.3	.48	55.0	2.16	1.8
22311LBK		SNW111	1 ⁵ / ₁₆	75.4	2.97	14.7	.58	63.9	2.52	2.4
		H2311032	2	75.0	2.95	12.5	.49	59.0	2.32	2.4
22312LBK		SNW112	2 ¹ / ₁₆	80.2	3.16	15.5	.61	67.5	2.66	3.0
22313LBK		H2313035	2 ³ / ₁₆	85.0	3.35	13.5	.53	65.0	2.56	3.6
22314LBK		SNW114	2 ⁵ / ₁₆	92.1	3.62	16.3	.64	74.6	2.94	4.4
22315LBK		H2315039, H2315040	2 ⁷ / ₁₆ , 2 ¹ / ₂	95.0	3.86	14.5	.57	73.0	3.87	5.4
22316LBK		H2316043	2 ¹ / ₁₆	105.0	4.13	16.8	.66	78.0	3.07	6.4
22317LBK		H2317047	2 ¹ / ₁₆	110.0	4.33	17.8	.70	82.0	3.23	7.4
22318LBK		H2318051	3 ¹ / ₁₆	120.0	4.72	17.8	.70	86.0	3.39	8.8
22319LBK		SNW119	3 ¹ / ₁₆	125.4	4.94	21.0	.83	94.0	3.70	10.2
22320LBK	{	H2320055	3 ⁷ / ₁₆	130.0	5.12	19.8	.78	97.0	3.82	13.1
		SNW120	3 ¹ / ₂	131.8	5.19	21.8	.86	100.8	3.97	13.1
22322LBK		H2322063	3 ¹⁵ / ₁₆	145.0	5.71	20.8	.82	105.0	3.13	18.1
		SNW122	4	145.2	5.72	23.4	.92	110.3	4.34	18.1
22324LBK		SNW124	4 ³ / ₁₆	155.6	6.12	24.2	.95	117.9	4.64	22.2
22326LBK		SNW126	4 ⁷ / ₁₆	171.4	6.75	25.8	1.02	126.6	4.98	28.3
22328LBK		SNW128	4 ¹⁵ / ₁₆ , 5	180.2	7.09	27.4	1.08	135.3	5.33	35.5
22330LBK		SNW130	5 ³ / ₁₆	195.3	7.69	29.0	1.14	142.9	5.62	41.7
22332LBK		SNW132	5 ⁷ / ₁₆	204.8	8.06	30.6	1.20	150.4	5.92	49.9
22334LBK		SNW134	5 ¹⁵ / ₁₆	219.9	8.66	31.4	1.23	157.2	6.19	58.5
22336LBK		SNW136	6 ⁷ / ₁₆	230.2	9.06	32.1	1.27	163.9	6.45	69.4
22338LBK		SNW138	6 ¹⁵ / ₁₆	240.5	9.47	32.9	1.30	171.4	6.75	79.8
22340LBK		SNW140	7 ³ / ₁₆	250.0	9.84	34.5	1.36	180.2	7.09	90.7
22344LBK		SNW144	7 ¹⁵ / ₁₆	279.4	11.00	36.1	1.42	184.9	7.28	130.2
23048LBK■		SNP3048	8 ⁷ / ₁₆ , 8 ⁵ / ₁₆ ◆	290.5	11.44	44.0	1.73	138.1	5.44	32.0
23056LBK■		SNP3056	9 ¹⁵ / ₁₆ , 10 ¹ / ₂ ◆	330.2	13.00	48.0	1.89	157.2	6.19	45.5
23060LBK■		SNP3060	10 ¹⁵ / ₁₆ , 11	360.4	14.19	51.2	2.02	171.0	6.73	59.0

Please consult for availability.

+ Tapered bore, 1:12 on diameter.

★ Specify shaft size when ordering SNW OR SNP adapter assembly, i.e., SNW108-1³/₁₆.

◆ SNP3048 adapter assemblies also available with 8¹/₂" and 9" bores; SNP3056 adapter assemblies available with 9⁷/₁₆", 9¹/₂" and 10⁷/₁₆" bores.

Selection guide, pages F-3, F-4.

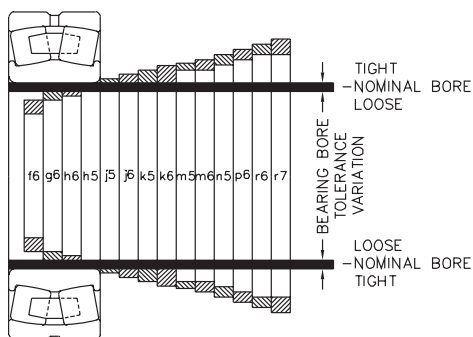
Load ratings, page F-6.

■ Load ratings, consult Link-Belt Bearing Division, Rexnord Corp.

Additional information, page F-17.

Housing bearing seat diameters, pages F-13 and F-14.

Shaft Bearing Seat Diameters For Spherical Roller Bearings



Bearing bore tolerances are in accord with the system of tolerancing established by the International Standards Organization (ISO) and adopted by the American Bearing Manufacturers Association (ABMA) and the American National Standards Institute (ANSI).

A system of limits and fits has been established by ISO for shafts. A portion of this system has been adopted by ABMA to provide flexibility in selecting shaft fits. Shaft fits are designated by a lower case letter and a number, such as h6. The letter indicates the location of the shaft tolerance limits with respect to the nominal bearing bore. The number indicates the size of the tolerance zone.

Many factors influence the proper fit on the bearing inner ring on a shaft. The magnitude of the load and its direction with respect to bearing inner or outer rings are generally the first factors considered in shaft fit selection. The effects of other factors such as vibration, shock, temperature, speed, etc. are of secondary importance but sometimes need to be considered. Where assembly or disassembly requirements are of prime importance special shaft fits may be required.

Appropriate diameter shafting is determined (as shown) from the tables below.

Shaft fits recommended for various types of applications are listed in the table at right. A graphic relationship of various shaft fits is illustrated in the figure at the left.

Class of fit and shaft diameters (inches/ μm)

Bearing series 22200, 22300 23000			Nominal bearing bore and shaft diameter		Bearing bore tolerance □		Bearing/Shaft diameter fits▲									
							f6		g6		h6		h5		j5	
							Tolerance		Tolerance		Tolerance		Tolerance		Tolerance	
							Fit	Shaft Dia.	Fit	Shaft Dia.	Fit	Shaft Dia.	Fit	Shaft Dia.	Fit	Shaft Dia.
Basic size	inches	mm														
08	1.5748	40.000	+0.0000	−0.0005	.0005L	−.0010	.0001T	−.0004	.0005T	+0.0000	.0005T	+0.0000	.0007T	+0.0002		
09	1.7717	45.000			.0016L	−.0016	.0010L	−.0010	.0006L	−.0006	.0004L	−.0004	.0002L	−.0002		
10	1.9685	50.000			13L	−25	3T	−9	12T	+0	12T	+0	18T	+6		
					41L	−41	25L	−25	16L	−16	11L	−11	5L	−5		
11	2.1654	55.000	+0.0000	−0.0006	.0006L	−.0012	.0002T	−.0004	.0006T	+0.0000	.0006T	+0.0000	.0008T	+0.0002		
12	2.3622	60.000			.0019L	−.0019	.0011L	−.0011	.0007L	−.0007	.0005L	−.0005	.0003L	−.0003		
13	2.5591	65.000			15L	−30	5T	−10	15T	+0	15T	+0	21T	+6		
14	2.7559	70.000			49L	−49	29L	−29	19L	−19	13L	−13	7L	−7		
15	2.9528	75.000														
16	3.1496	80.000														
17	3.3465	85.000	+0.0000	−0.0008	.0006L	−.0014	.0003T	−.0005	.0008T	+0.0000	.0008T	+0.0000	.0010T	+0.0002		
18	3.5433	90.000			.0023L	−.0023	.0014L	−.0014	.0009L	−.0009	.0006L	−.0006	.0004L	−.0004		
19	3.7402	95.000			16L	−36	8T	−12	20T	+0	20T	+0	26T	+6		
20	3.9370	100.000			58L	−58	34L	−34	22L	−22	15L	−15	9L	−9		
22	4.3307	110.000														
24	4.7244	120.000														
26	5.1181	130.000	+0.0000	−0.0010	.0006L	−.0016	.0004T	−.0006	.0010T	+0.0000	.....	.....	.0013T	+0.0003		
28	5.5118	140.000			.0026L	−.0026	.0016L	−.0016	.0010L	−.0010				.0005L	−.0004	
30	5.9055	150.000			18L	−43	11T	−14	25T	+0				32T	+7	
32	6.2992	160.000			68L	−68	39L	−39	25L	−25				11L	−11	
34	6.6929	170.000														
36	7.0866	180.000														
38	7.4803	190.000	+0.0000	−0.0012	.0008L	−.0020	.0006T	−.0006	.0012T	+0.0000	.....	.....	.....	.....		
40	7.8740	200.000			.0032L	−.0032	.0018L	−.0018	.0012L	−.0012						
44	8.6614	220.000			20L	−50	15T	−15	30T	+0						
48	9.4488	240.000			79L	−79	44L	−44	29L	−29						
52	10.2362	260.000	+0.0000	−0.0014	.0008L	−.0022	.0007T	−.0007	.0014T	+0.0000	.....	.....	.....	.....		
56	11.0236	280.000			.0034L	−.0034	.0019L	−.0019	.0012L	−.0012						
60	11.8110	300.000			21L	−56	18T	−17	35T	+0						
					88L	−88	49L	−49	32L	−32	.....	.....	.....	.....		

$$1\mu m = .001\text{ mm}$$

■ For solid steel shafts.

★ C = basic load rating of bearing.

□ "The arithmetical mean of the largest and smallest single diameter to be within tolerance shown. Allowable deviations from mean diameter per ANSI/ABMA STD 20, latest printing."

Class of fit selection

Operating condition			Examples	Nominal shaft diameter		Class of fit ■	Remarks
				mm	inches		
Inner ring stationary in relation to direction of load	All loads	Inner ring has to be easily displaced	Wheel on stationary shaft	All diameters		g6	
		Inner ring does not have to be easily displaced	Tension pulleys and rope sheaves			h6	
Direction of load indeterminate or inner ring rotating in relation to direction of load.	Radial load		Electric apparatus, machine tools, pumps, ventilators, industrial trucks,	<=40 40–100 100–200	<=1.57 1.57–3.94 3.94–7.88	j6 k6 m6	When greater accuracy is required, use j5, k5 and m5 for j6, k6, and m6 respectively.
	Light load <=0.08C★						
	Normal load >0.08C★ <=0.18C★		Applications in general, electrical motors, turbines pumps, combustion engines, gear transmissions, woodworking machines	<=40 40–65 65–100 100–140 140–280 280–500 >500	<=1.57 1.57–2.56 2.56–3.94 3.94–5.52 5.52–11.10 11.10–19.7 >19.7	k5 m5 m6 n6 p6 r6 r7	
	Heavy load >0.18C★		Journal boxes for locomotives & other heavy rail vehicles, traction motors	<=40 40–65 65–100 100–140 140–200 >200	<=1.57 1.57–2.56 2.56–3.94 3.94–5.52 5.52–7.88 >7.88	m5 m6 n6 p6 r6 r7	Greater internal clearance may be required

Bearing/Shaft diameter fits▲															
j6		k5		k6		m5		m6		n6		p6		r6	
Tolerance		Tolerance		Tolerance		Tolerance		Tolerance		Tolerance		Tolerance		Tolerance	
Fit	Shaft Dia.	Fit	Shaft Dia.	Fit	Shaft Dia.	Fit	Shaft Dia.	Fit	Shaft Dia.	Fit	Shaft Dia.	Fit	Shaft Dia.	Fit	Shaft Dia.
.0009T .0002L 23T 5L	+0.004 −0.002 +11 −5	.0010T .0001T 25T 2T	+0.005 +0.001 +13 +2	.0012T .0001T 30T 2T	+0.007 +0.001 +18 +2	.0013T .0004T 32T 9T	+0.008 +0.004 +20 +9	.0015T .0004T 37T 9T	+0.010 +0.004 +25 +9	.0018T .0007T 45T 17T	+0.013 +0.007 +33 +17	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....	..... ..... ..... .....
.0010T .0003L 22T 7L	+0.004 −0.003 +12 −7	.0012T .0001T 30T 2T	+0.006 +0.001 +15 +2	.0014T .0001T 36T 2T	+0.008 +0.001 +21 +2	.0016T .0005T 39T 11T	+0.010 +0.005 +24 +11	.0018T .0005T 45T 11T	+0.012 +0.005 +30 +11	.0021T .0008T 54T 20T	+0.015 +0.008 +39 +20	.0027T .0014T 66T 32T	+0.021 +0.014 +51 +32	..... ..... ..... .....	..... ..... ..... .....
.0013T .0004L 33T 9L	+0.005 −0.004 +13 −9	.0015T .0001T 38T 3T	+0.007 +0.001 +18 +3	.0018T .0001T 45T 3T	+0.010 +0.001 +25 +3	.0019T .0005T 48T 13T	+0.011 +0.005 +28 +13	.0022T .0005T 55T 13T	+0.014 +0.005 +35 +13	.0027T .0010T 65T 23T	+0.019 +0.010 +45 +23	.0033T .0016T 79T 37T	+0.025 +0.016 +59 +37	.0037T .0020T 93T 51T	+0.029 +0.020 +73 +51
.0016T .0004L 39T 11L	+0.006 −0.004 +14 −11	.0018T .0001T 46T 3T	+0.008 +0.001 +21 +3	.0021T .0001T 53T 3T	+0.011 +0.001 +28 +3	.0023T .0006T 58T 15T	+0.013 +0.006 +33 +15	.0026T .0006T 65T 15T	+0.016 +0.006 +40 +15	.0032T .0012T 77T 27T	+0.020 +0.011 +52 +27	.0038T .0018T 93T 43T	+0.028 +0.018 +68 +43	.0045T .0025T 115T 65T	+0.035 +0.025 +90 +65
.0019T .0005L 46T 16L	+0.007 −0.005 +16 −16	.0022T .0002T 54T 4T	+0.010 +0.002 +24 +4	.0026T .0002T 63T 4T	+0.014 +0.002 +33 +4	.0026T .0006T 67T 17T	+0.014 +0.006 +37 +17	.0030T .0006T 76T 17T	+0.018 +0.006 +46 +17	.0038T .0014T 90T 31T	+0.026 +0.014 +60 +31	.0044T .0020T 109T 50T	+0.032 +0.020 +79 +50	.0054T .0030T 136T 77T	+0.042 +0.030 +106 +77
.0021T .0006L 51T 16L	+0.007 −0.006 +16 −16	.0025T .0002T 62T 4T	+0.011 +0.002 +27 +4	.0028T .0002T 71T 4T	+0.014 +0.002 +36 +4	.0031T .0008T 78T 20T	+0.017 +0.008 +43 +20	.0034T .0008T 87T 20T	+0.020 +0.008 +52 +20	.0040T .0014T 101T 34T	+0.026 +0.014 +66 +34	.0048T .0022T 123T 56T	+0.034 +0.022 +88 +56	.0061T .0035T 161T 94T	+0.047 +0.035 +126 +94

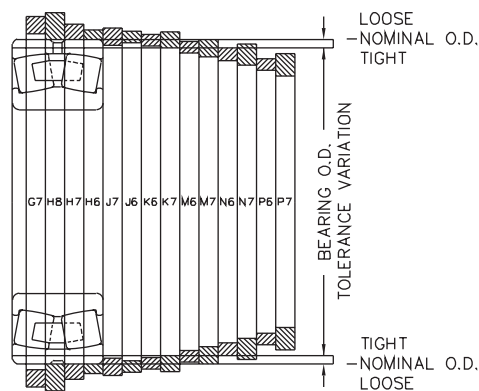
▲ Symbol L indicates a loose or clearance fit; Symbol T indicates a tight or interference fit.

The appropriate shaft diameter for any class of fit can be easily determined by applying the shaft tolerance to the nominal shaft diameter. Example: (Using basic bearing size 08 and fit class f6).

	inches		mm	
Nominal shaft diameter	= 1.5748	1.5748	= 40.000	40.000
Shaft diameter tolerance	= − .0010	− .0016	= − 0.025	− 0.041
Resultant shaft diameter	= 1.5738	1.5732	= 39.975	39.959

Housing Bearing Seat Diameters

For Spherical Roller Bearings



Bearing outside diameter tolerances are in accord with the system of tolerancing established by the International Standards Organization (ISO) and adopted by the American Bearing Manufacturers Association (ABMA) and the American National Standards Institute (ANSI).

A system of limits and fits has been established by ISO for shafts. A portion of this system has been adopted by ABMA to provide flexibility in selecting shaft fits. Housing fits are designated by a capital letter and a number, such as H7. The letter indicates the location of the housing bore tolerance limits with respect to the nominal bearing O.D. The number indicates the size of the tolerance zone.

Housing fits recommended for various types of applications are listed in the table at right. A graphic relationship of various housing fits is illustrated in the figure at the left. The class of

fit is determined by nature of loading (oscillating, vibrating, reversing, etc.), axial movement requirements, temperature conditions, housing material and cross section of housing.

Shaft expansion increases bearing center distances and requires all but one bearing on a shaft to be movable axially in the housing. In most bearings the outer rings are subjected to stationary loads which permit a loose housing fit.

Operating temperature may affect the housing fit, as the housing may dissipate heat rapidly and not expand with the outer ring. However, the loose fit must never be greater than necessary. Excessive looseness results in less accurate shaft centering and additional ring deformation under load.

The appropriate housing bores are determined (as shown) from the tables below.

Class of fit and housing bores (inches/ μm)

Bearing series				Nominal bearing O.D. and housing bore		Bearing O.D. tolerance	Bearing/Shaft diameter fits▲										
							G7		H8		H7		H6		J7		
222	223	230	231			□	Tolerance		Tolerance		Tolerance		Tolerance		Tolerance		
232							Fit	Housing Bore	Fit	Housing Bore	Fit	Housing Bore	Fit	Housing Bore	Fit	Housing Bore	
Basic Size				inches	mm												
09	..	..	..	3.3465	85.000	+0.0000	-0.0006	.0005L	+0.0005	.0000	+0.0000	.0000	+0.0000	.0000	+0.0000	.0005T	-0.0005
10	08	..	..	3.5433	90.000			.00025L	+0.0019	.0028L	+0.0022	.0020L	+0.0014	.0015L	+0.0009	.0015L	+0.0009
11	09	..	..	3.9370	100.000			12L	+12	0	+0	0	+0	0	+0	13T	-13
12	10	..	..	4.3307	110.000			62L	+47	69L	+54	50L	+35	37L	+22	37L	+22
13	11	..	..	4.7244	120.000												
14	..	..	..	4.9312	125.000	+0.0000	-0.0008	.0006L	+0.0006	.0000	+0.0000	.0000	+0.0000	.0000	+0.0000	.0006T	-0.0006
15	12	..	..	5.1181	130.000			.0030L	+0.0022	.0033L	+0.0025	.0024L	+0.0016	.0018L	+0.0010	.0018L	+0.0010
16	13	..	..	5.5118	140.000			14L	+14	0	+0	0	+0	0	+0	14T	-14
17	14	..	..	5.9055	150.000			74L	+54	83L	+63	60L	+40	45L	+25	46L	+26
18	15	..	..	6.2992	165.000	+0.0000	-0.0010	.0006L	+0.0006	.0000	+0.0000	.0000	+0.0000	.0000	+0.0000	.0006T	-0.0006
19	16	..	..	6.6929	170.000			.0032L	+0.0022	.0035L	+0.0025	.0026L	+0.0016	.0020L	+0.0010	.0020L	+0.0010
20	17	24	22	7.0866	180.000			14L	+14	0	+0	0	+0	0	+0	14T	-14
								79L	+54	88L	+63	65L	+40	50L	+25	51L	+26
..	18	..	..	7.4803	190.000	+0.0000	-0.0012	.0006L	+0.0006	.0000	+0.0000	.0000	+0.0000	.0000	+0.0000	.0007T	-0.0007
22	19	26	24	7.8740	200.000			.0036L	+0.0024	.0040L	+0.0028	.0030L	+0.0018	.0024L	+0.0012	.0023L	+0.0011
..	..	28	26	8.2677	210.000			15L	+15	0	+0	0	+0	0	+0	16T	-16
24	20	..	..	8.4646	215.000			97L	+61	102L	+72	76L	+46	59L	+29	60L	+30
..	..	30	28	8.8583	225.000												
26	..	..	..	9.0551	230.000	+0.0000	-0.0014	.0007L	+0.0007	.0000	+0.0000	.0000	+0.0000	.0000	+0.0000	.0007T	-0.0007
..	22	32	..	9.4488	240.000			.0041L	+0.0027	.0044L	+0.0030	.0034L	+0.0020	.0026L	+0.0012	.0027L	+0.0013
28	..	..	30	9.8425	250.000			17L	+17	0	+0	0	+0	0	+0	16T	-16
								104L	+69	116L	+81	87L	+52	67L	+32	71L	+36
..	24	34	..	10.2362	260.000	+0.0000	-0.0016	.0007L	+0.0007	.0000	+0.0000	.0000	+0.0000	.0000	+0.0000	.0007T	-0.0007
30	..	..	32	10.6299	270.000			.0045L	+0.0029	.0051L	+0.0035	.0038L	+0.0022	.0030L	+0.0014	.0031L	+0.0015
..	26	36	34	11.0236	280.000			18L	+18	0	+0	0	+0	0	+0	18T	-18
32	..	38	..	11.4173	290.000			115L	+75	129L	+89	97L	+57	76L	+36	79L	+39
..	28	..	36	11.8110	300.000												
34	..	40	..	12.2047	310.000	+0.0000	-0.0018	.0008L	+0.0008	.0000	+0.0000	.0000	+0.0000	.0000	+0.0000	.0009T	-0.0009
36	30	..	38	12.5984	320.000			.0051L	+0.0033	.0056L	+0.0038	.0043L	+0.0025	.0034L	+0.0016	.0034L	+0.0016
38	32	44	40	13.3858	340.000			20L	+20	0	+0	0	+0	0	+0	20T	-20
40	34	48	..	14.1732	360.000			128L	+83	142L	+97	108L	+63	85L	+40	88L	+43
..	..	..	44	14.5669	370.000												
..	36	..	..	14.9606	380.000	+0.0000	-0.0018	.0008L	+0.0008	.0000	+0.0000	.0000	+0.0000	.0000	+0.0000	.0009T	-0.0009
44	38	52	48	15.7480	400.000			.0051L	+0.0033	.0056L	+0.0038	.0043L	+0.0025	.0034L	+0.0016	.0034L	+0.0016
								20L	+20	0	+0	0	+0	0	+0	20T	-20
								128L	+83	142L	+97	108L	+63	85L	+40	88L	+43
..	40	56	..	16.5354	420.000	+0.0000	-0.0018	.0008L	+0.0008	.0000	+0.0000	.0000	+0.0000	.0000	+0.0000	.0009T	-0.0009
48	..	..	..	17.3228	440.000			.0051L	+0.0033	.0056L	+0.0038	.0043L	+0.0025	.0034L	+0.0016	.0034L	+0.0016
..	44	60	..	18.1102	460.000			20L	+20	0	+0	0	+0	0	+0	20T	-20
								128L	+83	142L	+97	108L	+63	85L	+40	88L	+43

□ "The arithmetical mean of the largest and smallest single diameter to be within tolerance shown. Allowable deviations from mean diameter per ANSI/ABMA STD 20, latest printing."

1 μm = .001 mm

▲ Symbol L indicates a loose or clearance fit. Symbol T indicates a tight or interference fit.

The appropriate housing bore for any class of fit can be easily determined by applying the housing tolerance to the nominal housing bore.

Example: (Using basic bearing size 09 and fit class G7).

		inches		mm	
Nominal housing bore	=	3.3465	3.3465	=	85.000 85.000
Shaft bore tolerance	=	+ .0005	+ .0019	=	+ 0.012 + 0.047
Resultant housing bore	=	3.3470	3.3484	=	85.012 85.047

Class of fit selection

Housing construction	Operating condition		Examples	Class of fit ■	Remarks	
Housing not split radially	Housing rotating in relation to direction of load	Heavy loads on bearings in thin-walled housing	Supporting wheels in cranes, wheel hubs with roller bearings, crank bearings	P6◆	Outer ring not axially displaceable	
		Normal and heavy loads	Wheel hubs with roller bearings, crank bearings	N6◆		
		Light loads	Conveyor rollers, rope sheaves, tension pulleys	M6◆		
	Direction of load indeterminate	Heavy shock loads	Electrical fraction motors	K6◆	Outer ring, as a rule, not axially displaceable	
		Heavy and normal loads where outer ring does not have to be axially displaceable				Electrical motors, pumps, crankshaft main bearings
Housing split or housing not split radially	Housing stationary in relation to direction of load	Normal and light loads where displaceability of outer ring is desirable		J6◆	Outer ring, as a rule, axially displaceable	
		Shock loads, a temporary complete unloading				Journal boxes for rail vehicles
		All loads	Housing not split radially		H6◆	Outer ring easily displaceable axially
			Housing split radially		Line shafting		H7
		Heat supplied through shaft		Dryer cylinders	G7	

Bearing/Housing diameter fits▲															
J6		K6		K7		M6		M7		N6		N7		P7	
Tolerance		Tolerance		Tolerance		Tolerance		Tolerance		Tolerance		Tolerance		Tolerance	
Fit	Housing Bore	Fit	Housing Bore	Fit	Housing Bore	Fit	Housing Bore	Fit	Housing Bore	Fit	Housing Bore	Fit	Housing Bore	Fit	Housing Bore
.0002T	−.0002	.0007T	−.0007	.0010T	−.0010	.0012T	−.0012	.0014T	−.0014	.0016T	−.0016	.0018T	−.0018	.0025T	−.0025
.0013L	+.0007	.0008L	+.0002	.0010L	+.0004	.0003L	−.0003	.0006L	+.0000	.0001T	−.0007	.0002L	−.0004	.0005T	−.0011
6T	−6	18T	−18	25T	−25	28T	−28	35T	−35	38T	−38	45T	−45	59T	−59
31L	+16	19L	+4	25L	+10	9L	−6	15L	+0	1T	−16	5L	−10	9T	−24
.0003T	.0003	.0008T	−.0008	.0011T	−.0011	.0013T	−.0013	.0016T	−.0016	.0019T	−.0019	.0022T	−.0022	.0028T	−.0028
.0015L	.0007	.0010L	+.0002	.0013L	+.0005	.0005L	−.0003	.0008L	+.0000	.0001T	−.0009	.0002L	−.0006	.0004T	−.0012
7T	−7	21T	−21	28T	−28	33T	−33	40T	−40	45T	−45	52T	−52	68T	−68
38L	+18	24L	+4	32L	+12	12L	−8	20L	+0	0T	−20	8L	−12	8T	−28
.0003T	−.0003	.0008T	−.0008	.0011T	−.0011	.0013T	−.0013	.0016T	−.0016	.0019T	−.0019	.0022T	−.0022	.0028T	−.0028
.0017L	+.0007	.0012L	+.0002	.0015L	+.0005	.0007L	−.0003	.0010L	+.0000	.0001L	−.0009	.0004L	−.0006	.0002T	−.0012
7T	−7	21T	−21	28T	−28	33T	−33	40T	−40	45T	−45	52T	−52	68T	−68
43L	+18	29L	+4	37L	+12	17L	−8	25L	+0	5L	−20	13L	−12	3T	−28
.0003T	−.0003	.0010T	−.0010	.0013T	−.0013	.0015T	−.0015	.0018T	−.0018	.0022T	−.0022	.0026T	−.0026	.0032T	−.0032
.0021L	+.0009	.0014L	+.0002	.0017L	+.0005	.0009L	−.0003	.0012L	+.0000	.0002L	−.0010	.0004L	−.0008	.0002T	−.0014
7T	−7	24T	−24	33T	−33	37T	−37	46T	−46	51T	−51	60T	−60	79T	−79
52L	+22	35L	+5	43L	+13	22L	−8	30L	+0	8L	−22	16L	−14	3T	−33
.0003T	−.0003	.0010T	−.0010	.0014T	−.0014	.0016T	−.0016	.0020T	−.0020	.0023T	−.0023	.0028T	−.0028	.0034T	−.0034
.0023L	+.0009	.0016L	+.0002	.0020L	+.0006	.0010L	−.0004	.0014L	+.0000	.0003L	−.0011	.0006L	−.0008	.0000	−.0014
7T	−7	22T	−27	36T	−36	41T	−41	52T	−52	57T	−57	66T	−66	88T	−88
60L	+25	40L	+5	51L	+16	26L	−9	35L	+0	10L	−25	21L	−14	1T	−36
.0003T	−.0003	.0012T	−.0012	.0016T	−.0016	.0018T	−.0018	.0022T	−.0022	.0026T	−.0026	.0030T	−.0030	.0039T	−.0039
.0027L	+.0011	.0018L	+.0002	.0022L	+.0006	.0012L	−.0004	.0016L	+.0000	.0004L	−.0012	.0008L	−.0008	.0001T	−.0017
7T	−7	29T	−29	40T	−40	46T	−46	57T	−57	62T	−62	73T	−73	98T	−98
69L	+29	47L	+7	57L	+17	30L	−10	40L	+0	14L	−26	26L	−16	1T	−41
.0003T	−.0003	.0012T	−.0012	.0018T	−.0018	.0020T	−.0020	.0025T	−.0025	.0028T	−.0028	.0034T	−.0034	.0044T	−.0044
.0031L	+.0013	.0022L	+.0004	.0025L	+.0007	.0014L	−.0004	.0018L	+.0000	.0006L	−.0012	.0009L	−.0009	.0001T	−.0019
7T	−7	32T	−32	45T	−45	50T	−50	63T	−63	67T	−67	80T	−80	108T	−108
78L	+33	53L	+8	63L	+18	35L	−10	45L	+0	18L	−27	28L	−17	0	−45

■ For cast iron or steel housings. For housings of light metal, select tolerances which give slightly tighter fits than those shown.

◆ Where wider tolerances are permissible P7, N7, M7, K7, J7 and H7 may be used for P6, N6, M6, K6, J6 and H6 respectively.

Radial Clearances

Cylindrical Bore Spherical Roller Bearings

Cylindrical bore bearings

Series 22200, 22300 23000		Internal clearance symbol							
		C2		C0(basic)		C3		C4	
Basic size	Bore mm	inches – μm							
08	40	.0006–.0012	15–30	.0012–.0018	30–45	.0018–.0024	45–60	.0024–.0032	60–80
09 10	45 50	.0008–.0014	20–35	.0014–.0022	35–55	.0022–.0030	55–75	.0030–.0039	75–100
11 12 13	55 60 65	.0010–.0017	25–40	.0017–.0026	40–65	.0026–.0036	65–90	.0036–.0047	90–120
14 15 16	70 75 80	.0012–.0020	30–50	.0020–.0032	50–80	.0032–.0044	80–110	.0044–.0057	110–145
17 18 19 20	85 90 95 100	.0014–.0025	35–60	.0025–.0039	60–100	.0039–.0053	100–135	.0053–.0071	135–180
22 24	110 120	.0017–.0031	40–80	.0031–.0048	80–120	.0048–.0064	120–160	.0064–.0083	160–210
26 28	130 140	.0020–.0038	50–95	.0038–.0057	95–145	.0057–.0075	145–190	.0075–.0095	190–240
30 32	150 160	.0024–.0043	60–110	.0043–.0065	110–165	.0065–.0087	165–220	.0087–.0110	220–280
34 36	170 180	.0026–.0047	65–120	.0047–.0071	120–180	.0071–.0095	180–240	.0095–.0122	240–310
38 40	190 200	.0028–.0051	70–130	.0051–.0079	130–200	.0079–.0103	200–260	.0103–.0133	260–340
44	220	.0032–.0055	80–140	.0055–.0087	140–220	.0087–.0114	220–290	.0114–.0149	290–380
48	240	.0036–.0059	90–150	.0059–.0095	150–240	.0095–.0126	240–320	.0126–.0165	320–420
52 56	260 280	.0039–.0067	100–170	.0067–.0103	170–260	.0103–.0138	260–350	.0138–.0180	350–455
60	300	.0044–.0075	110–190	.0075–.0110	190–280	.0110–.0145	280–370	.0145–.0197	370–500

1 μm = .001 mm
C2 = Internal clearance less than C0
C0 = Basic internal clearance
C3 = Internal clearance greater than C0 (standard)
C4 = Internal clearance greater than C3

Radial Clearances

Tapered Bore Spherical Roller Bearings

Tapered bore bearings

Series 22200, 22300, 23000		Internal clearance symbol							
		C2		C0(basic)		C3		C4	
Basic size	Bore mm	inches – μm							
08	40	.0008–.0014	20–35	.0014–.0020	35–50	.0020–.0026	50–65	.0026–.0034	65–85
09 10	45 50	.0012–.0018	30–45	.0018–.0024	45–60	.0024–.0032	60–80	.0032–.0041	80–105
11 12 13	55 60 65	.0014–.0022	35–55	.0022–.0030	55–75	.0030–.0039	75–100	.0039–.0049	100–125
14 15 16	70 75 80	.0018–.0028	45–70	.0028–.0037	70–95	.0037–.0049	95–125	.0049–.0061	125–155
17 18 19 20	85 90 95 100	.0020–.0032	50–80	.0032–.0044	80–110	.0044–.0057	110–145	.0057–.0075	145–190
22 24	110 120	.0025–.0039	60–100	.0039–.0053	100–135	.0053–.0069	135–175	.0069–.0089	175–225
26 28	130 140	.0030–.0047	75–120	.0047–.0063	120–160	.0063–.0081	160–205	.0081–.0102	205–260
30 32	150 160	.0033–.0051	85–130	.0051–.0071	130–180	.0071–.0091	180–230	.0091–.0118	230–300
34 36	170 180	.0037–.0055	95–140	.0055–.0079	140–200	.0079–.0102	200–260	.0102–.0134	260–340
38 40	190 200	.0041–.0063	105–160	.0063–.0088	160–220	.0088–.0114	220–290	.0114–.0146	290–370
44	220	.0047–.0071	120–180	.0071–.0099	180–250	.0099–.0126	250–320	.0126–.0162	320–410
48	240	.0053–.0079	135–200	.0079–.0106	200–270	.0106–.0140	270–355	.0140–.0178	355–450
52 56	260 280	.0059–.0087	150–220	.0087–.0118	220–300	.0118–.0156	300–395	.0156–.0195	395–490
60	300	.0065–.0094	165–235	.0094–.0130	235–330	.0130–.0169	330–430	.0169–.0213	430–540

1 μm = .001 mm

C2 = Internal clearance less than C0

C0 = Basic internal clearance

C3 = Internal clearance greater than C0 (standard)

C4 = Internal clearance greater than C3

Additional Information

Series 22200, 22300, 23000

Additional Features:

Spherical roller bearings are available with varied combinations of standard features. The nomenclature, page F-18, explains the features available; clearance variations C2, C0, and C4; bearing outside diameter tolerances C40, W22, and C50; and variations as listed.

Where metric adapter sleeves are required they must be listed separately, as they are not interchangeable with inch sleeves and do not fit with inch locknuts.

Operation:

Spherical roller bearings are designed to be used with grease or oil lubrication. The service instructions packed with each bearing provide guidelines for lubrication, relubrication intervals and recommended lubricants.

Where significant thrust loads must be carried by adapter mounted bearings, the use of shaft shoulder rings is recommended to transmit the thrust from the bearings to the shaft.

Imposed radial loads should not exceed .25C. Where high radial loads, high speeds, thrust loads or vibratory loads are unavoidable, consult the Link-Belt Bearing Division.

Fixed and Expansion Mounting:

The normal application of spherical roller bearings requires the use of one fixed and one expansion mounting on a shaft. Unless vibratory loads are involved, expansion mounting of a spherical roller bearing is accomplished by allowing room for the bearing to shift axially in either direction in its housing. Care should always be taken not to force bearings to thrust against or away from each other during mounting or operation.

Shaft Fits and Tolerances:

Direct shaft mounting requires appropriate fits on bearing seals. Recommended fits and tolerances for bearing seals are shown on pages F-11 and F-12. Recommended fits and tolerances for bearing housings are on pages F-13 and F-14.

Shaft diameters for adapter mounted bearings should be held to the following regular commercial tolerances:

Shaft Diameter	Recommended Tolerance
1 ³ / ₁₆ " through 2"	Nominal to –.003"
2 ¹ / ₁₆ " through 4"	Nominal to –.004"
4 ¹ / ₁₆ " through 6"	Nominal to –.005"
6 ¹ / ₁₆ " through 12"	Nominal to –.006"

Warning:

The reliability built into all Link-Belt bearings can be realized in service only when they are correctly selected and properly installed, protected and maintained.

The correct selection of bearings or mounted units requires that the magnitude and nature of all loads, speeds, alignment, mounting, operating requirements, and maintenance be adequately considered. The selection of materials for and design of housings, shafting, fasteners, seals, and accessories, as well as provisions for installation and maintenance, must follow good engineering principles.

Housings and covers must be designed to safely handle the radial and axial loads involved. Adequate space must be provided in the housing and covers for a supply of lubricant.

Seals must be provided that will satisfactorily cope with the environmental conditions.

Recommended fitting practices should be followed strictly to assure a successful mounting arrangement. Shaft and housing bore size tables are provided on pages F-11 through F-14 for various fitting practices.

Service instructions are provided with shipments of bearings and are available on request. These instructions provide detailed information to aid in the proper installation, operation, and maintenance, and should be carefully read and followed. Failure to do so may result in unsatisfactory service as well as serious personal injury or property damage.

Nomenclature

Series 22200, 22300, 23000

Spherical Roller Bearings

Symbol	Description	2	22	16	LB	K / W33 / C0 / C40 / W4
2	Used to distinguish from other series					
22	Bearing dimension series (22, 23, 30)					
16	One-fifth of bore diameter (mm)					
LB	Designation for Link-Belt spherical roller bearing					
None	Cylindrical bore					
K	Tapered bore					
W33	Lubrication holes and groove in outer ring (standard)					
C2	Internal clearance less than C0					
C0	Basic internal clearance					
C3	Internal clearance greater than C0 (standard)					
C4	Internal clearance greater than C3					
W22	Reduced O.D. tolerance in center of standard tolerance range					
C40	Reduced O.D. tolerance on high side					
C50	Reduced O.D. tolerance on low side					
W4	Inner ring marked to show high point of eccentricity					

The nomenclature is provided to identify the basic and optional features of bearing and mounted unit assemblies. The most commonly specified variations are listed; however, availability of all variations cannot be assumed. Link-Belt Bearing Division, Rexnord Corp. should be consulted regarding optional features, availability, and the application requirements.

Cylindrical Roller Bearings

Contents

Series M1000, 1200, 1300, 1900, 5200, 5300, 7300

Introduction	G-1
Pictorial Index	G-3
Selection	G-5
Ratings	G-7
Dimensions	G-15
Shaft Dimensions	G-25
Housing Dimensions	G-27
Additional Information	G-31
Nomenclature	G-32

Series N-EC 200E, 300E

Introduction	G-33
Dimensions	G-35
Nomenclature	G-36

Series M1000, 1200, 1300, 1900, 5200, 5300, 7300

Cylindrical Roller Bearings

Metric series cylindrical roller bearings are manufactured to ABMA boundary dimensions. These bearings require minimum space and provide maximum rated capacity. Various configurations including separable inner or outer ring combinations offer ample application flexibility.

- ① Rings of high quality bearing steel for strength, toughness and durability.
- ② Microfinished raceways assure smooth operations.
- ③ Exclusive honed crown on roller profile for optimized raceway contact area and high capacity.
- ④ Structural design segmented retainer provides high strength, positive roller spacing and guidance.
- ⑤ One-piece formed steel retainer provides positive roller spacing and controlled roller guidance.
- ⑥ Polymeric retainer of glass fiber reinforced nylon 6/6 provides full roller guidance, superior lubrication and reduced noise.



Segmented Retainers

Rigid structural design segmented steel retainer provides high strength, positive roller spacing and guidance.

All contact surfaces are contoured to minimize the wiping action between retainer segments and rollers, assuring

full roller lubrication. Precision spacer segments contact the rollers above and below pitch diameter resulting in low friction loss and positive roller control.



Polymeric Retainers

Made of glass fiber reinforced nylon 6/6, molded polymeric retainers provide close control of roller "drop," low noise, full roller guidance and superior lubrication, at a competitive price.

Extensive testing has established compatibility with a broad range of standard lubricants and satisfactory operation at sustained temperatures to 275°F.



Formed Steel Retainers

One-piece deep coined formed steel retainer combines strength with positive roller spacing and roller guidance.

The retainer guides the rollers below the pitch line and provides control of roller drop. Line contact of rollers on guidance

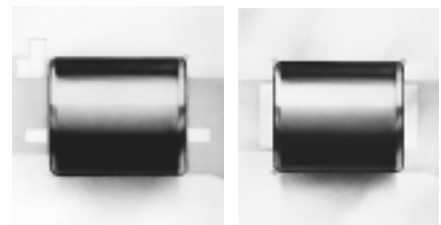
surfaces minimizes wiping action and promotes hydrodynamic lubrication.



Rollers

Exclusively crowned honed rollers provide optimized contact at the raceway. This assures efficient bearing performance under load, provides controlled stress

distribution under all loads within the design capacity and compensates for shaft deflection.

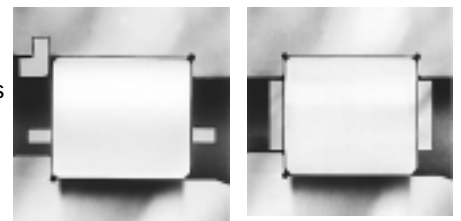


Rings

Rings are manufactured from high quality bearing steel to enhance fatigue resistance, strength, toughness and hardenability.

Bearings and ring and roller assemblies for omitted-ring applications are ABMA

standard boundary plan for bore, outside diameter, and width...standard tolerances are RBEC-1. Precision tolerances to RBEC-5 are available.



Optional Series and Configurations

Series M cylindrical roller bearings are available in seven series with segmented retainers, five series with formed steel retainers, several series with polymeric retainers, and five series of the full roller complement type. Various configurations, including separable inner or outer ring combinations are offered.



Cylindrical Roller Bearings—Series M

Separable Cylindrical Inner Ring Type

MA ---- TV, MA ---- TAV	} Formed steel retainer
MA ---- UV, MA ---- UAV	
MA ---- EX, MA ---- EAX	Segmented steel retainer
MA ---- EB, MA ---- EAB	Polymeric retainer

Use where shaft location is not required; functions as an expansion bearing.

Outer Ring and Roller Assembly

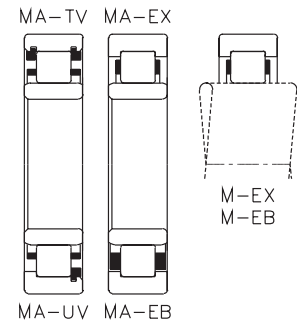
M ---- TV, M ---- TAV	} Formed steel retainer
M ---- UV, M ---- UAV	
M ---- EX, M ---- EAX	Segmented steel retainer
M ---- EB, M ---- EAB	Polymeric retainer

Rollers are in direct contact with hardened shaft raceway.

Load ratings on pages G-7 through G-14.

Dimensions on pages G-15 through G-22.

Additional information on page G-31.



Separable Single-ribbed Inner Ring Type

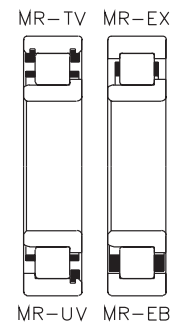
MR ---- TV, MR ---- TAV	} Formed steel retainer
MR ---- UV, MR ---- UAV	
MR ---- EX, MR ---- EAX	Segmented steel retainer
MR ---- EB, MR ---- EAB	Polymeric retainer

Use for one-direction shaft location.

Load ratings on pages G-7 through G-14.

Dimensions on pages G-15 through G-22.

Additional information on page G-31.



Separable Inner Ring With End Plate

MSN --- EX, MSN --- EAX	Segmented steel retainer
MSN --- EB, MSN --- EAB	Polymeric retainer

The inner ring and end plate operate as a two-ribbed inner ring when held in place axially on the shaft. Used for two-direction shaft location and moderate thrust loads.

Separable Outer Ring With End Plate

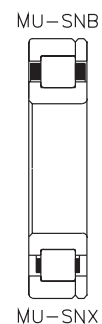
MU --- SNX, MU --- SNAX	Segmented steel retainer
MU --- SNB, MU --- SNAB	Polymeric retainer

The outer ring and end plate operate as a two-ribbed outer ring when held in place axially in the housing. Used for two-direction housing location and moderate thrust loads.

Load ratings on pages G-7 through G-14.

Dimensions on pages G-15 through G-22.

Additional information on page G-31.



Non-separable Type Bearing

MU --- TV, MU --- TAV	} Formed steel retainer
MU --- UV, MU --- UAV	

Use as a locating bearing or when only one race is retained axially.

Load ratings on pages G-7 through G-14.

Dimensions on pages G-15 through G-22.

Additional information on page G-31.



Separable Cylindrical Outer Ring

MU --- CX, MU --- CAX Segmented steel retainer
MU --- CB, MU --- CAB Polymeric retainer

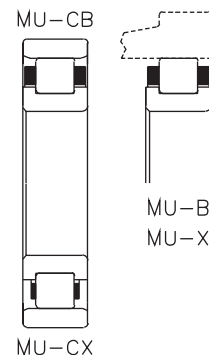
For applications and where an inner ring and roller sub-assembly is required; a non-locating or expansion type bearing.

Inner Ring and Roller Assembly

MU --- X Segmented steel retainer
MU --- B Polymeric retainer

Permits smaller housing bore. Rollers are in direct contact with hardened housing raceway.

Load ratings on pages G-7 through G-14.
Dimensions on pages G-15 through G-22.
Additional information on page G-31.



Separable Single-ribbed Outer Race

MU --- DX, MU --- DAX Segmented steel retainer
MU --- DB, MU --- DAB Polymeric retainer

Use for one-direction location and moderate thrust loads. For applications where an inner ring and roller sub-assembly is required.

Load ratings on pages G-7 through G-14.
Dimensions on pages G-15 through G-22.
Additional information on page G-31.

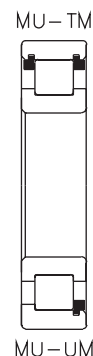


Non-separable, Full Complement Bearing

MU --- TM } Full roller complement
MU --- UM }

Use as a locating bearing or when only one race is retained axially. Full complement of rollers provide greater capacity than the same size bearing with a retainer.

Load ratings on pages G-7 through G-14.
Dimensions on pages G-15 through G-22.
Additional information on page G-31.

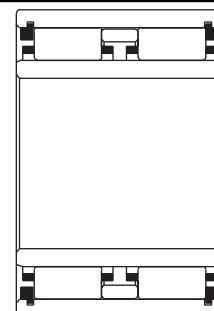


Separable Cylindrical Inner Ring Type Double Wide Series

MA62 --- TV

Double Row—Use where shaft location is not required and heavy loads; functions as expansion bearing.

Load ratings on pages G-23 and G-24.
Dimensions on pages G-23 and G-24.
Additional information on page G-31.



Selection

Cylindrical Roller Bearings

To select a bearing, determine the applied radial load, any applied thrust load, the desired Rating Life, and applicable operating conditions. The procedure shown here will aid in selecting a bearing to meet an L_{10} design life. The formulas for calculating life expectancy should be used to determine the Rating Life L_{10} for the bearing selected. Cylindrical roller bearings are available in various series with cylindrical bores for direct shaft mounting. Bearings in several series may fulfill the L_{10} life requirements. Speed limits, minimum shaft diameters, arrangement requirements and space limitations may be determining factors in final bearing selection.

