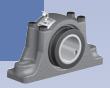
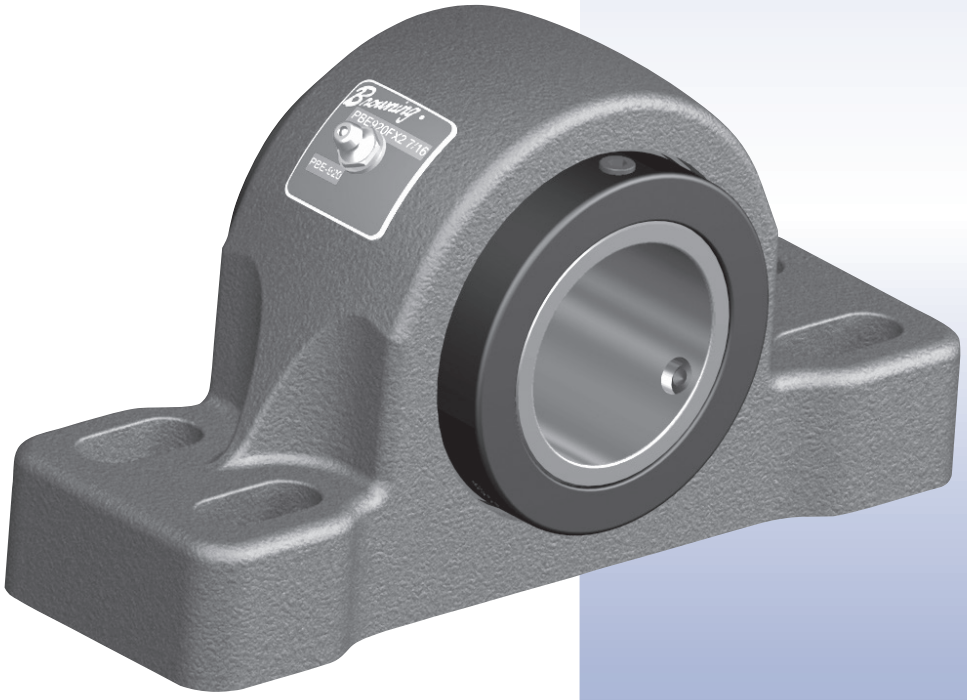



Browning
PBE-970F-X2 7/16
PBE-970

Mounted Tapered Roller

Modular bearing assembly consisting of sealed and lubricated inch or metric tapered bearing with setscrew locking collars contained within a variety of housings types, mounting styles, and housing materials. Mounted tapered roller bearings provide an antifriction solution when supporting rotating shafts with combination radial and thrust loads.

Housing Styles

Pillow Block, Flanges, Take Up Assemblies

Locking Styles

Setscrew

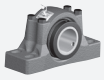
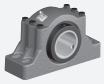
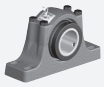
Bore Size Range

1 3/16” to 5” and 35mm to 125mm

Housing Materials

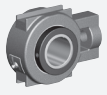
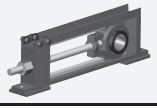
Cast Iron, and Cast Steel

Mounted Tapered Roller Selection Guide

Brand	Image	Series	Housing Style
Sealmaster		RPB	Two Bolt Pillow Block
		RPB	Four Bolt Pillow Block
		ERPB	Expansion Two Bolt Pillow Block
		ERPB	Expansion Four Bolt Pillow Block
		DRPB	Two Bolt Pillow Block
		DRPB	Four Bolt Pillow Block
		EDPB	Expansion Two Bolt Pillow Block
		EDPB	Expansion Four Bolt Pillow Block
		RPBXT	Four Bolt Pillow Block (SAF mounting dimensions)
		ERPBXT	Expansion Four Bolt Pillow Block (SAF mounting dimensions)
		SPB	Two Bolt Pillow Block
		SPB	Four Bolt Pillow Block

Lock Type					Size Range		
Double Lock Collar	Single Lock Collar	Housing Material	Standard Seal	Seal Options	Inch	Metric	Page
RPB-2	RPBA-2	Cast Iron	Felt	Contact, Nomex	1 3/16" - 3 1/2"	35 mm - 95 mm	I-13, I-15
RPB-4	RPBA-4	Cast Iron	Felt	Contact, Nomex	2 1/4" - 5"	60 mm - 125 mm	I-14, I-16
ERPB-2	ERPBA-2	Cast Iron	Felt	Contact, Nomex	1 3/4" - 3 1/2"	45 mm - 95 mm	I-17, I-19
ERPB-4	ERPBA-4	Cast Iron	Felt	Contact, Nomex	3 15/16" - 5"	100 mm - 125 mm	I-18, I-20
DRPB-2	DRPBA-2	Cast Iron	Felt	Contact, Nomex	1 3/4" - 3 1/2"	45 mm - 95 mm	I-21, I-23
DRPB-4	DRPBA-4	Cast Iron	Felt	Contact, Nomex	3 15/16" - 4"	100 mm - 105 mm	I-22, I-24
N/A	EDPBA-2	Cast Iron	Felt	Contact, Nomex	1 3/4" - 3 1/2"	100 mm - 105 mm	I-25
N/A	EDPBA-4	Cast Iron	Felt	Contact, Nomex	3 15/16" - 4"	100 mm - 105 mm	I-26
RPBXT-4	N/A	Cast Iron	Felt	Contact, Nomex	2 1/4" - 5"	60 mm - 125 mm	I-27
ERPBXT-4	N/A	Cast Iron	Felt	Contact, Nomex	2 1/4" - 5"	60 mm - 125 mm	I-28
SPB-2	N/A	Cast Steel	Felt	Contact, Nomex	1 1/2" - 3 1/2"	40 mm - 95 mm	I-29
SPB-4	N/A	Cast Steel	Felt	Contact, Nomex	3 15/16" - 5"	100 mm - 125 mm	I-30

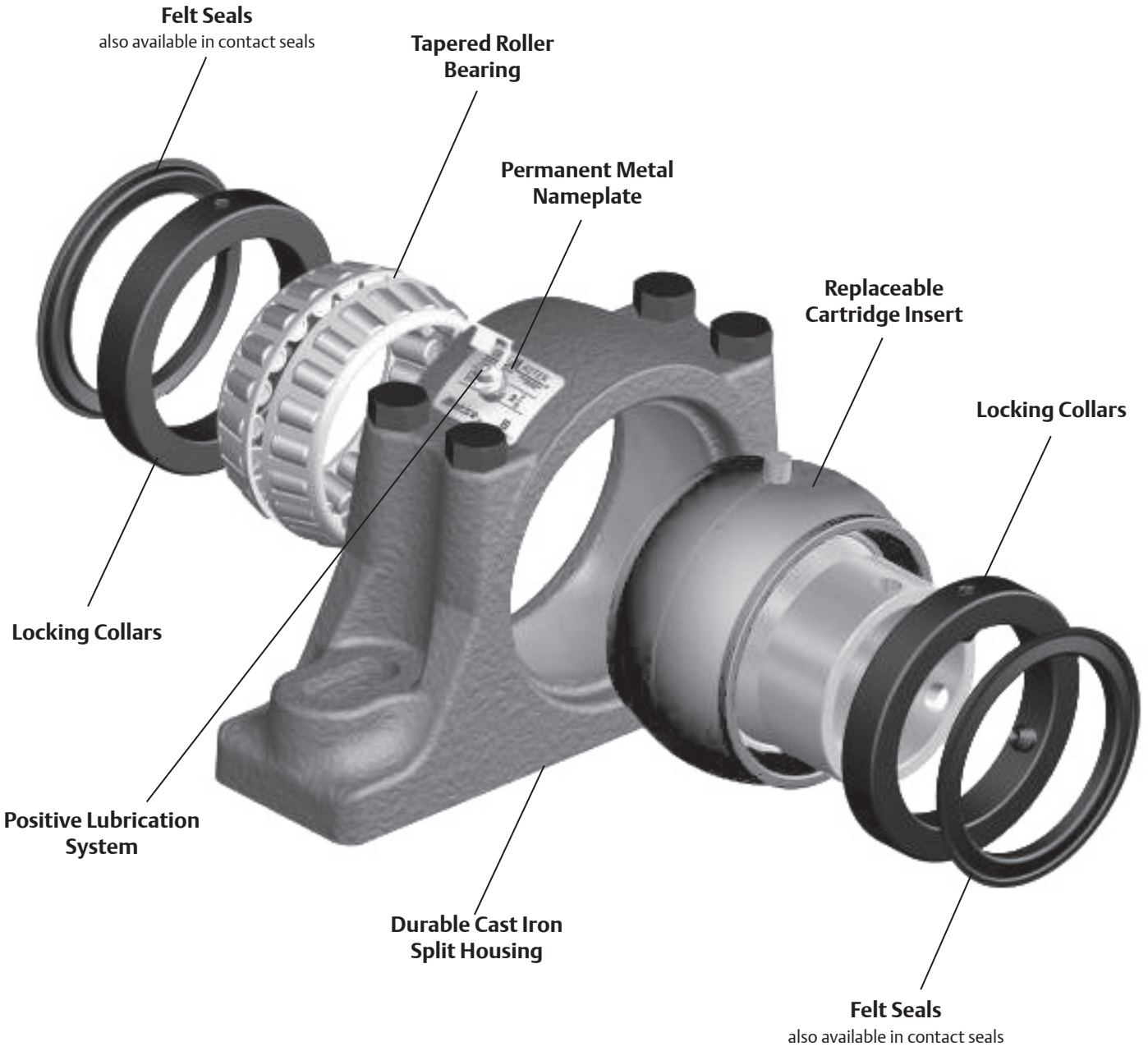
Mounted Tapered Roller Selection Guide

Brand	Image	Series	Housing Style
Sealmaster		RFB	Four Bolt Flange
		RFP	Piloted Flange Cartridge
		ERCI	Expansion Cartridge Insert
		RCI	Roller Cartridge Insert
Browning		PBE920	Two Bolt Pillow Block
		PBE920F	Four Bolt Pillow Block
		FBE920	Flange Block
		TUE920	Take Up
		T1000	Take Up Frame

Lock Type					Size Range		
Double Lock Collar	Single Lock Collar	Housing Material	Standard Seal	Seal Options	Inch	Metric	Page
RFB	RFBA	Cast Iron	Felt	Contact, Nomex	1 3/16" - 4"	35 mm - 105 mm	I-31 to I-32
RFP	RFPA	Cast Iron	Felt	Contact, Nomex	1 3/16" - 5"	35 mm - 125 mm	I-33 to I-34
ERCI	ERCIA	N/A	Felt	Contact, Nomex	1 3/4" - 5"	45 mm - 125 mm	I-35
RCI	RCIA	N/A	Felt	Contact, Nomex	1 3/16" - 5"	35 mm - 125 mm	I-37
PBE920	N/A	Cast Iron	Contact	N/A	1 3/16" - 3 1/2"	N/A	I-42
PBE920F	N/A	Cast Iron	Contact	N/A	2 1/4" - 5"	N/A	I-42
FBE920	N/A	Cast Iron	Contact	N/A	1 3/16" - 4"	N/A	I-43
TUE920	N/A	Cast Iron	Contact	N/A	1 3/8" - 4 7/16"	N/A	I-44
N/A	N/A	N/A	N/A	N/A	1 1/2" - 4 1/2"	N/A	I-45 to I-46

Sealmaster Tapered Roller Bearings

Sealmaster® RPB mounted tapered roller bearings are a dimensionally interchangeable upgrade from competitive Type E bearings. The exclusive features include unitized replaceable inserts, self aligning capability, split housing and the Sealmaster alignment pin which provides for a direct path for lubrication into the bearing and helps prevent outer ring rotation. The Sealmaster RPB is available with two traditional setscrew locking collars for easy installation. The felt seal with flinger provides a good balance between contaminant entry, grease retention and friction. Depending on application requirements, these bearings are available in both inch and metric with a wide variety of housing, sealing, and lubrication options as illustrated on the pages to follow.

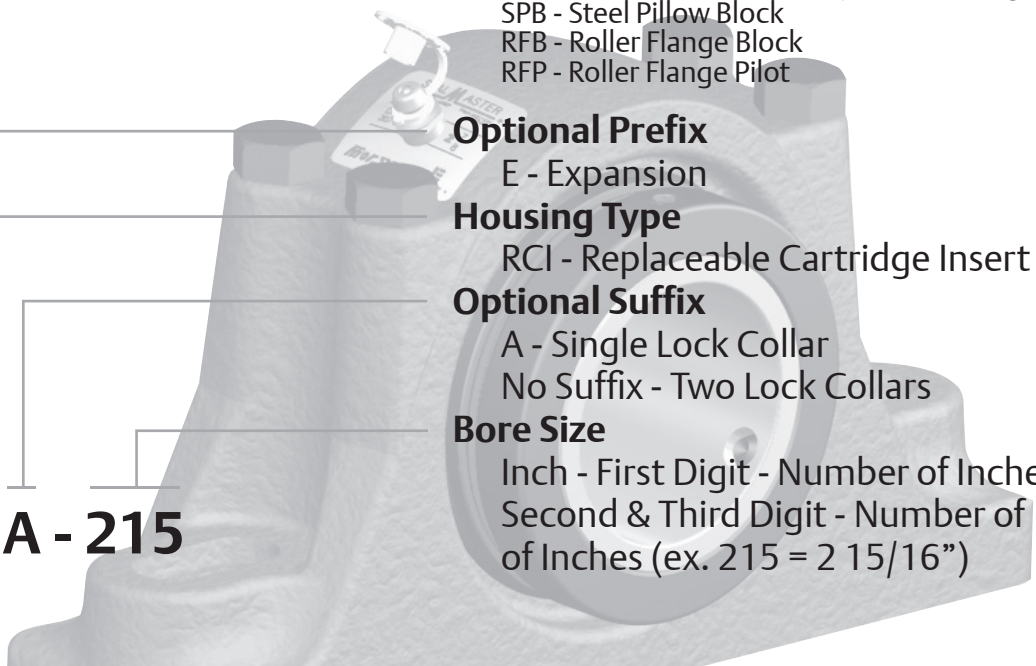


Tapered Roller Bearing Nomenclature

Optional Prefix
E - Expansion
Housing Type (*see below)
Optional Suffix
A - Single Lock Collar
No Suffix - Two Lock Collars
Bore Size
Inch - First Digit - Number of Inches
Second & Third Digit - Number of 1/16" of Inches (ex. 107 = 1 7/16")
Metric - 65 mm = 65 mm
Seal Option
C - Contact Seal
N - Nomex Seal
No Suffix - Felt Seal
Bolts
2 - Two Bolt Base
4 - Four Bolt Base
Options
CR - Corrosion Resistant (see page K-19)
AH - Air Handling
TF - Tight Fit
RC - Reduced Internal Clearance

ERPBA - 107 - C2CR

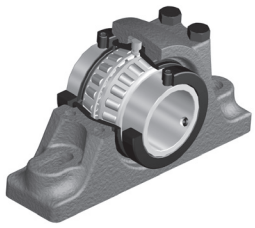
***Housing Type**
RPB - Roller Pillow Block
DRPB - Roller Pillow Block (DI)
RPBXT - Roller Pillow Block (SAF Mounting Dim.)
SPB - Steel Pillow Block
RFB - Roller Flange Block
RFP - Roller Flange Pilot



Optional Prefix
E - Expansion
Housing Type
RCI - Replaceable Cartridge Insert
Optional Suffix
A - Single Lock Collar
No Suffix - Two Lock Collars
Bore Size
Inch - First Digit - Number of Inches
Second & Third Digit - Number of 1/16" of Inches (ex. 215 = 2 15/16")

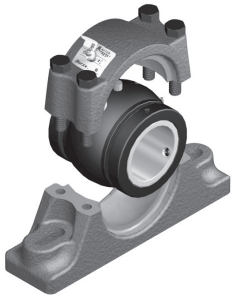
ERCI - A - 215

Features and Benefits



Tapered Roller Bearings

Sealmaster RPB series contains heavy duty tapered roller bearings for radial, thrust and combination loading.

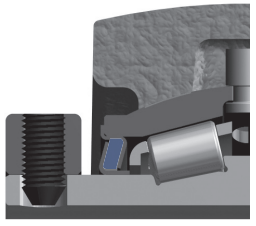


Durable Cast Iron Split Housing

Durable cast iron split housings allow for quick insert replacement when change-out is required. Once installed, the base remains fixed and aligned with the shaft, reducing downtime and maintenance costs. Guide pin in the housing base orientates the proper assembly of the cap during replacement. Pillow block housings have elongated bolt holes for interchangeability with other competitive units. Permanent metal nameplate allows for easy identification after years of operation. Multiple housing styles include 2 and 4 bolt pillow block (RPB), 4 bolt flange (RFB), Piloted flange (RFP). Inch and metric bore size from 1 3/16" – 5" bore and 35 to 125 mm.

Replaceable Cartridge Insert (RCI)

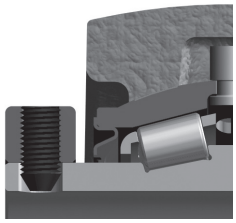
The heart of the RPB is the unitized, self-aligning cartridge insert with integral seals and double locking collars. The replaceable cartridge insert can accommodate +/- 3° static misalignment and is factory sealed and lubricated. The cartridges fit all housing styles and are field replaceable for quick change out. RCI outer races are black oxide treated.



Felt Seals

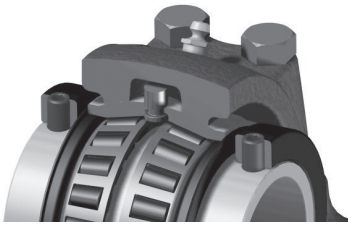
Patented race mounted felt lined flinger seals help filter out contaminants and are not subject to misalignment distortion. The felt acts as a filter to help exclude contaminants. The rotating flinger helps repel contaminant build-up on the seal surfaces. Felt seal stampings are black oxided.

Features and Benefits continued



Single Lip Contact Seal

Single lip race mounted contact seals for dry, dirty and wet conditions. It's composed of a steel inner seal with a bonded elastomeric sealing member. The steel inner seal is press fit into the inside diameter of the outer race, while the bonded elastomeric sealing member is held in the proper rubbing contact position on the outer diameter of the inner race. Contact seal stampings are black oxided.



Positive Lubrication System

Positive lubrication system provides direct grease path to the bearing. The unit is designed with two lubrication ports in the cartridge OD so that one of lube holes in cartridge lines up with grease fitting regardless of insert orientation in the housing. A rubber grommet in housing top recess directs lubricant into bearing cavity. Extra lubrication ports help prevent seal damage by venting excess pressure from over greasing. Sealmaster alignment pin helps prevent outer race rotation.

Collar Mount System

Two locking collars are standard on all units with two setscrews at 120° for balanced three point contact. Precision manufactured diamond faceted point setscrew design contributes to improved clamping and resistance to back out. Single locking collars are available where space limitations are present. Locking collars are black oxided.

Additional Configurations

Expansion Roller Bearing Pillow Blocks

Axial shaft expansion is compensated by a non-expansion (fixed) and expansion (float) arrangement. It is recommended to use both units on one shaft in high temperature applications to help account for linear shaft expansion.

ERCI Cylindrical Cartridge Inserts

Cylindrical cartridge insets (ERCI) are used in standard expansion ERPB housings or can be mounted into customer designed housings.

Additional Configurations continued

DRPB Series
Interchangeable with most type DI mounting dimensions

DRPBA Series
Interchangeable with most Type K mounting dimensions

RPBXT Series
Interchangeable with four bolt SAF mounting dimensions in shaft sizes from 2 1/4" - 5" (60mm - 125mm).

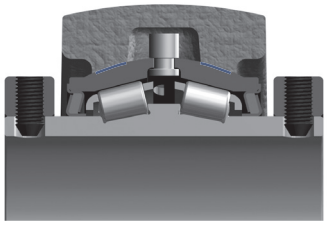
SPB Series
This series incorporates all features of the standard RPB with cast steel housings in two and four bolt pillow blocks in shaft sizes from 1 1/2" - 5" (40mm - 125mm).

Air Handling
RPB-AH Series designed for HVAC applications. It incorporates all features of the standard RPB with a custom AH fit between the bearing cartridge OD and the bearing housing, which provides lower misalignment torque.
Available in the RPB, RFB & RFP and DRPB Series

RPB-MM Series
Incorporates all the features of the standard RPB but with metric bore sizes from 35-125mm and metric setscrews

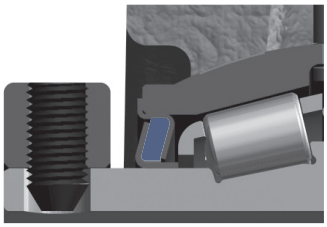
Options

- Custom housing configurations
- Custom lubricants, including synthetic and food grade greases and oil saturated polymers



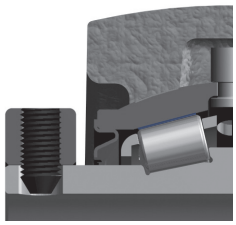
Tight Housing Fit “TF”

(TF suffix) for applications with vibration and rotating loads



High Temperature “N”

High temperature bearing with Nomex* seal and high temperature synthetic grease.



Reduced Bearing Internal Clearance “RC”

(RC suffix) for specific application requirements

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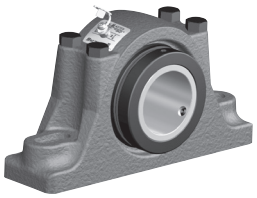
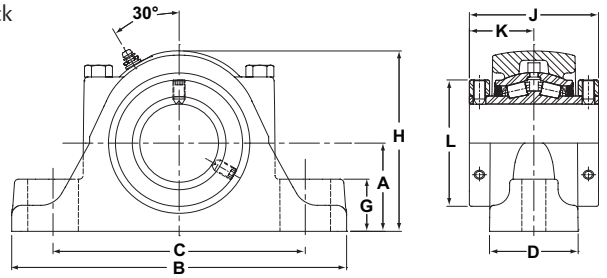


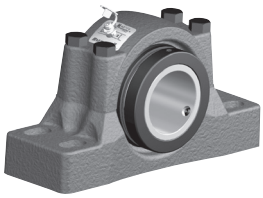
Rolling Elements: Tapered Roller
Housing: Cast Iron Two Bolt Pillow Block
Self Alignment: +/- 3 Degrees
Lock: Setscrew, Double Collar
Seal: Felt
Optional Seal: Single Lip Contact
Temperature: -20°F to 220°F



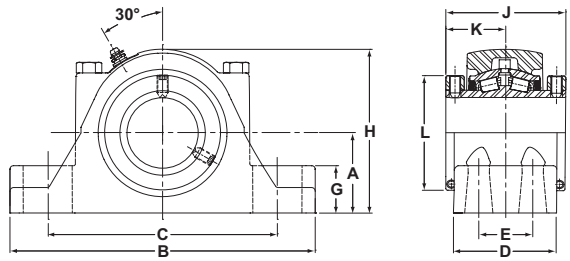
RPB Series Two-Bolt Base Pillow Blocks

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm										Unit Wt. lb/kg
					A	B	C		D	G	H	J	K	L	Bolt Size	
inch	mm						Min.	Max.								
1 3/16		RPB-103-2	RCI-103	2975	1 1/2	6 1/4	4 9/16	4 15/16	1 7/8	7/8	3 1/8	2 3/4	1 3/8	2 1/4	1/2	4.8
1 1/4		RPB-104-2	RCI-104	13233	38.1	158.8	115.9	125.4	47.6	22.2	79.4	69.9	34.9	57.2		2.18
1 3/8		RPB-106-2	RCI-106	4760	1 7/8	7 1/4	5 5/16	5 15/16	2 1/16	1 1/8	3 13/16	3	1 1/2	2 5/8	1/2	7.7
	35	RPB-35MM-2	RCI-35MM	21174	47.6	184.2	134.9	150.8	52.4	28.6	96.8	76.2	76.2	66.7		3.5
1 7/16		RPB-107-2	RCI-107													
1 1/2		RPB-108-2	RCI-108	6140	2 1/8	7 3/4	5 9/16	6 7/16	2 5/16	1 1/4	4 3/8	3 3/8	1 11/16	2 7/8	1/2	10.9
	40	RPB-40MM-2	RCI-40MM	27312	54.0	196.9	141.3	163.5	58.7	31.8	111.1	85.7	42.9	73.0		4.94
1 5/8		RPB-110-2	RCI-110													
1 11/16		RPB-111-2	RCI-111													
1 3/4		RPB-112-2	RCI-112	8070	2 1/4	8 7/8	6 5/16	7 3/16	2 7/16	1 1/4	4 5/8	3 1/2	1 3/4	3 1/4	5/8	13.2
	45	RPB-45MM-2	RCI-45MM	35897	57.2	225.4	160.3	182.6	61.9	31.8	117.5	88.9	44.5	82.6		5.99
1 15/16		RPB-115-2	RCI-115													
	50	RPB-50MM-2	RCI-50MM													
2		RPB-200-2	RCI-200													
	55	RPB-55MM-2	RCI-55MM	8570	2 1/2	9 5/8	6 11/16	7 15/16	2 9/16	1 7/16	5 1/8	3 3/4	1 7/8	3 5/8	5/8	15.7
2 3/16		RPB-203-2	RCI-203	38121	63.5	244.5	169.9	201.6	65.1	36.5	130.2	95.3	47.6	92.1		7.12
2 1/4		RPB-204-2	RCI-204	9030	2 3/4	10 3/8	6 15/16	8 11/16	2 3/4	1 5/8	5 5/8	4	2	3 15/16	5/8	20.7
	60	RPB-60MM-2	RCI-60MM	40167	69.9	263.5	176.2	220.7	69.9	41.3	142.9	101.6	50.8	100.0		9.39
2 7/16		RPB-207-2	RCI-207													
2 1/2		RPB208-2	RCI-208													
	65	RPB-65MM-2	RCI-65MM													
2 11/16		RPB-211-2	RCI-211	9630	3 1/8	11 3/4	8 1/16	9 11/16	3	1 3/4	6 3/8	4 1/2	2 1/4	4 23/32	3/4	29.3
2 3/4		RPB-212-2	RCI-212	42836	79.4	298.5	204.8	246.1	76.2	44.5	161.9	114.3	57.2	119.9		13.29
	70	RPB-70MM-2	RCI-70MM													
2 15/16		RPB-215-2	RCI-215													
	75	RPB-75MM-2	RCI-75MM													
3		RPB-300-2	RCI-300													
	80	RPB-80MM-2	RCI-80MM	15320	3 3/4	13 3/4	10 1/8	11 1/4	4 1/8	2	7 3/4	5	2 1/2	5 7/16	7/8	56.0
3 3/16		RPB-303-2	RCI-303	65147	95.3	349.3	257.2	285.8	104.8	52.4	196.9	127.0	63.5	138.1		25.40
3 1/4		RPB-304-2	RCI-304													
	85	RPB-85MM-2	RCI-85MM													
3 7/16		RPB-307-2	RCI-307													
3 1/2		RPB-308-2	RCI-308													
	90	RPB-90MM-2	RCI-90MM													
	95	RPB-95MM-2	RCI-95MM													

Metric dimensions for reference only.
Not all parts are available from stock. Please contact customer service for availability (800) 626-2120.
For more information on bearing capabilities outside of our standard offering, please contact Application Engineering (800) 626-2093.

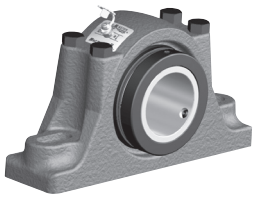


Rolling Elements: Tapered Roller
Housing: Cast Iron Four Bolt Pillow Block
Self Alignment: +/- 3 Degrees
Lock: Setscrew, Double Collar
Seal: Felt
Optional Seal: Single Lip Contact
Temperature: -20°F to 220°F

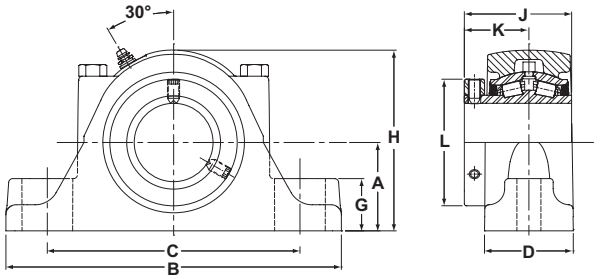


RPB Series Four-Bolt Base Pillow Blocks

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm												Unit Wt. lb/kg
					A	B	C		D	E	G	H	J	K	L	Bolt Size	
inch	mm						Min.	Max.									
2 1/4		RPB-204-4	RCI-204														
	60	RPB-60MM-4	RCI-60MM														
2 7/16		RPB-207-4	RCI-207	9030 40167	2 3/4 69.9	10 3/8 263.5	7 3/4 196.9	8 3/4 222.3	3 1/2 88.9	1 7/8 47.6	1 5/8 41.3	5 5/8 142.9	4 101.6	2 50.8	3 15/16 100.0	5/8	22.4 10.16
2 1/2		RPB-208-4	RCI-208														
	65	RPB-65MM-4	RCI-65MM														
2 11/16		RPB-211-4	RCI-211														
2 3/4		RPB-212-4	RCI-212														
	70	RPB-70MM-4	RCI-70MM	9630 42836	3 1/8 79.4	11 3/4 298.5	8 3/4 222.3	10 254.0	3 3/4 95.3	2 1/8 54.0	1 3/4 44.5	6 3/8 161.9	4 1/2 114.3	2 1/4 57.2	4 23/32 119.9	5/8	31.5 14.29
2 15/16		RPB-215-4	RCI-215														
	75	RPB-75MM-4	RCI-75MM														
3		RPB-300-4	RCI-300														
	80	RPB-80MM-4	RCI-80MM														
3 3/16		RPB-303-4	RCI-303														
3 1/4		RPB-304-4	RPB-304														
	85	RPB-85MM-4	RCI-85MM	15320 68147	3 3/4 95.3	13 3/4 349.3	10 9/16 268.3	11 1/2 292.1	4 1/2 114.3	2 3/8 60.3	2 1/16 52.4	7 3/4 196.9	5 127.0	2 1/2 63.5	5 7/16 138.1	3/4	59.6 27.03
3 7/16		RPB-307-4	RCI-307														
3 1/2		RPB-308-4	RCI-308														
	90	RPB-90MM-4	RCI-90MM														
	95	RPB-95MM-4	RCI-95MM														
3 15/16		RPB-315-4	RCI-315														
	100	RPB-100MM-4	RCI-100MM	20980 93324	4 1/4 108.0	15 1/4 387.4	11 279.4	13 330.2	4 1/2 114.3	2 1/4 57.2	2 7/16 61.9	8 5/8 219.1	6 1/4 158.8	3 1/8 79.4	5 15/16 150.8	3/4	76.9 34.88
4		RPB-400-4	RCI-400														
	105	RPB-105MM-4	RCI-105MM														
	110	RPB-110MM-4	RCI-110MM														
4 7/16		RPB-407-4	RCI-407	25750 114542	4 3/4 120.7	16 1/2 419.1	11 3/4 298.5	13 7/8 352.4	4 5/8 117.5	2 1/2 63.5	2 3/4 69.9	9 5/8 244.5	6 3/4 171.5	3 3/8 85.7	6 13/32 162.7	3/4	95.6 43.36
4 1/2		RPB-408-4	RCI-408														
	115	RPB-115MM-4	RCI-115MM														
	120	RPB-120MM-4	RCI-120MM														
	125	RPB-125MM-4	RCI-125MM	35520 158001	5 1/2 139.7	18 1/2 469.9	13 1/2 342.9	15 7/8 403.2	5 1/8 130.2	2 3/4 69.9	3 1/8 79.4	11 279.4	7 1/4 184.2	3 5/8 92.1	7 13/32 188.1	7/8	143.6 65.14
4 15/16		RPB-415-4	RCI-415														
5		RPB-500-4	RCI-500														



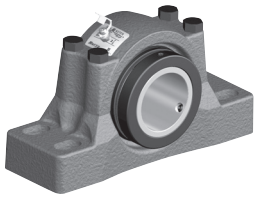
Rolling Elements: Tapered Roller
Housing: Cast Iron Two Bolt Pillow Block
Self Alignment: +/- 3 Degrees
Lock: Setscrew, Single Collar
Seal: Felt
Optional Seal: Single Lip Contact
Temperature: -20°F to 220°F



