



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

Mtd. Tapered Bearings



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)
		ERPXT	Expansion Four Bolt Pillow Block (SAF mounting dimensions)
		SPB	Two Bolt Pillow Block
		SPB	Four Bolt Pillow Block

SEALMASTER®

Mounted Tapered Roller Bearings

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



Mtd. Tapered Bearings

Mounted Tapered Roller Selection Guide

Mtd. Tapered Bearings



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

Mounted Tapered Roller Bearings **SEALMASTER**[®]

Mtd. Tapered Bearings

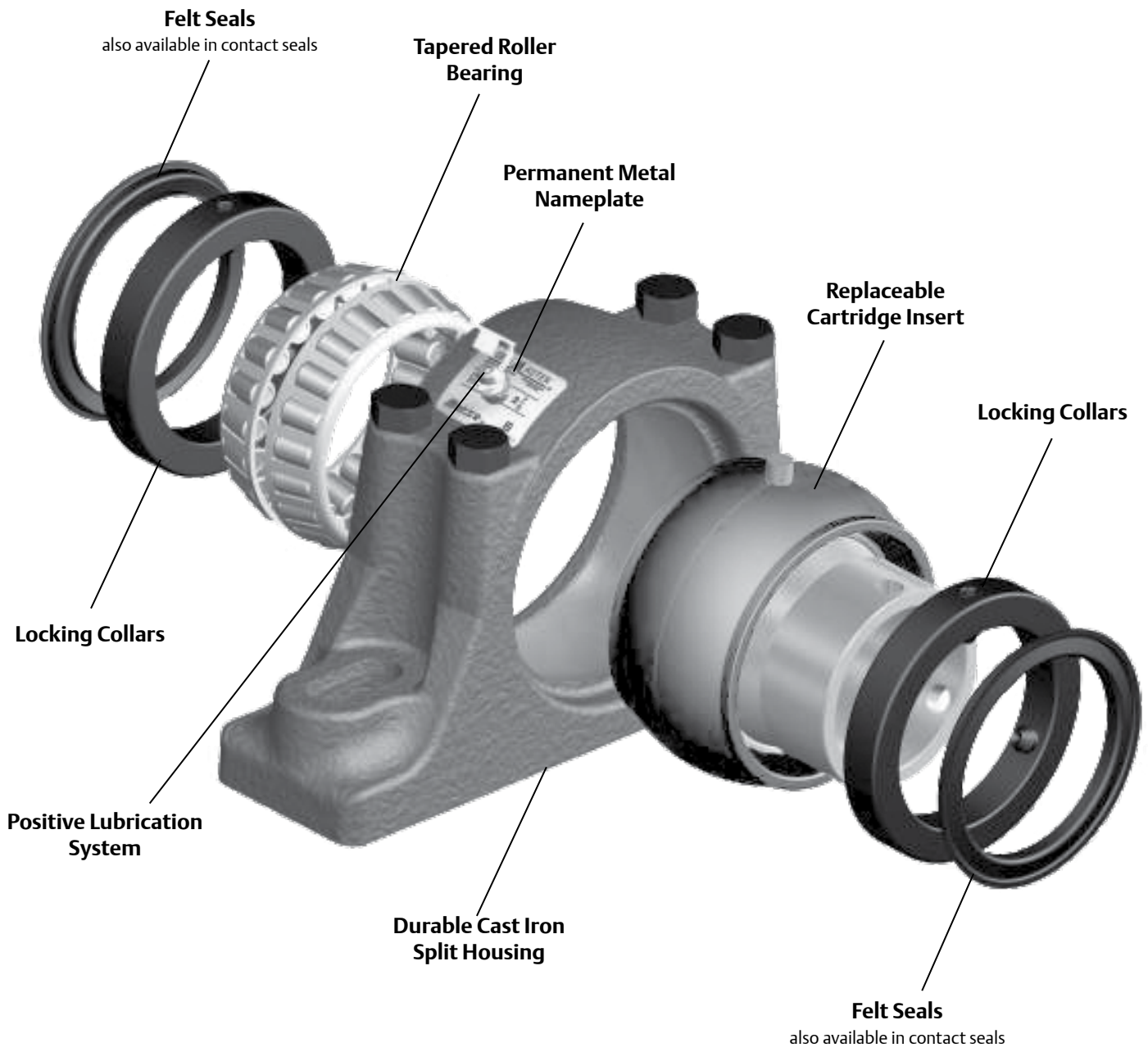


LOCK TYPE		SIZE RANGE					
Double Lock Collar	Single Lock Collar	Housing Material	Standard Seal	Seal Options	Inch	Metric	Page
RFB	RFBA	Cast Iron	Felt	Contact, Nomex	1 3/16" - 4"	35 mm - 105 mm	I-31 to I-32
RFP	RFPA	Cast Iron	Felt	Contact, Nomex	1 3/16" - 5"	35 mm - 125 mm	I-33 to I-34
ERCI	ERCIA	N/A	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

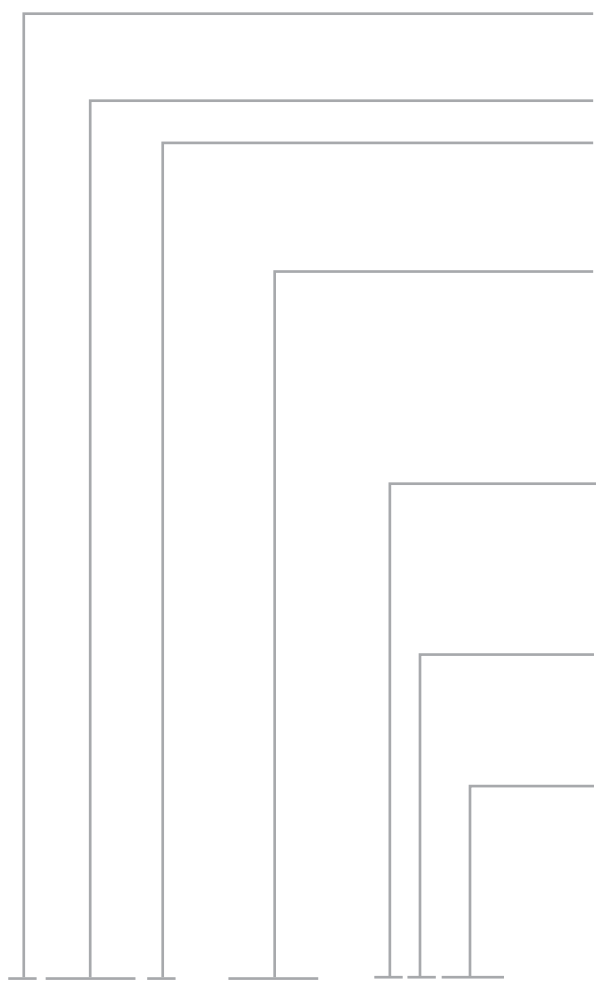
Sealmaster Tapered Roller Bearings

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.

Mtd. Tapered Bearings



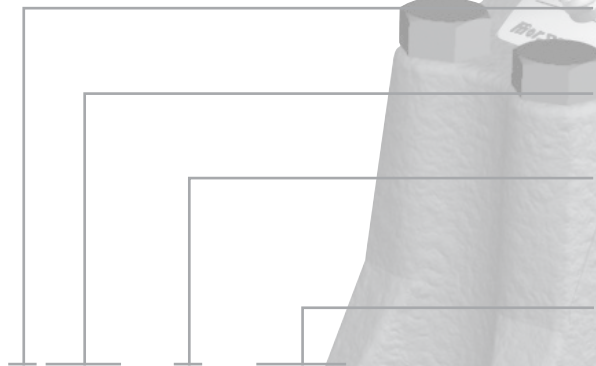
Tapered Roller Bearing Nomenclature



ERPBA - 107 - C2CR

- 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

- *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



ERCI - A - 215

- 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")

Mtd. Tapered Bearings



Features and Benefits



Tapered Roller Bearings

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



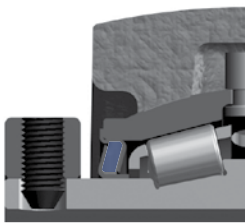
Durable Cast Iron Split Housing

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.

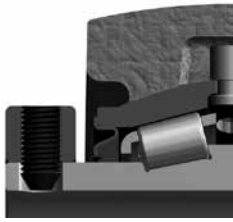


Felt Seals

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 oxidized.

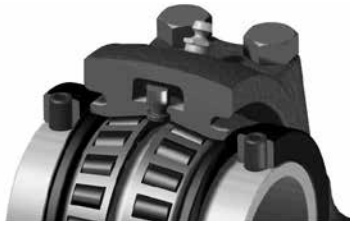


Features and Benefits continued



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 oxidized.



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 oxidized.