The selection procedures and rating formulas shown here are in agreement with The American Bearing Manufacturers Association Standards and ANSI/ABMA STD 11-1990. Ratings are based on fatigue life. The Rating Life L_{10} or fatigue life at 90% reliability is the usual basis for bearing selection.

Cylindrical roller bearings are essentially radial bearings. Nevertheless those styles where integral ribs are in the proper location on inner and outer rings will also support thrust loading. In fact, most such styles do support incidental, axial locating loads. Whenever applied thrust loading is known to exist, the guidelines given for

Thrust Loads on p. G-6 must be carefully followed.

Selection and life expectancy formulas shown here are also valid for inner ring and roller assemblies and for outer ring and roller assemblies provided they are run directly on bearing quality steel shafts or housings properly hardened and ground.

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

Bearing Selection

Step 1 Determine an appropriate L_{10} design life.

Type of service	Operating time, hours per year	Design life, years	L_{10} design life, hours
Light seasonal usage	500 to 750	3-5	3,000
Heavy seasonal usage	1,400 to 1,600	4-6	8,000
Industrial—8 hour shift	2,000	10	20,000
Industrial—16 hour shift	4,000	10	40,000
Industrial—continuous	8,700	10	80,000 to 100,000
Continuous—high reliability	—	—	120,000 to 300,000

Step 2 Determine a required $\left(\frac{C}{P}\right)$ from Table 1.

Step 3 Calculate the required C and select a cylindrical roller bearing.

$$P = F_r$$

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

Select a cylindrical roller bearing of the desired type having a basic load rating C equal to or greater than the required C from the appropriate series. The life expectancy of other sizes and series of cylindrical roller bearings can be calculated. When thrust load is present, check the individual bearing thrust capacity and follow the requirements for lubrication under thrust conditions.

Step 4 Determine the permissible speed limit of the bearing through the following procedure:

Permissible speed limits are of practical value only when considered with other factors of bearing operation. Not every application functions satisfactorily at the listed speeds. Load, lubrication, and temperature factors influence the performance. Bearing operation at the listed speed limit demands excellent lubrication, moderate load, and reasonable temperature environment.

Permissible speed can be approximated from the limiting DN value, which is the product of the bearing bore in millimeters and the speed in RPM. The DN values shown below are nominal. For higher permissible speeds, consult Link-Belt Bearing Division, Rexnord Corporation.

$$\text{DN value} = \text{Bearing bore (mm)} \times \text{speed (RPM)}$$

Bearing series	Limit of DN Value*
Series 1900, 1000, 1200, 1300 & 7300	
with segmented or polymeric retainer	450,000
with formed steel retainer	250,000
Series 5200, 6200, and 5300	
with segmented or polymeric retainer (5200, 5300 only)	330,000
with formed steel retainer	180,000
Full complement	150,000

*These values assume oil lubrication

Selection

Cylindrical Roller Bearings

symbols for formulas:

C = basic load rating, pounds (or newtons)
 C_o = static load rating, pounds (or newtons)
 F_r = radial load, pounds (or newtons)
 L₁₀ = rating life, hours
 n = speed, revolutions per minute
 P = equivalent radial load, pounds (or newtons)

basic formulas:

$$\left(\frac{C}{P}\right) = \left(\frac{L_{10} \times n \times 60}{1,000,000}\right)^{3/10} \quad L_{10} = \frac{\left(\frac{C}{P}\right)^{10/3} \times 1,000,000}{n \times 60}$$

Table 1 • Relation of L₁₀ life and speed to $\left(\frac{C}{P}\right)$

Bearing life, hours L ₁₀	$\left(\frac{C}{P}\right)$ ratio								
	Speed, n								
	50	100	200	300	400	500	600	700	800
3000	1.93	2.38	2.93	3.31	3.61	3.86	4.07	4.27	4.44
4000	2.11	2.59	3.19	3.61	3.93	4.20	4.44	4.65	4.84
5000	2.25	2.77	3.42	3.86	4.20	4.50	4.75	4.97	5.18
6000	2.38	2.93	3.61	4.07	4.44	4.75	5.02	5.25	5.47
8000	2.59	3.19	3.93	4.44	4.84	5.18	5.47	5.73	5.96
10000	2.77	3.42	4.20	4.75	5.18	5.54	5.85	6.12	6.37
12000	2.93	3.61	4.44	5.02	5.47	5.85	6.18	6.47	6.73
14000	3.07	3.78	4.65	5.25	5.73	6.12	6.47	6.77	7.05
16000	3.19	3.93	4.84	5.47	5.96	6.37	6.73	7.05	7.34
18000	3.31	4.07	5.02	5.66	6.18	6.60	6.97	7.30	7.60
20000	3.42	4.20	5.18	5.85	6.37	6.81	7.20	7.54	7.85
25000	3.65	4.50	5.54	6.25	6.81	7.29	7.70	8.06	8.39
30000	3.86	4.75	5.85	6.60	7.20	7.70	8.13	8.51	8.86
35000	4.04	4.97	6.12	6.92	7.54	8.06	8.51	8.92	9.28
40000	4.20	5.18	6.37	7.20	7.85	8.39	8.86	9.28	9.66
45000	4.36	5.36	6.60	7.46	8.13	8.69	9.18	9.61	10.00
50000	4.50	5.54	6.81	7.70	8.39	8.97	9.48	9.92	10.30
60000	4.75	5.85	7.20	8.13	8.86	9.48	10.00	10.50	10.90
70000	4.97	6.12	7.54	8.51	9.28	9.92	10.50	11.00	11.40
80000	5.18	6.37	7.85	8.86	9.66	10.30	10.90	11.40	11.90
90000	5.36	6.60	8.13	9.18	10.00	10.70	11.30	11.80	12.30
100000	5.54	6.81	8.39	9.48	10.30	11.00	11.70	12.20	12.70
150000	6.25	7.70	9.48	10.70	11.70	12.50	13.20	13.80	14.40
200000	6.81	8.39	10.30	11.70	12.70	13.60	14.40	15.00	15.70
	Speed, n								
	900	1000	1200	1500	1800	2400	3000	3600	6000
3000	4.60	4.75	5.02	5.36	5.66	6.18	6.60	6.97	8.13
4000	5.02	5.18	5.47	5.85	6.18	6.73	7.20	7.60	8.86
5000	5.36	5.54	5.85	6.25	6.60	7.20	7.70	8.13	9.48
6000	5.66	5.85	6.18	6.60	6.97	7.60	8.13	8.59	10.00
8000	6.18	6.37	6.73	7.20	7.60	8.29	8.86	9.36	10.90
10000	6.60	6.81	7.20	7.70	8.13	8.86	9.48	10.00	11.70
12000	6.97	7.20	7.60	8.13	8.59	9.36	10.00	10.60	12.30
14000	7.30	7.54	7.96	8.51	8.99	9.80	10.50	11.10	12.90
16000	7.60	7.85	8.29	8.86	9.36	10.20	10.90	11.50	13.40
18000	7.88	8.13	8.59	9.18	9.70	10.60	11.30	11.90	13.90
20000	8.13	8.39	8.86	9.48	10.00	10.90	11.70	12.30	14.40
25000	8.69	8.97	9.48	10.10	10.70	11.70	12.50	13.20	15.40
30000	9.18	9.48	10.00	10.70	11.30	12.30	13.20	13.90	16.20
35000	9.61	9.92	10.50	11.20	11.80	12.90	13.80	14.60	17.00
40000	10.00	10.30	10.90	11.70	12.30	13.40	14.40	15.20	17.70
45000	10.40	10.70	11.30	12.10	12.80	13.90	14.90	15.70	18.30
50000	10.70	11.00	11.70	12.50	13.20	14.40	15.40	16.20	18.90
60000	11.30	11.70	12.30	13.20	13.90	15.20	16.20	17.10	20.00
70000	11.80	12.20	12.90	13.80	14.60	15.90	17.00	17.90	20.90
80000	12.30	12.70	13.40	14.40	15.20	16.50	17.70	18.70	21.80
90000	12.80	13.20	13.90	14.90	15.70	17.10	18.30	19.40	22.60
100000	13.20	13.60	14.40	15.40	16.20	17.70	18.90	20.00	23.30
150000	14.90	15.40	16.20	17.30	18.30	20.00	21.40	22.60	26.30
200000	16.20	16.70	17.70	18.90	20.00	21.80	23.30	24.60	28.70

Life Expectancy

To calculate the Rating Life L₁₀ of any pair of selected or trial bearings:

Step 1 Determine the equivalent radial load P.
 P = F_r

Step 2 Calculate the ratio of the bearing basic load rating C to the equivalent radial load.

$$\frac{C}{P}$$

Step 3 Approximate the bearing life from Table 1.

Thrust Loads

The integral guiding ribs on standard cylindrical roller bearing inner and outer rings will support limited thrust loads. In addition, special tolerances and processing can be used to substantially increase axial load capacity. In either case, excellent lubrication (preferably with an EP lubricant) and a stabilizing radial load are required. For standard bearings, the allowable thrust load is estimated as

$$T_M = \frac{C_A}{3n^{0.3}}$$

where T_M Maximum allowable thrust load, pounds (or newtons)
 C_A Load rating C (pounds or newtons) of the narrowest series for the given annulus (O.D. and bore) at 33⅓ RPM and 500L₁₀ hours.
 n Operating speed, RPM

In addition, the thrust load should be no greater than 25% of the radial load. Where application conditions exceed either of these limits, Link-Belt Bearing Division should be consulted.

Life Adjustment

The Rating Life, L₁₀, may be modified for some applications in accordance with the formula

$$L_n = a_1 a_2 a_3 L_{10}$$

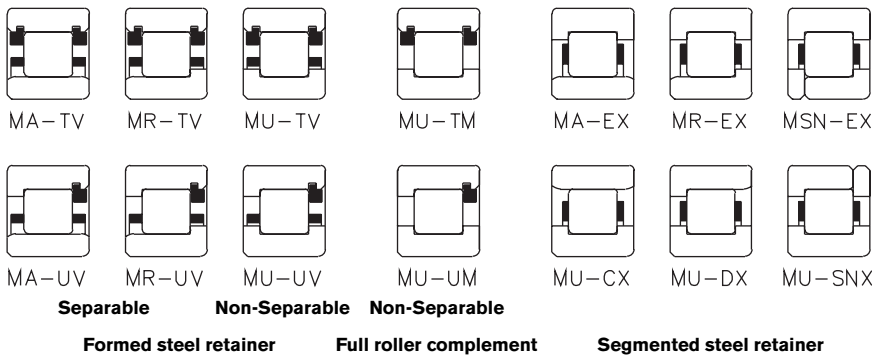
where L_n = Adjusted life for (100-n) % reliability,
 a₁ = Life adjustment factor for reliability
 a₂ = Life adjustment factor for material and processing
 a₃ = Life adjustment factor for operating conditions.

For most normal applications, all factors will be taken as 1, and the Rating Life used as the selection basis or life estimate. In addition, as long as standard catalog bearings are used, a₂ will be normally set equal to one. The factor a₃ covers such things as lubrication, misalignment, and temperature. Some conditions that could yield a₃ significantly different than unity include speeds less than 20000 DN or greater than 200000 DN, temperatures below -40°F (-40°C) or above 275°F (135°C), or misalignment greater than 0.0005 radians. For other possible conditions, as well as additional information on life adjustment factors, consult Link-Belt Bearing Division, Rexnord Corp.

Ratings

Series M

25mm, 30mm, 35mm, 40mm Bores



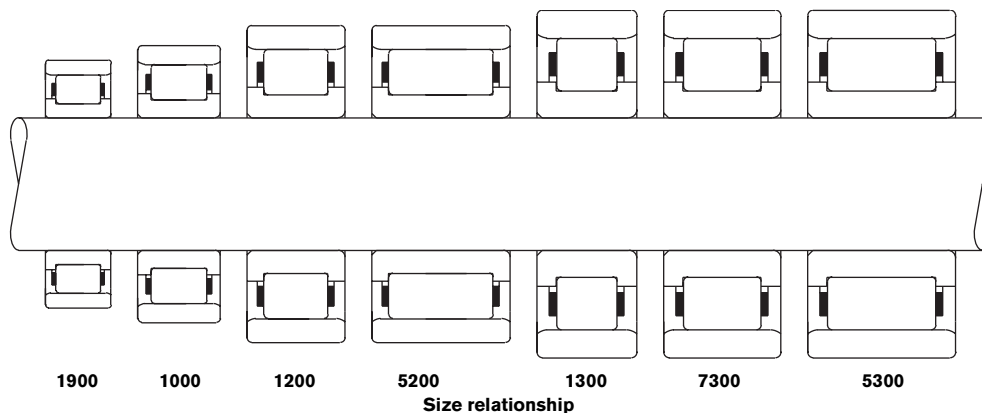
pounds/newtons

Basic bearing number	Formed steel retainer						Segmented steel retainer			Full roller complement		
	Separable			Non-Separable			C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating
	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating						
1205	4330	1120	52205280	13705220	6170	16006430	70201820	7630				
	19 200	4 980	23 200	23 500	6 080	23 200	27 500	7 110	28 600	31 200	8 090	33 900
5205	5930	1540	78307240	18807830	8460	21909640	96202490	11400				
	26 400	6 830	34 800	32 200	8 340	34 800	37 600	9 750	42 900	42 800	11 100	50 900
1305	6310	1630	66907710	20006690	8840	22908030	99202570	9370				
	28 100	7 270	29 800	34 300	8 880	29 800	39 300	10 200	35 700	44 100	11 400	41 700
7305	8070	2090	91809850	25509180	11300	293011000	12700	3280	12800			
	35 900	9 300	40 800	43 800	11 400	40 800	50 200	13 000	49 000	56 400	14 600	57 100
5305	9720	2520	11700	11900	3070	11700	13600	3530	14000	15300	3960	16300
	43 200	11 200	51 900	52 800	13 700	51 900	60 500	15 700	62 300	68 100	17 600	72 500
1206	5990	1550	71707320	19007170	8150	21108270	93402420	9930				
	26 700	6 910	31 900	32 600	8 430	31 900	36 200	9 390	36 800	41 600	10 800	44 200
5206	9040	2340	12200	11000	2860	12200	12300	3180	14000	14100	3650	16800
	40 200	10 400	54 100	49 100	12 700	54 100	54 700	14 200	62 500	62 700	16 200	74 900
1306	7970	2060	92709730	25209270	10300	268010000	12100	3130	12400			
	35 400	9 180	41 200	43 300	11 200	41 200	45 900	11 900	44 700	53 700	13 900	55 000
7306	10500	2720	13200	12800	3320	13200	13600	3530	14400	15900	4130	17700
	46 800	12 100	58 900	57 100	14 800	58 900	60 600	15 700	63 800	70 700	18 400	78 700
5306	12800	3320	17100	15700	4060	17100	16600	4310	18500	19400	5030	22800
	57 000	14 800	76 100	69 600	18 000	76 100	74 000	19 200	82 400	86 400	22 400	101 000
1207	6840	1770	80308350	21608030	9290	24109270	10700	2760	11100			
	30 400	7 870	35 700	37 100	9 610	35 700	41 300	10 700	41 200	47 400	12 300	49 500
5207	11300	2920	15300	13800	3570	15300	15300	3970	17700	17600	4560	21200
	50 200	13 000	68 100	61 300	15 900	68 100	68 300	17 700	78 600	78 300	20 300	94 300
1307	9840	2550	12000	12000	3110	12000	13500	3490	14000	15600	4040	17000
	43 800	11 300	53 400	53 400	13 800	53 400	60 000	15 500	62 400	69 400	18 000	75 700
7307	13800	3580	18700	16900	4380	18700	17900	4630	20100	20700	5350	24400
	61 500	15 900	83 100	75 100	19 500	83 100	79 400	20 600	89 500	91 900	23 800	109 000
5307	15900	4120	22400	19400	5030	22400	20500	5320	24100	23800	6150	29200
	70 800	18 300	99 400	86 400	22 400	99 400	91 400	23 700	107 000	106 000	27 400	130 000
1208	8270	2140	10200	10100	2620	10200	11200	2890	11600	12700	3290	13800
	36 800	9 530	45 300	44 900	11 600	45 300	49 700	12 900	51 800	56 500	14 600	61 500
5208	14300	3710	20700	17500	4530	20700	19400	5010	23600	22000	5700	28000
	63 800	16 500	91 900	77 900	20 200	91 900	86 100	22 300	105 000	97 900	25 400	125 000
1308	12600	3260	15200	15400	3980	15200	16300	4230	16400	19100	4940	20200
	56 000	14 500	67 500	68 400	17 700	67 500	72 600	18 800	73 100	84 800	22 000	90 000
7308	17900	4630	23800	21800	5660	23800	23200	6010	25800	27100	7020	31800
	79 600	20 600	106 000	97 200	25 200	106 000	103 000	26 700	115 000	121 000	31 200	141 000
5308	20000	5190	27600	24500	6330	27600	26000	6720	29900	30300	7860	36800
	89 100	23 100	123 000	109 000	28 200	123 000	115 000	29 900	133 000	135 000	35 000	163 000

See facing page for footnotes.

Ratings

Series M 45mm, 50mm, 55mm Bores



pounds/newtons

Basic bearing number	Formed steel retainer						Segmented steel retainer			Full roller complement		
	Separable			Non-Separable			C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating
	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating						
1209	9670	2500	12900	11800	3060	12900	12900	3340	14500	14500	3750	16900
	43 000	11 100	57 300	52 500	13 600	57 300	57 400	14 900	64 500	64 400	16 700	75 200
5209	15600	4030	23800	19000	4920	23800	20800	5380	26700	23300	6040	31200
	69 200	17 900	106 000	84 500	21 900	106 000	92 300	23 900	119 000	104 000	26 800	139 000
1309	15900	4120	20400	19400	5040	20400	20600	5320	22000	23800	6160	26700
	70 800	18 300	90 900	86 500	22 400	90 900	91 400	23 700	97 900	106 000	27 400	119 000
7309	20300	5260	28000	24800	6430	28000	26200	6790	30100	30300	7860	36600
	90 400	23 400	124 000	110 000	28 600	124 000	117 000	30 200	134 000	135 000	35 000	163 000
5309	24800	6440	36200	30300	7860	36200	32100	8310	39000	37100	9610	47400
	111 000	28 600	161 000	135 000	35 000	161 000	143 000	37 000	174 000	165 000	42 700	211 000
1010	.....	.....	.....	.....	.....	.....	8840	2290	11100	.....	.....	.....
	.....	.....	.....	.....	.....	.....	39 300	10 200	49 400	.....	.....	.....
1210	9830	2550	13600	12000	3110	13600	13000	3380	15200	15100	3900	18400
	43 700	11 300	60 600	53 400	13 800	60 600	58 000	15 000	67 700	67 000	17 300	82 000
5210	15800	4100	25100	19300	5000	25100	21000	5440	28100	24200	6280	34000
	70 400	18 200	112 000	85 900	22 300	112 000	93 400	24 200	125 000	108 000	27 900	151 000
1310	18600	4810	24000	22700	5870	24000	23900	6200	25900	27700	7170	31400
	82 500	21 400	107 000	101 000	26 100	107 000	107 000	27 600	115 000	123 000	31 900	140 000
7310	24000	6220	33500	29300	7590	33500	31000	8030	36000	35900	9290	43800
	107 000	27 700	149 000	130 000	33 800	149 000	138 000	35 700	160 000	159 000	41 300	195 000
5310	29300	7600	43300	35800	9280	43300	37900	9810	46600	43800	11300	56600
	131 000	33 800	193 000	159 000	41 300	193 000	169 000	43 600	207 000	195 000	50 500	252 000
1911	.....	.....	.....	.....	.....	.....	6960	1800	9570	.....	.....	.....
	.....	.....	.....	.....	.....	.....	31 000	8 020	42 600	.....	.....	.....
1011	.....	.....	.....	.....	.....	.....	11200	2890	14300	.....	.....	.....
	.....	.....	.....	.....	.....	.....	49 800	12 900	63 400	.....	.....	.....
1211	11700	3040	16400	1430	3710	16400	15600	4030	18400	18000	4650	22300
	52 200	13 500	73 200	63 700	16 500	73 200	69 200	17 900	81 800	79 900	20 700	99 000
5211	19200	4960	30900	23400	6060	30900	25400	6590	34600	29400	7600	41900
	85 300	22 100	138 000	104 000	27 000	138 000	113 000	29 300	154 000	131 000	33 800	186 000
1311	21900	5680	28800	26800	6930	28800	26800	6930	28800	31000	8020	35000
	97 500	25 300	128 000	119 000	30 800	128 000	119 000	30 800	128 000	138 000	35 700	156 000
7311	29300	7590	41800	35800	9270	41800	35800	9270	41800	41400	10700	50800
	130 000	33 800	186 000	159 000	41 200	186 000	159 000	41 200	186 000	184 000	47 700	226 000
5311	38100	9860	58600	46500	12000	58600	46500	12000	58600	53800	13900	71100
	169 000	43 900	260 000	207 000	53 500	260 000	207 000	53 500	260 000	239 000	61 900	316 000

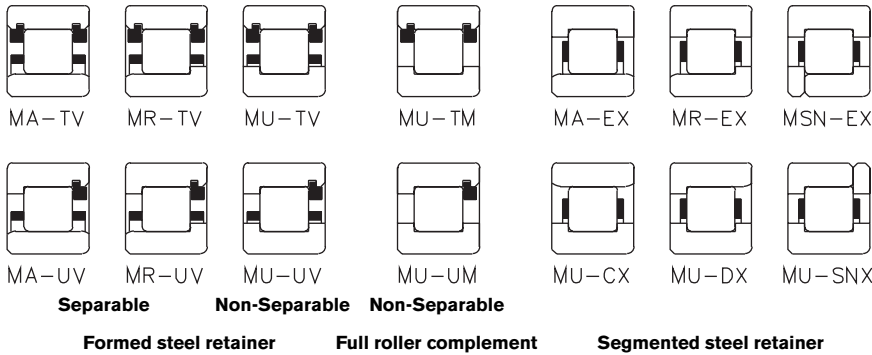
Selection guide, pages G-5, G-6.

Additional information, page G-31.

For shaft and housing bearing seat diameters, pages G-25 through G-30.

Ratings

Series M
60mm, 65mm,
70mm Bores



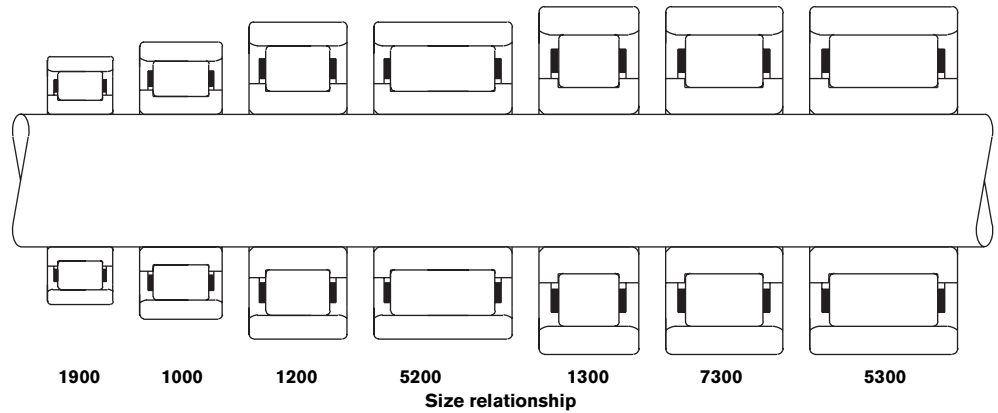
pounds/newtons

Basic bearing number	Formed steel retainer						Segmented steel retainer			Full roller complement		
	Separable			Non-Separable			C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating
	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating						
1912	.....	.....	.....	.....	.....	.....	7200	1870	10300	.....	.....	.....
1012	.....	.....	.....	.....	.....	.....	32 000	8 300	45 600	.....	.....	.....
1212	.....	.....	.....	.....	.....	.....	11700	3040	15600	.....	.....	.....
5212	.....	.....	.....	.....	.....	.....	52 200	13 500	69 200	.....	.....	.....
1312	14500	3760	19600	17700	4590	19600	19400	5020	22100	21700	5630	25800
7312	64 600	16 700	87 400	78 900	20 400	87 400	86 100	22 300	98 300	96 700	25 000	115 000
5312	24700	6390	38900	30100	7800	38900	32900	8520	43700	36900	9570	51000
1913	110 000	28 400	173 000	134 000	34 700	173 000	146 000	37 900	194 000	164 000	42 600	227 000
1013	24900	6450	32800	30400	7880	32800	32100	8330	35300	37200	9630	42900
1213	111 000	28 700	146 000	135 000	35 000	146 000	143 000	37 000	157 000	165 000	42 800	191 000
5213	32600	8450	46400	39800	10300	46400	42100	10900	50000	48700	12600	60700
1313	145 000	37 600	206 000	177 000	45 900	206 000	187 000	48 500	222 000	217 000	56 100	270 000
7313	43900	11400	68000	53600	13900	68000	56600	14700	73200	65500	17000	88900
5313	195 000	50 500	302 000	238 000	61 700	302 000	252 000	65 200	326 000	291 000	75 500	395 000
1914	.....	.....	.....	.....	.....	.....	7600	1970	11200	.....	.....	.....
1014	.....	.....	.....	.....	.....	.....	33 800	8 750	50 000	.....	.....	.....
1214	.....	.....	.....	.....	.....	.....	12000	3100	16300	.....	.....	.....
5214	.....	.....	.....	.....	.....	.....	53 200	13 800	72 400	.....	.....	.....
1314	16800	4360	24400	20500	5320	24400	21400	5540	25800	24700	6390	31200
7314	74 800	19 400	109 000	91 400	23 700	109 000	95 100	24 600	115 000	110 000	28 400	139 000
5314	26800	6930	44400	32700	8460	44400	34000	8810	46800	39300	10200	56700
1915	119 000	30 800	197 000	145 000	37 600	197 000	151 000	39 200	208 000	175 000	45 200	252 000
1015	30800	7970	41900	37600	9730	41900	37600	9730	41900	43400	11300	50900
1215	137 000	35 400	186 000	167 000	43 300	186 000	167 000	43 300	186 000	193 000	50 100	226 000
5215	39200	10100	57200	47800	12400	57200	47800	12400	57200	55300	14300	69400
1315	174 000	45 100	254 000	213 000	55 100	254 000	213 000	55 100	254 000	246 000	63 700	309 000
7315	54900	14200	88200	67000	17300	88200	67000	17300	88200	77500	20100	107000
5315	244 000	63 200	392 000	298 000	77 200	392 000	298 000	77 200	392 000	345 000	89 300	476 000
1916	.....	.....	.....	.....	.....	.....	10900	2810	15800	.....	.....	.....
1016	.....	.....	.....	.....	.....	.....	48 300	12 500	70 400	.....	.....	.....
1216	.....	.....	.....	.....	.....	.....	14600	3770	18600	.....	.....	.....
5216	.....	.....	.....	.....	.....	.....	64 800	16 800	82 800	.....	.....	.....
1316	18100	4700	26300	22100	5730	26300	24100	6230	29400	27900	7190	35600
7316	80 600	20 900	117 000	98 500	25 500	117 000	107 000	27 700	131 000	124 000	32 000	158 000
5316	29900	7750	50100	36600	9470	50100	39700	10300	56000	45900	11900	67800
1917	133 000	34 500	223 000	163 000	42 100	223 000	177 000	45 800	249 000	204 000	52 800	302 000
1017	35300	9130	48800	43000	11100	48800	43000	11100	48800	49800	12900	59200
1217	157 000	40 600	217 000	191 000	49 600	217 000	191 000	49 600	217 000	221 000	57 400	263 000
5217	43800	11300	64400	53500	13800	64400	53500	13800	64400	61800	16000	78200
1317	195 000	50 400	287 000	238 000	61 600	287 000	238 000	61 600	287 000	275 000	71 300	348 000
7317	57600	14900	91700	70400	18200	91700	70400	18200	91700	81400	21100	111000
5317	256 000	66 400	408 000	313 000	81 100	408 000	313 000	81 100	408 000	362 000	93 800	495 000

See facing page for footnotes.

Ratings

Series M 75mm, 80mm, 85mm Bores



pounds/newtons

Basic bearing number	Formed steel retainer						Segmented steel retainer			Full roller complement		
	Separable			Non-Separable			C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating
	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating						
1915	.....	.....	.....	.....	.....	.....	11200	2910	16900	.....	.....	.....
1015	.....	.....	.....	.....	.....	.....	50 000	13 000	75 200	.....	.....	.....
	.....	.....	.....	.....	.....	.....	15300	3970	20300	.....	.....	.....
	.....	.....	.....	.....	.....	.....	68 200	17 700	90 300	.....	.....	.....
1215	18800	4880	28000	23000	5960	28000	24900	6450	31100	28600	7390	37400
	83 800	21 700	125 000	102 000	26 500	125 000	111 000	28 700	139 000	127 000	32 900	166 000
5215	32500	8430	56600	39700	10300	56600	43000	11100	62900	49300	12800	75500
	145 000	37 500	252 000	177 000	45 800	252 000	191 000	49 500	280 000	219 000	56 800	336 000
1315	36600	9470	49700	44600	11600	49700	44600	11600	49700	51600	13400	60300
	163 000	42 100	221 000	199 000	51 400	221 000	199 000	51 400	221 000	230 000	59 500	268 000
7315	48500	12600	71500	59300	15400	71500	59300	15400	71500	68600	17800	86900
	216 000	55 900	318 000	264 000	68 300	318 000	264 000	68 300	318 000	305 000	79 000	386 000
5315	70900	18400	116000	86600	22400	116000	86600	22400	116000	100000	25900	141000
	315 000	81 700	518 000	385 000	99 800	518 000	385 000	99 800	518 000	446 000	115 000	629 000
1916	.....	.....	.....	.....	.....	.....	11600	3010	18000	.....	.....	.....
	.....	.....	.....	.....	.....	.....	51 700	13 400	80 000	.....	.....	.....
1016	.....	.....	.....	.....	.....	.....	19200	4970	25800	.....	.....	.....
	.....	.....	.....	.....	.....	.....	85 300	22 100	115 000	.....	.....	.....
1216	20600	5330	30100	25100	6500	30100	27200	7040	33400	30200	7820	38400
	91 500	23 700	134 000	112 000	28 900	134 000	121 000	31 300	149 000	134 000	34 800	171 000
5216	36800	9540	63700	45000	11600	63700	48700	12600	70700	54000	14000	81300
	164 000	42 400	283 000	200 000	51 800	283 000	216 000	56 100	315 000	240 000	62 300	362 000
1316	41500	10800	57300	50700	13100	57300	50700	13100	57300	58700	15200	69600
	185 000	47 900	255 000	226 000	58 400	255 000	226 000	58 400	255 000	261 000	67 600	309 000
7316	55100	14300	82400	67300	17400	82400	67300	17400	82400	77900	20200	100000
	245 000	63 500	367 000	299 000	77 500	367 000	299 000	77 500	367 000	346 000	89 700	445 000
5316	73300	19000	119000	89400	23200	119000	89400	23200	119000	103000	26800	144000
	326 000	84 400	528 000	398 000	103 000	528 000	398 000	103 000	528 000	460 000	119 000	642 000
1917	.....	.....	.....	.....	.....	.....	13700	3550	20900	.....	.....	.....
	.....	.....	.....	.....	.....	.....	60 900	15 800	93 100	.....	.....	.....
1017	.....	.....	.....	.....	.....	.....	19700	5100	27000	.....	.....	.....
	.....	.....	.....	.....	.....	.....	87 500	22 700	120 000	.....	.....	.....
1217	24800	6410	36700	30200	7830	36700	31500	8160	38700	36300	9410	46900
	110 000	28 500	163 000	134 000	34 800	163 000	140 000	36 300	172 000	162 000	41 900	208 000
5127	45300	11700	79700	55300	14300	79700	57600	14900	84100	66400	17200	102000
	201 000	52 200	354 000	246 000	63 700	354 000	356 000	66 300	374 000	296 000	76 500	453 000
1317	44600	11500	61200	54400	14100	61200	54400	14100	61200	63000	16300	74300
	198 000	51 300	272 000	242 000	62 700	272 000	242 000	62 700	272 000	280 000	72 500	330 000
7317	61700	16000	92900	75400	19500	92900	75400	19500	92900	87200	22600	113000
	275 000	71 100	413 000	335 000	86 800	413 000	335 000	86 900	413 000	388 000	100 000	502 000
5317	86300	22400	143000	105000	27300	143000	105000	27300	143000	122000	31600	174000
	384 000	99 500	636 000	469 000	121 000	636 000	469 000	121 000	636 000	542 000	140 000	773 000

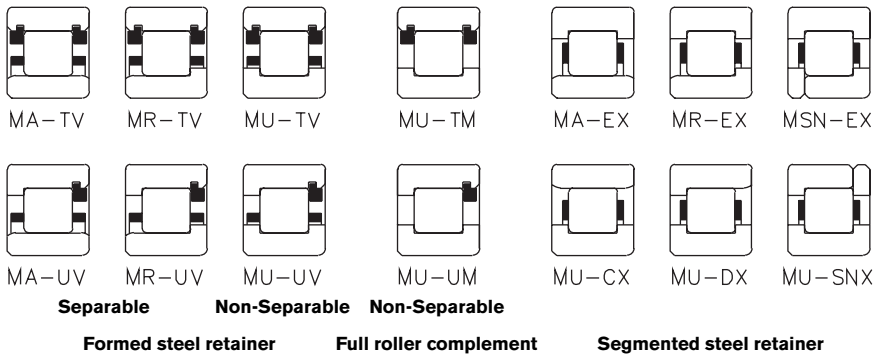
Selection guide, pages G-5, G-6.

Additional information, page G-31.

For shaft and housing bearing seat diameters, pages G-25 through G-30.

Ratings

Series M
90mm, 95mm,
100mm Bores



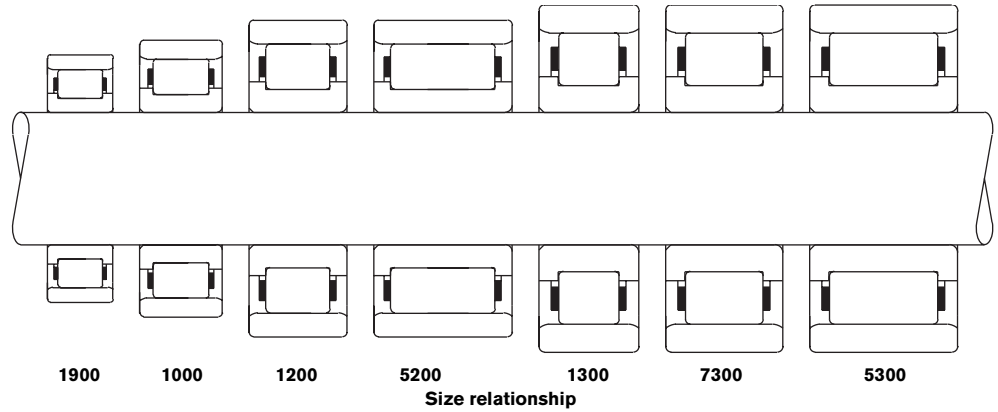
pounds/newtons

Basic bearing number	Formed steel retainer						Segmented steel retainer			Full roller complement		
	Separable			Non-Separable			C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating
	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating						
1918	.....	.....	.....	.....	.....	.....	14200	3670	22200	.....	.....	.....
1018	.....	.....	.....	.....	.....	.....	63 000	16 300	98 900	.....	.....	.....
	.....	.....	.....	.....	.....	.....	24900	6440	33500	.....	.....	.....
	.....	.....	.....	.....	.....	.....	111 000	28 600	149 000	.....	.....	.....
1218	28700	7440	42600	35100	9090	42600	38100	9880	47600	42600	11000	55100
	128 000	33 100	190 000	156 000	40 400	190 000	170 000	43 900	212 000	189 000	49 000	245 000
5218	51000	13200	89100	62300	16100	89100	67700	17500	99600	75500	19600	115000
	227 000	58 700	396 000	277 000	71 700	396 000	301 000	78 000	443 000	336 000	87 000	513 000
1318	52600	13600	74200	64200	16600	74200	64200	16600	74200	74200	19200	90100
	234 000	60 600	330 000	285 000	73 900	330 000	285 000	73 900	330 000	330 000	85 500	401 000
7318	69000	17900	105000	84300	21800	105000	84300	21800	105000	97500	25300	128000
	307 000	79 500	469 000	375 000	97 100	469 000	375 000	97 100	469 000	434 000	112 000	569 000
5318	88400	22900	145000	108000	27900	145000	108000	27900	145000	125000	32300	176000
	393 000	102 000	644 000	480 000	124 000	644 000	480 000	124 000	644 000	556 000	144 000	783 000
1919	.....	.....	.....	.....	.....	.....	14600	3790	23600	.....	.....	.....
	.....	.....	.....	.....	.....	.....	65 100	16 900	105 000	.....	.....	.....
1019	.....	.....	.....	.....	.....	.....	25500	6600	35100	.....	.....	.....
	.....	.....	.....	.....	.....	.....	113 000	29 400	156 000	.....	.....	.....
1219	33400	8650	50000	40800	10600	50000	42600	11000	53000	49500	12800	64700
	149 000	38 500	222 000	181 000	47 000	222 000	189 000	49 000	236 000	220 000	57 000	288 000
5219	58500	15200	103000	71400	18500	103000	74600	19300	109000	86700	22400	133000
	260 000	67 400	457 000	318 000	82 300	457 000	332 000	85 900	484 000	386 000	99 800	592 000
1319	55300	14300	80500	67600	17500	80500	67600	17500	80500	77400	20100	96600
	246 000	63 700	358 000	300 000	77 800	358 000	300 000	77 800	358 000	344 000	89 200	430 000
7319	75800	19600	121000	92600	24000	121000	92600	24000	121000	106000	27500	145000
	337 000	87 400	537 000	412 000	107 000	537 000	412 000	107 000	537 000	472 000	122 000	644 000
5319	93000	24100	157000	114000	29400	157000	114000	29400	157000	130000	33700	188000
	414 000	107 000	698 000	505 000	131 000	698 000	505 000	131 000	698 000	579 000	150 000	838 000
1920	.....	.....	.....	.....	.....	.....	17300	4470	25600	.....	.....	.....
	.....	.....	.....	.....	.....	.....	76 800	19 900	114 000	.....	.....	.....
1020	.....	.....	.....	.....	.....	.....	26100	6760	36700	.....	.....	.....
	.....	.....	.....	.....	.....	.....	116 000	30 100	163 000	.....	.....	.....
1220	36500	9470	54800	44600	11600	54800	46600	12100	58000	54100	14000	70900
	163 000	42 100	244 000	198 000	51 400	244 000	207 000	53 700	258 000	241 000	62 400	315 000
5220	65900	17100	117000	80500	20800	117000	84000	21800	124000	97700	25300	151000
	293 000	76 000	520 000	358 000	92 700	520 000	374 000	96 800	551 000	434 000	113 000	674 000
1320	60600	15700	88300	74000	19200	88300	74000	19200	88300	84800	22000	106000
	270 000	69 800	393 000	329 000	85 300	393 000	329 000	85 300	393 000	377 000	97 700	472 000
7320	82500	21400	131000	101000	26100	131000	101000	26100	131000	115000	29900	157000
	367 000	95 000	584 000	448 000	116 000	584 000	448 000	116 000	584 000	513 000	133 000	700 000
5320	111000	28700	192000	135000	35100	192000	135000	35100	192000	155000	40200	231000
	493 000	128 000	855 000	602 000	156 000	855 000	602 000	156 000	855 000	691 000	179 000	1030 000

Ratings

Series M

105mm, 110mm,
120mm Bores



pounds/newtons

Basic bearing number	Formed steel retainer						Segmented steel retainer			Full roller complement		
	Separable			Non-Separable			C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating
	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating						
1921	.....	.....	.....	.....	.....	.....	17900	4650	27300	.....	.....	.....
1021	.....	.....	.....	.....	.....	.....	79 800	20 700	121 000	.....	.....	.....
1221	38600	9990	57800	47100	12200	57800	31000	8040	45000	.....	.....	.....
5221	172 000	44 400	257 000	210 000	54 300	257 000	138 000	35 800	200 000	.....	.....	.....
1321	73400	19000	132000	89600	23200	132000	49200	12700	61200	57200	14800	74800
7321	327 000	84 600	588 000	399 000	103 000	588 000	219 000	56 600	272 000	254 000	65 800	333 000
5321	71700	18600	108000	87500	22700	108000	93600	24200	140000	109000	28200	171000
1922	319 000	82 500	479 000	389 000	101 000	479 000	416 000	108 000	622 000	484 000	125 000	760 000
1022	90500	23400	145000	110000	28600	145000	87500	22700	108000	100000	26000	129000
1222	403 000	104 000	647 000	491 000	127 000	647 000	389 000	101 000	479 000	446 000	116 000	575 000
5222	118000	30500	204000	144000	37200	204000	110000	28600	145000	127000	32800	174000
1322	523 000	136 000	906 000	639 000	165 000	906 000	491 000	127 000	647 000	563 000	146 000	776 000
7322	.....	.....	.....	.....	.....	.....	144000	37200	204000	165000	42700	244000
5322	.....	.....	.....	.....	.....	.....	639 000	165 000	906 000	734 000	190 000	1090 000
1924	.....	.....	.....	.....	.....	.....	18200	4720	28200	.....	.....	.....
1024	.....	.....	.....	.....	.....	.....	81 000	21 000	125 000	.....	.....	.....
1224	.....	.....	.....	.....	.....	.....	35300	9150	50600	.....	.....	.....
5224	.....	.....	.....	.....	.....	.....	157 000	40 700	225 000	.....	.....	.....
1324	43600	11300	67300	53200	13800	67300	55400	14400	71100	61900	16000	82300
7324	194 000	50 200	299 000	237 000	61 300	299 000	247 000	63 900	316 000	275 000	71 300	366 000
5324	79900	20700	147000	97600	25300	147000	102000	26300	155000	113000	29400	179000
1925	356 000	92 100	653 000	434 000	112 000	653 000	452 000	117 000	689 000	505 000	131 000	798 000
1025	72800	18900	107000	88900	23000	107000	88900	23000	107000	102000	26400	129000
1225	324 000	83 800	477 000	395 000	102 000	477 000	395 000	102 000	477 000	453 000	117 000	572 000
5225	99800	25800	161000	122000	31500	161000	122000	31500	161000	140000	36200	193000
1325	444 000	115 000	715 000	542 000	140 000	715 000	542 000	140 000	715 000	621 000	161 000	858 000
7325	138000	35700	244000	169000	43600	244000	169000	43600	244000	193000	50000	293000
5325	614 000	159 000	1090 000	750 000	194 000	1090 000	750 000	194 000	1090 000	859 000	223 000	1300 000
1926	.....	.....	.....	.....	.....	.....	23800	6160	37300	.....	.....	.....
1026	.....	.....	.....	.....	.....	.....	106 000	27 400	166 000	.....	.....	.....
1226	.....	.....	.....	.....	.....	.....	37000	9590	55100	.....	.....	.....
5226	.....	.....	.....	.....	.....	.....	165 000	42 700	245 000	.....	.....	.....
1326	49400	12800	77900	60300	15600	77900	62800	16300	82300	72500	18800	99600
7326	220 000	56 900	347 000	268 000	69 500	347 000	279 000	72 400	366 000	323 000	83 500	443 000
5326	97200	25200	186000	119000	30700	186000	124000	32000	196000	143000	36900	238000
1927	432 000	112 000	827 000	528 000	137 000	827 000	550 000	142 000	873 000	634 000	164 000	1060 000
1027	84600	21900	126000	103000	26700	126000	103000	26700	126000	118000	30700	151000
1227	376 000	97 400	562 000	459 000	119 000	562 000	459 000	119 000	562 000	527 000	136 000	674 000
5227	118000	30500	193000	144000	37300	193000	144000	37300	193000	165000	42700	232000
1327	524 000	136 000	861 000	640 000	166 000	861 000	640 000	166 000	861 000	734 000	190 000	1030 000
7327	170000	44100	310000	208000	53900	310000	208000	53900	310000	238000	61700	373000
5327	757 000	196 000	1380 000	925 000	240 000	1380 000	925 000	240 000	1380 000	1060 000	275 000	1660 000

Selection guide, pages G-5, G-6.

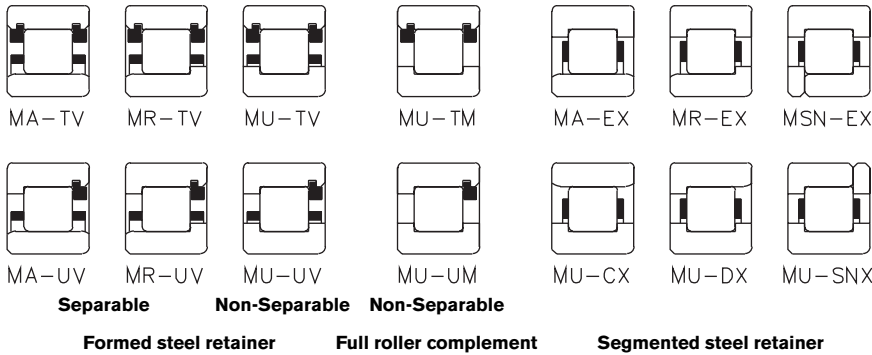
Additional information, page G-31.

For shaft and housing bearing seat diameters, pages G-25 through G-30.

