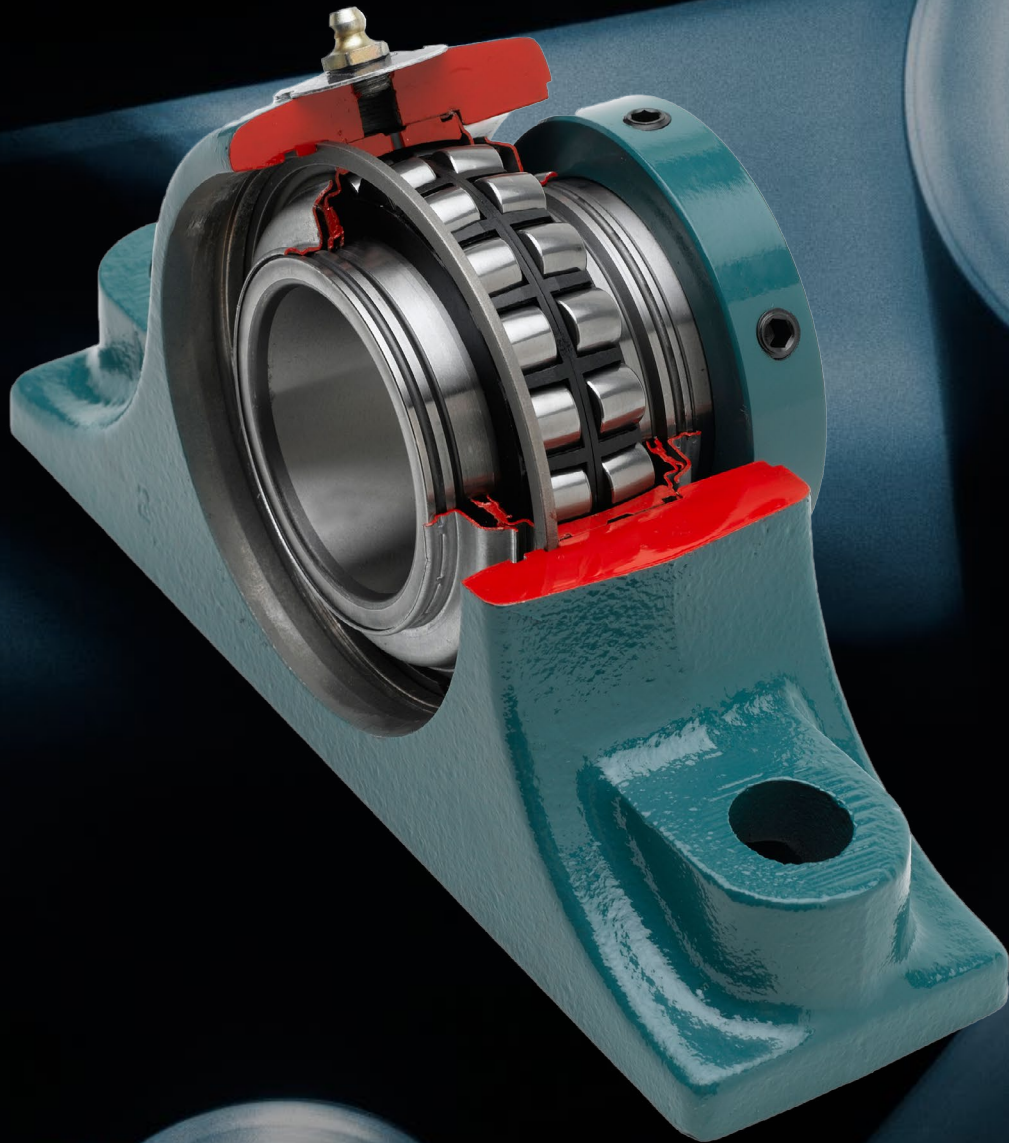


# *Type E Mounted Units*



# Type E Mounted Units

With a sturdy construction designed to accommodate high radial and thrust loads, Type E mounted bearings provide affordable solutions for clients requiring rugged, high capacity bearings. Because of their easy installation and tough endurance in even the most demanding industries, these bearings are frequently utilized in applications ranging from electric motors and manufacturing to mining, petroleum, and robotics.

Type E bearings enhance machinery longevity while maintaining exceptional uptime and productivity. Constructed from premium quality cast iron and steel, the units keep repair and maintenance costs to a minimum in order to maximize machinery lifetimes even in harsh environments. Special sealing options retain lubricants and protect against contamination from dust and dirt.

Several manufacturers are recognized for providing Type E mounts units in the industry at several price points. We feature the USA made Moline units that use Timken and SKF bearings. Moline, an industry leader in anti-friction products, offers housed bearings, seals, lubricants, and housing covers at competitive prices. Moline has a history of creating new designs that make mounted units last longer — including mounted spherical bearings that maintain seal contact while enduring moderate-to-poor shaft alignment. Moline offers resilient and inventive Type E units that improve machinery performance in almost any setting.

