

Spherical Roller Bearing Units and Takeups

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Series B22400

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Max Mount™

Series B22600

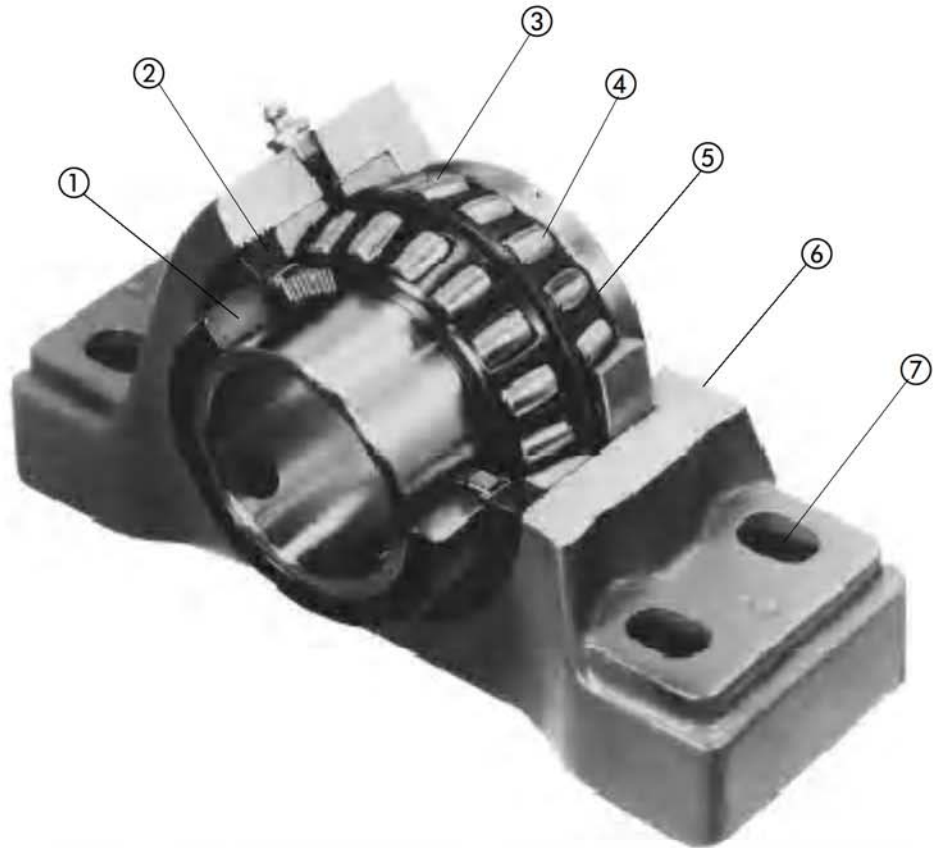
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Series B22400 Spherical Roller Bearing Units and Takeups

Series B22400 collar mounted spherical roller bearing units provide economic and versatile arrangements for supporting shafts carrying substantial radial or combination radial and thrust loads.

These units are especially adaptable for conveyors, elevators, general industrial machinery, heavier duty fans and blowers, power transmission applications, ditchers, trenchers, pavers and other such applications. Series B22400 units are easy to mount, sealed, prelubricated and do not require bearing adjustment during mounting.

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



Spherical Roller Bearings

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

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



Spring Locking Collar

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

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



Seals

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

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

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

Seals are interchangeable and are designed for grease lubrication.



TYPE H SEAL



TYPE E SEAL

One-Piece Cast Iron or Cast Steel Housing

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

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



Series B22400

Spherical Roller Bearing Units

Pillow Blocks, cast iron

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

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

*Load ratings on pages D-7 and D-8.
Dimensions on pages D-9 through D-12.
Additional information on page D-68.*

***Self-aligning Type E Interchange**



Pillow Blocks, cast steel

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

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

*Load ratings on pages D-7 and D-8.
Dimensions on pages D-13 and D-14.
Additional information on page D-68.*



Flanged Units, cast iron

EFR-B22400H*
F-B22400H, FE-B22400H

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

*Load ratings on pages D-7 and D-8.
Dimensions on pages D-17 and D-18.
Additional information on page D-68.*

***Self-aligning Type E Interchange**



Flanged Cartridge Units, cast iron

FC-B22400H*

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

*Load ratings on pages D-7 and D-8.
Dimensions on page D-20.
Additional information on page D-68.*