Ratings

Series M

130mm, 140mm,
150mm Bores



pounds/newtons

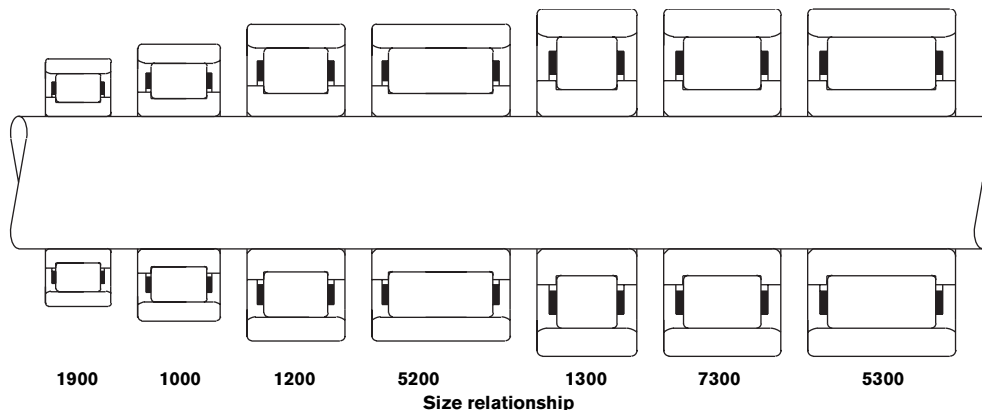
Basic bearing number	Formed steel retainer						Segmented steel retainer			Full roller complement		
	Separable			Non-Separable			C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating
	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating						
1926	.....	.....	.....	.....	.....	.....	30100	7800	47600	.....	.....	.....
1026	.....	.....	.....	.....	.....	.....	134 000	34 700	212 000	.....	.....	.....
1226	55300	14300	85200	67500	17500	85200	47500	12300	69100	.....	.....	.....
5226	104000	26900	192000	127000	32800	192000	211 000	54 700	307 000	.....	.....	.....
1326	462 000	120 000	852 000	564 000	146 000	852 000	67500	17500	85200	78500	20300	104000
7326	100000	25900	151000	122000	31700	151000	300 000	77 800	379 000	349 000	90 400	463 000
5326	446 000	115 000	674 000	544 000	141 000	674 000	127000	32800	192000	147000	38200	234000
1928	138000	35700	228000	168000	43600	228000	564 000	146 000	852 000	655 000	170 000	1040 000
1028	613 000	159 000	1020 000	749 000	194 000	1020 000	122000	31700	151000	140000	36300	182000
1228	190000	49300	346000	232000	60200	346000	544 000	141 000	674 000	624 000	162 000	808 000
5228	847 000	219 000	1540 000	1030 000	268 000	1540 000	168000	43600	228000	193000	50000	274000
1328	.....	.....	.....	.....	.....	.....	749 000	194 000	1020 000	858 000	222 000	1220 000
7328	.....	.....	.....	.....	.....	.....	232000	60200	346000	267000	69000	415000
5328	.....	.....	.....	.....	.....	.....	1030 000	268 000	1540 000	1190 000	307 000	1850 000
1930	.....	.....	.....	.....	.....	.....	31100	8060	50800	.....	.....	.....
1030	.....	.....	.....	.....	.....	.....	138 000	35 900	226 000	.....	.....	.....
1230	.....	.....	.....	.....	.....	.....	49900	12900	75100	.....	.....	.....
5230	.....	.....	.....	.....	.....	.....	222 000	57 400	334 000	.....	.....	.....
1932	61700	16000	95000	75300	19500	95000	75300	19500	95000	87600	22700	116000
1032	274 000	71 100	422 000	335 000	86 800	422 000	335 000	86 800	422 000	390 000	101 000	516 000
1232	129000	33400	244000	157000	40700	244000	157000	40700	244000	183000	47300	299000
5232	573 000	148 000	1090 000	699 000	181 000	1090 000	699 000	181 000	1090 000	813 000	211 000	1330 000
1332	111000	28800	170000	136000	35200	170000	136000	35200	170000	156000	40400	204000
7332	495 000	128 000	756 000	605 000	157 000	756 000	605 000	157 000	756 000	693 000	180 000	907 000
5332	158000	40800	266000	192000	49800	266000	192000	49800	266000	221000	57100	319000
1934	701 000	182 000	1180 000	856 000	222 000	1180 000	856 000	222 000	1180 000	981 000	254 000	1420 000
1034	209000	54200	383000	256000	66200	383000	256000	66200	383000	293000	75900	460000
1234	931 000	241 000	1700 000	1140 000	295 000	1700 000	1140 000	295 000	1700 000	1300 000	338 000	2050 000
5234	.....	.....	.....	.....	.....	.....	41800	10800	68600	.....	.....	.....
1936	.....	.....	.....	.....	.....	.....	186 000	48 100	305 000	.....	.....	.....
1036	.....	.....	.....	.....	.....	.....	56700	14700	85800	.....	.....	.....
1236	.....	.....	.....	.....	.....	.....	252 000	65 300	382 000	.....	.....	.....
5236	71000	18400	111000	86700	22500	111000	86700	22500	111000	101000	26100	135000
1938	316 000	81 800	492 000	386 000	99 900	492 000	386 000	99 900	492 000	448 000	116 000	601 000
1038	150000	38900	289000	183000	47500	289000	183000	47500	289000	213000	55200	354000
1238	668 000	173 000	1290 000	815 000	211 000	1290 000	815 000	211 000	1290 000	948 000	245 000	1570 000

See facing page for footnotes.

Ratings

Series M

160mm, 170mm,
180mm, 190mm,
200mm Bores



pounds/newtons

Basic bearing number	Formed steel retainer						Segmented steel retainer			Full roller complement		
	Separable			Non-Separable			C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating
	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating						
1932	.....	.....	.....	.....	.....	.....	43200	11200	73100	.....	.....	.....
1032	.....	.....	.....	.....	.....	.....	192 000	49 800	325 000	.....	.....	.....
1232	78300	20300	120000	95600	24800	120000	65000	16800	99800	.....	.....	.....
5232	348 000	90 200	534 000	425 000	110 000	534 000	289 000	74 800	444 000	.....	.....	.....
	174000	45100	336000	213000	55100	336000	99800	25800	127000	112000	29000	148000
	775 000	201 000	1490 000	946 000	245 000	1490 000	444 000	115 000	565 000	498 000	129 000	660 000
1934	.....	.....	.....	.....	.....	.....	222000	57500	356000	249000	64600	415000
1034	.....	.....	.....	.....	.....	.....	988 000	256 000	1580 000	1110 000	287 000	1850 000
1234	95700	24800	149000	117000	30300	149000	43700	11300	75500	.....	.....	.....
5234	426 000	110 000	664 000	520 000	135 000	664 000	195 000	50 400	336 000	.....	.....	.....
	202000	52400	391000	247000	64000	391000	81400	21100	130000	.....	.....	.....
	900 000	233 000	1740 000	1100 000	285 000	1740 000	362 000	93 800	577 000	.....	.....	.....
1936	.....	.....	.....	.....	.....	.....	122000	31600	158000	137000	35500	184000
1036	.....	.....	.....	.....	.....	.....	543 000	141 000	703 000	609 000	158 000	820 000
1236	99600	25800	159000	122000	31500	159000	258000	66800	414000	290000	75000	483000
5236	443 000	115 000	708 000	541 000	140 000	708 000	1150 000	297 000	1840 000	1290 000	334 000	2150 000
	195000	50600	379000	239000	61800	379000	56000	14500	93700	.....	.....	.....
	870 000	225 000	1690 000	1060 000	275 000	1690 000	249 000	64 500	417 000	.....	.....	.....
1938	.....	.....	.....	.....	.....	.....	97900	25400	154000	.....	.....	.....
1038	.....	.....	.....	.....	.....	.....	436 000	113 000	685 000	.....	.....	.....
1238	143200	37000	239400	175400	45600	239400	122000	31500	159000	136000	35300	186000
5238	637 000	164 900	1065000	780 000	203 000	1065000	541 000	140 000	708 000	607 000	157 000	826 000
	242000	62800	489000	296000	76600	489000	239000	61800	379000	268000	69400	442000
	1080 000	279 000	2170 000	1320 000	341 000	2170 000	1060 000	275 000	1690 000	1190 000	309 000	1970 000
1940	.....	.....	.....	.....	.....	.....	56800	14700	97000	.....	.....	.....
1040	.....	.....	.....	.....	.....	.....	253 000	65 500	431 000	.....	.....	.....
1240	123000	31900	201000	150000	38900	201000	100000	26000	161000	.....	.....	.....
5240	547 000	142 000	893 000	668 000	173 000	893 000	446 000	115 000	716 000	.....	.....	.....
	270000	69900	551000	329000	85300	551000	190600	49300	267700	205000	53000	299000
	1200 000	311 000	2450 000	1460 000	379 000	2450 000	848 000	219 500	1191000	912 000	236 000	1330000
							296000	76600	489000	332000	86000	570000
							1320 000	341 000	2170 000	1480 000	383 000	254 000
							73700	19100	125000	.....	.....	.....
							328 000	84 900	556 000	.....	.....	.....
							121000	31300	193000	.....	.....	.....
							538 000	139 000	859 000	.....	.....	.....
							150000	38900	201000	175000	45200	246000
							668 000	173 000	893 000	777 000	201 000	1090 000
							329000	85300	551000	383000	99200	673000
							1460 000	379 000	2450 000	1700 000	441 000	2990 000

Selection guide, pages G-5, G-6.

Additional information, page G-31.

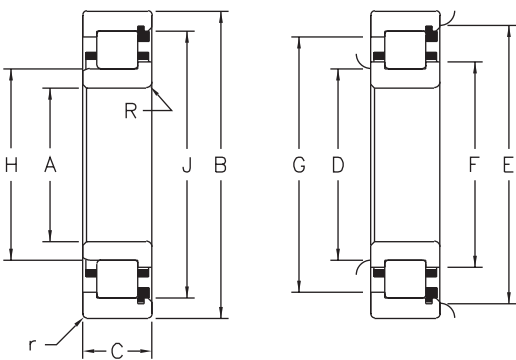
For shaft and housing bearing seat diameters, pages G-25 through G-30.

Cylindrical Roller Bearings

Series M

25mm, 30mm, 35mm, 40mm Bores

- Fully Crowned Rollers
- Precision Ground Ribs
- Contoured Roller Pockets
- Rollers Individually Separated
- Optional Full Complement



Dimensions (inches/mm)

Basic bearing number	A	B	C	D		E		F	G	H	J	R	r	Outer Ring & Roller Assembly Under Roller Dia.	Inner Ring & Roller Assembly Over Roller Dia.
	Bore diameter	Outside diameter	Width	Min. Shaft shoulder dia.		Max. housing shoulder dia.		Inner ring rib O.D.	Outer ring rib I.D.	Inner ring raceway O.D.	Outer ring raceway I.D.	Inner	Outer		
				Plain inner ring	Ribbed inner ring	Plain outer ring	Ribbed outer ring								
1205	.9843 25.000	2.0472	.5906	1.20	1.26	1.85	1.76	1.351	1.691	1.2664	1.7659	.040	.040	1.2677	1.7646
5205		52.000	15.000												
		2.0472	.8125												
1305		2.4409	.6693	1.24	1.33	2.20	2.10	1.476	1.974	1.3375	2.1034	.040	.040	1.3388	2.1021
7305		62.000	17.000												
		2.4409	.8268												
5305		62.000	21.000												
		2.4409	1.0000												
		62.000	25.400												
1206		1.181 30.000	2.4409	.6299	1.42	1.49	2.22	2.12	1.609	2.027	1.4985	2.1289	.040	.040	1.4999	2.1275
5206	62.000		16.000												
	2.4409		.9375												
1306	2.8346		.7480	1.49	1.60	2.52	2.37	1.742	2.239	1.6016	2.3783	.060	.040	1.6029	2.3770
7306	72.000		19.000												
	2.8346		.9055												
5306	72.000		23.000												
	2.8346		1.1875												
	72.000		30.162												
1207	1.3780 35.000		2.8346	.6693	1.64	1.73	2.57	2.45	1.862	2.343	1.7311	2.4595	.040	.040	1.7327	2.4579
5207		72.000	17.000												
		2.8346	1.0625												
1307		3.1496	.8268	1.72	1.84	2.81	2.67	1.995	2.538	1.8442	2.6749	.060	.060	1.8457	2.6734
7307		80.000	21.000												
		3.1496	1.0236												
5307		80.000	26.000												
		3.1496	1.3750												
		80.000	34.925												
1208		1.5748 40.000	3.1496	.7087	1.86	1.96	2.87	2.74	2.104	2.615	1.9657	2.7409	.060	.040	1.9673	2.7393
5208	80.000		18.000												
	3.1496		1.1875												
1308	3.5433		.9055	1.93	2.05	3.20	3.05	2.244	2.887	2.0590	3.0576	.060	.060	2.0606	3.0560
7308	90.000		23.000												
	3.5433		1.1811												
5308	90.000		30.000												
	3.5433		1.4375												
	90.000		36.512												

See facing page for footnotes.

Cylindrical Roller Bearings

Series M

45mm, 50mm, 55mm, Bores

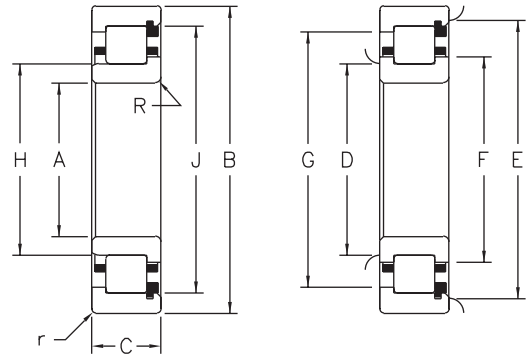
Fully Crowned Rollers

Precision Ground Ribs

Contoured Roller Pockets

Rollers Individually Separated

Optional Full Complement



Dimensions (inches/mm)

Basic bearing number	A Bore diameter	B Outside diameter	C Width	D Min. Shaft shoulder dia.		E Max. housing shoulder dia.		F Inner ring rib O.D.	G Outer ring rib I.D.	H Inner ring raceway O.D.	J Outer ring raceway I.D.	R Inner	r Outer	Outer Ring & Roller Assembly Under Roller Dia.	Inner Ring & Roller Assembly Over Roller Dia.
				Plain inner ring	Ribbed inner ring	Plain outer ring	Ribbed outer ring								
1209		3.3465 85.000	.7480 19.000	2.08 52.8	2.18 55.4	3.08 78.2	2.95 74.9	2.324 59.03	2.827 71.80	2.1858 55.519	2.9523 74.988	.060 1.52	.040 1.02	2.1877 55.568	2.9504 74.939
5209		3.3465 85.000	1.1875 30.162												
1309	1.7717 45.000	3.9370 100.000	.9843 25.000	2.20 55.9	2.33 59.2	3.56 90.4	3.38 85.8	2.532 64.31	3.208 81.48	2.3371 59.362	3.3899 86.103	.080 2.03	.060 1.52	2.3389 59.408	3.3881 86.058
7309		3.9370 100.000	1.2205 31.000												
5309		3.9370 100.000	1.5625 39.688												
1010		3.1496 80.000	.6299 16.000												
1210		3.5433 90.000	.7874 20.000	2.27 57.6	2.38 60.4	3.26 82.8	3.13 79.5	2.518 63.96	3.018 76.66	2.3803 60.460	3.1317 79.545	.060 1.52	.040 1.02	2.3823 60.511	3.1297 79.494
5210		3.5433 90.000	1.1875 30.162												
1310	1.9685 50.000	4.3307 110.000	1.0630 27.000	2.40 61.0	2.56 65.0	3.90 99.1	3.72 94.5	2.781 70.64	3.518 89.36	2.5648 65.146	3.7201 94.490	.080 2.03	.080 2.03	2.5667 65.194	3.7182 94.442
7310		4.3307 110.000	1.2992 33.000												
5310		4.3307 110.000	1.7500 44.450												
1911		3.1496 80.000	.5118 13.000	2.36 59.9	2.43 61.7	2.96 75.2	2.88 73.2	2.530 64.26	2.789 70.84	2.4300 61.722	2.8889 73.378	.040 1.02	.040 1.02	2.4323 61.780	2.8866 73.320
1011		3.5433 90.000	.7087 18.000	2.44 62.0	2.53 64.3	3.29 83.6	3.17 80.5	2.665 67.69	3.045 77.34	2.5392 64.496	3.1705 80.531	.060 1.52	.040 1.02	2.5415 64.555	3.1682 80.472
1211		3.9370 100.000	.8268 21.000	2.52 64.0	2.63 66.8	3.60 91.4	3.46 87.9	2.785 70.74	3.328 84.53	2.6339 66.901	3.4653 88.019	.080 2.03	.060 1.52	2.6361 66.957	3.4631 87.963
5211	2.1654 55.000	3.9370 100.000	1.3125 33.338												
1311		4.7244 120.000	1.1417 29.000	2.62 66.5	2.81 71.4	4.28 108.7	4.07 103.4	3.045 77.34	3.860 98.04	2.8123 71.432	4.0790 103.607	.080 2.03	.080 2.03	2.8144 71.486	4.0769 103.553
7311		4.7244 120.000	1.4173 36.000												
5311		4.7244 120.000	1.9375 49.212												

Please consult for availability.

▲ Largest fillet radius that will clear bearing corners.

Selection guide, pages G-5, G-6.

Additional information, page G-31.

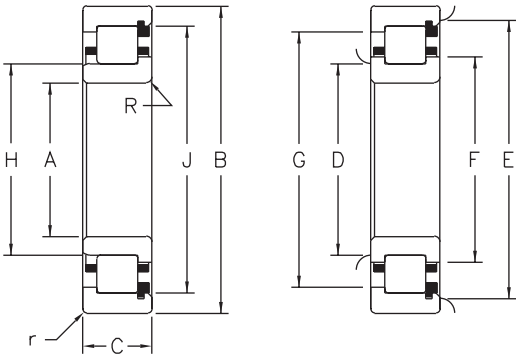
For shaft and housing bearing seat diameters, pages G-25 through G-30.

Cylindrical Roller Bearings

Series M

60mm, 65mm, 70mm Bores

- Fully Crowned Rollers
- Precision Ground Ribs
- Contoured Roller Pockets
- Rollers Individually Separated
- Optional Full Complement



Dimensions (inches/mm)

Basic bearing number	A Bore diameter	B Outside diameter	C Width	D Min. Shaft shoulder dia.		E Max. housing shoulder dia.		F Inner ring rib O.D.	G Outer ring rib I.D.	H Inner ring raceway O.D.	J Outer ring raceway I.D.	R Inner	r Outer	Outer Ring & Roller Assembly Under Roller Dia.	Inner Ring & Roller Assembly Over Roller Dia.
				Plain inner ring	Ribbed inner ring	Plain inner ring	Ribbed inner ring					▲	▲		
1912		3.3465	.5118	2.56	2.63	3.16	3.08	2.730	2.989	2.6300	3.0890	.040	.040	2.6324	3.0866
		85.000	13.000	65.0	66.8	80.3	78.2	69.34	75.92	66.802	78.461	1.02	1.02	66.863	78.400
1012		3.7402	.7087	2.64	2.73	3.49	3.36	2.862	3.242	2.7362	3.3675	.060	.040	2.7385	3.3652
		95.000	18.000	67.0	69.3	88.6	85.3	72.69	82.35	69.499	85.534	1.52	1.02	69.558	85.476
1212		4.3307	.8661	2.73	2.84	3.99	3.84	3.029	3.681	2.8496	3.8489	.080	.060	2.8519	3.8466
		110.000	22.000												
5212	2.3622	4.3307	1.4375												
	60.000	110.000	36.512	69.3	72.1	101.3	97.5	76.94	93.50	72.380	97.762	2.03	1.52	72.438	97.704
1312		5.1181	1.2205	2.87	3.05	4.64	4.42	3.308	4.187	3.0532	4.4286	.100	.080	3.0554	4.4264
		130.000	31.000												
7312		5.1181	1.4961												
		130.000	38.000	72.9	77.5	117.8	112.3	84.02	106.35	77.551	112.486	2.54	2.03	77.607	112.431
5312		5.1181	2.1250	2.87	3.05	4.64	4.42	3.308	4.187	3.0532	4.4286	.100	.080	3.0554	4.4264
		130.000	53.975												
		130.000	53.975												
1913		3.5433	.5118	2.76	2.82	3.36	3.28	2.925	3.184	2.8250	3.2841	.040	.040	2.8275	3.2816
		90.000	13.000	70.1	71.6	85.3	83.3	74.30	80.87	71.755	83.416	1.02	1.02	71.818	83.353
1013		3.9370	.7087	2.84	2.93	3.69	3.56	3.060	3.439	2.9332	3.5646	.060	.040	2.9356	3.5622
		100.000	18.000	72.1	74.4	93.7	90.4	77.72	87.35	74.503	90.541	1.52	1.02	74.565	90.479
1213		4.7244	.9055	3.03	3.16	4.33	4.16	3.360	3.986	3.1662	4.1655	.100	.060	3.1685	4.1632
		120.000	23.000												
5213	2.5591	4.7244	1.5000												
	65.000	120.000	38.100	77.0	80.3	110.0	105.7	85.34	101.24	80.421	105.804	2.54	1.52	80.480	105.745
1313		5.5118	1.2992	3.10	3.29	5.00	4.77	3.571	4.515	3.2943	4.7782	.100	.080	3.2966	4.7759
		140.000	33.000												
7313		5.5118	1.5748												
		140.000	40.000	78.7	83.6	127.0	121.2	90.70	114.68	83.675	121.366	2.54	2.03	83.734	121.308
5313		5.5118	2.3125	3.10	3.29	5.00	4.77	3.571	4.515	3.2943	4.7782	.100	.080	3.2966	4.7759
		140.000	58.738												
		140.000	58.738												
1914		3.9370	.6299	2.99	3.07	3.72	3.63	3.182	3.520	3.0700	3.6326	.040	.040	3.0728	3.6298
		100.000	16.000	75.9	78.0	94.5	92.2	80.82	89.41	77.978	92.268	1.02	1.02	78.050	92.196
1014		4.3307	.7874	3.05	3.15	4.07	3.93	3.312	3.779	3.1570	3.9333	.080	.040	3.1597	3.9306
		110.000	20.000	77.5	80.0	103.4	99.8	84.12	95.99	80.188	99.906	2.03	1.02	80.256	99.838
1214		4.9213	.9449	3.22	3.33	4.55	4.39	3.528	4.213	3.3375	4.3912	.100	.060	3.3402	4.3885
		125.000	24.000												
5214	2.7559	4.9213	1.5625												
	70.000	125.000	39.688	81.8	84.6	115.6	111.5	89.61	107.01	84.772	111.536	2.54	1.52	84.840	111.468
1314		5.9055	1.3780	3.32	3.51	5.34	5.09	3.808	4.811	3.5115	5.0935	.125	.080	3.5141	5.0909
		150.000	35.000												
7314		5.9055	1.6929												
		150.000	43.000	84.3	89.2	135.6	129.3	96.72	122.20	89.192	129.375	3.18	2.03	89.258	129.309
5314		5.9055	2.5000	3.32	3.51	5.34	5.09	3.808	4.811	3.5115	5.0935	.125	.080	3.5141	5.0909
		150.000	63.600												
		150.000	63.600												

See facing page for footnotes.

Cylindrical Roller Bearings

Series M

75mm, 80mm, 85mm Bores

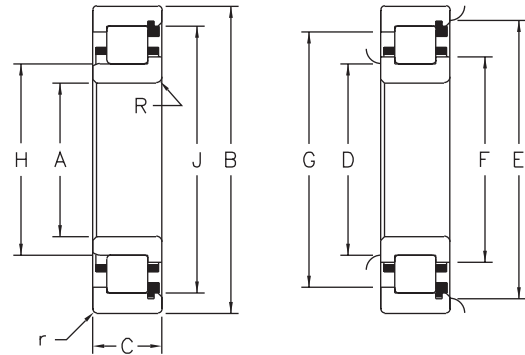
Fully Crowned Rollers

Precision Ground Ribs

Contoured Roller Pockets

Rollers Individually Separated

Optional Full Complement



Dimensions (inches/mm)

Basic bearing number	A Bore diameter	B Outside diameter	C Width	D Min. shaft shoulder dia.		E Max. housing shoulder dia.		F Inner ring rib O.D.	G Outer ring rib I.D.	H Inner ring raceway O.D.	J Outer ring raceway I.D.	R Inner	r Outer	Outer Ring & Roller Assembly Under Roller Dia.	Inner Ring & Roller Assembly Over Roller Dia.
				Plain inner ring	Ribbed inner ring	Plain inner ring	Ribbed inner ring								
1915		4.1339 105.000	.6299 16.000	3.18 80.8	3.26 82.8	3.92 99.6	3.82 97.0	3.377 85.78	3.716 94.39	3.2650 82.931	3.8276 97.221	.040 1.02	.040 1.02	3.2678 83.003	3.8248 97.149
1015		4.5276 115.000	.7874 20.000	3.25 82.6	3.35 85.1	4.27 108.4	4.13 104.9	3.510 89.15	3.977 101.02	3.3550 85.217	4.1314 104.938	.080 2.03	.040 1.02	3.3578 85.288	4.1286 104.867
1215		5.1181 130.000	.9843 25.000	3.37 85.6	3.50 88.9	4.73 120.1	4.55 115.6	3.695 93.85	4.380 111.25	3.5045 89.014	4.5583 115.781	.100 2.54	.060 1.52	3.5073 89.085	4.5555 115.710
5215	2.9528 75.000	5.1181 130.000	1.6250 41.275												
1315		6.2992 160.000	1.4567 37.000	3.56 90.4	3.77 95.8	5.74 145.8	5.47 138.9	4.096 104.04	5.172 131.37	3.7764 95.920	5.4778 139.136	.125 3.18	.080 2.03	3.7790 95.987	5.4752 139.070
7315		6.2992 160.000	1.8110 46.000												
5315		6.2992 160.000	2.6875 68.262												
1916		4.3307 110.000	.6299 16.000	3.38 85.8	3.46 87.9	4.11 104.4	4.02 102.1	3.572 90.73	3.911 99.34	3.4600 87.884	4.0227 102.176	.040 1.02	.040 1.02	3.4629 87.958	4.0198 102.102
1016		4.9213 125.000	.8661 22.000	3.48 88.4	3.59 91.2	4.63 117.6	4.47 113.5	3.768 95.71	4.309 109.45	3.5950 91.313	4.4523 113.088	.080 2.03	.040 1.02	3.5979 91.387	4.4493 113.012
1216		5.5118 140.000	1.0236 26.000	3.59 91.2	3.75 95.2	5.09 129.3	4.90 124.5	3.968 100.79	4.700 119.38	3.7514 95.286	4.9078 124.658	.100 2.54	.080 2.03	3.7542 95.356	4.9050 124.588
5216	3.1496 80.000	5.5118 140.000	1.7500 44.450												
1316		6.6929 170.000	1.5354 39.000	3.78 96.0	4.00 101.6	6.08 154.4	5.80 147.3	4.342 110.29	5.480 139.19	4.0014 101.636	5.8041 147.424	.125 3.18	.080 2.03	4.0041 101.704	5.8014 147.356
7316		6.6929 170.000	1.9291 49.000												
5316		6.6929 170.000	2.6875 68.262												
1917		4.7244 120.000	.7087 18.000	3.63 92.2	3.72 94.5	4.48 113.8	4.35 101.5	3.851 97.82	4.231 107.47	3.7250 94.615	4.3574 110.678	.060 1.52	.040 1.02	3.7284 94.702	4.3540 110.591
1017		5.1181 130.000	.8661 22.000	3.68 93.5	3.79 96.3	4.83 122.7	4.67 118.6	3.962 100.63	4.507 114.48	3.7920 96.317	4.6525 118.173	.080 2.03	.040 1.02	3.7955 96.405	4.6493 118.092
1217		5.9055 150.000	1.1024 28.000	3.86 98.0	4.01 101.8	5.48 139.2	5.28 134.1	4.254 108.05	5.056 128.42	4.0160 102.006	5.2841 134.216	.125 3.18	.080 2.03	4.0193 102.090	5.2808 134.132
5217	3.3465 85.000	5.9055 150.000	1.9375 49.212												
1317		7.0868 180.000	1.6142 41.000	4.05 102.9	4.27 108.4	6.47 164.3	6.19 157.2	4.655 118.24	5.852 148.64	4.2725 108.522	6.1977 157.422	.156 3.96	.100 2.54	4.2757 108.604	6.1945 157.340
7317		7.0866 180.000	2.0079 51.000												
5317		7.0866 180.000	2.8750 73.025												

Please consult for availability.

▲ Largest fillet radius that will clear bearing corners.

Selection guide, pages G-5, G-6.

Additional information, page G-31.

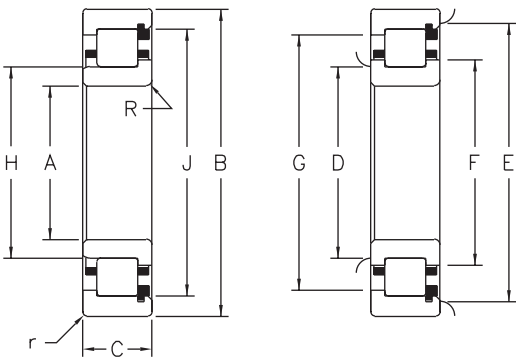
For shaft and housing bearing seat diameters, pages G-25 through G-30.

Cylindrical Roller Bearings

Series M

90mm, 95mm, 100mm Bores

- Fully Crowned Rollers
- Precision Ground Ribs
- Contoured Roller Pockets
- Rollers Individually Separated
- Optional Full Complement



Dimensions (inches/mm)

Basic bearing number	A	B	C	D		E		F	G	H	J	R	r	Outer Ring & Roller Assembly Under Roller Dia.	Inner Ring & Roller Assembly Over Roller Dia.
	Bore diameter	Outside diameter	Width	Min. Shaft shoulder dia.		Max. housing shoulder dia.		Inner ring rib O.D.	Outer ring rib I.D.	Inner ring raceway O.D.	Outer ring raceway I.D.	Inner	Outer		
				Plain inner ring	Ribbed inner ring	Plain outer ring	Ribbed outer ring								
1918	3.5433 90.000	4.9213	.7087	3.82	3.92	4.67	4.55	4.046	4.446	3.9200	4.5526	.060	.040	3.9236	4.5490
		125.000	18.000	97.0	99.6	118.6	115.6	102.77	112.92	99.568	115.636	1.52	1.02	99.660	115.544
1018		5.5118	.9449	3.92	4.03	5.18	5.03	4.229	4.831	4.0300	5.0305	.100	.060	4.0335	5.0270
		140.000	24.000	99.6	102.4	131.6	127.8	107.42	122.71	102.362	127.775	2.54	1.52	102.451	127.686
1218		6.2992	1.811	4.06	4.22	5.81	5.59	4.495	5.350	4.2212	5.5980	.125	.080	4.2246	5.5946
5218		160.000	30.000												
		6.2992	2.0625												
		160.000	52.388	103.1	107.2	147.6	142.0	114.17	135.89	107.218	142.189	3.18	2.03	107.305	142.102
1318		7.4803	1.6929	4.26	4.48	6.80	6.51	4.895	6.148	4.4894	6.5121	.156	.100	4.4927	6.5088
		190.000	43.000												
7318		7.4803	2.1260												
		190.000	54.000	108.2	113.8	172.7	165.4	124.33	156.16	114.031	165.047	3.96	2.54	114.115	165.323
5318		7.4803	2.8750												
		190.000	73.025												
1919		3.7402 95.000	5.1181	.7087	4.02	4.11	4.87	4.74	4.241	4.622	4.1150	4.7476	.060	.040	4.1186	4.7440
	130.000		18.000	102.1	104.4	123.7	120.4	107.72	117.40	104.521	120.589	1.52	1.02	104.613	120.497
1019	5.7087		.9449	4.11	4.22	5.38	5.22	4.425	5.027	4.2260	5.2266	.100	.060	4.2296	5.2230
	145.000		24.000	104.4	107.2	136.6	132.6	112.40	127.68	107.340	132.756	2.54	1.52	107.432	132.664
1219	6.6929		1.2598	4.29	4.46	6.18	5.95	4.765	5.688	4.4692	5.9544	.125	.080	4.4726	5.9510
5219	170.000		32.000												
	6.6929		2.1875												
	170.000		55.562	109.0	113.3	157.0	151.1	121.03	144.48	113.518	151.242	3.18	2.03	113.604	151.156
1319	7.8740		1.7717	4.53	4.80	7.16	6.83	5.215	6.468	4.8092	6.8319	.156	.100	4.8125	6.8286
	200.000		45.000												
7319	7.8740		2.2047												
	200.000		56.000	115.1	121.9	181.9	173.5	132.46	164.29	122.154	173.530	3.96	2.54	122.238	173.446
5319	7.8740		3.0625												
	200.000		77.788												
1920	3.9370 100.000		5.5118	.7874	4.22	4.33	5.25	5.10	4.485	4.953	4.3305	5.1078	.060	.040	4.3342	5.1041
		140.000	20.000	107.2	110.0	133.4	129.5	113.92	125.81	109.995	129.738	1.52	1.02	110.088	129.645
1020		5.9055	.9449	4.31	4.42	5.58	5.42	4.627	5.220	4.4230	5.4236	.100	.060	4.4266	5.4200
		150.000	24.000	109.5	112.3	141.7	137.7	117.52	132.59	112.344	137.759	2.54	1.52	112.435	137.668
1220		7.0866	1.3386	4.57	4.76	6.58	6.34	5.057	6.070	4.7640	6.3471	.156	.080	4.7675	6.3436
5220		180.000	34.000												
		7.0866	2.3750												
		180.000	60.325	116.1	120.9	167.1	161.0	128.45	154.18	121.006	161.216	3.96	2.03	121.094	161.128
1320		8.4646	1.8504	4.82	5.12	7.66	7.27	5.530	6.892	5.1246	7.2798	.187	1.00	5.1280	7.2764
		215.000	47.000												
7320		8.4646	2.3622												
		215.000	60.000	122.4	130.0	194.6	184.6	140.46	175.06	130.165	184.907	4.75	2.54	130.251	184.821
5320		8.4646	3.2500												
		215.000	82.550												

See facing page for footnotes.

Cylindrical Roller Bearings

Series M

105mm, 110mm, 120mm Bores

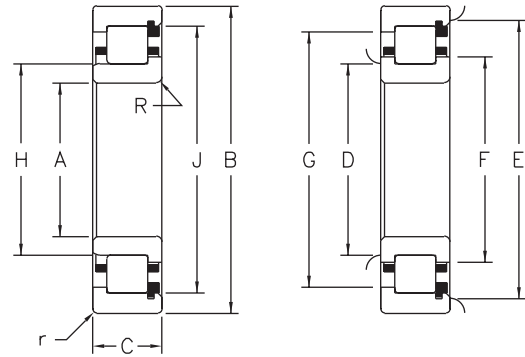
Fully Crowned Rollers

Precision Ground Ribs

Contoured Roller Pockets

Rollers Individually Separated

Optional Full Complement



Dimensions (inches/mm)

Basic bearing number	A Bore diameter	B Outside diameter	C Width	D Min. shaft shoulder dia.		E Max. housing shoulder dia.		F Inner ring rib O.D.	G Outer ring rib I.D.	H Inner ring raceway O.D.	J Outer ring raceway I.D.	R Inner	r Outer	Outer Ring & Roller Assembly Under Roller Dia.	Inner Ring & Roller Assembly Over Roller Dia.
				Plain inner ring	Ribbed inner ring	Plain outer ring	Ribbed outer ring								
1921	4.1339 105.000	5.7087	.7874	4.41	4.52	5.44	5.30	4.682	5.150	4.5274	5.3047	.060	.040	4.5311	5.3010
		145.000	20.000	112.0	114.8	138.2	134.6	118.92	130.81	114.996	134.739	1.52	1.02	115.089	134.646
1021		6.2992	1.0236	4.56	4.69	5.91	5.74	4.901	5.536	4.6910	5.7457	.100	.080	4.6947	5.7420
		160.000	26.000	115.8	119.1	150.1	145.8	124.48	140.61	119.151	145.941	2.54	2.03	119.245	145.847
1221		7.4803	1.4173	4.78	4.98	6.90	6.63	5.310	6.339	4.9811	6.6363	.156	.080	4.9847	6.6327
		190.000	36.000												
5221		7.4803	2.5625												
		190.000	65.088	121.4	126.5	175.3	168.4	134.87	161.01	126.520	168.562	3.96	2.03	126.611	168.470
1321		8.8583	1.9291	5.04	5.36	8.01	7.61	5.794	7.211	5.3616	7.6164	.187	.100	5.3650	7.6130
		225.000	49.000												
7321		8.8583	2.4803												
		225.000	63.000	128.0	136.1	203.4	193.3	147.17	183.16	136.185	193.456	4.75	2.54	136.270	193.370
5321		8.8583	3.4375	5.04	5.36	8.01	7.61	5.794	7.211	5.3616	7.6164	.187	.100	5.3650	7.6130
		225.000	87.312												
		225.000	87.312												
1922	4.3307 110.000	5.9055	.7874	4.61	4.72	5.64	5.50	4.879	5.347	4.7242	5.5016	.060	.040	4.7280	5.4978
		150.000	20.000	117.1	119.9	143.2	139.7	123.93	135.81	119.995	139.741	1.52	1.02	120.091	139.645
1022		6.6929	1.1024	4.80	4.93	6.27	6.09	5.161	5.866	4.9350	6.0923	.100	.080	4.9387	6.0886
		170.000	28.000	121.9	125.2	159.2	154.7	131.09	149.00	125.349	154.744	2.54	2.03	125.442	154.651
1222		7.8740	1.4961	5.01	5.23	7.24	6.93	5.575	6.631	5.2343	6.9367	.156	.080	5.2379	6.9331
		200.000	38.000												
5222		7.8740	2.7500												
		200.000	69.850	127.2	132.8	183.9	176.0	141.60	168.43	132.951	176.192	3.96	2.03	133.042	176.101
1322		9.4488	1.9685	5.35	5.71	8.55	8.12	6.200	7.692	5.7187	8.1235	.187	.100	5.7221	8.1201
		240.000	50.000												
7322		9.4488	2.5591												
		240.000	65.000	135.9	145.0	217.2	206.2	157.48	195.38	145.255	206.337	4.75	2.54	145.341	206.251
5322		9.4488	3.6250	5.35	5.71	8.55	8.12	6.200	7.692	5.7187	8.1235	.187	.100	5.7221	8.1201
		240.000	92.075												
		240.000	92.075												
1924	4.7244 120.000	6.4961	.8661	5.11	5.17	6.21	6.06	5.353	5.885	5.1771	6.0624	.080	.040	5.1810	6.0585
		165.000	22.000	129.8	131.3	157.7	153.9	135.97	149.50	131.498	153.985	2.03	1.02	131.597	153.886
1024		7.0866	1.1024	5.20	5.32	6.66	6.48	5.560	6.256	5.3290	6.4864	.125	.080	5.3328	6.4826
		180.000	28.000	132.1	135.1	169.2	164.6	141.22	158.90	135.357	164.754	3.18	2.03	135.452	164.659
1224		8.4646	1.5748	5.48	5.71	7.83	7.51	6.075	7.194	5.7141	7.5178	.187	.080	5.7178	7.5141
		215.000	40.000												
5224		8.4646	3.0000												
		215.000	76.200	139.2	145.0	198.9	190.8	154.30	182.73	145.138	190.952	4.75	2.03	145.232	190.858
1324		10.2362	2.1654	5.82	6.18	9.26	8.78	6.700	8.315	6.1820	8.7816	.250	.100	6.1856	8.7780
		260.000	55.000												
7324		10.2362	2.7953												
		260.000	71.000	147.8	157.0	223.0	223.0	170.18	211.20	157.023	223.053	6.35	2.54	157.115	222.961
5324		10.2362	4.1250	5.82	6.18	9.26	8.78	6.700	8.315	6.1820	8.7816	.250	.100	6.1856	8.7780
		260.000	104.775												
		260.000	104.775												

Please consult for availability.

▲ Largest fillet radius that will clear bearing corners.

Selection guide, pages G-5, G-6.

Additional information, page G-31.

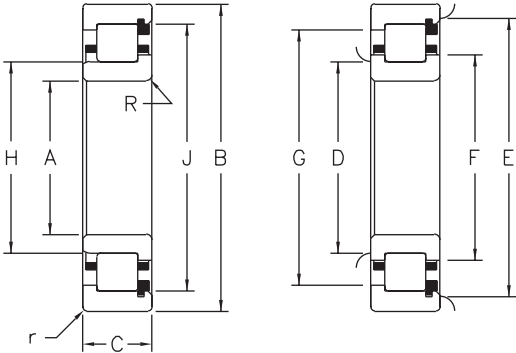
For shaft and housing bearing seat diameters, pages G-25 through G-30.

Cylindrical Roller Bearings

Series M

130mm, 140mm, 150mm Bores

- Fully Crowned Rollers
- Precision Ground Ribs
- Contoured Roller Pockets
- Rollers Individually Separated
- Optional Full Complement



Dimensions (inches/mm)

Basic bearing number	A	B	C	D		E		F	G	H	J	R	r	Outer Ring & Roller Assembly Under Roller Dia.	Inner Ring & Roller Assembly Over Roller Dia.	
	Bore diameter	Outside diameter	Width	Min. Shaft shoulder dia.		Max. housing shoulder dia.		Inner ring rib O.D.	Outer ring rib I.D.	Inner ring raceway O.D.	Outer ring raceway I.D.	Inner	Outer			
				Plain inner ring	Ribbed inner ring	Plain outer ring	Ribbed outer ring									
1926	5.1181 130.000	7.0866 180.000	.9449 24.000	5.48 139.2	5.60 142.2	6.76 171.7	6.60 167.6	5.804 147.42	6.417 162.99	5.6050 142.367	6.6065 167.085	.080 2.03	.060 1.52	5.6095 142.481	6.6020 167.691	
1026		7.8740 200.000	1.2992 33.000	5.63 143.0	5.81 147.6	7.41 188.2	7.18 182.4	6.085 154.56	6.913 175.59	5.8100 147.574	7.1878 182.570	.125 3.18	.080 2.03	5.8144 147.686	7.1834 182.458	
1226		9.0551 230.000	1.5748 40.000	5.87 149.1	6.10 154.9	8.42 213.9	8.12 206.2	6.485 164.72	7.761 197.13	6.1013 154.973	8.1250 206.375	.187 4.75	.100 2.54	6.1056 155.083	8.1207 206.265	
5226		9.0551 230.000	3.1250 79.375													
1326		11.0236 280.000	2.2835 58.000	6.31 160.3	6.71 170.4	10.02 254.5	9.55 242.6	7.280 184.91	9.046 229.77	6.7140 170.536	9.5573 242.755	.250 6.35	.125 3.18	6.7181 170.640	9.5532 242.651	
7326		11.0236 280.000	2.9528 75.000													
5326		11.0236 280.000	4.3750 111.125													
1928		5.5118 140.000	7.4803 190.000	.9449 24.000	5.87 149.1	6.00 152.4	7.15 181.6	7.00 177.8	6.200 157.48	6.803 172.80	6.0010 152.425	7.0027 177.868	.080 2.03	.060 1.52	6.0057 152.544	6.9980 177.749
1028			8.2677 210.000	1.2992 33.000	6.05 153.7	6.20 157.5	7.80 198.1	7.58 192.5	6.478 164.54	7.307 185.60	6.2030 157.556	7.5810 192.557	.156 3.96	.080 2.03	6.2076 157.673	7.5764 192.440
1228			9.8425 250.000	1.6535 42.000	6.36 161.5	6.63 168.4	9.15 232.4	8.83 224.3	7.050 179.07	8.440 214.38	6.6323 168.460	8.8353 224.417	.187 4.75	.100 2.54	6.6367 168.573	8.8309 224.304
5228	9.8425 250.000		3.2500 82.550													
1328	11.8110 300.000		2.4409 62.000	6.77 172.0	7.15 181.6	10.68 271.3	10.16 258.1	7.755 196.98	9.620 244.35	7.1529 181.684	10.1607 258.082	.312 7.92	.125 3.18	7.1571 181.790	10.1565 257.975	
7328	11.8110 300.000		3.2677 83.000													
5328	11.8110 300.000		4.5000 114.300													
1930	5.9055 150.000	8.2677 210.000	1.1024 28.000	6.36 161.5	6.51 165.4	7.84 199.1	7.66 194.6	6.741 171.22	7.438 188.92	6.5100 165.354	7.6689 194.790	.125 3.18	.080 2.03	6.5153 165.488	7.6636 194.656	
1030		8.8583 225.000	1.3780 35.000	6.47 164.3	6.64 168.6	8.36 212.3	8.12 206.2	6.937 176.20	7.832 198.93	6.6410 168.681	8.1281 206.454	.156 3.96	.080 2.03	6.6463 168.816	8.1228 206.319	
1230		10.6299 270.000	1.7717 45.000	6.86 174.2	7.14 181.4	9.88 251.0	9.52 241.8	7.600 193.04	9.095 231.01	7.1474 181.544	9.5218 241.854	.250 6.35	.100 2.54	7.1524 181.672	9.5168 241.726	
5230		10.6299 270.000	3.5000 88.900													

See facing page for footnotes

Cylindrical Roller Bearings

Series M

160mm, 170mm, 180mm,
190mm, 200mm Bores

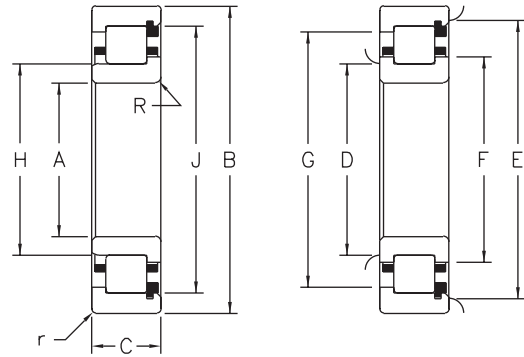
Fully Crowned Rollers

Precision Ground Ribs

Contoured Roller Pockets

Rollers Individually Separated

Optional Full Complement



Dimensions (inches/mm)

Basic bearing number	A Bore diameter	B Outside diameter	C Width	D Min. shaft shoulder dia.		E Max. housing shoulder dia.		F Inner ring rib O.D.	G Outer ring rib I.D.	H Inner ring raceway O.D.	J Outer ring raceway I.D.	R Inner	r Outer	Outer Ring & Roller Assembly Under Roller Dia.	Inner Ring & Roller Assembly Over Roller Dia.
				Plain inner ring	Ribbed inner ring	Plain outer ring	Ribbed outer ring								
1932	6.2992	8.6614	1.1024	6.76	6.90	8.24	8.06	7.136	7.833	6.9050	8.0641	.125	.080	6.9105	8.0586
		220.000	28.000	171.7	175.3	209.3	204.7	181.25	198.96	175.387	204.828	3.18	2.03	175.526	204.689
1032		9.4488	1.4961	6.91	7.08	8.92	8.66	7.400	8.353	7.0840	8.6690	.156	.080	7.0894	8.6636
		240.000	38.000	175.5	179.8	226.6	220.0	187.96	212.17	179.934	220.193	3.96	2.03	180.071	220.056
1232	160.000	11.4173	1.8898	7.31	7.62	10.61	10.22	8.105	9.757	7.6234	10.2246	.250	.100	7.6286	10.2194
		290.000	48.000												
5232		11.4173	3.8750												
		290.000	98.425												
1934	6.6929	9.0551	1.1024	7.15	7.30	8.63	8.45	7.531	8.228	7.3000	8.4593	.125	.080	7.3057	8.4536
		230.000	28.000	181.6	185.4	219.2	214.6	191.29	208.99	185.420	214.866	3.18	2.03	185.564	214.722
1034		10.2362	1.6535	7.41	7.61	9.61	9.31	7.965	8.969	7.6150	9.3193	.187	.080	7.6205	9.3138
		260.000	42.000	188.2	193.3	244.1	236.5	202.31	227.81	193.421	236.710	4.75	2.03	193.560	236.571
1234	170.000	12.2047	2.0472	7.76	8.08	11.32	10.93	8.625	10.423	8.0899	10.9344	.250	.125	8.0952	10.9291
		310.000	52.000												
5234		12.2047	4.1250												
		310.000	104.775												
1936	7.0866	9.8425	1.2992	7.60	7.78	9.38	9.15	8.055	8.885	7.7800	9.1592	.156	.080	7.7858	9.1534
		250.000	33.000	193.0	197.6	238.2	232.4	204.60	225.68	197.612	232.644	3.96	2.03	197.760	232.496
1036		11.0236	1.8110	7.86	8.09	10.35	10.02	8.478	9.638	8.0940	10.0217	.187	.080	8.0997	10.0160
		280.000	46.000	199.6	205.5	262.9	254.5	215.34	244.80	205.588	254.551	4.75	2.03	205.733	254.406
1236	180.000	12.5984	2.0472	8.17	8.51	11.74	11.36	9.050	10.849	8.5153	11.3600	.250	.125	8.5208	11.3545
		320.000	52.000												
5236		12.5984	4.2500												
		320.000	107.950												
1938	7.4803	10.2362	1.2992	7.99	7.17	9.78	9.55	8.453	9.283	8.1779	9.5578	.156	.080	8.1844	9.5513
		260.000	33.000	202.9	182.1	248.4	242.6	214.71	235.79	207.719	242.768	3.96	2.03	207.884	242.603
1038		11.4173	1.8110	8.25	8.48	10.74	10.41	8.895	10.009	8.4880	10.4164	.187	.080	8.4944	10.4100
		290.000	46.000	209.6	215.4	272.8	264.4	225.93	254.23	215.595	264.576	4.75	2.03	215.758	264.413
1238	190.000	13.3858	2.1654	8.66	9.02	12.63	12.19	9.610	11.436	9.0266	12.1938	.312	.125	9.0326	12.1878
		340.000	55.000												
5238		13.3858	4.5000												
		340.000	114.300												
1940	7.8740	11.0236	1.4961	8.48	8.66	10.49	10.24	8.976	9.930	8.6600	10.2463	.187	.080	8.6667	10.2396
		280.000	38.000	215.4	220.0	266.4	260.1	227.99	252.22	219.964	260.256	4.75	2.03	220.134	260.086
1040		12.2047	2.0079	8.70	8.96	11.47	11.12	9.394	10.692	8.9640	11.1223	.187	.080	8.9705	11.1158
		310.000	51.000	221.0	227.6	291.3	282.4	238.61	271.58	227.686	282.506	4.75	2.03	227.850	282.342
1240	200.000	14.1732	2.2835	9.15	9.53	13.17	12.70	10.135	12.134	9.5353	12.7028	.312	.125	9.5416	12.6965
		360.000	58.000												
5240		14.1732	4.7500												
		360.000	120.650												

Please consult for availability.

