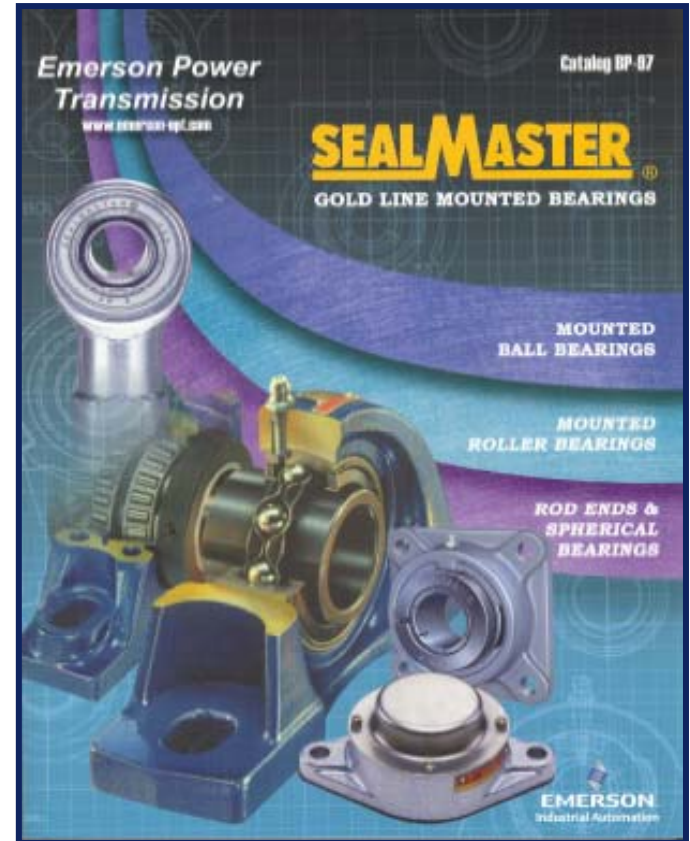


# *Sealmaster Mounted Roller Bearings*



# Overview

- Features & Benefits
- Competition
- Product Selection
- Markets & Applications
- Summary
- Key Contacts



# Overview – RPB Roller Bearing



# ***RPB Roller Bearing***

**Manufactured  
in Ithaca, NY**



**TOUGH  
AS THEY COME**



When the going gets tough....SEALMASTER RPB Series Bearings keep on going!



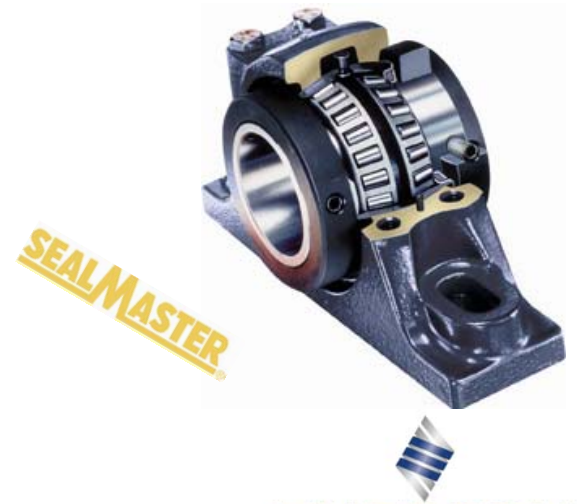
# Standard Value Added Features

- Split housing design - cast iron and steel
- Self aligning ( +/- 3°)
- High capacity taper roller bearing
- Radial, thrust & combination loads
- Race mounted seal design
- Sealmaster performance felt seal
- Replaceable cartridge inserts
- Metal retainer
- Black oxide races and collars
- Anti-rotation - pinned outer race
- Double locking collars
  - Single locking collar available



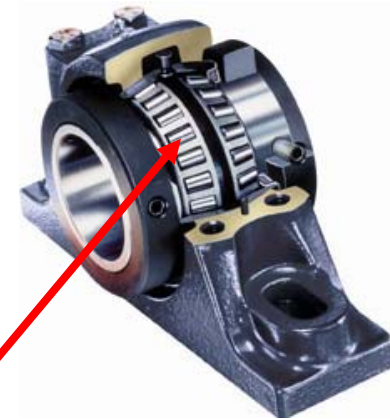
# Standard Value Added Features

- Expansion and non expansion capability
- Factory controlled clearances
- Metric bore available
- Unitized cartridge insert design
  - No shims, washers, or threaded collars to loosen under vibration
- Not field adjustable
  - Less chance of installation error during replacement
- Contact & optional high temp seals
- Corrosion duty available
- High temperature seal & grease
- Food grade and high temperature grease
- Air handling and tight housing fits