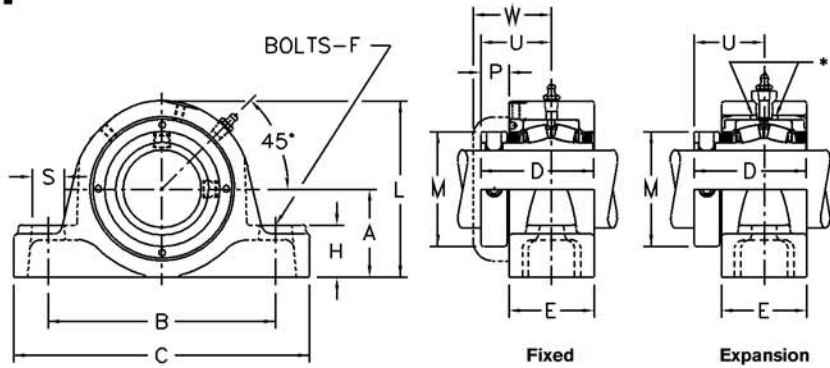
***Self-aligning Type E Interchange**



Spherical Roller Bearing Pillow Blocks

P-B22400H, PE-B22400H

Cast Iron Housing
 2-bolt Base
 Fixed or Expansion
 Self-aligning
 Spring Locking Collar
 Factory Adjusted and Sealed



Dimensions (inches/mm)