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 inserts (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

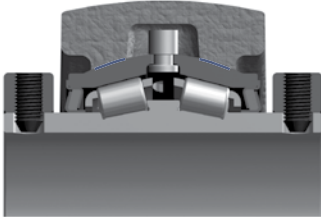
RPB-MM Series

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



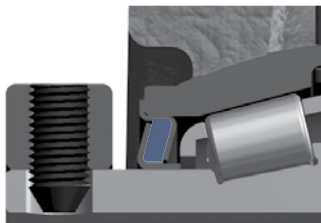
Options

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



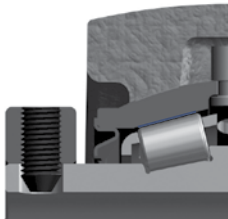
Tight Housing Fit “TF”

(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”

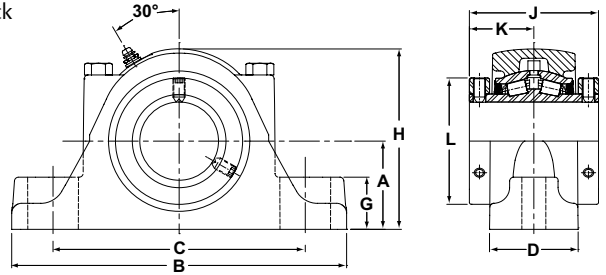
(RC suffix) for specific application requirements



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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



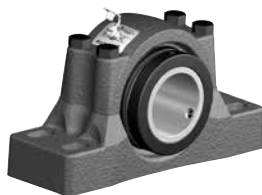
RPB Series Two-Bolt Base Pillow Blocks

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm										Bolt Size	Unit Wt. lb/kg	
					A	B	C		D	G	H	J	K	L			
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 2.18	
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			
1 3/8	35	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 3.5	
		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			
1 7/16			RPB-107-2	RCI-107													
1 1/2	40	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 4.94	
		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			
1 5/8			RPB-110-2	RCI-110													
1 11/16			RPB-111-2	RCI-111													
1 3/4	45	RPB-112-2	RCI-112	8070 35897	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 5.99	
1 15/16			RPB-45MM-2														RCI-45MM
			RPB-115-2														RCI-115
2			RPB-50MM-2														RCI-50MM
	55	RPB-200-2	RCI-200														
2 3/16			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 7.12
	60	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	5/8	20.7 9.39	
2 1/4			RPB-204-2	RCI-204	9030 40167	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
2 7/16			RPB-60MM-2	RCI-60MM													
2 1/2			RPB-207-2	RCI-207													
		RPB-208-2	RCI-208														
	65	RPB-209-2	RCI-209														
			RPB-65MM-2	RCI-65MM													
2 11/16	70	RPB-211-2	RCI-211	9630 42836	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 13.29	
2 3/4			RPB-212-2														RCI-212
			RPB-70MM-2														RCI-70MM
2 15/16			RPB-215-2														RCI-215
			RPB-75MM-2														RCI-75MM
	75	RPB-300-2	RCI-300														
3			RPB-80MM-2	RCI-80MM													
			RPB-303-2	RCI-303													
3 3/16	80	RPB-304-2	RCI-304	15320 65147	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 25.40	
3 1/4			RPB-85MM-2														RCI-85MM
			RPB-307-2														RCI-307
3 7/16			RPB-308-2														RCI-308
3 1/2			RPB-90MM-2														RCI-90MM
	90	RPB-95MM-2	RCI-95MM														
			RPB-95MM-2	RCI-95MM													

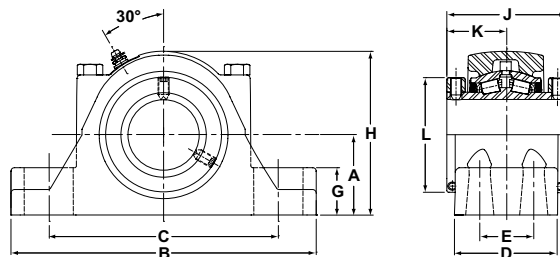
Metric dimensions for reference only.

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

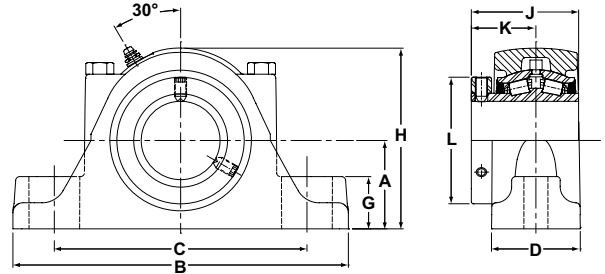


RPB Series Four-Bolt Base Pillow Blocks

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	60	RPB-204-4	RCI-204	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
		RPB-60MM-4	RCI-60MM														
2 7/16	65	RPB-207-4	RCI-207	9630 42836	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														
2 11/16	70	RPB-211-4	RCI-211	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 3/4	RPB-212-4														
2 15/16	75	RPB-70MM-4	RCI-70MM	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
2 1/2		RPB-215-4	RCI-215														
3	80	RPB-75MM-4	RCI-75MM	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
		3	RPB-300-4														
3 3/16	85	RPB-80MM-4	RCI-80MM	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
		3 1/4	RPB-303-4														
3 7/16	90	RPB-304-4	RPB-304	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
		3 1/2	RPB-85MM-4														
3 15/16	100	RPB-307-4	RCI-307	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-308-4														
4 7/16	110	RPB-90MM-4	RCI-90MM	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-100MM-4														
4 15/16	120	RPB-400-4	RCI-400	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
		5	RPB-105MM-4														
4 15/16	125	RPB-110MM-4	RCI-110MM	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
		5	RPB-115MM-4														
4 15/16	125	RPB-120MM-4	RCI-120MM	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
		5	RPB-125MM-4														
4 15/16	125	RPB-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	7/8	65.14
		5	RPB-500-4														



- 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



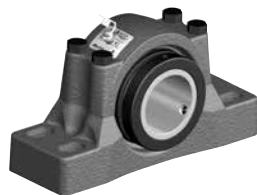
RPBA Series Two-Bolt Base Pillow Blocks - Single Lock Collar

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm										Bolt Size	Unit Wt. lb/kg
					A	B	C		D	G	H	J	K	L		
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	35	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
		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	40	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
		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	45	RPBA-112-2	RCIA-112												5/8	
		RPBA-45MM-2	RCI-45MM	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		13.2
1 15/16		RPBA-115-2	RCIA-115	35897	57.2	225.4	160.3	182.6	61.9	31.8	117.5	75.0	44.5	82.6		5.99
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	60	RPBA-204-2	RCIA-204												5/8	
		RPBA-60MM-2	RCI-60MM	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		20.7
2 7/16		RPBA-207-2	RCIA-207	40167	69.9	263.5	176.2	220.7	69.9	41.3	142.9	84.1	50.8	100.0		9.39
2 1/2		RPBA-208-2	RCIA-208													
	65	RPBA-65MM-2	RCI-65MM													
2 11/16	70	RPBA-211-2	RCIA-211												3/4	
2 3/4		RPBA-212-2	RCIA-212													
		RPBA-70MM-2	RCI-70MM	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		29.3
2 15/16		RPBA-215-2	RCIA-215	42836	79.4	298.5	204.8	246.1	76.2	44.5	161.9	93.7	57.2	119.9		13.29
		RPBA-75MM-2	RCI-75MM													
	75	RPBA-300-2	RCIA-300													
3 3/16	80	RPBA-80MM-2	RCI-80MM												7/8	
3 1/4		RPBA-303-2	RCIA-303													
		RPBA-304-2	RCIA-304													
3 7/16		RPBA-85MM-2	RCI-85MM	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		56
3 1/2		RPBA-307-2	RCIA-307	68147	95.3	349.3	257.2	285.8	104.8	50.8	196.9	106.4	63.5	138.1		25.40
	85	RPBA-308-2	RCIA-308													
	90	RPBA-90MM-2	RCI-90MM													
	95	RPBA-95MM-2	RCI-95MM													

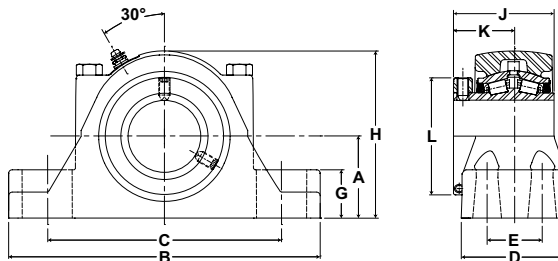
Metric dimensions for reference only.

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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

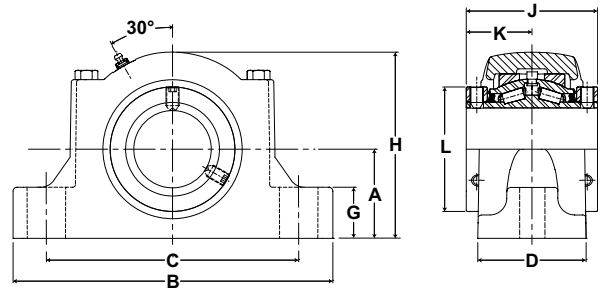


RPBA Series Four-Bolt Base Pillow Blocks

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	60	RPBA-204-4	RCIA-204	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	
		RPBA-60MM-4	RCI-60MM															
		RPBA-207-4	RCIA-207															
2 1/2	65	RPBA-208-4	RCIA-208	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	
RPBA-211-4		RCIA-211																
2 3/4	70	RPBA-212-4	RCIA-212	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	
2 15/16		RPBA-70MM-4	RCI-70MM															
3		RPBA-215-4	RCIA-215															
3 3/16	80	RPBA-303-4	RCIA-303	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	
		3 1/4	RPBA-304-4															RCIA-304
		3 7/16	RPBA-85MM-4															RCI-85MM
3 1/2	90	RPBA-307-4	RCIA-307	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	
		3 1/2	RPBA-308-4															RCIA-308
		4 7/16	RPBA-90MM-4															RCI-90MM
4 1/2	110	RPBA-407-4	RCIA-407	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 1/2	RPBA-408-4															RCIA-408
		5	RPBA-110MM-4															RCI-110MM
4 15/16	120	RPBA-415-4	RCIA-415	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-120MM-4															RCI-120MM
		5	RPBA-125MM-4															RCI-125MM
5	125	RPBA-500-4	RCIA-500	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	
		5	RPBA-125MM-4															RCI-125MM
		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



Mtd. Tapered Bearings



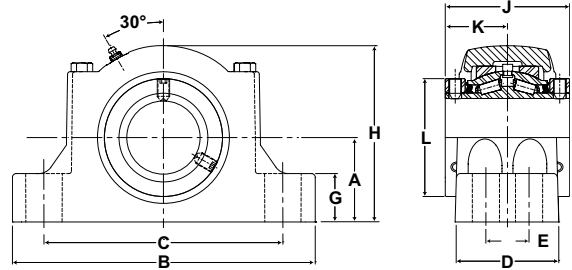
ERP Expansion Series Two-Bolt Base Pillow Blocks