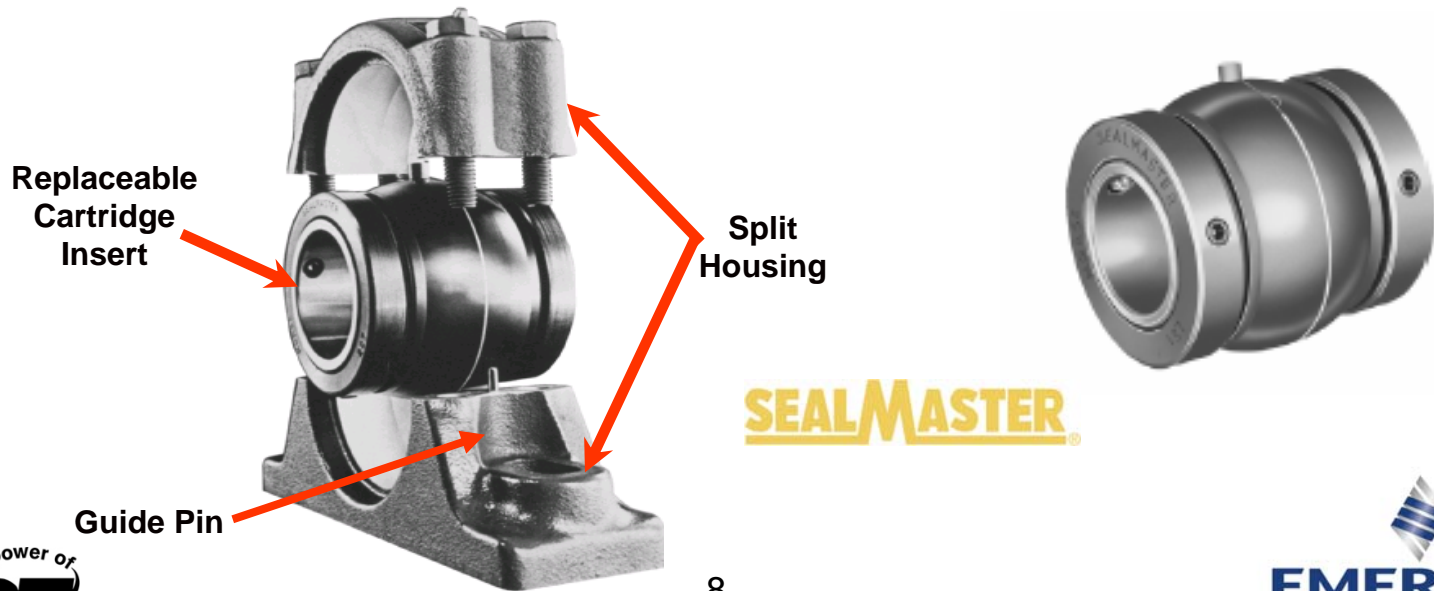
# *Tapered Rolling Elements*

- Two row design
- True rolling motion advantages
- High radial load capacity
- High thrust load capacity
- Capacity for combination load
- Shock resistant



# RPB Platform

- Split housing allows +/- 3 degrees static misalignment capability
- Ribbed design for added strength
- Quick replacement of the insert whenever change out is required
- Once installed, base always remains fixed & aligned with shaft
- Guide pin in housing base reduces error during replacement
- Cartridge designed for universal assembly in any standard RPB housing



# Unitized Cartridge Insert

- Unitized “ONE PIECE” design
- Allows +/-3 degree static misalignment capability
- Precision ground outer races matched to each cone assembly
  - Consistent factory controlled clearances
  - Eliminates housing shims, washers, & lock nut to hold together and vibrate loose
- Outer race & collars are black oxide treated for corrosion protection
- Sealed & packed with grease, a ready-to-use self contained insert

**RCI Insert**

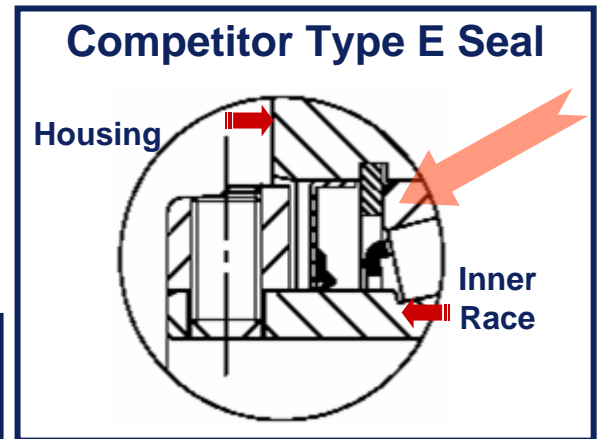
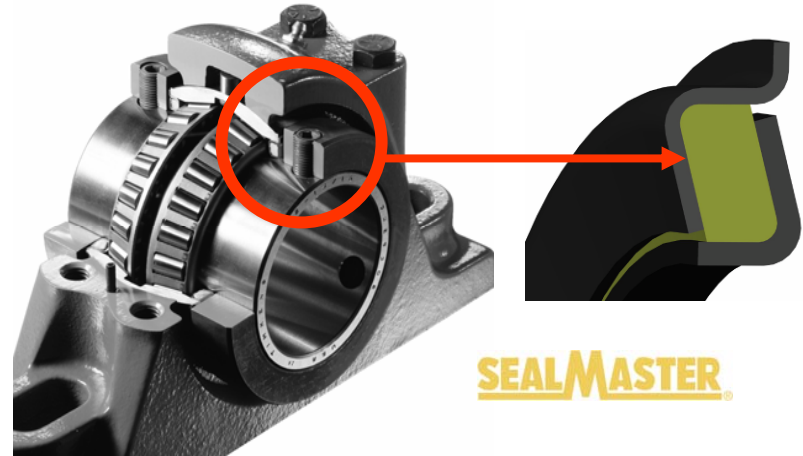


**ERCI Expansion Insert**



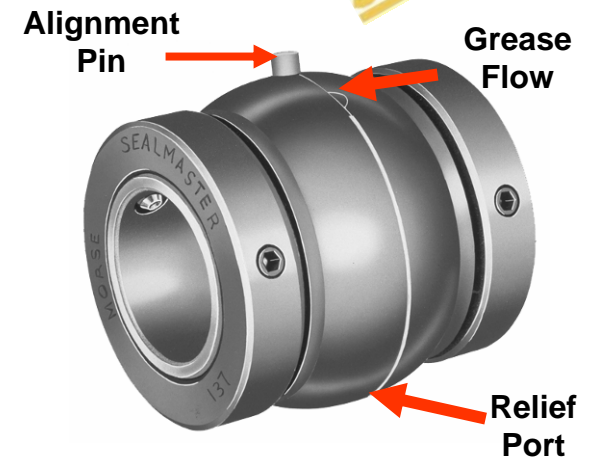
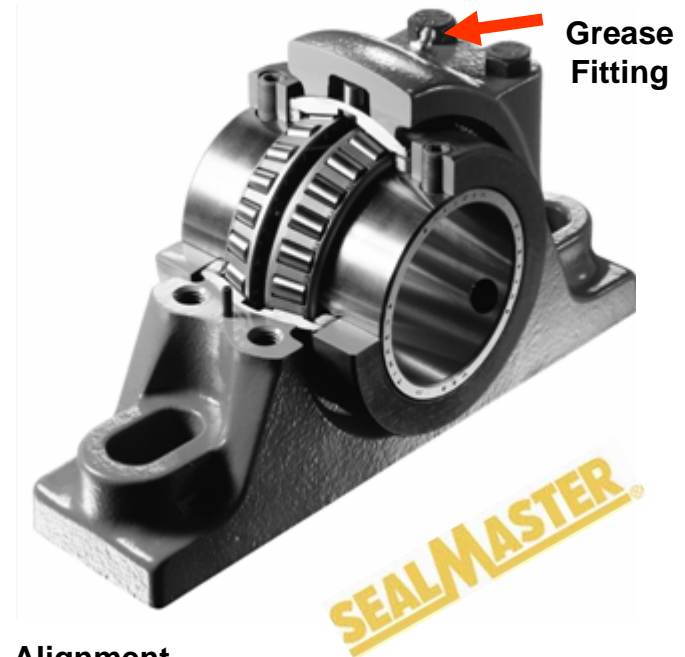
# Seals