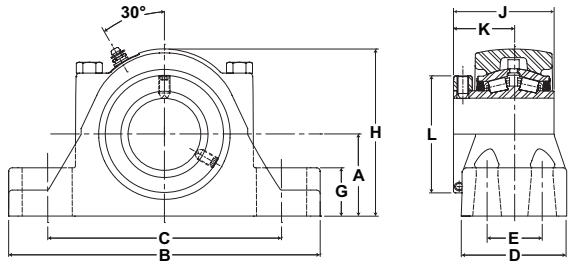
RPBA Series Two-Bolt Base Pillow Blocks - Single Lock Collar

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm											Unit Wt. lb/kg
					A	B	C		D	G	H	J	K	L	Bolt Size	
inch	mm						Min.	Max.								
1 3/16		RPBA-103-2	RCIA-103	2975	1 1/2	6 1/4	4 9/16	4 15/16	1 7/8	7/8	3 1/8	2 3/8	1 3/8	2 1/4	1/2	4.8
1 1/4		RPBA-104-2	RCIA-104	13233	38.1	158.8	115.9	125.4	47.6	22.2	79.4	60.3	34.9	57.2		2.18
1 3/8		RPBA-106-2	RCIA-106	4760	1 7/8	7 1/4	5 5/16	5 15/16	2 1/16	1 1/8	3 13/16	2 17/32	1 1/2	2 5/8	1/2	7.7
	35	RPBA-35MM-2	RCI-35MM	21174	47.6	184.2	134.9	150.8	52.4	28.6	96.8	64.3	38.1	66.7		3.49
1 7/16		RPBA-107-2	RCIA-107													
1 1/2		RPBA-108-2	RCIA-108	6140	2 1/8	7 3/4	5 9/16	6 7/16	2 5/16	1 1/4	4 3/8	2 27/32	1 11/16	2 7/8	1/2	10.9
	40	RPBA-40MM-2	RCI-40MM	27312	54.0	196.9	141.3	163.5	58.7	31.8	111.1	72.2	42.9	73.0		4.94
1 5/8		RPBA-110-2	RCIA-110													
1 11/16		RPBA-111-2	RCIA-111													
1 3/4		RPBA-112-2	RCIA-112	8070	2 1/4	8 7/8	6 5/16	7 3/16	2 7/16	1 1/4	4 5/8	2 61/64	1 3/4	3 1/4	5/8	13.2
	45	RPBA-45MM-2	RCI-45MM	35897	57.2	225.4	160.3	182.6	61.9	31.8	117.5	75.0	44.5	82.6		5.99
1 15/16		RPBA-115-2	RCIA-115													
	50	RPBA-50MM-2	RCI-50MM													
2		RPBA-200-2	RCIA-200													
	55	RPBA-55MM-2	RCI-55MM	8570	2 1/2	9 5/8	6 11/16	7 15/16	2 9/16	1 7/16	5 1/8	3 1/8	1 7/8	3 5/8	5/8	15.7
2 3/16		RPBA-203-2	RCIA-203	38121	63.5	244.5	169.9	201.6	65.1	36.5	130.2	79.4	47.6	92.1		7.12
2 1/4		RPBA-204-2	RCIA-204	9030	2 3/4	10 3/8	6 15/16	8 11/16	2 3/4	1 5/8	5 5/8	3 5/16	2	3 15/16	5/8	20.7
	60	RPBA-60MM-2	RCI-60MM	40167	69.9	263.5	176.2	220.7	69.9	41.3	142.9	84.1	50.8	100.0		9.39
2 7/16		RPBA-207-2	RCIA-207													
2 1/2		RPBA-208-2	RCIA-208													
	65	RPBA-65MM-2	RCI-65MM													
2 11/16		RPBA-211-2	RCIA-211	9630	3 1/8	11 3/4	8 1/16	9 11/16	3	1 3/4	6 3/8	3 11/16	2 1/4	4 23/32	3/4	29.3
2 3/4		RPBA-212-2	RCIA-212	42836	79.4	298.5	204.8	246.1	76.2	44.5	161.9	93.7	57.2	119.9		13.29
	70	RPBA-70MM-2	RCI-70MM													
2 15/16		RPBA-215-2	RCIA-215													
	75	RPBA-75MM-2	RCI-75MM													
3		RPBA-300-2	RCIA-300													
	80	RPBA-80MM-2	RCI-80MM	15320	3 3/4	13 3/4	10 1/8	11 1/4	4 1/8	2	7 3/4	4 3/16	2 1/2	5 7/16	7/8	56
3 3/16		RPBA-303-2	RCIA-303	68147	95.3	349.3	257.2	285.8	104.8	50.8	196.9	106.4	63.5	138.1		25.40
3 1/4		RPBA-304-2	RCIA-304													
	85	RPBA-85MM-2	RCI-85MM													
3 7/16		RPBA-307-2	RCIA-307													
3 1/2		RPBA-308-2	RCIA-308													
	90	RPBA-90MM-2	RCI-90MM													
	95	RPBA-95MM-2	RCI-95MM													

Metric dimensions for reference only.
Not all parts are available from stock. Please contact customer service for availability (800) 626-2120.
For more information on bearing capabilities outside of our standard offering, please contact Application Engineering (800) 626-2093.

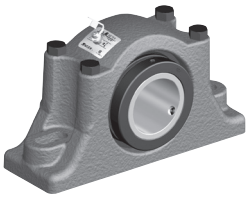


Rolling Elements: Tapered Roller
Housing: Cast Iron Four Bolt Pillow Block
Self Alignment: +/- 3 Degrees
Lock: Setscrew, Single Collar
Seal: Felt
Optional Seal: Single Lip Contact
Temperature: -20°F to 220°F

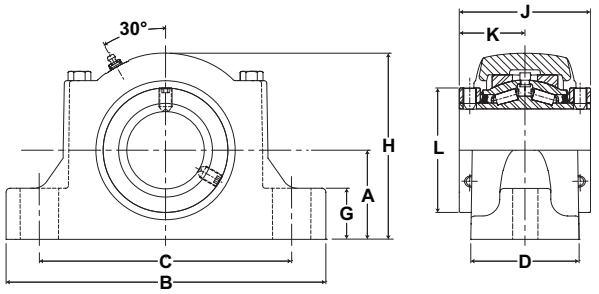


RPBA Series Four-Bolt Base Pillow Blocks

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm												Unit Wt. lb/kg
					A	B	C		D	E	G	H	J	K	L	Bolt Size	
inch	mm						Min.	Max.									
2 1/4		RPBA-204-4	RCIA-204														
	60	RPBA-60MM-4	RCI-60MM														
2 7/16		RPBA-207-4	RCIA-207	9030 40167	2 3/4 69.9	10 3/8 263.5	7 3/4 196.9	8 3/4 222.3	3 1/2 88.9	1 7/8 47.6	1 5/8 41.3	5 5/8 142.9	3 5/16 84.1	2 50.8	3 15/16 100.0	5/8	22.4 10.16
2 1/2		RPBA-208-4	RCIA-208														
	65	RPBA-65MM-4	RCI-65MM														
2 11/16		RPBA-211-4	RCIA-211														
2 3/4		RPBA-212-4	RCIA-212														
	70	RPBA-70MM-4	RCI-70MM	9630 42836	3 1/8 79.4	11 3/4 298.5	8 3/4 222.3	10 254.0	3 3/4 95.3	2 1/8 54.0	1 3/4 44.5	6 3/8 161.9	3 11/16 93.7	2 1/2 63.5	4 23/32 119.9	5/8	31.5 14.29
2 15/16		RPBA-215-4	RCIA-215														
	75	RPBA-75MM-4	RCI-75MM														
3		RPBA-300-4	RCIA-300														
	80	RPBA-80MM-4	RCI-80MM														
3 3/16		RPBA-303-4	RCIA-303														
3 1/4		RPBA-304-4	RCIA-304														
	85	RPBA-85MM-4	RCI-85MM	15320 68147	3 3/4 95.3	13 3/4 349.3	10 9/16 268.3	11 1/2 292.1	4 1/2 114.3	2 3/8 60.3	2 1/16 52.4	7 3/4 196.9	4 3/16 106.4	2 1/2 63.5	5 7/16 138.1	3/4	59.8 27.12
3 7/16		RPBA-307-4	RCIA-307														
3 1/2		RPBA-308-4	RCIA-308														
	90	RPBA-90MM-4	RCI-90MM														
	95	RPBA-95MM-4	RCI-95MM														
3 15/16		RPBA-315-4	RCIA-315														
	100	RPBA-100MM-4	RCI-100MM	20980 93324	4 1/4 108.0	15 1/4 387.4	11 279.4	13 330.2	4 1/2 114.3	2 1/4 57.2	2 7/16 61.9	8 5/8 219.1	5 1/4 133.4	3 1/8 79.4	5 15/16 150.8	3/4	76.9 34.88
4		RPBA-400-4	RCIA-400														
	105	RPBA-105MM-4	RCI-105MM														
	110	RPBA-110MM-4	RCI-110MM														
4 7/16		RPBA-407-4	RCIA-407	25750 114542	4 3/4 120.7	16 1/2 419.1	11 3/4 298.5	13 7/8 352.4	4 5/8 117.5	2 1/2 63.5	2 7/8 73.0	9 5/8 244.5	5 1/2 139.7	3 3/8 85.7	6 13/32 162.7	3/4	95.6 43.36
4 1/2		RPBA-408-4	RCIA-408														
	115	RPBA-115MM-4	RCI-115MM														
	120	RPBA-120MM-4	RCI-120MM														
	125	RPBA-125MM-4	RCI-125MM	35520 158001	5 1/2 139.7	18 1/2 469.9	13 1/2 342.9	15 7/8 403.2	5 1/8 130.2	2 3/4 69.9	3 1/8 79.4	11 279.4	6 13/64 157.6	3 5/8 92.1	7 13/32 188.1	7/8	143.6 65.14
4 15/16		RPBA-415-4	RCIA-415														
5		RPBA-500-4	RCIA-500														



Rolling Elements: Tapered Roller
Housing: Cast Iron Two Bolt Pillow Block
Self Alignment: +/- 3 Degrees
Lock: Setscrew, Double Collar
Seal: Felt
Optional Seal: Single Lip Contact
Temperature: -20°F to 220°F



ERPB Expansion Series Two-Bolt Base Pillow Blocks

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm												Unit Wt.
					A	B	C		D	G	H	J	K	L	Bolt Size	Total Expansion	
inch	mm						Min.	Max.									lb/kg
1 3/4		ERPB-112-2	ERCI-112														
	45	ERPB-45MM-2	ERCI-45MM														
1 15/16		ERPB-115-2	ERCI-115	8070	2 1/4	8 7/8	6 5/16	7 3/16	2 57/64	1 1/4	4 7/8	3 1/2	1 3/4	3 1/4	5/8	3/16	14.9
	50	ERPB-50MM-2	ERCI-50MM	35897	57.2	225.4	160.3	182.6	73.4	31.8	123.8	88.9	44.5	82.6		4.8	6.76
2		ERPB-200-2	ERCI-200														
	55	ERPB-55MM-2	ERCI-55MM	8570	2 1/2	9 5/8	6 11/16	7 15/16	3 1/32	1 7/16	5 5/16	3 3/4	1 7/8	3 5/8	5/8	3/16	17.8
2 3/16		ERPB-203-2	ERCI-203	38121	63.5	244.5	169.9	201.6	77.0	36.5	134.9	95.3	47.6	92.1		4.8	8.07
2 1/4		ERPB-204-2	ERCI-204														
	60	ERPB-60MM-2	ERCI-60MM														
2 7/16		ERPB-207-2	ERCI-207	9030	2 3/4	10 3/8	6 15/16	8 11/16	3 13/32	1 5/8	5 3/4	4	2	3 15/16	5/8	1/4	23.0
2 1/2		ERPB-208-2	ERCI-208	40167	69.9	263.5	176.2	220.7	86.5	41.3	146.1	101.6	50.8	100.0		6.4	10.43
	65	ERPB-65MM-2	ERCI-65MM														
2 11/16		ERPB-211-2	ERCI-211														
2 3/4		ERPB-212-2	ERCI-212														
	70	ERPB-70MM-2	ERCI-70MM	9630	3 1/8	11 3/4	8 1/16	9 11/16	3 31/64	1 3/4	6 9/16	4 33/64	2 1/4	4 23/32	3/4	5/16	32.0
2 15/16		ERPB-215-2	ERCI-215	42836	79.4	298.5	204.8	246.1	88.5	44.5	166.7	114.7	57.3	119.9		7.9	14.51
	75	ERPB-75MM-2	ERCI-75MM														
3		ERPB-300-2	ERCI-300														
	80	ERPB-80MM-2	ERCI-80MM														
3 3/16		ERPB-303-2	ERCI-303														
3 1/4		ERPB-304-2	ERCI-304														
	85	ERPB-85MM-2	ERCI-85MM	15320	3 3/4	13 3/4	10 1/8	11 1/4	4 33/64	2 1/16	7 15/16	5	2 1/2	5 7/16	7/8	5/16	64.0
3 7/16		ERPB-307-2	ERCI-307	68147	95.3	349.3	257.2	285.8	114.7	52.4	201.6	127.0	63.5	138.1		7.9	29.03
3 1/2		ERPB-308-2	ERCI-308														
	90	ERPB-90MM-2	ERCI-90MM														
	95	ERPB-95MM-2	ERCI-95MM														

Metric dimensions for reference only.
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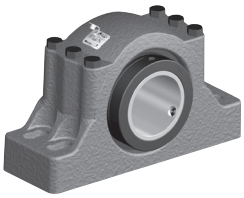
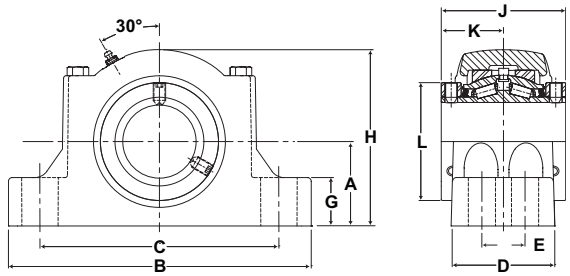
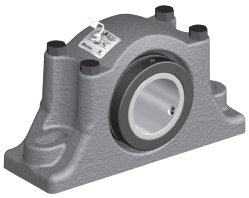


Rolling Elements: Tapered Roller
Housing: Cast Iron Four Bolt Pillow Block
Self Alignment: +/- 3 Degrees
Lock: Setscrew, Double Collar
Seal: Felt
Optional Seal: Single Lip Contact
Temperature: -20°F to 220°F



ERPB Expansion Series Four-Bolt Base Pillow Blocks

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm													Unit Wt. lb/kg
					A	B	C		D	E	G	H	J	K	L	Bolt Size	Total Expansion	
inch	mm						Min.	Max.										
3 15/16		ERPB-315-4	ERCI-315															
	100	ERPB-100MM-4	ERCI-100MM	20980	4 1/4	15 1/4	11	13	5 5/32	2 1/4	2 7/16	8 7/8	6 1/4	3 1/8	5 15/16	3/4	3/8	90.0
4		ERPB-400-4	ERCI-400	93324	108.0	387.4	279.4	330.2	131.0	57.2	61.9	225.4	158.8	79.4	150.8		9.5	40.82
	105	ERPB-105MM-4	ERCI-105MM															
	110	ERPB-110MM-4	ERCI-110MM															
4 7/16		ERPB-407-4	ERCI-407	25750	4 3/4	16 1/2	11 3/4	13 7/8	5 3/8	2 1/2	2 3/4	9 7/8	6 3/4	3 3/8	6 13/32	3/4	3/8	110.6
4 1/2		ERPB-408-4	ERCI-408	114542	120.7	419.1	298.5	352.4	136.5	63.5	69.9	250.8	171.5	85.7	162.7		9.5	50.2
	115	ERPB-115MM-4	ERCI-115MM															
	120	ERPB-120MM-4	ERCI-120MM															
	125	ERPB-125MM-4	ERCI-125MM	35520	5 1/2	18 1/2	13 1/2	15 7/8	6 5/64	2 3/4	3 1/8	11 5/16	7 1/4	3 5/8	7 13/32	7/8	3/8	161.0
4 15/16		ERPB-415-4	ERCI-415	158001	139.7	469.9	342.9	403.2	154.4	69.9	79.4	287.3	184.2	92.1	188.1		9.5	73.03
5		ERPB-500-4	ERCI-500															



Rolling Elements: Tapered Roller

Housing: Cast Iron Two Bolt Pillow Block

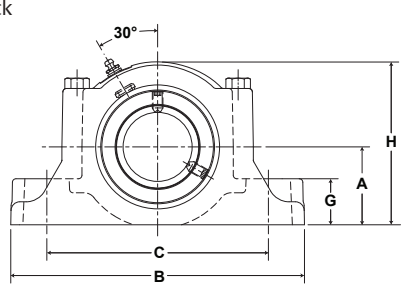
Self Alignment: +/- 3 Degrees

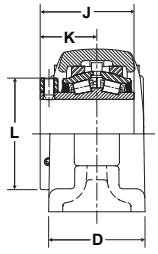
Lock: Setscrew, Single Collar

Seal: Felt

Optional Seal: Single Lip Contact

Temperature: -20°F to 220°F





ERPBA Expansion Series Two-Bolt Base Pillow Blocks

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm											Unit Wt. lb/kg
					A	B	C		D	G	H	J	K	L	Bolt Size	Total Expansion	
inch	mm						Min.	Max.									
1 3/4		ERPBA-112-2	ERCIA-112														
	45	ERPBA-45MM-2	ERCI-45MM														
1 15/16		ERPBA-115-2	ERCIA-115	8070 35897	2 1/4 57.2	8 7/8 225.4	6 5/16 160.3	7 3/16 182.6	2 57/64 73.4	1 1/4 31.8	4 7/8 123.8	2 61/64 75.0	1 13/64 30.6	3 1/4 82.6	5/8	3/16 4.8	14.9 6.76
	50	ERPBA-50MM-2	ERCI-50MM														
2		ERPBA-200-2	ERCIA-200														
	55	ERPBA-55MM-2	ERCI-55MM	8570	2 1/2	9 5/8	6 11/16	7 15/16	3 1/32	1 7/16	5 5/16	3 1/8	1 1/4	3 5/8	5/8	3/16	17.8
2 3/16		ERPBA-203-2	ERCIA-203	38121	63.5	244.5	169.9	201.6	77.0	36.5	134.9	79.4	31.8	92.1		4.8	8.07
2 1/4		ERPBA-204-2	ERCIA-204														
	60	ERPBA-60MM-2	ERCI-60MM														
2 7/16		ERPBA-207-2	ERCIA-207	9030 40167	2 3/4 69.9	10 3/8 263.5	6 15/16 176.2	8 11/16 220.7	3 13/32 86.5	1 5/8 41.3	5 3/4 146.1	3 5/16 84.1	1 5/16 33.3	3 15/16 100.0	5/8	1/4 6.4	23.0 10.43
2 1/2		ERPBA-208-2	ERCIA-208														
	65	ERPBA-65MM-2	ERCI-65MM														
2 11/16		ERPBA-211-2	ERCIA-211														
2 3/4		ERPBA-212-2	ERCIA-212														
	70	ERPBA-70MM-2	ERCI-70MM	9630 42836	3 1/8 79.4	11 3/4 298.5	8 1/16 204.8	9 11/16 246.1	3 31/64 88.5	1 3/4 44.5	6 9/16 166.7	3 11/16 93.7	1 7/16 36.5	4 23/32 119.9	3/4	5/16 7.9	32.0 14.51
2 15/16		ERPBA-215-2	ERCIA-215														
	75	ERPBA-75MM-2	ERCI-75MM														
3		ERPBA-300-2	ERCIA-300														
	80	ERPBA-80MM-2	ERCI-80MM														
3 3/16		ERPBA-303-2	ERCIA-303														
3 1/4		ERPBA-304-2	ERCIA-304														
	85	ERPBA-85MM-2	ERCI-85MM	15320 68147	3 3/4 95.3	13 3/4 349.3	10 1/8 257.2	11 1/4 285.8	4 33/64 114.7	2 1/16 52.4	7 15/16 201.6	4 3/16 106.4	1 57/64 48.0	5 7/16 138.1	7/8	5/16 7.9	64.0 29.03
3 7/16		ERPBA-307-2	ERCIA-307														
3 1/2		ERPBA-308-2	ERCIA-308														
	90	ERPBA-90MM-2	ERCI-90MM														
	95	ERPBA-95MM-2	ERCI-95MM														

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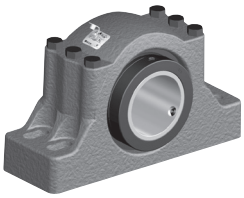
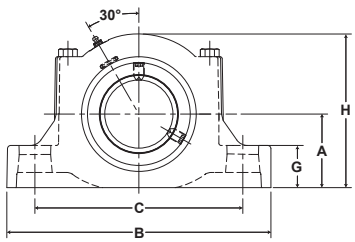
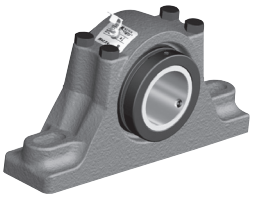


Rolling Elements: Tapered Roller
Housing: Cast Iron Four Bolt Pillow Block
Self Alignment: +/- 3 Degrees
Lock: Setscrew, Single Collar
Seal: Felt
Optional Seal: Single Lip Contact
Temperature: -20°F to 220°F

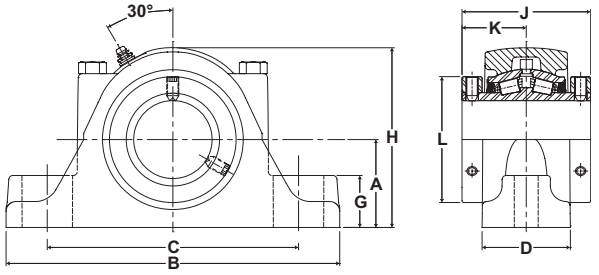


ERPBA Expansion Series Four-Bolt Base Pillow Blocks

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm													Unit Wt. lb/kg
					A	B	C		D	E	G	H	J	K	L	Bolt Size	Total Expansion	
inch	mm						Min.	Max.										
3 15/16		ERPBA-315-4	ERCIA-315															
	100	ERPBA-100MM-4	ERCI-100MM	20980	4 1/4	15 1/4	11	13	5 5/32	2 1/4	2 7/16	8 7/8	5 1/4	2 1/8	5 15/16	3/4	3/8	90.0
4		ERPBA-400-4	ERCIA-400	93324	108.0	387.4	279.4	330.2	131.0	57.2	61.9	225.4	133.4	54.0	150.8		9.5	40.82
	105	ERPBA-105MM-4	ERCI-105MM															
	110	ERPBA-110MM-4	ERCI-110MM															
4 7/16		ERPBA-407-4	ERCIA-407	25750	4 3/4	16 1/2	11 3/4	13 7/8	5 3/8	2 1/2	2 3/4	9 7/8	5 1/2	3 3/8	6 13/32	3/4	3/8	110.6
4 1/2		ERPBA-408-4	ERCIA-408	114542	120.7	419.1	298.5	352.4	136.5	63.5	69.9	250.8	139.7	85.7	162.7		9.5	50.2
	115	ERPBA-115MM-4	ERCI-115MM															
	120	ERPBA-120MM-4	ERCI-120MM															
	125	ERPBA-125MM-4	ERCI-125MM	35520	5 1/2	18 1/2	13 1/2	15 7/8	6 5/64	2 3/4	3 1/8	11 5/16	6 13/64	2 37/64	7 13/32	7/8	3/8	161.0
4 15/16		ERPBA-415-4	ERCIA-415	158001	139.7	469.9	342.9	403.2	154.4	69.9	79.4	287.3	157.6	90.9	188.1		9.5	73.03
5		ERPBA-500-4	ERCIA-500															



Rolling Elements: Tapered Roller
Housing: Cast Iron Two Bolt Pillow Block
Self Alignment: +/- 3 Degrees
Lock: Setscrew, Double Collar
Seal: Felt
Optional Seal: Single Lip Contact
Temperature: -20°F to 220°F



DRPB Series Two-Bolt Base Pillow Blocks

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm										Unit Wt. lb/kg
					A	B	C		D	G	H	J	K	L	Bolt Size	
inch	mm						Min.	Max.								
1 3/4		DRPB-112-2	RCI-112													
	45	DRPB-45MM-2	RCI-45MM													
1 15/16		DRPB-115-2	RCI-115	8070 35897	2 7/8 73.0	10 254.0	6 3/4 171.5	8 1/2 215.9	2 9/16 65.1	1 1/2 38.1	5 1/4 133.4	3 1/2 88.9	1 3/4 44.5	3 1/4 82.6	5/8	17.5 7.94
	50	DRPB-50MM-2	RCI-50MM													
2		DRPB-200-2	RCI-200													
	55	DRPB-55MM-2	RCI-55MM	8570 38121	3 76.2	11 279.4	7 3/4 196.9	9 1/4 235.0	2 9/16 65.1	1 9/16 39.7	5 5/8 142.9	3 3/4 95.3	1 7/8 47.6	3 5/8 92.1	5/8	19.7 8.94
2 3/16		DRPB-203-2	RCI-203													
2 1/4		DRPB-204-2	RCI-204													
	60	DRPB-60MM-2	RCI-60MM													
2 7/16		DRPB-207-2	RCI-207	9030 40167	3 1/4 82.6	12 304.8	8 1/2 215.9	10 3/8 263.5	2 7/8 73.0	1 3/4 44.5	6 1/8 155.6	4 101.6	2 50.8	3 15/16 100.0	5/8	25.5 11.57
2 1/2		DRPB-208-2	RCI-208													
	65	DRPB-65MM-2	RCI-65MM													
2 11/16		DRPB-211-2	RCI-211													
2 3/4		DRPB-212-2	RCI-212													
	70	DRPB-70MM-2	RCI-70MM	9630 42836	3 3/4 95.3	13 1/2 342.9	9 5/16 236.5	11 9/16 293.7	3 1/8 79.4	2 50.8	7 177.8	4 1/2 114.3	2 1/4 57.2	4 23/32 119.9	3/4	35.2 15.97
2 15/16		DRPB-215-2	RCI-215													
	75	DRPB-75MM-2	RCI-75MM													
3		DRPB-300-2	RCI-300													
	80	DRPB-80MM-2	RCI-80MM													
3 3/16		DRPB-303-2	RCI-303													
3 1/4		DRPB-304-2	RCI-304													
	85	DRPB-85MM-2	RCI-85MM	15320 68147	4 1/2 114.3	16 406.4	10 7/8 276.2	13 7/8 352.4	4 3/8 111.1	2 1/4 57.2	8 1/2 215.9	5 127.0	2 1/2 63.5	5 7/16 138.1	7/8	67.8 30.75
3 7/16		DRPB-307-2	RCI-307													
3 1/2		DRPB-308-2	RCI-308													
	90	DRPB-90MM-2	RCI-90MM													
	95	DRPB-95MM-2	RCI-95MM													

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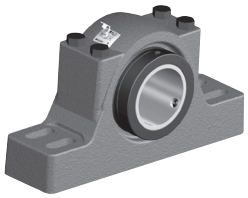
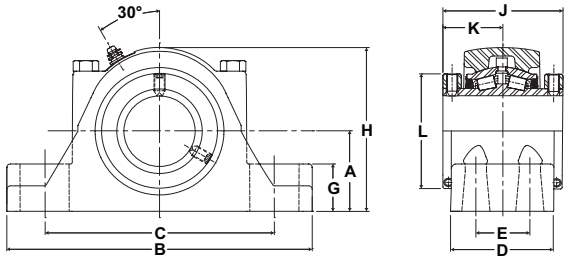
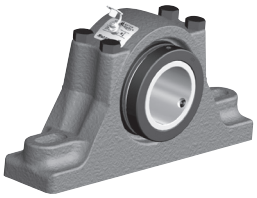


Rolling Elements: Tapered Roller
Housing: Cast Iron Four Bolt Pillow Block
Self Alignment: +/- 3 Degrees
Lock: Setscrew, Double Collar
Seal: Felt
Optional Seal: Single Lip Contact
Temperature: -20°F to 220°F

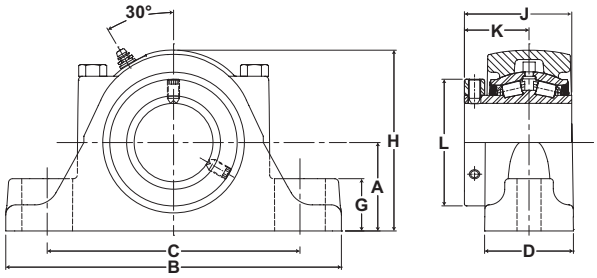


DRPB Series Four-Bolt Base Pillow Blocks

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm												Unit Wt. lb/kg
inch	mm				A	B	C Min.	C Max.	D	E	G	H	J	K	L	Bolt Size	
3 15/16		DRPB-315-4	RCI-315														
	100	DRPB-100MM-4	RCI-100MM	20980	5	17 1/2	12	15	4 43/64	2	2 3/4	9 3/8	6 1/4	3 1/8	5 15/16	3/4	93.0
4		DRPB-400-4	RCI-400	93324	127.0	444.5	304.8	381.0	118.7	50.8	69.9	238.1	158.8	79.4	150.8		42.18
	105	DRPB-105MM-4	RCI-105MM														



Rolling Elements: Tapered Roller
Housing: Cast Iron Two Bolt Pillow Block
Self Alignment: +/- 3 Degrees
Lock: Setscrew, Single Collar
Seal: Felt
Optional Seal: Single Lip Contact
Temperature: -20°F to 220°F



DRPBA Series Two-Bolt Base Pillow Blocks - Single Lock Collar

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm											Unit Wt. lb/kg
					A	B	C		D	G	H	J	K	L	Bolt Size	
inch	mm						Min.	Max.								
1 3/4		DRPBA-112-2	RCIA-112													
	45	DRPBA-45MM-2	RCI-45MM													
1 15/16		DRPBA-115-2	RCIA-115	8070 35897	2 7/8 73.0	10 254.0	6 3/4 171.5	8 1/2 215.9	2 9/16 65.1	1 1/2 38.1	5 1/4 133.4	2 61/64 75.0	1 3/4 44.5	3 1/4 82.6	5/8	17.5 7.94
	50	DRPBA-50MM-2	RCI-50MM													
2		DRPBA-200-2	RCIA-200													
	55	DRPBA-55MM-2	RCI-55MM	8570	3	11	7 3/4	9 1/4	2 9/16	1 9/16	5 5/8	3 1/8	1 7/8	3 5/8	5/8	19.7
2 3/16		DRPBA-203-2	RCIA-203	38121	76.2	279.4	196.9	235.0	65.1	39.7	142.9	79.4	47.6	92.1		8.94
2 1/4		DRPBA-204-2	RCIA-204													
	60	DRPBA-60MM-2	RCI-60MM													
2 7/16		DRPBA-207-2	RCIA-207	9030 40167	3 1/4 82.6	12 304.8	8 1/2 215.9	10 3/8 263.5	2 7/8 73.0	1 3/4 44.5	6 1/8 155.6	3 5/16 84.1	2 50.8	3 15/16 100.0	5/8	25.5 11.57
2 1/2		DRPBA-208-2	RCIA-208													
	65	DRPBA-65MM-2	RCI-65MM													
2 11/16		DRPBA-211-2	RCIA-211													
2 3/4		DRPBA-212-2	RCIA-212													
	70	DRPBA-70MM-2	RCI-70MM	9630 42836	3 3/4 95.3	13 1/2 342.9	9 5/16 236.5	11 9/16 293.7	3 1/8 79.4	2 50.8	7 177.8	3 11/16 93.7	2 1/4 57.2	4 23/32 119.9	3/4	35.2 15.97
2 15/16		DRPBA-215-2	RCIA-215													
	75	DRPBA-75MM-2	RCI-75MM													
3		DRPBA-300-2	RCIA-300													
	80	DRPBA-80MM-2	RCI-80MM													
3 3/16		DRPBA-303-2	RCIA-303													
3 1/4		DRPBA-304-2	RCIA-304													
	85	DRPBA-85MM-2	RCI-85MM	15320 68147	4 1/2 114.3	16 406.4	10 7/8 276.2	13 7/8 352.4	4 3/8 111.1	2 1/4 57.2	8 1/2 215.9	4 3/16 106.4	2 1/2 63.5	5 7/16 138.1	7/8	67.8 30.75
3 7/16		DRPBA-307-2	RCIA-307													
3 1/2		DRPBA-308-2	RCIA-308													
	90	DRPBA-90MM-2	RCI-90MM													
	95	DRPBA-95MM-2	RCI-95MM													

