

**SEALMASTER®**

# Gold Ball and RPB Roller Bearings



A Regal Brand

**REGAL**

# Gold Ball and RPB Roller Bearings



Sealmaster® Gold ball bearings and RPB Series mounted roller bearings provide a host of unique and patented features that contribute to increased uptime through better sealing performance and improved lubrication.

Sealmaster Gold bearings operate as part of a unique system with features that work together to retain grease and help keep out contamination. By engineering the industry's widest race, Sealmaster has laid the groundwork for the rest of the Gold ball bearing features. The wide outer

race accommodates a heavy duty labyrinth seal, allowing for the unique land riding ball retainer and room for the dimple and lock pin to stabilize the insert. This maintains a direct line of lubrication flowing into the bearing cavity.

Sealmaster RPB Series features rugged split cast-iron housings and cartridge inserts. The inserts are field replaceable, therefore simplifying mounting and maintaining maximum uptime. The bearing cartridge is

designed to compensate for +/- 3 degrees static misalignment. The patented, felt lined seals, mounted between the races, act like a filter, and the rotating flinger helps repel contamination buildup on the seals. While the seals help prevent contaminants from entering the bearing – the positive lubrication system allows direct grease flow into the bearing.

## Gold Mounted Ball Bearings

**Industry's widest outer race**  
Provides significant surface area to absorb shock loads – also creates large, internal grease chamber to hold extra grease and extend bearing life.



**Patented felt labyrinth seal** Includes a protective metal flinger that directs contamination away from sealing surfaces. The felt design provides a tight labyrinth seal that retains grease and acts as a filter to help exclude foreign materials. This design results in less drag and reduced heat compared to rubber contact seals. Alternate seals are available.



**Unique land riding metal ball retainer**  
Minimizes friction and provides maximum grease capacity and circulation. Retainer is designed to "float" on the ground extension (or lands) of the outer ring while spacing the balls precisely for even load distribution. This minimizes wear on both balls and retainer, while maximizing stability, especially important in applications involving vibration, shock loading or high operating speeds. Land riding brass retainers for high temperature applications (+200° F) also available.



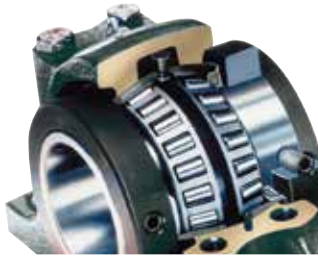
**Exclusive locking pin and dimple system**  
Prevents outer race rotation, allows a full  $\pm 2^\circ$  misalignment and allows for direct lubrication flow into the bearing chamber. Unique to Sealmaster® Gold bearings.

Sealmaster bearing engineers welcome the opportunity to customize the Gold bearing line for your unique application needs. For more information, contact Technical Service at 800-626-2093.

### Additional Features:

- Rugged, cast iron housing absorbs shock loads and distributes force
- 52100 high quality bearing steel on inner and outer races resists shock loading and carries high metal fatigue life ratings for increased reliability
- Vacuum degassed steel better withstands subsurface fatigue and subsequent metal fatigue failures
- Black oxide corrosion resistant races are chemically primed for better lubrication retention and corrosion resistance
- Zone hardened inner race provides exceptional control of setscrew holding power – ground and honed raceways provide longer life, quieter operation
- Extra wide inner race for greater surface contact with the shaft for stability and wide load distribution
- Diamond faceted, precision ground setscrews at 120° provide superior shaft holding power with less race distortion
- Permanent metal nameplate with unit number and shaft size for easy identification

## RPB Series Mounted Roller Bearings



### Heavy-Duty Tapered Roller Bearings

Allow for combined radial and thrust loads

### One-Piece, Self-Aligning Cartridge

- Self-aligning insert compensates for up to  $\pm 3^\circ$  of static misalignment
- Innovative design helps maintain proper rolling element contact with the races when misaligned



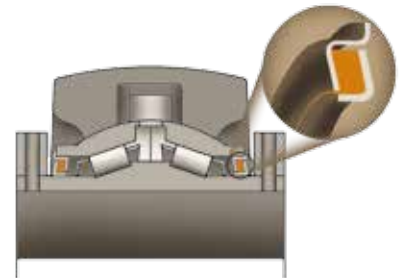
### Durable Cast-Iron Split Housings

- Housing base remains fixed and aligned with the shaft – quick insert replacement
- Standard RPB units are interchangeable with industry Type E mounting dimensions
- RPBXT bearings are interchangeable with SAF style four-bolt pillow block and are shaft ready for easier and faster installation



### Direct Lubrication System

helps prevent seal damage by venting pressure from over greasing. Bearing grease flow has a shorter path than competitive spherical roller bearing units