- RPB race mounted seals
  - Mounted between the races
  - Will not distort when misaligned
  - Retains lubricant and helps prevent contamination ingress
- Felt lined flinger seal is standard
  - Grease filled labyrinth acts as a filter to exclude contaminants
  - Rotating outer flinger repels debris
  - NOMEX washer available for high temperature applications
- Contact seal
  - Helps protect against wet & dirty contaminants



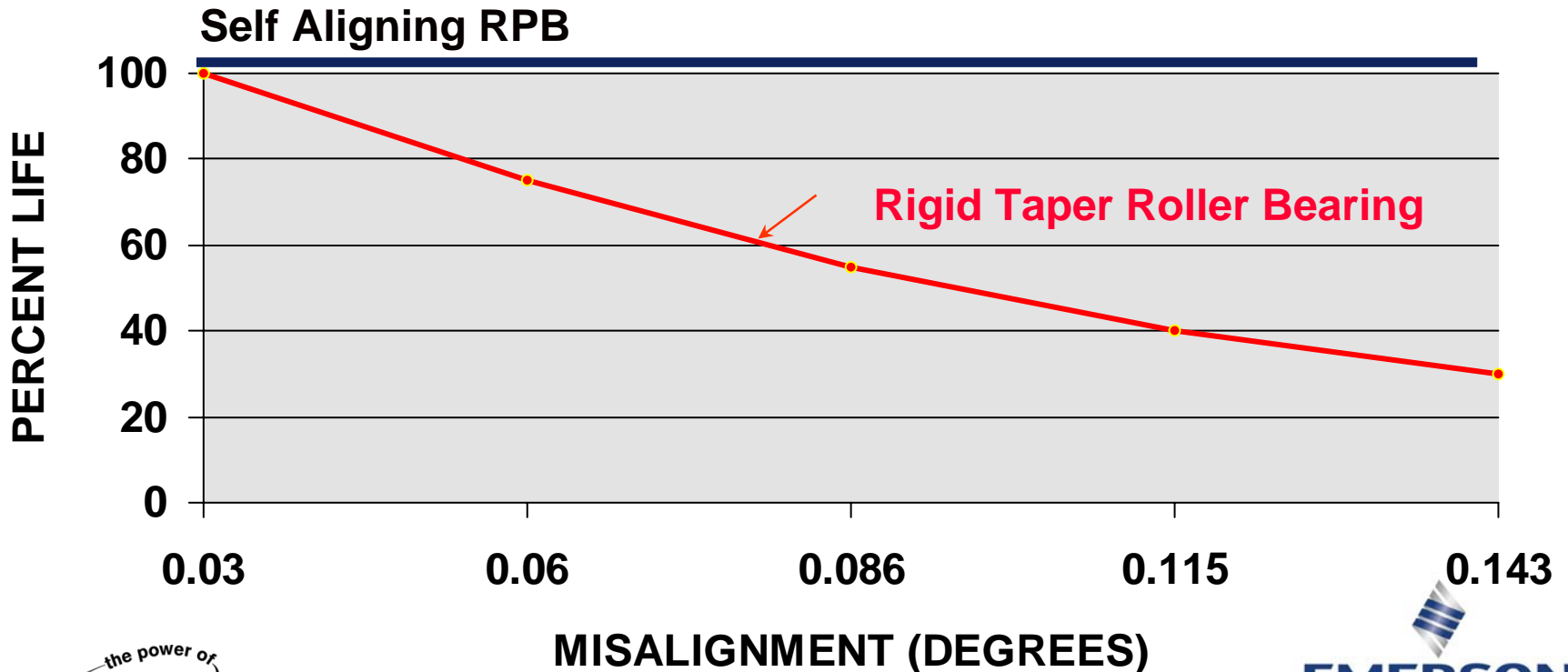
# Positive Lubrication System

- Pinned outer race
  - Prevents outer race rotation
  - Lines up lube hole with the housing
- Direct grease path into the bearing
- Rubber grommet in the housing cavity beneath the grease fitting
- One of two lube ports in cartridge insert lines up with the grease fitting regardless of orientation
- Relief port helps vent excess pressure from over greasing



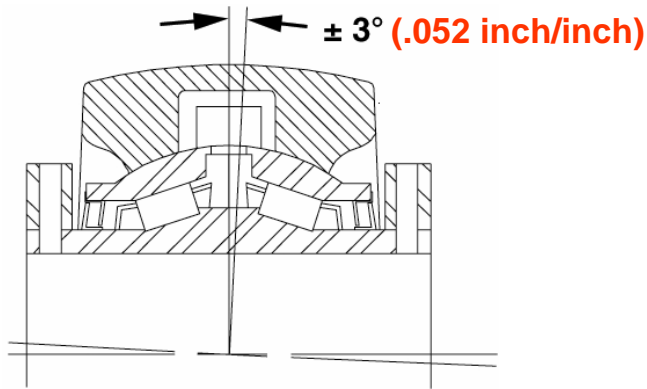
# Self-Aligning

- Taper roller bearings are very sensitive to misalignment
- RPB overcomes this because the spherical outer race mates with the the spherical machined bore in the housing
  - Result is +/- 3 degrees static (external) misalignment