Shaft dia. mm inches	Pillow block number		A †	B	C	D	E	F Bolts	H ■	L		M	P	S	U	W ◆	Unit wt. (lbs./kg.)
	Fixed	Expansion								Fixed	Expansion						
1 25	P-B22416H <i>P-B224M25H</i>	PE-B22416H <i>PE-B224M25H</i>	1 ¹ / ₁₆ 39.67	4 ³ / ₈ 111.1	5 ¹⁵ / ₁₆ 150.8	2 ⁹ / ₁₆ 65.09	2 ¹ / ₁₆ 52.4	3 ³ / ₈ 10	7 ⁷ / ₈ 22.2	3 ¹ / ₈ 79.4	3 ⁵ / ₁₆ 84.1	2 50.8	1 ⁷ / ₃₂ 13.5	5 ⁵ / ₈ 15.9	1 ⁹ / ₁₆ 39.7	1 ²⁹ / ₃₂ 48.4	5 2.1
1 ³ / ₁₆ 1 ¹ / ₄ 30	P-B22419H <i>P-B224M30H</i>	PE-B22419H <i>PE-B224M30H</i>	1 ³ / ₄ 44.45	4 ³ / ₄ 120.6	6 ⁵ / ₁₆ 160.3	2 ¹¹ / ₁₆ 68.26	2 ³ / ₁₆ 55.6	3 ³ / ₈ 10	1 ¹ / ₁₆ 27.0	3 ¹ / ₂ 88.9	3 ⁵ / ₈ 92.1	2 ³ / ₁₆ 55.6	1 ⁷ / ₃₂ 13.5	5 ⁵ / ₈ 15.9	1 ⁵ / ₈ 41.3	1 ³¹ / ₃₂ 50.0	6 6 2.9
1 ⁷ / ₁₆ 1 ¹ / ₂ 35	P-B22423H <i>P-B224M35H</i>	PE-B22423H <i>PE-B224M35H</i>	1 ⁷ / ₈ 47.62	5 127.0	6 ⁷ / ₈ 174.6	2 ⁷ / ₈ 73.02	2 ¹ / ₄ 57.2	1 ¹ / ₂ 12	1 ³ / ₁₆ 30.2	3 ¹ / ₁₆ 93.7	3 ³ / ₈ 98.4	2 ¹ / ₂ 63.5	2 ¹ / ₃₂ 16.7	1 ³ / ₁₆ 20.6	1 ²⁹ / ₃₂ 45.2	2 ³ / ₁₆ 55.6	7 7 3.2
1 ⁵ / ₈ 1 ¹¹ / ₁₆ 1 ³ / ₄ 40	P-B22426H <i>P-B224M40H</i>	PE-B22426H <i>PE-B224M40H</i>	2 ¹ / ₈ 53.98	5 ¹ / ₂ 139.7	7 ⁷ / ₈ 187.3	3 ¹ / ₈ 79.38	2 ¹ / ₂ 63.5	1 ¹ / ₂ 12	1 ⁵ / ₁₆ 33.3	4 ¹ / ₄ 108.0	4 ³ / ₈ 111.1	2 ³ / ₄ 69.8	2 ¹ / ₃₂ 16.7	1 ³ / ₁₆ 20.6	1 ²⁹ / ₃₂ 48.4	2 ¹ / ₄ 57.2	10 10 10 4.7
1 ¹⁵ / ₁₆ 2 45 50	P-B22431H <i>P-B224M45H</i> <i>P-B224M50H</i>	PE-B22431H <i>PE-B224M45H</i> <i>PE-B224M50H</i>	2 ¹ / ₄ 57.15	6 ¹ / ₄ 158.8	8 ³ / ₈ 212.7	3 ³ / ₈ 79.38	2 ¹ / ₂ 63.5	5 ⁵ / ₈ 16	1 ³ / ₈ 34.9	4 ⁹ / ₁₆ 115.9	4 ⁹ / ₁₆ 115.9	2 ¹⁵ / ₁₆ 74.6	2 ¹ / ₃₂ 16.7	1 ⁵ / ₁₆ 23.8	1 ²⁹ / ₃₂ 48.4	2 ⁹ / ₃₂ 57.9	12 12 5.5 5.2
2 ³ / ₁₆ 2 ¹ / ₄ 55	P-B22435H <i>P-B224M55H</i>	PE-B22435H <i>PE-B224M55H</i>	2 ¹ / ₂ 63.50	6 ³ / ₄ 171.4	8 ⁷ / ₈ 225.4	3 ⁵ / ₈ 84.14	2 ⁹ / ₁₆ 65.1	5 ⁵ / ₈ 16	1 ⁵ / ₈ 41.3	5 127.0	5 127.0	3 ³ / ₈ 85.7	2 ⁵ / ₃₂ 19.8	1 ⁵ / ₁₆ 23.8	2 ¹ / ₁₆ 52.4	2 ⁷ / ₁₆ 61.9	14 14 6.5
2 ⁷ / ₁₆ 2 ¹ / ₂ 60	P-B22439H <i>P-B224M60H</i>	PE-B22439H <i>PE-B224M60H</i>	2 ³ / ₄ 69.85	7 ¹ / ₈ 181.0	9 ¹ / ₄ 235.0	3 ¹ / ₂ 88.90	2 ¹¹ / ₁₆ 68.3	5 ⁵ / ₈ 16	1 ⁵ / ₈ 41.3	5 ¹ / ₂ 139.7	5 ¹ / ₂ 139.7	3 ³ / ₈ 92.1	2 ⁷ / ₃₂ 21.4	1 ⁵ / ₁₆ 23.8	2 ³ / ₁₆ 55.6	2 ⁹ / ₁₆ 65.1	17 17 8.0
2 ¹¹ / ₁₆ 2 ³ / ₄ 2 ¹⁵ / ₁₆ 3 65 70 75	P-B22443H <i>P-B224M65H</i> <i>P-B224M70H</i> <i>P-B224M75H</i>	PE-B22443H <i>PE-B224M65H</i> <i>PE-B224M70H</i> <i>PE-B224M75H</i>	3 ¹ / ₄ 82.55	8 ¹ / ₈ 206.4	10 ⁷ / ₁₆ 265.1	4 101.60	3 ³ / ₁₆ 81.0	3 ³ / ₄ 20	2 57.2	6 ⁷ / ₁₆ 163.5	6 ⁷ / ₁₆ 163.5	4 ³ / ₁₆ 106.4	2 ⁷ / ₃₂ 21.4	1 ¹ / ₁₆ 27.0	2 ⁷ / ₁₆ 61.9	2 ²⁹ / ₃₂ 70.6	29 29 27 27 13.2 13.0 12.5
3 ³ / ₁₆ 3 ⁷ / ₁₆ 3 ¹ / ₂ 80 85	P-B22451H <i>P-B224M80H</i> <i>P-B224M85H</i>	PE-B22451H <i>PE-B224M80H</i> <i>PE-B224M85H</i>	3 ³ / ₄ 95.25	10 254.0	13 330.2	4 ³ / ₈ 111.12	3 ⁷ / ₁₆ 87.3	7 ⁷ / ₈ 24	2 ¹ / ₄ 57.2	7 ¹ / ₂ 190.5	7 ¹ / ₂ 190.5	5 127.0	1 ⁹ / ₁₆ 23.8	1 ⁵ / ₈ 41.3	2 ²¹ / ₃₂ 67.5	3 76.2	43 42 41 19.6 19.1
3 ¹¹ / ₁₆ 3 ¹⁵ / ₁₆ 4 90 100	P-B22459H <i>P-B224M90H</i> <i>P-B224M100H</i>	PE-B22459H <i>PE-B224M90H</i> <i>PE-B224M100H</i>	4 ¹ / ₄ 107.95	11 ³ / ₄ 298.4	15 ¹ / ₄ 387.4	5 ¹ / ₁₆ 128.59	4 101.6	1 24	2 ⁵ / ₈ 66.7	8 ¹ / ₂ 215.9	8 ¹ / ₂ 215.9	5 ²⁹ / ₃₂ 150.0	1 ¹ / ₁₆ 27.0	2 ¹ / ₄ 57.2	3 ¹ / ₁₆ 77.8	3 ⁷ / ₁₆ 87.3	61 59 59 28.7 26.9
3 ¹⁵ / ₁₆ 4	PL-B22463H <i>PL-B22464H</i>	— —	4 ¹ / ₈ 104.78	10 ⁷ / ₈ 276.2	14 ¹ / ₄ 362.0	5 ¹ / ₁₆ 128.59	4 101.6	1 24	2 ¹ / ₂ 63.5	8 ³ / ₈ 212.7	— —	5 ²⁹ / ₃₂ 150.0	1 ¹ / ₁₆ 27.0	1 ⁷ / ₈ 47.6	3 ¹ / ₁₆ 77.8	3 ⁷ / ₁₆ 87.3	58 57