▲ Largest fillet radius that will clear bearing corners.

Selection guide, pages G-5, G-6.

Additional information, page G-31.

For shaft and housing bearing seat diameters, pages G-25 through G-30.

Cylindrical Roller Bearings

Series M

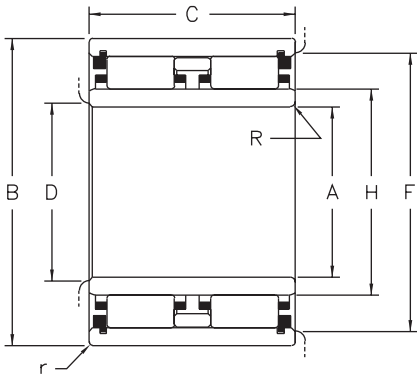
25 thru 60mm Bore

Double Row

Fully Crowned Rollers

Contoured Roller Pockets

Rollers Individually Separated



Dimensions (inches/mm)

Basic bearing number	A Bore diameter	B Outside diameter	C Width	D Min. shaft shoulder dia.	E Min. housing shoulder dia.	H Inner ring raceway O.D.	J Outer ring raceway I.D.	R Inner ▲	r Outer ▲	Outer Ring & Roller Assembly Under Roller Dia.	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	C ₀ Basic static load rating
6205	.9843 25.000	2.0472 52.000	1.6250 41.275	1.20 30.5	1.85 47.0	1.2664 32.166	1.7659 44.854	.040 1.02	.040 1.02	1.2677 32.200	10200 45400	2640 11700	15700 69900
6206	1.1811 30.000	2.4409 62.000	1.8750 47.625	1.42 36.1	2.22 56.4	1.4985 38.062	2.1289 54.074	.040 1.02	.040 1.02	1.4999 38.098	15500 69000	4010 17800	24300 108000
6207	1.3780 35.000	2.8346 72.000	2.1250 53.975	1.64 41.6	2.57 65.3	1.7311 43.970	2.4595 62.471	.040 1.02	.040 1.02	1.7327 44.011	19400 86300	5020 22300	30600 136000
6208	1.5748 40.000	3.1496 80.000	2.3750 60.325	1.86 47.2	2.87 72.9	1.9657 49.929	2.7409 69.619	.060 1.52	.040 1.02	1.9673 49.969	24600 109000	6370 28300	41300 184000
6209	1.7717 45.000	3.3465 85.000	2.3750 60.325	2.08 52.8	3.08 78.2	2.1858 55.519	2.9523 74.988	.060 1.52	.040 1.02	2.1877 55.568	26700 119000	6910 30700	47500 211000
6210	1.9865 50.000	3.5433 90.000	2.3750 60.325	2.27 57.6	3.26 82.8	2.3803 60.460	3.1317 79.545	.060 1.52	.040 1.02	2.3823 60.511	27100 121000	7020 31200	50300 224000
6211	2.1654 55.000	3.9370 100.000	2.6250 66.675	2.52 64.0	3.60 87.9	2.6339 66.901	3.4653 88.019	.080 2.03	.060 1.52	2.6361 66.957	32900 146000	8520 37900	61900 275000
6212	2.3622 60.000	4.3307 110.000	2.8750 73.025	2.73 69.3	3.99 101.3	2.8496 72.380	3.8489 97.762	.080 2.03	.060 1.52	2.8519 72.438	42300 188000	10900 48500	77700 346000

Please consult for availability.

▲ Largest fillet radius that will clear bearing corners.

Selection guide, pages G-5, G-6.

Additional information, page G-31.

For shaft and housing bearing seat diameters, pages G-25 through G-30.

Cylindrical Roller Bearings

Series M

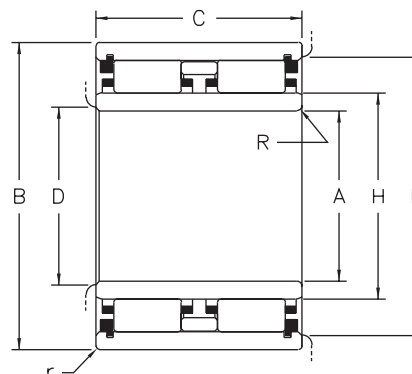
65 thru 95mm Bore

Double Row

Fully Crowned Rollers

Contoured Roller Pockets

Rollers Individually Separated



Dimensions (inches/mm)

Basic bearing number	A Bore diameter	B Outside diameter	C Width	D Min. shaft shoulder dia.	E Min. housing shoulder dia.	H Inner ring raceway O.D.	J Outer ring raceway I.D.	R Inner ▲	r Outer ▲	Outer Ring & Roller Assembly Under Roller Dia.	C Basic load rating	Bearing Capacity 500 RPM 3000 Hrs. L-10	Co Basic static load rating
6213	2.5591 65.000	4.7244 120.000	3.0000 76.200	3.03 77.00	4.33 110.0	3.1662 80.421	4.1655 105.804	.100 2.54	.060 1.52	3.1685 80.480	45900 204000	11900 53000	88700 395000
6214	2.7559 70.000	4.9213 125.000	3.1250 79.375	3.22 81.8	4.55 115.6	3.3375 84.772	4.3912 111.536	.100 2.54	.060 1.52	3.3402 84.840	51300 228000	13300 59200	100000 445000
6215	2.9528 75.000	5.1181 130.000	3.2500 82.550	3.37 85.6	4.73 120.1	3.5045 89.014	4.5583 115.781	.100 2.54	.060 1.52	3.5073 89.085	55800 248000	14400 64100	113000 503000
6216	3.1496 80.000	5.5118 140.000	3.5000 88.900	3.59 91.2	5.09 129.3	3.7514 95.286	4.9078 124.658	.100 2.54	.080 2.03	3.7542 95.356	63100 281000	16300 72500	127000 565000
6217	3.3465 85.000	5.9055 150.000	3.8750 98.425	3.86 98.0	5.48 101.8	4.0160 102.006	5.2841 134.216	.125 3.18	.080 2.03	4.0193 102.090	77600 345000	20100 89400	159000 708000
6218	3.5433 90.000	6.2922 160.000	4.1250 104.775	4.06 103.1	5.81 147.6	4.2212 107.218	5.5980 142.189	.125 3.18	.080 2.03	4.2246 107.305	87400 389000	22600 101000	178000 792000
6219	3.7402 95.000	6.6929 170.000	4.3750 111.125	4.29 109.0	6.18 157.0	4.4692 113.518	5.9544 151.242	.125 3.18	.080 2.03	4.4726 113.604	100000 445000	25900 115000	206000 917000

Please consult for availability.

▲ Largest fillet radius that will clear bearing corners.

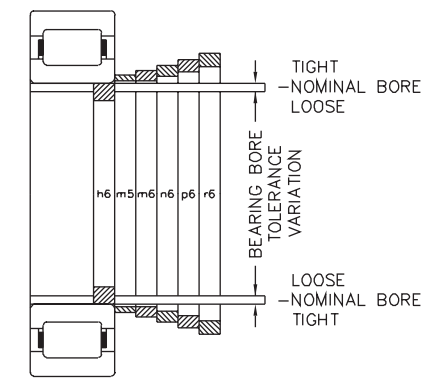
Selection guide, pages G-5, G-6.

Additional information, page G-31.

For shaft and housing bearing seat diameters, pages G-25 through G-30.

Shaft Bearing Seat Diameters

For Cylindrical Roller Bearings



Bearing bore tolerances are in accord with the system of tolerancing established by the International Standards Organization (ISO) and adopted by the American Bearing Manufacturers Association (ABMA) and the American National Standards Institute (ANSI).

A system of limits and fits has been established by ISO for shafts. A portion of this system has been adopted by ABMA to provide flexibility in selecting shaft fits. Shaft fits are designated by a lower case letter and a number, such as h6. The letter indicates the location of the shaft tolerance limits with respect to the nominal bearing bore. The number indicates the size of the tolerance zone.

Shaft fits recommended for various types of applications are listed in the table at

right. A graphic relationship of various shaft fits is illustrated in the figure at the left.

Many factors influence the proper fit of the bearing inner ring on a shaft. The magnitude of the load and its direction with respect to bearing inner or outer rings are generally the first factors considered in shaft fit selection. The effects of other factors such as vibration, shock, temperature, speed, etc., are of secondary importance but sometimes need to be considered. Where assembly or disassembly requirements are of prime importance special shaft fits may be required.

Appropriate diameter shafting is determined (as shown) from the tables below.

Class of fit and shaft diameters (inches/ μ m)

Bearing series 1000, 1200, 1300, 1900, 5200, 5300, 7300					Bearing/Shaft diameter fits G			
					h6		m5	
					Tolerance		Tolerance	
Basic size	mm	inches	μ m	inches	Fit	Shaft dia.	Fit	Shaft dia.
04	20.000	.7874	+0 -10	+.0000 -.0004	.0004T	-.0000	.0011T	+.0007
05	25.000	.9843			.0005L	-.0005	.0003T	+.0003
06	30.000	1.1811			10T 13L	+0 -13	27T 8T	+17 +8
07	35.000	1.3780	+0 -12	+.0000 -.0005	.0005T	+.0000	.0013T	+.0008
08	40.000	1.5748			.0006L	-.0006	.0004T	+.0004
09	45.000	1.7717			12T	+0	33T	+20
10	50.000	1.9685			16L	-16	9T	+9
11	55.000	2.1654	+0 -15	+.0000 -.0006	.0006T .0007L 15T 19L	+.0000 +.0007 +0 -19	.0016T .0005T 39T 11T	+.0010 +.0005 +24 +11
12	60.000	2.3622						
13	65.000	2.5591						
14	70.000	2.7559						
15	75.000	2.9528						
16	80.000	3.1496						
17	85.000	3.3465	+0 -20	+.0000 -.0008	.0008T .0009L 20T 22L	-.0000 -.0009 +0 -22	.0019T .0005T 48T 13T	+.0011 +.0005 +28 +13
18	90.000	3.5433						
19	95.000	3.7402						
20	100.000	3.9370						
21	105.000	4.1339						
22	110.000	4.3307						
24	120.000	4.7244						
26	130.000	5.1181						
28	140.000	5.5118	+0 -25	+.0000 -.0010	.0010T .0010L 25T 25L	-.0000 -.0010 +0 -25	.0023T .0006T 58T 15T	+.0013 +.0006 +33 +13
30	150.000	5.9055						
32	160.000	6.2992						
34	170.000	6.6929						
36	180.000	7.0866						
38	190.000	7.4803			.0012T	+.0000	.0026T	+.0014
40	200.000	7.8740	+0 -30	+.0000 -.0012	.0012L 30T 29L	-.0012 +0 -29	.0006T 67T 17T	+.0006 +37 +17

See facing page for footnotes.

Class of fit selection

Operating conditions ■	Nominal shaft dia.		Class of fit	Remarks
	mm	inches		
Inner ring stationary in relation to direction of load	<i>All diameters</i>		h6	Tap fit inner ring
Inner ring rotating in relation to direction of load (Normal load ≤0.18C)●	17-40	0.67-1.57	m5	Press fit inner ring
	40-65	1.57-2.56	m6	
	65-140	2.56-5.52	n6	
	140-200	5.52-7.88	p6	
Inner ring rotating in relation to direction of load (Heavy load >.018C)●	35-65	1.37-2.56	n6	Heavy press fit inner ring
	65-140	2.56-5.52	p6	
	140-200	5.52-7.88	r6	

Bearing series 1000, 1200, 1300, 1900, 5200, 5300, 7300	Bearing/Shaft diameter fits ▲							
	m6		n6		p6		r6	
	Tolerance		Tolerance		Tolerance		Tolerance	
Basic size	Fit	Shaft dia.	Fit	Shaft dia.	Fit	Shaft dia.	Fit	Shaft dia.
04	.....	.....	.....	.....	.....	.....	.....	.....
05	.....	.....	.....	.....	.....	.....	.....	.....
06	.....	.....	.....	.....	.....	.....	.....	.....
07	.0015T	+0.010	.0018T	+0.013	.....	.....	.....	.....
thru	.0004T	+0.004	.0007T	+0.007	.....	.....	.....	.....
10	38T	+25	46T	+33	.....	.....	.....	.....
	9T	+9	17T	+17	.....	.....	.....	.....
11	.0018T	+0.012	.0021T	+0.015	.0027T	+0.021	.....	.....
thru	.0005T	+0.005	.0008T	+0.008	.0014T	+0.014	.....	.....
16	45T	+30	54T	+39	66T	+51	.....	.....
	11T	+11	20T	+20	32T	+32	.....	.....
17	.0022T	+0.014	.0027T	+0.019	.0033T	+0.025	.0037T	+0.029
thru	.0005T	+0.005	.0010T	+0.010	.0016T	+0.016	.0020T	+0.020
24	55T	+35	65T	+45	79T	+59	96T	+76
	13T	+13	23T	+23	37T	+37	54T	+54
26	.0026T	+0.016	.0032T	+0.022	.0038T	+0.028	.0045T	+0.035
thru	.0006T	+0.006	.0012T	+0.012	.0018T	+0.018	.0025T	+0.025
36	65T	+40	77T	+52	93T	+68	118T	+93
	15T	+15	27T	+27	43T	+43	68T	+68
38	.0030T	+0.018	.0038T	+0.026	.0044T	+0.032	.0054T	+0.042
40	.0006T	+0.006	.0014T	+0.014	.0020T	+0.020	.0030T	+0.030
	76T	+46	90T	+60	109T	+79	136T	+106
	17T	+17	31T	+31	50T	+50	77T	+77

▲ Symbol L indicates a loose or clearance fit. Symbol T indicates a tight or interference fit. The appropriate shaft diameter for any class of fit can be easily determined by applying the shaft tolerance to the nominal shaft diameter. Example: (Using basic bearing size 03 and fit class h6)

	inches		mm	
Nominal shaft diameter	= .6693	.6693	= 17.000	17.000
Shaft diameter tolerance	= +.0000	-.0004	= + 0.000	- 0.010

Resultant shaft diameter = .6693 .6689 = 17.000 16.989
 $1 \mu m = .001 mm$

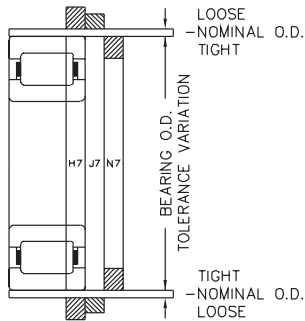
■ For solid steel shafts.

● C = Basic load rating of bearing.

△ The arithmetical mean of the largest and smallest single diameter to be within tolerance shown. Allowable deviations from mean diameter per ANSI/ABMA STD 20, latest printing.

Housing Bearing Seat Diameters

For Cylindrical Roller Bearings



A system of limits and fits has been established by ISO for holes. A portion of this system has been adopted by ABMA to provide flexibility in selecting housing fits. Housing fits are designated by a capital letter and a number such as H7. The letter indicates the location of the housing bore tolerance limits with respect to the nominal bearing O.D. The number indicates the size of the tolerance zone.

Housing fits recommended for various types of applications are listed in the table at the right. A graphic relationship of various housing fits is illustrated in the figure at the left. The class of fit is determined by nature of loading (oscillating, vibrating, reversing, etc.), axial movement requirements, temperature conditions, housing material and cross section of housing.

Shaft expansion increases bearing center distances and requires all but one bearing on a shaft to be movable axially in the housing. In most bearings the outer rings are subjected to stationary loads which permit a loose housing fit.

Operating temperature may affect the housing fit, as the housing may dissipate heat rapidly and not expand with the outer ring. However, the loose fit must never be greater than necessary. Excessive looseness results in less accurate shaft centering and additional ring deformation under load.

The appropriate housing bores are determined (as shown) from the tables below.

Bearing outside diameter tolerances are in accord with the system of tolerancing established by the International Standards Organization (ISO) and adopted by the American Bearing Manufacturers Association (ABMA) and the American National Standards Institute (ANSI).

Class of fit and housing bores (inches/ μ m)

Bearing series						Bearing O.D. and tolerance△	Bearing/Housing diameter fits▲					
1900	1000	1200	1300	Nominal bearing O.D. and housing bore			H7		J7		N7	
		5200	5300				Tolerance		Tolerance		Tolerance	
			7300				Fit	Housing bore	Fit	Housing bore	Fit	Housing bore
...	...	205	304	52	2.0472	+0.0000 -0.0005 +0 -13	.0000	-0.0000	.0004T	-0.0004	.0002L	-0.0003
...	...	206	305	62	2.4409		.0017L	+0.0012	.0013L	±.0008	.0015T	-0.0015
...	...	207	306	72	2.8346		0	-0	12T	-12	4L	-9
911	010	208	307	80	3.1496		43L	+30	31L	-18	39T	-39
912	...	209	...	85	3.3465	+0.0000 -0.0006 +0 -15	.0000	-0.0000	.0005T	-0.0005	.0002L	-0.0004
913	011	210	308	90	3.5433		.0020L	+0.0014	.0015L	+0.0009	.0018T	-0.0018
...	012	...	...	95	3.7402		0	-0	13T	-13	5L	-10
914	013	211	309	100	3.9370		50L	+35	37L	+22	45T	-45
915	...	...	...	105	4.1339							
916	014	212	310	110	4.3307							
...	015	...	...	115	4.5276							
917	...	213	311	120	4.7244							
918	016	214	...	125	4.9213	+0.0000 -0.0008 +0 -20	.0000	-0.0000	.0006T	-0.0006	.0002L	-0.0006
919	017	215	312	130	5.1181		.0024L	+0.0016	.0018L	+0.0010	.0022T	-0.0022
920	018	216	313	140	5.5118		0	-0	14T	-14	6L	-12
921	019	...	...	145	5.7087		61L	+41	44L	+26	52T	-52
922	020	217	314	150	5.9055							
...	021	218	315	160	6.2992	+0.0000 -0.0010 +0 -25	.0000	-0.0000	.0006T	-0.0006	.0004L	-0.0006
924	...	...	...	165	6.4961		.0026L	+0.0016	.0020L	+0.0010	.0022T	-0.0022
...	022	219	316	170	6.6929		0	-0	14T	-14	13L	-12
926	024	220	317	180	7.0866		65L	+40	51L	+26	57T	-52
928	...	221	318	190	7.4803	+0.0000 -0.0012 +0 -30	.0000	-0.0000	.0007T	-0.0007	.0004L	-0.0008
...	026	222	319	200	7.8740		.0030L	+0.0018	.0023L	+0.0011	.0026T	-0.0026
930	028	...	...	210	8.2677		0	-0	16T	-16	16L	-14
...	...	224	320	215	8.4646		76L	+46	60L	+30	60T	-60
932	...	...	321	220	8.6614							
...	030	...	...	225	8.8583							
934	...	226	322	230	9.0551							
...	032	...	...	240	9.4488							
936	...	228	...	250	9.8425							
938	034	...	324	260	10.2362	+0.0000 -0.0014 +0 -35	.0000	-0.0000	.0007T	-0.0007	.0006L	-0.0008
...	...	230	...	270	10.6299		.0034L	+0.0020	.0027L	+0.0013	.0028T	-0.0028
940	036	...	326	280	11.0236		0	-0	16T	-16	21L	-14
...	038	232	...	290	11.4173		87	+52	71L	+36	66T	-66
...	...	...	328	300	11.8110							
...	040	234	...	310	12.2047							
...	...	236	330	320	12.5984	+0.0000 -0.0016 +0 -40	.0000	-0.0000	.0007T	-0.0007	.0008L	-0.0008
...	...	238	...	340	13.3858		.0038L	+0.0022	.0030L	+0.0014	.0030T	-0.0030
...	...	240	...	360	14.1732		0	-0	8T	-18	24L	-16
							97L	+57	79L	+39	73T	-73

1 μ m = .001 mm

□ Minimum housing bore is same as ABMA fit class; tolerance is within ABMA range.

■ Style A outer ring has oversize O.D. designed to give a heavy press fit with a tap fit housing bore. Inner ring to be press fit; see pages G-25, G-26 for values.

Δ The arithmetical mean of the largest and smallest single diameter to be within tolerance shown. Allowable deviations from mean diameter per ANSI/ABMA STD 20, latest printing.

Class of fit selection

Operating conditions	Class of fit	Remarks
Housing stationary in relation to direction of load	H7	Push fit outer ring for non-separable bearing styles Mu...UV and MU...UM
Housing stationary in relation to direction of load	J7□	Tap fit outer ring
Housing rotating in relation to direction of load	N7□	Press fit outer ring
	■	Heavy press fit with Style A outer ring

Heavy press fit with style A outer ring (inches/ μ m)

1900	Bearing series 1000	1200 5200	1300 5300 7300	Nominal bearing O.D. and housing bore Style A outer ring		Bearing O.D. toleranceΔ	Bearing/Housing diameter fits▲				
							Tolerance				
							Fit		Housing bore		
Basic size											
				mm	inches						
...	...	205	304	52.024	2.0482	+0.0000 -0.0005 +0 -13	{	.0000	0	-0.0005	-13
							{	.0014T	35T	-0.0014	-35
...	...	206	305	62.029	2.4421		{	.0001T	2T	-0.0006	-15
...	...	207	306	72.032	2.8359		{	.0016T	40T	-0.0016	-40
...	...	207	306	72.032	2.8359		{	.0002T	5T	-0.0007	-18
911	010	208	307	80.035	3.1510	+0.0000 -0.0006 +0 -15	{	.0017T	43T	-0.0017	-43
							{	.0003T	7T	-0.0008	-20
							{	.0018T	45T	-0.0018	-45
912	...	209	...	85.039	3.3480		{	.0004T	10T	-0.0010	-25
913	011	210	308	90.040	3.5449		{	.0020T	50T	-0.0020	-50
...	012	...	...	95.044	3.7419	+0.0000 -0.0006 +0 -15	{	.0005T	13T	-0.0011	-28
							{	.0021T	53T	-0.0021	-53
...	013	211	309	100.046	3.9388		{	.0006T	15T	-0.0012	-30
914	013	211	309	100.046	3.9388		{	.0022T	56T	-0.0022	-56
...	...	...	...	105.049	4.1358		{	.0007T	18T	-0.0013	-33
915	...	...	...	105.049	4.1358	+0.0000 -0.0008 +0 -20	{	.0023T	58T	-0.0023	-58
							{	.0008T	20T	-0.0014	-35
916	014	212	310	110.056	4.3329		{	.0024T	61T	-0.0024	-61
...	015	...	...	115.057	4.5298		{	.0009T	23T	-0.0017	-38
917	...	213	311	120.056	4.7266		{	.0027T	69T	-0.0027	-69
918	016	214	...	125.059	4.9236	+0.0000 -0.0008 +0 -20	{	.0009T	23T	-0.0017	-38
919	017	215	312	130.058	5.1204		{	.0029T	74T	-0.0029	-74
920	018	216	313	140.058	5.5141		{	.0010T	25T	-0.0018	-45
921	019	...	...	145.067	5.7113		{	.0032T	81T	-0.0032	-81
922	020	217	314	150.066	5.9081		{	.0010T	25T	-0.0018	-45
...	021	218	315	160.071	6.3020	+0.0000 -0.0010 +0 -25	{	.0034T	86T	-0.0034	-86
924	...	...	...	165.072	6.4989		{	.0010T	25T	-0.0020	-50
...	022	219	316	170.071	6.6957		{	.0034T	86T	-0.0034	-86
926	024	220	317	180.071	7.0894		{	.0034T	86T	-0.0034	-86
928	...	221	318	190.076	7.4833		{	.0011T	28T	-0.0023	-58
...	026	222	319	200.078	7.8771	+0.0000 -0.0012 +0 -30	{	.0037T	94T	-0.0037	-94
							{	.0012T	30T	-0.0024	-60
...	028	...	...	210.081	8.2709		{	.0038T	97T	-0.0038	-97
930	028	...	...	210.081	8.2709		{	.0013T	33T	-0.0025	-63
...	...	224	320	215.087	8.4680		{	.0039T	99T	-0.0039	-99
932	...	...	...	220.088	8.6649	+0.0000 -0.0014 +0 -30	{	.0013T	33T	-0.0025	-63
...	030	...	321	225.090	8.8618		{	.0041T	104T	-0.0041	-104
							{	.0014T	36T	-0.0026	-66
934	...	226	...	230.091	9.0587		{	.0042T	107T	-0.0042	-107
...	032	...	322	240.096	9.4526		{	.0015T	38T	-0.0027	-68
936	...	228	...	250.096	9.8463	+0.0000 -0.0014 +0 -35	{	.0043T	109T	-0.0043	-109
							{	.0015T	38T	-0.0027	-68
938	034	...	324	260.101	10.2402		{	.0045T	114T	-0.0045	-114
...	...	230	...	270.101	10.6339		{	.0015T	38T	-0.0029	-73
940	036	...	326	280.101	11.0276		{	.0047T	119T	-0.0047	-119
...	038	232	...	290.109	11.4216	+0.0000 -0.0016 +0 -40	{	.0016T	41T	-0.0030	-76
							{	.0050T	127T	-0.0050	-127
...	...	...	328	300.111	11.8154		{	.0017T	43T	-0.0031	-78
...	040	234	...	310.111	12.2091		{	.0051T	130T	-0.0051	-130
							{	.0017T	43T	-0.0033	-83
...	...	236	330	320.121	12.6032	+0.0000 -0.0016 +0 -40	{	.0055T	140T	-0.0055	-140
...	...	238	...	340.121	13.3906		{	.0018T	46T	-0.0043	-86
...	...	240	...	360.124	14.1781		{	.0056T	142T	-0.0056	-142

▲ Symbol L indicates a loose or clearance fit. Symbol T indicates a tight or interference fit. The appropriate housing bore for any class of fit can be easily determined by applying the housing tolerance to the nominal housing bore. Example: (Using basic bearing size 926 and fit class N7)

Nominal housing bore	=	7.0866	7.0866	=	180.000	180.000
Housing bore tolerance	=	-.0006	-.0022	=	-.012	-.052
Resultant housing bore	=	7.0860	7.0844	=	179.988	179.948

Operation Without Inner Ring

For Cylindrical Roller Bearings

Outer ring and roller assembly

for Series M-EX, M-EAX, M-EB, M-EAB, M-TV, M-TAV, M-UV and M-UAV

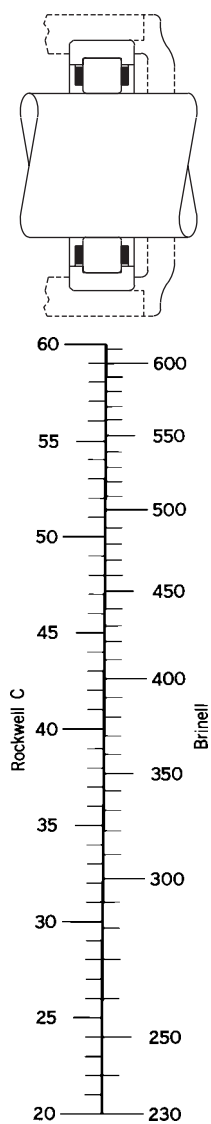
Cylindrical roller bearings with the inner ring omitted may be installed so that the rollers operate directly on the surface of the shaft.

This type of design is useful for applications where space is limited or a larger shaft is required. Surface hardness of shaft must be Rockwell C59 to C64 to achieve full bearing capacity. Where the required hardness cannot be attained, the bearing rating must be reduced accordingly. Where the shaft is case hardened, the combination of case depth and core hardness must be adequate. Consult Link-Belt Bearing Division, Rexnord Corp. for a specific recommendation. Shaft surface should be finished to a roughness value of 13 micro-inches, RMS, maximum (.33µm).

Maximum and minimum shaft diameter values for tap fit and press fit outer rings are listed below.

Hardness factor

If operation at rated capacity is desired when cylindrical roller bearings are used with either ring omitted, the surface on which the rollers operate must have a hardness of Rockwell C59 to C64 or equivalent Brinell hardness (see chart at right). If this hardness cannot be attained, the bearing C capacity must be reduced by a rating reduction factor determined from chart on facing page.



Shaft diameters for tap fit outer ring▲									Shaft diameter for press fit outer ring								
Bearing series	1900		1000		1200-5200		1300-5300-7300		1900	1000		1200-5200		1300-5300-7300			
Basic size	(max-min)				inches				(max-min)								
03			.8757	.8753	.8725	.8721	.9803	.9799			.8750	.8746	.8718	.8714	.9796	.9792	
04	.9769	.9765	1.0329	1.0325	1.1092	1.1087	1.1013	1.1008	.9762	.9758	1.0322	1.0318	1.1085	1.1080	1.1005	1.1000	
05	1.1759	1.1754	1.2259	1.2254	1.2672	1.2667	1.3383	1.3378	1.1753	1.1748	1.2253	1.2248	1.2665	1.2660	1.3376	1.3371	
06	1.3710	1.3705	1.4523	1.4518	1.4994	1.4989	1.6024	1.6019	1.3704	1.3699	1.4515	1.4510	1.4986	1.4981	1.6016	1.6011	
07	1.6112	1.6107	1.6611	1.6606	1.7322	1.7317	1.8452	1.8447	1.6104	1.6099	1.6603	1.6598	1.7314	1.7309	1.8444	1.8439	
08	1.8061	1.8056	1.8777	1.8772	1.9667	1.9662	2.0600	2.0595	1.8054	1.8049	1.8770	1.8765	1.9660	1.9655	2.0590	2.0585	
09	2.0263	2.0258	2.0831	2.0825	2.1870	2.1864	2.3382	2.3376	2.0255	2.0250	2.0823	2.0817	2.1861	2.1855	2.3373	2.3367	
10	2.2014	2.2008	2.2802	2.2796	2.3816	2.3810	2.5660	2.5654	2.2006	2.2000	2.2794	2.2788	2.3807	2.3801	2.5651	2.5645	
11	2.4316	2.4310	2.5408	2.5402	2.6354	2.6348	2.8136	2.8130	2.4308	2.4302	2.5398	2.5392	2.6344	2.6338	2.8127	2.8121	
12	2.6316	2.6310	2.7377	2.7371	2.8511	2.8505	3.0545	3.0538	2.6307	2.6301	2.7368	2.7362	2.8502	2.8496	3.0534	3.0527	
13	2.8267	2.8261	2.9348	2.9341	3.1677	3.1670	3.2957	3.2950	2.8258	2.8252	2.9339	2.9332	3.1668	3.1661	3.2946	3.2939	
14	3.0719	3.0712	3.1588	3.1581	3.3392	3.3385	3.5132	3.5125	3.0710	3.0703	3.1579	3.1572	3.3381	3.3374	3.5120	3.5113	
15	3.2669	3.2662	3.3569	3.3562	3.5063	3.5056	3.7780	3.7772	3.2660	3.2653	3.3560	3.3553	3.5052	3.5045	3.7769	3.7761	
16	3.4619	3.4612	3.5969	3.5962	3.7532	3.7525	4.0031	4.0023	3.4610	3.4603	3.5958	3.5951	3.7520	3.7513	4.0020	4.0012	
17	3.7274	3.7267	3.7944	3.7936	4.0182	4.0174	4.2746	4.2738	3.7265	3.7258	3.7933	3.7925	4.0171	4.0163	4.2735	4.2727	
18	3.9225	3.9217	4.0324	4.0316	4.2235	4.2227	4.4915	4.4907	3.9214	3.9206	4.0313	4.0305	4.2224	4.2216	4.4902	4.4894	
19	4.1174	4.1166	4.2284	4.2276	4.4714	4.4706	4.8113	4.8105	4.1163	4.1155	4.2273	4.2265	4.4703	4.4695	4.8099	4.8091	
20	4.3330	4.3322	4.4254	4.4246	4.7663	4.7655	5.1267	5.1258	4.3319	4.3311	4.4243	4.4235	4.7652	4.7644	5.1254	5.1245	

For shaft diameters larger than above, consult Link-Belt Bearing Division.

▲ Shaft diameter limits also apply to Style A outer ring bearings.

■ Hultgren 10 mm ball penetrator; 3000 kg load.

□ Brale penetrator; 150 kg load.

Operation Without Outer Ring

For Cylindrical Roller Bearings

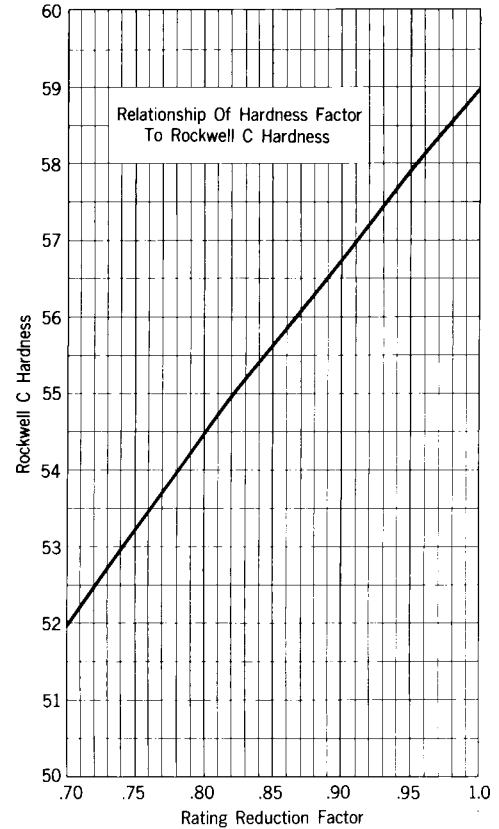
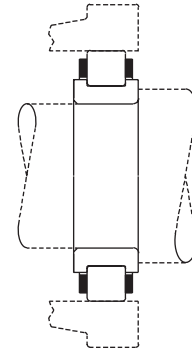
Inner ring and roller assembly

for Series MU-X, MU-B

Cylindrical roller bearings with the outer ring omitted may be installed so that the rollers operate directly on the hardened and ground surface of a bore in an alloy steel housing.

This type of design is useful for applications where space is limited and a smaller housing bore or a larger bearing and shaft are required. Housing surface hardness must be Rockwell C59 to C64 or Brinell equivalent to achieve full bearing capacity. Where the required hardness cannot be attained, the bearing rating must be reduced accordingly. See graph for rating reduction factor. Where the housing bore is case hardened, the combination of case depth and core hardness must be adequate. Consult Link-Belt Bearing Division, Rexnord Corp. for a specific recommendation. Housing surface should be finished to a roughness value of 13 micro-inches, A.A., maximum (.33μm).

Maximum and minimum housing bore values for tap fit and press fit inner rings are listed below.



Housing bore for tap fit inner ring									Housing bore for press fit inner ring															
Bearing series	1900		1000		1200-5200		1300-5300-7300		1900		1000		1200-5200		1300-5300-7300									
Basic size	(max-min)								inches								(max-min)							
03	.....	.....	1.1992	1.1988	1.3708	1.3704	1.5402	1.5398	.....	.....	1.1996	1.1992	1.3712	1.3708	1.5406	1.5402								
04	1.2689	1.2685	1.4383	1.4379	1.6075	1.6070	1.7305	1.7300	1.2694	1.2690	1.4388	1.4384	1.6080	1.6075	1.7309	1.7304								
05	1.4680	1.4675	1.6314	1.6309	1.7656	1.7651	2.1031	2.1026	1.4686	1.4681	1.6320	1.6315	1.7661	1.7656	2.1036	2.1031								
06	1.6631	1.6626	2.9090	1.9085	2.1285	2.1280	2.3780	2.3775	1.6637	1.6632	1.9096	1.9091	2.1291	2.1286	2.3785	2.3780								
07	1.9346	1.9341	2.1594	2.1589	2.4591	2.4586	2.6745	2.6740	1.9353	1.9348	2.1600	2.1595	2.4597	2.4592	2.6751	2.6746								
08	2.2116	2.2111	2.3760	2.3755	2.7405	2.7400	3.0572	3.0567	2.2123	2.2118	2.3767	2.3762	2.7411	2.7406	3.0578	3.0573								
09	2.4317	2.4312	2.6430	2.6424	2.9517	2.9511	3.3894	3.3888	2.4325	2.4320	2.6438	2.6432	2.9526	2.9520	3.3902	3.3896								
10	2.6068	2.6062	2.8400	2.8394	3.1311	3.1305	3.7195	3.7189	2.6077	2.6071	2.8409	2.8403	3.1319	3.1313	3.7203	3.7197								
11	2.8881	2.8875	3.1697	3.1691	3.4646	3.4640	4.0784	4.0778	2.8892	2.8886	3.1707	3.1701	3.4656	3.4650	4.0793	4.0787								
12	3.0882	3.0876	3.3668	3.3662	3.8481	3.8475	4.4280	4.4273	3.0893	3.0887	3.3678	3.3672	3.8491	3.8485	4.4289	4.4282								
13	3.2832	3.2826	3.5639	3.5632	4.1649	4.1642	4.7775	4.7768	3.2843	3.2837	3.5649	3.5642	4.1658	4.1651	4.7758	4.7751								
14	3.6316	3.6309	3.9323	3.9316	4.3902	4.3895	5.0926	5.0919	3.6329	3.6322	3.9337	3.9330	4.3915	4.3908	5.0938	5.0931								
15	3.8266	3.8259	4.1304	4.1297	4.5573	4.5566	5.4770	5.4762	3.8280	3.8273	4.1317	4.1310	4.5585	4.5578	5.4782	5.4774								
16	4.0217	4.0210	△	△	4.9068	4.9061	5.8033	5.8025	4.0230	4.0223	△	△	4.9081	4.9074	5.8045	5.8037								
17	4.3561	4.3554	4.6515	4.6507	5.2829	5.2821	6.1966	6.1958	4.3578	4.3571	4.6772	4.6764	5.2845	5.2837	6.1981	6.1973								
18	4.5512	4.5504	5.0292	5.0284	5.5968	5.5960	6.5109	6.5101	4.5529	4.5521	5.0309	5.0301	5.5984	5.5976	6.5124	6.5116								
19	4.7463	4.7455	5.2253	5.2245	5.9532	5.9524	6.8308	6.8300	4.7480	4.7472	5.2269	5.2261	5.9548	5.9540	6.8322	6.8314								
20	5.1064	5.1056	△	△	6.3459	6.3451	7.2787	7.2778	5.1082	5.1074	△	△	6.3474	6.3466	7.2802	7.2793								

For housing bores larger than above, consult Link-Belt Bearing Division, Rexnord Corp.

△ For size, consult Link-Belt Bearing Division, Rexnord Corp.

■ Hultgren 10 mm ball penetrator; 3000 kg load.

□ Brale penetrator; 150 kg load.

Additional Information

Series M1000, 1200, 1300, 1900, 5200, 5300, 7300

Availability:

Not all series, sizes, configurations and special features of these cylindrical roller bearings are in regular production. A current list of sizes and types regularly available can be furnished. Others can be made available for production requirements.

Additional Features:

Cylindrical roller bearings are available with many combinations of standard features. The nomenclature page G-32 and the index pages G-3 and G-4 all describe standard features which result in cylindrical roller bearings being extremely versatile for specific applications.

For other mounting aids such as dowel pin holes and snap rings and grooves, consult Link-Belt Bearing Division.

Operation:

Cylindrical roller bearings are designed for grease or oil lubrication. Oil is most commonly used. Service instructions are available and provide guidelines for lubrication and recommended lubricants. Where significant thrust loads are to be carried, lubrication becomes more critical and Link-Belt Bearing Division should be consulted.

Imposed radial loads should not exceed .25C. Where high radial loads, high speeds, thrust loads or vibratory loads are unavoidable, consult the Link-Belt Bearing Division.

Fixed and Expansion Mounting:

The design of cylindrical roller bearings and the optional features permits fixed or expansion mounting by varying the number of ribs used with each bearing.

A bearing with no ribs on the ring (i.e. MA1200TV or MU1200CX) is an expansion type bearing as the roller set is free to shift axially on one raceway. The opposite bearing must then be a locating bearing. Many other arrangements are possible using these same principles. Care should always be taken not to force bearings to thrust against or away from each other during mounting or operation.

Fits and Tolerances:

Shaft and housing fits are listed on pages G-25 through G-30.

Operation without one or both rings:

Cylindrical rollers will run using correctly manufactured shafts or housings as raceways. For this procedure, consult Link-Belt Bearing Division.

Warning:

The reliability built into all Link-Belt bearings can be realized in service only when they are correctly selected and properly installed, protected and maintained.

The correct selection of bearings requires that the magnitude and nature of all loads, speeds, alignment, mounting, operating requirements, and maintenance be adequately considered. The selection of materials for and design of housings, shafting, fasteners, seals, and accessories as well as provisions for installation and maintenance must follow good engineering principles.

Housings and covers must be designed to safely handle the radial and axial loads involved. Adequate space must be provided in the housing and covers for a supply of lubricant.

Seals must be provided that will satisfactorily cope with the environmental conditions. Shaft O.D. size and housing bore size tables show recommended fitting practices, and should be followed strictly to assure a successful mounting arrangement.

Service instructions are provided with shipments of bearings and are available on request. These instructions provide detailed information to aid in proper installation, operation, and maintenance, and should be carefully read and followed. Failure to do so may result in unsatisfactory service as well as serious personal injury or property damage.

Nomenclature

Series M1000, 1200, 1300, 1900, 5200, 5300, 7300

Cylindrical Roller Bearing

Symbol	Description	M	A		1	2	05	GEA	X/W101/C0
M	Metric series designation								
A	Plain cylindrical inner ring								
R	Single rib inner ring								
SN	Short, single rib w/inner ring side plate								
U	Double rib inner ring								
S	Metric bore size of next smaller bearing								
None	Standard capacity								
6	High capacity series								
1	Narrow width								
5	Wide width								
7	Intermediate width								
0	Extra light series								
2	Light series								
3	Medium series								
9	Extra extra light series								
05	One-fifth of bore diameter (mm)								
G	Snap ring groove in outer ring O.D.								
GG	Two snap ring grooves in outer ring O.D.								
R	Snap ring groove in outer ring O.D. snap ring included								
RR	Two snap ring grooves in outer ring O.D.; snap rings included								
C	Plain cylindrical outer ring								
D	Single rib outer ring								
E	Double rib outer ring								
SN	Short single rib w/outer ring side plate								
T	Outer ring w/two retaining rings in I.D.								
U	Single rib outer ring, one retaining ring in I.D.								
A	Oversize O.D. outer ring								
H	Blind dowel hole in outer ring O.D.								
X	Segmented retainer								
M	Full complement (no retainer)								
V	Formed steel retainer								
B	Polymeric retainer								
W101	Inner ring bore radius to clear .060" shaft fillet								
W102	Inner ring bore radius to clear .080" shaft fillet								
W103	Inner ring bore radius to clear .100" shaft fillet								
W104	Inner ring bore radius to clear .125" shaft fillet								
W105	Inner ring bore radius to clear .156" shaft fillet								
W106	Inner ring bore radius to clear .187" shaft fillet								
W107	Inner ring bore radius to clear .250" shaft fillet								
W108	Inner ring with double bore radius, standard shaft fillet radius								
W110	Outer ring with reduced width tolerance								
W111	Outer ring width .0787" oversize (symmetrical ring)								
W112	Outer ring width .1575" oversize (symmetrical ring)								
W121	Outer ring width .0787" oversize and inner ring bore radius clear .060" fillet								
W122	Outer ring width .1575" oversize and inner ring bore radius clear .156" fillet								
W131	I.R. bore radius to clear .060" shaft fillet both sides								
W132	I.R. bore radius to clear .080" shaft fillet both sides								
W133	I.R. bore radius to clear .100" shaft fillet both sides								
W140	O.R. snap ring groove on side opposite rib ring								
W141	O.R. snap ring groove on side opposite rib ring with W131 I.R.								
W142	O.R. snap ring groove on side opposite rib ring with W132 I.R.								
W143	O.R. snap ring groove on side opposite rib ring with W133 I.R.								
None	Standard commercial clearance								
C2	Less than basic clearance								
C0	Basic clearance								
C3	Greater than basic clearance								
C4	Greater than C3 clearance								
C5	Greater than standard clearance (STANDARD FOR ASSEMBLY WITH "A" OUTER RING AND OMITTED IN MODEL NUMBER)								
Cxxx	Special specific clearance or range—i.e./C002 or/C35-49 or C3549								

The nomenclature is provided to identify the basic and optional features of bearing and mounted unit assemblies. The most commonly specified variations are listed; however, availability of all variations cannot be assumed. Link-Belt Bearing Division should be consulted regarding optional features, availability, and the application requirements.

Cylindrical Roller Bearings

Series N-EC 200E, 300E Cylindrical Roller Bearings

The Link-Belt® N-EC series builds on a tradition of quality, service and reliability – the reasons so many engineering professionals have come to rely on Link-Belt bearings. The N-EC extra capacity cylindrical product line is U.S. manufactured to both ISO 9001 and QS 9000 quality standards. It is quality and availability your company and your customers can count on. The N-EC delivers – extra capacity bearings when you want them with the quality you have come to expect.

Other Standard Features:

- ① The Link-Belt Extra Capacity design performs at higher speeds and heavier loads with no increase in external bearing boundary dimensions. Where you need greater performance, the N-EC delivers.
- ② Bearing roller cages are made of high quality bronze alloys. The bronze roller cage offers a proven design with superior guidance, performance and durability. These features provide superior quiet performance and life in electric motor applications.
- ③ The Link-Belt N-EC line offers standard C0 or C3 increased clearance when your application requires it.
- ④ Precision machining tolerances to ISO 9001 and QS 9000 standards assure the interchangeability of bearing races and roller sets increasing your flexibility. This feature allows for reduced inventory and increased service when ring interchangeability can be used.
- ⑤ The N-EC product is available in our warehouse locations nationwide. Service and product availability you can expect from a U.S. based manufacturer is what the N-EC is all about.

Engineering Expertise

Decades of experience, extensive research and ongoing commitment to quality have resulted in the most sophisticated bearing technology on the market today. Link-Belt N-EC bearings perform beyond expectations because of these features:

Proven Pocket Design

An exclusive gothic arch roller pocket geometry contacts the roller at two points, resulting in superior hydrodynamic lubrication, providing high RPM capabilities.

Super Finish

Microfinished roller and raceways improve lubrication under high speeds and loads with proven and tested quiet operation.

Crowned Profile

The roller's outside diameter surface is crowned to optimize line contact. This equalizes load distribution and minimizes contact stress caused by minor misalignments.