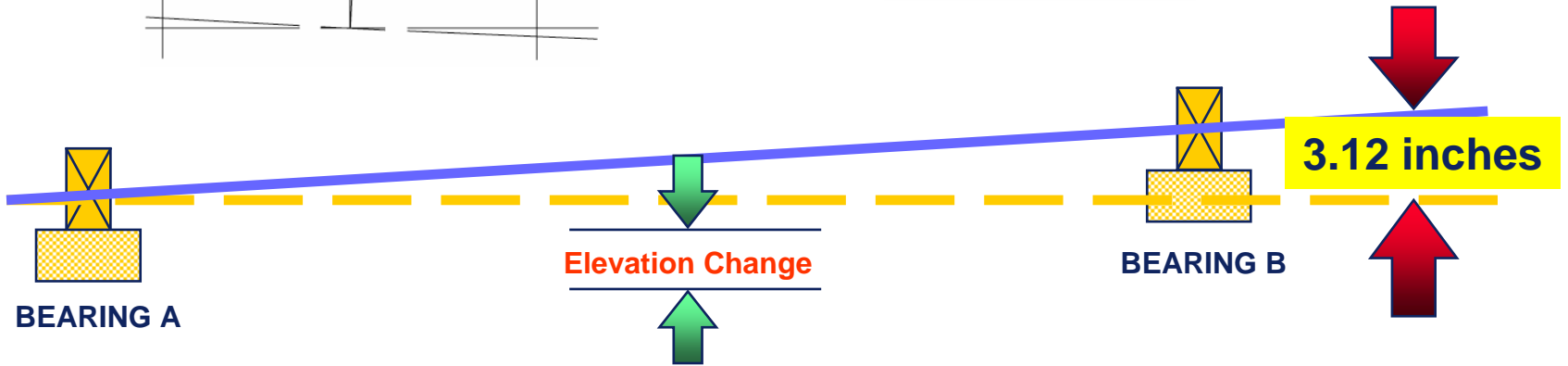
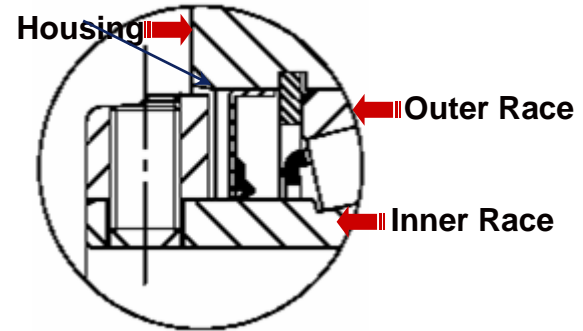


# Misalignment

## RPB



## Competitor Type E



Example: RPB's on a 5 ft. Shaft

# RPBXT

- Interchangeable with SAF/TAF mounting dimensions
- Offers user cost savings vs. SAF
  - Shaft ready for easier and faster installation
  - No assembly required
  - No feeler gages or special tools needed
  - Factory adjusted clearances, sealed & lubricated
  - Cartridge inserts for quick change-out to reduce downtime and replacement cost

**RPBXT**



**SAF**



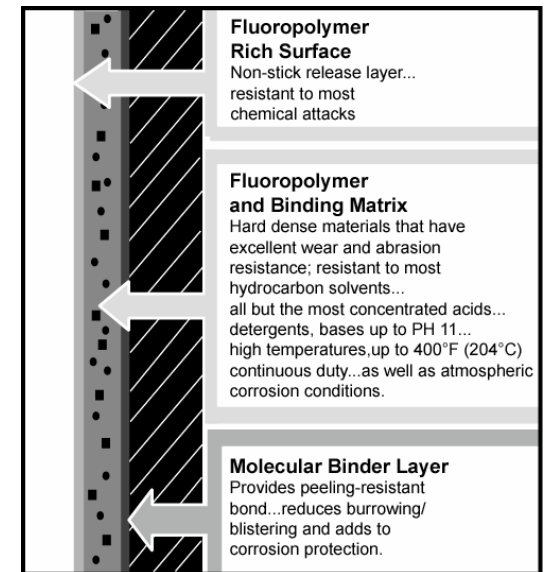
	Bearing Type	Self Aligning	Installation	Felt Seal	Split Housing	Anti-Rotation Device	Shaft Lock
<b>SealMaster RPBXT</b>	<b>Tapered Roller</b>	<b>+/-3 Degrees</b>	<b>Shaft Ready</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Double Lock Set Screw</b>
<b>SAF 22500</b>	Spherical Roller	+/-1 Degree	Assembly Required	No	Yes	No	Tapered Adapter

# RPB Corrosion Duty Series

Addresses the emerging trend for CRES roller bearing applications

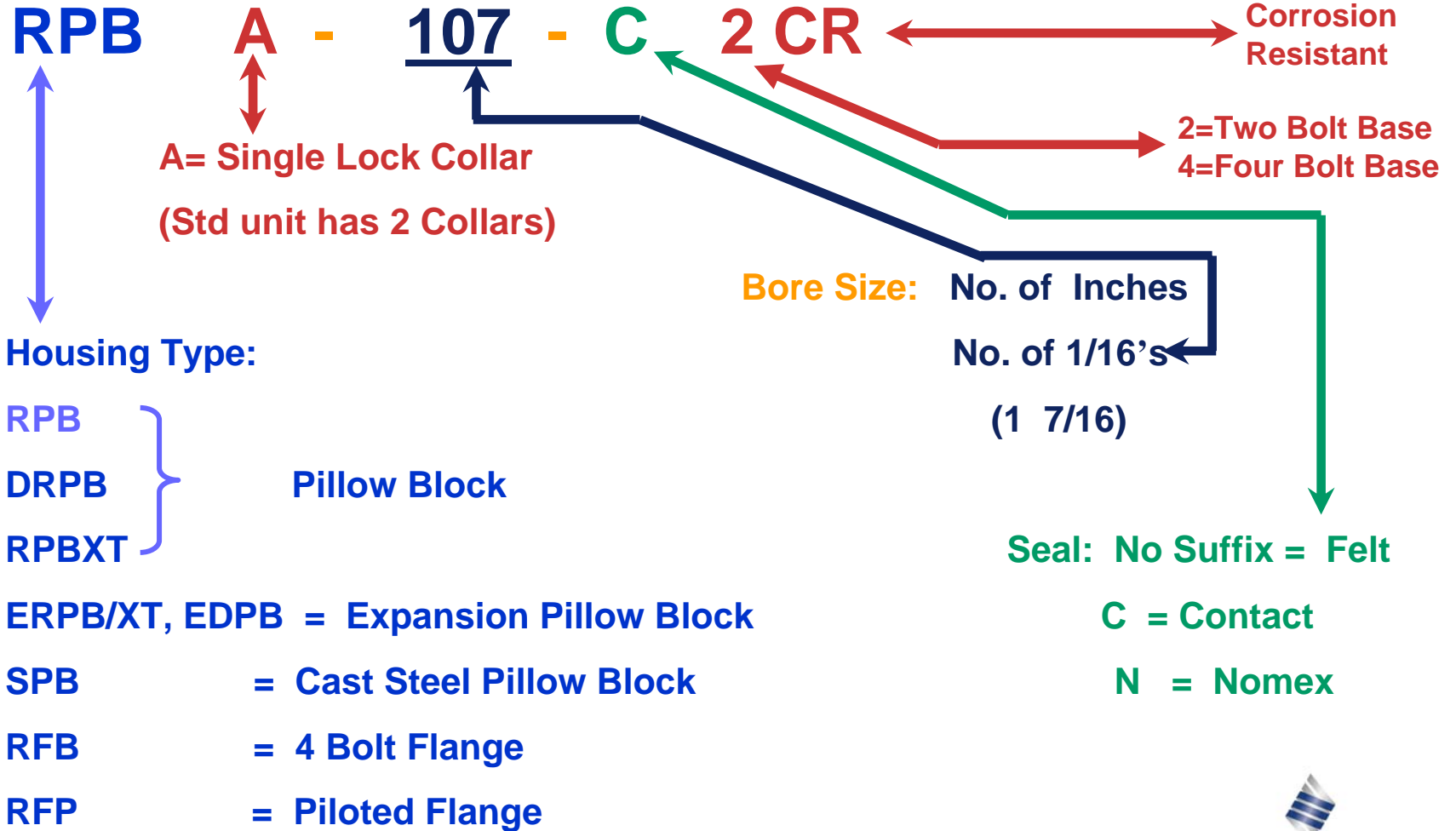
- Food processing equipment
  - Grinding, mixing, chopping and blending
- Chemical processing / rubber and plastic
- Pulp and paper / marine and naval
- Wastewater treatment