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	45	ERP-112-2	ERCI-112	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	3 1/2 88.9	1 3/4 44.5	3 1/4 82.6	5/8	3/16 4.8	14.9 6.76
		ERP-115-2	ERCI-115														
2	50	ERP-200-2	ERCI-200														
2 3/16	55	ERP-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 4.8	17.8 8.07
		ERP-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			
2 1/4	60	ERP-204-2	ERCI-204	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	4 101.6	2 50.8	3 15/16 100.0	5/8	1/4 6.4	23.0 10.43
		ERP-207-2	ERCI-207														
2 1/2	65	ERP-65MM-2	ERCI-65MM														
2 11/16	70	ERP-211-2	ERCI-211	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	4 33/64 114.7	2 1/4 57.3	4 23/32 119.9	3/4	5/16 7.9	32.0 14.51
		ERP-212-2	ERCI-212														
2 15/16	75	ERP-75MM-2	ERCI-75MM														
3	80	ERP-300-2	ERCI-300														
3 3/16	85	ERP-80MM-2	ERCI-80MM	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	5 127.0	2 1/2 63.5	5 7/16 138.1	7/8	5/16 7.9	64.0 29.03
		ERP-303-2	ERCI-303														
3 1/4	90	ERP-90MM-2	ERCI-90MM														
3 7/16	95	ERP-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, Double Collar
- Seal:** Felt
- Optional Seal:** Single Lip Contact
- Temperature:** -20°F to 220°F

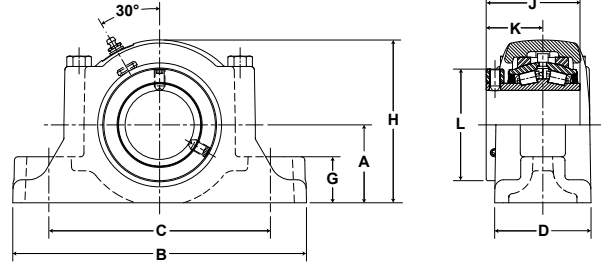


ERPB Expansion Series Four-Bolt Base Pillow Blocks

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



Mtd. Tapered Bearings



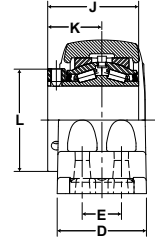
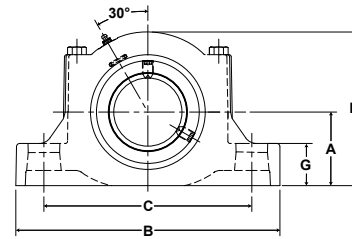
ERPBA Expansion Series Two-Bolt Base Pillow Blocks

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	45	ERPBA-112-2	ERCIA-112	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
		ERPBA-45MM-2	ERCI-45MM														
1 15/16	50	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
		ERPBA-50MM-2	ERCI-50MM														
2		ERPBA-200-2	ERCIA-200														
2 3/16	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 4.8	17.8 8.07
		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			
2 1/4	60	ERPBA-204-2	ERCIA-204	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
		ERPBA-207-2	ERCIA-207														
2 7/16		ERPBA-208-2	ERCIA-208														
2 1/2	65	ERPBA-208-2	ERCIA-208	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
		ERPBA-65MM-2	ERCI-65MM														
2 11/16	70	ERPBA-211-2	ERCIA-211	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
		ERPBA-212-2	ERCIA-212														
2 15/16	75	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
		ERPBA-215-2	ERCIA-215														
3	80	ERPBA-75MM-2	ERCI-75MM	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
		ERPBA-300-2	ERCIA-300														
3 3/16	85	ERPBA-80MM-2	ERCI-80MM	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
		ERPBA-303-2	ERCIA-303														
3 1/4	90	ERPBA-304-2	ERCIA-304	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
		ERPBA-85MM-2	ERCI-85MM														
3 7/16	95	ERPBA-307-2	ERCIA-307	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
		ERPBA-308-2	ERCIA-308														
3 1/2		ERPBA-90MM-2	ERCI-90MM														
		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

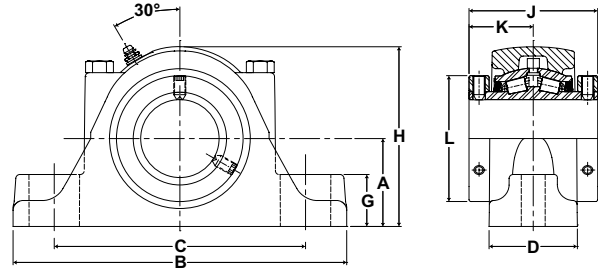


ERPBA Expansion Series Four-Bolt Base Pillow Blocks

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm												Bolt Size	Total Expansion	Unit Wt. lb/kg
					A	B	C		D	E	G	H	J	K	L				
inch	mm						Min.	Max.											
3 15/16 4	100	ERPBA-315-4	ERCIA-315																
		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	
	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		
	ERPBA-105MM-4	ERCI-105MM																	
4 7/16 4 1/2	110	ERPBA-110MM-4	ERCI-110MM																
	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		
	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		
4 15/16 5	115	ERPBA-115MM-4	ERCI-115MM																
	120	ERPBA-120MM-4	ERCI-120MM																
	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		
	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		
	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



Mtd. Tapered Bearings



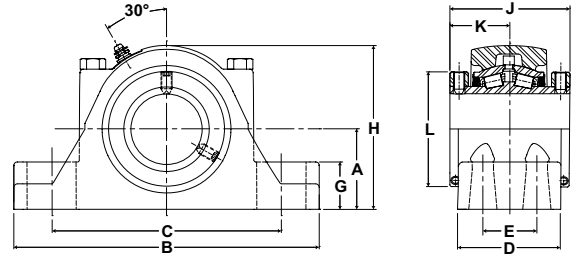
DRPB Series Two-Bolt Base Pillow Blocks

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm										Bolt Size	Unit Wt. lb/kg	
inch	mm				A	B	C		D	G	H	J	K	L			
						Min.	Max.										
1 3/4	45	DRPB-112-2	RCI-112	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	
		DRPB-45MM-2	RCI-45MM														
1 15/16	50	DRPB-115-2	RCI-115	8570 38121	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	
		DRPB-50MM-2	RCI-50MM														
2		DRPB-200-2	RCI-200														
2 3/16	55	DRPB-55MM-2	RCI-55MM	9030 40167	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	
		DRPB-203-2	RCI-203														
2 1/4	60	DRPB-204-2	RCI-204	9630 42836	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	
		DRPB-60MM-2	RCI-60MM														
2 7/16		DRPB-207-2	RCI-207														
2 1/2	65	DRPB-208-2	RCI-208	9630 42836	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	
		DRPB-65MM-2	RCI-65MM														
2 11/16	70	DRPB-211-2	RCI-211	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	
		DRPB-212-2	RCI-212														
2 15/16		DRPB-70MM-2	RCI-70MM														
2 15/16	75	DRPB-215-2	RCI-215	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	
		DRPB-75MM-2	RCI-75MM														
3		DRPB-300-2	RCI-300														
3 3/16	80	DRPB-80MM-2	RCI-80MM	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	
		DRPB-303-2	RCI-303														
3 1/4	85	DRPB-304-2	RCI-304	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	
		DRPB-85MM-2	RCI-85MM														
3 7/16		DRPB-307-2	RCI-307														
3 1/2	90	DRPB-308-2	RCI-308	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	
		DRPB-90MM-2	RCI-90MM														
3 1/2		DRPB-308-2	RCI-308														
3 1/2		DRPB-90MM-2	RCI-90MM														
95		DRPB-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

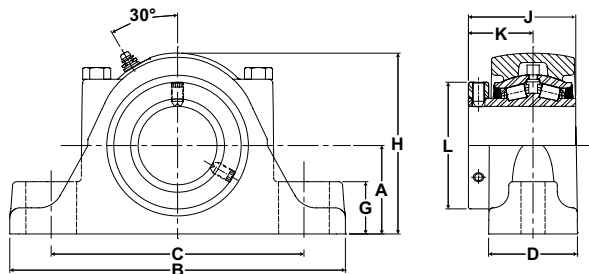


DRPB Series Four-Bolt Base Pillow Blocks

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm											Unit Wt. lb/kg	
					A	B	C		D	E	G	H	J	K	L		Bolt Size
inch	mm						Min.	Max.									
3 15/16	100	DRPB-315-4	RCI-315														
		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	105	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	3/4	42.18
		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



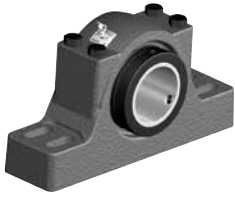
DRPBA Series Two-Bolt Base Pillow Blocks - Single Lock Collar

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	45	DRPBA-112-2	RCIA-112	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
		DRPBA-45MM-2	RCI-45MM													
1 15/16	50	DRPBA-115-2	RCIA-115	8570 38121	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
		DRPBA-50MM-2	RCI-50MM													
2		DRPBA-200-2	RCIA-200													
2 3/16	55	DRPBA-55MM-2	RCI-55MM	9030 40167	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 1/8 79.4	1 7/8 47.6	3 5/8 92.1	5/8	19.7 8.94
		DRPBA-203-2	RCIA-203													
2 1/4	60	DRPBA-204-2	RCIA-204	9630 42836	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
		DRPBA-60MM-2	RCI-60MM													
2 7/16		DRPBA-207-2	RCIA-207													
2 1/2	65	DRPBA-208-2	RCIA-208	9630 42836	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
		DRPBA-208-2	RCIA-208													
		DRPBA-65MM-2	RCI-65MM													
2 11/16	70	DRPBA-211-2	RCIA-211	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
		DRPBA-212-2	RCIA-212													
2 3/4		DRPBA-70MM-2	RCI-70MM													
2 15/16	75	DRPBA-215-2	RCIA-215	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
		DRPBA-215-2	RCIA-215													
		DRPBA-75MM-2	RCI-75MM													
3		DRPBA-300-2	RCIA-300													
3 3/16	80	DRPBA-80MM-2	RCI-80MM	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
		DRPBA-303-2	RCIA-303													
3 1/4		DRPBA-304-2	RCIA-304													
3 7/16	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
		DRPBA-307-2	RCIA-307													
3 1/2	90	DRPBA-308-2	RCIA-308	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
		DRPBA-308-2	RCIA-308													
		DRPBA-90MM-2	RCI-90MM													
		DRPBA-95MM-2	RCI-95MM													

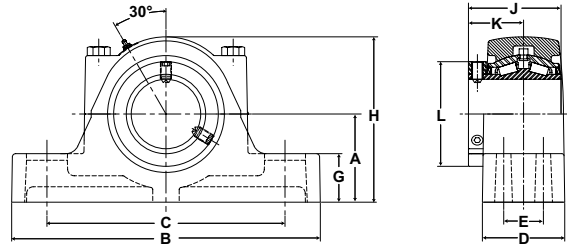
Metric dimensions for reference only.