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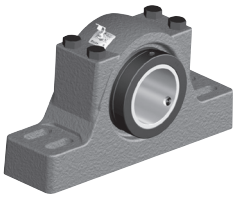


Rolling Elements: Tapered Roller

Housing: Cast Iron Four Bolt Pillow Block

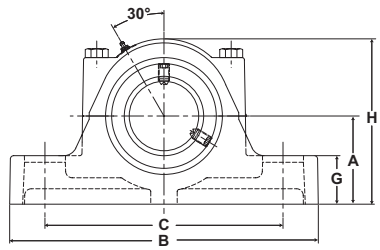
Self Alignment: +/- 3 Degrees

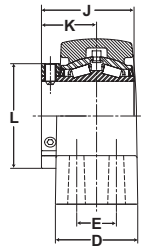
Lock: Setscrew, Single Collar

Seal: Felt

Optional Seal: Single Lip Contact

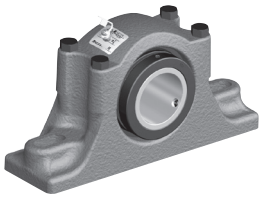
Temperature: -20°F to 220°F



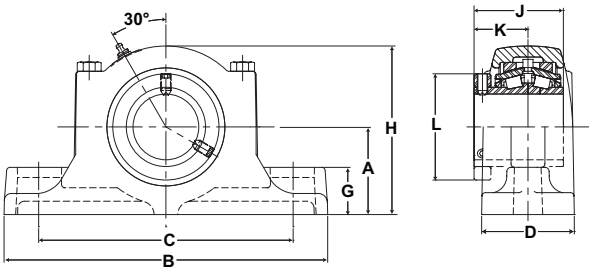


DRPBA Series Four-Bolt Base Pillow Blocks - Single Lock Collar

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm											Unit Wt. lb/kg
					A	B	C		D	E	G	H	J	K	L	Bolt Size	
inch	mm						Min.	Max.									
3 15/16		DRPBA-315-4	RCIA-315														
	100	DRPBA-100MM-4	RCI-100MM	20980	5	17 1/2	12	15	4 43/64	2	2 3/4	9 3/8	5 1/4	3 1/8	5 15/16	3/4	93.0
4		DRPBA-400-4	RCIA-400	93324	127.0	444.5	304.8	381.0	118.7	50.8	69.9	238.1	133.4	79.4	150.8		42.2
	105	DRPBA-105MM-4	RCI-105MM														



Rolling Elements: Tapered Roller
Housing: Cast Iron Two Bolt Pillow Block
Self Alignment: +/- 3 Degrees
Lock: Setscrew, Single Collar
Seal: Felt
Optional Seal: Single Lip Contact
Temperature: -20°F to 220°F



EDPBA Expansion Series Two-Bolt Base Pillow Blocks - Single Lock Collar

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm											Unit Wt. lb/kg
					A	B	C		D	G	H	J	K	L	Bolt Size	Total Expansion	
inch	mm						Min.	Max.									
1 3/4		EDPBA-112-2	ERCIA-112														
	45	EDPBA-45MM-2	ERCI-45MM														
1 15/16		EDPBA-115-2	ERCIA-115	8070 35897	2 7/8 73.0	10 254.0	6 3/4 171.5	8 1/2 215.9	2 29/32 73.8	1 1/2 38.1	5 1/2 139.7	2 61/64 75.0	1 3/4 44.5	3 1/4 82.6	5/8	3/16 4.8	19.2 8.72
	50	EDPBA-50MM-2	ERCI-50MM														
2		EDPBA-200-2	ERCIA-200														
	55	EDPBA-55MM-2	ERCI-55MM	8570 38121	3 76.2	11 279.4	7 3/4 196.9	9 1/4 235.0	3 1/32 77.0	1 9/16 39.7	5 13/16 147.6	3 1/8 79.4	1 7/8 47.6	3 5/8 92.1	5/8	3/16 4.8	21.8 9.89
2 3/16		EDPBA-203-2	ERCIA-203														
2 1/4		EDPBA-204-2	ERCIA-204														
	60	EDPBA-60MM-2	ERCI-60MM														
2 7/16		EDPBA-207-2	ERCIA-207	9030 40167	3 1/4 82.6	12 304.8	8 1/2 215.9	10 3/8 263.5	3 7/16 87.3	1 3/4 44.5	6 1/4 158.8	3 5/16 84.1	2 50.8	3 15/16 100.0	5/8	1/4 6.4	27.8 12.61
2 1/2		EDPBA-208-2	ERCIA-208														
	65	EDPBA-65MM-2	ERCI-65MM														
2 11/16		EDPBA-211-2	ERCIA-211														
2 3/4		EDPBA-212-2	ERCIA-212														
	70	EDPBA-70MM-2	ERCI-70MM	9630 42836	3 3/4 95.3	13 1/2 342.9	9 5/16 236.5	11 9/16 293.7	3 1/2 88.9	2 50.8	7 3/16 182.6	3 11/16 93.7	2 1/4 57.2	4 23/32 119.9	3/4	5/16 7.9	38.0 17.24
2 15/16		EDPBA-215-2	ERCIA-215														
	75	EDPBA-75MM-2	ERCI-75MM														
3		EDPBA-300-2	ERCIA-300														
	80	EDPBA-80MM-2	ERCI-80MM														
3 3/16		EDPBA-303-2	ERCIA-303														
3 1/4		EDPBA-304-2	ERCIA-304														
	85	EDPBA-85MM-2	ERCI-85MM	15320 68147	4 1/2 114.3	16 406.4	10 7/8 276.2	13 7/8 352.4	4 1/2 114.3	2 1/4 57.2	8 11/16 220.7	4 3/16 106.4	2 1/2 63.5	5 7/16 138.1	7/8	5/16 7.9	75.8 34.38
3 7/16		EDPBA-307-2	ERCIA-307														
3 1/2		EDPBA-308-2	ERCIA-308														
	90	EDPBA-90MM-2	ERCI-90MM														
	95	EDPBA-95MM-2	ERCI-95MM														

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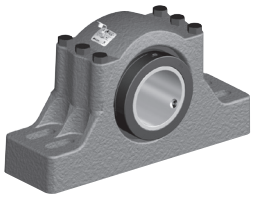
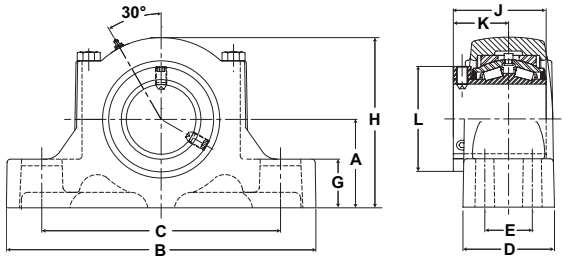
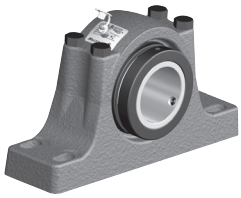


Rolling Elements: Tapered Roller
Housing: Cast Iron Four Bolt Pillow Block
Self Alignment: +/- 3 Degrees
Lock: Setscrew, Single Collar
Seal: Felt
Optional Seal: Single Lip Contact
Temperature: -20°F to 220°F

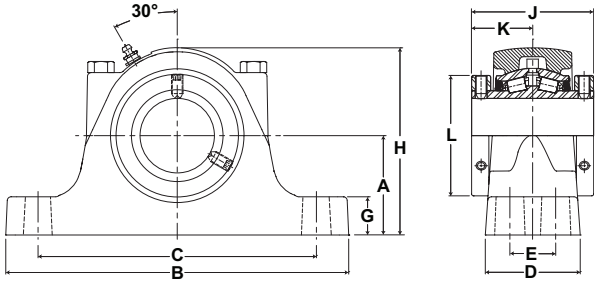


EDPBA Expansion Series Four-Bolt Base Pillow Blocks - Single Lock Collar

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm													Unit Wt. lb/kg
					A	B	C		D	E	G	H	J	K	L	Bolt Size	Total Expansion	
inch	mm						Min.	Max.										
3 15/16		EDPBA-315-4	ERCIA-315															
	100	EDPBA-100MM-4	ERCI-100MM	20980	5	17 1/2	12	15	5 3/16	2	2 3/4	9 5/8	5 1/4	3 3/25	5 15/16	3/4	3/8	106.0
4		EDPBA-400-4	ERCIA-400	93321	127.0	444.5	304.8	381.0	131.8	50.8	69.9	244.5	133.4	79.2	150.8		9.84	48.08
	105	EDPBA-105MM-4	ERCI-105MM															



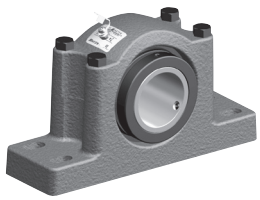
Rolling Elements: Tapered Roller
Housing: Cast Iron Four Bolt Pillow Block
Self Alignment: +/- 3 Degrees
Lock: Setscrew, Double Collar
Seal: Felt
Optional Seal: Single Lip Contact
Temperature: -20°F to 220°F



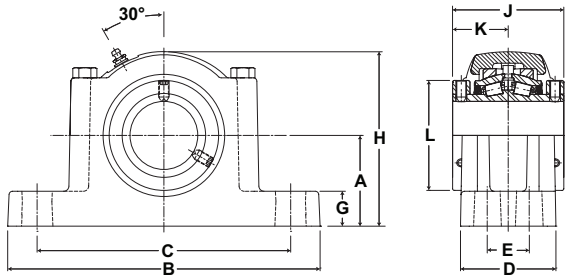
RPBXT Series Four-Bolt Base Pillow Blocks - SAF Mounting Dimensions

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm												Unit Wt. lb/kg
					A	B	C		D	E	G	H	J	K	L	Bolt Size	
inch	mm						Min.	Max.									
2 1/4		RPBXT-204-4	RCI-204														
	60	RPBXT-60MM-4	RCI-60MM														
2 7/16		RPBXT-207-4	RCI-207	9030 40167	3 1/4 82.6	11 1/4 285.8	8 5/8 219.1	9 5/8 244.5	3 1/8 79.4	1 7/8 47.6	1 1/4 31.8	6 1/8 155.6	4 101.6	2 50.8	3 15/16 100.0	1/2	25.5 11.57
2 1/2		RPBXT-208-4	RCI-208														
	65	RPBXT-65MM-4	RCI-65MM														
2 11/16		RPBXT-211-4	RCI-211														
2 3/4		RPBXT-212-4	RCI-212														
	70	RPBXT-70MM-4	RCI-70MM	9630 42836	3 3/4 95.3	13 330.2	10 254.0	11 279.4	3 1/2 88.9	2 1/8 54.0	1 1/2 38.1	7 177.8	4 1/2 114.3	2 1/4 57.2	4 23/32 119.9	5/8	36.2 16.42
2 15/16		RPBXT-215-4	RCI-215														
	75	RPBXT-75MM-4	RCI-75MM														
3		RPBXT-300-4	RCI-300														
	80	RPBXT-80MM-4	RCI-80MM														
3 3/16		RPBXT-303-4	RCI-303														
3 1/4		RPBXT-304-4	RCI-304														
	85	RPBXT-85MM-4	RCI-85MM	15320 68147	4 1/2 114.3	15 1/4 387.4	11 3/4 298.5	12 3/4 323.9	4 3/8 111.1	2 3/8 60.3	1 3/4 44.5	8 1/2 215.9	5 127.0	2 1/2 63.5	5 7/16 138.1	3/4	67.8 30.75
3 7/16		RPBXT-307-4	RCI-307														
3 1/2		RPBXT-308-4	RCI-308														
	90	RPBXT-90MM-4	RCI-90MM														
	95	RPBXT-95MM-4	RCI-95MM														
3 15/16		RPBXT-315-4	RCI-315														
	100	RPBXT-100MM-4	RCI-100MM	20980 93324	4 15/16 125.4	16 1/2 419.1	12 7/8 327.0	14 1/8 358.8	4 3/4 120.7	2 3/4 69.9	2 50.8	9 5/16 236.5	6 1/4 158.8	3 1/8 79.4	5 15/16 150.8	3/4	93 42.18
4		RPBXT-400-4	RCI-400														
	105	RPBXT-105MM-4	RCI-105MM														
	110	RPBXT-110MM-4	RCI-110MM														
4 7/16		RPBXT-407-4	RCI-407	25750 114542	6 152.4	18 3/8 466.7	14 1/2 368.3	16 406.4	5 1/4 133.4	3 1/4 82.6	2 1/2 63.5	10 7/8 276.2	6 3/4 171.5	3 3/8 85.7	6 13/32 162.7	7/8	114.7 52.03
4 1/2		RPBXT-408-4	RCI-408														
	115	RPBXT-115MM-4	RCI-115MM														
	120	RPBXT-120MM-4	RCI-120MM														
	125	RPBXT-125MM-4	RCI-125MM	35520 158001	6 152.4	20 1/8 511.2	15 5/8 396.9	17 3/8 441.3	6 152.4	3 3/8 85.7	2 1/2 63.5	11 1/2 292.1	7 1/4 184.2	3 5/8 92.1	7 13/32 188.1	1	172.4 78.20
4 15/16		RPBXT-415-4	RCI-415														
5		RPBXT-500-4	RCI-500														

Metric dimensions for reference only.
Not all parts are available from stock. Please contact customer service for availability (800) 626-2120.
For more information on bearing capabilities outside of our standard offering, please contact Application Engineering (800) 626-2093.

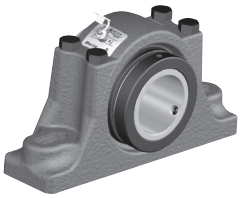


Rolling Elements: Tapered Roller
Housing: Cast Iron Four Bolt Pillow Block
Self Alignment: +/- 3 Degrees
Lock: Setscrew, Double Collar
Seal: Felt
Optional Seal: Single Lip Contact
Temperature: -20°F to 220°F

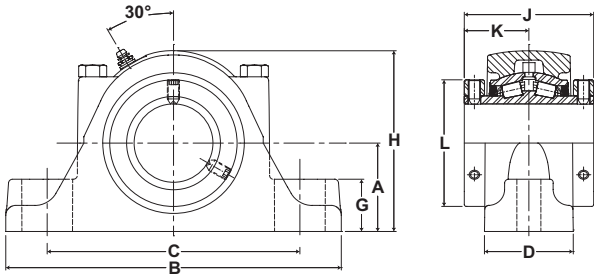


ERPBXT Expansion Series Four-Bolt Base Pillow Blocks - SAF Mounting Dimensions

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm													Unit Wt. lb/kg
					A	B	C		D	E	G	H	J	K	L	Bolt Size	Total Expansion	
inch	mm						Min.	Max.										
2 1/4		ERPBXT-204-4	ERCI-204															
	60	ERPBXT-60MM-4	ERCI-60MM															
2 7/16		ERPBXT-207-4	ERCI-207	9030 40167	3 1/4 82.6	11 1/4 285.8	8 5/8 219.1	9 5/8 244.5	3 27/64 86.9	1 7/8 47.6	1 1/4 31.8	6 1/4 158.8	4 101.6	2 50.8	3 15/16 100.0	1/2	1/4 6.35	27.7 12.56
2 1/2		ERPBXT-208-4	ERCI-208															
	65	ERPBXT-65MM-4	ERCI-65MM															
2 11/16		ERPBXT-211-4	ERCI-211															
2 3/4		ERPBXT-212-4	ERCI-212															
	70	ERPBXT-70MM-4	ERCI-70MM	9630 42836	3 3/4 95.3	13 330.2	10 254.0	11 279.4	3 1/2 88.9	2 1/8 54.0	1 1/2 38.1	7 3/16 182.6	4 1/2 114.3	2 1/4 57.2	4 23/32 119.9	5/8	5/16 7.94	39.0 17.69
2 15/16		ERPBXT-215-4	ERCI-215															
	75	ERPBXT-75MM-4	ERCI-75MM															
3		ERPBXT-300-4	ERCI-300															
	80	ERPBXT-80MM-4	ERCI-80MM															
3 3/16		EPRBXT-303-4	ERCI-303															
3 1/4		ERPBXT-304-4	ERCI-304															
	85	ERPBXT-85MM-4	ERCI-85MM	15320 68147	4 1/2 114.3	15 1/4 387.4	11 3/4 298.5	12 3/4 323.9	4 1/2 114.3	2 3/8 60.3	1 3/4 44.5	8 11/16 220.7	5 127.0	2 1/2 63.5	5 7/16 138.1	3/4	5/16 7.94	75.3 34.16
3 7/16		ERPBXT-307-4	ERCI-307															
3 1/2		ERPBXT-308-4	ERCI-308															
	90	ERPBXT-90MM-4	ERCI-90MM															
	95	ERPBXT-95MM-4	ERCI-95MM															
3 15/16		ERPBXT-315-4	ERCI-315															
	100	ERPBXT-100MM-4	ERCI-100MM	20980 93324	4 15/16 125.4	16 1/2 419.1	12 7/8 327.0	14 1/8 358.8	5 3/16 131.8	2 3/4 69.9	2 50.8	9 9/16 242.9	6 1/4 158.8	3 1/8 79.4	5 15/16 150.8	3/4	3/8 9.84	106.0 48.08
4		ERPBXT-400-4	ERCI-400															
	105	ERPBXT-105MM-4	ERCI-105MM															
	110	ERPBXT-110MM-4	ERCI-110MM															
4 7/16		ERPBXT-407-4	ERCI-407	25750 114542	6 152.4	18 3/8 466.7	14 1/2 368.3	16 406.4	5 13/32 137.3	3 1/4 82.6	2 1/2 63.5	11 1/8 282.6	6 3/4 171.5	3 3/8 85.7	6 13/32 162.7	7/8	3/8 9.84	104.0 47.17
4 1/2		ERPBXT-408-4	ERCI-408															
	115	ERPBXT-115MM-4	ERCI-115MM															
	120	ERPBXT-120MM-4	ERCI-120MM															
	125	ERPBXT-125MM-4	ERCI-125MM	35520 158001	6 152.4	20 1/8 511.2	15 5/8 396.9	17 3/8 441.3	6 3/32 154.8	3 3/8 85.7	2 1/2 63.5	11 13/16 300.0	7 1/4 184.2	3 5/8 92.1	7 13/32 188.1	1	3/8 9.84	190.0 86.18
4 15/16		ERPBXT-415-4	ERCI-415															
5		ERPBXT-500-4	ERCI-500															



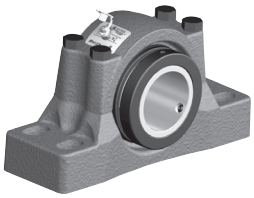
Rolling Elements: Tapered Roller
Housing: Cast Steel Two Bolt Pillow Block
Self Alignment: +/- 3 Degrees
Lock: Setscrew, Double Collar
Seal: Felt
Optional Seal: Single Lip Contact
Temperature: -20°F to 220°F



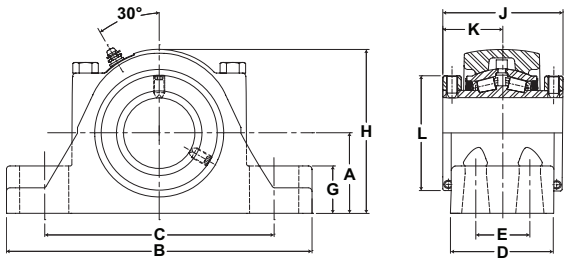
SPB Series Two-Bolt Base Pillow Blocks - Cast Steel Housing

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm										Unit Wt. lb/kg
					A	B	C		D	G	H	J	K	L	Bolt Size	
inch	mm						Min.	Max.								
1 1/2		SPB-108-2	RCI-108													
	40	SPB-40MM-2	RCI-40MM	6140	2 1/8	7 3/4	5 9/16	6 7/16	2 5/16	1 1/4	4 3/8	3 3/8	1 11/16	2 7/8	1/2	12.0
1 5/8		SPB-110-2	RCI-110	27312	54.0	196.9	141.3	163.5	58.7	31.8	111.1	85.7	42.9	73.0		5.44
1 11/16		SPB-111-2	RCI-111													
1 3/4		SPB-112-2	RCI-112													
	45	SPB-45MM-2	RCI-45MM													
1 15/16		SPB-115-2	RCI-115	8070	2 1/4	8 7/8	6 5/16	7 3/16	2 7/16	1 1/4	4 5/8	3 1/2	1 3/4	3 1/4	5/8	14.5
	50	SPB-50MM-2	RCI-50MM	35897	57.2	225.4	160.3	182.6	61.9	31.8	117.5	88.9	44.5	82.6		6.58
2		SPB-200-2	RCI-200													
	55	SPB-55MM-2	RCI-55MM	8570	2 1/2	9 5/8	6 11/16	7 15/16	2 9/16	1 7/16	5 1/8	3 3/4	1 7/8	3 5/8	5/8	17.3
2 3/16		SPB-203-2	RCI-203	38121	63.5	244.5	169.9	201.6	65.1	36.5	130.2	95.3	47.6	92.1		7.85
2 1/4		SPB-204-2	RCI-204													
	60	SPB-60MM-2	RCI-60MM													
2 7/16		SPB-207-2	RCI-207	9030	2 3/4	10 3/8	6 15/16	8 11/16	2 3/4	1 5/8	5 5/8	4	2	3 15/16	5/8	22.8
2 1/2		SPB-208-2	RCI-208	40167	69.9	263.5	176.2	220.7	69.9	41.3	142.9	101.6	50.8	100.0		10.34
	65	SPB-65MM-2	RCI-65MM													
2 11/16		SPB-211-2	RCI-211													
2 3/4		SPB-212-2	RCI-212													
	70	SPB-70MM-2	RCI-70MM	9630	3 1/8	11 3/4	8 1/16	9 11/16	3	1 3/4	6 3/8	4 1/2	2 1/4	4 23/32	3/4	32.2
2 15/16		SPB-215-2	RCI-215	42836	79.4	298.5	204.8	246.1	76.2	44.5	161.9	114.3	57.2	119.9		14.61
	75	SPB-75MM-2	RCI-75MM													
3		SPB-300-2	RCI-300													
	80	SPB-80MM-2	RCI-80MM													
3 3/16		SPB-303-2	RCI-303													
3 1/4		SPB-304-2	RCI-304													
	85	SPB-85MM-2	RCI-85MM	15320	3 3/4	13 3/4	10 1/8	11 1/4	4 1/8	2 1/16	7 3/4	5	2 1/2	5 7/16	7/8	65.6
3 7/16		SPB-307-2	RCI-307	68147	95.3	349.3	257.2	285.8	104.8	52.4	196.9	127.0	63.5	138.1		29.76
3 1/2		SPB-308-2	RCI-308													
	90	SPB-90MM-2	RCI-90MM													
	95	SPB-95MM-2	RCI-95MM													

Metric dimensions for reference only.
Not all parts are available from stock. Please contact customer service for availability (800) 626-2120.
For more information on bearing capabilities outside of our standard offering, please contact Application Engineering (800) 626-2093.

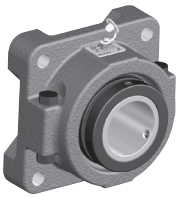


Rolling Elements: Tapered Roller
Housing: Cast Steel Four Bolt Pillow Block
Self Alignment: +/- 3 Degrees
Lock: Setscrew, Double Collar
Seal: Felt
Optional Seal: Single Lip Contact
Temperature: -20°F to 220°F

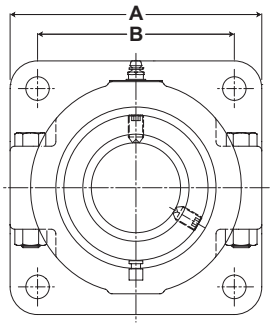


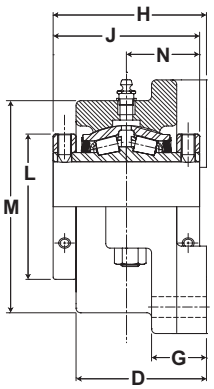
SPB Series Four-Bolt Base Pillow Blocks - Cast Steel Housing

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm											Unit Wt. lb/kg
					A	B	C		D	E	G	H	J	K	L	Bolt Size	
inch	mm						Min.	Max.									
3 15/16		SPB-315-4	RCI-315														
	100	SPB-100MM-4	RCI-100MM	20980	4 1/4	15 1/4	11	13	4 1/2	2 1/4	2 7/16	8 5/8	6 1/4	3 1/8	5 15/16	3/4	84.6
4		SPB-400-4	RCI-400	93324	108.0	387.4	279.4	330.2	114.3	57.2	61.9	219.1	158.8	79.4	150.8		38.37
	105	SPB-105MM-4	RCI-105MM														
	110	SPB-110MM-4	RCI-110MM														
4 7/16		SPB-407-4	RCI-407	25750	4 3/4	16 1/2	11 3/4	13 7/8	4 5/8	2 1/4	2 3/4	9 5/8	6 3/4	3 3/8	6 13/32	3/4	105.2
4 1/2		SPB-408-4	RCI-408	114542	120.7	419.1	298.5	352.4	117.5	57.2	69.9	244.5	171.5	85.7	162.7		47.7
	115	SPB-115MM-4	RCI-115MM														
	120	SPB-120MM-4	RCI-120MM														
	125	SPB-125MM-4	RCI-125MM	35520	5 1/2	18 1/2	13 1/2	15 7/8	5 1/8	2 3/4	3 1/8	11	7 1/4	3 5/8	7 13/32	7/8	158.0
4 15/16		SPB-415-4	RCI-415	158001	139.7	469.9	342.9	403.2	130.2	69.9	79.4	279.4	184.2	92.1	188.1		71.67
5		SPB-500-4	RCI-500														



Rolling Elements: Tapered Roller
Housing: Cast Iron Four Bolt Flange
Self Alignment: +/- 3 Degrees
Lock: Setscrew, Double Collar
Seal: Felt
Optional Seal: Single Lip Contact
Temperature: -20°F to 220°F

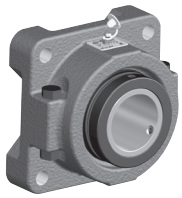




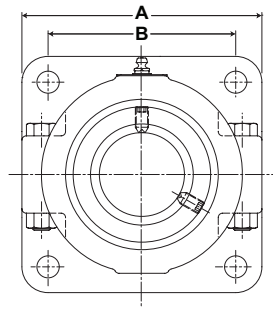
RFB Series Four-Bolt Flange Units

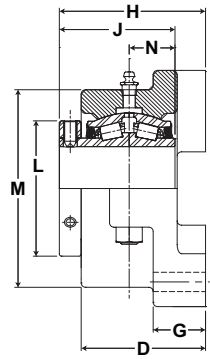
Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm											Unit Wt. lb/kg
inch	mm				A	B	B.C.	D	G	H	J	L	M	N	Bolt Size	
1 3/16		RFB-103	RCI-103	2975	4	2 7/8	4 1/16	2 5/16	1	2 13/16	2 25/32	2 1/4	3 1/4	1 25/64	3/8	6.0
1 1/4		RFB-104	RCI-104	13233	101.6	73.0	103.2	58.7	25.4	71.4	70.6	57.2	82.6	35.3		2.72
1 3/8		RFB-106	RCI-106	4760	4 5/8	3 1/2	4 61/64	2 9/16	1	3 1/16	3	2 5/8	3 3/4	1 1/2	1/2	8.1
	35	RFB-35MM	RCI-35MM	21174	117.5	88.9	125.8	65.1	25.4	77.8	76.2	66.7	95.3	38.1		3.67
1 7/16		RFB-107	RCI-107													
1 1/2		RFB-108	RCI-108	6140	5 3/8	4 1/8	5 53/64	2 15/16	1 3/16	3 1/2	3 3/8	2 7/8	4 1/2	1 11/16	1/2	12.3
	40	RFB-40MM	RCI-40MM	27312	136.5	104.8	148.0	74.6	30.2	88.9	85.7	73.0	114.3	42.9		5.58
1 5/8		RFB-110	RCI-110													
1 11/16		RFB-111	RCI-111													
1 3/4		RFB-112	RCI-112	8070	5 5/8	4 3/8	6 3/16	3 1/16	1 3/16	3 5/8	3 1/2	3 1/4	4 3/4	1 3/4	1/2	14.5
	45	RFB-45MM	RCI-45MM	35897	142.9	111.1	157.2	77.8	30.2	92.1	88.9	82.6	120.7	44.5		6.58
1 15/16		RFB-115	RCI-115													
	50	RFB-50MM	RCI-50MM													
2		RFB-200	RCI-200													
	55	RFB-55MM	RCI-55MM	8570	6 1/4	4 7/8	6 57/64	3 1/4	1 3/8	3 7/8	3 3/4	3 5/8	5 1/4	1 7/8	5/8	19.0
2 3/16		RFB-203	RCI-203	38121	158.8	123.8	175.0	82.6	34.9	98.4	95.3	92.1	133.4	47.6		8.62
2 1/4		RFB-204	RCI-204	9030	6 7/8	5 3/8	7 39/64	3 9/16	1 1/2	4 3/16	4	3 15/16	5 3/4	2	5/8	24.0
	60	RFB-60MM	RCI-60MM	40167	174.6	136.5	193.3	90.5	38.1	106.4	101.6	100.0	146.1	50.8		10.89
2 7/16		RFB-207	RCI-207													
2 1/2		RFB-208	RCI-208													
	65	RFB-65MM	RCI-65MM													
2 11/16		RFB-211	RCI-211	9630	7 3/4	6	8 31/64	3 15/16	1 5/8	4 11/16	4 1/2	4 23/32	6 1/2	2 1/4	3/4	33.4
2 3/4		RFB-212	RCI-212	42836	196.9	152.4	215.5	100.0	41.3	119.1	114.3	119.9	165.1	57.2		15.15
	70	RFB-70MM	RCI-70MM													
2 15/16		RFB-215	RCI-215													
	75	RFB-75MM	RCI-75MM													
3		RFB-300	RCI-300													
	80	RFB-80MM	RCI-80MM	15320	9 1/4	7	9 29/32	4 1/2	1 7/8	5 1/4	5	5 7/16	8	2 1/2	3/4	57.4
3 3/16		RFB-303	RCI-303	68147	235.0	177.8	251.6	114.3	47.6	133.4	127.0	138.1	203.2	63.5		26.04
3 1/4		RFB-304	RCI-304													
	85	RFB-85MM	RCI-85MM													
3 7/16		RFB-307	RCI-307													
3 1/2		RFB-308	RCI-308													
	90	RFB-90MM	RCI-90MM													
	95	RFB-95MM	RCI-95MM													
3 15/16		RFB-315	RCI-315	20980	10 1/4	7 3/4	10 61/64	5 5/8	2 1/8	6 1/2	6 1/4	5 15/16	8 7/8	3 1/8	7/8	81.8
	100	RFB-100MM	RCI-100MM	93324	260.4	196.9	278.2	142.9	54.0	165.1	158.8	150.8	225.4	79.4		37.10
4		RFB-400	RCI-400													
	105	RFB-105MM	RCI-105MM													

Metric dimensions for reference only.
Not all parts are available from stock. Please contact customer service for availability (800) 626-2120.
For more information on bearing capabilities outside of our standard offering, please contact Application Engineering (800) 626-2093.