**SEALMASTER®**



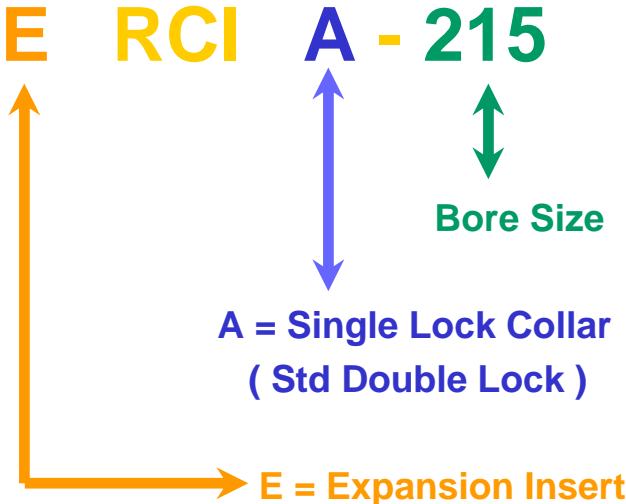


# RPB Roller Bearing Nomenclature

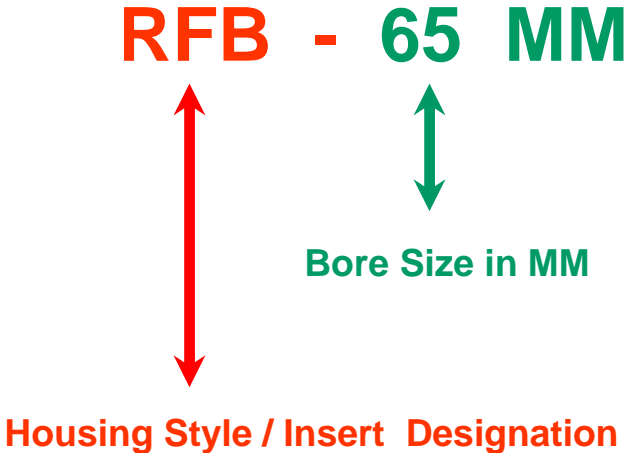


# RPB Roller Bearing Nomenclature

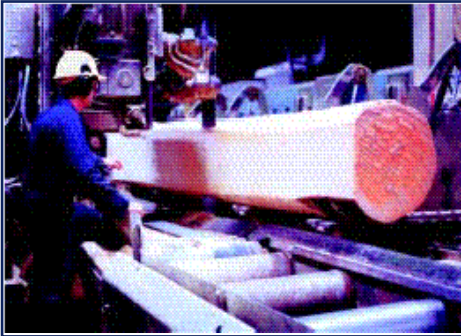
## Inserts:



## Metric:



# Sleevloc Roller Bearing



**SEALMASTER SLEEVLLOC**  
SPHERICAL ROLLER BEARINGS

SMSL-99

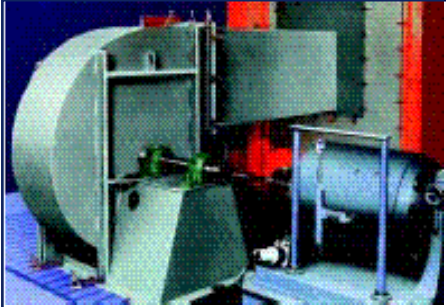
**TOP**  
SEALMASTER  
SLEEVLLOC  
SPHERICAL ROLLER BEARINGS  
EASY TO INSTALL  
ULTRA RELIABLE  
SAVES MONEY

ultra **LOCK** reliability

**EASY** installation procedure

save **MONEY** on shafting

Experience The Power of **POWER**  
**EPT.**  
Emerson Power Transmission



# *Sleevloc Standard Features*

- Gold line compliment to problem solving RPB
- Reliable unique tapered adapter sleeve mount
- High capacity two row spherical roller bearing
- Radial, thrust & combination loads
- Cast iron or ductile housings
- Double lip contact seals