Improved Design

Roller end tolerances, ring rib design and finishes have been designed to improve bearing performance under heavy axial load conditions.

Tight Tolerances

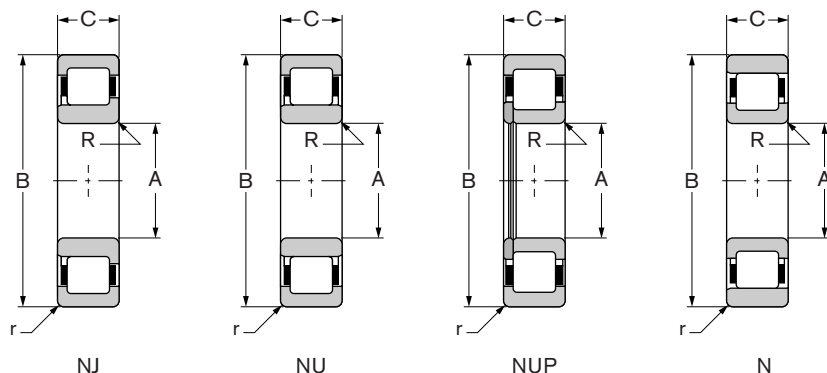
All bearings are made to ISO Normal (RBEC-1) tolerances or higher if specified.



Cylindrical Roller Bearings

Series N-EC

200E



Dimensions (inches/*mm*) (pounds/*newtons*)

Basic bearing number	A Bore diameter	B Outside diameter	C Width	Basic load rating	Static load rating	R Inner ▲	r Outer ▲
205E	0.984 (25.00)	2.047 (52.00)	0.591 (15.00)	6,492 (28,800)	6,808 (30,200)	0.039 (1.00)	0.039 (1.00)
206E	1.181 (30.00)	2.441 (62.00)	0.630 (16.00)	8,566 (38,000)	8,792 (39,000)	0.039 (1.00)	0.039 (1.00)
207E	1.378 (35.00)	2.835 (72.00)	0.669 (17.00)	11,136 (49,400)	11,542 (51,200)	0.043 (1.10)	0.043 (1.10)
208E	1.575 (40.00)	3.150 (80.00)	0.709 (18.00)	12,151 (53,900)	12,827 (56,900)	0.043 (1.10)	0.043 (1.10)
209E	1.772 (45.00)	3.346 (85.00)	0.748 (19.00)	13,661 (60,600)	15,577 (69,100)	0.043 (1.10)	0.043 (1.10)
210E	1.969 (50.00)	3.543 (90.00)	0.787 (20.00)	15,352 (68,100)	16,546 (73,400)	0.043 (1.10)	0.043 (1.10)
211E	2.165 (55.00)	3.937 (100.00)	0.827 (21.00)	18,959 (84,100)	22,160 (98,300)	0.059 (1.50)	0.059 (1.50)
212E	2.362 (60.00)	4.331 (110.00)	0.866 (22.00)	21,957 (97,400)	23,670 (105,000)	0.059 (1.50)	0.059 (1.50)
213E	2.559 (65.00)	4.724 (120.00)	0.906 (23.00)	24,166 (107,200)	26,871 (119,200)	0.059 (1.50)	0.059 (1.50)
214E	2.756 (70.00)	4.921 (125.00)	0.945 (24.00)	26,984 (119,700)	31,041 (137,700)	0.059 (1.50)	0.059 (1.50)
215E	2.953 (75.00)	5.118 (130.00)	0.984 (25.00)	29,644 (131,500)	35,505 (157,500)	0.059 (1.50)	0.059 (1.50)
216E	3.150 (80.00)	5.512 (140.00)	1.024 (26.00)	32,913 (146,000)	40,577 (180,000)	0.079 (2.00)	0.079 (2.00)
217E	3.346 (85.00)	5.906 (150.00)	1.102 (28.00)	40,803 (181,000)	50,271 (223,000)	0.079 (2.00)	0.079 (2.00)
218E	3.543 (90.00)	6.299 (160.00)	1.181 (30.00)	42,200 (187,200)	50,947 (226,000)	0.079 (2.00)	0.079 (2.00)
219E	3.740 (95.00)	6.693 (170.00)	1.260 (32.00)	51,398 (228,000)	61,542 (273,000)	0.083 (2.10)	0.083 (2.10)
220E	3.937 (100.00)	7.087 (180.00)	1.339 (34.00)	57,710 (256,000)	69,883 (310,000)	0.083 (2.10)	0.083 (2.10)
221E	4.134 (105.00)	7.480 (190.00)	1.417 (36.00)	60,460 (268,200)	71,979 (319,300)	0.083 (2.10)	0.083 (2.10)
222E	4.331 (110.00)	7.847 (200.00)	1.496 (38.00)	66,344 (294,300)	60,280 (267,400)	0.083 (2.10)	0.083 (2.10)
224E	4.724 (120.00)	8.465 (215.00)	1.575 (40.00)	77,299 (342,900)	97,362 (431,900)	0.083 (2.10)	0.083 (2.10)
226E	5.118 (130.00)	9.055 (230.00)	1.575 (40.00)	81,064 (359,600)	103,269 (458,100)	0.118 (3.00)	0.118 (3.00)
228E	5.512 (140.00)	9.499 (240.00)	1.654 (42.00)	88,593 (393,000)	115,555 (512,600)	0.118 (3.00)	0.118 (3.00)
230E	5.906 (150.00)	10.630 (270.00)	1.772 (45.00)	100,947 (447,800)	135,708 (602,000)	0.118 (3.00)	0.118 (3.00)
232E	6.299 (160.00)	11.417 (290.00)	1.890 (48.00)	113,436 (503,200)	153,832 (682,400)	0.118 (3.00)	0.118 (3.00)

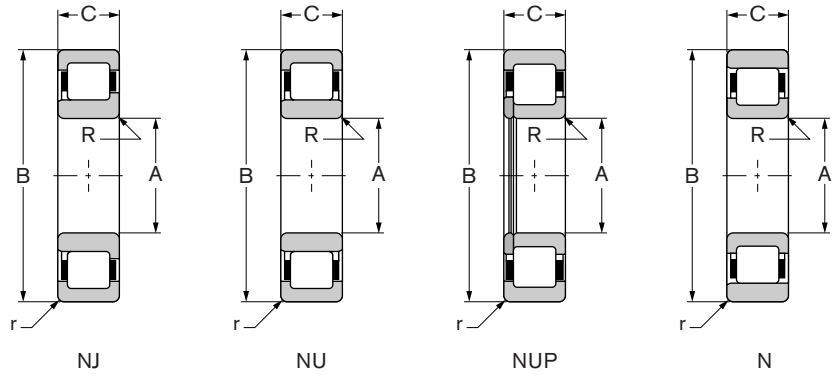
Static and dynamic capacities are calculated in accordance with ISO76 and ISO281.

▲Largest fillet radius that will clear bearing corners.

Cylindrical Roller Bearings

Series N-EC

300E



Dimensions (inches/*mm*) (pounds/*newtons*)

Basic bearing number	A Bore diameter	B Outside diameter	C Width	Basic load rating	Static load rating	R Inner ▲	r Outer ▲
305E	0.984 (25.00)	2.441 (62.00)	0.669 (17.00)	9,197 (40,800)	8,318 (36,900)	0.043 (1.10)	0.043 (1.10)
306E	1.181 (30.00)	2.835 (72.00)	0.748 (19.00)	11,587 (51,400)	10,866 (48,200)	0.043 (1.10)	0.043 (1.10)
307E	1.378 (35.00)	3.150 (80.00)	0.827 (21.00)	15,780 (70,000)	16,456 (73,000)	0.059 (1.50)	0.059 (1.50)
308E	1.575 (40.00)	3.543 (90.00)	0.906 (23.00)	19,838 (88,000)	20,514 (91,000)	0.059 (1.50)	0.059 (1.50)
309E	1.772 (45.00)	3.937 (100.00)	0.984 (25.00)	22,543 (100,000)	22,069 (97,900)	0.059 (1.50)	0.059 (1.50)
310E	1.969 (50.00)	4.331 (110.00)	1.063 (27.00)	26,826 (119,000)	28,404 (126,000)	0.079 (2.00)	0.079 (2.00)
311E	2.165 (55.00)	4.724 (120.00)	1.142 (29.00)	31,447 (139,500)	32,507 (144,200)	0.079 (2.00)	0.079 (2.00)
312E	2.362 (60.00)	5.118 (130.00)	1.220 (31.00)	35,843 (159,000)	40,577 (180,000)	0.083 (2.10)	0.083 (2.10)
313E	2.559 (65.00)	5.512 (140.00)	1.299 (33.00)	41,614 (184,600)	44,635 (198,000)	0.083 (2.10)	0.083 (2.10)
314E	2.756 (70.00)	5.906 (150.00)	1.378 (35.00)	46,889 (208,000)	52,164 (231,400)	0.083 (2.10)	0.083 (2.10)
315E	2.953 (75.00)	6.299 (160.00)	1.457 (37.00)	55,455 (246,000)	60,460 (268,200)	0.083 (2.10)	0.083 (2.10)
316E	3.150 (80.00)	6.693 (170.00)	1.535 (39.00)	59,761 (265,100)	66,208 (293,700)	0.083 (2.10)	0.083 (2.10)
317E	3.346 (85.00)	7.087 (180.00)	1.614 (41.00)	67,403 (299,000)	75,969 (337,000)	0.118 (3.00)	0.118 (3.00)
318E	3.543 (90.00)	7.480 (190.00)	1.693 (43.00)	72,362 (321,000)	83,048 (368,400)	0.118 (3.00)	0.118 (3.00)
319E	3.740 (95.00)	7.847 (200.00)	1.772 (45.00)	77,209 (342,500)	89,044 (395,000)	0.118 (3.00)	0.118 (3.00)
320E	3.937 (100.00)	8.465 (215.00)	1.850 (47.00)	89,089 (395,200)	99,639 (442,000)	0.118 (3.00)	0.118 (3.00)
321E	4.134 (105.00)	8.858 (225.00)	1.929 (49.00)	99,549 (441,600)	112,940 (501,000)	0.118 (3.00)	0.118 (3.00)
322E	4.331 (110.00)	9.499 (240.00)	1.969 (50.00)	105,884 (469,700)	122,520 (543,500)	0.118 (3.00)	0.118 (3.00)
324E	4.724 (120.00)	10.236 (260.00)	2.165 (55.00)	121,664 (539,700)	140,487 (623,200)	0.118 (3.00)	0.118 (3.00)
326E	5.118 (130.00)	11.024 (280.00)	2.283 (58.00)	141,569 (628,000)	169,364 (751,300)	0.157 (4.00)	0.157 (4.00)
328E	5.512 (140.00)	11.811 (300.00)	2.441 (62.00)	129,261 (573,400)	187,308 (830,900)	0.157 (4.00)	0.157 (4.00)
330E	5.906 (150.00)	12.598 (320.00)	2.559 (65.00)	176,172 (781,500)	217,831 (966,300)	0.157 (4.00)	0.157 (4.00)
332E	6.299 (160.00)	13.386 (340.00)	2.677 (68.00)	198,738 (881,600)	244,026 (1,082,500)	0.157 (4.00)	0.157 (4.00)

Static and dynamic capacities are calculated in accordance with ISO76 and ISO281.

▲Largest fillet radius that will clear bearing corners.

Nomenclature

Series NE-C

Spherical Roller Bearings

Symbol	Description	N	2	08	E	M	C3
N	Separable bearing with double-ribbed inner ring*	}					
NU	Separable cylindrical inner ring						
NJ	Separable single-ribbed inner ring						
NUP	Separable inner ring with end plate*						
2	200 Series		}				
3	300 Series						
08	One-fifth of bore diameter			}			
E	Extra capacity						
M	Machined bronze cage				}		
P	Polymeric cage						
V	Formed steel						
C0	Standard clearance					}	
C3	Increased clearance						

* Consult factory for availability.

The nomenclature shown is provided to identify the basic and optional features of bearing and mounted unit assemblies. The most commonly specified variations are listed; however, availability of all variations cannot be assumed. Link-Belt Bearing Division should be consulted regarding optional features, availability, and the application requirements.

Spherical Roller Bearings

Contents

Series A20000

Introduction	H-1
A20000S	
Selection	H-3
Load Ratings	H-5
Dimensions	H-6
A20000, A20000M	
Selection	H-7
Load Ratings	H-9
Dimensions	H-11
Additional Information	H-15
Nomenclature	H-16

Series A20000

Spherical Roller Bearings

Self-aligning separable outer ring bearings of single row adjustable and double row adjustable or nonadjustable types for high capacity and minimum space requirements. These compact bearings feature the latest design refinements.

- ① Controlled raceway curvatures afford precise osculation clearance to avoid edge loading and provide high capacity.
- ② Roller guidance is provided by double contoured coined steel retainer pockets.
- ③ Large rollers for extended bearing life.
- ④ Micro-finished raceways assure smooth operation.



Rollers

Symmetrical roller design permits natural roller positioning and distribution of load in dynamic operation. Curvatures of roller contact surfaces are contoured to control stress distribution under all combinations of radial and thrust loads within design capaci-

ties.

Rings

The geometry and sections of the outer and inner rings and rollers result in high capacity and long bearing life. Controlled raceway curvatures on inner and outer rings and rollers afford precise osculation clearances preventing roller edge loading. Outer ring raceways are spherically finished to provide freedom of alignment under variable conditions

Retainers

Double contoured deep coined pockets provide accurate roller guidance. Separate retainer for each row of rollers allows rollers to seek ultimate rolling path and operating angle for all radial/thrust load conditions.

Single Row Adjustable

A20000S

Single-row self-aligning adjustable spherical roller bearing for direct shaft mounting. Available with bores from 1.0000" (**25.400 mm**) to 4.1331" (**104.981 mm**) inclusive.

Dimensions on pages H-6.

Load ratings on pages H-5.

Additional information on page H-



15.

Double Row Adjustable

A20000

Double-row self-aligning adjustable spherical roller bearing for direct shaft mounting. Available with bores from 1.0000" (**25.400 mm**) to 4.7236" (**119.979 mm**) inclusive.

Dimensions on pages H-11 and H-



12.

Load ratings on pages H-9 and H-10.

Additional information on page H-15.

Double Row Non-Adjustable

A20000M

Double-row self-aligning nonadjustable spherical roller bearings for direct shaft mounting. Available with bores from 1.0000" (**25.4 mm**) to 4.1331" (**104.981 mm**) inclusive.

Dimensions on pages H-13 and H-14.

Load ratings on pages H-9 and H-10.

Additional information on page H-15.



Selection

Series A20000S

A20000S single row angular contact spherical roller bearings are suitable for a wide variety of mounting arrangements. In the application of these bearings, it is important to consider that radial loads produce a thrust reaction which must be opposed by another force...usually the thrust reaction from another bearing. This force maintains the bearing rings in their correct operating position. Normally, two single

row angular contact bearings are mounted opposed to one another on a common shaft. As thrust or thrust reactions are always present, it is advisable to calculate both bearing lives concurrently.

The selection procedures and rating formulas shown here are in agreement with The American Bearing Manufacturers Association Standards and ANSI/

ABMA STD 11-1990. Ratings are based on fatigue life. The Rating Life L_{10} or fatigue life at 90% reliability is the usual basis for bearing selection.

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

Bearing Selection (pair of bearings)

Step 1 Determine an appropriate L_{10} design life.

Type of service	Operating time, hours per year	Design life, years	L_{10} design life, hours
Light seasonal usage	500 to 750	3-5	3,000
Heavy seasonal usage	1,400 to 1,600	4-6	8,000
Industrial—8 hour shift	2,000	10	20,000
Industrial—16 hour shift	4,000	10	40,000
Industrial—continuous	8,700	10	80,000 to 100,000
Continuous—high reliability	—	—	120,000 to 300,000

Step 2 Determine a required $\left(\frac{C}{P}\right)$ from Table 1.

Step 3 Determine a required shaft diameter and make a temporary selection for each bearing to fit this shaft.

Step 4 Calculate each induced thrust reaction T_F from the radial loads F_r on each bearing.

$$T_F = \frac{0.5 F_r}{Y_2}$$

This reaction is directed along the shaft and tends to separate the individual inner ring and roller assemblies from their outer rings.

Step 5 Calculate resultant bearing thrust load F_a .

$$F_a = T_F + T$$

T_F is the thrust reaction from the opposite single row angular contact bearing. The applied thrust load T is positive (+) if in the same direction as T_F , and negative (−) if in the opposite direction. If F_a is negative, substitute zero for F_a .

Step 6 Calculate the ratio of the resultant bearing thrust load F_a to the radial load F_r for each bearing.

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

Step 7 Calculate the equivalent radial load P for both trial bearings.

$$P = XF_r + YF_a$$

If $\frac{F_a}{F_r}$ is equal to or less than e , then

$$P = X_1 F_r + Y_1 F_a \text{ where } \begin{cases} X_1 = 1.0 \\ Y_1 = 0 \end{cases}$$

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

For values of e , X_2 , and Y_2 , see the bearing rating table, page H-5.

Step 8 Calculate the required C rating of each bearing to verify the trial selections.

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

Consult the bearing rating table to see if the selected bearings meet or exceed the required C in each case.

Selection

Series 20000S

basic formulas:

$$\left(\frac{C}{P}\right) = \left(\frac{L_{10} \times n \times 60}{1,000,000}\right)^{3/10} \quad L_{10} = \frac{\left(\frac{C}{P}\right)^{10/3} \times 1,000,000}{n \times 60}$$

symbols for formulas:

C = basic load rating, pounds (or newtons)
 C_o = static load rating, pounds (or newtons)
 e = a reference value
 F_a = thrust load, pounds (or newtons)
 F_r = radial load, pounds (or newtons)
 L₁₀ = rating life, hours
 n = speed, revolutions per minute
 P = equivalent radial load, pounds (or newtons)
 T = externally applied thrust load, pounds (or newtons)
 T_F = bearing thrust reaction, pounds (or newtons)
 X = radial factor
 Y = thrust factor

Table 1 • Relation of L₁₀ life and speed to $\left(\frac{C}{P}\right)$

Bearing life, hours L ₁₀	$\left(\frac{C}{P}\right)$ ratio								
	Speed, n								
	50	100	200	300	400	500	600	700	800
3000	1.93	2.38	2.93	3.31	3.61	3.86	4.07	4.27	4.44
4000	2.11	2.59	3.19	3.61	3.93	4.20	4.44	4.65	4.84
5000	2.25	2.77	3.42	3.86	4.20	4.50	4.75	4.97	5.18
6000	2.38	2.93	3.61	4.07	4.44	4.75	5.02	5.25	5.47
8000	2.59	3.19	3.93	4.44	4.84	5.18	5.47	5.73	5.96
10000	2.77	3.42	4.20	4.75	5.18	5.54	5.85	6.12	6.37
12000	2.93	3.61	4.44	5.02	5.47	5.85	6.18	6.47	6.73
14000	3.07	3.78	4.65	5.25	5.73	6.12	6.47	6.77	7.05
16000	3.19	3.93	4.84	5.47	5.96	6.37	6.73	7.05	7.34
18000	3.31	4.07	5.02	5.66	6.18	6.60	6.97	7.30	7.60
20000	3.42	4.20	5.18	5.85	6.37	6.81	7.20	7.54	7.85
25000	3.65	4.50	5.54	6.25	6.81	7.29	7.70	8.06	8.39
30000	3.86	4.75	5.85	6.60	7.20	7.70	8.13	8.51	8.86
35000	4.04	4.97	6.12	6.92	7.54	8.06	8.51	8.92	9.28
40000	4.20	5.18	6.37	7.20	7.85	8.39	8.86	9.28	9.66
45000	4.36	5.36	6.60	7.46	8.13	8.69	9.18	9.61	10.00
50000	4.50	5.54	6.81	7.70	8.39	8.97	9.48	9.92	10.30
60000	4.75	5.85	7.20	8.13	8.86	9.48	10.00	10.50	10.90
70000	4.97	6.12	7.54	8.51	9.28	9.92	10.50	11.00	11.40
80000	5.18	6.37	7.85	8.86	9.66	10.30	10.90	11.40	11.90
90000	5.36	6.60	8.13	9.18	10.00	10.70	11.30	11.80	12.30
100000	5.54	6.81	8.39	9.48	10.30	11.00	11.70	12.20	12.70
150000	6.25	7.70	9.48	10.70	11.70	12.50	13.20	13.80	14.40
200000	6.81	8.39	10.30	11.70	12.70	13.60	14.40	15.00	15.70
	Speed, n								
	900	1000	1200	1500	1800	2400	3000	3600	6000
3000	4.60	4.75	5.02	5.36	5.66	6.18	6.60	6.97	8.13
4000	5.02	5.18	5.47	5.85	6.18	6.73	7.20	7.60	8.86
5000	5.36	5.54	5.85	6.25	6.60	7.20	7.70	8.13	9.48
6000	5.66	5.85	6.18	6.60	6.97	7.60	8.13	8.59	10.00
8000	6.18	6.37	6.73	7.20	7.60	8.29	8.86	9.36	10.90
10000	6.60	6.81	7.20	7.70	8.13	8.86	9.48	10.00	11.70
12000	6.97	7.20	7.60	8.13	8.59	9.36	10.00	10.60	12.30
14000	7.30	7.54	7.96	8.51	8.99	9.80	10.50	11.10	12.90
16000	7.60	7.85	8.29	8.86	9.36	10.20	10.90	11.50	13.40
18000	7.88	8.13	8.59	9.18	9.70	10.60	11.30	11.90	13.90
20000	8.13	8.39	8.86	9.48	10.00	10.90	11.70	12.30	14.40
25000	8.69	8.97	9.48	10.10	10.70	11.70	12.50	13.20	15.40
30000	9.18	9.48	10.00	10.70	11.30	12.30	13.20	13.90	16.20
35000	9.61	9.92	10.50	11.20	11.80	12.90	13.80	14.60	17.00
40000	10.00	10.30	10.90	11.70	12.30	13.40	14.40	15.20	17.70
45000	10.40	10.70	11.30	12.10	12.80	13.90	14.90	15.70	18.30
50000	10.70	11.00	11.70	12.50	13.20	14.40	15.40	16.20	18.90
60000	11.30	11.70	12.30	13.20	13.90	15.20	16.20	17.10	20.00
70000	11.80	12.20	12.90	13.80	14.60	15.90	17.00	17.90	20.90
80000	12.30	12.70	13.40	14.40	15.20	16.50	17.70	18.70	21.80
90000	12.80	13.20	13.90	14.90	15.70	17.10	18.30	19.40	22.60
100000	13.20	13.60	14.40	15.40	16.20	17.70	18.90	20.00	23.30
150000	14.90	15.40	16.20	17.30	18.30	20.00	21.40	22.60	26.30
200000	16.20	16.70	17.70	18.90	20.00	21.80	23.30	24.60	28.70

Life Expectancy (pair of bearings)

To calculate the Rating Life L₁₀ of any pair of selected or trial bearings:

Step 1 Calculate each induced thrust reaction T_F from the radial loads F_r on each bearing.

$$T_F = \frac{0.5 F_r}{Y_2}$$

This reaction is directed along the shaft and tends to separate the individual inner ring and roller assemblies from their outer rings.

Step 2 Calculate each resultant bearing thrust load F_a.

$$F_a = T_F + T$$

T_F is the thrust reaction from the opposite single row angular contact bearing. The applied thrust load T is positive (+) if in the same direction as T_F, and negative (−) if in the opposite direction. If F_a is negative, substitute zero for F_a.

Step 3 Calculate the ratio of the resultant bearing thrust load F_a to the radial load F_r for each bearing.

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

Step 4 Calculate the equivalent radial load P for both trial bearings. P = XF_r + YF_r

If $\frac{F_a}{F_r}$ is equal to or less than e, then
 $X_1 = 1.0$
 $Y_1 = 0$
 P = X₁F_r + Y₁F_a where

If $\frac{F_a}{F_r}$ is greater than e, then

$$P = X_2 F_r + Y_2 F_a$$

For values of e, X₂, and Y₂ see the bearing rating table, page H-5.

Step 5 Calculate each ratio of the bearing basic load rating C to its equivalent radial load.

$$\frac{C}{P}$$

Step 6 Approximate life expectancy of each bearing from Table 1.

Life Adjustment

The Rating Life, L₁₀, may be modified for some applications in accordance with the formula

$$L_n = a_1 a_2 a_3 L_{10}$$

where L_n = Adjusted life for (100-n) % reliability,
 a₁ = Life adjustment factor for reliability
 a₂ = Life adjustment factor for material and processing
 a₃ = Life adjustment factor for operating conditions.

For most normal applications, all factors will be taken as 1, and the Rating Life used as the selection basis or life estimate. In addition, as long as standard catalog bearings are used, a₂ will be normally set equal to one. The factor a₃ covers such things as lubrication, misalignment, and temperature. Some conditions that could yield a₃ significantly different than unity include speeds less than 20000 DN or greater than 200000 DN, temperatures below −40°F (−40°C) or above 275°F (135°C). For other possible conditions, as well as additional information on life adjustment factors, consult Link-Belt Bearing Division, Rexnord Corp.

Load Ratings

Series A20000S



Load ratings, weights and speed limits

Bearing number	Weight		C ₀ Static load rating		C Basic load rating		Approximate speed limit RPM ●	e	X ₂	Y ₂
	<i>kilograms</i>	pounds								
			<i>newtons</i>	pounds	<i>newtons</i>	pounds				
A22100S	0.2	.5	36 500	8210	33 300	7480	7100	.51	.40	1.17
A22150S	0.3	.6	46 600	10500	37 800	8510	5700	.44	.40	1.37
A22196S	0.5	1.1	73 800	16600	55 100	12400	4500	.40	.40	1.49
A23225S	0.6	1.4	98 800	22200	68 500	15400	4000	.40	.40	1.49
A22262S	0.9	2.0	136 100	30600	93 200	21000	3500	.37	.40	1.61
A23275S	2.1	4.7	187 700	42200	150 300	33800	2850	.40	.40	1.49
A22300S	1.4	3.0	159 200	35800	108 500	24400	3100	.38	.40	1.59
A23300S	2.3	5.0	201 500	45300	132 600	29800	2650	.38	.40	1.57
A23334S	2.0	4.4								
A22413S	4.1	9.0	395 100	88800	244 700	55000	2100	.38	.40	1.60

Please consult for availability.

● For oil lubrication only. For grease lubrication, use 75% of these values.

Additional information, page H-15.

Spherical Roller Bearings

A20000S

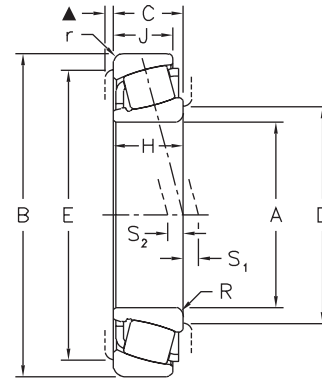
Single Row

Adjustable

Self-aligning

Deep Coined Retainer

Double Contoured Roller Pocket



Dimensions (inches/mm)

Bearing number	A Bore diameter †	B Outside diameter ●	C Assembly width	D	E	H Inner	J Outer	R* Inner	r* Outer	S ₁	S ₂
				Shoulder diameter		Ring width		Fillet radius		Apex distance	
A22100S	1.0000 25.400	2.3750 60.325	.781 19.84	1.37 34.8	2.00 50.8	.793 20.14	.491 12.47	.046 1.17	.046 1.17	.... ....	.1870 4.750
A22150S	1.5000 38.100	2.8345 71.996	.670 17.02	1.81 46.0	2.50 63.5	.650 16.51	.546 13.87	.062 1.57	.062 1.57	.... ....	.0150 0.381
A22196S	1.9680 49.987	3.5433 90.000	.787 19.99	2.38 60.4	3.18 80.8	.787 19.99	.651 16.54	.078 1.98	.078 1.98	.... ....	.0240 0.610
A23225S	2.2500 57.150	3.9370 100.000	.828 21.03	2.65 67.3	3.50 88.9	.860 21.84	.693 17.60	.093 2.36	.062 1.57	.... ....	.0000 0.000
A22262S	2.6250 66.675	4.4677 113.480	.948 24.08	3.06 77.7	4.07 103.4	1.000 25.40	.690 17.53	.140 3.56	.062 1.57	.... ....	.0900 2.286
A23275S	2.7553 69.985	5.9045 149.974	1.188 30.18	3.42 85.9	5.25 133.4	1.188 30.18	.960 24.38	.080 2.03	.080 2.03	.... ....	.0000 0.000
A22300S	3.0000 76.200	5.1172 129.977	1.062 26.97	3.40 86.4	4.57 116.1	1.062 26.97	.928 23.57	.078 1.98	.078 1.98	.... ....	.0000 0.000
A23300S	3.0000 76.200	5.9045 149.974	1.109 28.17	4.00 101.6	5.34 135.6	1.236 31.39	.925	.140 3.56	.125	.0475 1.206	.... ....
A23334S	3.3457 84.981					1.109 28.17	23.50	.125 3.18	3.18		
A22413S	4.1331 104.981					1.419 36.04	1.265 32.13	.125 3.18	.125 3.18		

Bold face items normally available from stock; consult for availability of non-stock items.

▲ Housing recess: Recommended $\frac{3}{16}$ " (**4.8 mm**); minimum $\frac{1}{16}$ " (**1.6 mm**).

* Largest fillet radius that will clear bearing corners.

† Bore tolerance:

3.0000" (**76.200 mm**) diameter and smaller, +.0005" –.0000" (**+0.013 –0.000 mm**).

Over 3.0000" (**76.200 mm**) diameter, +.0010" –.0000" (**+0.025 –0.000 mm**).

● Outer ring O.D. tolerance: +.0010" –.0000" (**+0.025 –0.000 mm**).

Selection guide, pages H-3, H-4.

Load Ratings, page H-5.

Additional information, page H-15.

Selection

Series A20000, A20000M

In the A20000 series double row angular contact spherical roller bearings the outer rings are separable, and bearing clearance is adjustable by varying the axial position of one ring to the other. They are suitable for a wide variety of mounting arrangements. When mountings are designed for these bearings, provisions must be made to locate the two outer rings so that correct bearing clearance is attained.

In the A20000M series, the axial position is fixed by spacer rings sized to preadjusted bearing clearance ranges that correspond to ABMA recommended radial clearances for spherical roller bearings. When mounted, the outer rings must be held snugly against the spacer ring.

The selection procedures and rating formulas shown here are in agreement with The American Bearing Manufactur-

ers Association Standards and ANSI/ABMA STD 11-1990. Ratings are based on fatigue life. The L₁₀ Rating Life or fatigue life at 90% reliability is the usual basis for bearing selection.

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

Bearing Selection

Step 1 Determine an appropriate L₁₀ design life.

Type of service	Operating time, hours per year	Design life, years	L ₁₀ design life, hours
Light seasonal usage	500 to 750	3-5	3,000
Heavy seasonal usage	1,400 to 1,600	4-6	8,000
Industrial—8 hour shift	2,000	10	20,000
Industrial—16 hour shift	4,000	10	40,000
Industrial—continuous	8,700	10	80,000 to 100,000
Continuous—high reliability	—	—	120,000 to 300,000

Step 2 Determine a required $\left(\frac{C}{P}\right)$ from Table 1.

Step 3 Calculate the required C and select a spherical roller bearing.

a For radial load only:

$$P = F_r$$

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

Select a spherical roller bearing from pages H-9 and H-10 having a basic load rating C equal to or greater than the required C.

b For combined radial and thrust loads:

Select a trial roller bearing with appropriate characteristics and the desired shaft size, pages H-9 and H-10.

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

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

Calculate the equivalent radial load P

$$P = XF_r + YF_a$$

if $\frac{F_a}{F_r}$ is equal to or less than e, then $P = X_1F_r + Y_1F_a$

If $\frac{F_a}{F_r}$ is greater than e, then $P = X_2F_r + Y_2F_a$

For values of e, X₁, Y₁, X₂, and Y₂, consult the appropriate bearing rating table, pages H-9 and H-10.

Calculate the required C

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

Consult the bearing rating tables, pages H-9 and H-10, to see if the selected bearing meets or exceeds the required C. If a smaller bearing meets, or nearly meets, the required C, its life expectancy can be calculated.

Selection

Series A20000, A20000M

symbols for formulas:

C = basic load rating, pounds (or newtons)
 C_o = static load rating, pounds (or newtons)
 e = a reference value
 F_a = thrust load, pounds (or newtons)
 F_r = radial load, pounds (or newtons)
 L₁₀ = rating life, hours
 n = speed, revolutions per minute
 P = equivalent radial load, pounds (or newtons)
 X = radial factor
 Y = thrust factor

basic formulas:

$$\left(\frac{C}{P}\right) = \left(\frac{L_{10} \times n \times 60}{1,000,000}\right)^{3/10}$$

$$L_{10} = \frac{\left(\frac{C}{P}\right)^{10/3} \times 1,000,000}{n \times 60}$$

Table 1 • Relation of L₁₀ life and speed to $\left(\frac{C}{P}\right)$

Bearing life, hours L ₁₀	$\left(\frac{C}{P}\right)$ ratio									
	Speed, n									
	50	100	200	300	400	500	600	700	800	
3000	1.93	2.38	2.93	3.31	3.61	3.86	4.07	4.27	4.44	
4000	2.11	2.59	3.19	3.61	3.93	4.20	4.44	4.65	4.84	
5000	2.25	2.77	3.42	3.86	4.20	4.50	4.75	4.97	5.18	
6000	2.38	2.93	3.61	4.07	4.44	4.75	5.02	5.25	5.47	
8000	2.59	3.19	3.93	4.44	4.84	5.18	5.47	5.73	5.96	
10000	2.77	3.42	4.20	4.75	5.18	5.54	5.85	6.12	6.37	
12000	2.93	3.61	4.44	5.02	5.47	5.85	6.18	6.47	6.73	
14000	3.07	3.78	4.65	5.25	5.73	6.12	6.47	6.77	7.05	
16000	3.19	3.93	4.84	5.47	5.96	6.37	6.73	7.05	7.34	
18000	3.31	4.07	5.02	5.66	6.18	6.60	6.97	7.30	7.60	
20000	3.42	4.20	5.18	5.85	6.37	6.81	7.20	7.54	7.85	
25000	3.65	4.50	5.54	6.25	6.81	7.29	7.70	8.06	8.39	
30000	3.86	4.75	5.85	6.60	7.20	7.70	8.13	8.51	8.86	
35000	4.04	4.97	6.12	6.92	7.54	8.06	8.51	8.92	9.28	
40000	4.20	5.18	6.37	7.20	7.85	8.39	8.86	9.28	9.66	
45000	4.36	5.36	6.60	7.46	8.13	8.69	9.18	9.61	10.00	
50000	4.50	5.54	6.81	7.70	8.39	8.97	9.48	9.92	10.30	
60000	4.75	5.85	7.20	8.13	8.86	9.48	10.00	10.50	10.90	
70000	4.97	6.12	7.54	8.51	9.28	9.92	10.50	11.00	11.40	
80000	5.18	6.37	7.85	8.86	9.66	10.30	10.90	11.40	11.90	
90000	5.36	6.60	8.13	9.18	10.00	10.70	11.30	11.80	12.30	
100000	5.54	6.81	8.39	9.48	10.30	11.00	11.70	12.20	12.70	
150000	6.25	7.70	9.48	10.70	11.70	12.50	13.20	13.80	14.40	
200000	6.81	8.39	10.30	11.70	12.70	13.60	14.40	15.00	15.70	
	Speed, n									
	900	1000	1200	1500	1800	2400	3000	3600	6000	
3000	4.60	4.75	5.02	5.36	5.66	6.18	6.60	6.97	8.13	
4000	5.02	5.18	5.47	5.85	6.18	6.73	7.20	7.60	8.86	
5000	5.36	5.54	5.85	6.25	6.60	7.20	7.70	8.13	9.48	
6000	5.66	5.85	6.18	6.60	6.97	7.60	8.13	8.59	10.00	
8000	6.18	6.37	6.73	7.20	7.60	8.29	8.86	9.36	10.90	
10000	6.60	6.81	7.20	7.70	8.13	8.86	9.48	10.00	11.70	
12000	6.97	7.20	7.60	8.13	8.59	9.36	10.00	10.60	12.30	
14000	7.30	7.54	7.96	8.51	8.99	9.80	10.50	11.10	12.90	
16000	7.60	7.85	8.29	8.86	9.36	10.20	10.90	11.50	13.40	
18000	7.88	8.13	8.59	9.18	9.70	10.60	11.30	11.90	13.90	
20000	8.13	8.39	8.86	9.48	10.00	10.90	11.70	12.30	14.40	
25000	8.69	8.97	9.48	10.10	10.70	11.70	12.50	13.20	15.40	
30000	9.18	9.48	10.00	10.70	11.30	12.30	13.20	13.90	16.20	
35000	9.61	9.92	10.50	11.20	11.80	12.90	13.80	14.60	17.00	
40000	10.00	10.30	10.90	11.70	12.30	13.40	14.40	15.20	17.70	
45000	10.40	10.70	11.30	12.10	12.80	13.90	14.90	15.70	18.30	
50000	10.70	11.00	11.70	12.50	13.20	14.40	15.40	16.20	18.90	
60000	11.30	11.70	12.30	13.20	13.90	15.20	16.20	17.10	20.00	
70000	11.80	12.20	12.90	13.80	14.60	15.90	17.00	17.90	20.90	
80000	12.30	12.70	13.40	14.40	15.20	16.50	17.70	18.70	21.80	
90000	12.80	13.20	13.90	14.90	15.70	17.10	18.30	19.40	22.60	
100000	13.20	13.60	14.40	15.40	16.20	17.70	18.90	20.00	23.30	
150000	14.90	15.40	16.20	17.30	18.30	20.00	21.40	22.60	26.30	
200000	16.20	16.70	17.70	18.90	20.00	21.80	23.30	24.60	28.70	

Life Expectancy

To calculate the Rating Life L₁₀ of any selected trial bearing:

Step1 Determine the equivalent radial load P.

a For radial load only:

$$P = F_r$$

b For combined radial and thrust load:

$$P = XF_r + YF_a$$

If $\frac{F_a}{F_r}$ is equal to or less than e, then

$$P = X_1F_r + Y_1F_a$$

If $\frac{F_a}{F_r}$ is greater than e, then

$$P = X_2F_r + Y_2F_a$$

For values of e, X₁, Y₁, X₂, and Y₂, consult the appropriate bearing rating table, pages H-9 and H-10.

Step2 Calculate the ratio of the bearing basic load rating C to its equivalent radial load.

$$\frac{C}{P}$$

Step3 Approximate the bearing life from Table 1.

Life Adjustment

The Rating Life, L₁₀, may be modified for some applications in accordance with the formula

$$L_n = a_1 a_2 a_3 L_{10}$$

where L_n = Adjusted life for (100-n) % reliability,
 a₁ = Life adjustment factor for reliability
 a₂ = Life adjustment factor for material and processing
 a₃ = Life adjustment factor for operating conditions.

For most normal applications, all factors will be taken as 1, and the Rating Life used as the selection basis or life estimate. In addition, as long as standard catalog bearings are used, a₂ will be normally set equal to one. The factor a₃ covers such things as lubrication, misalignment, and temperature. Some conditions that could yield a₃ significantly different than unity include speeds less than 20000 DN or greater than 200000 DN, temperatures below -40°F (-40°C) or above 275°F (135°C). For other possible conditions, as well as additional information on life adjustment factors, consult Link-Belt Bearing Division, Rexnord Corp.

Load Ratings Series A20000, A20000M



A20000



A20000M

Load ratings, weights and speed limits

Bearing number	Weight		C ₀ Static load rating			C Basic load rating			Approximate speed limit RPM	e	F _a F _r ≤ e		F _a F _r > e	
	kilograms	pounds									X ₁	Y ₁	X ₂	Y ₂
			newtons	pounds	newtons	pounds								
A22100	0.4	1.0	66	100	14900	51	200	11500	7100	.51	1.00	1.32	.67	1.96
A22100M	0.4	1.0												
A22112	0.4	.9												
A22112M	0.4	.9												
A22118	0.6	1.3	80	500	18100	60	900	13700	6200	.48	1.00	1.40	.67	2.08
A22118M	0.6	1.4												
A22125	0.5	1.1												
A22125M	0.5	1.2												
A22137	0.6	1.3	93	200	20900	64	900	14600	5700	.44	1.00	1.54	.67	2.29
A22137M	0.6	1.4												
A22150	0.5	1.2												
A22150M	0.6	1.3												
A22177	0.9	2.0	127	700	28700	89	800	20200	4800	.45	1.00	1.51	.67	2.25
A22177M	0.9	2.0												
A22196	1.0	2.1	147	700	33200	94	300	21200	4500	.40	1.00	1.68	.67	2.50
A22196M	1.0	2.3												
A23196	1.4	3.1	189	000	42500	130	300	29300	4200	.45	1.00	1.50	.67	2.24
A23196M	1.5	3.3												
A24196	2.0	4.3	245	500	55200	164	600	37000	3850	.48	1.00	1.39	.67	2.07
A24196M	2.1	4.7												
A23200	1.4	3.2	197	500	44400	117	400	26400	4000	.40	1.00	1.68	.67	2.50
A23200M	1.5	3.3												
A23225	1.3	2.8												
A23225M	1.3	2.9												
A24236	1.8	3.9	238	000	53500	139	700	31400	3600	.38	1.00	1.80	.67	2.68
A24236M	2.0	4.3												

See facing page for footnotes.

Load ratings, weights and speed limits

Bearing number	Weight		C ₀ Static load rating			C Basic load rating			Approximate speed limit RPM ●	e	F _a / F _r ≤ e		F _a / F _r > e	
	kilograms	pounds									X ₁	Y ₁	X ₂	Y ₂
			newtons	pounds	newtons	pounds								
A22262	1.9	4.2	249	400	61300	159	700	35900	3500	.37	1.00	1.81	.67	2.70
A23262	2.9	6.5												
A23262M	3.1	6.9												
A23275	4.2	9.3	375	000	84300	257	500	57900	2850	.40	1.00	1.67	.67	2.49
A23275M	4.4	9.8												
A22275	3.0	6.6												
A22275M	3.1	6.8	318	000	71500	185	900	41800	3100	.38	1.00	1.79	.67	2.67
A22295	2.7	6.0												
A22295M	2.8	6.2												
A23334	4.0	8.9	403	400	90700	226	800	51000	2650	.38	1.00	1.77	.67	2.64
A23334M	4.3	9.4												
A22343	4.3	9.4	516	000	116000	274	000	61600	2600	.43	1.00	1.57	.67	2.33
A22343M	4.4	9.8												
A22351	4.9	10.9												
A22351M	5.1	11.3	609	400	137000	351	800	79100	2200	.36	1.00	1.88	.67	2.79
A22362	4.7	10.4												
A22362M	4.9	10.8												
A24374	7.5	16.0	790	200	178000	419	400	94300	2100	.38	1.00	1.80	.67	2.68
A22354	9.6	21.1												
A22354M	10.0	22.1												
A22400	8.6	18.9	944	700	212000	520	400	117000	1800	.37	1.00	1.83	.67	2.72
A22400M	8.8	19.3												
A22413	8.4	18.6												
A22413M	8.7	19.1												
A23472	13.6	30.0												

● For oil lubrication only. For grease lubrication, use 75% of these values.

Selection guide, pages H-7, H-8.

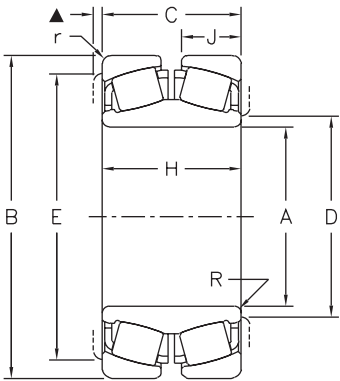
Dimensions on pages H-11 – H-14.

Additional information, page H-15.

Spherical Roller Bearings

A20000

Double Row
Adjustable
Self-aligning
Deep Coined Retainer
Double Contoured Roller Pocket



Dimensions (inches/*mm*)

Bearing number	A Bore diameter †	B Outside diameter ●	C Assembly width ‡	D	E	H Inner	J Outer	R* Inner	r* Outer
				Shoulder diameter		Ring width		Fillet radius	
A22100	1.0000 25.400	2.3750 60.235	1.188 30.18	1.31 33.3	2.00 50.8	1.188 30.18	.491 12.47	.046 1.17	.046 1.17
A22112	1.1250 28.575								
A22118	1.1875 30.162								
A22125	1.2500 31.750	2.6250 66.675	1.312 33.32	1.50 38.1	2.31 58.7	1.312 33.32	.541 13.74	.046 1.17	.062 1.57
A22137	1.3775 34.988	2.8345 71.996	1.310 33.27	1.68 42.7	2.50 63.5	1.310 33.27	.546 13.87	.046 1.17	.062 1.57
A22150	1.5000 38.100								
A22177	1.7712 44.988								
A22196	1.9680 49.987	3.5433 90.000	1.526 38.76	2.25 57.2	3.18 80.8	1.526 38.76	.651 16.54	.062 1.57	.078 1.98
A23196	1.9680 49.987	3.9370 100.000	1.656 42.06	2.25 57.2	3.50 88.9	1.656 42.06	.624 15.85	.093 2.36	.062 1.57
A24196	1.9680 49.987	4.3299 109.979	2.062 52.37	2.18 55.4	3.83 97.3	2.062 52.37	.836 21.23	.062 1.57	.080 2.03
A23200	2.0000 50.800	3.9370 100.000	1.656 42.06	2.50 63.5	3.50 88.9	1.656 42.06	.693 17.60	.093 2.36	.062 1.57
A23225	2.2500 57.150								
A24236	2.3616 59.985								
		4.3307 110.000	1.750 44.45	2.68 68.1	3.87 98.3	1.750 44.45	.763 19.38	.062 1.57	.078 1.98

See facing page for footnotes.

Dimensions (inches/*mm*)

Bearing number	A Bore diameter †	B Outside diameter ●	C Assembly width ‡	D	E	H Inner	J Outer	R★ Inner	r★ Outer
				Shoulder diameter		Ring width		Fillet radius	
A22262	2.6250 66.675	4.4677 113.480	1.716 43.59	3.00 76.2	4.07 103.4	1.716 43.59	.690 17.53	.140 3.56	.062 1.57
A23262	2.6250 66.675	5.0000 127.000	2.188 55.58	2.90 73.7	4.44 112.8	2.188 55.58	.936 23.77	.078 1.98	.078 1.98
A23275	2.7553 69.985	5.9045 149.974	2.375 60.32	3.19 81.0	5.25 133.4	2.375 60.32	.960 24.38	.080 2.03	.080 2.03
A22275	2.7500 69.850	5.1172 129.977	2.125 53.98	3.31 84.1	4.57 116.1	2.150 54.61	.928 23.57	.080 2.03	.078 1.98
A22295	2.9522 74.986							.140 3.56	
A23334	3.3457 84.981							.078 1.98	
A22343	3.4375 87.312	6.0000 152.400	2.750 69.85	4.00 101.6	5.43 137.9	2.750 69.85	1.173 29.79	.078 1.98	.125 3.18
A22351	3.5100 89.154								
A22362	3.6250 92.075								
A24374	3.7402 95.001								
A22354	3.5425 89.980	7.4792 189.972	2.974 75.54	4.75 120.6	6.63 168.4	2.968 75.39	1.265 32.13	.125 3.18	.125 3.18
A22400	4.0000 101.600								
A22413	4.1331 104.981								
A23472	4.7236 119.979								
		8.4634 214.970	3.437 87.30	5.37 136.4	7.50 190.5	3.437 87.30	1.511 38.38	.125 3.18	.125 3.18

Bold face items normally available from stock; consult for availability of non-stock items.