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

For replacement bearing numbers, see pages D-62, D-63.

Lubrication fitting tap size, 1/8" PT.

All units available with type E lip seals.

* Expansion unit allows axial movement of 3/16" (4.8 mm) in either direction from centered position shown.

† Tolerance, ±.005" (±0.13 mm).

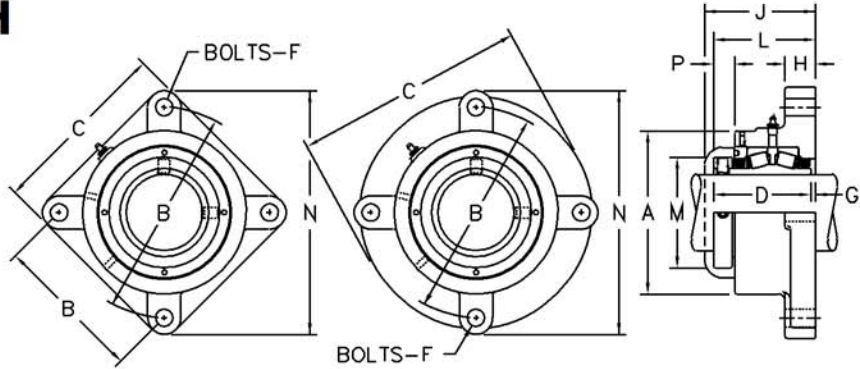
■ Dimension H for PE-B22439H and PE-B22440H is 1 3/4"; Dimension H for PE-B22443H thru PE-B22448H is 2 1/4".

◆ Width dimension for closed end unit.
 Selection guide, page D-5, D-6.
 Load ratings, pages D-7, D-8.
 Additional information, page D-68.

Spherical Roller Bearing Flanged Units

F-B22400H, FE-B22400H

Cast Iron Housing
 3-bolt or 4-bolt Mounting
 Fixed or Expansion
 Self-aligning
 Spring Locking Collar
 Factory Adjusted and Sealed



Dimensions (inches/mm)