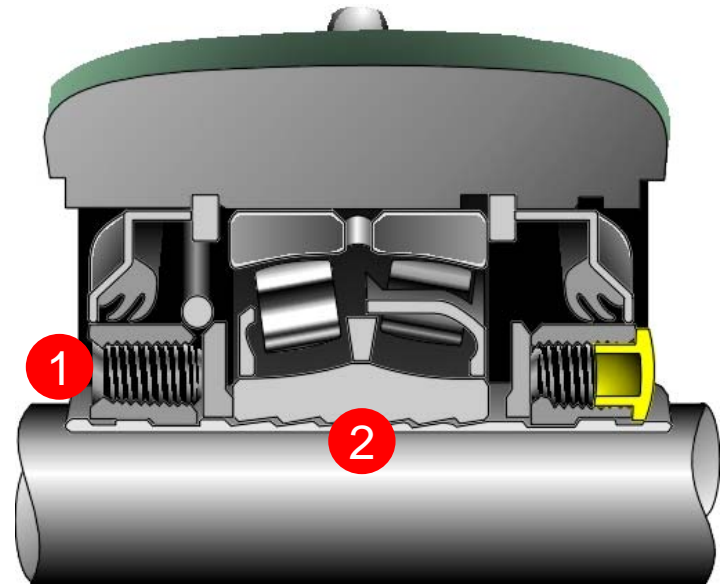
# Sleevloc Standard Features

- Self aligning (+/- 1 1/2 degrees)
- Factory controlled clearances
- Metal retainer
- Interchangeable mounting dimensions with most collar mounted units
- Bore sizes 1 7/16" - 4"
  - Two & four bolt pillow blocks
  - Flange blocks
  - Flange cartridges
  - Take-ups
- Flange brackets
  - Narrow housing with 3 or 4 bolts on one side of the housing
  - For tight spaces and tail pulleys
  - Parcel & package handling applications



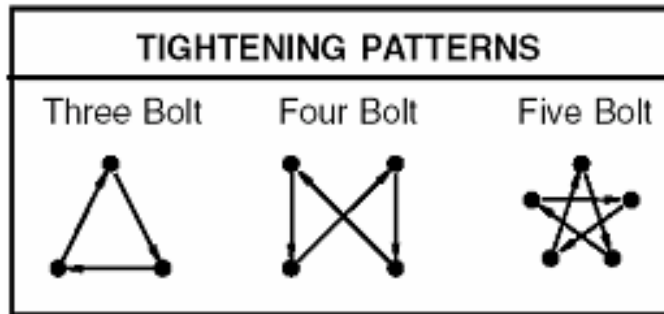
# How Sleevloc Works

- Utilizes an advanced multi-tapered sleeve arrangement **1**
- Axial setscrews force the inner race up a series of inclined planes compressing the sleeve around the shaft **2**



# Sleevloc Installation

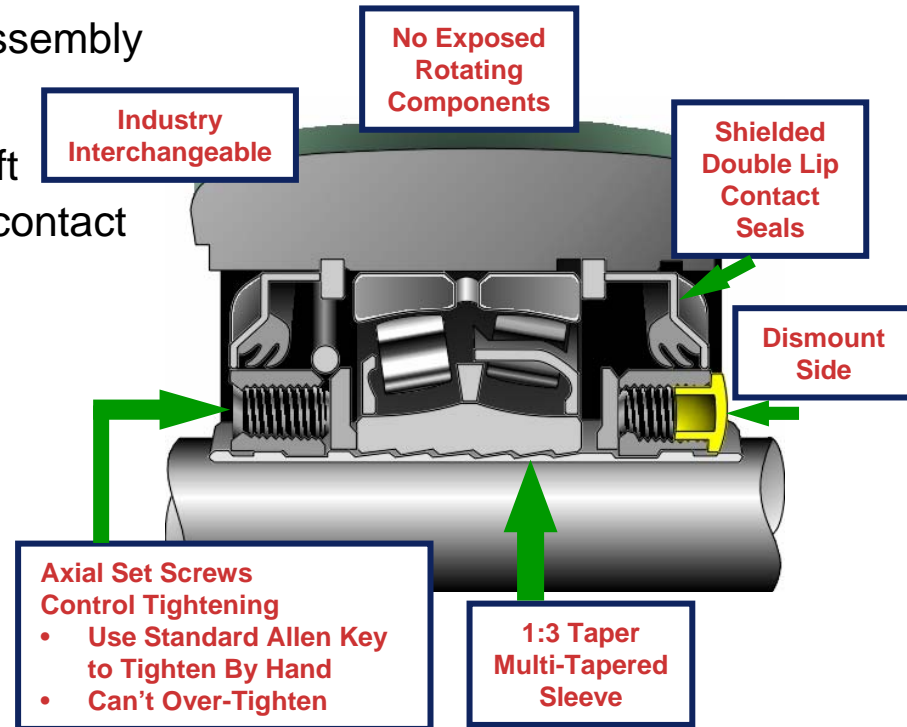
- A small force is required to tighten the axial setscrews
- Lock is achieved by tightening the setscrews in the following manner:
  - Follow a star pattern and snug all setscrews on the “MOUNTING” collar side to ~20 in-lbs with the hex key provided
  - Then tighten to 65 inch-lbs torque using a calibrated torque wrench
  - Repeat to be sure all setscrews are tightened to 65 in-lbs
- Following the procedure reduces the chance of bearing pre-load



# Sleevloc Advantages

- Easy installation
  - Shaft ready single piece housing
  - No special tools or feeler gages required
  - Reduces chance of pre-load during assembly
- Lock reliability
  - Tapered adapter - no burrs in the shaft
  - Near 360 degree sleeve length-shaft contact
  - Reduced vibration
- Saves money on shafting
  - Larger shaft tolerances
  - Can use commercial shafting vs.TGP

Nominal Shaft Size	Shaft Tolerance (inches)
Up to 2"	+0.0000 / -0.003
2 3/16" and above	+0.0000 / -0.004



# End User Benefits

- Faster installation & removal
  - Fewer steps than 1:30 or 1:12 SNW tapered adapter systems
  - Fewer tools required
    - One (6MM) wrench for all bore sizes
- Reliable lock
  - Axial setscrews control tightening
  - Less chance of installation error
  - Less concern of over tightening or bearing pre-load
- Safer operation
  - Insert contained within housing
  - No rotating tangs (lock washer) vs. an SNW system

# OEM Advantages

- Faster installation & removal
  - Fewer steps than 1:30 or 1:12 SNW tapered adapter systems
  - Fewer tools required
    - One (6MM) wrench for all bore sizes
- Reliable lock
  - Axial setscrews control the tightening
  - Less chance of installation error
  - Less concern of over tightening or bearing pre-load
- Save money on shafting
  - Accommodates larger shaft tolerances
  - Can use commercial shafting vs. TGP