▲ Housing recess: Recommended $\frac{3}{16}$ " (**4.8 mm**); minimum $\frac{1}{16}$ " (**1.6 mm**).

★ Largest fillet radius that will clear bearing corners.

● Outer ring O.D. tolerance: $+0.0010$ " -0.0000 " (**$+0.025 -0.000$ mm**).

† Bore tolerance:

2.5000" (**63.500 mm**) diameter and smaller, $+0.0005$ " -0.0000 " (**$+0.013 -0.000$ mm**).

Over 2.5000" (**63.500 mm**) diameter, $+0.0010$ " -0.0000 " (**$+0.025 -0.000$ mm**).

‡ Use shims, threaded cover, or spacer ring to provide for adjustment. Housing must allow clearance for this adjustment on dimension C: ± 0.035 " (**± 0.89 mm**) for 3.437" (**87.30 mm**) assembly width, and ± 0.025 " (**± 0.64 mm**) for all other widths.

Selection guide, pages H-7, H-8.

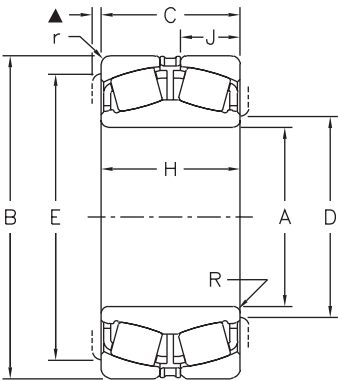
Load Ratings, pages H-9, H-10.

Additional information, page H-15.

Spherical Roller Bearings

A20000M

Double Row
Factory Adjusted
Self-aligning
Deep Coined Retainer
Double Contoured Roller Pocket



Dimensions (inches/mm)

Bearing number △	A Bore diameter †	B Outside diameter ●	C Assembly width	D	E	H Inner	J Outer	R★ Inner	r★ Outer
				Shoulder diameter		Ring width		Fillet radius	
A22100M	1.0000 25.400	2.3750 60.235	1.188 30.18	1.31 33.3	2.00 50.8	1.188 30.18	.491 12.47	.046 1.17	.046 1.17
A22112M	1.1250 28.575								
A22118M	1.1875 30.162								
A22125M	1.2500 31.750	2.6250 66.675	1.312 33.32	1.50 38.1	2.31 58.7	1.312 33.32	.541 13.74	.046 1.17	.062 1.57
A22137M	1.3775 34.988								
A22150M	1.5000 38.100								
A22177M	1.7712 44.988	3.3464 85.000	1.578 40.08	2.00 50.8	2.87 72.9	1.578 40.08	.651 16.54	.080 2.03	.062 1.57
A22196M	1.9680 49.987	3.5433 90.000	1.526 38.76	2.25 57.2	3.18 80.8	1.526 38.76	.651 16.54	.062 1.57	.078 1.98
A23196M	1.9680 49.987	3.9370 100.000	1.656 42.06	2.25 57.2	3.50 88.9	1.656 42.06	.624 15.85	.093 2.36	.062 1.57
A24196M	1.9680 49.987	4.3299 109.979	2.062 52.37	2.18 55.4	3.83 97.3	2.062 52.37	.836 21.23	.062 1.57	.080 2.03
A23200M	2.0000 50.800	3.9370 100.000	1.656 42.06	2.50 63.5	3.50 88.9	1.656 42.06	.693 17.60	.093 2.36	.062 1.57
A23225M	2.2500 57.150								
A24236M	2.3616 59.985			2.68 68.1	3.87 98.3	1.750 44.45	.763 19.38	.062 1.57	.078 1.98

See facing page for footnotes.

Dimensions (inches/*mm*)

Bearing number △	A Bore diameter †	B Outside diameter ●	C Assembly width	D	E	H Inner	J Outer	R★ Inner	r★ Outer
				Shoulder diameter		Ring width		Fillet radius	
A23262M	2.6250 66.675	5.0000 127.000	2.188 55.58	2.90 73.7	4.44 112.8	2.188 55.58	.936 23.77	.078 1.98	.078 1.98
A23275M	2.7553 69.985	5.9045 149.974	2.375 60.32	3.19 81.0	5.25 133.4	2.375 60.32	.960 24.38	.080 2.03	.080 2.03
A22275M	2.7500 69.850	5.1172 129.977	2.125 53.98	3.31 84.1	4.57 116.1	2.150 54.61	.928 23.57	.080 2.03	.078 1.98
A22295M	2.9522 74.986								
A23334M	3.3457 84.981	5.9045 149.974	2.313 58.75	3.75 95.2	5.34 135.6	2.313 58.75	.925 23.50	.078 1.98	.125 3.18
A22343M	3.4375 87.312	6.0000 512.400	2.750 69.85	4.00 101.6	5.43 137.9	2.750 69.85	1.173 29.79	.078 1.98	.125 3.18
A22351M	3.5100 89.154								
A22362M	3.6250 92.075								
A22354M	3.5425 89.980	7.4792 189.972	2.974 75.54	4.75 120.6	6.63 168.4	2.968 75.39	1.265 32.13	.125 3.18	.125 3.18
A22400M	4.0000 101.600								
A22413M	4.1331 104.981								

Bold face items normally available from stock; consult for availability of non-stock items.

▲ Housing recess: Recommended $\frac{3}{16}$ " (**4.8 mm**); minimum $\frac{1}{16}$ " (**1.6 mm**).

△ Complete part number includes clearance symbol i.e. A22100M/CO.

★ Largest fillet radius that will clear bearing corners.

● Outer ring O.D. tolerance: +.0010" –.0000" (**+0.025 –0.000 mm**).

† Bore tolerance:

2.5000" (**63.500 mm**) diameter and smaller, +.0005" –.0000" (**+0.013 –0.000 mm**).

Over 2.5000" (**63.500 mm**) diameter, +.0010" –.0000" (**+0.025 –0.000 mm**).

Selection guide, pages H-7, H-8.

Load Ratings, pages H-9, H-10.

Additional information, page H-15.

Additional Information

Series A20000S, A20000, A20000M

Recommended Fitting Practice: Inner ring fitting practice

Mounting method	Operation	Service	Shaft finish	Bearing Bore					
				Up to 3" inclusive			Over 3" thru 12" inclusive		
				Bearing bore, nominal	Fit	Shaft seat diameter, nominal	Bearing bore, nominal	Fit	Shaft seat diameter, nominal
Non-adjustable inner rings	Inner ring rotating with respect to load	Normal load (under 18% C), moderate shock,	Ground	+ .0005 – .0000	.0005 tight .0015 tight	+ .0015 + .0010	+ .0010 – .0000	.0005 tight .0025 tight	+ .0025 + .0015
		Heavy load, high speed, or shock	Unground or ground	+ .0005 – .0000	.0010 tight .0025 tight	+ .0025 – .0015	+ .0010 – .0000	.0005 × Brg. Bore (in.) Tight Tol. ±.001	+ .0005 × Brg. Bore (in.) + .001 Tol. – .000
Adjustable inner rings	Inner ring stationary with respect to load	Normal load (under 18% C), no shock	Unground	+ .0005 – .0000	.0005 loose .0005 tight	+ .0005 – .0000	+ .0010 – .0000	.0010 loose .0010 tight	+ .0010 – .0000
		Normal to heavy load, or shock	Ground	+ .0005 – .0000	.0010 loose .0000	+ .0000 – .0005	+ .0010 – .0000	.0020 loose .0000	+ .0000 – .0000
		Water spindle	Hardened ground	+ .0005 – .0000	.0012 loose .0002 loose	– .0002 – .0007	+ .0010 – .0000	.0022 loose .0002 loose	– .0002 – .0012

Outer ring fitting practice

Mounting method	Operation	Service	Bearing outside diameter								
			Up to 3" inclusive			Over 3" to 5" inclusive			Over 5" thru 12" inclusive		
			Bearing outside diameter, nominal	Fit	Housing seat diameter, nominal	Bearing outside diameter, nominal	Fit	Housing seat diameter, nominal	Bearing outside diameter, nominal	Fit	Housing seat diameter, nominal
Adjustable outer rings or A20000M (clamped only)	Outer ring stationary with respect to load	Steady load, no shock	+ .0010 – .0000	.0020 loose .0000	+ .0010 + .0020	+ .0010 – .0000	.0020 loose .0000	+ .0010 + .0020	+ .0010 – .0000	.0020 loose .0000	+ .0010 + .0020
		Heavy load, or shock	+ .0010 – .0000	.0010 loose .0010 tight	+ .0000 + .0010	+ .0010 – .0000	.0010 loose .0010 tight	+ .0000 + .0010	+ .0010 – .0000	.0020 loose .0010 tight	+ .0000 + .0020
Non-adjustable outer rings or A20000M (clamped only)	Outer ring rotating with respect to load	Normal load (under 18% C), no shock	+ .0010 – .0000	.0005 tight .0025 tight	– .0015 – .0005	+ .0010 – .0000	.0010 tight .0030 tight	– .0020 – .0010	+ .0010 – .0000	.0010 tight .0030 tight	– .0020 – .0010
		Heavy load, or shock	+ .0010 – .0000	.0020 tight .0040 tight	– .0030 – .0020	+ .0010 – .0000	.0020 tight .0040 tight	– .0030 – .0020	+ .0010 – .0000	.0020 tight .0040 tight	– .0030 – .0020

Operation:

Imposed radial loads should not exceed .25C. Where high radial loads, high speeds, thrust loads or vibratory loads are unavoidable, consult the Link-Belt Bearing Division.

Warning:

The reliability built into all Link-Belt bearings can be realized in service only when they are correctly selected and properly installed, protected and maintained.

The correct selection of bearings requires that the magnitude and nature of all loads, speeds, alignment, mount-

ing, operating requirements, and maintenance be adequately considered. The selection of materials for and design of housings, shafting, fasteners, seals, and accessories as well as provisions for installation and maintenance must follow good engineering principles.

Housings and covers must be designed to safely handle the radial and axial loads involved. Adequate space must be provided in the housing and covers for a supply of lubricant.

Seals must be provided that will satisfactorily cope with the environmental conditions.

Shaft O.D. size and housing bore size tables show recommended fitting practices, and should be followed strictly to assure a successful mounting arrangement.

Service instructions are provided with shipments of bearings and are available on request. These instructions provide detailed information to aid in proper installation, operation, and maintenance, and should be carefully read and followed. Failure to do so may result in unsatisfactory service, as well as serious personal injury or property damage.

Nomenclature

Series A20000S, A20000, A20000M

Spherical Roller Bearings

Symbol	Description	A	22	196	M	C0	C40
A	Spherical roller bearing, separable outer ring(s)						
22	Basic bearing series						
23	Larger O.D. or greater load rating than series 22						
24	Larger O.D. or greater load rating than series 23						
196	Bore size in hundredths of an inch						
None	Double row roller bearing; separable outer rings						
M	Double row bearing; separable outer rings with spacer for preadjusted clearance						
S	Single row roller bearing; adjustable						
C2	Internal clearance less than C0						
C0	Standard internal clearance						
C3	Internal clearance greater than C0						
W22	Reduced O.D. tolerance in center of tolerance range						
C40	Reduced O.D. tolerance in high half of tolerance range						
C50	Reduced O.D. tolerance in low half of tolerance range						

The nomenclature shown is provided to identify the basic and optional features of bearing and mounted unit assemblies. The most commonly specified variations are listed; however, availability of all variations cannot be assumed. Link-Belt Bearing Division should be consulted regarding optional features, availability, and the application requirements.

Sleeve Bearing Units and Takeups

Contents

Series 1000, 1100, 2-1200, 2-1300, 2-1400, 2-1500, F2200, DSB2800

Rigid Sleeve Bearing Units and Takeups

Introduction	I-1
Pictorial Index	I-3
Selection	I-5
Selection, Additional Information	I-6
Load Ratings	I-7
Dimensions	I-9
Replacement Bearings	I-17
Nomenclature	I-29

Series 3200

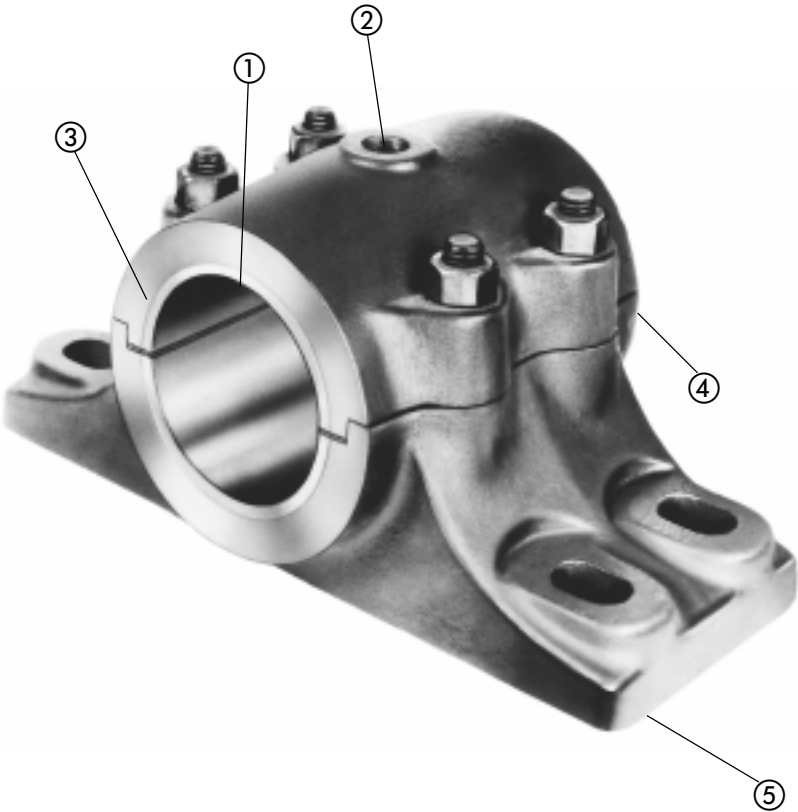
Flex-block® Sleeve Bearing Units

Introduction	I-19
Pictorial Index	I-20
Selection	I-21
Selection, Additional Information	I-22
Load Ratings	I-23
Dimensions	I-25
Nomenclature	I-29

Series 1000, 1100, 2-1200, 2-1300, 2-1400, 2-1500, F2200, DSB2800 Rigid Sleeve Bearing Units and Takeups

Rigid sleeve bearing units provide compact and reliable usage in applications where continuous operation and uninterrupted service are required. Because the bearing material wears gradually, sudden breakdowns and costly maintenance, are minimized. Sleeve bearings can also operate extremely quietly. The standard bearing materials of babbitt, bronze and cast iron will handle a wide variety of applications such as on log decks, sewage treatment equipment, furnaces and ovens, quiet operating fans and blowers, power plant dampers and strokers, oscillating shaft applications and other general conveying and power transmission machinery.

- ① Bearing of babbitt or bronze is securely anchored in housing.
- ② Housing is drilled and tapped for grease cup or lubrication fitting; grooves distribute lubricant over loaded area.
- ③ Finished ends permit flush mounting of pulley, sprocket, or collar against bearing when required.
- ④ Two-piece pillow block has shims to provide for adjustment and compensate for wear.
- ⑤ Mounting surface is finished to provide firm seating on flat support.



One-piece Pillow Blocks

One-piece pillow blocks are recommended for general applications where it is unnecessary to remove a bearing cap. They are available with babbitt, bronze or plain bore cast iron bearings.



Two-piece Pillow Blocks

Two-piece pillow blocks are used whenever a bearing with a removable cap is required. They are available with babbitt or bronze bearings.

For heavy side pressures or angular loading, housings with gibbed joints provide greater strength. Cast steel housings are used where sudden shocks or heavy impact loads are encountered.



Flanged Units

Flanged units with square flanges have slotted mounting holes to make them interchangeable with most common ball and roller bearing bolting patterns. These units have either babbitt or bronze bearings.



Sleeve Bearing Materials

Babbitt Babbitt bearings are used for moderate speeds and loads and ambient temperatures up to 130°F (54°C). Babbitt has the ability to give excellent service with a minimum of maintenance.

Bronze Bronze bearings are recommended for heavier loads, impact, and temperatures beyond the limits of babbitt bearings. They can be operated

at ambient temperatures up to 300°F (149°C) providing satisfactory lubrication is available. Bronze has excellent all-around bearing characteristics; it has a relatively low coefficient of friction and a remarkable resistance to shock and wear.

Rigid Sleeve Bearing Units

Series 1000, 1100, 2-1200, 2-1300, 2-1400, 2-1500, F2200, DSB2800

Pillow Blocks, Cast Iron, One-piece Housing

1000, 1000Z, 1100

Series 1000 babbitt bearing and 1000Z bronze bearing pillow blocks have 2 or 4-bolt base for shaft sizes $\frac{1}{2}$ " through $3\frac{15}{16}$ ". Series 1100 has a plain cast iron bore and 2 or 4-bolt base for shaft sizes $\frac{1}{2}$ " through $3\frac{15}{16}$ ".

Selection on pages I-5 and I-6.

Load ratings on pages I-7 and I-8.

Dimensions on pages I-9 and I-10.



**BABBIT OR
BRONZE BEARING**



**PLAIN
IRON BEARING**

Pillow Blocks, Cast Iron, Two-piece Housing

2-1200, 2-1200Z, 2-1300

Series 2-1200 babbitt bearing and 2-1200Z bronze bearing pillow blocks have 2-bolt base for shaft sizes $\frac{7}{8}$ " through $3\frac{15}{16}$ ". Series 2-1300 babbitt bearing pillow blocks have 4-bolt base for shaft sizes $3\frac{7}{16}$ " through $4\frac{7}{16}$ ".

Selection on pages I-5 and I-6.

Load ratings on pages I-7 and I-8.

Dimensions on pages I-11 and I-12.



2-BOLT BASE



4-BOLT BASE

Pillow Blocks, Cast Iron or Cast Steel, Gibbed Joint Two-piece Housing

2-1400, 2-1400Z, 2K1400Z

Series 2-1400 babbitt bearing pillow blocks have 4-bolt base for shaft sizes $1\frac{15}{16}$ " through 10". Series 2-1400Z bronze bearing pillow blocks have 4-bolt base for shaft sizes $1\frac{15}{16}$ " through 8", also available with cast steel housings for shaft sizes $1\frac{15}{16}$ " through 12".

Selection on pages I-5 and I-6.

Load ratings on pages I-7 and I-8.

Dimensions on page I-13.



4-BOLT BASE

*Pillow Blocks, Cast Iron or Cast Steel,
Two-piece Housing, Angular Joint*

2-1500, 2-1500Z

Series 2-1500 babbitt bearing pillow blocks have 4-bolt base for shaft sizes $1\frac{15}{16}$ " through 9". Series 2-1500Z bronze bearing pillow blocks have 4-bolt base for shaft sizes $1\frac{15}{16}$ " through 8".

Selection on pages I-5 and I-6.

Load ratings on pages I-7 and I-8.

Dimensions on page I-14.



4-BOLT BASE

Flanged Units, Cast Iron, One-piece Housing

F2200, F2200Z

Series F2200 babbitt bearing and F2200Z bronze bearing flanged units have 4-bolt square flanges for shaft sizes $\frac{3}{4}$ " through $3\frac{15}{16}$ ".

Selection on pages I-5 and I-6.

Load ratings on pages I-7 and I-8.

Dimensions on page I-15.



Takeups, Steel Frames

Adjustable type takeups for conveyors and elevators. Welded or formed steel frames.

LC Universal Takeup Frames only.

Adjustable takeups for use with ball, roller, rigid sleeve and Flex-block® pillow blocks.

DSB 2800

Conveyor takeup with welded steel frame and hinged top for moderate to heavy service. Bearing bore parallel to base of frame. Shaft sizes $1\frac{15}{16}$ " through $3\frac{15}{16}$ ". Babbitt bearings.

Selection on pages I-5 and I-6.

Load ratings on pages I-7 and I-8.

Dimensions on pages I-16 and I-28.



Selection

Rigid Sleeve Bearing Units

To select a rigid sleeve bearing, determine the applied radial load and the applicable operating conditions. The procedure shown here will aid in selecting an appropriate bearing.

The selection procedures and rating formulas used here are in agreement with industry standards for sleeve bearings established by the Mechanical Power Transmission Association. The bearing ratings apply when certain installation and operating conditions are met and when any other adverse ambient conditions such as high or low temperatures, extreme dirt or moisture, chemical contamination, shock or vibration loading direct or induced, oscillating shafts, intermittent operation and related factors are carefully considered.

Sleeve Bearing Selection

Step 1

From Table 1, select the bearing material and housing series and material suitable for the radial load direction.

Step 2

Refer to the radial load rating tables on pages I-7 and I-8 to determine the shaft diameter necessary to obtain the required radial rating at the given speed.

If the conditions described above cannot be met, the load should be increased by a service factor prior to selecting the bearing sizes from the tables shown on pages I-7 and I-8. The service factor may be as high as 2.0 for conditions to the left of the "stair-step" line, or as high as 3.0 for conditions to the right of the line. Consult Link-Belt Bearing Division, Rexnord Corp.

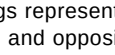
Step 3

To position a shaft axially or where light thrust loads are present provide thick bronze washers backed by a shaft collar or a machined shaft shoulder against the end of the bearing. The bearing ends are already machined.

The ratings used apply when the following conditions are met:

1. Align bearings with the shaft to provide uniform load distribution.
2. Normal running loads should not exceed the ratings shown in the tables. Starting and occasional peak loads should not exceed these ratings by more than 100%.
3. The direction of the load should not be within 30° (.53 radians) of either side of the grease groove and must further meet any load direction limitations imposed by Table 1.
4. The shaft finish through the bearing bore should be at least as smooth as that of normal commercial cold finished steel shafting (about 32 micro-inches or .82µm). There should also be no machined or ground spiral lead on the shaft journal. Shafting should be within the diameter tolerances listed on page I-6.
5. Ambient temperatures should not exceed 130°F (54°C) for babbitt and 300°F (149°C) for bronze bearings. This temperature limit applies to shafts extending from ovens, high temperature fans, etc.
6. Sturdy, vibration-free supporting structures must be provided, along with adequate grease lubrication.

Table 1 • Bearing material and unit type selection

Material		Recommended loading range, degrees, radius for pillow block or flanged unit ▲	Available shaft sizes, inches	Rigid unit series		
Bearing	Housing			Pillow block		Flanged Unit
				2-bolt	4-bolt	Square
Cast iron	one-piece		300° 5.2 rad	1/2-2 ¹⁵ / ₁₆	1000	
				3/4-3 ¹⁵ / ₁₆	F2200	
				3 ⁷ / ₁₆ -3 ¹⁵ / ₁₆	1000F	
	two-piece		120° 2.1 rad	7/8-3 ¹⁵ / ₁₆	2-1200	
				3 ⁷ / ₁₆ -4 ¹⁵ / ₁₆	2-1300	
Babbitt	two-piece		300° 5.2 rad	1 ¹⁵ / ₁₆ -12	2-1400	
	one-piece		120° 2.1 rad	1 ¹⁵ / ₁₆ -9	2-1500	
Cast iron	one-piece		300° 5.2 rad	1/2-2 ¹⁵ / ₁₆	1000Z	
				3/4-3 ¹⁵ / ₁₆	F2200Z	
				3 ⁷ / ₁₆ -3 ¹⁵ / ₁₆	1000FZ	
	two-piece		120° 2.1 rad	7/8-3 ¹⁵ / ₁₆	2-1200Z	
Bronze	two-piece		300° 5.2 rad	3 ⁷ / ₁₆ -8	2-1400Z	
	one-piece		120° 2.1 rad	1 ¹⁵ / ₁₆ -8	2-1500Z	
Cast steel	two-piece		300° 5.2 rad	1 ¹⁵ / ₁₆ -12	2K1400Z	

▲ Shaded portion of drawings represents recommended loading range with the grease groove horizontal and opposite the loaded area. For other positioning, consult Link-Belt Bearing Division, Rexnord Corp.

□ 300°(5.2 rad.) for housings with gibbed joint construction.

Selection, Additional Information

Rigid Sleeve Bearing Units

Sleeve Bearing Materials:

Plain bearings made of babbitt are universally accepted as providing reasonable capacity and dependable service, often under adverse conditions. Babbitt is a relatively soft bearing material and for this reason minimizes danger of scoring or damage to shafts or rotors. It can often be repaired quickly on the spot by rescraping, pouring of new metal, etc. Bearing operating temperature should not exceed 130°F (54°C) although occasional peaks to 200°F (93°C) may be tolerated. Babbitt bearings are usually restricted to applications involving light to moderate loads and mild shock.

Bronze bearings are suitable for heavier loads than babbitt (75% to 200% higher), depending upon specific conditions of load and speed. Bronze withstands higher shock loads and permits somewhat higher speed operation. It is usually restricted to 300°F (150°C) ambient temperature, although normal multi-purpose greases are limited to 200°-250°F (93°-121°C) operating temperature. Bronze is a harder material than babbitt and has a greater tendency to score or damage shafts in the event of malfunction such as lack of relubrication. Field repair of bronze bearings generally requires removing shims and scraping or replacement of bushings.

Cast iron bearings (series 1100) are low in cost and suitable for many slow-

moving shafts and oscillating or reciprocating arms supporting relatively light loads. The lubricating characteristics of cast iron are attributed to the free graphite flakes present in the material. With the use of cast iron bearings, higher shaft clearance is usually utilized. Thus any large wear particles or debris will not join or seize the bearing. This material has been used to temperatures as high as 1000°F (538°C) under light loads and slow speed intermittent operations, where ordinary lubricants are ineffective.

Additional Features:

By the very nature of their design, all rigid sleeve bearing units are expansion type, in that the shaft journal is free to slide axially through the bore of the bearing. To fix a unit, a combination of shaft shoulders and/or thrust collars with bronze washers can be utilized.

Rigid sleeve bearing units have cored mounting bolt holes suitable for the inch or metric bolts listed.

Bearings can be replaced in units with bronze sleeves. Care should be taken when replacing bronze sleeves, split or solid, to firmly anchor the sleeve to the housing.

Operation:

Rigid sleeve bearing units are not prelubricated. The service instructions

packed with shipments provide guidelines for initial lubrication and relubrication intervals. As lack of lubrication results in bearing and shaft wear, care must be taken to assure an adequate supply of correct lubricant, especially during initial startup and until satisfactory relubrication intervals are determined.

Very careful shaft alignment is necessary during installation. Shaft journals must turn freely without binding in the bearing or excessive heat and seizure can result. Any factor which may disrupt or remove the lubricant film should be eliminated as well. Sharp edges on the shaft or the bearing surface can act as scrapers to destroy lubricant films. Do not extend shaft keyways into bearing bores.

When rigid sleeve bearings must carry light to medium thrust loads, thrust washers of bronze should be placed against the already machined face of the bearing and backed by substantial thrust collars, shaft shoulders, machined gear, sprocket or sheave faces, etc.

Takeups:

Rigid sleeve bearing pillow blocks can be mounted on the universal takeup frame LC, illustrated on page I-28 and LHD universal takeup frame, illustrated on pages D-22 or E-25. Takeups DSB2800 are on page I-16. Alignment of rigid sleeve bearing takeups is difficult and must be carefully accomplished. Alignment must also be maintained during any further adjustment of the takeup after operation. Bolt takeup frames firmly to good supporting structure to prevent frame overload and distortion.

Shaft Tolerances:

Shaft diameters for rigid sleeve bearing units are usually held to the following regular commercial tolerances:

<i>Shaft Diameters</i>	<i>Recommended Tolerance</i>
through 2"	Nominal to -.003"
2 1/16" through 4"	Nominal to -.004"
4 1/16" through 6"	Nominal to -.005"
6 1/16" through 13"	Nominal to -.006"

Warning:

The reliability built in all Link-Belt bearings can be realized in service only when bearings are correctly selected, properly installed, protected and maintained.

The correct selection of rigid sleeve bearing mounted units requires that the magnitude and nature of all loads, speeds, alignment, mounting, operating requirements and maintenance be adequately considered. The selection of materials for and design of housings, shafting, fasteners, and accessories as well as provisions for installation and maintenance must follow good engi-

neering principles.

Housings must be selected and installed with regard to the degree and direction of the forces that will occur. Housings should not be used under tension loads except with adequate safety factors. For this reason pillow blocks are best suited to withstand radial loads passing through the base. When heavy loads or shock loads are possible, it is most important to mount a unit so that the line of force passes directly into the base, or so that the unit is directly and substantially supported other than through its mounting bolts.

Where the line of force falls outside the base, serious housing and fastener deflection or failure may occur.

Takeups are best located where loads are moderate and no shock loads are present. As many mounting arrangements are possible with takeups, proper safety factors must always be considered on all items of the system, including shafts, housings, fasteners, and adjusting screws.

Link-Belt Bearing Division, Rexnord Corp., should be consulted where unusual loading conditions exist.

Load Ratings

Babbitt Rigid Sleeve Bearing Units

Radial load ratings for 10 to 300 RPM (pounds/newtons) ■▲

Shaft diameter, inches	Shaft speed, RPM											
	10		50		100		150		200		250	300
1/2	100	445	100	445	100	445	95	423	95	423	95	423
5/8	150	667	150	667	145	645	145	645	140	623	140	673
3/4	180	801	175	778	175	778	170	756	170	756	165	734
7/8	260	1 157	255	1 134	250	1 112	245	1 090	240	1 068	235	1 045
15/16	280	1 246	275	1 223	265	1 179	260	1 157	255	1 134	250	1 112
1	295	1 312	290	1 290	285	1 268	280	1 246	270	1 201	265	1 179
1 1/8	415	1 846	410	1 824	400	1 779	390	1 735	380	1 690	370	1 646
1 3/8, 1 1/4	440	1 957	430	1 913	420	1 868	410	1 824	395	1 757	385	1 713
1 5/8, 1 3/8	585	2 602	570	2 535	555	2 469	535	2 380	520	2 313	505	2 246
1 7/8, 1 1/2	640	2 847	625	2 780	605	2 691	585	2 602	565	2 513	545	2 424
1 11/16, 1 3/4	875	3 892	850	3 781	820	3 648	785	3 492	755	3 358	720	3 203
1 15/16, 2	1150	5 120	1110	4 940	1060	4 720	1010	4 490	965	4 292	915	4 070
2 3/16, 2 1/4	1460	6 490	1400	6 230	1330	5 920	1260	5 600	1190	5 290	1120	4 980
2 7/16, 2 1/2	1800	8 010	1730	7 690	1630	7 250	1530	6 810	1430	6 360	1340	5 960
2 11/16, 2 3/4	2190	9 740	2080	9 250	1950	8 670	1820	8 100	1690	7 520	1560	6 940
2 15/16, 3	2600	11 570	2470	10 990	2300	10 230	2130	9 470	1960	8 720	1790	7 960
3 7/16, 3 1/2	3550	15 790	3330	14 810	3060	13 610	2790	12 410	2520	11 210	1200	5 340
3 15/16, 4	4640	20 640	4310	19 170	3910	17 390	3500	15 570	2760	12 280		
4 7/16, 4 1/2	5870	26 110	5410	24 060	4830	21 480	4250	18 900	1410	6 270		
4 15/16, 5	7240	32 210	6600	29 360	5810	25 840	5010	22 290				
5 7/16, 5 1/2	8750	38 920	7900	35 140	6840	30 430	4360	19 390				
5 15/16, 6	10410	46 310	9300	41 370	7910	35 190	2390	10 630				
6 7/16, 6 1/2	12200	54 270	10790	48 000	9020	40 120						
6 15/16, 7	14120	62 810	12360	54 980	10150	45 150						
7 7/16, 7 1/2	17270	76 820	14950	66 500	12050	53 600						
7 15/16, 8	18390	81 800	15750	70 060	10710	47 640						
9	20750	92 300	17360	77 220	4140	18 420						
10	22950	102 090	18760	83 450								
12	30700	136 560	23910	106 360								

For speeds lower than 10 RPM
consult Link-Belt Bearing Division.

Radial load ratings for 350 to 1000 RPM (pounds/newtons) ▲

Shaft diameter, inches	Shaft speed, RPM											
	350		400		450		500		600		700	800
1/2	95	423	90	400	90	400	90	400	85	378	85	378
5/8	135	600	135	600	130	587	130	587	125	556	120	534
3/4	160	712	155	689	155	689	150	667	145	645	140	623
7/8	225	1001	220	979	215	956	210	934	200	890	190	845
15/16	240	1068	235	1045	225	1001	220	979	210	934	200	890
1	250	1112	245	1090	240	1068	230	1023	220	979	205	912
1 1/8	345	1535	335	1490	325	1446	315	1401	295	1312	245	1090
1 3/8, 1 1/4	360	1601	350	1557	340	1512	325	1446	305	1357	190	845
1 5/8, 1 3/8	470	2091	455	2024	435	1935	420	1868	345	1535		
1 7/8, 1 1/2	500	2224	480	2135	460	2046	440	1957	205	912		
1 11/16, 1 3/4	655	2914	625	2780	590	2624	340	1512				
1 15/16, 2	815	3625	730	3247	335	1490						
2 3/16, 2 1/4	975	4337	410	1824								
2 7/16, 2 1/2	645	2869										

- Load ratings are based on industry standards established by the Mechanical Power Transmission Association.
▲ For plain bore Cast Iron Sleeve Bearing Units use radial load ratings at speeds to the left of the shaded area.

Load Ratings

Bronze Rigid Sleeve Bearing Units

Radial load ratings for 10 to 300 RPM (pounds/*newtons*) ■

Shaft diameter, inches	Shaft speed, RPM											
	10	50	100	150	200	250	300					
1/2	200	890	200	890	200	890	195	867	195	867	195	867
5/8	250	1 112	250	1 112	245	1 090	245	1 090	240	1 090	240	1 068
3/4	300	1 334	300	1 334	295	1 312	295	1 312	290	1 290	285	1 268
7/8	435	1 935	430	1 913	425	1 890	420	1 868	415	1 846	410	1 824
15/16	465	2 068	460	2 046	455	2 024	450	2 002	445	1 979	435	1 935
1	495	2 202	490	2 180	485	2 157	480	2 135	470	2 091	465	2 068
1 1/8	700	3 114	690	3 069	680	3 025	670	2 980	660	2 936	650	2 891
1 3/16, 1 1/4	735	3 269	730	3 247	715	3 180	705	3 136	695	3 092	680	3 025
1 5/16, 1 3/8	980	4 359	965	4 293	950	4 226	930	4 137	915	4 070	895	3 981
1 7/16, 1 1/2	1070	4 760	1050	4 670	1030	4 580	1010	4 490	995	4 426	975	4 337
1 11/16, 1 3/4	1470	6 540	1440	6 410	1410	6 270	1370	6 090	1340	5 960	1310	5 830
1 15/16, 2	1920	8 540	1880	8 360	1830	8 140	1790	7 960	1740	7 740	1690	7 520
2 3/16, 2 1/4	2440	10 850	2390	10 630	2320	10 320	2240	9 960	2170	9 650	2100	9 340
2 7/16, 2 1/2	3020	13 430	2940	13 080	2850	12 680	2750	12 230	2650	11 790	2560	11 390
2 11/16, 2 3/4	3660	16 280	3560	15 840	3430	15 260	3300	14 680	3170	14 100	3040	13 520
2 15/16, 3	4370	19 440	4230	18 820	4060	18 060	3890	17 300	3720	16 550	3550	15 790
3 7/16, 3 1/2	5960	26 510	5740	25 530	5470	24 330	5200	23 130	4930	21 930	3610	16 060
3 15/16, 4	7790	34 650	7460	33 180	7060	31 400	6650	29 580	5910	26 290		
4 7/16, 4 1/2	9860	43 860	9400	41 810	8820	39 230	8240	36 650	5400	24 020		
4 15/16, 5	12180	54 180	11540	51 330	10740	47 770	9950	44 260	4090	18 190		
5 7/16, 5 1/2	14740	65 570	13880	61 740	12820	57 030	10340	45 990	1820	8 100		
5 15/16, 6	17530	77 980	16420	73 040	15040	66 900	9520	42 350				
6 7/16, 6 1/2	20560	91 460	19150	85 180	17390	77 350	7900	35 140				
6 15/16, 7	23840	106 050	22070	98 170	19870	88 390	5350	23 800				
7 7/16, 7 1/2	29170	129 750	26850	119 430	23950	106 530	1880	8 360				
7 15/16, 8	31090	138 300	28450	126 550	23410	104 130						
9	35150	156 360	31760	141 280	18540	82 470						
10	38950	172 260	34760	154 620	12220	54 360						
12	52300	232 640	45520	202 480								

For speeds lower than 10 RPM
consult Link-Belt Bearing Division, Rexnord Corp.

Radial load ratings for 350 to 1000 RPM (pounds/*newtons*)

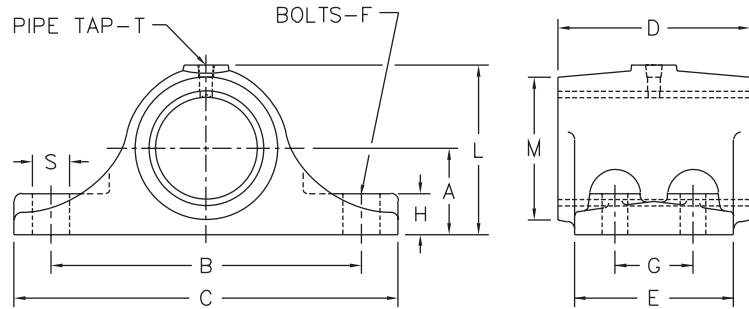
Shaft diameter, inches	Shaft speed, RPM											
	350	400	450	500	600	700	800	900	1000			
1/2	195	867	190	845	190	845	185	823	185	823	180	800
5/8	235	1045	235	1045	235	1045	225	1001	220	979	215	956
3/4	280	1246	280	1246	275	1223	270	1201	265	1179	260	1157
7/8	400	1779	395	1757	390	1735	385	1713	375	1668	365	1624
15/16	425	1890	420	1868	415	1846	410	1824	395	1757	385	1713
1	450	2002	445	1979	440	1957	430	1913	420	1868	405	1802
1 1/8	630	2802	620	2758	605	2691	595	2647	575	2558	525	2335
1 3/16, 1 1/4	660	2936	645	2869	635	2825	625	2780	600	2669	485	2157
1 5/16, 1 3/8	865	3848	845	3759	830	3692	815	3625	735	3269	465	2068
1 7/16, 1 1/2	935	4159	915	4070	895	3981	875	3892	635	2825	315	1401
1 11/16, 1 3/4	1240	5520	1210	5380	1180	5250	930	4137	410	1824		
1 15/16, 2	1590	7070	1500	6670	1110	4940	715	3180				
2 3/16, 2 1/4	1960	8720	1390	6180	830	3692						
2 7/16, 2 1/2	1860	8270	1090	4850								
2 11/16, 2 3/4	1580	7030	545	2424								

■ Load ratings are based on industry standards established by the Mechanical Power Transmission Association.

Rigid Sleeve Bearing Pillow Blocks

1000, 1000Z

Cast Iron Housing
One-piece Design
2-bolt Base, 4-bolt Base
Babbitt or Bronze Bearing
Relubricatable



Dimensions (inches/mm)

Style of base	Shaft diameter inches	Pillow block number		A	B	C	D	E	F Bolts	G	H	L	M	S	T	Unit wt. (lbs.)
		Series 1000 babbitt	Series 1000Z bronze													
2-BOLT	1/2	1008	1008Z	3/4 19.05	2 3/8 60.3	3 1/4 82.6	1 3/8 34.9	1 25.4	5/16 8	.... ....	3/8 9.5	1 1/2 38.1	1 3/16 30.2	1/2 12.7	1/8	.8
	5/8	1010	1010Z	7/8 22.22	3 76.2	4 1/4 108.0	2 50.8	1 3/8 34.9	3/8 10	.... ....	1/2 12.7	1 3/4 44.4	1 1/2 38.1	5/8 15.9	1/8	1.6
	3/4	1012	1012Z													1.5
	7/8	1014	1014Z	1 25.40	3 1/4 82.6	4 1/2 114.3	2 50.8	1 3/8 34.9	3/8 10	.... ....	1/2 12.7	1 31/32 50.0	1 3/4 44.4	5/8 15.9	1/8	1.9
	15/16	1015	1015Z													1.7
	1	1016	1016Z													1.6
	1 1/8	1018	1018Z	1 1/4 31.75	4 101.6	5 1/4 133.4	2 1/2 63.5	1 5/8 41.3	3/8 10	.... ....	5/8 15.9	2 3/8 60.3	2 50.8	5/8 15.9	1/8	2.6
	1 1/16	1019	1019Z													2.5
	1 1/4	1020	1020Z													2.4
	1 3/8	1022	1022Z	1 3/8 34.92	5 127.0	6 3/4 171.4	3 76.2	2 50.8	1/2 12	.... ....	3/4 19.0	2 11/16 68.3	2 3/8 60.3	1 3/16 20.6	1/4	4.5
	1 7/16	1023	1023Z													4.3
	1 1/2	1024	1024Z													4.1
	1 11/16	1027	1027Z	1 5/8 41.28	5 1/2 139.7	7 1/4 184.2	3 1/2 88.9	2 1/4 57.2	1/2 12	.... ....	3/4 19.0	3 3/16 81.0	2 3/4 69.8	7/8 22.2	1/4	6.0
	1 3/4	1028	1028Z													5.7
4-BOLT	1 5/16	1031	1031Z	1 3/4 44.45	6 152.4	8 203.2	4 101.6	2 3/4 69.8	5/8 16	.... ....	7/8 22.2	3 1/2 88.9	3 3/8 79.4	1 25.4	1/4	8.5
	2	1032	1032Z													8.3
	2 3/16	1035	1035Z	2 50.80	6 1/2 165.1	8 1/2 215.9	4 1/2 114.3	3 76.2	5/8 16	.... ....	1 25.4	3 7/8 98.4	3 3/8 85.7	1 25.4	3/8	11.0
	2 7/16	1039	1039Z	2 1/4 57.15	7 177.8	9 1/4 235.0	5 127.0	3 1/4 82.6	3/4 20	.... ....	1 1/8 28.6	4 3/8 111.1	3 3/4 95.2	1 1/8 28.6	3/8	15.0
	2 15/16	1047	1047Z	2 1/2 63.50	8 1/2 215.9	11 1/4 285.8	6 152.4	4 101.6	7/8 24	.... ....	1 1/4 31.8	5 127.0	4 1/2 114.3	1 3/8 34.9	3/8	26.0
	3 7/16	1055F	1055FZ	3 76.20	10 254.0	12 1/2 317.5	7 177.8	5 127.0	3/4 20	2 3/4 69.8	1 3/8 34.9	6 152.4	5 1/4 133.4	1 1/4 31.8	1/2	39
	3 5/16	1063F	1063FZ	3 1/4 82.55	11 279.4	13 3/4 349.2	8 203.2	5 1/2 139.7	3/4 20	3 76.2	1 1/2 38.1	6 9/16 166.7	5 7/8 149.2	1 3/8 34.9	1/2	54

Bold face items are normally available from stock; please consult for availability of non-stock items.

■ One pipe tapped hole for lubrication. Grease cup or fitting not included.

Note: Approximate load ratings from babbitt ratings, page I-7.

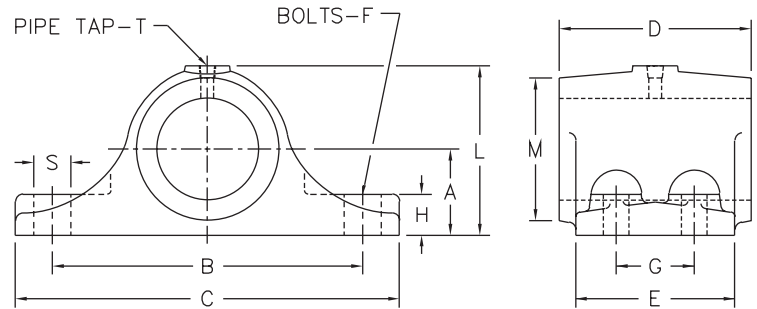
Selection guide, pages I-5, I-6.

Additional information, page I-6.

Rigid Bearing Pillow Blocks

1100

Cast Iron Housing
One-piece Design
2-bolt Base, 4-bolt Base
Cast Iron Bearing
Relubricatable



Dimensions (inches/mm)

Style of base	Shaft diameter	Pillow block number	A	B	C	D	E	F Bolts	G	H	L	M	S	T	Unit wt. (lbs.)
	inches	Series 1100 cast iron													
2-BOLT	3/4	1112	3/4 19.05	2 3/8 60.3	3 1/4 82.6	1 3/8 34.9	1 25.4	5/16 8	....	3/8 9.5	1 1/2 38.1	1 3/16 30.2	1/2 12.7	1/8	.6
	7/8	1114	7/8 22.22	3 76.2	4 1/4 108.0	2 50.8	1 3/8 34.9	3/8 10	....	1/2 12.7	1 3/4 44.4	1 1/2 38.1	5/8 15.9	1/8	1.4
	1 1/16	1115													1.3
	1 1/8	1116													1.2
	1 1/8	1118	1 25.40	3 3/4 82.6	4 1/2 114.3	2 50.8	1 3/8 34.9	3/8 10	....	1/2 12.7	1 31/32 50.0	1 3/4 44.4	5/8 15.9	1/8	1.6
	1 3/16	1119													1.5
	1 1/4	1120													1.4
	1 7/16	1123	1 1/4 31.75	4 101.6	5 1/4 133.4	2 1/2 63.5	1 3/8 41.3	3/8 10	....	5/8 15.9	2 3/8 60.3	2 50.8	5/8 15.9	1/8	2.1
	1 1/2	1124													2.0
	1 11/16	1127	1 3/8 34.92	5 127.0	6 3/4 171.4	3 76.2	2 50.8	1/2 12	....	3/4 19.0	2 11/16 68.3	2 3/8 60.3	1 3/16 20.6	1/4	3.5
	1 3/4	1128													3.4
	1 15/16	1131	1 5/8 41.28	5 1/2 139.7	7 1/4 184.2	3 1/2 88.9	2 1/4 57.2	1/2 12	....	3/4 19.0	3 3/16 81.0	2 3/4 69.8	7/8 22.2	1/4	5.0
	2	1132													4.9
	2 3/16	1135	1 3/4 44.45	6 152.4	8 203.2	4 101.6	2 3/4 69.8	5/8 16	....	7/8 22.2	3 1/2 88.9	3 3/8 79.4	1 25.4	3/8	6.8
	2 7/16	1139	2 50.80	6 1/2 165.1	8 1/2 215.9	4 1/2 114.3	3 76.2	5/8 16	....	1 25.4	3 7/8 98.4	3 3/8 85.7	1 25.4	3/8	9.0
4-BOLT	2 11/16	1143	2 1/4 57.15	7 177.8	9 1/4 235.0	5 127.0	3 1/4 82.6	3/4 20	....	1 1/8 28.6	4 3/8 111.1	3 3/4 95.2	1 1/8 28.6	3/8	12.0
	2 15/16	1147													11.0
	3 1/16	1155	2 1/2 63.50	8 1/2 215.9	11 1/4 285.8	6 152.4	4 101.6	7/8 24	....	1 1/4 31.8	5 127.0	4 1/2 114.3	1 3/8 34.9	1/2	19
4-BOLT	3 15/16	1163F	3 76.20	10 254.0	12 1/2 317.5	7 177.8	5 127.0	3/4 20	2 3/4 69.8	1 3/8 34.9	6 152.4	5 1/4 133.4	1 1/4 31.8	1/2	31

Bold face items are normally available from stock; please consult for availability of non-stock items.