Type of Housing	Shaft dia. mm	Flanged unit number		A		B		C ▲	D	F Bolts		H	J ◆	L	M	N	P	Unit wt. (lbs./kg.)		
		Fixed	Expansion	Fixed	Exp	Circle	Square													
3-BOLT ROUND	25	1	F-B22416H <i>F-B224M25H</i>	FE-B22416H <i>FE-B224M25H</i>	2 ⁷ / ₈ 73.0	3 ¹ / ₄ 82.6	4 ¹ / ₈ 104.78	...	4 ³ / ₄ 120.6	2 ⁹ / ₁₆ 65.09	3 ⁸ / ₁₆ 10	1 ³ / ₂ 0.8	9 ¹ / ₁₆ 14.3	2 ¹⁵ / ₁₆ 74.6	2 ¹⁹ / ₃₂ 65.9	2 50.8	5 ¹ / ₈ 130.2	1 ⁷ / ₃₂ 13.5	3 1.3	
		1 ³ / ₁₆ 1 ¹ / ₄	F-B22419H F-B22420H <i>F-B224M30H</i>	FE-B22419H FE-B22420H <i>FE-B224M30H</i>	3 ³ / ₈ 79.4	3 ¹ / ₂ 88.9	4 ¹ / ₂ 114.30	...	5 ¹ / ₈ 130.2	2 ¹¹ / ₁₆ 68.26	3 ⁸ / ₁₆ 10	1 ³ / ₂ 0.8	1 ⁹ / ₃₂ 15.1	3 ¹ / ₁₆ 77.8	2 ²³ / ₃₂ 69.0	2 ³ / ₁₆ 55.6	5 ¹ / ₂ 139.7	1 ⁷ / ₃₂ 13.5	6 6 2.4	
	30	1 ⁷ / ₁₆ 1 ¹ / ₂	F-B22423H F-B22424H <i>F-B224M35H</i>	FE-B22423H FE-B22424H <i>FE-B224M35H</i>	3 ⁷ / ₁₆ 87.3	3 ³ / ₄ 95.2	5 127.00	...	5 ⁷ / ₈ 149.2	2 ⁷ / ₈ 73.02	1 ¹ / ₂ 12	1 ¹ / ₂ 0.8	5 ⁹ / ₁₆ 15.9	3 ⁹ / ₁₆ 84.1	2 ²⁹ / ₃₂ 73.8	2 ¹ / ₂ 63.5	6 ¹ / ₄ 158.8	2 ¹ / ₂ 16.7	7 7 3.2	
		40	1 ⁵ / ₈ 1 ¹¹ / ₁₆ 1 ³ / ₄	F-B22426H F-B22427H F-B22428H <i>F-B224M40H</i>	FE-B22426H FE-B22427H FE-B22428H <i>FE-B224M40H</i>	3 ¹⁵ / ₁₆ 100.0	4 ¹ / ₄ 108.0	5 ¹ / ₂ 139.70	3 ⁵⁷ / ₆₄ 98.83	6 ³ / ₈ 161.9	3 ¹ / ₈ 79.38	1 ¹ / ₂ 12	1 ¹ / ₂ 0.8	5 ⁹ / ₁₆ 15.9	3 ¹ / ₂ 88.9	3 ³ / ₃₂ 80.2	2 ³ / ₄ 69.8	6 ³ / ₄ 171.4	2 ¹ / ₂ 16.7	9 9 9 4.3
	45 50		1 ⁵ / ₁₆ 2	F-B22431H F-B22432H <i>F-B224M45H</i> <i>F-B224M50H</i>	FE-B22431H FE-B22432H <i>FE-B224M45H</i> <i>FE-B224M50H</i>	4 ¹ / ₄ 108.0	4 ¹ / ₂ 114.3	5 ³ / ₄ 146.05	4 ¹ / ₁₆ 103.17	6 ¹¹ / ₁₆ 169.9	3 ¹ / ₈ 79.38	1 ¹ / ₂ 12	1 ¹ / ₁₆ 1.6	1 ¹ / ₁₆ 17.5	3 ⁹ / ₁₆ 90.5	3 ³ / ₁₆ 81.0	2 ¹⁵ / ₁₆ 74.6	7 177.8	2 ¹ / ₂ 16.7	10 10 5.0 4.7
			55	2 ³ / ₁₆ 2 ¹ / ₄	F-B22435H F-B22436H <i>F-B224M55H</i>	FE-B22435H FE-B22436H <i>FE-B224M55H</i>	4 ⁷ / ₈ 123.8	4 ⁷ / ₈ 123.8	6 ³ / ₈ 161.92	4 ¹ / ₂ 114.30	7 ³ / ₈ 187.3	3 ⁵ / ₁₆ 84.14	5 ⁹ / ₁₆ 16	3 ³ / ₂ 2.4	1 ¹ / ₁₆ 17.5	3 ²⁵ / ₃₂ 96.0	3 ¹³ / ₃₂ 86.5	3 ³ / ₈ 85.7	7 ³ / ₄ 196.8	2 ⁹ / ₃₂ 19.8
	60	2 ⁷ / ₁₆ 2 ¹ / ₂		F-B22439H F-B22440H <i>F-B224M60H</i>	FE-B22439H FE-B22440H <i>FE-B224M60H</i>	5 ³ / ₈ 136.5	5 ³ / ₈ 136.5	6 ³ / ₄ 171.45	4 ⁹ / ₆₄ 121.06	7 ³ / ₄ 196.8	3 ¹ / ₂ 88.90	5 ⁹ / ₁₆ 16	3 ³ / ₂ 2.4	3 ⁴ / ₁₆ 19.0	3 ³¹ / ₃₂ 100.8	3 ¹⁹ / ₃₂ 91.3	3 ³ / ₈ 92.1	8 ¹ / ₈ 206.4	2 ⁷ / ₃₂ 21.4	17 17 7.9
		65 70 75		2 ¹¹ / ₁₆ 2 ³ / ₄ 2 ¹⁵ / ₁₆ 3	F-B22443H <i>F-B224M65H</i> F-B22447H F-B22448H <i>F-B224M70H</i> <i>F-B224M75H</i>	FE-B22443H <i>FE-B224M65H</i> FE-B22447H FE-B22448H <i>FE-B224M70H</i> <i>FE-B224M75H</i>	6 ¹ / ₄ 158.8	6 ¹ / ₄ 158.8	7 ⁷ / ₈ 200.02	5 ⁵ / ₁₆ 141.27	9 ¹ / ₈ 231.8	4 101.60	3 ⁴ / ₁₆ 20	3 ³ / ₂ 2.4	7 ⁸ / ₁₆ 22.2	4 ⁷ / ₁₆ 112.7	4 ³ / ₃₂ 104.0	4 ³ / ₁₆ 106.4	9 ¹ / ₂ 241.3	2 ⁷ / ₃₂ 21.4
	80 85		3 ³ / ₁₆ 3 ⁷ / ₁₆ 3 ¹ / ₂	F-B22451H F-B22455H F-B22456H <i>F-B224M80H</i> <i>F-B224M85H</i>	FE-B22451H FE-B22455H FE-B22456H <i>FE-B224M80H</i> <i>FE-B224M85H</i>	7 ³ / ₈ 187.3	7 ³ / ₈ 187.3	9 ¹ / ₂ 241.30	6 ²³ / ₃₂ 170.64	8 ⁵ / ₈ 219.1	4 ³ / ₈ 111.12	3 ⁴ / ₁₆ 20	3 ³ / ₁₆ 4.8	1 ³ / ₈ 34.9	4 ²⁹ / ₃₂ 124.6	4 ⁹ / ₁₆ 115.9	5 127.0	11 ⁷ / ₁₆ 290.5	1 ⁵ / ₁₆ 23.8	41 39 39 18.6 18.1
			90 100	3 ¹¹ / ₁₆ 3 ¹⁵ / ₁₆ 4	F-B22459H F-B22463H F-B22464H <i>F-B224M90H</i> <i>F-B224M100H</i>	FE-B22459H FE-B22463H FE-B22464H <i>FE-B224M90H</i> <i>FE-B224M100H</i>	8 ¹ / ₈ 206.4	8 ³ / ₈ 212.7	10 ¹ / ₄ 273.05	7 ³⁹ / ₆₄ 193.28	9 ³ / ₄ 247.6	5 ¹ / ₁₆ 128.59	7 ⁸ / ₁₆ 24	5 ⁹ / ₃₂ 4.0	1 ¹ / ₂ 38.1	5 ⁹ / ₁₆ 142.9	5 ²⁹ / ₃₂ 132.6	15 ⁰ / ₃₂ 150.0	32 ⁷ / ₈ 327.8	1 ¹ / ₂ 26.2