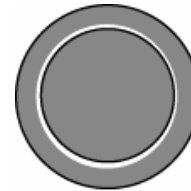
# Locking Benefits

- Setscrew & eccentric lock systems
  - Push the shaft to one side of the bearing inducing vibration

Setscrew



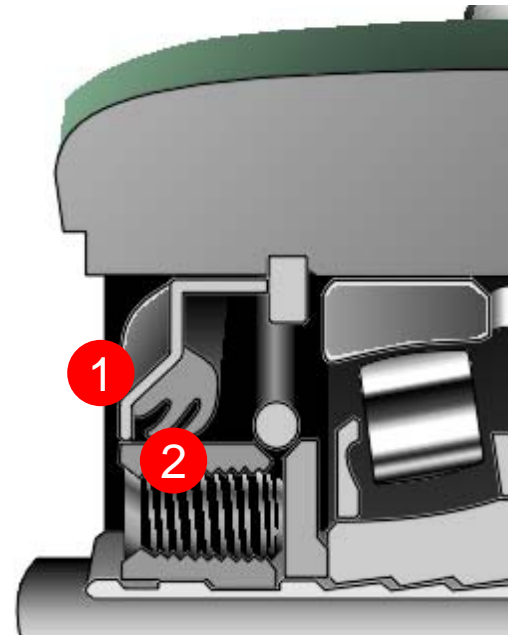
Sleevloc



- Sleevloc
  - Better concentricity with the shaft to reduce vibration
  - No back and forth setscrew rubbing that wears down the screws
  - Reduces fretting
  - Can accommodate bi-directional rotation
  - No burrs making making removal easier

# Shielded Double Lip Contact Seal

- Metal Shield **1**
  - Metal trash guard
  - First barrier against large debris
- Seal Lips **2**
  - Double lip molded elastomeric rubber design
  - Helps seal against fine particles
    - Dry and moist environments

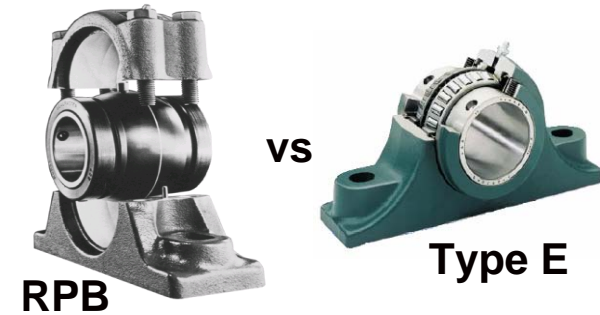


# Sleevloc Benefits

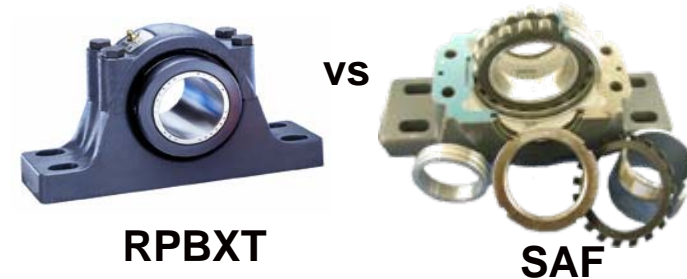
Feature	Benefit
1:3 tapered sleeve	Faster mount & dismount vs. 1:12 & 1:30 systems Less inner race axial movement Less chance of bearing pre-load during installation
Axial setscrews control tightening	Smaller force is required to mount & dismount Internal clearances automatically set No feeler gages required
Near 360° sleeve-shaft length contact	Positive friction grip, reduces fretting, reduces vibration
Easy installation procedure	No components to assemble or special tools, saves time
Commercial shafting	Accommodates larger shaft tolerances, lower cost vs. TGP
Shielded double lip contact seal	Proven sealing - provides barrier to dust & moisture
Industry standard mounting dimensions	Quick and simple replacement
Recessed collars	Safe, no exposed rotating components
Factory sealed and lubricated	Shaft ready

# Competition

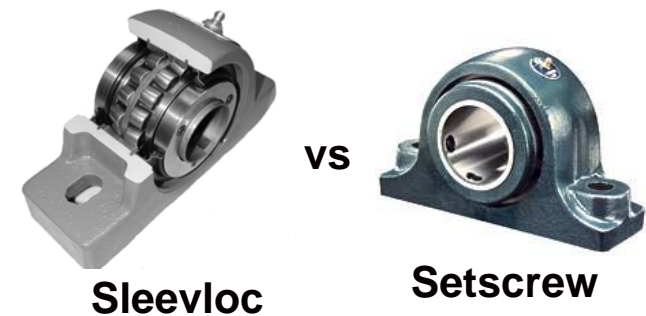
- Interchangeable mounting dimensions
- Cartridge inserts for quick change-out
- Accommodates +/- 3 degrees misalignment