■ One pipe tapped hole for lubrication. Grease cup or fitting not included.

Note: Approximate load ratings from babbit ratings, page I-7.

Selection guide, pages I-5, I-6.

Additional information, page I-6.

Rigid Sleeve Bearing Pillow Blocks

2-1200, 2-1200Z

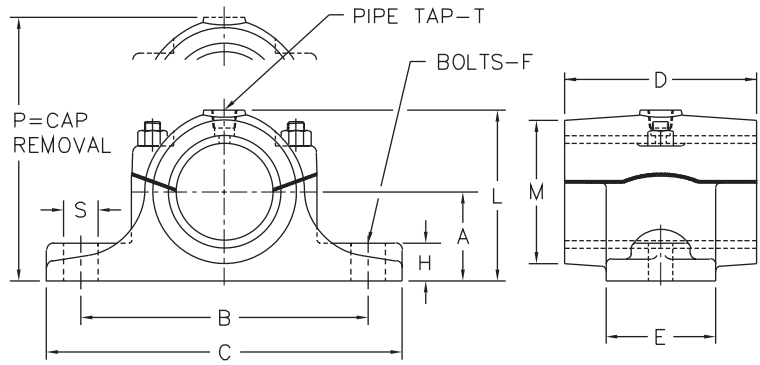
Cast Iron Housing

Two-piece Design

2-bolt Base

Babbitt or Bronze Bearing

Relubricatable



Dimensions (inches/mm)

Shaft dia. inches	Pillow block △ number		A	B	C	D	E	F Bolts	H	L	M	P	S	T	Unit wt. (lbs.)
	Series 2-1200 babbitt	Series 2-1200Z bronze													
7/8	2-1214	2-1214Z	1 25.40	3 5/8 92.1	4 3/4 120.6	2 50.8	1 3/8 34.9	3/8 10	9/16 14.3	2 1/16 52.4	1 13/16 46.0	3 76.2	9/16 14.3	1/8	1.9
15/16	2-1215	2-1215Z													1.8
1	2-1216	2-1216Z													1.7
1 1/16	2-1217	2-1217Z	1 1/4 31.75	4 1/8 104.8	5 1/4 133.4	2 1/2 63.5	1 5/8 41.3	3/8 10	5/8 15.9	2 7/16 61.9	2 50.8	3 1/2 88.9	5/8 15.9	1/8	2.6
1 1/8	2-1218	2-1218Z													2.5
1 3/16	2-1219	2-1219Z													2.4
1 1/4	2-1220	2-1220Z													2.3
1 5/16	2-1221	2-1221Z	1 3/8 34.92	4 7/8 120.6	6 1/4 158.8	3 76.2	2 50.8	1/2 12	3/4 19.0	2 11/16 68.3	2 5/16 58.7	3 3/8 95.2	1 1/16 17.5	1/4	4.1
1 3/8	2-1222	2-1222Z													4.0
1 7/16	2-1223	2-1223Z													4.0
1 1/2	2-1224	2-1224Z													3.8
1 9/16	2-1225	2-1225Z	1 1/2 38.10	5 1/4 133.4	6 3/4 171.4	3 1/2 88.9	2 1/4 57.2	1/2 12	1 3/16 20.6	3 76.2	2 11/16 68.3	4 3/8 111.1	3/4 19.0	1/4	6.8
1 5/8	2-1226	2-1226Z													6.4
1 11/16	2-1227	2-1227Z													6.0
1 3/4	2-1228	2-1228Z													5.6
1 15/16	2-1231	2-1231Z	1 3/4 44.45	6 152.4	7 1/2 190.5	4 101.6	2 1/2 63.5	5/8 16	15/16 23.8	3 7/16 87.3	3 76.2	4 7/8 123.8	13/16 20.6	1/4	8.5
2	2-1232	2-1232Z													8.0
2 3/16	2-1235	2-1235Z	1 7/8 47.62	6 1/2 165.1	8 1/2 215.9	4 1/2 114.3	2 3/4 69.8	5/8 16	1 25.4	3 3/4 95.2	3 3/8 85.7	5 1/4 133.4	1 25.4	3/8	11.0
2 1/4	2-1236	2-1236Z													11.0
2 7/16	2-1239	2-1239Z	2 1/8 53.98	7 177.8	8 7/8 225.4	5 127.0	3 76.2	5/8 16	1 1/8 28.6	4 3/16 106.4	3 3/4 95.2	5 3/4 146.0	1 25.4	3/8	14.0
2 1/2	2-1240	2-1240Z													13.0
2 11/16	2-1243	2-1243Z	2 1/4 57.15	7 3/4 196.8	10 254.0	5 1/2 139.7	3 3/4 82.6	3/4 20	1 3/16 30.2	4 1/2 114.3	4 101.6	6 3/8 161.9	1 1/8 28.6	3/8	19.0
2 15/16	2-1247	2-1247Z	2 1/2 63.50	8 1/2 215.9	10 3/4 273.0	6 152.4	3 1/2 88.9	3/4 20	1 5/16 33.3	4 7/8 123.8	4 1/4 108.0	6 3/4 171.4	1 1/8 28.6	3/8	23.0
3	2-1248	2-1248Z													22.0
3 7/16	2-1255	2-1255Z	2 7/8 73.02	9 1/4 235.0	12 304.8	7 177.8	4 101.6	7/8 24	1 1/2 38.1	5 5/8 142.8	5 127.0	7 7/8 193.7	1 3/8 34.9	1/2	35
3 15/16	2-1263	2-1263Z	3 3/8 79.38	10 1/2 266.7	13 1/2 342.9	8 203.2	4 1/2 114.3	1 24	1 5/8 41.3	6 3/16 157.2	5 5/8 142.9	8 1/2 215.9	1 1/2 38.1	1/2	48

Bold face items are normally available from stock; please consult for availability of non-stock items.

■ One pipe tapped hole for lubrication. Grease cup or fitting not included.

△ LHD sliding base takeup can be drilled for 2-1200 pillow blocks, see page D-22.

Selection guide, pages I-5, I-6.

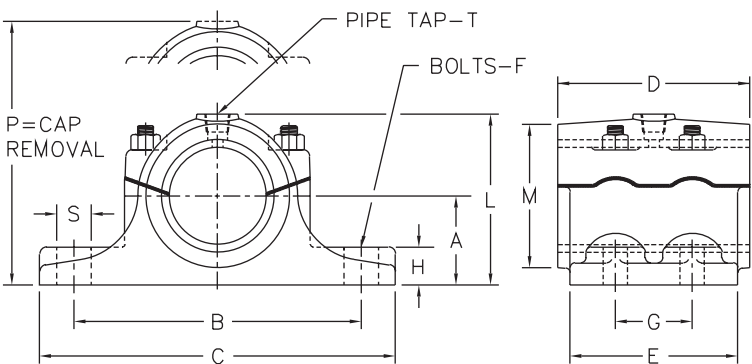
Load ratings, pages I-7, I-8.

Additional information, page I-6.

Rigid Sleeve Bearing Pillow Blocks

2-1300

Cast Iron Housing
Two-piece Design
4-bolt Base
Babbitt Bearing
Relubricatable



Dimensions (inches/mm)

Style of cap	Shaft diameter	Pillow block number	A	B	C	D	E	F	G	H	L	M	P	S	T	Unit wt.
	inches	Series 2-1300 babbitt						Bolts								(lbs.)
4-BOLT	37/16	2-1355	3/4 82.55	10 1/2 266.7	13 330.2	7 177.8	5 127.0	3/4 20	2 3/4 69.8	1 3/8 34.9	6 1/4 158.8	5 1/4 133.4	8 1/8 206.4	1 1/4 31.8	1/2	43
	3 15/16	2-1363	3 1/2 88.90	12 304.8	14 3/4 374.6	8 203.2	5 1/2 139.7	3/4 20	3 76.2	1 1/2 38.1	6 13/16 157.2	5 7/8 149.2	9 3/8 238.1	1 3/8 34.9	1/2	61
	4 7/16	2-1371	4 1/8 104.77	13 1/2 342.9	16 1/2 419.1	9 228.6	6 1/4 158.8	7/8 24	3 1/2 88.9	1 3/4 44.4	7 7/8 200.0	6 5/8 168.3	10 3/8 263.5	1 1/2 38.1	1/2	92

Bold face items are normally available from stock; please consult for availability of non-stock items.

■ One pipe tapped hole for lubrication.

Grease cup or fitting not included.

Selection guide, pages I-5, I-6.

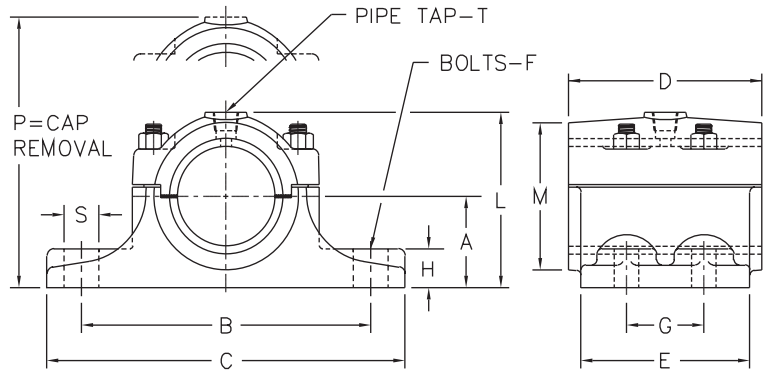
Load ratings, pages I-7, I-8.

Additional information, page I-6.

Rigid Sleeve Bearing Pillow Blocks

2-1400, 2-1400Z, 2K1400Z

Cast Iron or Cast Steel Housing
Two-piece Gibbed Joint Design
4-bolt Base
Babbitt or Bronze Bearing
Relubricatable



Dimensions (inches/mm)

Style of cap	Shaft dia. inches	Pillow block number Δ				A	B	C	D	E	F Bolts	G	H	L	M	P	S	T	Unit wt. (lbs.)	
		Cast Iron		Cast steel	■														Cast iron	Cast steel
		Series 2-1400 babbitt	Series 2-1400Z bronze	Series 2K1400Z bronze																
2-BOLT	1 ¹⁵ / ₁₆	2-1431	2-1431Z	2K1431Z	1 ³ / ₄ 44.45	6 ¹ / ₂ 165.1	8 ¹ / ₄ 209.6	4 101.6	3 ¹ / ₂ 88.9	1 ² 12	1 ³ / ₄ 44.4	7 ⁸ / ₁₆ 22.2	3 ⁷ / ₁₆ 87.3	3 76.2	4 ¹ / ₂ 114.3	3 ⁴ / ₈ 19.0	1 ⁴ / ₄	10.0	11.0	
	2 ³ / ₁₆	2-1435	2-1435Z	2K1435Z	1 ⁷ / ₈ 47.62	6 ³ / ₄ 171.4	8 ¹ / ₂ 215.9	4 ¹ / ₂ 114.3	3 ¹ / ₂ 88.9	1 ² 12	1 ³ / ₄ 44.4	1 25.4	3 ³ / ₄ 95.2	3 ³ / ₈ 85.7	4 ¹⁵ / ₁₆ 125.4	3 ⁴ / ₈ 19.0	3 ⁸ / ₁₆	14.0	15.0	
	2 ⁷ / ₁₆	2-1439	2-1439Z	2K1439Z	2 ¹ / ₈ 53.98	8 203.2	10 ¹ / ₄ 260.4	5 127.0	4 101.6	5 ⁸ / ₁₆ 16	2 50.8	1 ¹ / ₈ 28.6	4 ³ / ₁₆ 106.4	3 ³ / ₄ 95.2	5 ³ / ₈ 136.5	1 25.4	3 ⁸ / ₁₆	19.0	21.0	
	2 ¹¹ / ₁₆	2-1443	2-1443Z	2K1443Z	2 ¹ / ₄ 57.15	8 ¹ / ₄ 209.6	10 ¹ / ₂ 266.7	5 ¹ / ₂ 139.7	4 ¹ / ₄ 108.0	5 ⁸ / ₁₆ 16	2 ¹ / ₄ 57.2	1 ¹ / ₄ 31.8	4 ¹ / ₂ 114.3	4 101.6	6 152.4	1 25.4	3 ⁸ / ₁₆	25.0	28.3	
	2 ¹⁵ / ₁₆	2-1447	2-1447Z	2K1447Z	2 ¹ / ₂ 63.50	8 ³ / ₄ 222.2	11 279.4	6 152.4	4 ¹ / ₂ 114.3	5 ⁸ / ₁₆ 16	2 ¹ / ₂ 63.5	1 ³ / ₈ 34.9	4 ⁷ / ₈ 123.8	4 ¹ / ₄ 108.0	6 ⁷ / ₈ 174.6	1 25.4	3 ⁸ / ₁₆	30	34	
4-BOLT	3 ¹ / ₁₆	2-1455	2-1455Z	2K1455Z	3 ¹ / ₄ 82.55	10 ¹ / ₂ 266.7	13 330.2	7 177.8	5 127.0	3 ⁴ / ₈ 20	2 ³ / ₄ 69.8	1 ³ / ₈ 34.9	6 ¹ / ₄ 158.8	5 ¹ / ₄ 133.4	8 ⁹ / ₃₂ 210.3	1 ¹ / ₄ 31.8	1 ² / ₂	43	49	
	3 ¹⁵ / ₁₆	2-1463	2-1463Z	2K1463Z	3 ¹ / ₂ 88.90	12 304.8	14 ³ / ₄ 374.6	8 203.2	5 ¹ / ₂ 139.7	3 ⁴ / ₈ 20	1 ¹ / ₂ 76.2	1 ¹ / ₂ 38.1	6 ¹ / ₁₆ 173.0	5 ⁷ / ₈ 149.2	9 ¹ / ₁₆ 249.2	1 ³ / ₈ 34.9	1 ² / ₂	61	69	
	4 ¹ / ₁₆	2-1471	2-1471Z	2K1471Z	4 ¹ / ₈ 104.78	13 ¹ / ₂ 342.9	16 ¹ / ₂ 419.1	9 228.6	6 ¹ / ₄ 158.8	7 ⁸ / ₁₆ 24	3 ¹ / ₂ 88.9	1 ³ / ₄ 44.4	7 ⁷ / ₈ 200.0	6 ⁵ / ₈ 168.3	10 ¹ / ₄ 260.4	1 ¹ / ₂ 38.1	1 ² / ₂	92	104	
	4 ¹⁵ / ₁₆	2-1479	2-1479Z	2K1479Z	4 ¹ / ₂ 114.30	15 381.0	18 457.2	10 254.0	7 177.8	7 ⁸ / ₁₆ 24	4 101.6	1 ⁷ / ₈ 47.6	8 ⁹ / ₁₆ 217.5	7 ¹ / ₄ 184.2	11 ³ / ₁₆ 284.2	1 ⁵ / ₈ 41.3	1 ² / ₂	119	134	
	5 ⁷ / ₁₆	2-1487	2-1487Z	2K1487Z	5 127.00	15 ³ / ₄ 400.0	19 ¹ / ₄ 489.0	11 479.4	7 ³ / ₄ 196.8	1 24	4 ¹ / ₂ 114.3	2 50.8	9 ⁹ / ₁₆ 238.1	7 ⁷ / ₈ 200.0	12 ¹ / ₄ 311.2	1 ³ / ₄ 44.4	1 ² / ₂	166	187	
	5 ¹⁵ / ₁₆	2-1495	2-1495Z	2K1495Z	5 ¹ / ₂ 139.70	16 ¹ / ₂ 419.1	20 ¹ / ₂ 520.7	12 304.8	8 ¹ / ₂ 215.9	1 ¹ / ₈ 30	5 127.0	2 ¹ / ₈ 54.0	10 ¹ / ₄ 260.4	8 ¹ / ₂ 215.9	13 ⁷ / ₈ 352.4	1 ⁷ / ₈ 47.6	1 ² / ₂	198	213	
	6 ⁷ / ₁₆ * 6 ¹ / ₂ *	2-14103 2-14104	2-14103Z 2-14104Z	2K14103Z 2K14104Z	6 152.40	18 457.2	22 558.8	13 330.2	9 ¹ / ₂ 241.3	1 ¹ / ₈ 30	5 ¹ / ₂ 139.7	2 ¹ / ₄ 57.2	11 279.4	9 ⁹ / ₈ 231.8	15 ¹ / ₈ 384.2	1 ⁷ / ₈ 47.6	1 ² / ₂	260 255	294 287	
	7	2-14112	2-14112Z	2K14112Z	6 ¹ / ₂ 165.10	19 482.6	23 584.2	14 355.6	10 254.0	1 ¹ / ₄ 30	6 152.4	2 ³ / ₈ 60.3	11 ³ / ₄ 298.4	9 ³ / ₄ 247.6	15 ⁷ / ₈ 403.2	2 50.8	1 ² / ₂	311	350	
	7 ¹ / ₂ * 8*	2-14120 2-14128	2-14120Z 2-14128Z	2K14120Z 2K14128Z	7 177.80	21 ¹ / ₂ 546.1	26 660.4	16 406.4	11 279.4	1 ³ / ₈ 17.1	6 ³ / ₄ 171.4	2 ¹ / ₂ 63.5	13 ³ / ₁₆ 338.1	11 ³ / ₈ 288.9	17 ⁷ / ₈ 454.0	2 ¹ / ₄ 57.2	1 ² / ₂	459 425	525 478	
	9*	.....	.....	2K14144Z	8 203.20	23 584.2	29 736.6	16 406.4	10 ¹ / ₂ 266.7	1 ¹ / ₂ 36	6 152.4	2 ³ / ₄ 69.8	14 ⁷ / ₈ 377.8	12 ¹ / ₂ 317.5	20 ³ / ₈ 517.5	2 ³ / ₄ 69.8	1 ² / ₂	482	530	
	10*	.....	.....	2K14160Z	9 228.60	25 635.0	31 787.4	16 406.4	10 ¹ / ₂ 266.7	1 ³ / ₄ 48	6 152.4	3 76.2	16 ⁷ / ₈ 428.6	14 355.6	22 ⁷ / ₈ 581.0	3 76.2	1 ² / ₂	592	650	
	12*	.....	.....	2K14192Z	11 279.40	29 736.6	36 914.4	18 457.2	12 ¹ / ₂ 317.5	2 48	7 ¹ / ₂ 190.5	3 ¹ / ₂ 88.9	20 508.0	16 406.4	27 685.8	3 ¹ / ₂ 88.9	1 ² / ₂	830	910	

Bold face items are normally available from stock; please consult for availability of non-stock items.

■ One pipe tapped hole (two holes for shafts larger than 5") for lubrication.

Grease cup or fitting not included.

Δ LHD sliding base takeup can be drilled for 2-1400 pillow blocks, for shaft sizes thru 3¹⁵/₁₆ see page D-22, for shaft sizes 4⁷/₁₆ thru 5¹⁵/₁₆ see page E-25.

* Cap is fastened with capscrews.

Selection guide, pages I-5, I-6.

Load ratings, pages I-7, I-8.

Additional information, page I-6.

Rigid Sleeve Bearing Pillow Blocks

2-1500, 2-1500Z

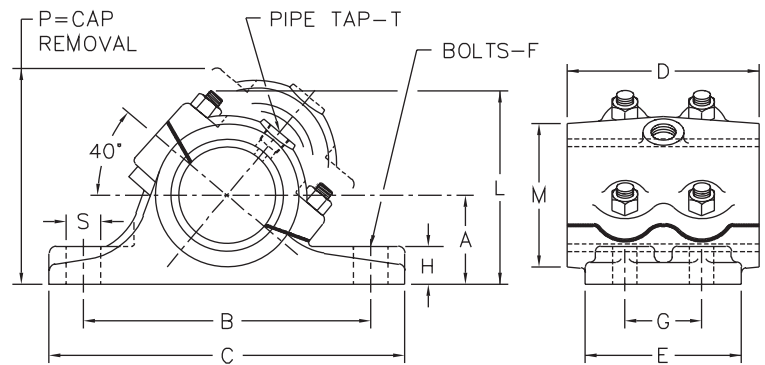
Cast Iron

Two-Piece Angular Joint Design

4-bolt Base

Babbitt or Bronze Bearing

Relubricatable



Dimensions (inches/mm)

Style of cap	Shaft dia. inches	Pillow block number		A	B	C	D	E	F Bolts	G	H	L	M	P	S	T ■	Unit wt. (lbs.)
		Cast Iron															
		Series 2-1500 babbitt	Series 2-1500Z bronze														
2-BOLT	1 ¹ / ₁₆	2-1531	2-1531Z	2 ¹ / ₄ 57.15	6 ¹ / ₂ 165.1	8 ¹ / ₄ 209.6	4 101.6	3 ¹ / ₂ 88.9	1 ¹ / ₂ 12	1 ³ / ₄ 44.4	7 ⁸ / ₁₆ 22.2	4 ¹ / ₂ 114.3	3 76.2	5 ¹ / ₄ 133.4	3 ⁴ / ₈ 19.0	1/4	10.0
	2 ³ / ₁₆	2-1535	2-1535Z	2 ¹ / ₂ 63.50	6 ³ / ₄ 171.4	8 ¹ / ₂ 215.9	4 ¹ / ₂ 114.3	3 ¹ / ₂ 88.9	1 ¹ / ₂ 12	1 ³ / ₄ 44.4	1 25.4	4 ⁷ / ₈ 123.8	3 ³ / ₈ 85.7	5 ³ / ₄ 146.0	3 ⁴ / ₈ 19.0	3/8	14.0
	2 ⁷ / ₁₆	2-1539	2-1539Z	2 ³ / ₄ 69.85	8 203.2	10 ¹ / ₄ 260.4	5 127.0	4 101.6	5/8 16	2 50.8	1 ¹ / ₈ 28.6	5 ⁵ / ₁₆ 134.9	3 ³ / ₄ 95.2	6 ¹ / ₈ 155.6	1 25.4	3/8	17.0
	2 ¹ / ₁₆	2-1543	2-1543Z	3 76.20	8 ¹ / ₄ 209.6	10 ¹ / ₂ 266.7	5 ¹ / ₂ 139.7	4 ¹ / ₄ 108.0	5/8 16	2 ¹ / ₄ 57.2	1 ¹ / ₄ 31.8	6 152.4	4 101.6	7 177.8	1 25.4	3/8	27.0
	2 ⁵ / ₁₆	2-1547	2-1547Z	3 ¹ / ₄ 82.55	8 ³ / ₄ 222.2	11 279.4	6 152.4	4 ¹ / ₂ 114.3	5/8 16	2 ¹ / ₂ 63.5	1 ³ / ₈ 34.9	6 ³ / ₈ 161.9	4 ¹ / ₄ 108.0	7 ¹ / ₂ 190.5	1 25.4	3/8	29.0
4-BOLT	3 ⁷ / ₁₆	2-1555	2-1555Z	3 ¹ / ₂ 88.90	10 ¹ / ₂ 266.7	13 330.2	7 177.8	5 127.0	3/4 20	2 ³ / ₄ 69.8	1 ¹ / ₂ 38.1	7 ¹ / ₈ 181.0	5 ¹ / ₄ 133.4	9 228.6	1 ¹ / ₄ 31.8	1/2	43
	3 ¹ / ₁₆	2-1563	2-1563Z	3 ³ / ₄ 95.25	12 304.8	14 ³ / ₄ 374.6	8 203.2	5 ¹ / ₂ 139.7	3/4 20	3 76.2	1 ⁵ / ₈ 41.3	8 ¹ / ₄ 209.6	5 ⁷ / ₈ 149.2	10 ¹ / ₄ 260.4	1 ³ / ₈ 34.9	1/2	60
	4 ¹ / ₁₆	2-1571	2-1571Z	4 ¹ / ₈ 104.78	13 ¹ / ₂ 342.9	16 ¹ / ₂ 419.1	9 228.6	6 ¹ / ₄ 158.8	7/8 24	3 ¹ / ₂ 88.9	1 ³ / ₄ 44.4	8 ⁷ / ₈ 225.4	6 ⁵ / ₈ 168.3	11 279.4	1 ¹ / ₂ 38.1	1/2	87
	4 ⁵ / ₁₆	2-1579	2-1579Z	4 ¹ / ₂ 114.30	15 381.0	18 457.2	10 254.0	7 177.8	7/8 24	4 101.6	1 ⁷ / ₈ 47.6	9 ⁹ / ₁₆ 247.6	7 ¹ / ₄ 184.2	12 304.8	1 ⁵ / ₈ 41.3	1/2	119
	5 ⁷ / ₁₆	2-1587	2-1587Z	5 127.00	15 ³ / ₄ 400.0	19 ³ / ₄ 501.6	11 479.4	8 203.2	1 24	4 ¹ / ₂ 114.3	2 50.8	10 ¹³ / ₁₆ 274.6	7 ⁷ / ₈ 200.0	13 ¹ / ₂ 342.9	1 ⁷ / ₈ 47.6	1/2	163
	5 ¹⁵ / ₁₆ *	2-1595	2-1595Z	5 ¹ / ₂ 139.70	16 ¹ / ₂ 419.1	20 ¹ / ₂ 520.7	12 304.8	8 ¹ / ₂ 215.9	1 ¹ / ₈ 30	5 127.0	2 ¹ / ₈ 54.0	11 ²⁹ / ₃₂ 302.4	8 ¹ / ₂ 215.9	14 ⁵ / ₈ 371.5	1 ⁷ / ₈ 47.6	1/2	192
	6 ¹ / ₂ *	2-15104	2-15104Z	6 152.40	18 457.2	22 558.8	13 330.2	9 ¹ / ₂ 241.3	1 ¹ / ₈ 30	5 ¹ / ₂ 139.7	2 ¹ / ₄ 57.2	11 ³ / ₄ 298.4	9 ¹ / ₈ 231.8	14 ³ / ₄ 374.6	1 ⁷ / ₈ 47.6	1/2	255
	7*	2-15112	2-15112Z	6 ¹ / ₂ 165.10	19 482.6	23 584.2	14 355.6	10 254.0	1 ¹ / ₄ 30	6 152.4	2 ³ / ₈ 60.3	13 ¹¹ / ₁₆ 347.7	9 ³ / ₄ 247.6	16 ⁵ / ₈ 422.3	2 50.8	1/2	295
	8*	2-15128	2-15128Z	8 203.20	23 584.2	29 736.6	16 406.4	10 ¹ / ₂ 266.7	1 ¹ / ₂ 36	6 152.4	2 ³ / ₄ 69.8	16 ¹ / ₈ 409.6	12 ¹ / ₂ 317.5	22 558.8	2 ³ / ₄ 69.8	1/2	575
	9*	.....	.....														546

Bold face items are normally available from stock; please consult for availability of non-stock items.

■ One pipe tapped hole (two holes for shafts larger than 5") for lubrication.

Grease cup or fitting not included.

* Cap is fastened with capscrews, and block has gibbed joint.

Selection guide, pages I-5, I-6.

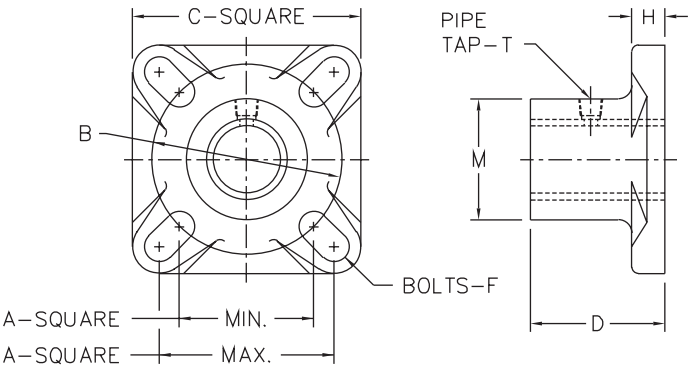
Load ratings, pages I-7, I-8.

Additional information, page I-6.

Rigid Sleeve Bearing Flanged Units

F2200, F2200Z

Cast Iron Housing
One-piece Design
4-bolt Mounting
Square Flange
Babbitt or Bronze Bearing
Relubricatable



Dimensions (inches/mm)

Shaft diameter	Flange unit number		A		B	C	D	F Bolts	H	M	T	Unit wt. (lbs.)
	Series F2200 babbitt	Series F2200Z bronze	Max.	Min.								
3/4	F2212	F2212Z	2 1/2 63.5	2 1/8 54.0	3 76.2	3 3/8 85.7	1 1/2 38.1	3/8 10	7/16 11.1	1 1/2 38.1	1/8	1.7
7/8	F2214	F2214Z	2 3/4 69.8	2 1/8 54.0	3 76.2	3 3/4 95.2	2 50.8	3/8 10	1/2 12.7	1 7/8 47.6	1/8	2.5
1 1/16	F2215	F2215Z										2.5
1	F2216	F2216Z										2.4
1 3/16	F2219	F2219Z	3 1/4 82.6	2 1/2 63.5	3 9/16 90.5	4 1/4 108.0	2 1/2 63.5	1/2 12	5/8 15.9	2 1/4 57.2	1/8	3.7
1 1/4	F2220	F2220Z										3.6
1 7/16	F2223	F2223Z	4 101.6	2 29/32 73.8	4 1/8 104.8	5 1/8 130.2	3 76.2	1/2 12	3/4 19.0	2 1/2 63.5	1/4	5.0
1 1/2	F2224	F2224Z										4.8
1 11/16	F2227	F2227Z	4 1/8 104.8	3 9/32 83.3	4 3/8 117.5	5 3/8 136.5	3 1/2 88.9	1/2 12	3/4 19.0	2 7/8 73.0	1/4	10.4
1 3/4	F2228	F2228Z										10.2
1 5/8	F2231	F2231Z	5 1/8 130.2	3 23/32 94.4	5 1/4 133.4	6 3/8 161.9	4 101.6	5/8 16	7/8 22.2	3 1/4 82.6	1/4	10.6
2	F2232	F2232Z										10.3
2 3/16	F2235	F2235Z	5 1/8 130.2	4 1/16 103.2	5 3/4 146.0	6 3/8 161.9	4 1/2 114.3	5/8 16	7/8 22.2	3 5/8 92.1	1/4	14.8
2 7/16	F2239	F2239Z	5 5/8 142.9	4 13/32 111.9	6 1/4 158.8	6 7/8 174.6	5 127.0	5/8 16	1 25.4	4 101.6	3/8	16.5
2 15/16	F2247	F2247Z	6 152.4	5 7/32 132.6	7 3/8 187.3	7 3/4 196.8	6 152.4	3/4 20	1 1/8 28.6	4 3/4 120.6	3/8	27.0
3	F2248	F2248Z										26.3
3 7/16	F2255	F2255Z	6 3/4 171.4	5 29/32 150.0	8 3/8 212.7	8 9/16 217.5	7 177.8	3/4 20	1 1/4 31.8	5 1/2 139.7	1/2	40.5
3 15/16	F2263	F2263Z	7 3/8 193.7	6 23/32 170.6	9 1/2 241.3	9 3/4 247.6	8 203.2	7/8 24	1 1/2 38.1	6 3/8 161.9	1/2	65

Bold face items are normally available from stock; please consult for availability of non-stock items.

■ One pipe tapped hole for lubrication. Grease cup or fitting not included.

Selection guide, pages I-5, I-6.

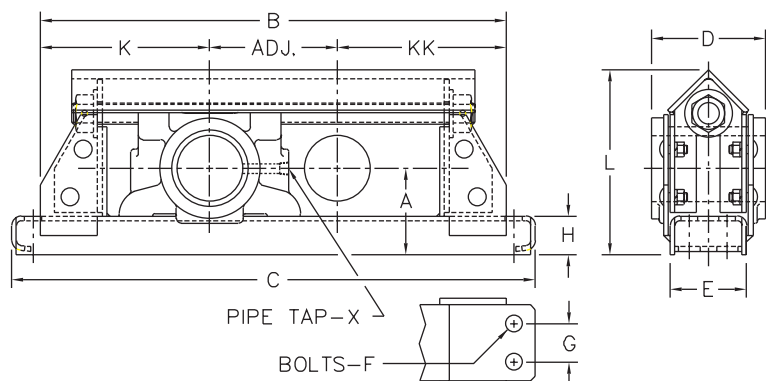
Load ratings, pages I-7, I-8.

Additional information, page I-6.

Rigid Sleeve Bearing Takeups

DSB2800

Hinged or Removable Frame
Protected Screw
Babbitt Bearing
Relubricatable



Dimensions (inches/mm)

Style of top frame	Shaft dia.	Adjustment ▲		Takeup number	A	B	C	D	E	F Bolts	G	H	K	KK	L	X	Radial factor	Unit wt. (lbs.)		
	inches	mm	in.																	
REMOVABLE	1 ¹⁵ / ₁₆	304.8 457.2	12 18	DSB2831-12 DSB2831-18	3¹/₄ 82.6	26¹/₂ 32¹/₂	673.1 825.5	29¹/₂ 35¹/₂	749.3 901.7	4 101.6	3 76.2	5⁸/₁₆ 16	1³/₄ 44.4	7³/₄ 196.8	7³/₄ 196.8	7¹/₄ 184.2	1¹/₄ 	1.0	39 45	
	2 ³ / ₁₆	304.8 457.2	12 18	DSB2835-12 DSB2835-18	3³/₈ 85.7	27¹/₂ 33¹/₂	698.5 850.9	29¹/₂ 35¹/₂	749.3 901.7	4 114.3	3 76.2	5⁸/₁₆ 16	1³/₄ 44.4	7³/₄ 196.8	7³/₄ 196.8	7¹/₄ 184.2	3⁸/₁₆ 	1.0	42 48	
	2 ⁷ / ₁₆	304.8 457.2 609.6	12 18 24	DSB2839-12 DSB2839-18 DSB2839-24	3¹/₂ 88.9	28¹/₂ 34¹/₂ 40¹/₂	723.9 876.3 1028.7	30¹/₂ 36¹/₂ 42¹/₂	774.7 927.1 1079.5	5 127.0	3 76.2	3⁴/₁₆ 20	1³/₄ 44.4	8¹/₄ 209.6	8¹/₄ 209.6	7¹/₂ 190.5	3⁸/₁₆ 	1.0	49 55 60	
	2 ¹⁵ / ₁₆	304.8 457.2 609.6	12 18 24	DSB2847-12 DSB2847-18 DSB2847-24	4¹/₈ 104.8	30¹/₂ 36¹/₂ 42¹/₂	774.7 927.1 1079.5	32¹/₂ 38¹/₂ 44¹/₂	825.5 977.9 1130.2	6 152.4	4 101.6	5⁸/₁₆ 16	2 50.8	2 50.8	9¹/₄ 235.0	9¹/₄ 235.0	8³/₄ 222.2	3⁸/₁₆ 	1.0	72 81 89
	3 ⁷ / ₁₆	304.8 457.2 609.6	12 18 24	DSB2855-12 DSB2855-18 DSB2855-24	4¹/₂ 114.3	32 38 44	812.8 965.2 1117.6	34¹/₄ 40¹/₄ 46¹/₄	870.0 1022.4 1174.8	7 177.8	4 101.6	3⁴/₁₆ 20	2 50.8	2 50.8	10 254.0	10 254.0	9¹¹/₁₆ 246.1	1¹/₂ 	1.0	94 103 111
	3 ¹⁵ / ₁₆	304.8 457.2 609.6	12 18 24	DSB2863-12 DSB2863-18 DSB2863-24	5 127.0	36 42 48	914.4 1066.8 1219.2	38¹/₂ 44¹/₂ 50¹/₂	977.9 1130.3 1282.7	8 203.2	5 127.0	3⁴/₁₆ 20	2¹/₂ 63.5	2¹/₄ 57.2	12 304.8	12 304.8	10¹⁵/₁₆ 277.8	1¹/₂ 	1.0	138 150 160

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement bearing unit, specify takeup number without amount of adjustment, i.e., DSB2831.

▲ Takeups with adjustment of 18" (457.2 mm) or more have center supporting pad welded to bottom of frame.

□ For radial loads, multiply load rating from page I-8 by radial factor in last column.

■ One pipe tapped hole for lubrication. Grease cup or lubrication fitting not included.

Selection guide, pages I-5, I-6.

Load ratings, pages I-7, I-8.

Additional information, page I-6.

Replacement Bronze Bearings and Shims

Series 1000Z, F2200Z, 2-1200Z

Series 1000Z, F2200Z

Shaft diameter, inches	Sleeve bearing series	Replacement bearing number
1/2	1008Z	285Y222-101
5/8	1010Z	285Y222-104
3/4	1012Z	285Y222-105
3/4	F2212Z	285Y222-96
7/8	1014Z, F2214Z	285Y222-1
15/16	1015Z, F2215Z	285Y222-2
1	1016Z, F2216Z	285Y222-3
1 1/8	1018Z	285Y222-4
1 3/16	1019Z, F2219Z	285Y222-5
1 1/4	1020Z, F2220Z	285Y222-6
1 7/16	1023Z, F2223Z	285Y222-9
1 1/2	1024Z, F2224Z	285Y222-10
1 11/16	1027Z, F2227Z	285Y222-11
1 3/4	1028Z, F2228Z	285Y222-12
1 5/8	1031Z, F2231Z	285Y222-13
2	1032Z, F2232Z	285Y222-14
2 3/16	1035Z, F2235Z	285Y222-15
2 7/16	1039Z, F2239Z	285Y222-17
2 11/16	1043Z	285Y222-20
2 5/8	1047Z, F2247Z	285Y222-23
3	F2248Z	285Y222-24
3 7/16	1055Z, F2255Z	285Y222-25
3 5/8	1063Z, F2263Z	285Y222-27

Bronze replacement bearings are solid with lube groove. Provision should be made to lock the bearing to the housing.

Series 2-1200Z two-piece

Shaft diameter, inches	Sleeve bearing series	Replacement bearing number	Replacement shim	
			Number	Quantity
7/8	2-1214Z	285BY2-4	131Y954-1	2
15/16	2-1215Z	285BY2-5	131Y954-21	2
1	2-1216Z	285BY2-6	131Y954-21	2
1 1/8	2-1218Z	285BY2-7	131Y954-2	2
1 3/16	2-1219Z	285BY2-8	131Y954-22	2
1 1/4	2-1220Z	285BY2-9	131Y954-22	2
1 3/8	2-1222Z	285BY2-10	131Y954-23	4
1 7/16	2-1223Z	285BY2-11	131Y954-23	4
1 1/2	2-1224Z	285BY2-12	131Y954-23	4
1 9/16	2-1225Z	285BY2-13	131Y954-24	4
1 5/8	2-1226Z	285BY2-14	131Y954-24	4
1 11/16	2-1227Z	285BY2-15	131Y954-24	4
1 3/4	2-1228Z	285BY2-16	131Y954-24	4
1 5/8	2-1231Z	285BY2-17	131Y954-25	4
2	2-1232Z	285BY2-18	131Y954-25	4
2 3/16	2-1235Z	285BY2-19	131Y954-26	4
2 1/4	2-1236Z	285BY2-20	131Y954-26	4
2 7/16	2-1239Z	285BY2-22	131Y954-27	4
2 1/2	2-1240Z	285BY2-24	131Y954-27	4
2 11/16	2-1243Z	285BY2-25	131Y954-28	4
2 5/8	2-1247Z	285BY2-29	131Y954-29	4
3	2-1248Z	285BY2-30	131Y954-29	4
3 7/16	2-1255Z	285BY2-32	131Y954-30	4
3 5/8	2-1263Z	285BY2-36	131Y954-31	4

Replacement bronze bearings are pre-split with lube groove. Provision should be made to lock each bearing segment to the base and cap. Replacement bronze bearings and shims must be ordered as individual items.

Replacement Bronze Bearings and Shims

Series 2-1400Z, 2K1400Z, 2-1500Z

Series 2-1400Z, 2K1400Z straight two-piece

Shaft diameter, inches	Sleeve bearing series	Replacement bearing number	Replacement shim	
			Number	Quantity per unit
1 ¹⁵ / ₁₆	2-1431Z, 2K1431Z	285BY3-1	131Y366-1	4
2 ³ / ₁₆	2-1435Z, 2K1435Z	285BY3-3	131Y366-3	4
2 ⁷ / ₁₆	2-1439Z, 2K1439Z	285BY3-7	131Y366-5	4
2 ¹¹ / ₁₆	2-1443Z, 2K1443Z	285BY3-9	131Y366-7	4
2 ¹⁵ / ₁₆	2-1447Z, 2K1447Z	285BY3-13	131Y366-9	4
3 ¹ / ₁₆	2-1455Z, 2K1455Z	285BY3-17	131Y366-11	6
3 ⁵ / ₁₆	2-1463Z, 2K1463Z	285BY3-19	131Y366-13	6
4 ¹ / ₁₆	2-1471Z	285BY3-21	131Y366-15	8
4 ⁵ / ₁₆	2K1471Z	285BY3-22	131Y366-15	8
4 ⁹ / ₁₆	2-1479Z	285BY3-25	131Y366-17	8
4 ¹³ / ₁₆	2K1479Z	285BY3-26	131Y366-17	8
5 ¹ / ₁₆	2-1487Z, 2K1487Z	285BY3-29	131Y366-18	12
5 ⁵ / ₁₆	2-1495Z, 2K1495Z	285BY3-31	131Y366-21	12
6 ¹ / ₁₆	2-14103Z, 2K14103Z	285BY3-33	131Y366-22	12
6 ¹ / ₂	2-14104Z, 2K14104Z	285BY3-34	131Y366-22	12
7	2-14112Z, 2K14112Z	285BY3-35	131Y366-25	12
7 ¹ / ₂	2-14120Z, 2K14120Z	285BY3-36	131Y366-28	12
8	2-14128Z, 2K14128Z	285BY3-37	131Y366-30	12
9	2K14144Z	285BY3-38	131Y366-20	2
10	2K14160Z	285BY3-40	131Y366-24	2
12	2K14192Z	285BY3-41	131Y366-26	2

Series 2-1500Z angular two-piece

Shaft diameter, inches	Sleeve bearing series	Replacement bearing number	Replacement shim	
			Number	Quantity per unit
1 ¹⁵ / ₁₆	2-1531Z	285BY2-17	131Y954-25	4
2 ³ / ₁₆	2-1535Z	285BY2-19	131Y954-26	4
2 ⁷ / ₁₆	2-1539Z	285BY2-22	131Y954-27	4
2 ¹¹ / ₁₆	2-1543Z	285BY2-25	131Y954-28	4
2 ¹⁵ / ₁₆	2-1547Z	285BY2-29	131Y954-29	4
3 ¹ / ₁₆	2-1555Z	285BY2-33	131Y954-9	6
3 ⁵ / ₁₆	2-1563Z	285BY2-37	131Y954-10	6
4 ¹ / ₁₆	2-1571Z	285BY2-40	131Y954-11	8
4 ⁵ / ₁₆	2-1579Z	285BY2-42	131Y954-12	8
5 ¹ / ₁₆	2-1587Z	285BY2-44	131Y954-34	12
5 ⁵ / ₁₆	2-1595Z	285BY3-31	131Y366-21	12
6 ¹ / ₂	2-15104Z	285BY3-34	131Y366-22	12
7	2-15112Z	285BY3-35	131Y366-25	12
8	2-15128Z	285BY3-37	131Y366-16	2

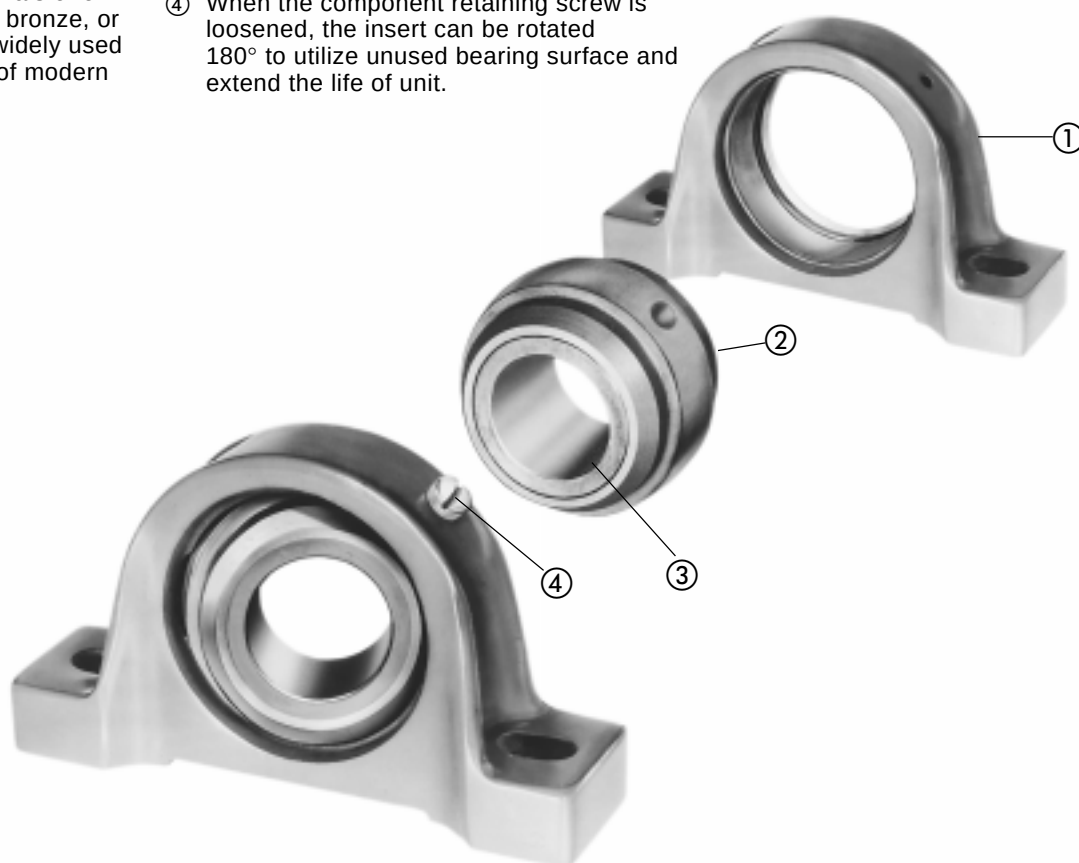
Replacement bronze bearings are pre-split with lube groove.
Provision should be made to lock each bearing segment to the base and cap.
Replacement bronze bearings and shims must be ordered as individual items.

Series 3200

Flex-block® Sleeve Bearing Units

Flex-block sleeve bearing units are designed specifically for applications requiring alignable sleeve bearings — self-lubricating. Because the bearing material wears gradually under operation, sudden breakdowns and costly maintenance are minimized. The standard bearing insert materials of oil impregnated porous sintered bronze, or self-lubricating graphite are widely used for the extreme applications of modern industry.

- ① Sturdy one-piece housings, with machined mounting surfaces, are available as pillow blocks or flanged units.
- ② Component has machined spherical surface for proper seating in housing and for initial mounting alignment.
- ③ Bearing sleeve, pressed into component, is available in self-lubricating or oil impregnated material.
- ④ When the component retaining screw is loosened, the insert can be rotated 180° to utilize unused bearing surface and extend the life of unit.



Components, Bearings

Heart of the Flex-block bearing is the alignable insert into which is pressed a self-lubricating bearing. The component has a machined spherical surface that is alignable in the housing.

Two types of bearings are available:

1. Sintered bronze sleeve, oil impregnated, for operating temperatures to 200°F (93°C).
2. Self-lubricating carbon-graphite sleeve, for temperatures to 700°F (371°C).

One-piece Cast Iron Housings

Compact one-piece cast iron housings provide strength and superior rigidity. All units are designed with standard mounting dimensions and have finished mounting surfaces for proper installation stability. Pillow blocks have slotted bolt holes with ample space provided for drilling dowel pin holes. Flanged units have drilled mounting holes.