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

For replacement bearing numbers, see pages D-62, D-63.

Lubrication fitting tap size, 1/8" PT.

All units available with type E lip seals.

Expansion unit allows axial movement of 3/16" (4.8 mm) in either direction from centered position shown.

● For expansion units, dimensions G, L, and P are minimum values. For maximum values, add .375" (9.5 mm).

▲ Cross flat dimension for 3 3/16" and larger shaft.

◆ Width dimension for closed end unit.

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

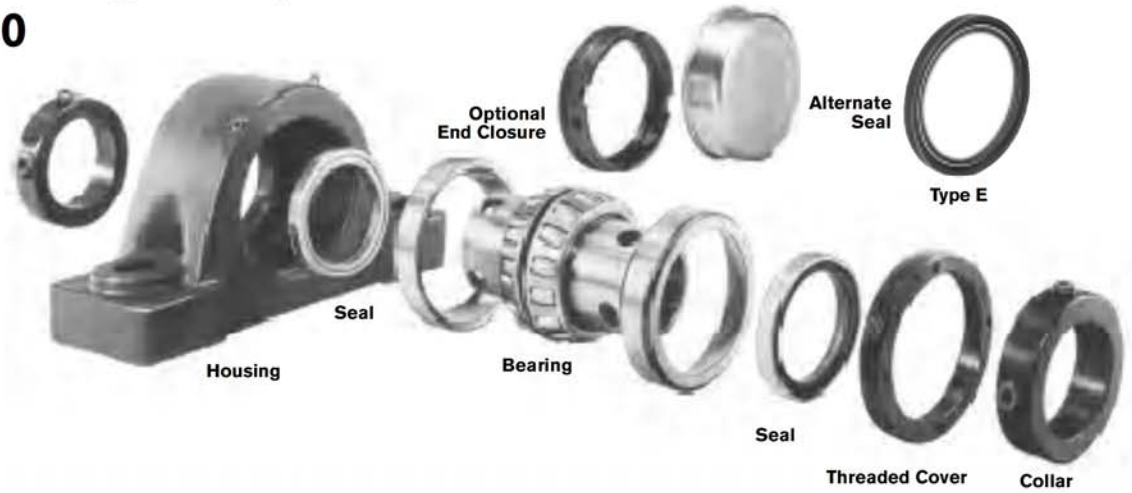
Load ratings, pages D-7, D-8.

Additional information, page D-68.