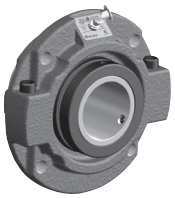
Rolling Elements: Tapered Roller
Housing: Cast Iron Four Bolt Flange
Self Alignment: +/- 3 Degrees
Lock: Setscrew, Single Collar
Seal: Felt
Optional Seal: Single Lip Contact
Temperature: -20°F to 220°F



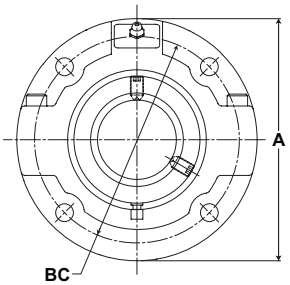


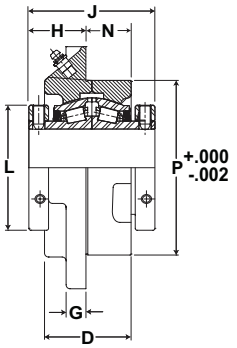
RFBA Series Four-Bolt Flange Units - Single Lock Collar

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm											Unit Wt. lb/kg
inch	mm				A	B	B.C.	D	G	H	J	L	M	N	Bolt Size	
1 3/16		RFBA-103	RCIA-103	2975	4	2 7/8	4 1/16	2 5/16	1	2 13/16	2 1/4	2 1/4	3 1/4	55/64	3/8	6.0
1 1/4		RFBA-104	RCIA-104	13233	101.6	73.0	103.2	58.7	25.4	71.4	57.2	57.2	82.6	21.8		2.72
1 3/8		RFBA-106	RCIA-106	4760	4 5/8	3 1/2	4 61/64	2 9/16	1	3 1/16	2 17/32	2 5/8	3 3/4	1 1/32	1/2	8.1
1 7/16		RFBA-107	RCIA-107	21174	117.5	88.9	125.8	65.1	25.4	77.8	64.3	66.7	95.3	26.2		3.67
1 1/2		RFBA-108	RCIA-108	6140	5 3/8	4 1/8	5 53/64	2 15/16	1 3/16	3 1/2	2 27/32	2 7/8	4 1/2	1 5/32	1/2	12.3
1 5/8		RFBA-110	RCIA-110	27312	136.5	104.8	148.0	74.6	30.2	88.9	72.2	73.0	114.3	29.4		5.58
1 11/16		RFBA-111	RCIA-111													
1 3/4		RFBA-112	RCIA-112													
	45	RFBA-45MM	RCI-45MM	8070	5 5/8	4 3/8	6 3/16	3 1/16	1 3/16	3 5/8	2 61/64	3 1/4	4 3/4	1 13/64	1/2	14.5
1 15/16		RFBA-115	RCIA-115	35897	142.9	111.1	157.2	77.8	30.2	92.1	75.0	82.6	120.7	30.6		6.58
	50	RFBA-50MM	RCI-50MM													
2		RFBA-200	RCIA-200													
	55	RFBA-55MM	RCI-55MM	8570	6 1/4	4 7/8	6 57/64	3 1/4	1 3/8	3 7/8	3 1/8	3 5/8	5 1/4	1 1/4	5/8	19.0
2 3/16		RFBA-203	RCIA-203	38121	158.8	123.8	175.0	82.6	34.9	98.4	79.4	92.1	133.4	31.8		8.62
2 1/4		RFBA-204	RCIA-204													
	60	RFBA-60MM	RCI-60MM	9030	6 7/8	5 3/8	7 39/64	3 9/16	1 1/2	4 3/16	3 5/16	3 15/16	5 3/4	1 5/16	5/8	24.0
2 7/16		RFBA-207	RCIA-207	40167	174.6	136.5	193.3	90.5	38.1	106.4	84.1	100.0	146.1	33.3		10.89
2 1/2		RFBA-208	RCIA-208													
	65	RFBA-65MM	RCI-65MM													
2 11/16		RFBA-211	RCIA-211													
2 3/4		RFBA-212	RCIA-212													
	70	RFBA-70MM	RCI-70MM	9630	7 3/4	6	8 31/64	3 15/16	1 5/8	4 11/16	3 11/16	4 23/32	6 1/2	1 7/16	3/4	33.4
2 15/16		RFBA-215	RCIA-215	42836	196.9	152.4	215.5	100.0	41.3	119.1	93.7	119.9	165.1	36.5		15.15
	75	RFBA-75MM	RCI-75MM													
3		RFBA-300	RCIA-300													
	80	RFBA-80MM	RCI-80MM													
3 3/16		RFBA-303	RCIA-303													
3 1/4		RFBA-304	RCIA-304													
	85	RFBA-85MM	RCI-85MM	15320	9 1/4	7	9 29/32	4 1/2	1 7/8	5 1/4	4 3/16	5 7/16	8	1 11/16	3/4	57.4
3 7/16		RFBA-307	RCIA-307	68147	235.0	177.8	251.6	114.3	47.6	133.4	106.4	138.1	203.2	42.9		26.04
3 1/2		RFBA-308	RCIA-308													
	90	RFBA-90MM	RCI-90MM													
	95	RFBA-95MM	RCI-95MM													
3 15/16		RFBA-315	RCIA-315													
	100	RFBA-100MM	RCI-100MM	20980	10 1/4	7 3/4	10 61/64	5 5/8	2 1/8	6 1/2	5 1/4	5 15/16	8 7/8	2 1/8	7/8	81.8
4		RFBA-400	RCIA-400	93324	260.4	196.9	278.2	142.9	54.0	165.1	133.4	150.8	225.4	54.0		37.10
	105	RFBA-105MM	RCI-105MM													



Rolling Elements: Tapered Roller
Housing: Cast Iron Piloted Flange
Self Alignment: +/- 3 Degrees
Lock: Setscrew, Double Collar
Seal: Felt
Optional Seal: Single Lip Contact
Temperature: -20°F to 220°F

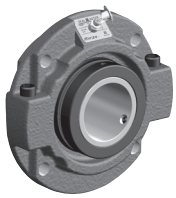




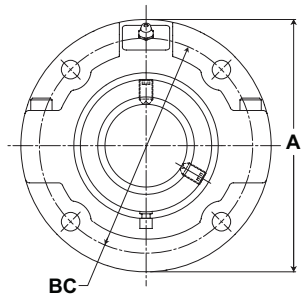
RFP Series Piloted Flange Cartridge Units

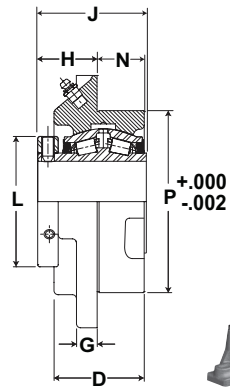
Bore Diameter inch	Bore Diameter mm	Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm A	B.C.	D	G	H	J	L	N	P	Bolt Size	Unit Wt. lb/kg
1 3/16 1 1/4		RFP-103 RFP-104	RCI-103 RCI-104	2975 13233	5 127.0	4 1/8 104.8	1 3/4 44.5	7/16 11.1	1 5/16 33.3	2 3/4 69.9	2 1/4 57.2	7/8	3 3/8 85.7	3/8	5.5 2.49
1 3/8	35	RFP-106 RFP-35MM	RCI-106 RCI-35MM	4760 21174	5 1/4 133.4	4 3/8 111.1	2 50.8	1/2 12.7	1 1/2 38.1	3 76.2	2 5/8 66.7	15/16	3 5/8 92.1	3/8	6.8 3.08
1 7/16		RFP-107	RCI-107												
1 1/2	40	RFP-108 RFP-40MM	RCI-108 RCI-40MM	6140 27312	6 1/8 155.6	5 1/8 130.2	2 1/4 57.2	1/2 12.7	1 9/16 39.7	3 3/8 85.7	2 7/8 73.0	1 1/8 28.6	4 1/4 108.0	7/16	10.1 4.58
1 5/8 1 11/16		RFP-110 RFP-111	RCI-110 RCI-111												
1 3/4	45	RFP-112 RFP-45MM	RCI-112 RCI-45MM	8070 35897	6 3/8 161.9	5 3/8 136.5	2 5/16 58.7	9/16 14.3	1 9/16 39.7	3 1/2 88.9	3 1/4 82.6	1 1/4 31.8	4 1/2 114.3	7/16	11.6 5.26
1 15/16 2	50	RFP-115 RFP-50MM RFP-200	RCI-115 RCI-50MM RCI-200												
2 3/16	55	RFP-55MM RFP-203	RCI-55MM RCI-203	8570 38121	7 1/8 181.0	6 152.4	2 1/2 63.5	9/16 14.3	1 11/16 42.9	3 3/4 95.3	3 5/8 92.1	1 15/16 49.2	5 127.0	1/2	14.5 6.58
2 1/4	60	RFP-204 RFP-60MM	RCI-204 RCI-60MM	9030 40167	7 5/8 193.7	6 1/2 165.1	2 3/4 69.9	5/8 15.9	1 13/16 46.0	4 101.6	3 15/16 100.0	1 7/16 36.5	5 1/2 139.7	1/2	19 8.62
2 7/16 2 1/2		RFP-207 RFP-208	RCI-207 RCI-208												
	65	RFP-65MM	RCI-65MM												
2 11/16 2 3/4	70	RFP-211 RFP-212 RFP-70MM	RCI-211 RCI-212 RCI-70MM	9630 42836	8 3/4 222.3	7 1/2 190.5	2 7/8 73.0	3/4 19.1	2 50.8	4 1/2 114.3	4 23/32 119.9	1 9/16 39.7	6 3/8 161.9	5/8	26.7 12.11
2 15/16		RFP-215	RCI-215												
3	75	RFP-75MM RFP-300	RCI-75MM RCI-300												
3 3/16 3 1/4	80 85	RFP-80MM RFP-303 RFP-304 RFP-85MM	RCI-80MM RCI-303 RCI-304 RCI-85MM	15320 68147	10 1/4 260.4	8 5/8 219.1	3 3/8 85.7	7/8 22.2	2 7/16 61.9	5 127.0	5 7/16 138.1	1 5/8 41.3	7 3/8 187.3	3/4	42.6 19.32
3 7/16 3 1/2		RFP-307 RFP-308	RCI-307 RCI-308												
	90 95	RFP-90MM RFP-95MM	RCI-90MM RCI-95MM												
3 15/16		RFP-315	RCI-315												
4	100 105	RFP-100MM RFP-400 RFP-105MM	RCI-100MM RCI-400 RCI-105MM	20980 93324	10 7/8 276.2	9 3/8 238.1	4 3/8 111.1	15/16 23.8	2 11/16 68.3	6 1/4 158.8	5 15/16 150.8	2 7/16 61.9	8 1/8 206.4	3/4	55.2 25.04
	110	RFP-110MM	RCI-110MM												
4 7/16 4 1/2		RFP-407 RFP-408	RCI-407 RCI-408	25750 114542	13 1/2 342.9	11 3/4 298.5	4 5/8 117.5	1 25.4	3 1/32 77.0	6 3/4 171.5	6 13/32 162.7	2 3/8 60.3	10 1/4 260.4	3/4	91 41.28
	115	RFP-115MM	RCI-115MM												
	120 125	RFP-120MM RFP-125MM	RCI-120MM RCI-125MM	35520 158001	14 3/4 374.7	12 3/4 323.9	5 3/8 136.5	1 1/4 31.8	2 31/32 75.4	7 1/4 184.2	7 13/32 188.1	2 7/8 73.0	11 279.4	7/8	115 52.16
4 15/16 5		RFP-415 RFP-500	RCI-415 RCI-500												

Metric dimensions for reference only.



Rolling Elements: Tapered Roller
Housing: Cast Iron Piloted Flange
Self Alignment: +/- 3 Degrees
Lock: Setscrew, Single Collar
Seal: Felt
Optional Seal: Single Lip Contact
Temperature: -20°F to 220°F

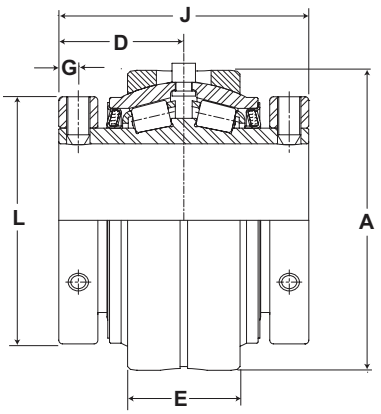




RFPA Series Piloted Flange Cartridge Units - Single Lock Collar

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm										Unit Wt. lb/kg
inch	mm				A	B.C.	D	G	H	J	L	N	P	Bolt Size	
1 3/16 1 1/4		RFPA-103 RFPA-104	RCIA-103 RCIA-104	2975 13233	5 127.0	4 1/8 104.8	1 3/4 44.5	7/16 11.1	1 5/16 33.3	2 3/8 60.3	2 1/4 57.2	7/8 22.2	3 3/8 85.7	3/8	5.5 2.49
1 3/8 1 7/16		RFPA-106 RFPA-107	RCIA-106 RCIA-107	4760 21174	5 1/4 133.4	4 3/8 111.1	2 50.8	1/2 12.7	1 1/2 38.1	2 17/32 64.3	2 5/8 66.7	15/16 23.8	3 5/8 92.1	3/8	6.8 3.08
1 1/2 1 5/8 1 11/16		RFPA-108 RFPA-110 RFPA-111	RCIA-108 RCIA-110 RCIA-111	6140 27312	6 1/8 155.6	5 1/8 130.2	2 1/4 57.2	1/2 12.7	1 9/16 39.7	2 27/32 72.2	2 7/8 73.0	1 1/8 28.6	4 1/4 108.0	7/16	10.1 4.58
1 3/4 1 15/16 2	 45 50 	RFPA-112 RFPA-45MM RFPA-115 RFPA-50MM RFPA-200	RCIA-112 RCI-45MM RCIA-115 RCI-50MM RCIA-200	8070 35897	6 3/8 161.9	5 3/8 136.5	2 5/16 58.7	9/16 14.3	1 9/16 39.7	2 61/64 75.0	3 1/4 82.6	1 9/16 39.7	4 1/2 114.3	7/16	11.6 5.26
2 3/16	55	RFPA-55MM RFPA-203	RCI-55MM RCIA-203	8570 38121	7 1/8 181.0	6 152.4	2 1/2 63.5	9/16 14.3	1 11/16 42.9	3 1/8 79.4	3 5/8 92.1	1 5/16 33.3	5 127.0	1/2	14.5 6.58
2 1/4 2 7/16 2 1/2	 60 65	RFPA-204 RFPA-60MM RFPA-207 RFPA-208 RFPA-65MM	RCIA-204 RCI-60MM RCIA-207 RCIA-208 RCI-65MM	9030 40167	7 5/8 193.7	6 1/2 165.1	2 3/4 69.9	5/8 15.9	1 13/16 46.0	3 5/16 84.1	3 15/16 100.0	1 7/16 36.5	5 1/2 139.7	1/2	19 8.62
2 11/16 2 3/4 2 15/16 3	 70 75 	RFPA-211 RFPA-212 RFPA-70MM RFPA-215 RFPA-75MM RFPA-300	RCIA-211 RCIA-212 RCI-70MM RCIA-215 RCI-75MM RCIA-300	9630 42836	8 3/4 222.3	7 1/2 190.5	2 7/8 73.0	3/4 19.1	2 50.8	3 11/16 93.7	4 23/32 119.9	1 9/16 39.7	6 3/8 161.9	5/8	26.7 12.11
 3 3/16 3 1/4 3 7/16 3 1/2 	80 85 90 95	RFPA-80MM RFPA-303 RFPA-304 RFPA-85MM RFPA-307 RFPA-308 RFPA-90MM RFPA-95MM	RCI-80MM RCIA-303 RCIA-304 RCI-85MM RCIA-307 RCIA-308 RCI-90MM RCI-95MM	15320 68147	10 1/4 260.4	8 5/8 219.1	3 3/8 85.7	7/8 22.2	2 7/16 61.9	4 3/16 106.4	5 7/16 138.1	1 5/8 41.3	7 3/8 187.3	3/4	42.6 19.32
3 15/16 4	100 105	RFPA-315 RFPA-100MM RFPA-400 RFPA-105MM	RCIA-315 RCI-100MM RCIA-400 RCI-105MM	20980 93324	10 7/8 276.2	9 3/8 238.1	4 3/8 111.1	15/16 23.8	2 11/16 68.3	5 1/4 133.4	5 15/16 150.8	2 7/16 61.9	8 1/8 206.4	3/4	55.2 25.04
 4 7/16 4 1/2	110 115	 RFPA-407 RFPA-408	RCI-110MM RCIA-407 RCIA-408 RCI-115MM	25750 114542	13 1/2 342.9	11 3/4 298.5	4 5/8 117.5	1 25.4	3 1/32 77.0	5 1/2 139.7	6 13/32 162.7	2 3/8 60.3	10 1/4 260.4	3/4	91 41.28
  4 15/16 5	120 125 	 RFPA-415 RFPA-500	RCI-120MM RCI-125MM RCIA-415 RCIA-500	35520 158001	14 3/4 374.7	12 3/4 323.9	5 3/8 136.5	1 1/4 31.8	2 31/32 75.4	6 13/64 157.6	7 13/32 188.1	2 7/8 73.0	11 279.4	7/8	115 52.16

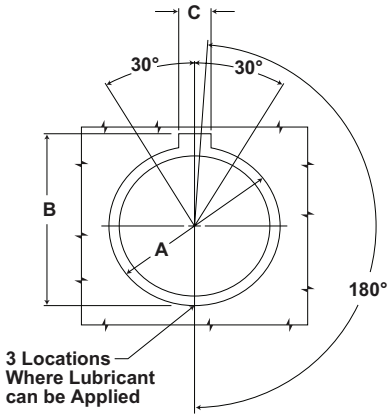
Rolling Elements: Tapered Roller
Housing: Cylindrical Cartridge Insert
Self Alignment: +/- 3 Degrees
Lock: Setscrew, Double Collar
Seal: Felt
Optional Seal: Single Lip Contact
Temperature: -20°F to 220°F

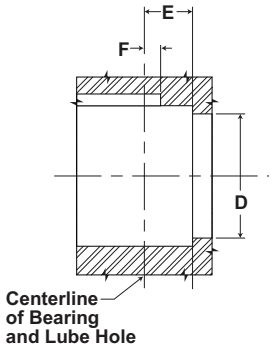


ERCI Series Replacement Cartridge Insert

Bore Diameter		Part No.	Basic Dynamic Rating lb/N	Dimensions inch / mm						Unit Wt. lb/kg
inch	mm			A +.000 / -.001	D	E	G	J	L	
1 3/4		ERCI-112								
	45	ERCI-45MM								
1 15/16		ERCI-115	8070	3.937	1 3/4	1 3/4	5/16	3 1/2	3 1/4	6.5
			35897	100.0	44.5	44.5	7.9	88.9	82.6	2.95
	50	ERCI-50MM								
2		ERCI-200								
	55	ERCI-55MM	8570	4.437	1 7/8	1 3/4	5/16	3 3/4	3 5/8	7.7
2 3/16		ERCI-203	38121	112.7	47.6	44.5	7.9	95.3	92.1	3.49
2 1/4		ERCI-204								
	60	ERCI-60MM								
2 7/16		ERCI-207	9030	4.782	2	1 13/16	5/16	4	3 15/16	10.0
2 1/2		ERCI-208	40167	121.5	50.8	46.0	7.9	101.6	100.0	4.54
	65	ERCI-65MM								
2 11/16		ERCI-211								
2 3/4		ERCI-212								
	70	ERCI-70MM	9630	5.374	2 1/4	2	7/16	4 1/2	4 23/32	13.0
2 15/16		ERCI-215	42836	136.5	57.2	50.8	11.1	114.3	119.9	5.90
	75	ERCI-75MM								
3		ERCI-300								
	80	ERCI-80MM								
3 3/16		ERCI-303								
	85	ERCI-85MM	15320	6.593	2 1/2	2 1/4	7/16	5	5 7/16	22.0
3 7/16		ERCI-307	68147	167.5	63.5	57.2	11.1	127.0	138.1	9.98
3 1/2		ERCI-308								
	90	ERCI-90MM								
	95	ERCI-95MM								
3 15/16		ERCI-315								
	100	ERCI-100MM	20980	7.187	3 1/8	3 1/8	1/2	6 1/4	5 15/16	30.0
4		ERCI-400	93321	182.5	79.4	79.4	12.7	158.8	150.8	13.61
	105	ERCI-105MM								
	110	ERCI-110MM								
4 7/16		ERCI-407	25750	7.999	3 3/8	3 1/4	1/2	6 3/4	6 13/32	38.4
4 1/2		ERCI-408	114542	203.2	85.7	82.6	12.7	171.5	162.7	17.42
	115	ERCI-115MM								
	120	ERCI-120MM								
	125	ERCI-125MM	35520	9.061	3 5/8	3 3/4	5/8	7 1/4	7 13/32	55.0
4 15/16		ERCI-415	158001	230.1	92.1	95.3	15.9	184.2	188.1	24.95
5		ERCI-500								

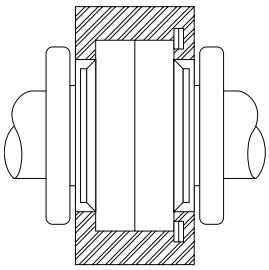
Metric dimensions for reference only.
Not all parts are available from stock. Please contact customer service for availability (800) 626-2120.
For more information on bearing capabilities outside of our standard offering, please contact Application Engineering (800) 626-2093.



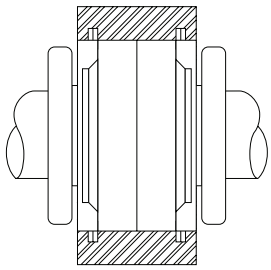


ERCI Series Housing Bore Dimensions

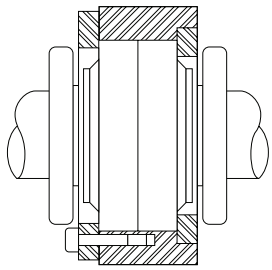
Bore Diameter		Dimensions inch / mm					
inch	mm	A +.002 / -.000 +.05 / -.000	B +.01 / -.00 +.25 / -.00	C +.01 / -.00 +.25 / -.00	D ±.01 ±.25	E ±.01 ±.25	F ±.005 ±.127
1 3/4 1 15/16 2	45 50	3.939 100.05	4.12 104.65	.44 11.18	3.63 42.20	.97 24.64	.25 6.35
2 3/16	55	4.439 112.75	4.62 117.35	.56 14.22	4.00 101.10	.97 24.64	.38 9.65
2 1/4 2 7/16 2 1/2	60 65	4.782 121.46	5.01 127.25	.56 14.22	4.38 111.25	1.03 26.16	.38 9.65
2 11/16 2 3/4 2 15/16 3	70 75	5.376 136.55	5.50 139.70	.56 14.22	5.12 130.05	1.16 29.46	.38 9.65
3 3/16 3 7/16 3 1/2	80 85 90 95	6.595 167.51	6.89 175.01	.75 19.05	6.00 152.40	1.28 32.51	.50 12.70
3 15/16 4	100 105	7.189 182.60	7.46 189.48	.75 19.05	6.62 168.15	1.75 44.45	.50 12.70
4 7/16 4 1/8	110 115	8.001 203.23	8.28 210.31	.75 19.05	7.25 184.15	1.81 45.97	.50 12.70
4 15/16 5	120 125	9.063 230.20	9.34 237.24	.75 19.05	8.50 215.90	2.06 52.35	.50 12.70



Cartridge Fixed Between Shoulder and Snap Ring



Cartridge Set For Expansion And Held Between Snap Rings



Cartridge Fixed Between Two Types of Collars

Rolling Elements: Tapered Roller
Housing: Cylindrical Cartridge Insert
Self Alignment: +/- 3 Degrees
Lock: Setscrew, Single and Double Collar
Seal: Felt
Optional Seal: Single Lip Contact
Temperature: -20°F to 220°F

RCI and RCIA Series Replacement Cartridge Inserts - Inch

Bore Diameter inch	RCI Felt Seal	Contact Seal	Hi-Temp Seal	Unit Wt. lb/kg
1 3/16	RCI-103	RCI-103-C	RCI-103-N	2.0 .91
1 1/4	RCI-104	RCI-104-C	RCI-104-N	1.9 .86
1 3/8	RCI-106	RCI-106-C	RCI-106-N	2.9 1.32
1 7/16	RCI-107	RCI-107-C	RCI-107-N	2.7 1.22
1 1/2	RCI-108	RCI-108-C	RCI-108-N	4.5 2.04
1 5/8	RCI-110	RCI-110-C	RCI-110-N	4.2 1.91
1 11/16	RCI-111	RCI-111-C	RCI-111-N	4.0 1.81
1 3/4	RCI-112	RCI-112-C	RCI-112-N	5.3 2.40
1 15/16	RCI-115	RCI-115-C	RCI-115-N	4.8 2.18
2 7/16	RCI-207	RCI-207-C	RCI-207-N	7.4 3.36
2 1/2	RCI-208	RCI-208-C	RCI-208-N	7.2 3.27
2 11/16	RCI-211	RCI-211-C	RCI-211-N	11.5 5.22
2 3/4	RCI-212	RCI-212-C	RCI-212-N	11.3 5.13
2 15/16	RCI-215	RCI-215-C	RCI-215-N	10.3 4.67
3	RCI-300	RCI-300-C	RCI-300-N	10.0 4.54
3 3/16	RCI-303	RCI-303-C	RCI-303-N	19.6 8.89
3 7/16	RCI-307	RCI-307-C	RCI-307-N	17.8 8.07
3 1/2	RCI-308	RCI-308-C	RCI-308-N	17.3 7.85
3 15/16	RCI-315	RCI-315-C	RCI-315-N	23.1 10.48
4	RCI-400	RCI-400-C	RCI-400-N	22.6 10.25
4 7/16	RCI-407	RCI-407-C	RCI-407-N	30.4 13.79
4 1/2	RCI-408	RCI-408-C	RCI-408-N	29.9 13.56
4 15/16	RCI-415	RCI-415-C	RCI-415-N	45.6 20.68
5	RCI-500	RCI-500-C	RCI-500-N	44.4 20.14

Bore Diameter inch	RCIA Felt Seal	Contact Seal	Hi-Temp Seal	Unit Wt. lb/kg
1 3/16	RCIA-103	RCIA-103-C	RCIA-103-N	2.0 .91
1 1/4	RCIA-104	RCIA-104-C	RCIA-104-N	1.9 .86
1 3/8	RCIA-106	RCIA-106-C	RCIA-106-N	2.9 1.32
1 7/16	RCIA-107	RCIA-107-C	RCIA-107-N	2.7 1.22
1 1/2	RCIA-108	RCIA-108-C	RCIA-108-N	4.5 2.04
1 5/8	RCIA-110	RCIA-110-C	RCIA-110-N	4.2 1.91
1 11/16	RCIA-111	RCIA-111-C	RCIA-111-N	4.0 1.81
1 3/4	RCIA-112	RCIA-112-C	RCIA-112-N	5.3 2.40
1 15/16	RCIA-115	RCIA-115-C	RCIA-115-N	4.8 2.18
2 7/16	RCIA-207	RCIA-207-C	RCIA-207-N	7.4 3.36
2 1/2	RCIA-208	RCIA-208-C	RCIA-208-N	7.2 3.27
2 11/16	RCIA-211	RCIA-211-C	RCIA-211-N	11.5 5.22
2 3/4	RCIA-212	RCIA-212-C	RCIA-212-N	11.3 5.13
2 15/16	RCIA-215	RCIA-215-C	RCIA-215-N	10.3 4.67
3	RCIA-300	RCIA-300-C	RCIA-300-N	10.0 4.54
3 3/16	RCIA-303	RCIA-303-C	RCIA-303-N	19.6 8.89
3 7/16	RCIA-307	RCIA-307-C	RCIA-307-N	17.8 8.07
3 1/2	RCIA-308	RCIA-308-C	RCIA-308-N	17.3 7.85
3 15/16	RCIA-315	RCIA-315-C	RCIA-315-N	23.1 10.48
4	RCIA-400	RCIA-400-C	RCIA-400-N	22.6 10.25
4 7/16	RCIA-407	RCIA-407-C	RCIA-407-N	30.4 13.79
4 1/2	RCIA-408	RCIA-408-C	RCIA-408-N	29.9 13.56
4 15/16	RCIA-415	RCIA-415-C	RCIA-415-N	45.6 20.68
5	RCIA-500	RCIA-500-C	RCIA-500-N	44.4 20.14

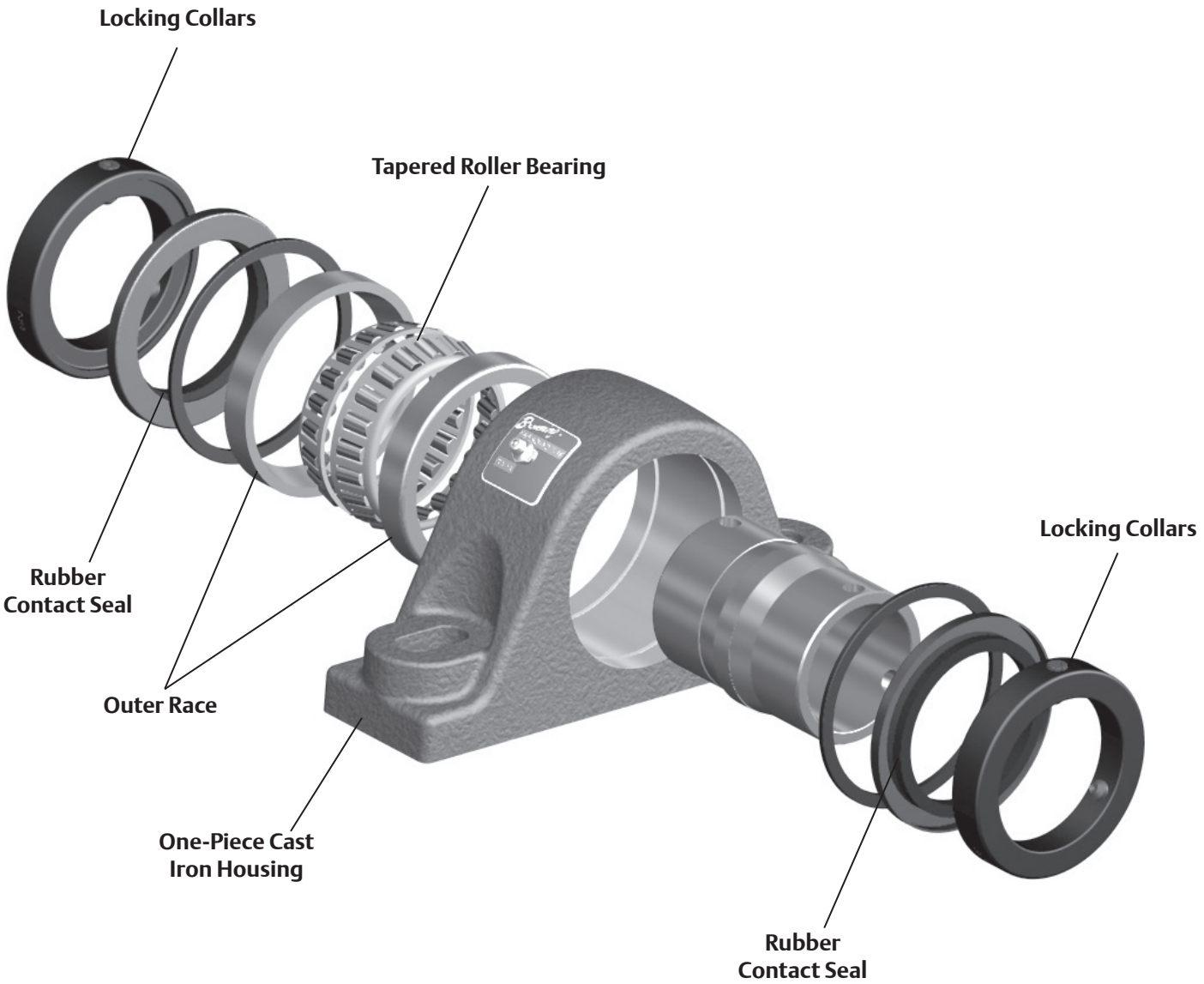
RCI-M and RCIA-M - Replacement Cartridge Inserts - Metric

Bore Diameter mm	RCI-M Felt Seal	Contact Seal	Hi-Temp Seal
35	RCI-35MM	RCI35MM-C	RCI35MM-N
40	RCI-40MM	RCI40MM-C	RCI40MM-N
45	RCI-45MM	RCI45MM-C	RCI45MM-N
50	RCI-50MM	RCI50MM-C	RCI50MM-N
55	RCI-55MM	RCI55MM-C	RCI55MM-N
60	RCI-60MM	RCI60MM-C	RCI60MM-N
65	RCI-65MM	RCI65MM-C	RCI65MM-N
70	RCI-70MM	RCI70MM-C	RCI70MM-N
75	RCI-75MM	RCI75MM-C	RCI75MM-N
80	RCI-80MM	RCI80MM-C	RCI80MM-N
95	RCI-85MM	RCI85MM-C	RCI85MM-N
90	RCI-90MM	RCI90MM-C	RCI90MM-N
95	RCI-95MM	RCI95MM-C	RCI95MM-N
100	RCI-100MM	RCI100MM-C	RCI100MM-N
105	RCI-105MM	RCI105MM-C	RCI105MM-N
110	RCI-110MM	RCI110MM-C	RCI110MM-N
115	RCI-115MM	RCI115MM-C	RCI115MM-N
120	RCI-120MM	RCI120MM-C	RCI120MM-N
125	RCI-125MM	RCI125MM-C	RCI125MM-N

Bore Diameter mm	RCIA-M Felt Seal	Contact Seal	Hi-Temp Seal
35	RCIA-35MM	RCIA35MM-C	RCIA35MM-N
40	RCIA-40MM	RCIA40MM-C	RCIA40MM-N
45	RCIA-45MM	RCIA45MM-C	RCIA45MM-N
50	RCIA-50MM	RCIA50MM-C	RCIA50MM-N
55	RCIA-55MM	RCIA55MM-C	RCIA55MM-N
60	RCIA-60MM	RCIA60MM-C	RCIA60MM-N
65	RCIA-65MM	RCIA65MM-C	RCIA65MM-N
70	RCIA-70MM	RCIA70MM-C	RCIA70MM-N
75	RCIA-75MM	RCIA75MM-C	RCIA75MM-N
80	RCIA-80MM	RCIA80MM-C	RCIA80MM-N
95	RCIA-85MM	RCIA85MM-C	RCIA85MM-N
90	RCIA-90MM	RCIA90MM-C	RCIA90MM-N
95	RCIA-95MM	RCIA95MM-C	RCIA95MM-N
100	RCIA-100MM	RCIA100MM-C	RCIA100MM-N
105	RCIA-105MM	RCIA105MM-C	RCIA105MM-N
110	RCIA-110MM	RCIA110MM-C	RCIA110MM-N
115	RCIA-115MM	RCIA115MM-C	RCIA115MM-N
120	RCIA-120MM	RCIA120MM-C	RCIA120MM-N
125	RCIA-125MM	RCIA125MM-C	RCIA125MM-N

Browning® E920 Series Tapered Roller Bearing

Browning® 920 series mounted tapered roller bearings feature one-piece durable cast iron non-expansion housings with Type E mounting dimensions and limited misalignment. The E920 series contains setscrew locking collars for easy installation and contact face riding seals to provide a good balance between contaminant entry, grease retention and friction. Depending on your application requirements, these bearings are available in a wide variety of bore sizes and housing configurations as illustrated on the pages to follow.