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

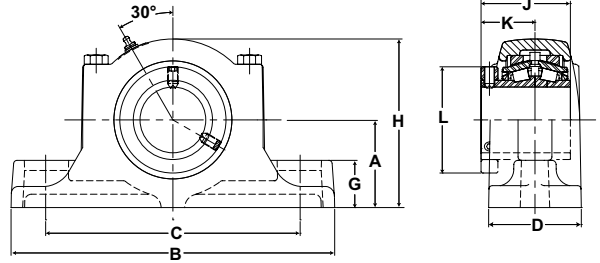


DRPBA Series Four-Bolt Base Pillow Blocks - Single Lock Collar

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 4	100	DRPBA-315-4	RCIA-315	20980 93324	5 127.0	17 1/2 444.5	12 304.8	15 381.0	4 43/64 118.7	2 50.8	2 3/4 69.9	9 3/8 238.1	5 1/4 133.4	3 1/8 79.4	5 15/16 150.8	3/4	93.0 42.2
		DRPBA-100MM-4	RCI-100MM														
		DRPBA-400-4	RCIA-400														
		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



Mtd. Tapered Bearings



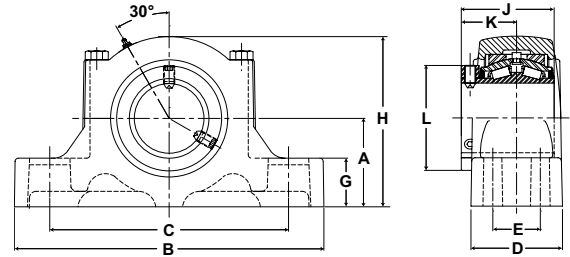
EDPBA Expansion Series Two-Bolt Base Pillow Blocks - Single Lock Collar

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm										Bolt Size	Total Expansion	Unit Wt. lb/kg
inch	mm				A	B	C		D	G	H	J	K	L			
						Min.	Max.										
1 3/4	45	EDPBA-112-2	ERCIA-112	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
1 15/16		EDPBA-45MM-2	ERCI-45MM														
2	50	EDPBA-204-2	ERCIA-204	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 3/16	55	EDPBA-55MM-2	ERCI-55MM														
2 11/16	70	EDPBA-211-2	ERCIA-211	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 3/4		EDPBA-212-2	ERCIA-212														
2 15/16	75	EDPBA-80MM-2	ERCI-80MM	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	80	EDPBA-303-2	ERCI-303														

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

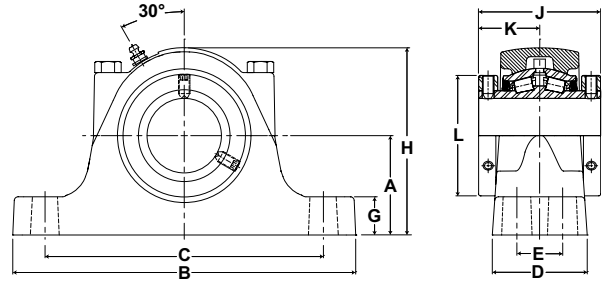


EDPBA Expansion Series Four-Bolt Base Pillow Blocks - Single Lock Collar

Bore Diameter		Part No.	Bearing Insert No.	Basic Dynamic Rating lb/N	Dimensions inch / mm											Bolt Size	Total Expansion	Unit Wt. lb/kg
					A	B	C		D	E	G	H	J	K	L			
inch	mm						Min.	Max.										
3 15/16 4	100	EDPBA-315-4	ERCIA-315															
		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
		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
		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	60	RPBXT-204-4	RCI-204	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
		RPBXT-60MM-4	RCI-60MM														
2 7/16	65	RPBXT-207-4	RCI-207	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 1/2		RPBXT-208-4	RCI-208														
2 11/16	70	RPBXT-211-4	RCI-211	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
		2 3/4	RPBXT-212-4														
2 15/16	75	RPBXT-70MM-4	RCI-70MM	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
		3	RPBXT-215-4														
3 3/16	80	RPBXT-211-4	RCI-211	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
		3 1/4	RPBXT-303-4														
3 1/4	85	RPBXT-304-4	RCI-304	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
		3 7/16	RPBXT-85MM-4														
3 1/2	90	RPBXT-307-4	RCI-307	158001	152.4	511.2	396.9	441.3	152.4	85.7	63.5	292.1	184.2	92.1	188.1	1	172.4 78.20
		3 1/2	RPBXT-308-4														
3 15/16	100	RPBXT-90MM-4	RCI-90MM	158001	152.4	511.2	396.9	441.3	152.4	85.7	63.5	292.1	184.2	92.1	188.1	1	172.4 78.20
		4	RPBXT-100MM-4														
4	105	RPBXT-400-4	RCI-400	158001	152.4	511.2	396.9	441.3	152.4	85.7	63.5	292.1	184.2	92.1	188.1	1	172.4 78.20
		4	RPBXT-105MM-4														
4 7/16	110	RPBXT-110MM-4	RCI-110MM	158001	152.4	511.2	396.9	441.3	152.4	85.7	63.5	292.1	184.2	92.1	188.1	1	172.4 78.20
		4 1/2	RPBXT-407-4														
4 1/2	115	RPBXT-408-4	RCI-408	158001	152.4	511.2	396.9	441.3	152.4	85.7	63.5	292.1	184.2	92.1	188.1	1	172.4 78.20
		4 1/2	RPBXT-115MM-4														
4 15/16	120	RPBXT-120MM-4	RCI-120MM	158001	152.4	511.2	396.9	441.3	152.4	85.7	63.5	292.1	184.2	92.1	188.1	1	172.4 78.20
		5	RPBXT-500-4														

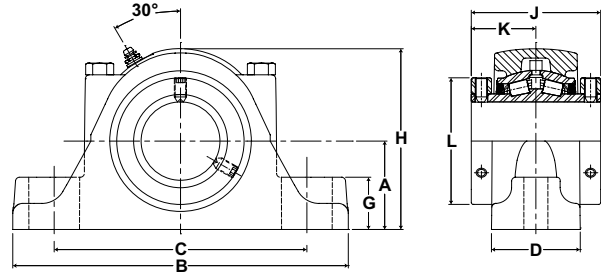
Metric dimensions for reference only.

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 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



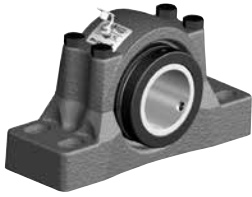
SPB Series Two-Bolt Base Pillow Blocks - Cast Steel Housing

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

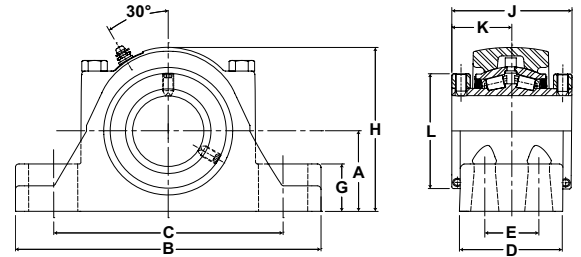
Metric dimensions for reference only.

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

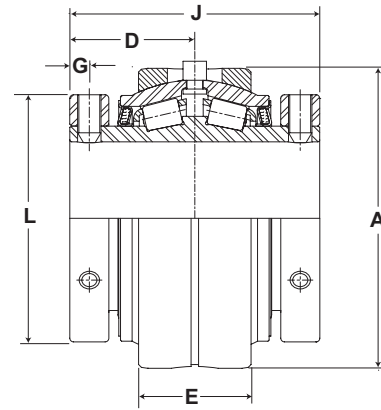


SPB Series Four-Bolt Base Pillow Blocks - Cast Steel Housing

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 4	100	SPB-315-4	RCI-315														
		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
		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
		SPB-105MM-4	RCI-105MM														
4 7/16 4 1/2	110	SPB-110MM-4	RCI-110MM														
		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
		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
4 15/16 5	115	SPB-115MM-4	RCI-115MM														
	120	SPB-120MM-4	RCI-120MM														
		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
		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
		SPB-500-4	RCI-500														



- 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



Mtd. Tapered Bearings



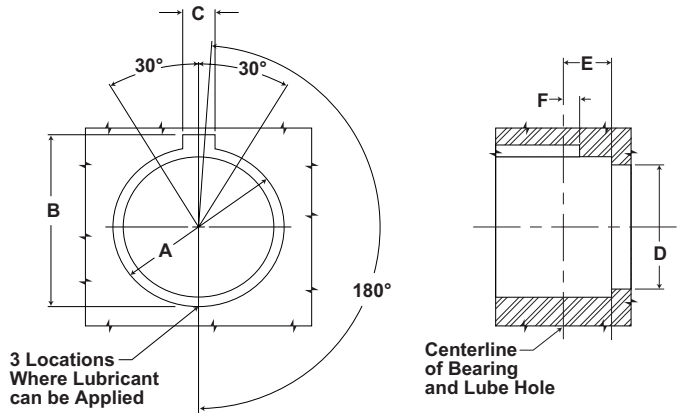
ERCI Series Replacement Cartridge Insert

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

Metric dimensions for reference only.

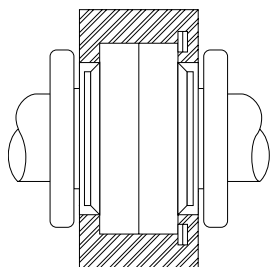
Not all parts are available from stock. Please contact customer service for availability (800) 626-2120.