### Patented Felt Lined Flinger Seal

- Filters out contaminants in dry, dusty, dirty conditions
- Mounted between the races – not subject to misalignment distortion
- Contact seal available for wet, moist conditions

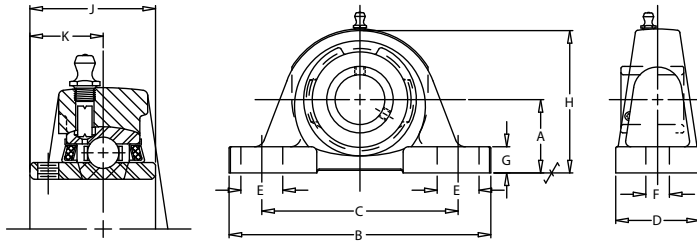


### Additional Features:

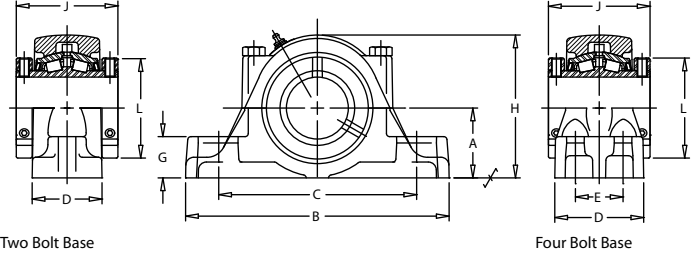
- Alignment pin helps prevent outer race rotation – a common problem in vibratory applications
- Select from two- and four-bolt pillow blocks in bore sizes from  $1 \frac{3}{16}$ " to 5", flange units from  $1 \frac{3}{16}$ " to  $4 \frac{1}{2}$ " and piloted flanges from  $1 \frac{3}{16}$ " to 5"
- Replaceable cartridge inserts from  $1 \frac{3}{16}$ " to 5"
- Exclusive diamond faceted setscrews contribute to improved clamping and resistance to back out

| Shaft Dia.<br>in. | Part<br>Description | Dimensions in inches |        |         |         |       |        |       |        |        |         |         | Interchange       |             |
|-------------------|---------------------|----------------------|--------|---------|---------|-------|--------|-------|--------|--------|---------|---------|-------------------|-------------|
|                   |                     |                      |        | C       |         | D     | E      | F     | G      | H      | J       | K       | Bolt<br>Size (in) | Dodge       |
|                   |                     |                      |        | MIN.    | MAX.    |       |        |       |        |        |         |         |                   |             |
| 1 7/16            | MP-23               | 2 1/8                | 8      | 5       | 6 3/8   | 2 1/4 | 1 3/16 | 9/16  | 3/4    | 4 3/16 | 1 15/16 | 1 3/16  | 1/2               | P2B-SCM-107 |
| 1 15/16           | MP-31               | 2 1/2                | 9 1/2  | 5 15/16 | 7 9/16  | 2 7/8 | 1 7/16 | 11/16 | 7/8    | 5 3/32 | 2 3/16  | 1 5/16  | 5/8               | PSB-SCM-115 |
| 2 3/16            | MP-35               | 2 3/4                | 10 1/4 | 6 9/16  | 7 15/16 | 3 1/8 | 1 7/16 | 13/16 | 1 1/16 | 5 5/8  | 2 9/16  | 1 9/16  | 3/4               | P2B-SCM-203 |
| 2 7/16            | MP-39               | 3                    | 11 1/4 | 7 1/8   | 8 7/8   | 3 1/4 | 1 5/8  | 13/16 | 1 1/16 | 6 1/4  | 2 3/4   | 1 11/16 | 3/4               | P2B-SCM-207 |
| 2 15/16           | MP-47               | 3 1/2                | 13     | 7 7/8   | 10 1/8  | 3 1/2 | 2      | 15/16 | 1 1/4  | 7 1/4  | 3 1/4   | 1 15/16 | 7/8               | P2B-SCM-215 |
| 3 7/16            | MP-55               | 4                    | 15     | 9 5/8   | 12 5/8  | 4 3/8 | 2 3/8  | 15/16 | 1 5/16 | 8 1/4  | 3 25/32 | 2 7/32  | 7/8               | P2B-SCM-307 |
| 3 15/16           | MP-63               | 5                    | 17     | 11 3/4  | 14 3/4  | 4 3/4 | 2 1/2  | 1 1/8 | 1 5/16 | 10     | 4 5/8   | 2 11/16 | 1                 | P2B-SCM-315 |