E920 Series Tapered Roller Nomenclature

Housing Assembly

Housing Type
- PB - Pillow Block
- FB - Four Bolt Flange
- TU - Take-Up

Series
- E920 - Setscrew

Pillow Block Bolts
- F - Four Bolts

Bore Size (Inches)

PB E920 F X 2 7/16

Take-Up Frames

Nominal & Actual Adjustments (Inches)

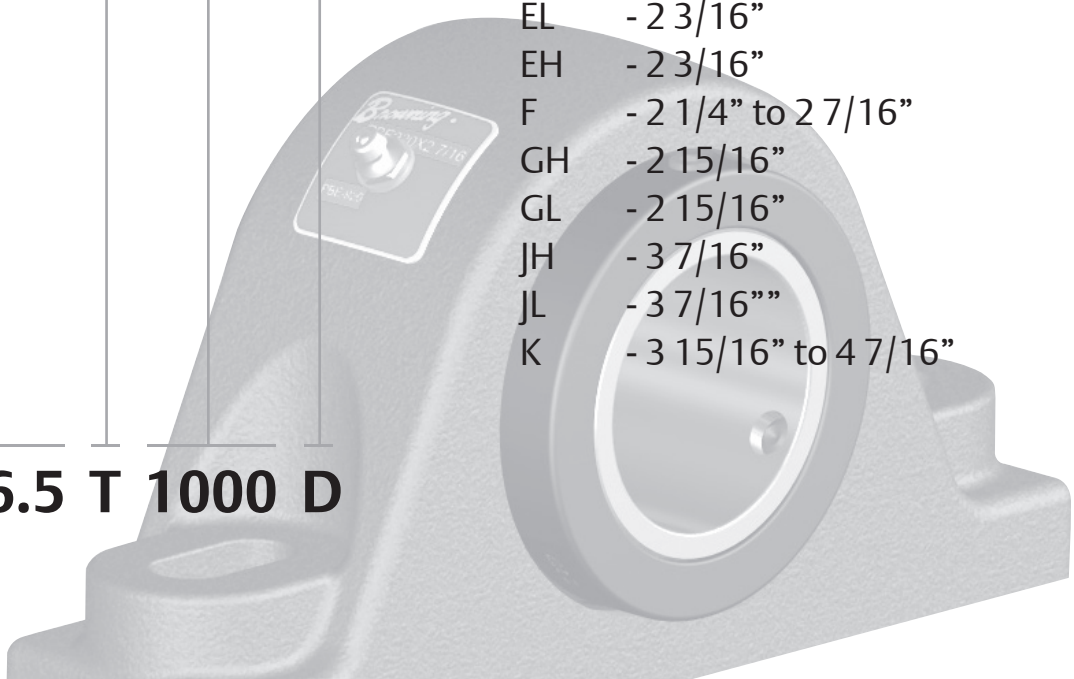
Take-Up Frame

Series
- 1000 - Center Pull (TUE920)

Compatible Range

D	- Up to 2”
EL	- 2 3/16”
EH	- 2 3/16”
F	- 2 1/4” to 2 7/16”
GH	- 2 15/16”
GL	- 2 15/16”
JH	- 3 7/16”
JL	- 3 7/16””
K	- 3 15/16” to 4 7/16”

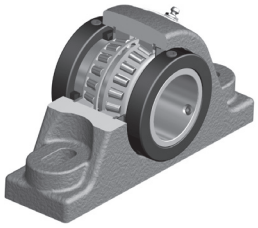
12-16.5 T 1000 D



Features and Benefits

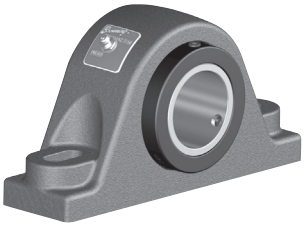
Tapered Roller Bearings

Browning® E920 Series mounted tapered roller bearings are available from 1 3/16" to 5" in a two and four bolt pillow blocks, four bolt flanges and take-up housing styles. All units are completely assembled, adjusted and lubricated at the factory and are ready for use.



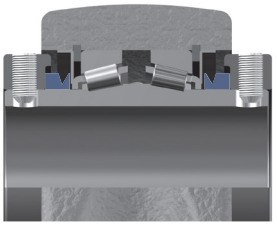
Heavy Duty Tapered Roller Bearings

Heavy duty tapered roller bearings for radial, thrust and combination loading.



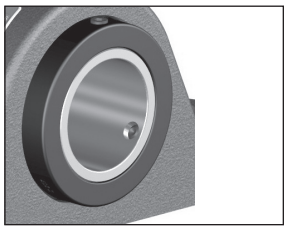
One-Piece Cast Iron Housing

Durable one-piece cast iron housings provide support load.



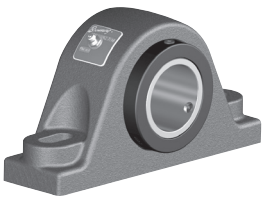
Contact Seal

Rubber contact face riding seals rotate with the shaft to help retain lubricant and help exclude contaminants.



Collar Mount System

Two locking collars are standard on all units with two setscrews at 120° for balanced three point contact and holding power. Locking collars are black oxide treated.



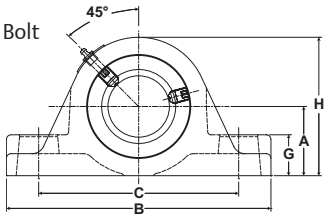
Rolling Elements: Tapered Roller

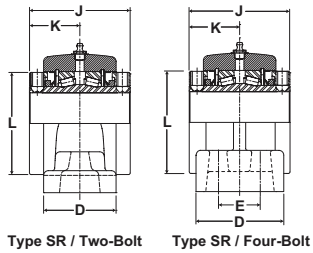
Housing: Cast Iron, Two And Four Bolt Pillow Blocks

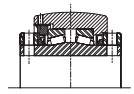
Lock: Setscrew, Double Collar

Seal: Contact

Temperature: -20°F to 200°F







PBE920 Series Two and Four-Bolt Base Pillow Blocks

Bore Diameter	Part No.	Basic Dynamic Rating lb/N	Type*	Dimensions inch / mm											Unit Wt. lb/kg
				A	B	C		D	E	G	H	J	K	L	Bolt Size	
inch						Min.	Max.								2 Bolt	4 Bolt	
1 3/16 1 1/4	PBE920x 1 3/16 PBE920x 1 1/4	2975 13233	SR	1 1/2 38.1	6 3/8 161.9	4 5/16 109.5	5 127.0	1 7/8 47.6	-----	7/8 22.2	3 76.2	2 3/4 69.9	1 25/64 35.3	2 1/4 57.2	1/2	-----	4.0 1.81
1 3/8 1 7/16	PBE920x 1 3/8 PBE920x 1 7/16	4760 21172	SR	1 7/8 47.6	7 3/8 187.3	5 127.0	6 152.4	2 1/8 54.0	-----	1 1/8 28.6	3 3/4 95.3	3 76.2	1 1/2 38.1	2 3/4 69.9	1/2	-----	6.9 3.1
1 1/2 1 5/8 1 11/16	PBE920x 1 1/2 PBE920x 1 5/8 PBE920x 1 11/16	6140 27311	SR	2 1/8 54.0	7 7/8 200.0	5 11/16 144.5	6 1/2 165.1	2 1/2 63.5	-----	1 1/4 31.8	4 1/4 108.0	3 3/8 85.7	1 11/16 42.9	3 3/16 81.0	1/2	-----	9.5 4.31
1 3/4 1 15/16 2	PBE920x 1 3/4 PBE920x 1 15/16 PBE920x 2	8070 35895	SR	2 1/4 57.2	8 7/8 225.4	6 3/16 157.2	7 1/4 184.2	2 1/2 63.5	-----	1 1/4 31.8	4 1/2 114.3	3 1/2 88.9	1 3/4 44.5	3 7/16 87.3	5/8	-----	10.9 4.94
2 3/16	PBE920x 2 3/16	8570 38119	SR	2 1/2 63.5	9 5/8 244.5	6 11/16 169.9	8 203.2	2 5/8 66.7	-----	1 7/16 36.5	5 127.0	3 3/4 95.3	1 7/8 47.6	3 3/4 95.3	5/8	-----	14.0 6.35
2 1/4 2 7/16 2 1/2	PBE920x 2 1/4 PBE920x 2 7/16 PBE920x 2 1/2	9030 40165	SR	2 3/4 69.9	10 1/2 266.7	7 1/8 181.0	8 3/4 222.3	2 7/8 73.0	-----	1 5/8 41.3	5 1/2 139.7	4 101.6	2 50.8	4 1/16 103.2	5/8	-----	19.0 8.62
2 11/16 2 3/4 2 15/16 3	PBE920x 2 11/16 PBE920x 2 3/4 PBE920x 2 15/16 PBE920x 3	9630 42834	SR	3 1/8 79.4	12 304.8	8 7/16 214.3	9 3/4 247.7	3 76.2	-----	1 3/4 44.5	6 1/4 158.8	4 1/2 114.3	2 1/4 57.2	4 23/32 119.9	3/4	-----	26.0 11.79
3 3/16 3 7/16 3 1/2	PBE920x 3 3/16 PBE920x 3 7/16 PBE920x 3 1/2	15320 68143	LN	3 3/4 95.3	14 355.6	9 3/4 247.7	11 1/2 292.1	3 5/8 92.1	-----	2 1/8 54.0	7 1/2 190.5	5 127.0	2 1/2 63.5	5 7/16 138.1	7/8	-----	44.0 19.96
2 1/4 2 7/16 2 1/2	PBE920Fx 2 1/4 PBE920Fx 2 7/16 PBE920Fx 2 1/2	9030 40165	SR	2 3/4 69.9	10 1/2 266.7	7 1/8 181.0	8 3/4 222.3	3 1/2 88.9	1 7/8 47.6	1 5/8 41.3	5 1/2 139.7	4 101.6	2 50.8	4 1/16 103.2	-----	5/8	19 8.62
2 11/16 2 3/4 2 15/16 3	PBE920Fx 2 11/16 PBE920Fx 2 3/4 PBE920Fx 2 15/16 PBE920Fx 3	9630 42834	SR	3 1/8 79.4	12 304.8	8 203.2	9 7/8 250.8	4 101.6	2 1/8 54.0	1 3/4 44.5	6 1/4 158.8	4 1/2 114.3	2 1/4 57.2	4 23/32 119.9	-----	5/8	26 11.79
3 3/16 3 7/16 3 1/2	PBE920Fx 3 3/16 PBE920Fx 3 7/16 PBE920Fx 3 1/2	15320 68143	LN	3 3/4 95.3	14 355.6	9 11/16 246.1	11 7/16 290.5	4 1/2 114.3	2 3/8 60	2 1/8 54.0	7 1/2 190.5	5 127.0	2 1/2 63.5	5 7/16 138.1	-----	3/4	44 19.96
3 15/16 4	PBE920Fx 3 15/16 PBE920Fx 4	20980 93319	LN	4 1/4 108.0	15 1/4 387.4	10 7/16 265.1	12 7/8 327.0	4 1/2 114.3	2 1/4 57.2	2 7/16 61.9	8 1/2 215.9	6 1/4 158.8	3 1/8 79.4	5 15/16 150.8		3/4	65 29.48
4 7/16 4 1/2	PBE920Fx 4 7/16 PBE920Fx 4 1/2	25750 114536	LN	4 3/4 120.7	16 5/8 422.3	11 1/4 285.8	13 7/8 352.4	4 5/8 117.6	2 1/2 63.5	2 3/4 69.9	9 3/8 238.1	6 3/4 171.5	3 3/8 85.7	6 13/32 162.7	-----	3/4	65 29
4 15/16 5	PBE920Fx 4 15/16 PBE920Fx 5	35520 157993	LN	5 1/2 139.7	18 1/2 469.9	13 330.2	15 7/8 403.2	5 1/8 130.2	2 3/4 69.9	3 1/8 79.4	10 7/8 276.2	7 1/4 184.2	3 5/8 92.1	7 13/32 188.1	-----	7/8	132 59.87

*Type LN and SR are different internal mounting configurations as shown in line drawings.

Metric dimensions for reference only.
Not all parts are available from stock. Please contact customer service for availability (800) 626-2120.
For more information on bearing capabilities outside of our standard offering, please contact Application Engineering (800) 626-2093.

E920 Series Bearings

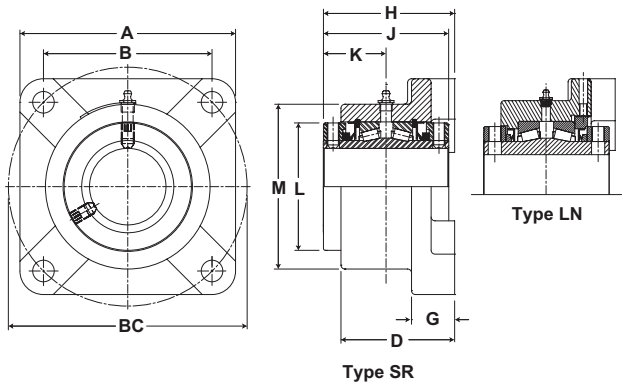
Rolling Elements: Tapered Roller

Housing: Cast Iron, Four Bolt, Flange Block

Lock: Setscrew, Double Collar

Seal: Contact

Temperature: -20°F to 200°F

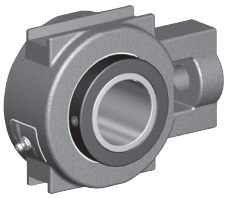


FBE920 Series Four-Bolt Flange Units

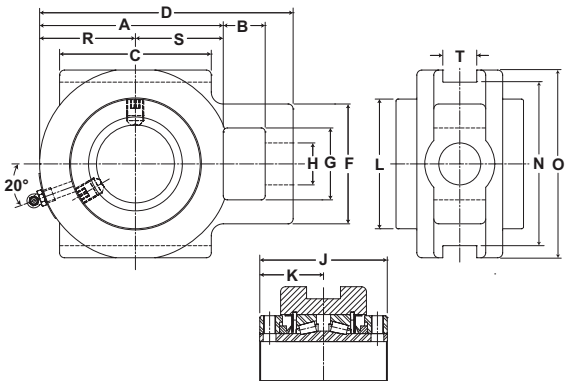
Bore Diameter inch	Part No.	Basic Dynamic Rating lb/N	Type*	Dimensions inch / mm										Unit Wt. lb/kg
				A	B.C.	B	D	G	H	J	L	M	Bolt Size	
1 3/16 1 1/4	FBE920x 1 3/16 FBE920x 1 1/4	2975 13233	SR	3 3/4 95.3	4 1/16 103.3	2 7/8 73.0	2 3/8 60.3	1 1/32 26.2	2 27/32 72.2	2 3/4 69.9	2 1/4 57.2	3 76.2	3/8	4.5 2.04
1 3/8 1 7/16	FBE920x 1 3/8 FBE920x 1 7/16	4760 21172	SR	4 5/8 117.5	4 61/64 125.8	3 1/2 88.9	2 5/8 66.7	1 1/16 27.0	3 5/64 78.2	3 76.2	2 3/4 69.9	3 5/8 92.1	1/2	6.7 3.04
1 1/2 1 5/8 1 11/16	FBE920x 1 1/2 FBE920x 1 5/8 FBE920x 1 11/16	6140 27311	SR	5 3/8 136.5	5 53/64 148.0	4 1/8 104.8	3 76.2	1 3/16 30.2	3 29/64 87.7	3 3/8 85.7	3 3/16 81.0	4 1/4 108.0	1/2	10.0 4.54
1 3/4 1 15/16 2	FBE920x 1 3/4 FBE920x 1 15/16 FBE920x 2	8070 35895	SR	5 5/8 142.9	6 3/16 157.2	4 3/8 111.1	3 1/8 79.4	1 3/16 30.2	3 5/8 92.1	3 1/2 88.9	3 7/16 87.3	4 1/2 114.3	1/2	12.0 5.44
2 3/16	FBE920x 2 3/16	8570 38119	SR	6 1/4 158.8	6 57/64 175.0	4 7/8 123.8	3 5/16 84.1	1 1/4 31.8	3 7/8 98.3	3 3/4 95.0	3 3/4 95.3	4 7/8 123.8	5/8	16.0 7.26
2 1/4 2 7/16 2 1/2 2 1/2	FBE920x 2 1/4 FBE920x 2 7/16 FBE920x 2 1/2 FBE920x 2 1/2	9030 40165	SR	6 7/8 174.6	7 39/64 193.3	5 3/8 136.5	3 5/8 92.1	1 1/2 38.1	4 3/16 106.3	4 101.6	4 1/16 103.2	5 1/4 133.4	5/8	21.0 9.53
2 11/16 2 3/4 2 15/16 3	FBE920x 2 11/16 FBE920x 2 3/4 FBE920x 2 15/16 FBE920x 3	9630 42834	SR	7 3/4 196.9	8 31/64 215.5	6 152.4	3 15/16 100.0	1 5/8 41.3	4 11/16 119.1	4 1/2 114.3	4 23/32 119.9	6 1/8 155.6	3/4	28.0 12.70
3 3/16 3 7/16 3 1/2	FBE920x 3 3/16 FBE920x 3 7/16 FBE920x 3 1/2	15320 68143	LN	9 1/4 235.0	9 29/32 251.6	7 177.8	4 9/16 115.9	1 7/8 47.6	5 1/4 133.4	5 127.0	5 7/16 138.1	7 1/2 190.5	3/4	46.0 20.87
3 15/16 4	FBE920x 3 15/16 FBE920x 4	20980 93319	LN	10 1/4 260.4	10 31/32 278.6	7 3/4 196.9	5 11/16 144.5	2 3/16 55.6	6 9/16 166.7	6 1/4 158.6	5 15/16 150.8	8 1/4 209.6	7/8	64.0 29.03

*Type LN and SR are different internal mounting configurations as shown in line drawings.

Metric dimensions for reference only.
Not all parts are available from stock. Please contact customer service for availability (800) 626-2120.
For more information on bearing capabilities outside of our standard offering, please contact Application Engineering (800) 626-2093.



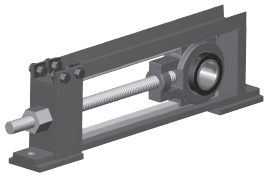
Rolling Elements: Tapered Roller
Housing: Cast Iron, Take Ups
Lock: Setscrew, Double Collar
Seal: Contact
Temperature: -20°F to 200°F



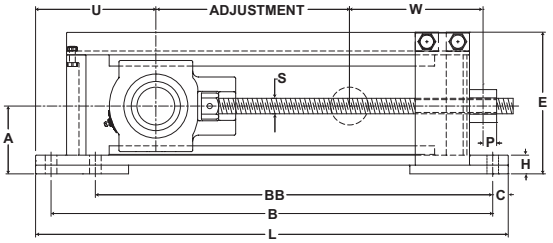
TUE920 Series Take Up Units

Bore Diameter inch	Part No.	Basic Dynamic Rating lb/N	Dimensions inch / mm															Unit Wt. lb/kg
			A	B	C	D	F	G	H	J	K	L	N	O	R	S	T	
1 3/8*	TUE920x 1 3/8	4760	3 3/4	5/8	2 3/4	5 3/32	2 7/16	1 7/16	13/16	3	1 1/2	2 3/4	3 1/2	4 1/8	1 3/4	1 29/32	17/32	6.0
1 7/16*	TUE920x 1 7/16	21172	95.8	15.9	69.9	129.4	61.9	36.5	20.6	76.2	38.1	69.9	88.9	104.8	47.3	48.4	13.5	2.72
1 1/2	TUE920x 1 1/2	6140	4 5/16	1 1/16	3 1/4	6	2 7/8	1 15/16	1 1/16	3 3/8	1 11/16	3 3/16	4	4 3/4	2 1/4	2 1/8	11/16	9.0
1 11/16	TUE920x 1 11/16	27311	109.5	27.0	82.6	152.4	73.0	49.2	27.0	85.7	42.9	81.0	101.6	120.7	55.5	54.0	17.5	4.08
1 3/4	TUE920x 1 3/4	8070	4 3/8	1 1/16	3 1/2	6 3/16	2 7/8	1 15/16	1 1/16	3 1/2	1 3/4	3 7/16	4	4 3/4	2 1/2	2 1/8	11/16	12.0
1 15/16	TUE920x 1 15/16	35895	111.3	27.0	88.9	157.2	73.0	49.2	27.0	88.9	44.5	87.3	101.6	120.7	57.3	54.0	17.5	5.44
2	TUE920x 2																	
2 3/16	TUE920x 2 3/16	8570	4 7/8	1 3/16	3 3/4	6 13/16	3 1/2	2 1/4	1 3/16	3 3/4	1 7/8	3 3/4	4 1/2	5 1/4	2 1/2	2 3/8	13/16	16.0
		38119	123.7	30.2	95.3	173.0	88.9	57.2	30.2	95.3	47.6	95.3	114.3	133.4	63.4	60.3	20.6	7.26
2 7/16	TUE920x 2 7/16	9030	5 3/4	1 5/16	4 3/4	7 15/16	3 3/4	2 1/4	1 5/16	4	2	4 1/16	5 1/8	5 7/8	3	2 3/4	1 1/16	21.0
2 1/2	TUE920x 2 1/2	40165	146.1	33.3	120.7	201.6	95.3	57.2	33.3	101.6	50.8	103.2	130.0	149.2	76.2	69.9	27.0	9.53
2 11/16	TUE920x 2 11/16																	
2 3/4	TUE920x 2 3/4	9630	6 3/16	1 9/16	4 3/4	8 3/4	4 1/4	2 3/4	1 9/16	4 1/2	2 1/4	4 23/32	5 15/16	6 3/4	3 1/4	3	1 13/16	30.0
2 15/16	TUE920x 2 15/16	42834	157.2	39.7	120.7	222.3	108.0	69.9	39.7	114.3	57.2	119.9	150.6	171.5	81.0	76.2	46.0	13.61
3	TUE920x 3																	
3 7/16	TUE920x 3 7/16	15320	7 5/8	1 13/16	6 1/4	10 7/16	4 7/8	2 7/8	1 13/16	5	2 1/2	5 7/16	6 13/16	7 5/8	4	3 5/8	1 13/16	44.0
		68143	193.8	46.0	158.8	265.1	123.8	73.0	46.0	127.0	63.5	138.1	173.0	193.7	101.7	92.1	46.0	19.96
3 15/16	TUE920x 3 15/16	20980	8 9/16	2 1/8	7	11 13/16	5 5/8	3 3/8	2 3/16	6 1/4	3 1/8	5 15/16	8 5/8	9 7/16	4 1/2	4 1/8	2 1/16	70.0
		93319	217.2	54.0	177.8	300.0	142.9	85.7	55.6	158.8	79.4	150.8	219.1	239.7	112.4	104.8	52.4	31.75
4 7/16	TUE920x 4 7/16	25750	8 9/16	2 1/8	7	11 13/16	5 5/8	3 3/8	2 3/16	6 3/4	3 3/8	6 13/32	8 5/8	9 7/16	4 1/2	4 1/8	2 1/16	74.0
		114536	217.2	54.0	177.8	300.0	142.9	85.7	55.6	171.5	85.7	162.7	219.1	239.7	112.4	104.8	52.4	33.57

Part Numbers are specified by TUE 920 and bore size: Example, TUE920 x 1 3/16.
These Take-Up Bearings are to be used with Take-Up Frames shown on page I-45 and I-46.
Bearing unit and frame must be ordered separately.
* Take -Up frames not available in these sizes.



Housing: All Steel Take-Up Frame, Removable Top Permits Assembling Of Take-Up Unit On Shelf Before Inserting In Take-Up Frame



T1000 Take Up Frames

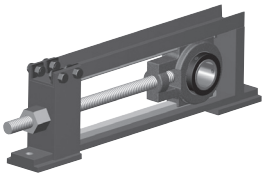
Bore Diameter	Part No.	Dimensions inch / mm																	Bolts Req'd		Unit Wt.
		Adjustment		A	B	BB	C	E	G	H	K	L	M	P	S	U	V	W			
inch		Nominal	Actual																No.	Size	lb/kg
1 3/4	12-16.5T1000D	12	16.5	3 15/16	27 1/2	26 1/2						29 1/2									60.0
		304.8	419.1	100.0	698.5	673.1						749.3									27.22
1 15/16	18-22.5T1000D	18	22.5	3 15/16	33 1/2	32 1/2	1	8 9/32	4	1 1/4	-----	35 1/2	1 7/8	1 1/4	1-8NC	5 3/8	-----	5 5/8	2	5/8	70.0
		457.2	571.5	100.0	850.9	825.5	25.4	210.3	101.6	31.8		901.7	47.6	31.8		136.5		142.9			31.75
2	24-28.5T1000D	24	28.5	3 15/16	39 1/2	38 1/2						41 1/2									80.0
		609.6	723.9	100.0	1,003.3	977.9						1,054.1									36.29
	12-17T1000EL	12	17.0	4 3/16	27 1/2							29 1/2									65.0
		304.8	431.8	106.4	698.5							749.3									29.48
2 3/16	18-23T1000EL	18	23.0	4 3/16	33 1/2	-----	1	8 21/32	4	1 3/8	-----	35 1/2	2	1 5/8	1 1/8-7NC	4 9/16	-----	5 15/16	2	5/8	77.0
		457.2	584.2	106.4	850.9		25.4	219.9	101.6	34.9		901.7	50.8	41.3		115.9		150.8			34.93
	24-29T1000EL	24	29.0	4 3/16	39 1/2							41 1/2									86.0
		609.6	736.6	106.4	1,003.3							1,054.1									39.01
	12-17T1000EH	12	17.0	4 7/16	27 1/2							29 1/2									68.0
		304.8	431.8	112.7	698.5							749.3									30.8
2 3/16	18-23T1000EH	18	23.0	4 7/16	33 1/2	-----	1	8 29/32	4	1 5/8	-----	35 1/2	2	1 5/8	1 1/8-7NC	4 9/16	-----	5 15/16	2	5/8	80.0
		457.2	584.2	112.7	850.9		25.4	226.2	101.6	41.3		901.7	50.8	41.3		115.9		150.8			36.29
	24-29T1000EH	24	29.0	4 7/16	39 1/2							41 1/2									91.0
		609.6	736.6	112.7	1,003.3							1,054.1									41.28
	12-16.6T1000F	12	16.6	4 3/8	28 1/2							30 1/2									71.0
		304.8	421.64	111.1	723.9							774.7									32.21
2 7/16	18-22.6T1000F	18	22.6	4 3/8	34 1/2							36 1/2									81.0
		457.2	574.04	111.1	876.3	-----	1	9 9/32	4	1 1/8	-----	927.1	2 1/8	1 3/4	1 1/4-7NC	5 5/16	-----	6 9/16	2	3/4	36.74
2 1/2	24-28.6T1000F	24	28.6	4 3/8	40 1/2		25.4	235.7	101.6	28.6		42 1/2	54.0	44.5		134.9		166.7			91.0
		609.6	726.44	111.1	1,028.7							1,079.5									41.28
	30-34.6T1000F	30	34.6	4 3/8	46 1/2							48 1/2									111.0
		762.0	878.84	111.1	1,181.1							1,231.9									50.35
2 11/16	12-15.5T1000GL	12	15.5	4 15/16	30 1/2							32 1/2									105.0
		304.8	393.7	125.4	774.7							825.5									47.63
2 3/4	18-21.5T1000GL	18	21.5	4 15/16	36 1/2							38 1/2									120.0
		457.2	546.1	125.4	927.1	-----	1	10 11/16	5	31/32	1 1/2	977.9	2 3/8	1/2	1 1/2-6NC	6 1/2	2	8 1/2	4	5/8	54.43
2 15/16	24-27.5T1000GL	24	27.5	4 15/16	42 1/2		25.4	271.5	127.0	24.6	38.1	44 1/2	60.3	12.7		165.1	50.8	215.9			135.0
		609.6	698.5	125.4	1,079.5							1,130.3									61.23
3	30-33.5T1000GL	30	33.5	4 15/16	48 1/2							50 1/2									150.0
		762	850.9	125.4	1,231.9							1,282.7									68.04

Part Numbers are specified by "T1000" with travel adjustment and bore size.
Example 12-16.6T1000 has 12"-16.6" adjustment and will accommodate a TUE920x 2 7/16" or USTU5000-207 bearing unit.
These Take-Up Frames are to be used with TUE Take-Up Units shown on page I-44 and USTU Take-Up Units shown on page H-21.
Bearing unit and frame must be ordered separately.
Frames give greater ACTUAL adjustment, often permitting use of shorter, more compact frames.
Frames with over 12" nominal adjustment have a third foot in the center for extra support.