Spherical Roller Bearing Unit Replacement Parts

Series B22400

Fixed Type



Shaft diameter mm inches	Basic Bearing Designation ▲	Repair kit ■	Components in repair kit			Threaded cover for open end	Threaded cover for closed end	End closure *	Housing number ▲
			Spherical roller bearing	Type H multi-disc labyrinth seals (2 reqd.) ■	Collar with setscrews				
25	1 B22416 B224M25	B22416HL B224M25HL	B22416 B224M25	B22417-3H	B22416-5S	B22417-7	B22417-7C	B22417-6	P-B22417-0
30	1 3/16 B22419 1 1/4 B22420 B224M30	B22419HL B22420HL B224M30HL	B22419 B22420 B224M30	B22420-3H	B22420-5S	B22420-7	B22420-7C	B22420-6	P-B22420-0
35	1 7/16 B22423 1 1/2 B22424 B224M35	B22423HL B22424HL B224M35HL	B22423 B22424 B224M35	B22424-3H	B22424-5S	B22424-7	B22424-7C	B22424-6	P-B22424-0
40	1 1/2 B22424 1 5/8 B22426 1 11/16 B22427 1 3/4 B22428 B224M40	B22424HL B22426HL B22427HL B22428HL B224M40HL	B22424 B22426 B22427 B22428 B224M40	B22428-3H	B22524-5S B22428-5S B22428-5S B22428-5S	B22428-7	B22428-7C	B22428-6	P-B22428-0
45	1 3/4 B22428 1 5/8 B22431 2 B22432 B224M45	B22428HL B22431HL B22432HL B224M45HL	B22428 B22431 B22432 B224M45	B22432-3H	B22528-5S B22432-5S B22432-5S B22432-5S	B22432-7	B22432-7C	B22432-6	P-B22432-0
50	B224M50	B224M50HL	B224M50						
55	2 3/16 B22435 2 1/4 B22436 B224M55	B22435HL B22436HL B224M55HL	B22435 B22436 B224M55	B22436-3H	B22435-5S B22436-5S B22436-5S	B22436-7	B22436-7C	B22436-6	P-B22436-0
60	2 1/4 B22436 2 7/16 B22439 2 1/2 B22440 B224M60	B22436HL B22439HL B22440HL B224M60HL	B22436 B22439 B22440 B224M60	B22440-3H	B22536-5S B22440-5S B22440-5S B22440-5S	B22440-7	B22440-7C	B22440-6	P-B22440-0
65	2 11/16 B22443 2 3/4 B22444 2 5/8 B22447 3 B22448 B224M65	B22443HL B22444HL B22447HL B22448HL B224M65HL	B22443 B22444 B22447 B22448 B224M65	B22448-3H	B22443-5S B22444-5S B22448-5S B22448-5S	B22448-7	B22448-7C	B22448-6	P-B22448-0
70	B224M70	B224M70HL	B224M70						
75	B224M75	B224M75HL	B224M75		B22448-5S				
80	3 3/16 B22451 3 7/16 B22455 3 1/2 B22456 B224M80	B22451HL B22455HL B22456HL B224M80HL	B22451 B22455 B22456 B224M80	B22456-3H	B22551-5S B22456-5S B22456-5S B22551-5S	B22456-7	B22456-7C	B22456-6	P-B22456-0
85	B224M85	B224M85HL	B224M85						
90	3 11/16 B22459 3 5/8 B22463 4 B22464 B224M90	B22459HL B22463HL B22464HL B224M90HL	B22459 B22463 B22464 B224M90	B22464-3H	B22464-5S	B22464-7	B22464-7C	B22464-6	P-B22464-0
100	B224M100	B224M100HL	B224M100						

▲ For variations in type and material, use prefix: T — takeup unit FB — flanged bracket unit P — pillow block, cast iron F — 4-bolt base pillow block
 EFR — padded flanged unit FC — flanged cartridge unit PK — pillow block, cast steel (on 1 1/16" and larger shafts only)
 EP — pillow block, cast iron C — cartridge unit, cast iron PL — pillow block, low backing * Closed end units are assembled with two seals.
 F — flanged unit DS — takeup unit

■ Floating labyrinth seals, suffix H, are furnished with B22400HL repair kits. For spring-loaded lip type seals specify B22400EL.

Additional Information

Series B22400 and B22500

Housing End Closures:

All fixed type B22400 and B22500 mounted units can be purchased with formed steel closed end caps on the collar side which covers all rotating elements. Two housing seals are provided to protect the bearing during mounting or in case of accidental cap removal. Closed end units have a special extended threaded cover for mounting the end cap. They are designated with the suffix HHC or EEC (i.e., P-B22431HHC). Shafting should not extend beyond the end of the bearing inner ring more than $\frac{1}{8}$ " (3.2 mm) when end caps are to be used.