### Gold Mounted Ball Bearing



### RPB Bearing



| Shaft Dia.<br>(in)    | Part<br>Description | Dimensions in inches |       |       |       |      |      |      |       |      |      | Bolt Base |      | Interchange |            |             |
|-----------------------|---------------------|----------------------|-------|-------|-------|------|------|------|-------|------|------|-----------|------|-------------|------------|-------------|
|                       |                     | A                    | B     | C     |       | D    | E    | G    | H     | J    | L    | NO.       | SIZE | Dodge       | Renxord    | Link-Belt   |
|                       |                     |                      |       | MAX.  | MIN.  |      |      |      |       |      |      |           |      |             |            |             |
| <b>Two Bolt Base</b>  |                     |                      |       |       |       |      |      |      |       |      |      |           |      |             |            |             |
| 1 3/16                | RPB-103-2           | 1.50                 | 6.25  | 4.56  | 4.94  | 1.88 | *    | .88  | 3.12  | 2.75 | 2.25 | 2         | 1/2  | P2B-E-103R  | ZEP-2103   | -----       |
| 1 7/16                | RPB-107-2           | 1.88                 | 7.25  | 5.31  | 5.94  | 2.06 | *    | 1.12 | 3.81  | 3.00 | 2.62 | 2         | 1/2  | P2B-E-107R  | ZEP-2107   | EP-B22423H  |
| 1 1/2                 | RPB-108-2           | 2.12                 | 7.75  | 5.56  | 6.44  | 2.31 | *    | 1.25 | 4.38  | 3.38 | 2.88 | 2         | 1/2  | P2B-E-108R  | ZEP-2108   | EP-B224B24H |
| 1 11/16               | RPB-111-2           | 2.12                 | 7.75  | 5.56  | 6.44  | 2.31 | *    | 1.25 | 4.38  | 3.38 | 2.88 | 2         | 1/2  | P2B-E-111R  | ZEP-2111   | EP-B22427H  |
| 1 3/4                 | RPB-112-2           | 2.25                 | 8.88  | 6.31  | 7.19  | 2.44 | *    | 1.25 | 4.62  | 3.50 | 3.25 | 2         | 5/8  | P2B-E-112R  | ZEP-2112   | EP-B224B28H |
| 1 15/16               | RPB-115-2           | 2.25                 | 8.88  | 6.31  | 7.19  | 2.44 | *    | 1.25 | 4.62  | 3.50 | 3.25 | 2         | 5/8  | P2B-E-115R  | ZEP-2115   | EP-B22431H  |
| 2                     | RPB-200-2           | 2.25                 | 8.88  | 6.31  | 7.19  | 2.44 | *    | 1.25 | 4.62  | 3.50 | 3.25 | 2         | 5/8  | P2B-E-200R  | ZEP-2200   | EP-B22432H  |
| 2 3/16                | RPB-203-2           | 2.50                 | 9.62  | 6.69  | 7.94  | 2.56 | *    | 1.44 | 5.12  | 3.75 | 3.62 | 2         | 5/8  | P2B-E-203R  | ZEP-2203   | EP-B22435H  |
| 2 7/16                | RPB-207-2           | 2.75                 | 10.38 | 6.94  | 8.69  | 2.75 | *    | 1.62 | 5.62  | 4.00 | 3.94 | 2         | 5/8  | P2B-E-207R  | ZEP-2207   | EP-B22439H  |
| 2 1/2                 | RPB-208-2           | 2.75                 | 10.38 | 6.94  | 8.69  | 2.75 | *    | 1.62 | 5.62  | 4.00 | 3.94 | 2         | 5/8  | P2B-E-208R  | ZEP-2208   | EP-B22440H  |
| 2 3/4                 | RPB-212-2           | 3.12                 | 11.75 | 8.06  | 9.69  | 3.00 | *    | 1.75 | 6.38  | 4.50 | 4.71 | 2         | 3/4  | P2B-E-212R  | ZEP-2212   | EP-B22444H  |
| 2 15/16               | RPB-215-2           | 3.12                 | 11.75 | 8.06  | 9.69  | 3.00 | *    | 1.75 | 6.38  | 4.50 | 4.71 | 2         | 3/4  | P2B-E-215R  | ZEP-2215   | EP-B22447H  |
| 3                     | RPB-300-2           | 3.12                 | 11.75 | 8.06  | 9.69  | 3.00 | *    | 1.75 | 6.38  | 4.50 | 4.71 | 2         | 3/4  | P2B-E-300R  | ZEP-2300   | EP-B22448H  |
| 3 7/16                | RPB-307-2           | 3.75                 | 13.75 | 10.12 | 11.25 | 4.12 | *    | 2.06 | 7.75  | 5.00 | 5.43 | 2         | 7/8  | P2B-E-307R  | ZEP-2307   | EP-B22455H  |
| 3 1/2                 | RPB-308-2           | 3.75                 | 13.75 | 10.12 | 11.25 | 4.12 | *    | 2.06 | 7.75  | 5.00 | 5.43 | 2         | 7/8  | P2B-E-308R  | ZEP-2308   | EP-B22456H  |