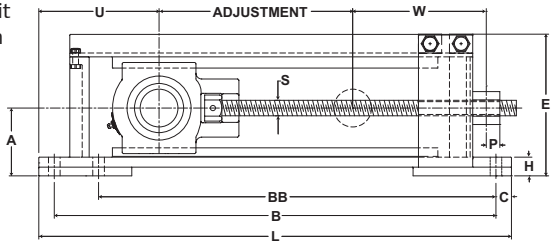
Metric dimensions for reference only.

Not all parts are available from stock. Please contact customer service for availability (800) 626-2120.

For more information on bearing capabilities outside of our standard offering, please contact Application Engineering (800) 626-2093.



Housing: All Steel Take-Up Frame, Removable Top Permits Assembling Of Take-Up Unit On Shelf Before Inserting In Take-Up Frame



T1000 Take Up Frames Continued

Bore Diameter	Part No.	Dimensions inch / mm																	Unit Wt.
		Adjustment		A	B	BB	C	E	G	H	K	L	M	P	S	U	V	W	Bolts Req'd	
inch		Nominal	Actual																No.	Size	lb/kg
2 11/16	12-15.5T1000GH	12	15.5	5 1/8	30 1/2	-----	1	10 7/8	5	1 5/32	1 1/2	32 1/2	2 3/8	1/2	1 1/2-6NC	6 1/2	2	8 1/2	4	5/8	109.0
		304.8	393.7	130.2	774.7		25.4	276.2	127.0	29.4	38.1	825.5	60.3	12.7		165.1	50.8	215.9			49.44
2 3/4	18-21.5T1000GH	18	21.5	5 1/8	36 1/2							38 1/2									126.0
		457.2	546.1	130.2	927.1							977.9									57.15
2 15/16	24-27.5T1000GH	24	27.5	5 1/8	42 1/2							44 1/2									141.0
		609.6	698.5	130.2	1,079.5							1130.3									63.96
3	30-33.5T1000GH	30	33.5	5 1/8	48 1/2							50 1/2									156.0
		762.0	850.9	130.2	1,231.9							1,282.7									70.76
3 3/16	12-15.5T1000JL	12	15.5	5 7/16	32	-----	1 1/8	11 5/8	5	1 1/32	1 1/2	34 1/4	2 19/32	1	1 3/4-5NC	7 5/16	2	9 3/16	4	3/4	138.0
		304.8	393.7	138.1	812.8		28.6	295.3	127.0	26.2	38.1	870.0	65.9	25.4		185.7	50.8	233.4			62.60
3 7/16	18-21.5T1000JL	18	21.5	5 7/16	38							40 1/4									156.0
		457.2	546.1	138.1	965.2							1022.4									70.76
3 1/2	24-27.5T1000JL	24	27.5	5 7/16	44							46 1/4									173.0
		609.6	698.5	138.1	1117.6							1174.8									78.47
	30-33.5T1000JL	30	33.5	5 7/16	50							52 1/4									191.0
		762	850.9	138.1	1,270.0							1,327.2									86.64
3 3/16	12-15.5T1000JH	12	15.5	5 5/8	32	-----	1 1/8	11 13/16	5	1 7/32	1 1/2	34 1/4	2 19/32	1	1 3/4-5NC	7 5/16	2	9 3/16	4	3/4	145.0
		304.8	393.7	142.9	812.8		28.6	300.0	127.0	31.0	38.1	867	65.9	25.4		185.7	50.8	233.4			65.77
3 7/16	18-21.5T1000JH	18	21.5	5 5/8	38							40 1/4									163.0
		457.2	546.1	142.9	965.2							1022.4									73.94
3 1/2	24-27.5T1000JH	24	27.5	5 5/8	44							46 1/4									179.0
		609.6	698.5	142.9	1,117.6							1174.8									81.19
	30-33.5T1000JH	30	33.5	5 5/8	50							52 1/4									197.0
		762.0	850.9	142.9	1,270.0							1327.2									89.36
3 11/16	12-18T1000K	12	18.0	7	36	-----	1 1/4	14 15/32	6	1 7/16	1 3/4	38 1/2	2 31/32	1 5/8	2-4 1/2NC	7 1/2	2 1/2	10 7/16	4	3/4	191.0
		304.8	457.2	177.8	914.4		31.8	367.5	152.4	36.5	44.5	977.9	75.4	41.3		190.5	63.5	265.1			86.64
3 15/16	18-24T1000K	18	24	7	42							44 1/2									223.0
		457.2	609.6	177.8	1,066.8							1,130.3									101.15
4	24-30T1000K	24	30	7	48							50 1/2									249.0
		609.6	762	177.8	1219.2							1,282.7									112.94
4 7/16	30-36T1000K	30	36	7	54							56 1/2									274.0
4 1/2		762	914.4	177.8	1,371.6							1,435.1									124.28

Part Numbers are specified by "T1000" with travel adjustment and bore size.
Example 12-16.6T1000 has 12"-16.6" adjustment and will accommodate a TUE920x 2 7/16" or USTU5000-207 bearing unit.
These Take-Up Frames are to be used with TUE Take-Up Units shown on page I-44 and USTU Take-Up Units shown on page H-21.
Bearing unit and frame must be ordered separately.
Frames give greater ACTUAL adjustment, often permitting use of shorter, more compact frames.
Frames with over 12" nominal adjustment have a third foot in the center for extra support.

Table of Contents

Load Ratings and Life

Life Calculations

The L10 (rating) life for any given application and bearing selection can be calculated in terms of millions of revolutions by using the bearing Basic Dynamic Rating and applied radial load (or, equivalent radial load in the case of radial bearing applications having combined radial and thrust loads). The L10 life for any given application can be calculated in terms of hours, using the bearing Basic Dynamic Rating, applied load (or equivalent radial load) and suitable speed factors. The BDR for double row spherical roller bearings is based on one million revolutions and the equation to calculate their L10 life is as follows:

Spherical Roller Bearing

$$L_{10} = \left(\frac{C}{P}\right)^{10/3} \times \frac{1{,}000{,}000}{60 \times n} = \left(\frac{C}{P}\right)^{10/3} \times \frac{16667}{n}$$

Where: L_{10} = The # of hours that 90% of identical bearings under ideal conditions will operate at a specific speed and condition before fatigue is expected to occur.

C = Basic Dynamic Rating (lbs) 1,000,000 Revolutions

P = Constant Equivalent Radial Load (lbs)

n = Speed (RPM)

The BDR for tapered roller bearings is based on 90 million revolutions instead of one million for other types of bearings. Therefore there is a specific equation used to calculate their L10 life.

Tapered Roller Bearing

$$L_{10} = \left(\frac{C90}{P}\right)^{10/3} \times \frac{90{,}000{,}000}{60 \times n} = \left(\frac{C90}{P}\right)^{10/3} \times \frac{1{,}500{,}000}{n}$$

Where: L_{10} = The # of hours that 90% of identical bearings under ideal conditions will operate at a specific speed and condition before fatigue is expected to occur.

C90 = 2-Row Basic Dynamic Rating (lbs) 90,000,000 Revolutions

P = Constant Equivalent Radial Load (lbs)

n = Speed (RPM)*

* For speeds less than 50 RPM, use 50 RPM when doing L10 calculations.

Note: L10 life does not apply to rod ends and plain spherical bearings due to the sliding motion between components versus a rolling motion. Normal operation of these types of bearings results in wear of the raceways or fatigue or fracture of the outer member. Give consideration to this in the design of the equipment.

Shock and Vibration

Vibration and shock loading can act a additional loading to the steady expected applied load. When shock or vibration is present, multiply the theoretical life by the factors below to determine adjusted theoretical life.

Mounted Roller Bearing Shock Vibration Factors	
Steady Loading	1.0
Light Shock / Vibration	0.5
Moderate Shock / Vibration	0.3

Additionally, the ABMA provides application factors for all types of bearings which need to be considered to determine an adjusted Rated Life (Lna). L10 life rating is based on laboratory conditions yet other factors are encountered in actual bearing application that will reduce bearing life. Lna life rating takes into account reliability factors, material type, and operating conditions.

$$L_{na} = a_1 \times a_2 \times a_3 \times L_{10}$$

Where:

L_{na} = Adjusted Rated Life.

a_1 = Reliability Factor. Adjustment factor applied where estimated fatigue life is based on reliability other than 90% (See Table No 1).

a_2 = Material Factor. Life adjustment for bearing race material. Regal Power Transmission Solutions bearing races are manufactured from bearing quality steel. Therefore the a_2 factor is 1.0.

Table No. 1 Life Adjustment Factor for Reliability

Reliability %	L_{na}	a_1
90	L10	1
95	L5	0.62
96	L4	0.53
97	L3	0.44
98	L2	0.33
99	L1	0.21
50	L50	5

a_3 = Life Adjustment Factor for Operating Conditions. This factor should take into account the adequacy of lubricant, presence of foreign matter, conditions causing changes in material properties, and unusual loading or mounting conditions. Assuming a properly selected and mounted bearing having adequate seals and lubricant operating below 250°F and tight fitted to the shaft, the a_3 factor should be 1.0.

Load Ratings and Life Continued

Mounted bearings are typically "slip fitted" to the shaft and rely on design features such as the inner race length and locking device for support.

Vibration and shock loading can act as an additional loading to the steady expected applied load. When shock or vibration is present, an a^3 Life Adjustment Factor can be applied. Shock loading has many variables which often are not easily determined. Typically, it is best to rely on one's experience with the particular application. Consult Application Engineering for assistance with applications involving shock or vibration loading.

The a^3 factor takes into account a wide range of application and mounting conditions as well as bearing features and design. Accurate determination of this factor is normally achieved through testing and in-field experience. Regal Power Transmission Solutions offers a wide range of options which can maximize bearing performance. Consult Application Engineering for more information. See sample calculations on page I-54.

Combined Load – Tapered Roller Bearings

1. Calculate the bearing internal thrust reaction (FIR):

$$FIR = \frac{0.6 \times F}{K}$$

F - applied radial load
K - factor K in Table No. 6

2. If the thrust load (Fa) is less than or equal to FIR, then calculate the equivalent radial load as follows:

$$P = (0.5 \times F_r) + (0.83 \times K \times F_a)$$

3. If the thrust load (Fa) is greater than FIR then calculate the equivalent radial load as follows:

$$P = (0.4 \times F_r) + (K \times F_a)$$

4. Calculate the expected L10 life using the single row basic dynamic load rating:

$$L10 = \left(\frac{\text{single row load rating}}{P} \right)^{10/3} \times \frac{3000 \times 500}{n}$$

Table No. 2 - Sealmaster RPB and Browning E920 Tapered Roller Bearing Load Ratings

Bore Size		Radial Rating (pounds)		(1) Thrust Rating (pounds)	Factor K	Allowable Thrust on Pillow Block Housing	
inch	mm	2 Row	1 Row			2 Bolt Base	4 Bolt Base
1 3/16 - 1 1/4	-	2975	1710	1390	1.23	960	-
1 3/8 - 1 7/16	35	4760	2740	2080	1.31	1600	-
1 1/2 - 1 11/16	40	6140	3530	2600	1.36	1580	-
1 3/4 - 2	45 - 50	8070	4640	2540	1.83	2500	-
2 3/16	55	8570	4910	2980	1.65	2360	-
2 1/4 - 2 1/2	60 - 65	9030	5220	3470	1.51	2350	5700
2 11/16 - 3	70 - 75	9630	5510	4260	1.30	3340	5700
3 3/16 - 3 1/2	80 - 95	15320	8790	7410	1.19	4450	10980
3 15/16 - 4	100 - 105	20980	12100	9800	1.23	-	7250
4 7/16 - 4 1/2	110 - 115	25750	14800	13100	1.13	-	6680
4 15/16 - 4 1/2	120 - 125	35520	20400	16000	1.27	-	9000

(1) For thrust load pillow block applications, the bearing thrust rating must be compared to the allowable thrust load capacity of the housing. In a number of sizes, the allowable thrust capacity of the pillow block is less than the thrust rating of the bearing. When this circumstance exists, do not exceed the pillow block housing thrust capacity. In thrust applications utilizing flange or piloted flange housings, please contact application engineering for allowable housing thrust limits.

Load Ratings and Life Continued

Combined Load – Double Row Spherical Roller Bearings

1. Calculate Fa/Fr and compare the value to the "e" value found in following tables. Fa/Fr must be less than 1.

2. Choose values for "X" and "Y" from Table 3.

Table No. 3 - Sealmaster USRB Spherical Roller Bearing Load Ratings

Bore Size (inch)	Basic Dynamic Rating	Basic Static Rating		$F_a/F_r \le e$		$F_a/F_r > e$		Combined Static Load Factors	
	C (lb)	C_o (lb)	e	X	Y	X	Y	X_o	Y_o
1 1/8 - 1 1/2	20368	23609	.34	1.0	2.0	0.67	2.9	1.0	1.9
1 11/16 - 1 3/4	22689	28021	.32	1.0	2.1	0.67	3.2	1.0	2.1
1 15/16 - 2	23520	29918	.31	1.0	2.2	0.67	3.2	1.0	2.1
2 3/16	28087	34981	.30	1.0	2.3	0.67	3.4	1.0	2.2
2 7/16 - 2 1/2	44691	59535	.31	1.0	2.2	0.67	3.3	1.0	2.2
2 11/16 - 3	47447	65610	.29	1.0	2.3	0.67	3.4	1.0	2.3
3 3/16 - 3 /12	72640	105628	.29	1.0	2.3	0.67	3.5	1.0	2.3
3 11/16 - 4	96050	136151	.30	1.0	2.3	0.67	3.4	1.0	2.2
4 7/16 - 4 1/2	111537	161283	.30	1.0	2.3	0.67	3.4	1.0	2.2
4 15/16 - 5	158816	247307	.32	1.0	2.1	0.67	3.2	1.0	2.1
5 7/16	196682	290447	.33	1.0	2.0	0.67	3.0	1.0	2.0
5 15/16	261346	390391	.35	1.0	1.9	0.67	2.9	1.0	1.9
6 7/16 - 7	334229	498544	.35	1.0	1.9	0.67	2.9	1.0	1.9
7 1/2 - 8	363818	587106	.35	1.0	1.9	0.67	2.9	1.0	1.9

3. Calculate equivalent load using the following equation:

$$P = XFr + YFa$$

4. Calculate the L10 life using the life equation on page I-48.

Load Ratings and Life Continued

Variable Load Formula

Root mean load (RML) is to be used when a number of varying loads are applied to a bearing for varying time limits. Maximum loading still must be considered for bearing size selection.

$$RML^{*} = \sqrt[10/3]{\frac{(L_1^{10/3}N_1)+(L_2^{10/3}N_2)+(L_3^{10/3}N_3)}{100}}$$

Where,
RML = Root Mean Load (lbs.)
L1, L2, etc. = Load in pounds
N1, N2, etc. = Percent of total time operated at loads L1, L2, etc.

* Apply RML to rating at mean speed to determine resultant life.

Mean Speed Formula

The following formula is to be used when operating speed varies over time.

$$\text{Mean Speed} = \frac{S_1N_1+S_2N_2+S_3N_3}{100}$$

S_1S_2, etc = Speeds in RPM
N_1N_2, etc = Percentage of total time operated at speeds S_1S_2, etc

Bearing Life In Oscillating Applications

The equivalent rotative speed (ERS) is used in life calculations when the bearing does not make complete revolutions during operation. The ERS is then used as the bearing operating speed in the calculation of the L10 (Rating) Life. The formula is based on sufficient angular rotation to have roller paths overlap.

ERS = Equivalent Rotative Speed
N = Total number of degrees per minute through which the bearing will rotate.

$$ERS = \frac{N}{360}$$

In the above formula, allowance is made for the total number of stress applications on the weakest race per unit time, which, in turn, determines fatigue life and the speed factors. The theory behind fretting corrosion is best explained by the fact that the rolling elements in small angles of oscillation retrace a path over an unchanging area of the inner or outer races where the lubricant is prevented by inertia from flowing in behind the roller as the bearing oscillates in one direction. Upon reversal, this small area of rolling contact is traversed by the same roller in the dry state. The friction of the two unlubricated surfaces causes fretting corrosion and produces failures which are unpredictable from a normal life standpoint.

With a given bearing selected for an oscillating application, the best lubrication means is a light mineral oil under positive flow conditions. With a light oil, there is a tendency for all areas in the bearing load zone to be immersed in lubricant at all times. The full flow lubrication dictates that any oxidized material which may form is immediately carried away by the lubricant, and since these oxides are abrasive, further wear tends to be avoided. If grease lubrication must be used, it is best to consult with either the bearing manufacturer or the lubricant manufacturer to determine the best possible type of lubricant. Greases have been compounded to resist the detrimental effect of fretting corrosion for such applications.

Load Ratings and Life Continued

Static Load Rating

The “static load rating” for rolling element bearings is that uniformly distributed static radial load acting on a non-rotating bearing, which produces a contact stress of 580,000 psi at the center of the most heavily loaded rolling element. At this stress level, plastic deformation begins to be significant. Experience has shown that the plastic deformation at this stress level can be tolerated in most bearing applications without impairment of subsequent bearing operation. In certain applications where subsequent rotation of the bearing is slow and where smoothness and friction requirements are not too exacting, a higher static load limit can be tolerated. Where extreme smoothness is required or friction requirements are critical, a lower static load limit may be necessary.

Load Ratings and Life Continued

Minimum Bearing Load:

Skidding, or sliding, of the rolling elements on the raceway instead of a true rolling motion can cause excessive wear. Applications with high speeds and light loading are particularly prone to skidding. As a general guideline, rolling element bearings should be radially loaded at least 2% of Basic Dynamic Rating for roller bearings. For applications where load is light relative to the bearings dynamic load rating, consult Application Engineering for assistance.

Computing Bearing Loads

In the computation of bearing loads in any application of an Regal Power Transmission Solutions unit, the principal factor determining the selection of the unit is the equivalent radial load to which the bearing will be subjected. These radial loads result from any one or any combination of the following sources:

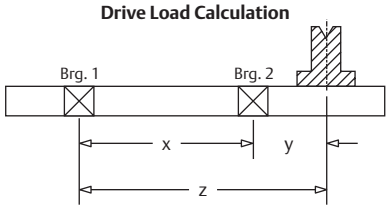
1. Weights of machine parts supported by bearings.
2. Tension due to belt or chain pull.
3. Centrifugal force from out of balance, eccentric or cam action.

The resulting load from any one, or any combination of the above sources is further determined by knowing:

1. The magnitude of the load.
2. Direction of the load.
3. The point of load application.
4. The distance between bearing centers.

Bearing loads are the result of force acting on the shaft. Direction, magnitude, and location with respect to the bearings must be considered when calculating bearing loads. The following cases are typical examples of loads encountered and methods of calculating bearing loads.

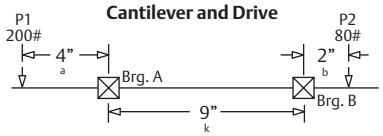
CASE #1
Drive Load Calculation



$$P = \frac{126{,}000 \times HP}{RPM \times d} \times K$$ = Apply P to Case 2, 3 or 4 if applicable

HP = horsepower
RPM = revolutions per minute
d = pitch of pulley in inches
K = constant for type of drive used
K = 1.5 for V-belts
K = 2 to 3 for flat transmission belts
K = 1.1 for chain drives

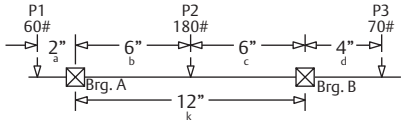
CASE #2
Cantilever and Drive



$$\text{Load on Bearing A} = \frac{P_1 \times (a + k) - (P_2 \times b)}{k}$$
$$= \frac{200 \times (4 + 9) - (80 \times 2)}{9}$$
$$= 271 \text{ lbs.}$$

$$\text{Load on Bearing B} = \frac{P_2 \times (k + b) - (P_1 \times a)}{k}$$
$$= \frac{80 \times (9 + 2) - (200 \times 4)}{9}$$
$$= 9 \text{ lbs.}$$

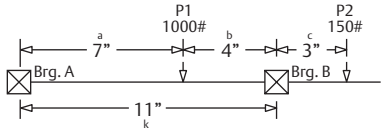
CASE #3
Straddle, Cantilever Drive



$$\text{Load on Bearing A} = \frac{P_1 \times (k + a) + (P_2 \times c) - (P_3 \times d)}{k}$$
$$= \frac{60 \times (12 + 2) + (180 \times 6) - (70 \times 4)}{12}$$
$$= 137 \text{ lbs.}$$

$$\text{Load on Bearing B} = \frac{-(P_1 \times a) + (P_2 + b) + P_3 \times (k + d)}{k}$$
$$= \frac{-(60 \times 2) + (180 \times 6) + 70 \times (12 + 4)}{12}$$
$$= 173 \text{ lbs.}$$

CASE #4
Straddle Mount, Cantilever Drive



$$\text{Load on Bearing A} = \frac{(P_1 \times b) - (P_2 \times c)}{k}$$
$$= \frac{(1000 \times 4) - (150 \times 3)}{11}$$
$$= 323 \text{ lbs.}$$

$$\text{Load on Bearing B} = \frac{(P_1 \times a) + (c + k) \times (P_2)}{k}$$
$$= \frac{(1000 \times 7) + (3 + 11) \times (150)}{11}$$
$$= 827 \text{ lbs.}$$

CASE #5
Vibrating Drives

Load due to Centrifugal and Inertial Forces - In a shaker or gyrating screen bearing application, the load on the bearings is increased by sudden stopping, starting, and reversing of typically large loads. This can be expressed as a basic physical law:

Force = Mass x Accelerations

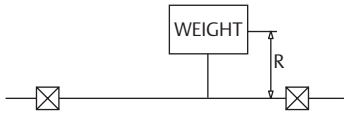
In order to use this law, we develop from it the following equation:

$$\mathbf{F = .000341 \times WR(RPM)^2}$$

Where: F = Load of force in lbs.
W = Weight of rotating mass in lbs.
R = Radius of rotation or throw in feet
RPM = Shaft rotation in revolutions per minute

What is the centrifugal bearing load on a shaker screen which weighs 2,500 lbs., has a throw of 1/4 in. and whose shaft speed is 500 RPM?

$$\mathbf{F = .000341 \times 2{,}500 \times \frac{.250}{12} \times (500)^2 = 4{,}440 \text{ lbs.}}$$



Load Ratings and Life Continued

Mounted Roller Bearing Selection - New Applications:

Using variations of the life formulas and application information, it is possible to select bearings based on desired life, load applied, and shaft speed. **This method is applicable only when thrust load is less than or equal to 1/2 the radial load.**

1. Determine required application hours (Lna).

2. Calculate L10 using adjustment factors:

$$L10 = \frac{L_a}{a_1 \times a_2 \times a_3}$$

3. Calculate Basic Dynamic Radial Rating (Creq).

$$Creq = P \times \left(\frac{L10 \times N}{3{,}000 \times 500}\right)^{3/10}$$

P = Constant Equivalent Radial Load (lbs)
N = Speed (RPM)

4. Use Table 2 on page I-49, find a basic Dynamic Radial Rating Value greater than or equal to Creq calculated in step # 3.

5. Select any bearing from the row in step # 4 or larger.

6. Proceed with housing, seal, and lock selection pages I-3 to I-5.

Typical operating temperature range for standard bearings is -20° to 200° F for Browning and -20°F to 220°F for Sealmaster Gold. For operating temperatures outside this range, contact Application Engineering. For Maximum speed information, see tables on page I-58.

Application Examples:

Question #1:
What is the bearing life (L_{10} hours) for an RPB207-2 Tapered Roller Bearing with no shock conditions and the following application criteria?

Design Radial Load (P) = 5,000 lbs.
Speed (n) = 100 RPM
Shaft Size = 2 7/16"
Operating Temperature = 125°F

Solution:
1. Begin with the L_{10} life formula:

$$L_{10} = (C/P)^{10/3} \times \frac{500 \times 3{,}000}{n}$$

2. RPB207-2 has 2 7/16" shaft size. From Table 2 on page I-49, the radial rating is 9,030 lbs.

$$L_{10} \text{ hrs.} = \left(\frac{9{,}030}{5{,}000}\right)^{10/3} \times \frac{500 \times 3{,}000}{100} = 107{,}601$$

Question #2:
What is the bearing life (L_{10} hours) for an USRB5000-207 Spherical Roller Bearing with no shock conditions and the same application criteria?

Solution:
1. Begin with the L_{10} life formula:

$$L_{10} = (C/P)^{10/3} \times \frac{16{,}667}{n}$$

2. USRB5000-207 has 2 7/16" shaft size. From Table 3 on page I-50, the radial rating is 44,691 lbs.

$$L_{10} \text{ hrs.} = \left(\frac{44{,}691}{5{,}000}\right)^{10/3} \times \frac{16{,}667}{100} = 246{,}997$$

Load Ratings and Life Continued

Combined Radial and Thrust Load Application Examples:

Question #1:
What is the bearing life (L_{10} hours) for an RPB207-2 Tapered Roller Bearing with no shock conditions and the following application criteria?

Design Radial Load (Fr) = 5,000 lbs.
Design Thrust Load (Fa) = 1,000 lbs.
Speed (n) = 100 RPM
Shaft Size = 2 7/16"
Operating Temperature = 125°F

Solution:
1. Find the K factor value from Table 2 on page I-49, K = 1.51

2. Calculate the internal thrust reaction (FIR):

$$FIR = \frac{0.6 \times F_r}{K}$$ - applied radial load
- factor K in Table No. 2

$$FIR = \frac{0.6 \times 5000}{1.51} = 1{,}987 \text{ lbs.}$$

3. Since the thrust load is less than the internal thrust reaction (FIR) use the following formula from page I-49 to calculate the equivalent radial load:

$$P = (0.5 \times F_r) + (.83 \times K \times F_a)$$
$$P = (0.5 \times 5000) + (.83 \times 1.51 \times 1000) = 3{,}753 \text{ lbs.}$$

4. Calculate the expected L_{10} life using the single row rating. Single row rating = 5,220 lbs. This is found in Table 2 on page I-49.

$$L_{10} = \left(\frac{\text{single row load rating}}{P} \right)^{10/3} \times \frac{500 \times 3000}{n}$$

$$L_{10} = \left(\frac{5{,}220}{3{,}753} \right)^{10/3} \times \frac{500 \times 3000}{100} = 45{,}054 \text{ hrs.}$$

Question #2:
What is the bearing life (L_{10} hours) for an USRB5000-207 Spherical Roller Bearing with no shock conditions and the same application criteria?

Solution:
1. Calculate Fa/Fr and compare the value to the "e" value found in Table 3 on page I-50.

Fa/Fr = 1,000/5,000 = .20

2. Choose values for "x" and "y" based on Step 1 above from Table 3 on page I-50.

3. Calculate the equivalent load.

$$P = (x\,Fr) + (y\,Fa)$$
$$= (1 \times 5{,}000) + (2.2 \times 1000)$$
$$= 7{,}200 \text{ lbs.}$$

4. Calculate the expected L_{10} life using the rating from the equation on page I-48.

$$L_{10} = (C/P)^{10/3} \times \frac{16{,}667}{n}$$
$$= \left(\frac{44{,}691}{7{,}200} \right)^{10/3} \times \frac{16{,}667}{100}$$
$$= 73{,}251 \text{ hrs.}$$

Shock Load Considerations

Question #3:
What is the bearing life (L_{10} hours) for the bearing in Question #1 and #2 with moderate shock conditions and the same application criteria from above?

Solution:
1. Calculate the Adjusted Rate Life

$$Lna = a_1 \times a_2 \times a_3 \times L_{10}$$

2. (a_1) = Life Adjustment Factor for Reliability = 1.0

3. (a_2) = Life Adjustment Factor for Operating Conditions = 1.0

4. (a_3) = For moderate shock (from mounted Roller Bearing Shock Vibration Factors Table on page I-48) = 0.5

RPB207-2 Tapered Roller Bearing:
L_{10} = .5 x 45,054 = 22,527 hrs.

USRB5000-207 Spherical Roller Bearing:
L_{10} = .5 x 73,251 = 36,626 hrs.

Table 4 - Sealmaster RPB and Browning E920 Tapered Roller Bearing Load / Speed Chart

Bore Size		"K" Factor	Basic Dynamic Rating		Thrust Rating	Revolutions Per Minute														
inch	mm		Double Row	Single Row*		Hours	50	100	150	250	500	750	1000	1500	1750	2000	2500	3000	3500	4000
			lb/N	lb/N	lb/N															
1 3/16 1 1/4	-	1.23	2975 13233	1710 7006	1390 6183	5000	3360	3360	3360	3142	2552	2260	2073	1836	1753	1684	1575	1491	1424	1368
						10000	3360	3360	2975	2552	2073	1836	1684	1491	1424	1368	1279	1211	1156	1111
						30000	2975	2416	2140	1836	1491	1320	1211	1072	1024	984	920	871	832	799
						50000	2552	2073	1836	1575	1279	1133	1039	920	878	844	789	747	714	685
						100000	2073	1684	1491	1279	1039	920	844	747	714	685	641	607	580	556
1 3/8 1 7/16	35	1.31	4760 21174	2740 12188	2080 9252	5000	5376	5376	5376	5028	4084	3616	3317	2937	2804	2694	2520	2386	2278	-
						10000	5376	5376	4760	4084	3317	2937	2694	2386	2278	2188	2047	1938	1850	-
						30000	4760	3866	3424	2937	2386	2112	1938	1716	1638	1574	1472	1394	1331	-
						50000	4084	3317	2937	2520	2047	1812	1662	1472	1406	1350	1263	1196	1142	-
						100000	3317	26741	2386	2047	1662	1472	1350	1196	1142	1097	1026	971	927	-
1 1/2 1 11/16	40	1.36	6140 27312	3530 15702	2600 11565	5000	6934	6934	6934	6485	5268	4664	4279	3789	3617	3475	3250	3077	-	-
						10000	6934	6934	6140	5268	4279	3789	3475	3077	2938	2823	2640	2500	-	-
						30000	6140	4987	4416	3789	3077	2725	2500	2213	2113	2030	1899	1798	-	-
						50000	5268	4279	3789	3250	2640	2338	2144	1899	1813	1742	1629	1542	-	-
						100000	4279	3475	3077	2640	2144	1899	1742	1542	1473	1415	1323	1253	-	-
1 3/4 1 15/16 2	45 50	1.83	8070 35897	4640 20640	2540 11298	5000	9114	9114	9114	8524	6923	6130	5624	4979	4754	4568	4272	-	-	-
						10000	9114	9114	8070	6923	5624	4979	4568	4045	3862	3710	3470	-	-	-
						30000	8070	6555	5804	4979	4045	3581	3285	2909	2777	2668	2496	-	-	-
						50000	6923	5624	4979	4272	3470	3072	2818	2496	2383	2289	2141	-	-	-
						100000	5624	4568	4045	3470	2818	2496	2289	2027	1935	1859	1739	-	-	-
2 3/16	55	1.65	8570 38121	4910 21841	2980 13256	5000	9679	9679	9679	9052	7352	6510	5972	5288	5049	4851	4537	-	-	-
						10000	9679	9679	8570	7352	5972	5288	4851	4295	4101	3940	3685	-	-	-
						30000	8570	6961	9194	5288	4295	3803	3489	3089	2950	2834	2650	-	-	-
						50000	7352	5972	5288	4537	3685	3263	2993	2650	2530	2431	2274	-	-	-
						100000	5972	4851	4295	3685	2993	2650	2431	2153	2055	1975	1847	-	-	-
2 1/4 2 7/16 2 1/2	60 65	1.51	9030 40167	5220 23220	3470 15435	5000	10198	10198	10198	9538	7747	6860	6293	5572	5320	5111	-	-	-	-
						10000	10198	10198	9030	7747	6293	5572	5111	4526	4321	4152	-	-	-	-
						30000	9030	7335	6495	5572	4526	4007	3676	3255	3108	2986	-	-	-	-
						50000	7747	6293	5572	4780	3883	3438	3154	2793	2666	2562	-	-	-	-
						100000	6293	5111	4526	3883	3154	2793	2562	2268	2166	2081	-	-	-	-
2 11/16 2 15/16 3	70 75	1.30	9630 42836	5510 24510	4260 18949	5000	10876	10876	10876	10171	8262	7316	6711	5942	5674	-	-	-	-	-
						10000	10876	10876	9630	8262	6711	5942	5451	4826	4608	-	-	-	-	-
						30000	9360	7822	6926	5942	4826	4274	3920	3471	3314	-	-	-	-	-
						50000	8262	6711	5942	5098	4141	3666	3363	2978	2843	-	-	-	-	-
						100000	6711	5451	4826	4141	3363	2978	2732	2419	2310	-	-	-	-	-
3 3/16 3 7/16 3 1/2	80 85 90 95	1.19	15320 68147	8790 39100	4710 20951	5000	17302	17302	17302	16181	13143	11638	10676	9453	-	-	-	-	-	-
						10000	17302	17302	15320	13143	10676	9453	8671	7678	-	-	-	-	-	-
						30000	15320	12444	11018	9453	7678	6799	6273	5522	-	-	-	-	-	-
						50000	13143	10676	9453	8110	6587	5833	5351	4738	-	-	-	-	-	-
						100000	10676	8671	7678	6587	5351	4738	4346	3848	-	-	-	-	-	-
3 15/16 4	100 105	1.23	20980 93324	12100 53823	9800 43593	5000	23694	23694	23694	22159	17999	15938	14620	12945	-	-	-	-	-	-
						10000	23694	23694	20980	17999	14620	12945	11875	10515	-	-	-	-	-	-
						30000	20980	17041	15089	12945	10515	9311	5841	7563	-	-	-	-	-	-
						50000	17999	14620	12945	11106	9021	7988	7327	6488	-	-	-	-	-	-
						100000	14620	11875	10515	9021	7327	6488	5952	5270	-	-	-	-	-	-
4 7/16 4 1/2	110 115	1.13	25750 114542	14800 65834	13100 58272	5000	29081	29081	29081	27198	22091	19561	17944	-	-	-	-	-	-	-
						10000	29081	29081	25750	22091	17944	15889	14575	-	-	-	-	-	-	-
						30000	25750	20915	18520	15889	12906	11427	10483	-	-	-	-	-	-	-
						50000	22091	17944	15889	13631	11072	9804	8993	-	-	-	-	-	-	-
						100000	17944	14575	12906	11072	8993	7963	7305	-	-	-	-	-	-	-
4 15/16 5	120 125	1.27	35520 158001	20400 90744	16000 71172	5000	40114	40114	40114	37517	30473	26983	24752	-	-	-	-	-	-	-
						10000	40114	40114	35520	30473	24752	21917	20105	-	-	-	-	-	-	-
						30000	35520	28851	25547	21917	17802	15763	14460	-	-	-	-	-	-	-
						50000	30473	24752	21917	18803	15273	13524	12405	-	-	-	-	-	-	-
						100000	24752	20105	17802	15273	12405	10985	10076	-	-	-	-	-	-	-

This chart displays the Sealmaster RPB and Browning E920 Series Tapered Roller Bearings load capacity for a given L10 life speed and shaft size. Values in the table represent load at ideal conditions. The shaded areas indicate maximum speed for the Sealmaster RPB series only. For combined load determination, see the Bearing Selection section on page I-49. Areas designated by "-" exceed maximum speed value.