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

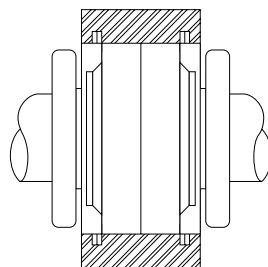


ERCI Series Housing Bore Dimensions

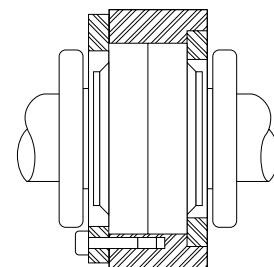
Bore Diameter		Dimensions inch / mm					
inch	mm	A +.002 / -.000 +.05 / -.000	B +.01 / -.00 +.25 / -.00	C +.01 / -.00 +.25 / -.00	D ±.01 ±.25	E ±.01 ±.25	F ±.005 ±.127
1 3/4 1 15/16 2	45 50	3.939 100.05	4.12 104.65	.44 11.18	3.63 42.20	.97 24.64	.25 6.35
2 3/16 2 1/4	55 60	4.439 112.75	4.62 117.35	.56 14.22	4.00 101.10	.97 24.64	.38 9.65
2 7/16 2 1/2	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	100 105 110	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	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

Mtd. Tapered Bearings



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

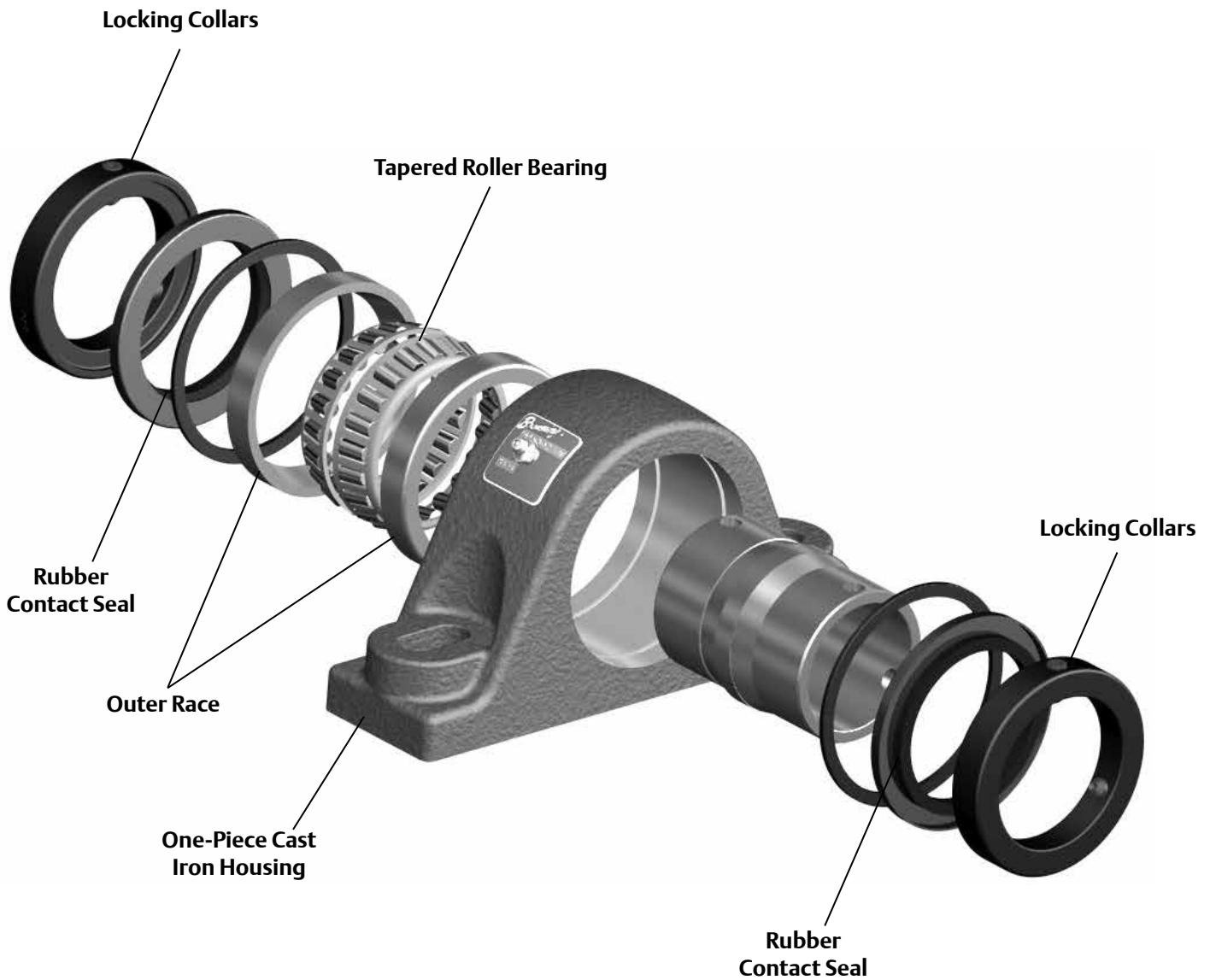
Bore Diameter	RCI-M Felt Seal	Contact Seal	Hi-Temp Seal
mm			
35	RCI-35MM	RCI35MM-C	RCI35MM-N
40	RCI-40MM	RCI40MM-C	RCI40MM-N
45	RCI-45MM	RCI45MM-C	RCI45MM-N
50	RCI-50MM	RCI50MM-C	RCI50MM-N
55	RCI-55MM	RCI55MM-C	RCI55MM-N
60	RCI-60MM	RCI60MM-C	RCI60MM-N
65	RCI-65MM	RCI65MM-C	RCI65MM-N
70	RCI-70MM	RCI70MM-C	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	RCIA-M Felt Seal	Contact Seal	Hi-Temp Seal
mm			
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

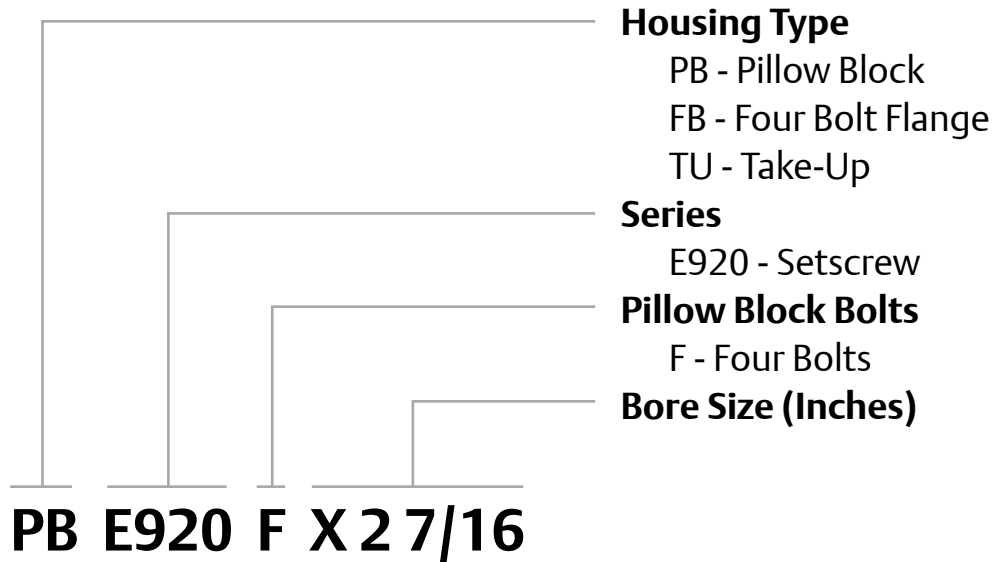
Browning[®] 920 series mounted tapered roller bearings feature one-piece durable cast iron non-expansion housings with Type E mounting dimensions and limited misalignment. The E920 series contains setscrew locking collars for easy installation and contact face riding seals to provide a good balance between 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.

Mtd. Tapered Bearings

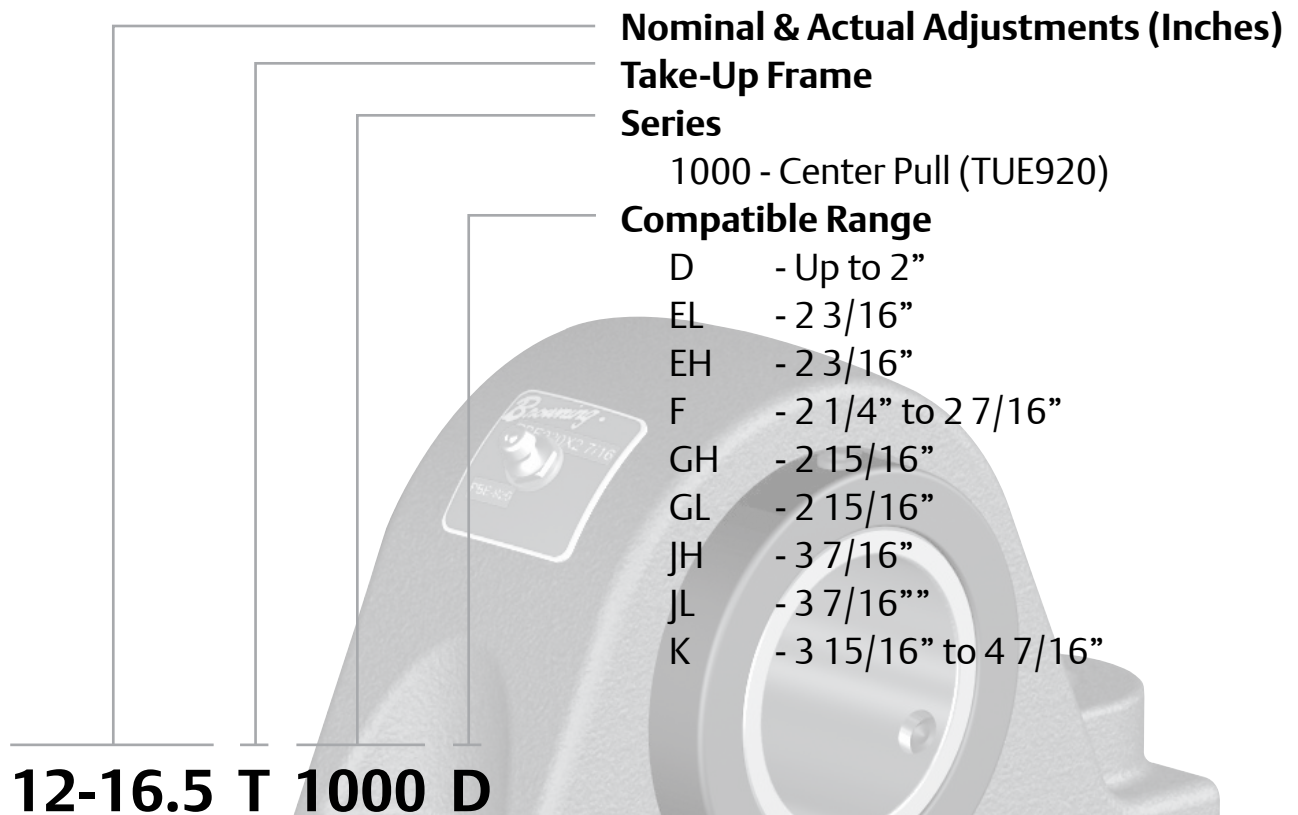


E920 Series Tapered Roller Nomenclature

Housing Assembly



Take-Up Frames



Features and Benefits

Mtd. Tapered Bearings



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.