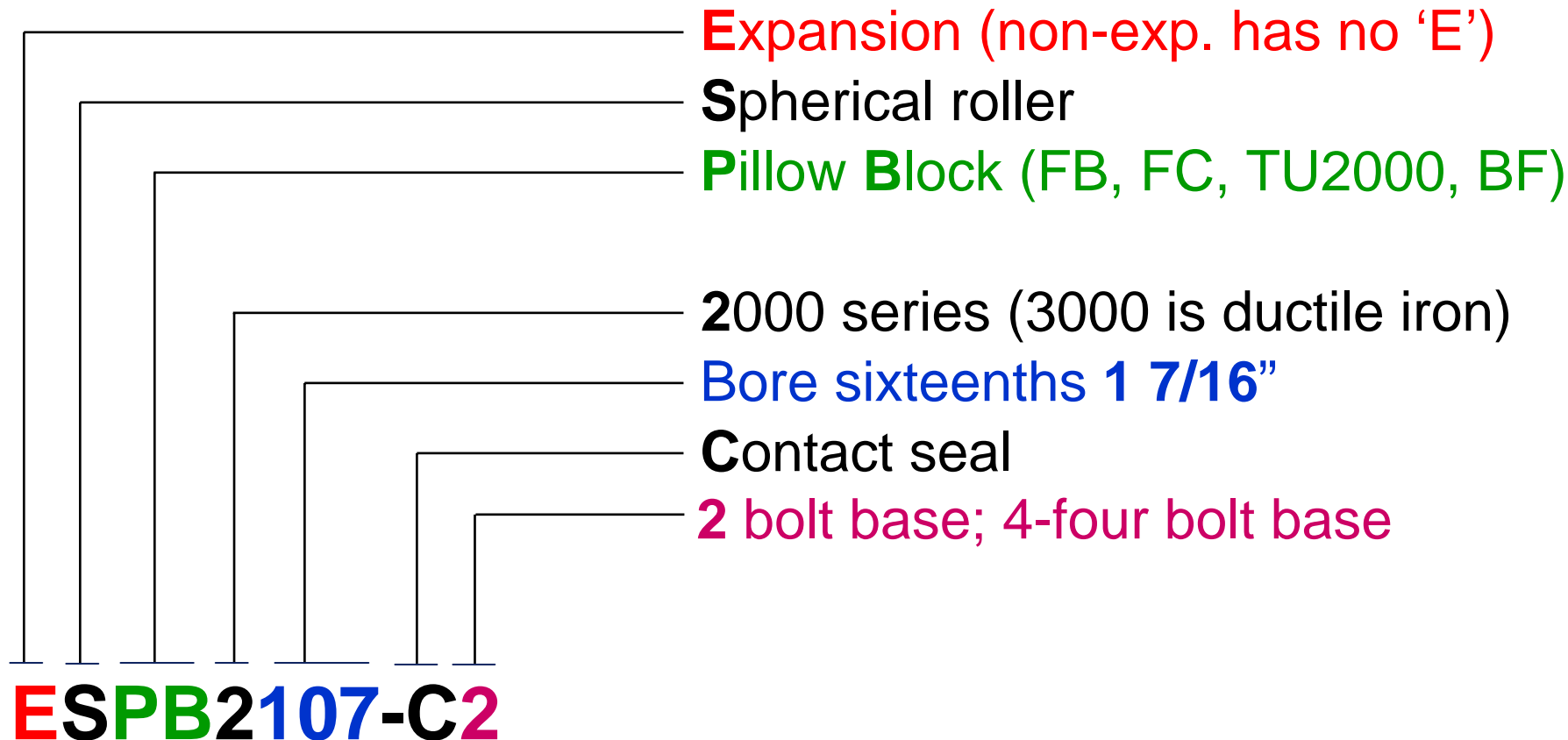
- Interchangeable mounting dimensions
- Shaft ready – no assembly required
- Factory adjusted clearances, sealed and lubricated
- Cartridge inserts for quick change-out



- Interchangeable mounting dimensions
- Time saving during removal - leaves no shaft burrs
- Reliable shaft lock



# Sealmaster Sleevloc Nomenclature



# Markets & Applications

- Aggregate
  - Stone / Sand & Gravel Belt Conveyors
    - Head / Tail Shafts
  - Screw Conveyors
- Wood Products / Lumber
  - Conveyors to Log Debarkers
  - Kiln Conveyors
  - Sawmills
  - Power Roller on Log Decks
- Steel Mill / Processing
  - Coke Conveyors
    - Head Pulleys
  - Motorized Electric Winders
  - Rubout Tables
  - Annealing Furnaces
- Mining
  - Belt Conveyors
  - Feeder Breakers
  - Crushers
- HVAC (Fan / Blowers)
  - Dust Collector Shafts
  - Exhaust Fans
  - Vertical Fans
  - Blower Shafts
- Others
  - Feed Mixers
  - Hoggers
  - Wastewater Treatment
    - Belt Presses
    - Aerators
  - Metal Scrap Conveyors

# Aggregate

Radial Stackers



Sand & Gravel



Wash Plants



# Aggregate & Cement



# Unit Material Handling & Wood Products

Package Handling



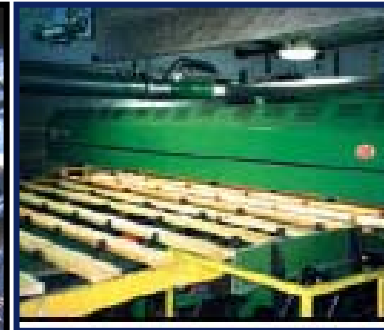
Automotive



Debarkers



Planer Mills



Mail Handling



Baggage Handling



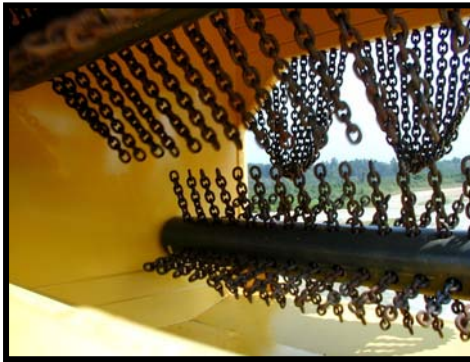
Gang Edgers



Trimmer Saws



# Wood Products / Recycling Applications



# *HVAC – Industrial Fans & Blowers*



# Summary

## Sealmaster RPB

- Heavy duty tapered roller bearings allow for combined radial and thrust loads
- Self-aligning insert compensates for up to +/- 3° of misalignment – a huge benefit when bolting to irregular mounting surfaces
- Patented race mounted felt lined flinger seal outperforms standard competitive seals
- Direct lubrication system protects seals
  - Bearing grease flow has a shorter path than competitive spherical roller bearing units
  - Alignment pin prevents outer race rotation – a common problem in vibratory applications with eccentric, rotating and reversing loads
- Durable, fixed cast iron split housings reduce downtime and maintenance
- Standard RPB units interchangeable with industry Type E mounting dimensions
- More sizes and configurations for design flexibility
  - Select from two and four-bolt pillow blocks in bore sizes from 1 3/16" to 5", flange units from 1 3/16" to 4 1/2" and piloted flanges from 1 3/16" to 5"
  - Replaceable cartridge inserts from 1 3/16" to 5"
  - Available for quick shipment from stock

# Key Contacts

- Visit us at [www.emerson-ept.com](http://www.emerson-ept.com)
- EPT Customer Service (800-626-2120)
  - Price
  - Availability
  - ATO Eligibility
  - Order Entry
- Technical Customer Service (219-465-2211)
  - Technical product questions
  - Application & interchange assistance