*Single Row Basic Dynamic Rating required for determining combined loads as shown on page I-49.

Table 5 - Sealmaster USRB Spherical Roller Bearing Load / Speed Chart

Series	Bore Size	L_{10} Hours	Revolutions per Minute													
			50	100	150	250	500	750	1000	1500	1750	2000	2500	3000	3500	4000
107	1 1/8 1 3/16 1 1/4 1 3/8 1 7/16 1 1/2	5000 10000 30000 50000 100000	9039 7342 5281 4530 3680	7342 5964 4289 3680 2989	6501 5281 3798 3258 2647	5577 4530 3258 2795 2271	4530 3680 2647 2271 1844	4011 3258 2343 2010 1633	3680 2989 2150 1844 1498	3258 2647 1903 1633 1326	3111 2527 1817 1559 1266	2989 2428 1746 1498 1217	2795 2271 1633 1401 1138	2647 2150 1546 1326 1077	2527 2053 1476 1266 1029	2428 1972 1418 1217 988
111	1 11/16 1 3/4	5000 10000 30000 50000 100000	10069 8179 5882 5046 4099	8179 6643 4778 4099 3329	7242 5882 4231 3630 2948	6213 5046 3630 3114 2529	5046 4099 2948 2529 2054	4468 3630 2610 2240 1819	4099 3329 2395 2054 1669	3630 2948 2120 1819 1478	3465 2815 2025 1737 1411	3329 2704 1945 1669 1355	3114 2529 1819 1561 1268	2948 2395 1722 1478 1200	2815 2286 1644 1411 1146	2704 2197 1580 1355 1101
115	1 15/16 2	5000 10000 30000 50000 100000	10438 8478 6098 5231 4249	8478 6886 4953 4249 3451	7507 6098 4386 3762 3056	6441 5231 3762 3228 2622	5231 4249 3056 2622 2130	4632 3762 2706 2322 1886	4249 3451 2482 2130 1730	3762 3056 2198 1886 1532	3592 2918 2099 1800 1462	3451 2803 2016 1730 1405	3228 2622 1886 1618 1314	3056 2482 1785 1532 1244	2918 2370 1705 1462 1188	2803 2277 1638 1405 1141
203	2 3/16	5000 10000 30000 50000 100000	12465 10124 7282 6247 5074	10124 8224 5915 5074 4122	8965 7282 5237 4493 3650	7691 6247 4493 3855 3131	6247 5074 3650 3131 2543	5532 4493 3232 2772 2252	5074 4122 2964 2543 2066	4493 3650 2625 2252 1829	4290 3485 2506 2150 1746	4122 3348 2408 2066 1678	3855 3131 2252 1932 1569	3650 2964 2132 1829 1486	3485 2830 2036 1746 1419	3348 2719 1956 1678 1363
207	2 7/16 2 1/2	5000 10000 30000 50000 100000	19833 16110 11586 9940 8074	16110 13085 9411 8074 6558	14265 11586 8333 7149 5807	12238 9940 7149 6133 4982	9940 8074 5807 4982 4047	8802 7149 5142 4411 3583	8074 6558 4717 4047 3287	7149 5807 4177 3583 2910	6826 5545 3988 3421 2779	6558 5327 3831 3287 2670	6133 4982 3583 3074 2497	5807 4717 3392 2910 2364	5545 4504 3239 2778 2257	- - - - -
215	2 11/16 2 3/4 2 15/16 3	5000 10000 30000 50000 100000	21056 17103 12301 10553 8572	17103 13892 9991 8572 6962	15144 12301 8847 7590 6165	12992 10553 7590 6512 5289	10553 8572 6165 5289 4296	9344 7590 5459 4683 3804	8572 6962 5008 4296 3489	7590 6165 4434 3804 3090	7247 5886 4234 3632 2950	6962 5655 4067 3489 2834	6512 5289 3804 3264 2651	6165 5008 3602 3090 2510	- - - - -	- - - - -
307	3 3/16 3 7/16 3 1/2	5000 10000 30000 50000 100000	32237 26184 18832 16157 13123	26184 21268 15297 13123 10659	23185 18832 13545 11620 9439	19891 16157 11620 9969 8098	16157 13123 9439 8098 6577	14306 11620 8358 7170 5824	13123 10659 7666 6577 5342	11620 9439 6788 5824 4730	11095 9012 6482 5561 4517	10659 8658 6227 5342 4339	9969 8098 5824 4996 4058	- - - - -	- - - - -	- - - - -
315	3 11/16 3 15/16 4	5000 10000 30000 50000 100000	42626 34623 24902 21364 17353	34623 28123 20226 17353 14095	30657 24902 17910 15365 12480	26302 21364 15365 13182 10707	21364 17353 12480 10707 8697	18917 15365 11051 9481 7701	17353 14095 10137 8697 7064	15365 12480 8976 7701 6255	14671 11916 8571 7353 5972	14095 11448 8234 7064 5738	13182 10707 7701 6607 5366	- - - - -	- - - - -	- - - - -
407	4 7/16 4 1/2	5000 10000 30000 50000 100000	49499 40205 28917 24808 20150	40205 32657 23488 20150 16367	35601 28917 20798 17843 14493	30542 24808 17843 15307 12434	24808 20150 14493 12434 10099	21967 17843 12833 11009 8942	20150 16367 11772 10099 8203	17843 14493 10423 8942 7264	17036 13838 9952 8538 6935	16367 13294 9562 8203 6663	- - - - -	- - - - -	- - - - -	- - - - -
415	4 15/16 5	5000 10000 30000 50000 100000	70481 57248 41174 35324 28692	57248 46500 33444 28692 23305	50691 41174 29613 25406 20636	43489 35324 25406 21796 17704	35324 28692 20636 17704 14380	31278 25406 18272 15676 12733	28692 23305 16762 14380 11680	25406 20636 14842 12733 10342	24258 19703 14171 12158 9875	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
507	5 7/16 5 1/2	5000 10000 30000 50000 100000	87285 70897 50991 43746 35533	70897 57587 41418 35533 28862	62777 50991 36674 31463 25556	53858 43746 31463 26993 21925	43746 35533 25556 21925 17809	38736 31463 22629 19414 15769	35533 28862 20758 17809 14465	31463 25556 18381 15769 12808	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
515	5 15/16	5000 10000 30000 50000 100000	115982 94207 67756 58129 47215	94207 76520 55035 47215 38351	83417 67756 48731 41808 33958	71565 58129 41808 35867 29133	58129 47215 33958 29133 23664	51471 41808 30069 25797 20953	47215 38351 27583 23664 19221	41808 33958 24424 20953 17019	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
615	6 7/16 6 1/2 6 15/16 7	5000 10000 30000 50000 100000	143889 116874 84059 72115 58576	116874 94931 68277 58576 47578	103488 84059 60457 51867 42129	88784 72115 51867 44498 36143	72115 58576 42129 36143 29357	63856 51867 37304 32004 25995	58576 47578 34219 29357 23846	51867 42129 30300 25995 21115	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -
708	7 1/2 7 15/16 8	5000 10000 30000 50000 100000	161458 131145 94322 80921 65728	131145 106523 76613 65728 53388	116124 94322 67839 58200 47273	99625 80921 58200 49931 40556	80921 65728 47273 40556 32942	71653 58200 41859 35911 29169	65728 53388 38398 32942 26757	58200 47273 34000 29169 23693	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -

This chart displays the Sealmaster Unitized Spherical Roller Bearing (USRB) load capacity for a given L10 life, speed and shaft size. Values in the Table represent estimated load at ideal conditions. The shaded areas indicate maximum speed for USRB felt seals. For combined load determination, see the Bearing Selection section on page I-50. Areas designated by "—" exceed maximum speed value. For actual maximum speed limits see table on page I-58.

Speed Limit Tables

Table 6 - Sealmaster RPB Tapered Roller Bearing Maximum Speed Rating

Maximum Operational Speed*		
Bore Size		Speed (RPM)
inch	mm	
1 3/16 - 1 1/4	-	4000
1 3/8 - 1 7/16	35	3500
1 1/2 - 1 11/16	40	3000
1 3/4 - 2 3/16	45 - 50	2500
2 1/4 - 2 1/2	60 - 65	2000
2 11/16 - 3	70 - 75	1750
3 3/16 - 3 1/2	80 - 95	1500
3 15/16 - 4 1/2	100 - 115	1250
4 15/16 - 5	120 - 125	1000

* Tapered Roller Bearing maximum speeds are not limited by seals, value listed is for all seal designs.

Table 7 - Browning E920 Tapered Roller Bearing Maximum Speed Rating

Maximum Operational Speed	
Bore Size	Speed (RPM)
inch	
1 3/16 - 1 1/4	3500
1 3/8 - 1 7/16	3000
1 1/2 - 1 11/16	2500
1 3/4 - 2 3/16	2000
2 1/4 - 2 1/2	1750
2 11/16 - 3	1500
3 3/16 - 4	1000
4 7/16 - 5	750

Table 8 - Sealmaster USRB Spherical Roller Bearing Maximum Speed Rating

Maximum Operational Speed		
Bore Size	Felt Seal (RPM)	Contact Seal (RPM)
inch		
1 1/8 - 1 1/2	4000	3000
1 11/16 - 1 3/4	4000	2750
1 15/16 - 2	4000	2500
2 3/16	3750	2200
2 7/16 - 2 1/2	3250	1750
2 11/16 - 3	3000	1600
3 3/16 - 3 1/2	2500	1350
3 11/16 - 4	2250	1200
4 7/16 - 4 1/2	2000	1100
4 15/16 - 5	1750	900

Values in these tables represent speeds at ideal conditions. Other application factors may reduce the speed rating of a bearing.
Seal limits evaluated at a load of c/10.

Sealmaster RPB Tapered Roller Bearing Installation

Mounting Lock Collar Units:

NOTICE

• These bearings are designed for maximum permissible static misalignment of ± 3 degrees. Installation, handling or operation of the bearing in excess of the maximum of ± 3 degrees can cause reduction in bearing performance and may lead to equipment failure.

• Do not strike or hammer on any component of the bearing and/or shaft. Impact can result in damage to the bearing that may cause reduction in bearing performance and may lead to equipment failure.

Step 1: Inspect Shaft and Bore

Shaft should be within tolerance range shown in Table I, clean and free of nicks and burrs. Mount bearings on unused section of shafting or repair/replace shafting as required. Inspect both the shaft and bearing bore for debris or contaminants. Wipe clean as necessary.

Table I

Recommended Shaft Tolerances	
Nominal Bore Diameter	**Tolerance (inch)**
1 3/16 - 2	+0.000 / -0.0005
2 3/16 - 4	+0.000 / -0.001
4 7/16 - 5	+0.000 / -0.0015

Step 2: Check Support Surfaces

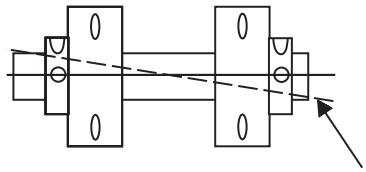
Make sure the base of the housing and the support surfaces are clean and free from burrs. If the housing elevation is adjusted with shims these must cover the entire contact area between the housing and the support surface.

Step 3: Install Unit

To aid installation, keep weight off bearing during mounting. Slide unit onto shaft by pushing on the inner ring. If it is difficult to mount bearing on shaft, use a piece of emery cloth to reduce any high spots on the shaft.

Step 4: Fasten Unit in Place

Install housing mounting bolts and check bearing alignment. Align the bearing units as closely as possible. Tighten mounting bolts to recommended fastener torques. Check the shaft for freedom of rotation by rotating shaft with hand in both directions.



Step 5: Position Insert

If expansion units are used, the insert must be located in the housing to allow for axial shaft expansion and/or contraction. Position bearing insert to obtain the required axial expansion in desired directions. It may be necessary to unload the bearing while moving the assembly.

Installation Instructions continued

Step 6: Tighten Setscrews

Setscrews in multiple bearing applications should be aligned as shown in Figure 1.

Tighten bearing units to the shaft as follows:

a) Torque the first setscrew to one half of the recommended torque in Table II.

b) Torque the second setscrew to the full recommended torque. Go back to the first setscrew and tighten to the full recommended torque.

If the bearing unit has two lock collars, repeat the same procedure for the second lock collar. Check shaft again for freedom of rotation and then tighten the second bearing unit in the same fashion. When all bearings are tightened, perform a final check to the shaft for freedom of rotation.

Figure 1

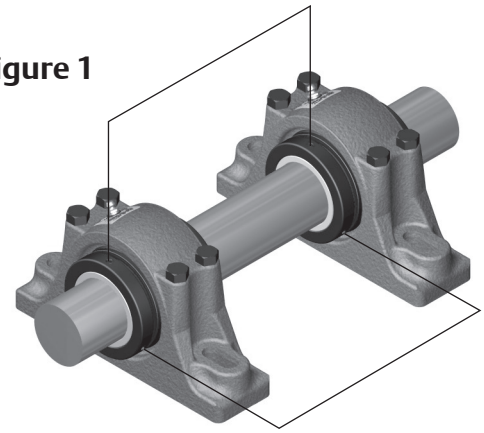


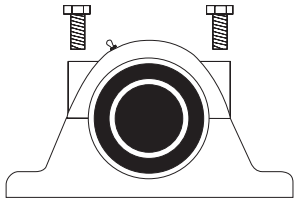
Table II

Lock Collar Setscrew Torque			
Bore Size		Hex Size	Foot-Pounds
inch	mm		
1 3/16 - 1 11/16	35 - 40	5/32	12
1 3/4 - 2 1/2	45 - 65	3/16	19
2 11/16 - 3 1/2	70 - 95	1/4	43
3 15/16 - 4	100 - 105	5/16	83
4 7/16 - 5	110 - 125	3/8	155

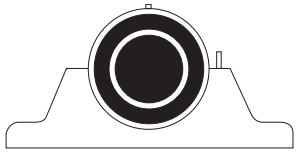
Replacing Existing Sealmaster Inserts:

Note: Replacement Sealmaster bearing inserts are intended for use in Sealmaster housings only.

Step 1: Remove Housing Cap Bolts



Step 2: Remove Top Half of Housing



Step 3: Remove Bearing from Shaft

Loosen the setscrews and slide the bearing off the shaft.

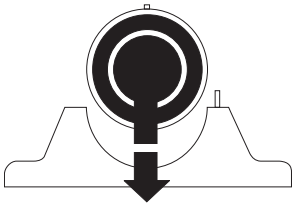
Step 4: Inspect Shaft and Bore

Shaft should be within tolerance range shown in Table I, clean and free of nicks and burrs. Mount bearings on unused section of shafting or repair/replace shafting as required. Inspect both the shaft and bearing bore for debris or contaminants. Also be sure to inspect the housing for damages. Wipe housing bore clean as necessary and check that the lubrication hole is clean and free of debris.

Installation Instructions continued

Step 5: Load New Insert

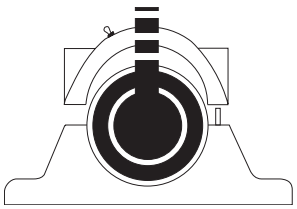
Slide bearing onto shaft and seat the bearing in the housing base.



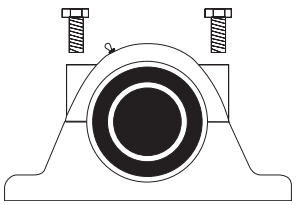
Step 6: Install Top Half of Housing

Check to assure that the rubber grommet is properly seated in the lube hole in the top half of the housing. Position the insert so that the lock pin lines up with the lock pin slot in the top half of the housing. Be sure that the lock pin is not positioned in the lube hole.

Be sure to check the bearing inserts for proper alignment. Align the bearings.



Install the top half of the housing. Tighten down the cap bolts to the recommended torque in Tables III, IV, V, or VI, based on the housing type. Rotate the shaft by hand to check for freedom of rotation.



Step 7: Refer to Steps 5 and 6 from the Previous Installation Section

Table III

Pillow Block Housing		
Bore Size		Housing Cap Tightening Torque (Foot-Pounds)
inch	mm	
1 3/16 - 1 1/4	-	17
1 3/8 - 2 3/16	35 - 55	30
2 1/4 - 3	60 - 75	75
3 3/16 - 4 1/2	80 - 115	265
4 15/16 - 5	120 - 125	390

Table IV

Flange Bearing Housing		
Bore Size		Housing Cap Tightening Torque (Foot-Pounds)
inch	mm	
1 3/16 - 2	35 - 50	30
2 3/16 - 3	55 - 75	75
3 3/16 - 4	80 - 105	150

Table V

Piloted Flange Housing			
Bore Size		Outside Bolts Tightening Torque (Foot-Pounds)	Inside Bolts Tightening Torque (Foot-Pounds)
inch	mm		
1 3/16 - 2	35 - 50	17	4
2 3/16 - 3	55 - 75	50	8
3 3/16 - 4	80 - 105	75	17
4 7/16 - 5	110 - 125	150	75

Table VI

Expansion Pillow Block Housing		
Bore Size		Housing Cap Tightening Torque (Foot-Pounds)
inch	mm	
1 3/16 - 1 1/4	-	17
1 3/4 - 2 3/16	35 - 55	30
2 1/4 - 3	60 - 75	75
3 3/16 - 3 1/2	80 - 95	265
3 15/16 - 4 1/2	100 - 115	150
4 15/16 - 5	120 - 125	265

Sealmaster RPB Tapered Roller Bearing Lubrication:

Pre-Mounting Checklist:

All Sealmaster RPB Mounted Tapered Roller Bearings are delivered with a high quality lithium complex grease with an EP additive. The bearing is ready for use with no initial lubrication required. The grease consists of a lithium complex thickener, mineral oil, and NLGI grade 2 consistency.

Compatibility of grease is critical; therefore consult with Application Engineering and your grease supplier to insure greases are compatible. For best performance it is recommended to relubricate with lithium complex thickened grease with a comparable NLGI consistency and base oil properties.

Relubricatable Sealmaster bearings are supplied with grease fittings or zerks for ease of lubrication with hand or automatic grease guns. Always wipe the fitting and grease nozzle clean.

Caution: If possible, it is recommended to lubricate the bearing while rotating, until grease purge is observed from the seals. If this is not an option due to safety reasons, follow the alternate lubrication procedure below.

Alternate Lubrication Procedure:

Stop rotating equipment. Add one half the recommended amount shown in Table VII. Start the bearing and run for a few minutes. Stop the bearing and add the second half of the recommended amount. A temperature rise after lubrication, sometimes 30°F (17°C), is normal. Bearing should operate at temperatures less than 200°F (94°C) and should not exceed 250° (121°C) for intermittent operation. For lubrication guidelines, see Tables VIII.

Note: Table VIII are general recommendations. Experience and testing may be required for specific applications.

Note: Grease charges in Table VII are based on the use of lithium complex thickened grease with a NLGI grade 2 consistency.

Expansion Bearing Applications:

Before installation, make certain proper expansion is accounted for. Expansion units should be placed in a location where relative movement between the bearing insert and the housing can be tolerated. For most applications using expansion type units, the fixed unit (non-expansion unit) is placed at the drive end of the shaft. Use Table IX to review the total available bearing expansion. If the application requires additional expansion, consult Application Engineering.

Table VII

Grease Charge for Relubrication		
Bore Size		Grease Charge (Mass - Ounces)
inch	mm	
1 3/16 - 1 1/4	-	0.10
1 3/8 - 1 7/16	35	0.20
1 1/2 - 1 11/16	40	0.30
1 3/4 - 2	45 - 50	0.50
2 3/16	55	0.55
2 1/4 - 2 1/2	60 - 65	0.65
2 11/16 - 3	70 - 75	0.85
3 3/16 - 3 1/2	80 - 95	1.25
3 15/16 - 4	100 - 105	2.50
4 7/16 - 4 1/2	110 - 115	3.00
4 15/16 - 5	120 - 125	4.75

Table VIII

Relubrication Recommendations			
Environment	Temperature (°F)	Speed (% Catalog Max)	HI Suffix
Dirty	-20 to 250	0 - 100%	Daily to 1 Week
Clean	-20 to 125	0 - 25%	4 to 10 Months
		26 - 50%	1 to 4 Months
		51 - 75%	1 Week to 1 Month
		76 - 100%	Daily to 1 Week
	125 to 175	0 - 25%	2 to 6 Weeks
		26 - 50%	1 Week to 1 Month
		51 - 75%	Daily to 1 Week
		76 - 100%	
	175 to 250	0 - 100%	Daily to 1 Week

Table IX

Total Available Pillow Block Housing Expansion			
Bore Size		Expansion	
inch	mm	inch	mm
1 3/16 - 2 3/16	35 - 55	3/16	4.76
2 1/4 - 2 1/2	60 - 65	1/4	6.35
2 11/16 - 3 1/2	70 - 95	5/16	7.94
3 15/16 - 5	100 - 125	3/8	9.53

Browning E920 Tapered Roller Bearing Installation

Mounting Lock Collar Units:

NOTICE

• Do not strike or hammer on any component of the bearing and/or shaft. Impact can result in damage to the bearing that may cause reduction in bearing performance and may lead to equipment failure.

Step 1: Inspect Shaft and Bore

Shaft should be within tolerance range shown in Table I, clean and free of nicks and burrs. Mount bearings on unused section of shafting or repair/replace shafting as required. Inspect both the shaft and bearing bore for debris or contaminants. Wipe clean as necessary.

Table I

Recommended Shaft Tolerances	
Nominal Bore Diameter	Tolerance (inch)
1 3/16 - 2	+0.000 / -0.0005
2 3/16 - 4	+0.000 / -0.001
4 7/16 - 5	+0.000 / -0.0015

Step 2: Check Support Surfaces

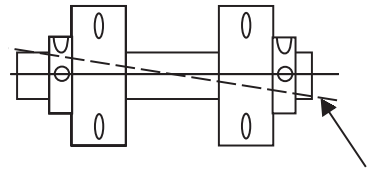
Make sure the base of the housing and the support surfaces are clean and free from burrs. If the housing elevation is adjusted with shims these must cover the entire contact area between the housing and the support surface.

Step 3: Install Unit

To aid installation, keep weight off bearing during mounting. Slide unit onto shaft by pushing on the inner ring. If it is difficult to mount bearing on shaft, use a piece of emery cloth to reduce any high spots on the shaft.

Step 4: Fasten Unit in Place

Install housing mounting bolts and check bearing alignment. Align the bearing units as closely as possible.
Tighten mounting bolts to recommended fastener torques. Check the shaft for freedom of rotation by rotating shaft with hand in both directions.



Step 5: Tighten Setscrews

Setscrews in multiple bearing applications should be aligned as shown in Figure 1. Tighten bearing units to the shaft as follows:

a) Torque the first setscrew to one half of the recommended torque in Table II.
b) Torque the second setscrew to the full recommended torque. Go back to the first setscrew and tighten to the full recommended torque.

Repeat the same procedure for the second lock collar. Check shaft again for freedom of rotation and then tighten the second bearing unit in the same fashion. When all bearings are tightened, perform a final check to the shaft for freedom of rotation.

Figure 1

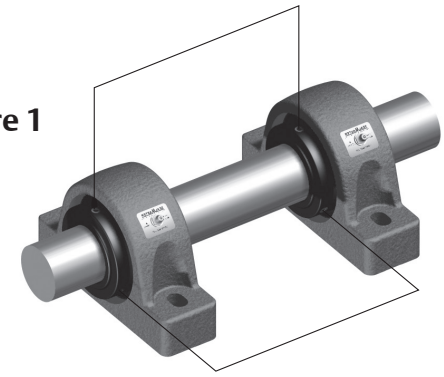


Table II

Lock Collar Setscrew Torque	
Bore Size	Foot-Pounds
1 3/16 - 1 11/16	12
1 3/4 - 2 1/2	19
2 11/16 - 3 1/2	45
3 15/16 - 4	95
4 7/16 - 5	150

Browning E920 Tapered Roller Bearing Lubrication:

Pre-Mounting Checklist:

All Browning E920 Tapered Roller Bearings are delivered with a high quality lithium grease with an EP additive. The bearing is ready for use with no initial lubrication required. The grease consists of a lithium thickener, mineral oil, and NLGI grade 2 consistency.

Compatibility of grease is critical; therefore consult with Application Engineering and your grease supplier to insure greases are compatible. For best performance it is recommended to relubricate with lithium thickened grease with a comparable NLGI consistency and base oil properties.

Relubricatable Browning bearings are supplied with grease fittings or zerks for ease of lubrication with hand or automatic grease guns. Always wipe the fitting and grease nozzle clean.

CAUTION: If possible, it is recommended to lubricate the bearing while rotating, until grease purge is observed from the seals. If this is not an option due to safety reasons, follow the alternate lubrication procedure below.

Alternate Lubrication Procedure:

Stop rotating equipment. Add one half of the recommended amount shown in Table III. Start the bearing and run for a few minutes. Stop the bearing and add the second half of the recommended amount. A temperature rise after lubrication, sometimes 30°F (17°C), is normal. Bearing should operate at temperatures less than 200°F (94°C) and should not exceed 250° (121°C) for intermittent operation. For lubrication guidelines, see Table IV.

Note: Table IV are general recommendations. Experience and testing may be required for specific applications.

Note: Grease charges in Table III are based on the use of lithium thickened grease with a NLGI grade 2 consistency.

Table III

Grease Charge for Relubrication	
Bore Size	**Grease Charge (Mass - Ounces)**
1 3/16 - 1 1/4	0.26
1 3/8 - 1 7/16	0.30
1 1/2 - 1 11/16	0.36
1 3/4 - 2	0.42
2 3/16	0.69
2 1/4 - 2 1/2	0.75
2 11/16 - 3	0.92
3 3/16 - 3 1/2	1.50
3 15/16 - 4	1.92
4 7/16 - 4 1/2	2.79
4 15/16 - 5	4.17

Table IV

Relubrication Recommendations			
Environment	**Temperature (°F)**	**Speed (% Catalog Max)**	**Frequency**
Dirty	-20 to 250	0 - 100%	Daily to 1 Week
Clean	-20 to 125	0 - 25%	4 to 10 Months
		26 - 50%	1 to 4 Months
		51 - 75%	1 Week to 1 Month
		76 - 100%	Daily to 1 Week
	125 to 175	0 - 25%	2 to 6 Weeks
		26 - 50%	1 Week to 1 Month
		51 - 75%	Daily to 1 Week
		76 - 100%	
	175 to 250	0 - 100%	Daily to 1 Week

Table V

Maximum Operational Speed	
Bore Size	**Speed (RPM)**
1 3/16 - 1 1/4	3500
1 3/8 - 1 7/16	3000
1 1/2 - 1 11/16	2500
1 3/4 - 2 3/16	2000
2 1/4 - 2 1/2	1750
2 11/16 - 3	1500
3 3/16 - 4	1000
4 7/16 - 5	750

Sealmaster USRB Spherical Roller Bearing Installation

Mounting Lock Collar Units:

NOTICE

• These bearings are designed for maximum permissible misalignment of ± 2 degrees. Installation, handling or operation of the bearing in excess of the maximum of ± 2 degrees can cause reduction in bearing performance and may lead to equipment failure.

• Do not strike or hammer on any component of the bearing and/or shaft. Impact can result in damage to the bearing that may cause reduction in bearing performance and may lead to equipment failure.

Step 1: Inspect Shaft and Bore

Shaft should be within tolerance range shown in Table I, clean and free of nicks and burrs. Mount bearings on unused section of shafting or repair/replace shafting as required. Inspect both the shaft and bearing bore for debris or contaminants. Wipe clean as necessary.

Table I

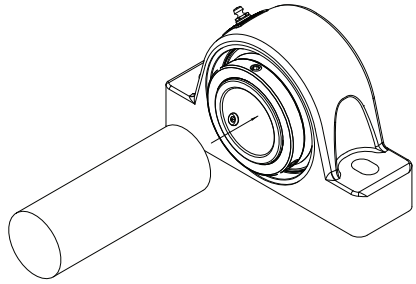
Recommended Shaft Tolerances	
Nominal Bore Diameter	**Tolerance (inch)**
1 1/8 - 2	+0.000 / -0.0005
2 3/16 - 4	+0.000 / -0.001
4 7/16 - 5	+0.000 / -0.0015

Step 2: Check Support Surfaces

Make sure the base of the housing and the support surfaces are clean and free from burrs. If the housing elevation is adjusted with shims these must cover the entire contact area between the housing and the support surface.

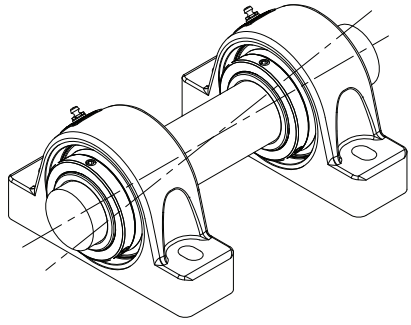
Step 3: Install Unit

To aid installation, keep weight off bearing during mounting. Slide unit onto shaft by pushing on the inner ring. If it is difficult to mount bearing on shaft, use a piece of emery cloth to reduce any high spots on the shaft.