Housing Mounting:

Series B22400 and B22500 mounted units have drilled or cored mounting bolt holes suitable for the inch or metric bolts listed. Drilled holes will be $\frac{1}{32}$ " (0.8 mm) larger than the largest inch bolt shown. Cast slots in pillow blocks are normally $\frac{1}{16}$ " wider than the specified mounting bolt nominal diameter. It is expected that plain washers will be used under the bolt head to span the slot width and aid torquing. Narrow (N) series washers per ANSI B18.22.1-1981 (previously designated SAE series) are recommended. If wide series washers are used, the full length of the slot may not be usable for positioning the unit.

Recommended Shaft Tolerances

Shaft Diameter	Tolerance
1"-2"	Nominal to $-.0005$ "
2 $\frac{1}{16}$ "-5"	Nominal to $-.0010$ "
17 mm-50 mm	Nominal to -0.013 mm
55 mm-125 mm	Nominal to -0.025 mm

CAUTION The above shaft tolerances are suitable for loads up to .18 C and an L_{10} life greater than 20,000 hours. For more severe conditions, consult Rexnord

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

Warning:

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

Replacement Parts:

Bearings and seals can be replaced in Series B22400 and B22500 mounted units (except CSE units). Replacement parts are listed on pages D-62 through D-65. Service instructions for mounting are included with each unit or replacement bearing and should be closely followed. Replacement bearings are not prelubricated but are coated with a mineral base preservative and should be further protected from moisture and dirt, especially during installation.

Operation:

Series B22400 and B22500 mounted units are prelubricated with a good quality petroleum grease of No. 2 consistency which has been tested for operational characteristics and stability for long shelf life. The service instructions packed with each unit provide guidelines for relubrication intervals and recommended greases. The lubricant furnished is generally limited to an operating temperature range of -20°F to $+200^{\circ}\text{F}$ (-29° to 93°C). The lip seal E should be limited to a temperature less than 225°F (107°C).

Where significant thrust loads are applied to B22400 or B22500 mounted units, thrust collars, spacers, shaft shoulders etc.

Corporation.

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

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

should be utilized to support the thrust so that it is not transmitted through the locking collars and set screws.

These units have a misalignment capability of $\pm 2^{\circ}$. They are factory adjusted with sufficient clearance for operation within stated speed limits.

Takeups:

The mounting of B22400 and B22500 pillow blocks on universal LHD takeup frames is illustrated on page D-22. Smaller pillow blocks can be mounted on LC frames, see page B-60.

Fixed and Expansion Units:

Fixed and expansion type units are available in series B22400 and B22500 pillow blocks and flanged units. As these units are designed for slip fitted shafts, collar mounted, two fixed units can usually be applied to a shaft. Expansion units are recommended for use on one end of longer shafts, where supports are not steel or where significant temperature differentials are expected between shafts and mounting structures.

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

Shafting should be designed for adequate

may occur. These conditions may require designs using different materials, fasteners, mounting design, stops bars, etc., together with proper safety factors. When these conditions are unavoidable Link-Belt Bearing Division, Rexnord Corp. should be consulted.

Service instructions are provided with shipments of bearings and are available on request. These instructions provide detailed information to aid in the proper installation, operation, and maintenance, and should be carefully read and followed. Failure to do so may result in unsatisfactory service as well as serious personal injury or property damage. D-68

Nomenclature

Series B22400, B22500 and B22600

Spherical Roller Bearing Units

Symbol	Description	P	E	-B22	4	39	F	H	C	17H
C	Cartridge unit	}	}	}	}	}	}	}	}	}
CSE	Cartridge unit; steel housing									
EF	Flanged unit; 4-bolt square									
EP	Pillow block; cast iron									
F	Flanged unit; 3- and 4-bolt									
FB	Flanged bracket unit									
FC	Flanged cartridge unit; 4-bolt round									
P	Pillow block									
PK	Pillow block; cast steel housing									
T	Takeup unit, slotted guides									
DS	Takeup, conveyor, hinged top, welded steel frame									
DSH	Takeup, conveyor, extra strength, welded steel frame									
R	Collar opposite cover (B22400 only)									
E	Expansion unit (not used with CSE symbol)									
B22	Spherical roller bearing; extended inner ring separable outer rings									
4	400 series designation (one locking collar)	}								
5	500 series designation (two locking collars)									
6	600 series designation (adapter mounted)									
B	Inner ring bore equal to a bore of preceding smaller bearing group	}								
39	Shaft diameter in 16ths of an inch									
M55	Metric series, bore in mm	}								
F	Four bolt base pillow block									
H	Floating labyrinth seal	}								
E	Spring-loaded lip seal (For closed end units use (2) i.e.: HHC)									
C	Closed end unit	}								
18	Takeup adjustment, inches									
17H	Grease designation	}								

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