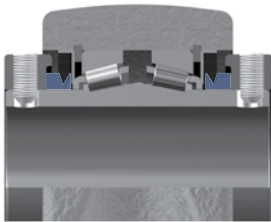
Heavy Duty Tapered Roller Bearings

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



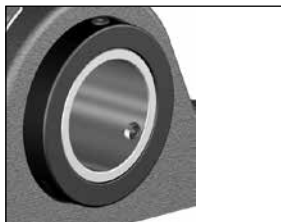
One-Piece Cast Iron Housing

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.



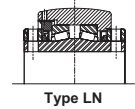
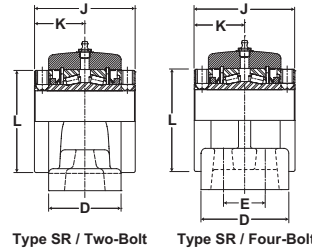
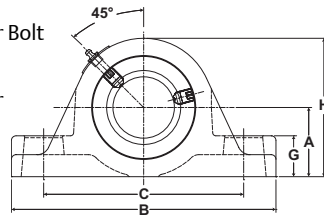
Collar Mount System

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.

E920 Series Bearings *Browning*



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



Mtd. Tapered Bearings



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		
						Min.	Max.								2 Bolt	4 Bolt	
inch																	
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.

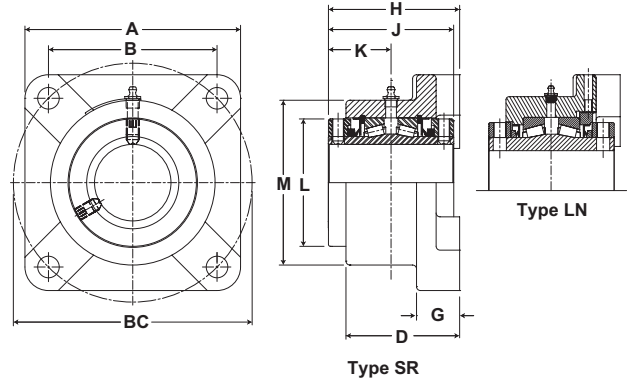
Metric dimensions for reference only.

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.



Rolling Elements: Tapered Roller
Housing: Cast Iron, Four Bolt, Flange Block
Lock: Setscrew, Double Collar
Seal: Contact
Temperature: -20°F to 200°F



Mtd. Tapered Bearings



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	FBE920x 1 3/16	2975	SR	3 3/4	4 1/16	2 7/8	2 3/8	1 1/32	2 27/32	2 3/4	2 1/4	3	3/8	4.5										
1 1/4	FBE920x 1 1/4	13233		95.3	103.3	73.0	60.3	26.2	72.2	69.9	57.2	76.2		2.04										
1 3/8	FBE920x 1 3/8	4760	SR	4 5/8	4 61/64	3 1/2	2 5/8	1 1/16	3 5/64	3	2 3/4	3 5/8	1/2	6.7										
1 7/16	FBE920x 1 7/16	21172		117.5	125.8	88.9	66.7	27.0	78.2	76.2	69.9	92.1		3.04										
1 1/2	FBE920x 1 1/2	6140 27311	SR	5 3/8	5 53/64	4 1/8	3	1 3/16	3 29/64	3 3/8	3 3/16	4 1/4	1/2	10.0										
1 5/8	FBE920x 1 5/8			136.5	148.0	104.8		76.2	30.2	87.7	85.7	81.0		108.0	4.54									
1 11/16	FBE920x 1 11/16			3 3/8	3 29/64	3 3/8		3 3/16	4 1/4	108.0														
1 3/4	FBE920x 1 3/4	8070 35895	SR	5 5/8	6 3/16	4 3/8	3 1/8	1 3/16	3 5/8	3 1/2	3 7/16	4 1/2	1/2	12.0										
1 15/16	FBE920x 1 15/16			142.9	157.2	111.1		79.4	30.2	92.1	88.9	87.3		114.3	5.44									
2	FBE920x 2			5 5/8	6 3/16	4 3/8		3 1/8	1 3/16	3 5/8	3 1/2	3 7/16		4 1/2	114.3									
2 3/16	FBE920x 2 3/16	8570 38119	SR	6 1/4	6 57/64	4 7/8	3 5/16	1 1/4	3 7/8	3 3/4	3 3/4	4 7/8	5/8	16.0										
				158.8	175.0	123.8	84.1	31.8	98.3	95.0	95.3	123.8		7.26										
2 1/4	FBE920x 2 1/4	9030 40165	SR	6 7/8	7 39/64	5 3/8	3 5/8	1 1/2	4 3/16	4	4 1/16	5 1/4	5/8	21.0										
2 7/16	FBE920x 2 7/16													174.6	193.3	136.5	92.1	38.1	106.3	101.6	103.2	133.4	9.53	
2 1/2	FBE920x 2 1/2																							
2 1/2	FBE920x 2 1/2																							
2 11/16	FBE920x 2 11/16	9630 42834	SR	7 3/4	8 31/64	6	3 15/16	1 5/8	4 11/16	4 1/2	4 23/32	6 1/8	3/4	28.0										
2 3/4	FBE920x 2 3/4													196.9	215.5	152.4	100.0	41.3	119.1	114.3	119.9	155.6	12.70	
2 15/16	FBE920x 2 15/16																							
3	FBE920x 3																							
3 3/16	FBE920x 3 3/16	15320 68143	LN	9 1/4	9 29/32	7	4 9/16	1 7/8	5 1/4	5	5 7/16	7 1/2	3/4	46.0										
3 7/16	FBE920x 3 7/16													235.0	251.6	177.8	115.9	47.6	133.4	127.0	138.1	190.5	20.87	
3 1/2	FBE920x 3 1/2																							
3 15/16	FBE920x 3 15/16	20980 93319	LN	10 1/4	10 31/32	7 3/4	5 11/16	2 3/16	6 9/16	6 1/4	5 15/16	8 1/4	7/8	64.0										
4	FBE920x 4													260.4	278.6	196.9	144.5	55.6	166.7	158.6	150.8	209.6	29.03	

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

Metric dimensions for reference only.

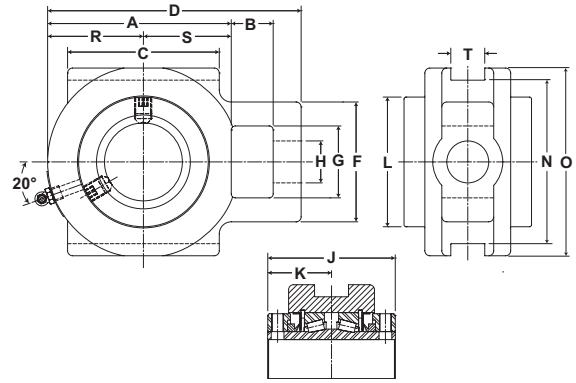
Not all parts are available from stock. Please contact customer service for availability (800) 626-2120.

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

E920 Series Bearings *Browning*®



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



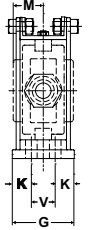
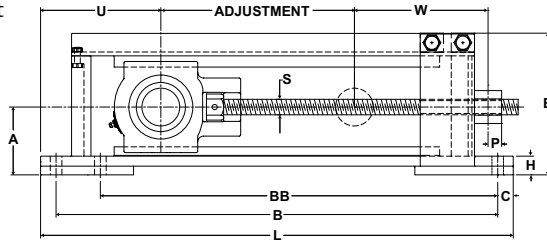
TUE920 Series Take Up Units