Step 4: Fasten Unit in Place

Install housing mounting bolts and check bearing alignment. Align the bearing units as closely as possible.



Tighten mounting bolts to recommended fastener torques. Check the shaft for freedom of rotation by rotating shaft with hand in both directions.

Step 5: Position Insert

If expansion units are used, the insert must be located in the housing to allow for axial shaft expansion and/or contraction. Position bearing insert to obtain the required axial expansion in desired directions. It may be necessary to unload the bearing while moving the assembly.

Installation Instructions continued

Step 6: Tighten Setscrews

Setscrews in multiple bearing applications should be aligned as shown in Figure 1. Tighten bearing units to the shaft as follows:

a) Torque the first setscrew to one half of the recommended torque in Table II.
b) Torque the second setscrew to the full recommended torque. Go back to the first setscrew and tighten to the full recommended torque.

Figure 1

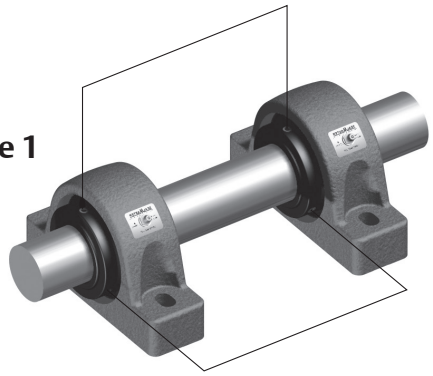


Table II

Lock Collar Setscrew Torque		
Bore Size	**Hex Size**	**Foot-Pounds**
1 1/8 - 1 3/4	5/32	14
1 15/16 - 2 1/2	3/16	25
2 11/16 - 3 1/2	1/4	55
3 11/16 - 4 1/2	5/16	120
4 15/16	3/8	180

If the bearing unit has two lock collars, repeat the same procedure for the second lock collar. Check shaft again for freedom of rotation and then tighten the second bearing unit in the same fashion. When all bearings are tightened, perform a final check to the shaft for freedom of rotation.

Mounting Adapter Lock Units:

Step 1: Inspect Shaft and Bore

Shaft should be within tolerance range shown in Table I, clean and free of nicks and burrs. Mount bearings on unused section of shafting or repair/replace shafting as required. Inspect both the shaft and bearing bore for debris or contaminants. Wipe clean as necessary.

NOTICE: Do not apply any additional lubricant (ex. Grease, oil, or anti-seize) to bearing tapered surfaces, bore or shafting. Bearing components have a light oil, rust preventative coating that should not be removed. Application of additional lubricant may cause reduction in bearing performance and may lead to equipment failure.

Table III

Recommended Shaft Tolerances (Adapter Lock)	
Nominal Bore Diameter	**Tolerance (inch)**
1 1/8 - 2	+0.000 / -0.003
2 3/16 - 4	+0.000 / -0.004
4 7/16 - 5	+0.000 / -0.005

Step 2: Check Support Surfaces

Make sure the base of the housing and the support surfaces are clean and free from burrs. If the housing elevation is adjusted with shims these must cover the entire contact area between the housing and the support surface.

Step 3: Install Unit

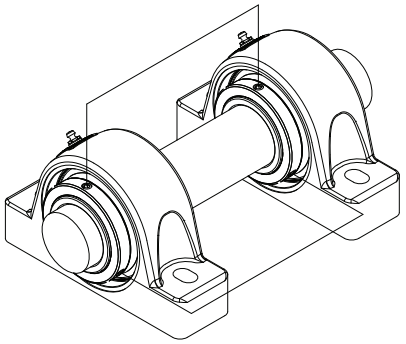
NOTICE: One expansion unit is to be used in conjunction with one non-expansion unit for applications using adapter lock units. Failure to utilize one expansion and one non-expansion unit is likely to result in reduced bearing performance.

To aid installation, keep weight off bearing during mounting. Slide unit onto shaft by pushing on the inner ring. If it is difficult to mount bearing on shaft, use a piece of emery cloth to reduce any high spots on the shaft.

Installation Instructions continued

Step 4: Fasten Unit in Place

Install housing mounting bolts and check bearing alignment. Align the bearing units as closely as possible.

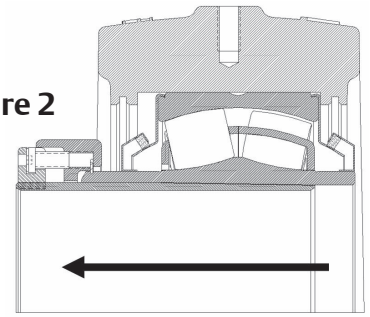


Tighten mounting bolts to recommended fastener torques. Check the shaft for freedom of rotation by rotating shaft with hand in both directions.

Step 5: Position Insert

Expansion inserts must be located in the housing to allow for axial shaft expansion and/or contraction. If the direction of shaft expansion or contraction is in the direction shown in Figure 2, locate the bearing insert as shown. If the direction of shaft expansion or contraction is opposite to that shown in Figure 2, center the insert in the housing.

Figure 2



Step 6: Tighten Cap Screws

Tighten bearing units to the shaft as follows:

a) Tighten the cap screws in the specified order, as shown in Figure 3. Continue tightening until all cap screws have become snug.

b) Using a torque wrench, tighten each cap screw in the specified order to one half of the recommended torque in Table IV.

c) In the same order, repeat the procedure tightening each cap screw to the full recommended torque. Once complete, follow the same pattern and verify that each cap screw has met the full recommended torque value and all cap screws have achieved equivalent resistance.

Check shaft for freedom of rotation and then tighten the second bearing unit in the same fashion. When all bearings are tightened, perform a final check to the shaft for freedom of rotation.

Figure 3

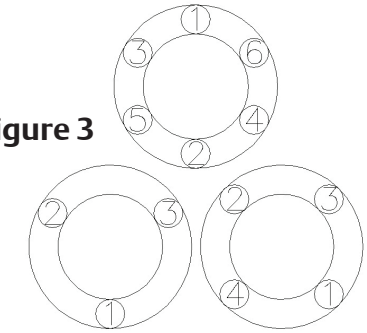


Table IV

Adapter Lock Cap Screw Information			
Bore Size	Torque (inch - Pounds)	Hex Size	# Cap Screws
1 1/8 - 1 1/2	45	1/8	3
1 11/16 - 1 3/4	40	1/8	3
1 15/16 - 2	30	1/8	3
2 3/16	45	1/8	3
2 7/16 - 2 1/2	60	1/8	4
2 11/16 - 3	55	1/8	4
3 3/16 - 3 1/2	80	3/16	4
3 11/16 - 4	80	3/16	4
4 7/16 - 4 1/2	115	3/16	4
4 15/16 - 5	130	3/16	6

Installation Instructions continued

Replacing Existing Sealmaster Inserts:

Step 1: Loosen and Remove Housing Mounting Bolts

Step 2: Remove Bearing from Shaft
For lock collar units, loosen the setscrews. For adapter lock units, loosen the cap screws in the specified order as shown in Figure 3. Once locking mechanism is loosened, slide the bearing off the shaft.

Step 3: Remove the Bearing Insert from the Housing
Carefully remove retaining ring and spacer (non-expansion units) from the housing bore. Clean rings before reuse. Remove insert from housing.

Step 4: Inspect and Prepare Housing
Housings should be inspected for damage prior to installation. Wipe housing bore clean as necessary and check that the lubrication hole is clean and free of debris. Wetting of the housing bore with oil or grease may be done to ease installation of bearing insert.

Step 5: Load New Insert
Slide the bearing insert into the housing.

Step 6: Secure Bearing in Housing
Replace the spacer into housing (non-expansion units only). Install retaining rings into the grooves in the housing bore.

Step 7: Refer to Steps 1 - 6 from the Previous Installation Sections for the Respective Locking Mechanism

Sealmaster USRB Spherical Roller Bearing Lubrication:

Pre-Mounting Checklist:

All Sealmaster Spherical Roller Bearings are delivered with a high quality lithium complex grease with an EP additive. The bearing is ready for use with no initial lubrication required. The grease consists of a lithium complex thickener, mineral oil, and NLGI grade 2 consistency.

Compatibility of grease is critical; therefore consult with Application Engineering and your grease supplier to insure greases are compatible. For best performance it is recommended to relubricate with lithium complex thickened grease with a comparable NLGI consistency and base oil properties.

Relubricatable Sealmaster bearings are supplied with grease fittings or zerks for ease of lubrication with hand or automatic grease guns. Always wipe the fitting and grease nozzle clean.

Caution: If possible, it is recommended to lubricate the bearing while rotating, until grease purge is observed from the seals. If this is not an option due to safety reasons, follow the alternate lubrication procedure below.

Installation Instructions continued

Alternate Lubrication Procedure:

Stop rotating equipment. Add one half the recommended amount shown in Table V. Start the bearing and run for a few minutes. Stop the bearing and add the second half of the recommended amount. A temperature rise after lubrication, sometimes 30°F (17°C), is normal. Bearing should operate at temperatures less than 200°F (94°C) and should not exceed 250° (121°C) for intermittent operation. For lubrication guidelines, see Table VI.

Note: Table VI are general recommendations. Experience and testing may be required for specific applications.

Note: Grease charges in Table V are based on the use of lithium complex thickened grease with a NLGI grade 2 consistency.

Expansion Bearing Applications:

Before installation, make certain proper expansion is accounted for. Expansion units should be placed in a location where relative movement between the bearing insert and the housing can be tolerated. For most applications using expansion type units, the fixed unit (non-expansion unit) is placed at the drive end of the shaft. Use Table VIII to review the total available bearing expansion. If the application requires additional expansion, consult Application Engineering.

NOTICE: One expansion unit is to be used in conjunction with one non-expansion unit for applications using adapter lock units. Failure to utilize one expansion and one non-expansion unit is likely to result in reduced bearing performance.

Table V

Grease Charge for Relubrication	
Bore Size	**Grease Charge (Mass - Ounces)**
1 1/8 - 1 1/2	0.20
1 11/16 - 1 3/4	0.20
1 15/16 - 2	0.25
2 3/16	0.40
2 7/16 - 2 1/2	0.60
2 11/16 - 3	0.75
3 3/16 - 3 1/2	1.25
3 11/16 - 4	2.00
4 7/16 - 4 1/2	2.75
4 15/16 - 5	4.00

Table VI

Relubrication Recommendations			
Environment	**Temperature (°F)**	**Speed (% Catalog Max)**	**Frequency**
Dirty	-20 to 250	0 - 100%	Daily to 1 Week
Clean	-20 to 125	0 - 25%	4 to 10 Months
		26 - 50%	1 to 4 Months
		51 - 75%	1 Week to 1 Month
		76 - 100%	Daily to 1 Week
	125 to 175	0 - 25%	2 to 6 Weeks
		26 - 50%	1 Week to 1 Month
		51 - 75%	Daily to 1 Week
		76 - 100%	
	175 to 250	0 - 100%	Daily to 1 Week

Table VII

Maximum Operational Speed		
Bore Size	**Felt Seal (RPM)**	**Contact Seal (RPM)**
1 1/8 - 1 1/2	4000	3000
1 11/16 - 1 3/4	4000	2750
1 15/16 - 2	4000	2500
2 3/16	3750	2200
2 7/16 - 2 1/2	3250	1750
2 11/16 - 3	3000	1600
3 3/16 - 3 1/2	2500	1350
3 11/16 - 4	2250	1200
4 7/16 - 4 1/2	2000	1100
4 15/16 - 5	1750	900

Table VIII

Total Available Housing Expansion (inch)		
Bore Size	**Setscrew**	**Adapter Lock**
1 1/8 - 1 1/2	3/16	5/32
1 11/16 - 3 1/2	1/4	7/32
3 11/16 - 4	5/16	1/4
4 7/16 - 5	3/8	9/32

Sealmaster USRB Spherical Roller Bearing Split Pillow Block Housing Installation

Mounting Lock Collar Units:

NOTICE

• These bearings are designed for maximum permissible misalignment of ± 2 degrees. Installation, handling or operation of the bearing in excess of the maximum of ± 2 degrees can cause reduction in bearing performance and may lead to equipment failure.

• Do not strike or hammer on any component of the bearing and/or shaft. Impact can result in damage to the bearing that may cause reduction in bearing performance and may lead to equipment failure.

Step 1: Inspect Shaft and Bore

Shaft should be within tolerance range shown in Table I, clean and free of nicks and burrs. Mount bearings on unused section of shafting or repair/replace shafting as required. Inspect both the shaft and bearing bore for debris or contaminants. Wipe clean as necessary.

Table I

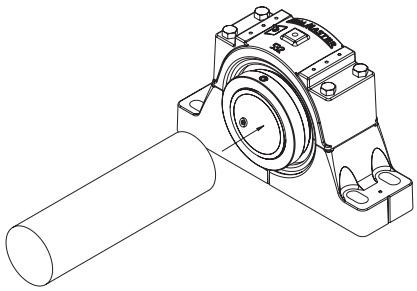
Recommended Shaft Tolerances	
Nominal Bore Diameter	**Tolerance (inch)**
1 7/16 - 2	+0.0000 / -0.0005
2 7/16 - 4	+0.000 / -0.001
4 7/16 - 5 15/16	+0.0000 / -0.0015
6 7/16 - 7	+0.000 / -0.002

Step 2: Check Support Surfaces

Make sure the base of the housing and the support surfaces are clean and free from burrs. If the housing elevation is adjusted with shims these must cover the entire contact area between the housing and the support surface.

Step 3: Install Unit

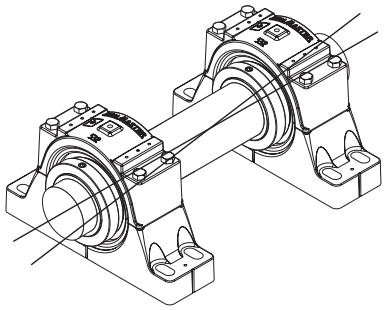
To aid installation, keep weight off bearing during mounting. Slide unit onto shaft by pushing on the inner ring. If it is difficult to mount bearing on shaft, use a piece of emery cloth to reduce any high spots on the shaft.



Step 4: Fasten Unit in Place

Install housing mounting bolts and check bearing alignment. Align the bearing units as closely as possible.

Tighten mounting bolts to recommended fastener torques. Check the shaft for freedom of rotation by rotating shaft with hand in both directions.



Step 5: Position Insert

Expansion units must be located in the housing to allow for axial shaft expansion and/or contraction. Position bearing insert to obtain the required axial expansion in desired directions. It may be necessary to unload the bearing while moving the assembly.

Installation Instructions continued

Step 6: Tighten Setscrews

Setscrews in multiple bearing applications should be aligned as shown in Figure 1. Tighten bearing units to the shaft as follows:

a) Torque the first setscrew to one half of the recommended torque in Table II.
b) Torque the second setscrew to the full recommended torque. Go back to the first setscrew and tighten to the full recommended torque.

If the bearing unit has two lock collars, repeat the same procedure for the second lock collar. Check shaft again for freedom of rotation and then tighten the second bearing unit in the same fashion. When all bearings are tightened, perform a final check to the shaft for freedom of rotation.

Figure 1

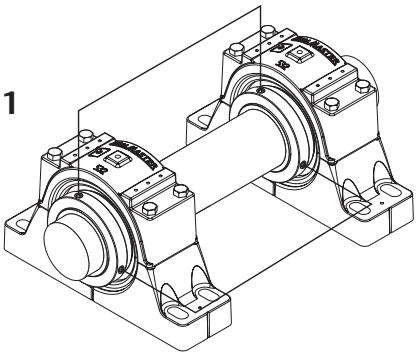


Table II

Lock Collar Setscrew Torque		
Bore Size	**Hex Size**	**Foot-Pounds**
1 7/16 - 1 3/4	5/32	14
1 15/16 - 2 1/2	3/16	25
2 15/16 - 3 1/2	1/4	55
3 15/16 - 4 1/2	5/16	120
4 15/16 - 5 15/16	3/8	180
6 7/16 - 7	1/2	428

Mounting Adapter Lock Units:

Step 1: Inspect Shaft and Bore

Shaft should be within tolerance range shown in Table III, clean and free of nicks and burrs. Mount bearings on unused section of shafting or repair/replace shafting as required. Inspect both the shaft and bearing bore for debris or contaminants. Wipe clean as necessary.

NOTICE: Do not apply any additional lubricant (ex. Grease, oil, or anti-seize) to bearing tapered surfaces, bore or shafting. Bearing components have a light oil, rust preventative coating that should not be removed. Application of additional lubricant may cause reduction in bearing performance and may lead to equipment failure.

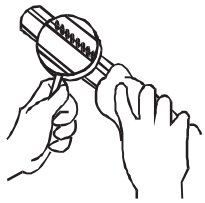


Table III

Recommended Shaft Tolerances	
Nominal Bore Diameter	**Tolerance (inch)**
1 7/16 - 2	+0.000 / -0.003
2 7/16 - 4	+0.000 / -0.004
4 7/16 - 5 15/16	+0.000 / -0.005
6 7/16 - 8	+0.000 / -0.006

Step 2: Check Support Surfaces

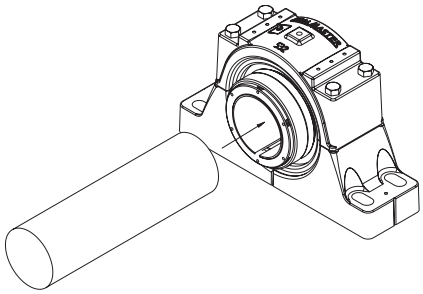
Make sure the base of the housing and the support surfaces are clean and free from burrs. If the housing elevation is adjusted with shims these must cover the entire contact area between the housing and the support surface.

Step 3: Install Unit

NOTICE: One expansion unit is to be used in conjunction with one non-expansion unit for applications using adapter lock units. Failure to utilize one expansion and one non-expansion unit is likely to result in reduced bearing performance.

Installation Instructions continued

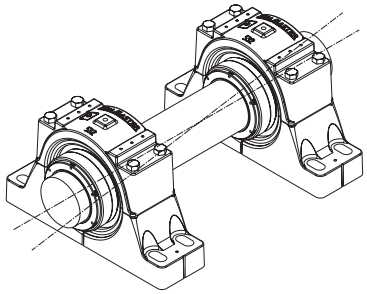
To aid installation, keep weight off bearing during mounting. Slide unit onto shaft by pushing on the inner ring. If it is difficult to mount bearing on shaft, use a piece of emery cloth to reduce any high spots on the shaft.



Step 4: Fasten Unit in Place

Install housing mounting bolts and check bearing alignment. Align the bearing units as closely as possible.

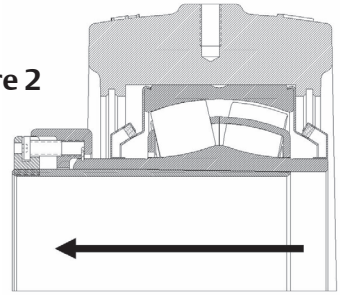
Tighten mounting bolts to recommended fastener torques. Check the shaft for freedom of rotation by rotating shaft with hand in both directions.



Step 5: Position Insert

Expansion inserts must be located in the housing to allow for axial shaft expansion and/or contraction. If the direction of shaft expansion or contraction is in the direction shown in Figure 2, locate the bearing insert as shown. If the direction of shaft expansion or contraction is opposite to that shown in Figure 2, center the insert in the housing.

Figure 2



Step 6: Tighten Cap Screws

Tighten bearing units to the shaft as follows:

a) Tighten the cap screws in the specified order, as shown in Figure 3. Continue tightening until all cap screws have become snug.
b) Using a torque wrench, tighten each cap screw in the specified order to one half of the recommended torque in Table IV.
c) In the same order, repeat the procedure tightening each cap screw to the full recommended torque. Once complete, follow the same pattern and verify that each cap screw has met the full recommended torque value and all cap screws have achieved equivalent resistance.

Check shaft for freedom of rotation and then tighten the second bearing unit in the same fashion. When all bearings are tightened, perform a final check to the shaft for freedom of rotation.

Figure 3

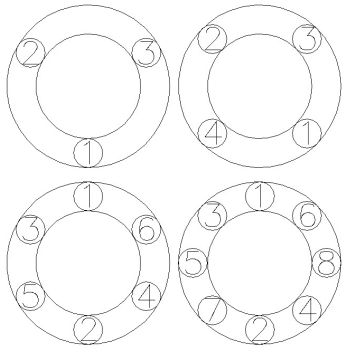


Table IV

Adapter Lock Cap Screw Information			
Bore Size	Torque (inch - Pounds)	Hex Size	# Cap Screws
1 7/16 - 1 1/2	45	1/8	3
1 15/16 - 2	30	1/8	3
2 7/16 - 2 1/2	60	1/8	4
2 15/16 - 3	55	1/8	4
3 7/16 - 3 1/2	80	3/16	4
3 15/16 - 4	80	3/16	4
4 7/16 - 4 1/2	115	3/16	4
4 15/16 - 5	130	3/16	6
5 7/16 - 5 1/2	115	3/16	6
5 15/16	175	3/16	8
6 7/16 - 7	225	1/4	8
7 1/2 - 8	275	1/4	8

Installation Instructions continued

Replacing Existing Sealmaster Inserts:

Step 1: Remove Housing Cap Bolts

Step 2: Remove Top Half of Housing

Step 3: Remove Bearing from Shaft

For lock collar units, loosen the setscrews. For adapter lock units, loosen the cap screws in the specified order as shown in Figure 3. Once locking mechanism is loosened, slide the bearing off the shaft.

Step 4: Inspect Shaft and Bore

Shaft should be within tolerance range shown in Table III, clean and free of nicks and burrs. Mount bearings on unused section of shafting or repair/replace shafting as required. Inspect both the shaft and bearing bore for debris or contaminants. Also be sure to inspect the housing for damages. Wipe housing bore clean as necessary and check that the lubrication hole is clean and free of debris.

Step 5: Load New Insert

Slide bearing onto shaft and seat the bearing in the housing base.

Step 6: Install Top Half of Housing

Be sure to check the bearing inserts for proper alignment. Align the bearings.

Install the top half of the housing. Tighten down the cap bolts to the recommended torque in Tables V. Rotate the shaft by hand to check for freedom of rotation.

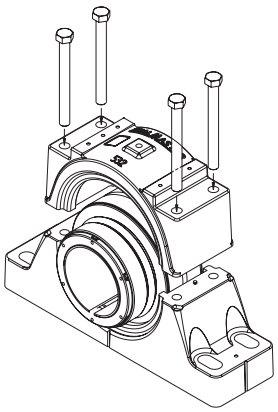


Table V

Cap Bolt Tightening Torque		
Casting	Bore Size	Foot-Pounds
509	1 7/16 - 1 1/2	31
511	1 15/16 - 2	31
515	2 7/16 - 2 1/2	75
517	2 15/16 - 3	75
520	3 7/16 - 3 1/2	109
522	3 15/16 - 4	150
526	4 7/16 - 4 1/2	150
528	4 15/16 - 5	266
532	5 7/16 - 5 1/2	266
534	5 15/16	266
536	6 7/16 - 6 1/2	266
538	6 15/16 - 7	600
544	7 1/2 - 8	600

Step 7: Refer to Steps 5 and 6 from the Previous Installation Sections for the Respective Locking Mechanism

Sealmaster USRB Spherical Roller Bearing Split Pillow Block Housing Lubrication:

Pre-Mounting Checklist:

Lubrication:

All Sealmaster Spherical Roller Bearings are delivered with a high quality lithium complex grease with an EP additive. The bearing is ready for use with no initial lubrication required. The grease consists of a lithium complex thickener, mineral oil, and NLGI grade 2 consistency.

Compatibility of grease is critical; therefore consult with Application Engineering and your grease supplier to insure greases are compatible. For best performance it is recommended to relubricate with lithium complex thickened grease with a comparable NLGI consistency and base oil properties.

Relubricatable Sealmaster bearings are supplied with

Installation Instructions continued

grease fittings or zerks for ease of lubrication with hand or automatic grease guns. Always wipe the fitting and grease nozzle clean.

Caution: If possible, it is recommended to lubricate the bearing while rotating, until grease purge is observed from the seals. If this is not an option due to safety reasons, follow the alternate lubrication procedure below.

Alternate Lubrication Procedure:

Stop rotating equipment. Add one half the recommended amount shown in Table VI. Start the bearing and run for a few minutes. Stop the bearing and add the second half of the recommended amount. A temperature rise after lubrication, sometimes 30°F (17°C), is normal. Bearing should operate at temperatures less than 200°F (94°C) and should not exceed 250° (121°C) for intermittent operation. For lubrication guidelines, see Table VII.

Note: Table VII are general recommendations. Experience and testing may be required for specific applications.

Note: Grease charges in Table VI are based on the use of lithium complex thickened grease with a NLGI grade 2 consistency.

Expansion Bearing Applications:

Before installation, make certain proper expansion is accounted for. Expansion units should be placed in a location where relative movement between the bearing insert and the housing can be tolerated. For most applications using expansion type units, the fixed unit (non-expansion unit) is placed at the drive end of the shaft. Use Table IX to review the total available bearing expansion. If the application requires additional expansion, consult Application Engineering.

NOTICE: One expansion unit is to be used in conjunction with one non-expansion unit for applications using adapter lock units. Failure to utilize one expansion and one non-expansion unit is likely to result in reduced bearing performance.

Table VI

Grease Charge for Relubrication	
Bore Size	**Grease Charge (Mass - Ounces)**
1 7/16 - 1 1/2	0.20
1 15/16 - 2	0.30
2 7/16 - 2 1/2	0.60
2 15/16 - 3	0.80
3 7/16 - 3 1/2	1.20
3 15/16 - 4	2.00
4 7/16 - 4 1/2	2.75
4 15/16 - 5	4.00
5 7/16 - 5 1/2	6.10
5 15/16	10.60
6 7/16 - 7	13.90
7 1/2 - 8	17.60

Table VII

Relubrication Recommendations			
Environment	**Temperature (°F)**	**Speed (% Catalog Max)**	**HI Suffix**
Dirty	-20 to 250	0 - 100%	Daily to 1 Week
Clean	-20 to 125	0 - 25%	4 to 10 Months
		26 - 50%	1 to 4 Months
		51 - 75%	1 Week to 1 Month
		76 - 100%	Daily to 1 Week
	125 to 175	0 - 25%	2 to 6 Weeks
		26 - 50%	1 Week to 1 Month
		51 - 75%	Daily to 1 Week
		76 - 100%	
	175 to 250	0 - 100%	Daily to 1 Week

Table VIII

Maximum Operational Speed		
Bore Size	**Felt Seal (RPM)**	**Contact Seal (RPM)**
1 7/16 - 1 1/2	4000	3000
1 15/16 - 2	4000	2500
2 7/16 - 2 1/2	3250	1750
2 15/16 - 3	3000	1600
3 7/16 - 3 1/2	2500	1350
3 15/16 - 4	2250	1200
4 7/16 - 4 1/2	2000	1100
4 15/16 - 5	1750	900
5 7/16 - 5 1/2	1500	900
5 15/16	1300	800
6 7/16 - 7	1200	750
7 1/2 - 8	1100	750

Table IX

Total Available Housing Expansion (inch)			
Casting	**Bore Size**	**Setscrew**	**Adapter Lock**
509	1 7/16 - 1 1/2	7/32	3/16
511	1 15/16 - 2	1/4	7/32
515	2 7/16 - 2 1/2	5/16	9/32
517	2 15/16 - 3	3/8	11/32
520	3 7/16 - 3 1/2	3/8	11/32
522	3 15/16 - 4	3/8	5/16
526	4 7/16 - 4 1/2	3/8	9/32
528	4 15/16 - 5	3/8	9/32
532	5 7/16 - 5 1/2	3/8	9/32
534	5 15/16	3/8	9/32
536	6 7/16 - 6 1/2	3/8	9/32
538	6 15/16 - 7	3/8	9/32
544	7 1/2 - 8	3/8	9/32

Vibration Analysis

The following equations are used to calculate the fundamental frequencies for Mounted Tapered Roller Bearings.

1. All information can be linked to three factors:
   - Shaft Size
   - Unit number
   - Insert number
2. Use the information from Step 1 to select the vibration geometry information (R, I, O and F) from the Table 9.
3. Use the information to calculate the fundamental bearing frequencies:
   - Roller Spin Frequency (Hz) = R x RPM
   - Inner Roller Pass Frequency (Hz) = I x RPM
   - Outer Roller Pass Frequency (Hz) = O x RPM
   - Fundamental Train Frequency (Hz) = F x RPM

Bearing Symbols for Vibration Analysis

RPM = Shaft Speed (Revolutions per Minute)
R = Roller Spin Frequency Factor
I = Inner Roller Pass Frequency Factor
O = Outer Roller Pass Frequency Factor
F = Fundamental Train Frequency Factor

Table 9 - Sealmaster RPB and Browning E920 Vibration Geometry Information

Bore Size		Factor for Roller Spin	Factor for Inner Roller Pass	Factor for Outer Roller Pass	Factor for F.T.F.
inch	mm	R	I	O	F
1 3/16 - 1 1/4	-	0.1258	0.1782	0.1384	0.0073
1 3/8 - 1 7/16	35	0.1173	0.1892	0.1442	0.0072
1 1/2 - 1 11/16	40	0.1132	0.1710	0.1290	0.0072
1 3/4 - 2	45 - 50	0.1083	0.1626	0.1207	0.0071
2 3/16	55	0.1216	0.1792	0.1375	0.0072
2 1/4 - 2 1/2	60 - 65	0.1345	0.1958	0.1542	0.0073
2 11/16 - 3	70 - 75	0.1578	0.2202	0.1798	0.0075
3 3/16 - 3 1/2	80 - 95	0.1706	0.2368	0.1966	0.0076
3 15/16 - 4	100 - 105	0.1645	0.2376	0.1958	0.0075
4 7/16 - 4 1/2	110 - 115	0.1601	0.2289	0.1878	0.0075
4 15/16 - 5	120 - 125	0.1587	0.2292	0.1875	0.0075

Vibration Analysis

The following equations are used to calculate the fundamental frequencies for Mounted Spherical Roller Bearings.

1. All information can be linked to three factors:
   - Shaft Size
   - Unit number
   - Insert number
2. Use the information from Step 1 to select the vibration geometry information (R, I, O and F) from Table 10.
3. Use the information to calculate the fundamental bearing frequencies:
   - Roller Spin Frequency (Hz) = R x RPM
   - Inner Roller Pass Frequency (Hz) = I x RPM
   - Outer Roller Pass Frequency (Hz) = O x RPM
   - Fundamental Train Frequency (Hz) = F x RPM

Bearing Symbols for Vibration Analysis

RPM = Shaft Speed (Revolutions per Minute)
R = Roller Spin Frequency Factor
I = Inner Roller Pass Frequency Factor
O = Outer Roller Pass Frequency Factor
F = Fundamental Train Frequency Factor

Table 10 - USRB Vibration Geometry Information

Bore Size	Factor for Roller Spin	Factor for Inner Roller Pass	Factor for Outer Roller Pass	Factor for F.T.F.
	R	I	O	F
1 1/8 - 1 1/2	0.0977	0.1549	0.1117	0.0070
1 11/16 - 1 3/4	0.1077	0.1722	0.1278	0.0071
1 15/16 - 2	0.1151	0.1804	0.1363	0.0072
2 3/16	0.1106	0.1717	0.1283	0.0071
2 7/16 - 2 1/2	0.1105	0.1812	0.1354	0.0071
2 11/16 - 3	0.1204	0.1983	0.1517	0.0072
3 3/16 - 3 1/2	0.1205	0.1889	0.1444	0.0072
3 11/16 - 4	0.1088	0.1816	0.1351	0.0071
4 7/16 - 4 1/2	0.1138	0.1806	0.1360	0.0072
4 15/16 - 5	0.1171	0.1894	0.1439	0.0072
5 7/16 - 5 1/2	0.1037	0.1730	0.1270	0.0071
5 15/16	0.1009	0.1735	0.1265	0.0070
6 7/16 - 7	0.1020	0.1733	0.1267	0.0070
7 1/2 - 8	0.1115	0.1809	0.1357	0.0071