| <b>Four Bolt Base</b> |                     |                      |       |       |       |      |      |      |       |      |      |           |      |             |            |             |
| 2 7/16                | RPB-207-4           | 2.75                 | 10.38 | 7.75  | 8.75  | 3.50 | 1.88 | 1.62 | 5.62  | 4.00 | 3.94 | 4         | 5/8  | P4B-E-207R  | ZEP-2207-F | EP-B22439FH |
| 2 1/2                 | RPB-208-4           | 2.75                 | 10.38 | 7.75  | 8.75  | 3.50 | 1.88 | 1.62 | 5.62  | 4.00 | 3.94 | 4         | 5/8  | P4B-E-208R  | ZEP-2208-F | EP-B22440FH |
| 2 3/4                 | RPB-212-4           | 3.12                 | 11.75 | 8.75  | 10.00 | 3.75 | 2.12 | 1.75 | 6.38  | 4.50 | 4.71 | 4         | 5/8  | P4B-E-212R  | ZEP-2212-F | EP-B22444FH |
| 2 15/16               | RPB-215-4           | 3.12                 | 11.75 | 8.75  | 10.00 | 3.75 | 2.12 | 1.75 | 6.38  | 4.50 | 4.71 | 4         | 5/8  | P4B-E-215R  | ZEP-2215-F | EP-B22447FH |
| 3                     | RPB-300-4           | 3.12                 | 11.75 | 8.75  | 10.00 | 3.75 | 2.12 | 1.75 | 6.38  | 4.50 | 4.71 | 4         | 5/8  | P4B-E-300R  | ZEP2300-F  | EP-B22448FH |
| 3 7/16                | RPB-307-4           | 3.75                 | 13.75 | 10.56 | 11.50 | 4.50 | 2.38 | 2.06 | 7.75  | 5.00 | 5.43 | 4         | 5/8  | P4B-E-307R  | ZEP-2307-F | EP-B22455FH |
| 3 1/2                 | RPB-308-4           | 3.75                 | 13.75 | 10.56 | 11.50 | 4.50 | 2.38 | 2.06 | 7.75  | 5.00 | 5.43 | 4         | 5/8  | P4B-E-308R  | ZEP2308-F  | EP-B22456FH |
| 3 15/16               | RPB-315-4           | 4.25                 | 15.25 | 11.00 | 13.00 | 4.50 | 2.25 | 2.44 | 8.62  | 6.25 | 5.93 | 4         | 3/4  | P4B-E-315R  | ZEP-2315-F | EP-B22463FH |
| 4                     | RPB-400-4           | 4.25                 | 15.25 | 11.00 | 13.00 | 4.50 | 2.25 | 2.44 | 8.62  | 6.25 | 5.93 | 4         | 3/4  | P4B-E-400R  | ZEP-2400-F | EP-B22464FH |
| 4 7/16                | RPB-407-4           | 4.75                 | 16.50 | 11.75 | 13.88 | 4.62 | 2.50 | 2.75 | 9.62  | 6.75 | 6.50 | 4         | 3/4  | P4B-E-407R  | ZEP-2407-F | EP-B22471FH |
| 4 1/2                 | RPB-408-4           | 4.75                 | 16.50 | 11.75 | 13.88 | 4.62 | 2.50 | 2.75 | 9.62  | 6.75 | 6.50 | 4         | 3/4  | P4B-E-408R  | ZEP-2408-F | EP-B22472FH |
| 4 15/16               | RPB-415-4           | 5.50                 | 18.50 | 13.50 | 15.88 | 5.12 | 2.75 | 3.12 | 11.00 | 7.25 | 7.31 | 4         | 7/8  | P4B-E-415R  | ZEP-2415-F | EP-B22479FH |
| 5                     | RPB-500-4           | 5.50                 | 18.50 | 13.50 | 15.88 | 5.12 | 2.75 | 3.12 | 11.00 | 7.25 | 7.31 | 4         | 7/8  | P4B-E-500R  | ZEP-2500-F | EP-B33480FH |



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#### APPLICATION CONSIDERATIONS

The proper selection and application of power transmission products and components, including the related area of product safety, is the responsibility of the customer. Operating and performance requirements and potential associated issues will vary appreciably depending upon the use and application of such products and components. The scope of the technical and application information included in this publication is necessarily limited. Unusual operating environments and conditions, lubrication requirements, loading supports, and other factors can materially affect the application and operating results of the products and components and the customer should carefully review its requirements. Any technical advice or review furnished by Regal-Beloit America, Inc. and its affiliates with respect to the use of products and components is given in good faith and without charge, and Regal assumes no obligation or liability for the advice given, or results obtained, all such advice and review being given and accepted at customer's risk.

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The logo for REGAL, featuring the word "REGAL" in a bold, italicized, sans-serif font. The text is contained within a white, trapezoidal border that has a slight 3D effect.

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