Bore Diameter	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



Mtd. Tapered Bearings

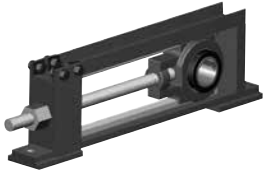


T1000 Take Up Frames

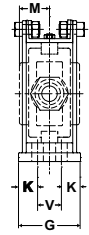
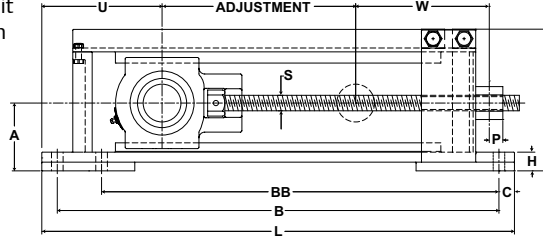
Bore Diameter inch	Part No.	Dimensions inch / mm																	Bolts Req'd		Unit Wt. lb/kg					
		Adjustment		A	B	BB	C	E	G	H	K	L	M	P	S	U	V	W	No.	Size						
		Nominal	Actual																							
1 3/4	12-16.5T1000D	12	16.5	3 15/16	27 1/2	26 1/2						29 1/2												60.0		
		304.8	419.1	100.0	698.5	673.1						749.3													27.22	
		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	
1 15/16	18-22.5T1000D	457.2	571.5	100.0	850.9	825.5	25.4	210.3	101.6	31.8		901.7	47.6	31.8											31.75	
		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	
2 3/16	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	
		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	
2 3/16	18-23T1000EL	457.2	584.2	106.4	850.9		25.4	219.9	101.6	34.9		901.7	50.8	41.3											34.93	
		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	
2 3/16	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	
		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	
2 3/16	18-23T1000EH	457.2	584.2	112.7	850.9		25.4	226.2	101.6	41.3		901.7	50.8	41.3											36.29	
		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	
2 7/16	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	
		18	22.6	4 3/8	34 1/2							36 1/2													81.0	
2 7/16	18-22.6T1000F	457.2	574.04	111.1	876.3							927.1	2 1/8	1 3/4	1 1/4-7NC	5 5/16									36.74	
		24	28.6	4 3/8	40 1/2		1	9 9/32	4	1 1/8			42 1/2	54.0	44.5										91.0	
		609.6	726.44	111.1	1,028.7		25.4	235.7	101.6	28.6			1,079.5													41.28
2 1/2	24-28.6T1000F	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
		18	21.5	4 15/16	36 1/2								38 1/2													120.0
2 3/4	18-21.5T1000GL	457.2	546.1	125.4	927.1							977.9	2 3/8	1/2	1 1/2-6NC	6 1/2		2	8 1/2		4	5/8			54.43	
		24	27.5	4 15/16	42 1/2		1	10 11/16	5	31/32	1 1/2		44 1/2	60.3	12.7											135.0
		609.6	698.5	125.4	1,079.5		25.4	271.5	127.0	24.6	38.1		1,130.3													61.23
2 15/16	24-27.5T1000GL	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 inch	Part No.	Dimensions inch / mm																	Bolts Req'd		Unit Wt. lb/kg	
		Adjustment		A	B	BB	C	E	G	H	K	L	M	P	S	U	V	W	No.	Size		
		Nominal	Actual																			
2 11/16	12-15.5T1000GH	12	15.5	5 1/8	30 1/2							32 1/2									109.0	
		304.8	393.7	130.2	774.7							825.5									49.44	
	2 3/4	18-21.5T1000GH	18	21.5	5 1/8	36 1/2																126.0
			457.2	546.1	130.2	927.1		1	10 7/8	5	1 5/32	1 1/2	977.9	2 3/8	1/2	1 1/2-6NC	6 1/2	2	8 1/2	215.9	4	5/8
2 15/16	24-27.5T1000GH	24	27.5	5 1/8	42 1/2	-----						44 1/2	60.3	12.7							141.0	
		609.6	698.5	130.2	1,079.5			25.4	276.2	127.0	29.4	38.1									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																
3 3/16	12-15.5T1000JL	12	15.5	5 7/16	32							34 1/4									138.0	
		304.8	393.7	138.1	812.8							870.0										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	-----	1 1/8	11 5/8	5	1 1/32	1 1/2	1022.4	2 19/32	1	1 3/4-5NC	7 5/16	2	9 3/16	233.4	4	3/4
3 1/2	24-27.5T1000JL	24	27.5	5 7/16	44							46 1/4	65.9	25.4							173.0	
		609.6	698.5	138.1	1,117.6			28.6	295.3	127.0	26.2	38.1										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										
3 3/16	12-15.5T1000JH	12	15.5	5 5/8	32							34 1/4									145.0	
		304.8	393.7	142.9	812.8							867										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	-----	1 1/8	11 13/16	5	1 7/32	1 1/2	1022.4	2 19/32	1	1 3/4-5NC	7 5/16	2	9 3/16	233.4	4	3/4
3 1/2	24-27.5T1000JH	24	27.5	5 5/8	44							46 1/4	65.9	25.4							179.0	
		609.6	698.5	142.9	1,117.6			28.6	300.0	127.0	31.0	38.1										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							1,327.2										
3 11/16	12-18T1000K	12	18.0	7	36							38 1/2									191.0	
		304.8	457.2	177.8	914.4							977.9										
	3 15/16	18-24T1000K	18	24	7	42							44 1/2									223.0
			457.2	609.6	177.8	1,066.8	-----	1 1/4	14 15/32	6	1 7/16	1 3/4	1,130.3	2 31/32	1 5/8	2-4 1/2NC	7 1/2	2 1/2	10 7/16	265.1	4	3/4
4 7/16	24-30T1000K	24	30	7	48							50 1/2	75.4	41.3							249.0	
		609.6	762	177.8	1,219.2			31.8	367.5	152.4	36.5	44.5										112.94
	30-36T1000K	30	36	7	54							56 1/2										274.0
		762	914.4	177.8	1,371.6							1,435.1										

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.

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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 as an 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 (L_{na}). L10 life rating is based on laboratory conditions yet other factors are encountered in actual bearing application that will reduce bearing life. L_{na} 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

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

material. Power Transmission Solutions bearing races are manufactured from bearing quality steel. Therefore the a_2 factor is 1.0.

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 a³ 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 a³ 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. 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):

$$FIR = \frac{0.6 \times F}{K} - \text{applied radial load}$$

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:

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

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.

Mtd. Tapered Bearings





Load Ratings and Life Continued

Combined Load – Double Row Spherical Roller Bearings

1. Calculate F_a/F_r and compare the value to the “e” value found in following tables. F_a/F_r 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	e	$F_a/F_r \leq e$		$F_a/F_r > e$		Combined Static Load Factors	
	C (lb)	C_0 (lb)		X	Y	X	Y	X_0	Y_0
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 1/2	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.

$$\text{Mean Speed} = \frac{S_1 N_1 + S_2 N_2 + S_3 N_3}{100}$$

$S_1, S_2, \text{ etc}$ = Speeds in RPM
 $N_1, N_2, \text{ etc}$ = Percentage of total time operated at speeds $S_1, S_2, \text{ etc}$

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.

Mtd. Tapered Bearings



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.

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.

Computing Bearing Loads

In the computation of bearing loads in any application of an 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:

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.

Mtd. Tapered Bearings



CASE #1
Drive Load Calculation

$$P = \frac{126,000 \times \text{HP}}{\text{RPM} \times d} \times K$$

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

$$\text{Load on Bearing A} = \frac{P_1 \times (k + a) + (P_2 \times c) - (P_3 \times d)}{k}$$

$$= \frac{60 \times (12 + 2) + (180 \times 6) - (70 \times 4)}{12}$$

$$= 137 \text{ lbs.}$$

$$\text{Load on Bearing B} = \frac{-(P_1 \times a) + (P_2 \times b) + P_3 \times (k + d)}{k}$$

$$= \frac{-(60 \times 2) + (180 \times 6) + 70 \times (12 + 4)}{12}$$

$$= 173 \text{ lbs.}$$

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:

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

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?

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



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 (L_a).
2. Calculate L_{10} using adjustment factors:

$$L_{10} = \frac{L_a}{a_1 \times a_2 \times a_3}$$

3. Calculate Basic Dynamic Radial Rating (C_{req}).

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

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 C_{req} 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.

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

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.

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

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 (F_r) = 5,000 lbs.
- Design Thrust Load (F_a) = 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):

$$FIR = \frac{0.6 \times F_r}{K} \text{ - applied radial load}$$

- 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 F_a/F_r and compare the value to the "e" value found in Table 3 on page I-50.

$$F_a/F_r = 1,000/5,000 = .20$$

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

3. Calculate the equivalent load.

$$P = (x F_r) + (y F_a)$$

$$= (1 \times 5,000) + (2.2 \times 1000)$$

$$= 7,200 \text{ lbs.}$$

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:

$$L_{10} = .5 \times 45,054 = 22,527 \text{ hrs.}$$

USRB5000-207 Spherical Roller Bearing:

$$L_{10} = .5 \times 73,251 = 36,626 \text{ hrs.}$$

Mtd. Tapered Bearings



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

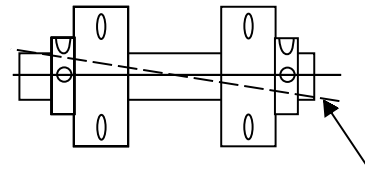
Make sure the base of the housing and the support surfaces are clean and free from burrs. If the housing elevation is adjusted with shims these must cover the entire contact area between the housing and the support surface.

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.

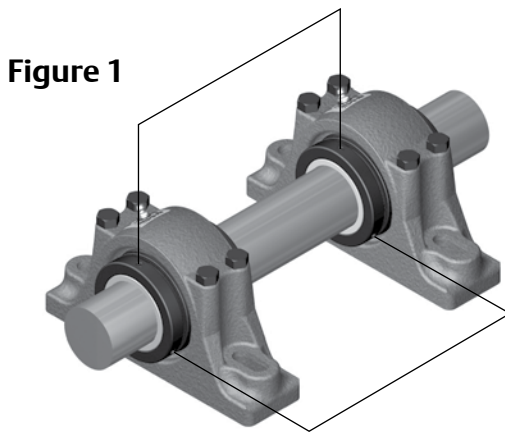


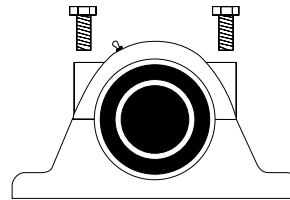
Figure 1

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

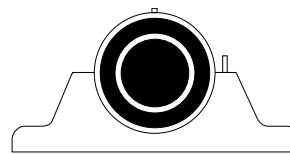
Replacing Existing Sealmaster Inserts:

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.

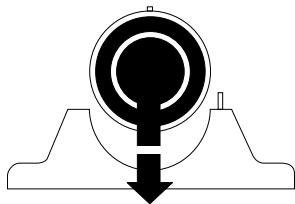


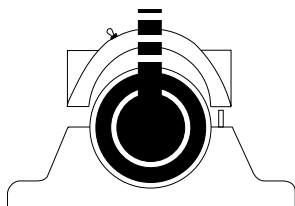
Table III

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

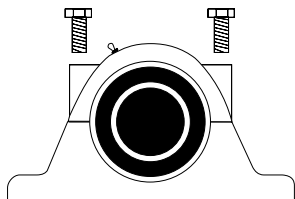
Step 6: Install Top Half of Housing

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 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
		0 - 25%	4 to 10 Months
Clean	-20 to 125	26 - 50%	1 to 4 Months
		51 - 75%	1 Week to 1 Month
		76 - 100%	Daily to 1 Week
		0 - 25%	2 to 6 Weeks
	125 to 175	26 - 50%	1 Week to 1 Month
		51 - 75%	Daily to 1 Week
		76 - 100%	
		175 to 250	0 - 100%

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.