Pillow Blocks

3200P

Alignable pillow blocks have high-test iron housing, 2-bolt base, and self-lubricating or relubricatable bearing. For shaft sizes $\frac{5}{8}$ " through $3\frac{15}{16}$ ".

Load ratings on pages I-23 and I-24.

Dimensions on page I-25.

Additional information on page I-22.



Flanged Units — two bolt

3200FX and 3200F

Alignable flanged units have 2-bolt cast iron housing and self-lubricating or relubricatable bearing. For shaft sizes $\frac{5}{8}$ " through $1\frac{3}{4}$ ".

Load ratings on pages I-23 and I-24.

Dimensions on page I-26.

Additional information on page I-22.



Flanged Units — four bolt

Alignable flanged units have 4-bolt cast iron housing and self-lubricating or relubricatable bearing. For shaft sizes $\frac{5}{8}$ " through $3\frac{7}{16}$ ".

Load ratings on pages I-23 and I-24.

Dimensions on pages I-27.

Additional information on page I-22.



Selection

Flex-block® Sleeve Bearing Units

To select a Flex-block sleeve bearing, determine the applied radial load and the applicable operating conditions. The procedure shown here will aid in selecting an appropriate bearing.

The bearing ratings apply when certain installation and operating conditions are met and when any other adverse ambient conditions such as high or low temperatures, extreme dirt or moisture, chemical contamination, shock or vibration loading direct or induced, oscillating shafts, intermittent operation and related factors are carefully considered.

- The ratings used apply when the following conditions are met:
1. Normal running loads should not exceed the ratings shown in the tables. Starting and occasional peak loads should not exceed these ratings by more than 100%.
 2. The shaft finish through the bearing bore should be at least as smooth as commercial steel shafting which varies from 8 to 50 micro-inches ($0.2\mu m$ to $1.3\mu m$). There also should be no machined or ground spiral lead on the shaft journal. For improved bearing performance the shaft finish should not exceed 12 micro-inches ($0.3\mu m$). Shafting should also be within the diameter tolerances listed on page I-22.
 3. Ambient temperatures should not be lower than 32°F ($0^{\circ}C$) for T1 bearing material. The upper operating temperature limits are as follows:
T1—200°F ($93^{\circ}C$)
T3—700°F ($371^{\circ}C$)
 4. Sturdy, vibration free supporting structures should be provided.
 5. Flex-block units should not be exposed to severe dirt conditions.

Flex-block Selection

- Step 1**
Determine the maximum operating temperature of the application.
- Step 2**
From Table 1, select the bearing insert material.
- Step 3**
Refer to the radial load rating tables on pages I-23 and I-24 to determine the shaft diameter necessary to obtain the required radial load rating at the given speed.
- Where short bearings are required, multiply the radial load by the short bearing factor before selecting the bearing.
- Step 4**
To position a shaft axially or where light thrust loads are present provide flat washers of the desired material backed by a shaft collar or a machined shaft shoulder against the end of the bearing. The bearing ends are already machined.

Table 1 • Bearing insert material selection

Bearing insert suffix	Bearing material	Type of lubrication	Type of unit	Available bore size
T1	Oil impregnated porous sintered bronze	oil	P	$\frac{5}{8}$ "— $3\frac{15}{16}$ "
			FX	$\frac{5}{8}$ "— $1\frac{3}{4}$ "
			F	$\frac{5}{8}$ "— $3\frac{7}{16}$ "
T3	Machined carbon-graphite	self-lubricating	P	$\frac{5}{8}$ "— $3\frac{15}{16}$ "
			FX	$\frac{5}{8}$ "— $1\frac{3}{4}$ "
			F	$\frac{5}{8}$ "— $3\frac{7}{16}$ "

Bearing insert suffix	Minimum temperature limit	Maximum temperature limit	Comments
T1	32°F ($0^{\circ}C$)	200°F ($93^{\circ}C$)	
T3		700°F ($371^{\circ}C$)	material somewhat brittle—handle with care—no significant shock loads

Selection, Additional Information

Flex-block® Sleeve Bearing Units

Flex-block Bearing Materials:

Sleeve bearing inserts made of T1 oil impregnated porous sintered bronze are universally accepted as providing reasonable capacity and dependable service. When lubricant is present damage to shafts or rotors is minimized. Additional SAE 40 oil can be periodically added to extend the bearing life. The T1 bearing operating temperature should not exceed 200°F (93°C). Applications are restricted to those involving light to moderate loads and mild shock. Caution: Do not use stainless steel shaft.

T3 machined carbon graphite bearings are self-lubricating with material worn from the bearing. T3 bearing inserts are limited to a maximum operating temperature of 700°F (371°C). The radial load applied, the shaft surface finish and the speed of operation determine the wear life of the bearing. As machined carbon graphite is somewhat brittle, care should be taken during handling and mounting to avoid chipping the corners, etc.

Additional Features:

By the very nature of their design all Flex-block sleeve bearing units are expansion type, in that the shaft journal is free to move axially through the bore of the bearing. To fix a unit, a combination of shaft shoulders and/or thrust collars with flat washers of the desired material can be utilized.

Flex-block pillow blocks have cored mounting bolt holes suitable for the inch or metric bolts listed. Flanged units have drilled mounting holes $\frac{1}{32}$ " (0.8 mm) larger than the largest inch bolt shown.

Bearings are not replaceable in the components. Replacement components can be ordered but generally the entire unit is replaced when required.

Two and four bolt flanged units can be supplied with regular or short bearings.

The short bearing inserts do not project beyond the housing mounting face. When the short bearing is selected, the applied radial load must be multiplied by the short bearing factor before selecting the bearing size.

End closures can be furnished but they require specially machined housings. When end closures are used, shafts should extend no more than $\frac{1}{8}$ " (3.2 mm) beyond the end of the bearing.

Operation:

Flex-block sleeve bearing units are self-lubricating and ready for operation. Being alignable, they are also easy to mount and careful shaft alignment is not required. However shaft journals must turn freely without binding in the bearing or excessive heat and seizure can result. Any factors which may disrupt or remove the lubricant film should be eliminated. Sharp edges on the shaft or the bearing surface can act as scrapers to destroy lubricant film. Do not extend shaft keyways into bearing bores.

Takeups:

Flex-block pillow blocks can be mounted on universal takeup frames LC illustrated on page I-28.

Shaft Tolerances:

Shaft diameters for Flex-block sleeve bearing units are usually held to the following regular commercial tolerances:

Shaft Diameters	Recommended Tolerance
$\frac{5}{8}$ " through 2"	Nominal to $-.003$ "
2 $\frac{1}{16}$ " through 4"	Nominal to $-.004$ "

Commercial shaft finish if free of nicks, burrs, scratches, etc. is generally satisfactory. Improved surface finish of 12 micro-inches (0.3μm) or less will extend wear life.

Caution: Do not use stainless steel shaft, if bearing insert T1 is used.

Warning:

The reliability built in all Link-Belt bearings can be realized in service only when bearings are correctly selected, properly installed, protected and maintained.

The correct selection of Flex-block sleeve bearing mounted units requires that the magnitude and nature of all loads, speeds, alignment, mounting, operating requirements and maintenance be adequately considered. The selection of materials for and design of

shafting, fasteners, seals and accessories as well as provisions for installation and maintenance must follow good engineering principles.

Housings should not be used under tension loads except with adequate safety factors. For this reason pillow blocks are best suited to withstand radial loads passing through the base. When heavy loads or shock loads are possible it is most important to mount a unit so that the line of force passes

directly into the mounting surface, or so that the unit is directly and substantially supported other than through its mounting bolts. Where the line of force falls outside the mounting surface, serious housing and fastener deflection or failure may occur.

Link-Belt Bearing Division, Rexnord Corp. should be consulted where unusual loading conditions exist.

Load Ratings

Flex-block® Sleeve Bearing Units

Radial load ratings for 10 to 300 RPM (pounds/newtons)■

Shaft diameter inches	Basic bearing number	Type bearing material	Shaft speed RPM														Short bearing factor
			10 to 25		50		75		100		150		200		300		
5/8 1 1/16	3210 3211	T1 T3	586 296	2 607 1 317	586 296	2 607 1 317	586 296	2 607 1 317	586 296	2 607 1 317	476 240	2 117 1 068	357 180	1 588 801	238 120	1 059 534	...
3/4	3212	T1 T3	940 470	4 181 2 091	940 470	4 181 2 091	940 470	4 181 2 091	940 470	4 181 2 091	638 318	2 838 1 415	479 240	2 131 1 068	318 159	1 415 707	1.25
7/8 15/16 1	3214 3215 3216	T1 T3	985 493	4 381 2 193	985 493	4 381 2 193	985 493	4 381 2 193	860 430	3 825 1 913	572 287	2 544 1 277	430 215	1 913 956	286 144	1 272 641	...
1 1/8 1 3/16	3218 3219	T1 T3	1545 773	6 870 3 438	1545 773	6 870 3 438	1400 700	6 230 3 114	1050 526	4 670 2 340	701 350	3 118 1 557	527 262	2 344 1 165	350 175	1 557 778	1.22
1 1/4 1 5/16 1 3/8 1 7/16	3220 3221 3222 3223	T1 T3	2110 1055	9 390 4 690	2110 1055	9 390 4 690	1720 860	7 650 3 825	1295 646	5 760 2 874	862 430	3 834 1 913	650 323	2 891 1 437	433 215	1 926 956	1.42
1 1/2	3224	T1 T3	3190 1595	14 900 7 100	3190 1595	14 190 7 100	2160 1080	9 610 4 800	1630 812	7 250 3 612	1090 543	4 850 2 415	815 406	3 625 1 806	545 272	2 424 1 210	1.54
1 5/8 1 11/16 1 3/4	3226 3227 3228	T1 T3	3450 1725	15 350 7 670	3240 1620	14 410 7 210	2160 1080	9 610 4 800	1620 812	7 210 3 612	1090 543	4 850 2 415	815 406	3 625 1 806	545 272	2 424 1 210	1.42
1 15/16	3231	T1 T3	4360 2180	19 390 9 700	3440 1720	15 300 7 650	2340 1170	10 410 5 200	1720 860	7 650 3 825	1150 575	5 120 2 558	860 430	3 825 1 913	575 288	2 558 1 281	1.39
2 2 1/8 2 3/16	3232 3234 3235	T1 T3	4750 2375	21 130 10 560	3620 1810	16 100 8 050	2420 1210	10 760 5 380	1810 908	8 050 4 039	1210 606	5 380 2 696	910 454	4 048 2 019	608 303	2 705 1 348	1.47
2 1/4 2 7/16	3236 3239	T1 T3	6050 3025	26 910 13 460	4110 2052	18 280 9 130	2750 1375	12 200 6 120	2050 1026	9 120 4 560	1370 686	6 090 3 051	1030 513	4 580 2 282	687 343	3 056 1 526	1.45
2 1/2 2 11/16	3240 3243	T1 T3	7500 3750	33 360 16 680	4590 2290	20 420 10 190	3050 1530	13 570 6 810	2290 1145	10 190 5 090	1530 764	6 810 3 398	1145 573	5 090 2 549	765 382	3 403 1 699	1.51
2 3/4 2 5/16	3244 3247	T1 T3	9120 4560	40 570 20 280	5070 2532	22 550 11 260	3380 1690	15 030 7 510	2530 1266	11 250 5 630	1685 845	7 500 3 759	1265 633	5 630 2 816	844 423	3 754 1 882	1.61
3 7/16	3255	T1 T3	11500 5710	51 150 25 410	5720 2860	25 440 12 720	3820 1910	16 990 8 500	2880 1440	12 810 6 410	1925 963	8 560 4 284	1440 720	6 410 3 203	965 483	4 293 2 148	1.31
3 15/16	3263	T1 T3	15000 7520	66 720 33 450	7500 3750	33 360 16 680	5000 2500	22 240 11 120	3730 1865	16 590 8 300	2500 1250	11 120 5 560	1870 935	8 320 4 159	1248 625	5 550 2 780	...

■ For speeds slower than 10 RPM or for oscillating shafts, consult Link-Belt Bearing Division, Rexnord Corp.

Radial load ratings for 400 to 2500 RPM (pounds/newtons)■

Shaft diameter inches	Basic bearing number	Type bearing material	Shaft speed RPM														Short bearing factor
			400		500		750		1000		1500		2000		2500		
5/16	3210	{ T1 T3	180	801	144	641	96	427	71	316	48	214	36	160	29	129	....
	3211		90	400	72	320	48	214	36	160	24	107	24	80	15	67	
3/4	3212	{ T1 T3	238	1 059	191	850	128	569	96	427	64	285	48	214	38	169	1.25
	120		534	92	409	63	280	48	214	32	142	24	107	19	84		
7/16	3214	{ T1 T3	215	956	175	778	114	507	86	383	57	254	43	191	34	151	....
	3215		108	480	86	383	57	254	43	191	29	129	22	98	..	...	
1	3216	{ T1 T3	263	1 170	211	939	140	623	105	467	70	311	53	236	42	187	1.22
	3219		131	583	105	467	70	311	53	236	35	156	..	...	..	...	
1 1/16	3220	{ T1 T3	322	1 432	258	1 148	172	765	130	578	86	383	65	289	52	231	1.42
	3221		162	721	130	578	86	383	65	289	43	191	..	...	..	...	
	3222																
	3223																
1 1/2	3224	{ T1 T3	408	1 815	325	1 446	216	961	163	725	109	485	82	365	65	289	1.54
	203		903	162	721	109	485	81	360	...	...	..	...	..	...		
1 5/16	3226	{ T1 T3	408	1 815	325	1 446	216	961	162	721	109	485	82	365			1.42
	3227		203	903	162	721	109	485	81	360	...	...	..	...			
	3228																
1 5/16	3231	{ T1 T3	431	1 917	344	1 530	234	1 041	172	765	115	512					1.39
	215		956	172	765	115	512	...	....	...	...						
2	3232	{ T1 T3	455	2 024	363	1 615	242	1 076	181	805	125	556					1.47
	3234		227	1 010	182	810	121	538	...	....	...	...					
	3235																
2 1/4	3236	{ T1 T3	515	2 291	413	1 837	275	1 223	205	912	137	609					1.45
	3239		257	1 143	205	912	137	609	...	....	...	...					
2 1/2	3240	{ T1 T3	574	2 553	460	2 046	305	1 357	229	1 019							1.51
	3243		287	1 277	229	1 019	153	681	...	....							
2 3/4	3244	{ T1 T3	635	2 825	507	2 255	338	1 503	253	1 125							1.61
	3247		317	1 410	253	1 125	...	....	...	....							
3 7/16	3255	{ T1 T3	725	3 225	580	2 580	382	1 699	290	1 390							1.31
	363		1 615	290	1 290	...	....	...	....								
3 15/16	3263	{ T1 T3	936	4 164	750	3 336	500	2 224									....
	468		2 082	...	....	...	....										

■ Load ratings are based on industry standards established by the Mechanical Power Transmission Association.

Flex-block® Sleeve Bearing Pillow Block

3200P

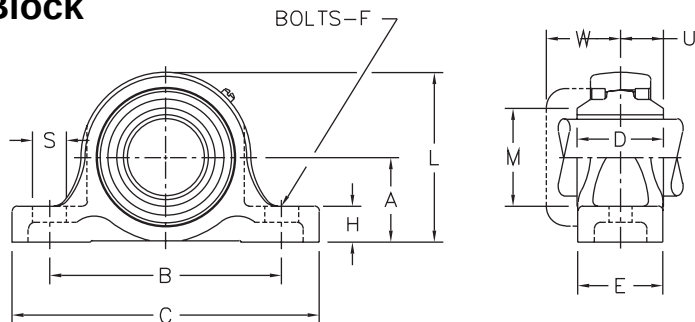
Cast Iron Housing

2-bolt Base

Alignable

T1 Sintered Bronze Bearing

T3 Carbon Graphite Bearing



Dimensions (inches/mm)

Shaft diameter inches	Pillow block number Δ			A	B	C	D	E	F Bolts	H	L	M	S	U	W ‡	Unit wt. (lbs.)
	Basic pillow bearing number	Bearing sleeve suffix														
5/8	3210P	T1	T3	1 1/16	3 1/2	4 5/8	1 5/16	1 1/2	3/8	1/2	2 11/32	1 1/8	3/4	1 5/32	1 13/64	1.3
1 1/16	3211P	T1	T3	30.16	88.9	117.5	23.8	38.1	10	12.7	59.5	28.6	19.0	11.9	30.6	1.2
3/4	3212P	T1	T3	1 5/16	3 7/8	5 1/8	1 1/4	1 1/2	3/8	1/2	2 19/32	1 3/16	1 1/16	5/8	1 19/64	1.8
7/8	3214P	T1	T3	1 7/16	4	5 3/8	1 1/8	1 5/8	3/8	9/16	2 7/8	1 9/16	1 1/16	9/16	1 9/32	2.1
1 5/16	3215P	T1	T3	36.51	101.6	136.5	28.6	41.3	10	14.3	73.0	39.7	17.5	14.3	32.5	2.0
1	3216P	T1	T3													1.9
1 1/8	3218P	T1	T3	1 11/16	4 5/8	6 5/16	1 3/8	1 3/4	1/2	1 1/16	3 5/16	1 7/8	1 5/16	1 1/16	1 29/64	2.8
1 3/16	3219P	T1	T3	42.86	117.5	160.3	34.9	44.4	12	17.5	84.1	47.6	23.8	17.5	36.9	2.7
1 1/4	3220P	T1	T3													4.5
1 15/16	3221P	T1	T3	1 7/8	4 15/16	6 3/8	1 11/16	1 7/8	1/2	1 3/16	3 11/16	2 1/8	1 3/16	27/32	1 35/64	4.4
1 3/8	3222P	T1	T3	47.62	125.4	161.9	42.9	47.6	12	20.6	93.7	54.0	20.6	21.4	39.3	4.3
1 7/16	3223P	T1	T3													4.1
1 1/2	3224P	T1	T3	2	5 3/8	7 1/16	2 1/8	1 7/8	1/2	1 3/16	4	2 1/8	1 5/16	1 1/16	1 41/64	5.3
				50.80	136.5	179.4	54.0	47.6	12	20.6	101.6	54.0	23.8	27.0	41.7	
1 5/8	3226P	T1	T3	2 1/8	5 5/8	7 1/4	2 1/8	2	1/2	1 3/16	4 5/16	2 7/16	7/8	1 1/16	1 21/32	6.4
1 11/16	3227P	T1	T3	53.98	142.9	184.2	54.0	50.8	12	20.6	109.5	61.9	22.2	27.0	42.1	6.3
1 3/4	3228P	T1	T3													6.1
1 15/16	3231P	T1	T3	2 1/4	6 3/16	7 7/8	2 1/4	2 1/8	5/8	7/8	4 1/2	2 9/16	1 5/16	1 1/8	1 25/32	7.2
				57.15	157.2	200.0	57.2	54.0	16	22.2	114.3	65.1	23.8	28.6	45.2	
2	3232P	T1	T3	2 1/2	6 3/4	9 1/16	2 3/8	2 3/8	5/8	1	5	2 7/8	1 5/16	1 3/16	2 1/64	9.2
2 1/8	3234P	T1	T3	63.50	171.4	230.2	60.3	60.3	16	25.4	127.0	73.0	33.3	30.2	51.2	9.0
2 3/16	3235P	T1	T3													8.8
2 1/4	3236P	T1	T3	2 11/16	7 1/2	9 1/2	2 11/16	2 1/2	5/8	1 1/8	5 7/16	3 1/4	1 1/16	1 11/32	2 7/64	13.4
2 7/16	3239P	T1	T3	68.26	190.5	241.3	68.3	63.5	16	28.6	138.2	82.6	27.0	34.1	53.6	13.2
2 1/2	3240P	T1	T3	3	8 1/8	10 1/2	3	2 7/8	3/4	1 5/16	6	3 9/16	1 3/16	1 1/2	2 1/16	17.1
2 11/16	3243P	T1	T3	76.20	206.4	266.7	76.2	73.0	20	33.3	152.4	90.5	30.2	38.1	52.4	16.5
2 3/4	3244P	T1	T3	3 1/4	8 7/8	11 3/4	3 5/16	3 1/4	3/4	1 3/8	6 1/2	3 3/4	1 5/16	1 21/32	2 7/32	22.5
2 15/16	3247P	T1	T3	82.55	225.4	298.4	84.1	82.6	20	34.9	165.1	95.2	33.3	42.1	56.4	21.9
3 7/16	3255P	T1	T3	3 3/4	10	13	3 3/4	3 1/2	7/8	1 5/8	7 7/8	4 7/16	1 5/8	1 7/8	2 1/2	32.5
				95.25	254.0	330.2	95.2	88.9	24	41.3	188.9	112.7	41.3	47.6	63.5	
3 15/16	3263P	T1	T3	4 7/16	11 7/8	15 1/4	4 15/16	4 3/8	7/8	1 13/16	8 15/16	4 7/8	1 7/8	2 15/32	3 1/64	59.7
				112.71	301.6	387.4	125.4	111.1	24	46.0	227.0	123.8	47.6	62.7	76.6	

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement insert number, omit housing suffix designation; i.e., 3210T1.

△ Order by number, as: 3212PT1.

‡ Width dimension for closed end unit.

Selection guide, pages I-21, I-22.

Load ratings, pages I-23, I-24.

Additional information, page I-22.

Flex-block® Sleeve Bearing Flanged Units

3200FX

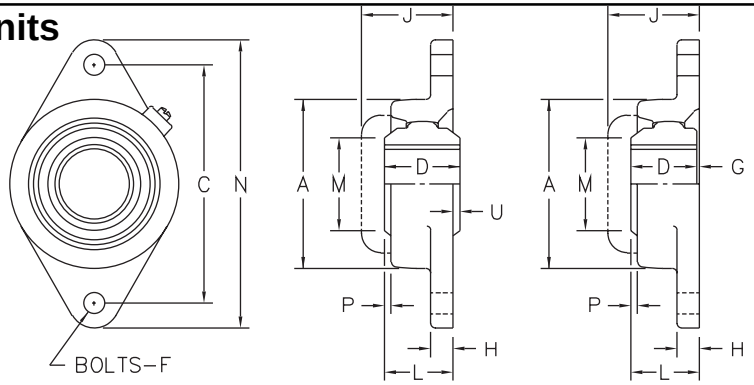
Cast Iron Housing

2-bolt Mounting

Alignable

T1 Sintered Bronze Bearing

T3 Carbon Graphite Bearing



Dimensions (inches/mm)

Shaft diameter inches	Flanged unit number Δ			A	C	D		F Bolts	G	H	J ‡	L	M	N	P	U	Unit wt. (lbs.)
	Basic flange number	Bearing sleeve suffix				Reg.	Short										
5⁄8 1¹⁄₁₆	3210FX 3211FX	T1 T1	T3 T3	2¹⁄₈ 54.0	3 76.2	1⁵⁄₁₆ 23.8	..... .....	3⁄₈ 10	17⁄₆₄ 6.8	½ 12.7	1²⁵⁄₃₂ 45.2	17⁄₆₄ 28.2	1¹⁄₈ 28.6	3⁷⁄₈ 98.4	7⁄₆₄ 2.8	..... .....	1.0 .9
¾	3212FX	T1	T3	27⁄₁₆ 61.9	3¹⁷⁄₃₂ 89.7	1¼ 31.8	1⁸⁄₁₆ 28.6	3⁄₈ 10	¼ 6.4	9⁄₁₆ 14.3	2¹⁄₆₄ 51.2	1²³⁄₆₄ 34.5	1³⁄₁₆ 30.2	4¹³⁄₃₂ 111.9	5⁄₃₂ 4.0	..... .....	1.2
7⁄₈ 1⁵⁄₁₆ 1	3214FX 3215FX 3216FX	T1 T1 T1	T3 T3 T3	2¹¹⁄₁₆ 68.3	3⁵⁷⁄₆₄ 98.8	1⁸⁄₁₆ 28.6	..... .....	7⁄₁₆ 10	3⁄₁₆ 4.8	19⁄₃₂ 15.1	2 50.8	1⁵⁄₁₆ 33.3	1⁹⁄₁₆ 39.7	4²⁹⁄₃₂ 124.6	1⁄₁₆ 1.6	..... .....	1.7 1.6 1.5
1¹⁄₈ 1³⁄₁₆	3218FX 3219FX	T1 T1	T3 T3	3³⁄₁₆ 81.0	4¹⁹⁄₃₂ 116.7	1³⁄₈ 34.9	1¼ 31.8	7⁄₁₆ 10	7⁄₃₂ 5.6	19⁄₃₂ 15.1	2¹⁵⁄₆₄ 56.7	1¹⁵⁄₃₂ 37.3	1⁷⁄₈ 47.6	5¹⁹⁄₃₂ 142.1	5⁄₃₂ 4.0	..... .....	2.5 2.3
1¼ 1⁵⁄₁₆ 1³⁄₈ 1⁷⁄₁₆	3220FX 3221FX 3222FX 3223FX	T1 T1 T1 T1	T3 T3 T3 T3	3⁵⁄₈ 92.1	5¹⁄₈ 130.2	1¹¹⁄₁₆ 42.9	1½ 38.1	½ 12	5⁄₃₂ 4.0	5⁄₈ 15.9	2²³⁄₆₄ 59.9	1²¹⁄₃₂ 42.1	2¹⁄₈ 54.0	6¹⁄₈ 155.6	¼ 6.4	1⁄₃₂ 0.8	3.7 3.6 3.5 3.3
1½	3224FX	T1	T3	4 101.6	5²¹⁄₃₂ 143.7	2¹⁄₈ 54.0	1¾ 44.4	½ 12	5⁄₃₂ 4.0	5⁄₈ 15.9	2³⁵⁄₆₄ 64.7	1³¹⁄₃₂ 50.0	2¹⁄₈ 54.0	6²⁵⁄₃₂ 172.2	2⁵⁄₆₄ 9.9	5⁄₃₂ 4.0	4.9
1⁵⁄₈ 1¹¹⁄₁₆ 1¾	3226FX 3227FX 3228FX	T1 T1 T1	T3 T3 T3	4¼ 108.0	5²⁷⁄₃₂ 148.4	2¹⁄₈ 54.0	1¹³⁄₁₆ 46.0	½ 12	5⁄₃₂ 4.0	5⁄₈ 15.9	2⁹⁄₁₆ 65.1	1³¹⁄₃₂ 50.0	2⁷⁄₁₆ 61.9	7³⁄₃₂ 180.2	3⁄₈ 9.5	5⁄₃₂ 4.0	6.2 6.0 5.9

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement insert number, omit housing suffix designation; i.e., 3210T1.

△ Order by number, as: 3216FXT3. For short sleeves add suffix S; i.e., 3220FXT1S.

‡ Width dimension for closed end unit.

Selection guide, pages I-21, I-22.

Load ratings, pages I-23, I-24.

Additional information, page I-22.

Flex-block® Sleeve Bearing Flanged Units

3200F

Cast Iron Housing

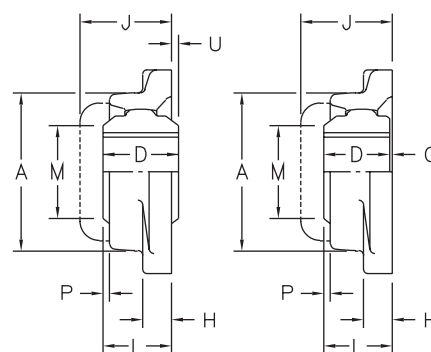
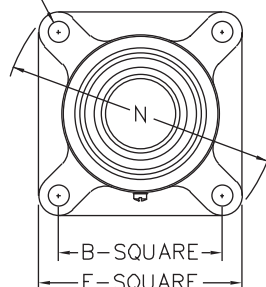
4-bolt Mounting

Alignable

T1 Sintered Bronze Bearing

T3 Carbon Graphite Bearing

BOLTS—F



Dimensions (inches/mm)

Shaft diameter inches	Flanged unit number Δ			A	B	D		E	F Bolts	G	H	J ‡	L	M	N	P	U	Unit wt. (lbs.)	
	Basic flange number	Bearing sleeve suffix					Reg.												Short
5/8 1 1/16	3210F 3211F	T1 T1	T3 T3	2 1/8 54.0	2 1/8 54.0	1 5/16 23.8		3 76.2	3/8 10	17/64 6.8	1/2 12.7	1 25/32 45.2	17/64 28.2	1 1/8 28.6	3 7/8 98.4	7/64 2.8		1.2 1.1	
3/4	3212F	T1	T3	2 7/16 61.9	2 1/2 63.5	1 1/4 31.8	1 1/8 28.6	3 3/8 85.7	3/8 10	1/4 6.4	9/16 14.3	2 1/64 51.2	1 23/64 34.5	1 3/16 30.2	4 13/32 111.9	5/32 4.0		1.5	
7/8 1 5/16 1	3214F 3215F 3216F	T1 T1 T1	T3 T3 T3	2 11/16 68.3	2 3/4 69.8	1 1/8 28.6		3 3/4 95.2	7/16 10	3/16 4.8	19/32 15.1	2 50.8	1 5/16 33.3	1 9/16 39.7	4 29/32 124.6	1/16 1.6		2.1 2.0 1.9	
1 1/8 1 3/16	3218F 3219F	T1 T1	T3 T3	3 3/16 81.0	3 1/4 82.6	1 3/8 34.9	1 1/4 31.8	4 1/4 108.0	7/16 10	7/32 5.6	19/32 15.1	2 15/64 56.7	1 15/32 37.3	1 7/8 47.6	5 19/32 142.1	5/32 4.0		3.2 2.9	
1 1/4 1 5/16 1 3/8 1 7/16	3220F 3221F 3222F 3223F	T1 T1 T1 T1	T3 T3 T3 T3	3 5/8 92.1	3 3/8 92.1	1 11/16 17.5	1 1/2 38.1	4 5/8 117.5	1/2 12	5/32 4.0	5/8 15.9	2 23/64 59.9	1 21/32 42.1	2 1/8 54.0	6 1/8 155.6	1/4 6.4	1/32 0.8	4.5 4.4 4.3 4.1	
1 1/2	3224F	T1	T3	4 101.6	4 101.6	2 1/8 54.0	1 3/4 44.4	5 1/8 130.2	1/2 12	5/32 4.0	5/8 15.9	2 35/64 64.7	1 31/32 50.0	2 1/8 54.0	6 25/32 172.2	2 5/64 9.9	5/32 4.0	5.6	
1 5/8 1 11/16 1 3/4	3226F 3227F 3228F	T1 T1 T1	T3 T3 T3	4 1/4 108.0	4 1/8 104.8	2 1/8 54.0	1 13/16 46.0	5 3/8 136.5	1/2 12	5/32 4.0	5/8 15.9	2 9/16 65.1	1 31/32 50.0	2 7/16 61.9	7 3/32 180.2	3/8 9.5	5/32 4.0	7.1 6.8 6.7	
1 15/16	3231F	T1	T3	4 1/2 114.3	4 3/8 111.1	2 1/4 57.2	1 15/16 49.2	5 5/8 142.9	1/2 12	7/32 5.6	3/4 19.0	2 13/16 71.4	2 5/32 54.8	2 9/16 65.1	7 7/16 188.9	2 7/64 10.7	3/32 2.4	7.8	
2 2 1/8 2 3/16	3232F 3234F 3235F	T1 T1 T1	T3 T3 T3	4 15/16 125.4	5 1/8 130.2	2 3/8 60.3	2 50.8	6 3/8 161.9	5/8 16	1 1/32 8.7	2 9/32 23.0	3 11/64 80.6	2 11/32 59.5	2 7/8 73.0	8 1/2 215.9	1 3/32 10.3	1/32 0.8	10.0 9.8 9.5	
2 1/4 2 7/16	3236F 3239F	T1 T1	T3 T3	5 3/8 136.5	5 5/8 142.9	2 11/16 68.3	2 1/4 57.2	6 7/8 174.6	5/8 16	3/8 9.5	1 5/16 23.8	3 25/64 86.1	2 5/8 66.7	3 1/4 82.6	9 7/32 234.2	2 7/64 10.7	1/16 1.6	12.8 12.6	
2 1/2 2 11/16	3240F 3243F	T1 T1	T3 T3	5 7/8 149.2	5 5/8 149.2	3 76.2	2 1/2 63.5	7 3/8 187.3	5/8 16	3/32 2.4	3/4 19.0	3 5/32 80.2	2 19/32 65.9	3 9/16 90.5	9 13/16 249.2	7/16 11.1	1 3/32 10.3	16.6 15.9	
2 3/4 2 15/16	3244F 3247F	T1 T1	T3 T3	6 3/8 161.9	6 152.4	3 5/16 84.1	2 11/16 68.3	7 3/4 196.8	3/4 20	1/8 3.2	3/4 19.0	3 3/8 85.7	2 13/16 71.4	3 3/4 95.2	10 1/4 260.4	1 7/32 13.5	1/2 12.7	20.4 19.8	
3 7/16	3255F	T1	T3	7 1/2 190.5	6 3/4 171.4	3 3/4 95.2	3 5/16 84.1	8 9/16 217.5	3/4 20	3/32 2.4	1 25.4	4 1/32 102.4	3 13/32 86.5	4 7/16 112.7	11 3/8 288.9	1/2 12.7	1 1/32 8.7	29.5	

Bold face items are normally available from stock; please consult for availability of non-stock items.

For replacement insert number, omit housing suffix designation; i.e., 3210T1.

△ Order by number, as: 3216FT3. For short sleeves add suffix S; i.e., 3220FT1S.

‡ Width dimension for closed end unit.

Selection guide, pages I-21, I-22.

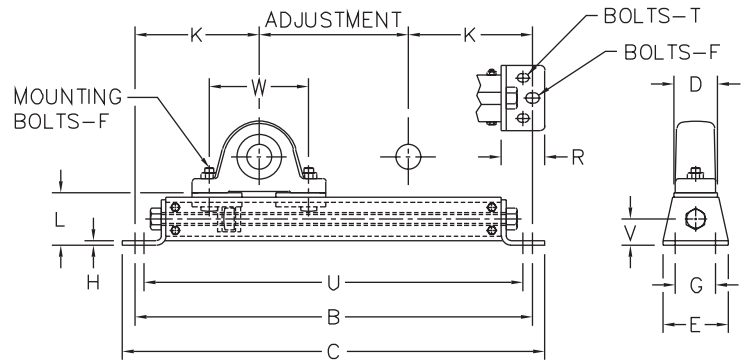
Load ratings, pages I-23, I-24.

Additional information, page I-22.

Universal Takeup Frames

LC

Bolted Steel Frames
2 or 4-bolt Frame Mounting
Bolt Centers Adjustable
Pillow Block Units Not Included



Dimensions (inches/mm)

Unit mounting bolt diameter (F) and max shaft size (A) mm/inches	Adjustment	Takeup frame number	B	C	D	E	F Bolts	G	H	K	L	R	T Bolts	U	V	W ■ Bolt centers		Z
																Min	Max	
10 3/8 bolts 30 1 1/4 shaft	6	LC1-6	16	17	1 3/4	2 5/8	3/8	1 5/8	3/16	5	2 1/8	1 3/4	5/16	15 1/4	1 1/16	3	5	1 5/16
	152.4		406.4	431.8										387.4				
	9	LC1-9	19	20										18 3/4				
	228.6		482.6	508.0										463.6				
12 1/2 bolts 50 1 5/16 shaft	12	LC2-6	22	23	2 3/8	3 1/8	1/2	2 1/8	1/4	6 1/16	2 11/16	2 3/16	3/8	21 1/8	1 11/32	3 3/4	7 1/4	1 3/32
	304.8		558.8	584.2										536.6				
	18	LC2-9	25 1/8	26 1/4										612.8				
	457.2		638.2	666.8										612.8				
16 5/8 bolts 60 2 7/16 shaft	9	LC3-9	25 5/16	26 9/16	3	4	5/8	2 3/4	5/16	8 5/32	3 9/16	2 3/4	1/2	24 1/16	1 5/8	4 1/4	9	1 13/32
	228.6		642.9	674.9										611.2				
	12	LC3-12	28 5/16	29 9/16										687.4				
	304.8		719.1	750.9										687.4				
18 3/4 bolts 60 2 7/16 shaft	18	LC3-18	34 5/16	35 9/16	76.2	101.6	16	69.8	7.9	207.2	84.1	69.8	12	33 1/16	41.3	108.0	228.6	35.7
	457.2		871.5	903.3										839.8				
	24	LC3-24	40 5/16	41 9/16										39 1/16				
	609.6		1023.9	1055.7										992.2				

Bold face items are normally available from stock; please consult for availability of non-stock items.

■ Max W dimension can be exceeded, but overall adjustment reduces proportionately.

Use dimensions A, D, F, and W as limits for fitting and mounting Sleeve, Ball Bearing, and Roller Bearing pillow block units.

For load ratings, see pillow block unit to be used.

Nomenclature

Rigid Sleeve Bearing and Flex-Block® Units

Rigid Sleeve Bearing Units

Symbol	Description	2K	15	95	F	Z –	
None	One-piece housing, cast iron	}					
2—	Two-piece housing, cast iron						
2K	Two-piece housing, cast steel						
10	Pillow block, one-piece, 2-bolt base		}				
11	Pillow block, plain iron (no sleeve)						
12	Pillow block, angle type split joint, 2-bolt base						
13	Pillow block, angle type split joint, 4-bolt base						
14	Pillow block, horizontal gibbed joint, 4-bolt base						
15	Pillow block, angle type split joint, 40° off horizontal						
F22	Flanged unit, square, 4-bolt						
DS28	Takeup, conveyor, heavy rigid frame						
DSB28	Takeup, conveyor, heavy hinged frame						
95	Shaft diameter in 16ths of an inch						
F	4-bolt base (units 1000, 1100 only)						
None	Babbitt bearing (except units 1100)					}	
Z	Bronze bearing						
XX	Takeup adjustment, inches						

Flex-block Sleeve Bearing Units

Symbol	Description	32	16	F	T1	S	C
32	Standard duty series						
16	Shaft diameter in 16ths of an inch						
F	Flanged unit, 4-bolt						
FX	Flanged unit, 2-bolt						
P	Pillow block						
T1	Porous sintered bronze, oil impregnated, 200°F max.						
T3	Self-lubricating carbon graphite, 700°F max.						
T4	Plain bore (cast iron), 1000°F max.						
None	Standard length					}	
S	Short sleeve, (F, FX units)						
C	Closed end unit						

The nomenclature shown is provided to identify the basic and optional features of bearing and mounted unit assemblies. The most commonly specified variations are listed; however, availability of all variations cannot be assumed. Link-Belt Bearing Division, Rexnord Corp. should be consulted regarding optional features, availability, and the application requirements.

Bearing Number Index

Ball Bearings, Ball Bearing Units,
Sleeve Bearings and Takeups

Corrosion Resistant

KF-S200E	B-13
KFX-S200E	B-13
KP-S200E	B-14
KLF-S200E	B-13
KLFX-S200E	B-13
KLP-S200E	B-14
TSP00	B-57
TSPT00	B-57
TQP00	B-58
WF3-S200E	B-18
WPB3-S200E	B-19
WFX3-S200E	B-17
WP3-S200E	B-15
WPT3-S200E	B-16
WTH3-S200E	B-20

Hex bores

K200N	B-70
KB200N	B-70

Round bores

R200E3	B-71
RB200E3	B-71
RG200E3	B-72
RBG200E3	B-72

Square bores

S200E3	B-73
SB200E3	B-73
SG200E3	B-74
SBG200E3	B-74

Series U200

F-U200N	B-45
F-UG200N	B-45
FR-U200N	B-46
FR-UG200N	B-46
FX-U200N	B-43
FX-UG200N	B-43
FXR-U200N	B-44
FXR-UG200N	B-44
PS-U200N	B-29
U200NL	B-63
UB200NL	B-63
UBG200NL	B-64
UG200NL	B-64

Series 3-U200

F3-U200N	B-37
FB3-U200N	B-32
FC3-U200N	B-41
FF200N	B-62
FX3-U200N	B-33
HM3-U200N	B-61
NT3-U200N	B-59
P3-U200N	B-21
PH3-U200N	B-31
PL3-U200N	B-25
PT3-U200N	B-30
T3-U200N	B-51
TH3-U200N	B-53
TAS3-U200N	B-55
TDS3-U200N	B-56

Series 4-U200

FC4-U200N	B-41

Series 3-S200

F3-S200E	B-40
FB3-S200E	B-32
FX3-S200E	B-36
P3-S200E	B-24
PL3-S200E	B-28
PT3-S200E	B-30
T3-S200E	B-52
TH3-S200E	B-54
SG200EL	B-69

Series W200

F-W200E	B-45
F-WG200E	B-45
FR-W200E	B-46
FR-WG200E	B-46
FX-W200E	B-43
FX-WG200E	B-43
FXR-W200E	B-44
FXR-WG200E	B-44
PS-W200E	B-29
W200EL	B-67
WB200EL	B-67
WBG200EL	B-68
WG200EL	B-68

Series 3-W200

F3-W200E	B-39
FX3-W200E	B-35
P3-W200E	B-23
PL3-W200E	B-27

Series Y200

F-Y200N	B-45
F-YG200N	B-45
FR-Y200N	B-46
FR-YG200N	B-46
FX-Y200N	B-43
FX-YG200N	B-43
FXR-Y200N	B-44
FXR-YG200N	B-44
PS-Y200N	B-29
Y200NL	B-65
YB200NL	B-65
YBG200NL	B-66
YG200NL	B-66

Series 3-Y200

F3-Y200N	B-38
FC3-Y200N	B-42
FX3-Y200N	B-34
P3-Y200N	B-22
PL3-Y200N	B-26

Series 4-Y200

FC4-Y200N	B-42

Series 300

C-U300	C-13
CE-U300	C-13
F-U300	C-11
FC-U300	C-12
FCE-U300	C-12
FE-U300	C-11
P-U300	C-9
PE-U300	C-9
P2-U300	C-10
T-U300	C-14
UG300L	C-16

Sleeve Bearing Units and Takeups

Series 1000

1000	I-9
1000Z	I-9

Series 1100

1100	I-10

Series 1200

2-1200	I-11
2-1200Z	I-11

Series 1300

2-1300	I-12

Series 1400

2-1400	I-13
2-1400Z	I-13
2K1400Z	I-13

Series 1500

2-1500	I-14
2-1500Z	I-14

Series 2200

F2200	I-15
F2200Z	I-15

Series 2800

DSB2800	I-16

Series 3200

3200F	I-27
3200FX	I-26
3200P	I-25

Formed Steel Housings

GMSA	B-49
GMSB	B-49
MS	B-47
MSC	B-47
MST	B-50
MSTR	B-48

Takeup Frames

Series LC	B-60, I-28
Series LHD	C-15
Series TP	B-57

Bearing Number Index

Spherical Roller Bearings, Cylindrical Roller Bearings and Takeups

Series B22400

B22400HL	D-26
C-B22400H	D-15
CSE-B22400H	D-16
DS-B22400H	D-23
EFR-B22400H	D-18
EP-B22400H	D-11
EP-B22400FH	D-12
EPE-B22400H	D-11
EPE-B22400FH	D-12
F-B22400H	D-17
FB-B22400H	D-19
FC-B22400H	D-20
FE-B22400H	D-17
P-B22400FH	D-10
P-B22400H	D-9
PE-B22400FH	D-10
PE-B22400H	D-9
PK-B22400FH	D-14
PK-B22400H	D-13
PKE-B22400FH	D-14
PKE-B22400H	D-13
PL-B22400	D-9
T-B22400H	D-21

Series B22500

B22500HL	D-40
CSE-B22500H	D-39
DS-B22500H	D-23
DSH-B22500H	D-38
EF-B22500H	D-37
EP-B22500FH	D-36
EP-B22500H	D-36
EPE-B22500FH	D-36
EPE-B22500H	D-36
P-B22500FH	D-35
P-B22500H	D-35
PE-B22500FH	D-35
PE-B22500H	D-35
PK-B22500FH	D-14
PKE-B22500FH	D-14

Series B22600

B22600HL	D-61
CSE-B22600H	D-55
EF-B22600H	D-57
EP-B22600FH	D-52
EP-B22600H	D-51
EPE-B22600FH	D-52
EPE-B22600H	D-51
F-B22600H	D-56
FB-B22600H	D-58
FC-B22600H	D-59
FE-B22600H	D-56
P-B22600FH	D-50
P-B22600H	D-49
PE-B22600FH	D-50
PE-B22600H	D-49
PK-B22600FH	D-54
PK-B22600H	D-53
PKE-B22600FH	D-54
PKE-B22600H	D-53
T-B22600H	D-60

Spherical Roller Bearing Pillow Blocks and Takeups

Series 6600

P-LB6600FDB	E-18
P-LB6600FR	E-16
PE-LB6600FD8	E-18
PE-LB6600FR	E-16
PK-LB6600FD8	E-20
PK-LB6600FR	E-19
PKE-LB6600FD8	E-20
PKE-LB6600FR	E-19

Series 6800

DS-LB6800	E-26
P-LB6800D8	E-17
P-LB6800FD8	E-17
P-LB6800FR	E-15
P-LB6800R	E-15
PE-LB6800D8	E-17
PE-LB6800FD8	E-17
PE-LB6800FR	E-15
PE-LB6800R	E-15
PK-LB6800FD8	E-20
PK-LB6800FR	E-19
PKE-LB6800FD8	E-20
PKE-LB6800FR	E-19

Series 6900

P-LB6900FR	E-23
P-LB6900R	E-23
PE-LB6900FR	E-23
PE-LB6900R	E-23

Series SAF22600

SAF22600	E-23

Series 7600

P-LB7600FR	E-21
PE-LB7600FR	E-21
PK-LB7600FR	E-22
PKE-LB7600FR	E-22

Series 7800

P-LB7800FR	E-21
P-LB7800R	E-21
PE-LB7800FR	E-21
PE-LB7800R	E-21
PK-LB7800FR	E-22
PKE-LB7800FR	E-22

Series 7900

P-LB7900FR	E-24
P-LB7900R	E-24
PE-LB7900FR	E-24
PE-LB7900R	E-24

Series SAF22300

SAF22300	E-24

Spherical Roller Bearings

Series 22200

22200LB	F-7
22200LBK	F-7

Series 22300

22300LB	F-9
22300LBK	F-9

Series 23000

23000LB	F-9
23000LBK	F-9

Series A20000

A20000	H-11
A20000M	H-13
A20000S	H-6

Cylindrical Roller Bearings

M	EAX	G-15
M	EX	G-15
M	TAV	G-15
M	TV	G-15
M	UAV	G-15
M	UV	G-15
MA	EAX	G-15
MA	EX	G-15
MA	TAV	G-15
MA	TV	G-15
MA	UAV	G-15
MA	UV	G-15
MR	EAX	G-15
MR	EX	G-15
MR	TAV	G-15
MR	TV	G-15
MR	UAV	G-15
MR	UV	G-15
MSN	EAX	G-15
MSN	EX	G-15
MU	CAX	G-15
MU	CX	G-15
MU	DAX	G-15
MU	DX	G-15
MU	SNAX	G-15
MU	SNX	G-15
MU	TAV	G-15
MU	TM	G-15
MU	TV	G-15
MU	UAV	G-15
MU	UM	G-15
MU	UV	G-15
MU	X	G-15
MA6200TV		G-23
NE-C		G-33

Accessories

Adapter Assemblies

SNW00	F-8
SNW100	F-10
SNP3000	F-10

Takeup Frames

Series LC	B-60, I-28
Series LHD	D-22, E-25

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