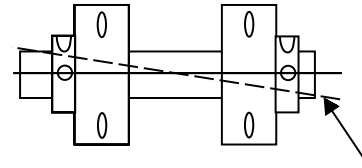
Step 3: Install Unit

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:

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

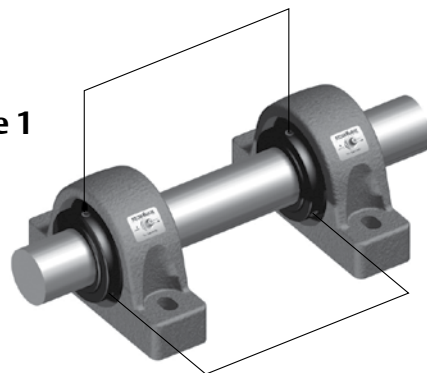


Table II

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.

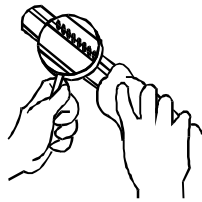


Table I

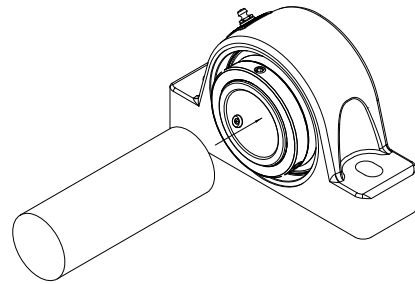
Recommended Shaft Tolerances	
Nominal Bore Diameter	Tolerance (inch)
1 1/8 - 2	+0.000 / -0.0005
2 3/16 - 4	+0.000 / -0.001
4 7/16 - 5	+0.000 / -0.0015

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.

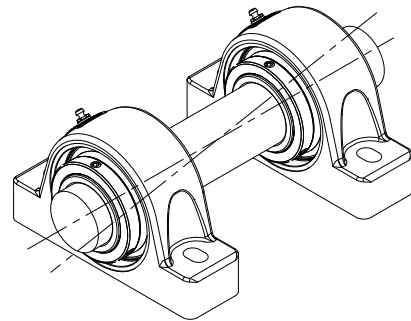
Step 3: Install Unit

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.

Mtd. Tapered Bearings



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.

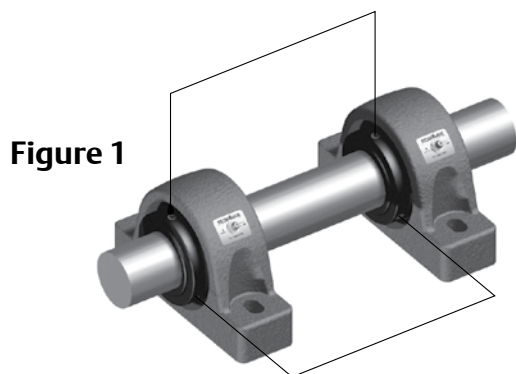


Figure 1

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.

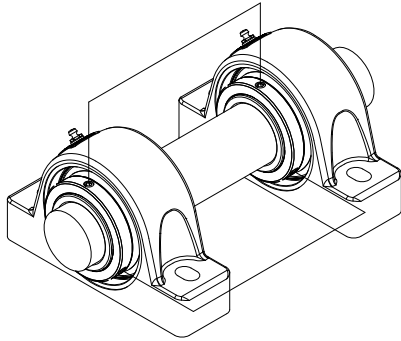
To aid installation, keep weight off bearing during mounting. Slide unit onto shaft by pushing on the inner ring. If it is difficult to mount bearing on shaft, use a piece of emery cloth to reduce any high spots on the shaft.



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.

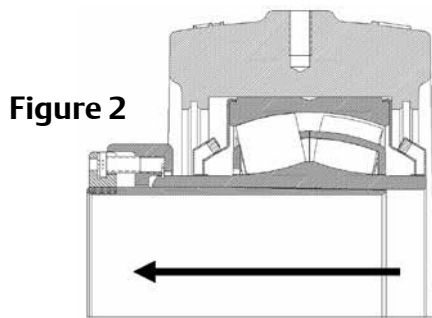


Figure 2

Step 6: Tighten Cap Screws

Tighten bearing units to the shaft as follows:

- Tighten the cap screws in the specified order, as shown in Figure 3. Continue tightening until all cap screws have become snug.
- Using a torque wrench, tighten each cap screw in the specified order to one half of the recommended torque in Table IV.
- 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.

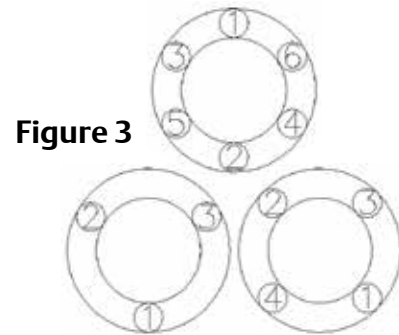


Figure 3

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
		0 - 25%	4 to 10 Months
Clean	-20 to 125	26 - 50%	1 to 4 Months
		51 - 75%	1 Week to 1 Month
		76 - 100%	Daily to 1 Week
		0 - 25%	2 to 6 Weeks
	125 to 175	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

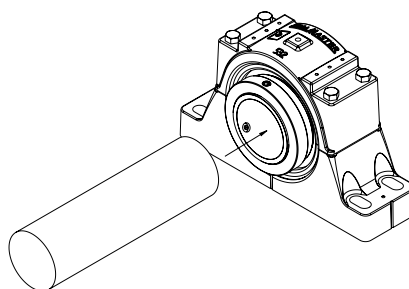
Recommended Shaft Tolerances	
Nominal Bore Diameter	Tolerance (inch)
1 7/16 - 2	+0.0000 / -0.0005
2 7/16 - 4	+0.000 / -0.001
4 7/16 - 5 15/16	+0.0000 / -0.0015
6 7/16 - 7	+0.000 / -0.002

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

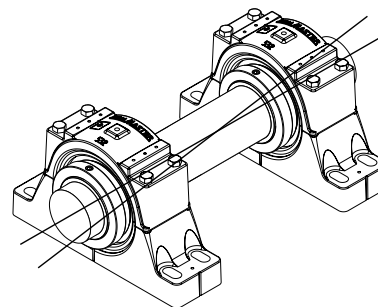
To aid installation, keep weight off bearing during mounting. Slide unit onto shaft by pushing on the inner ring. If it is difficult to mount bearing on shaft, use a piece of emery cloth to reduce any high spots on the shaft.



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

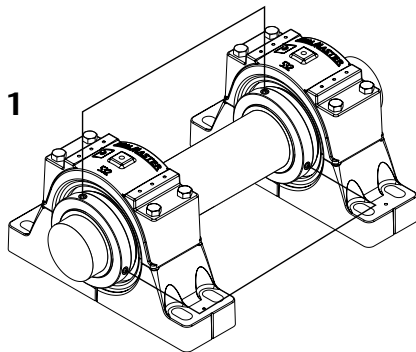


Table II

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

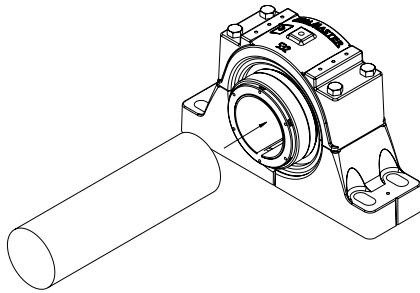
NOTICE: One expansion unit is to be used in conjunction with one non-expansion unit for applications using adapter lock units. Failure to utilize one expansion and one non-expansion unit is likely to result in reduced bearing performance.

Mtd. Tapered Bearings



Installation Instructions continued

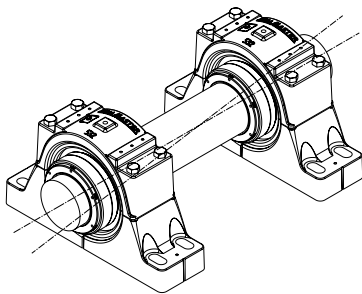
To aid installation, keep weight off bearing during mounting. Slide unit onto shaft by pushing on the inner ring. If it is difficult to mount bearing on shaft, use a piece of emery cloth to reduce any high spots on the shaft.



Step 4: Fasten Unit in Place

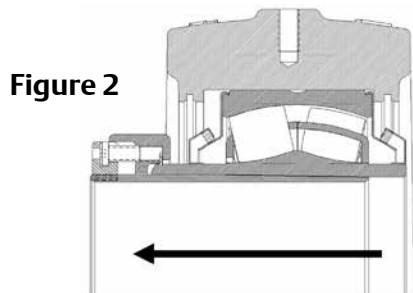
Install housing mounting bolts and check bearing alignment. Align the bearing units as closely as possible.

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.



Step 6: Tighten Cap Screws

Tighten bearing units to the shaft as follows:

- Tighten the cap screws in the specified order, as shown in Figure 3. Continue tightening until all cap screws have become snug.
- Using a torque wrench, tighten each cap screw in the specified order to one half of the recommended torque in Table IV.
- 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.

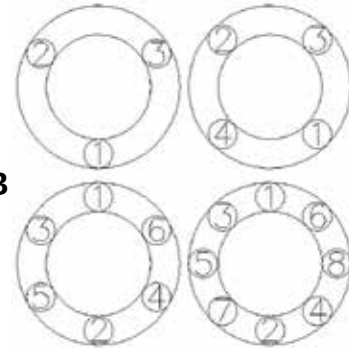


Figure 3

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.

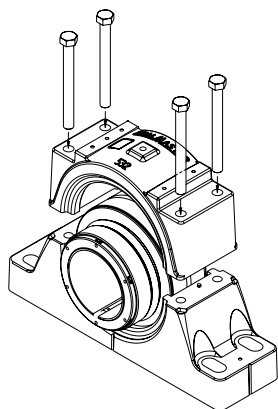


Table V

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 USBR 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
		0 - 25%	4 to 10 Months
Clean	-20 to 125	26 - 50%	1 to 4 Months
		51 - 75%	1 Week to 1 Month
		76 - 100%	Daily to 1 Week
		0 - 25%	2 to 6 Weeks
	125 to 175	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

Mtd. Tapered Bearings



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