Regardless of the provider, Type E mounted bearings are configured in one of two basic structures: standard units, which are constructed with a shaft-ready insert and solid housing, and split housing units, which are created with a unitized replaceable insert and split cast housing.

## Standard Style Type E Mounted Units

High capacity, standard style Type E mounts combine toughness, versatility, and competitive prices to serve as an easy upgrade from ball bearings. These models accommodate grease temperatures up to 250°F, with high-temperature units available that can handle grease as hot as 350°F. Optional seals provide additional protection, including Nitrile V-Guard for high moisture and multiple contaminant environments, as well as Teflon and balanced labyrinth seals for high speed applications.

“*With a sturdy construction designed to accommodate high radial and thrust loads, Type E mounted bearings provide affordable solutions for clients requiring rugged, high capacity bearings.*”

## Benefits of Standard Style Units

The standard style unit features a number of benefits, such as:

- **Interchangeability:** Standard mounts maintain interchangeable mounting dimensions with ball bearing units; they are available in all configurations, including shaft sizes from 1-3/16" to 7" and 35mm to 180mm.
- **Security:** An extended inner race design has two locking collars for secure mounting to the shaft.
- **Adaptability:** High capacity tapered roller bearings allow for a combination of radial and thrust loads.
- **Pre-Assembly:** All standard E-Style bearings are delivered completely assembled from the factory in shaft-ready condition. Each unit is pre-lubricated for immediate use.
- **Durability:** All E-Style bearings come with case hardened rollers and races to accommodate shock loading.
- **Comparable Pricing:** They feature moderate prices when compared to ball bearings.

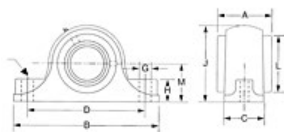
## Industries and Applications

Highly demanding industries rely on Type E housed units for their most rigorous applications, including:

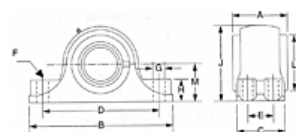
- Pulp and paper
- Mining
- Cement and aggregates
- Air handling
- Water treatment
- Shredders
- Mills

## Available Styles

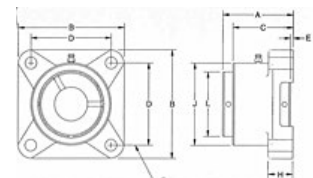
Our Moline Type E standard style mounting bearings are available in the following configurations:



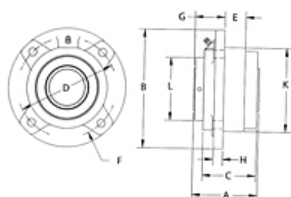
2-Bolt Pillow Block



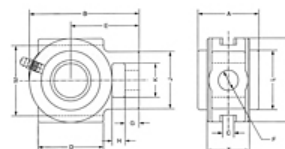
4-Bolt Pillow Block



4-Bolt Flange



4-Bolt Piloted Flange



Wide Slot Take-up

## Mounting Instructions

Mounting plays a significant role in the longevity and performance of a bearing; adhering to the correct mounting process can ensure consistently reliable performance throughout the enhanced lifespan of the unit.

To begin, thoroughly clean the shaft and bore, confirming that the shaft is straight, appropriately sized, and free of defects such as burrs and nicks. Next, lubricate the shaft and bore with grease or oil, then insert the bearing into the correct position.

If the application requires a light press fit, gently press against the end of the bearing's inner ring. Never strike the housings or the seals, as direct impact could cause permanent damage. Using housing base-sized shims to align the bearing, bolt the standard style unit to the support. Then, tighten the set screws firmly by hand onto the shaft until you reach their final position.

The final step is to test the configuration for fit and support. Try rotating the shaft slowly in a loaded position; if strain or vibration is present, the shaft or supports could be bent or not aligned correctly. Retighten all set screws after a day of operation to fully lock the inner race to the shaft.

## Lubrication

Over its lifetime, a bearing requires additional lubrication with compatible grease to ensure smooth operation — however, over lubrication can cause excessive wear. To prevent excessive lubrication, lubricate bearings frequently but only in small amounts. **Keep the guidelines below in mind:**

- **High-Speed Operation** — High speed applications need less lubrication, as excessive lubricant can overheat the equipment; remove excess grease if bearings overheat.
- **Harsh Condition Operation**— Foreign particles accelerate wear and cause damage that could shorten a bearing's life. Whenever a Type E bearing must operate in wet, dusty, or corrosive conditions, lubricate it with as much grease as possible without causing overheating. In challenging environments, light leakage at the seals is preferable to contamination by outside materials.
- **Storage** — If left idle and unprotected, bearings risk exposure to dusty or corrosive conditions; add fresh grease for extra protection before running.
- **Types of Grease** — Use lithium-based grease or a similar type suitable for Type E bearings. Grease with improper consistency runs the risk of disintegrating faster, thus risking bearing damage.
- **Operating Temperatures** — Monitor Type E bearing temperatures, as excess leakage and high temperatures both indicate over lubrication. Try the "touch test:" if a Type E housing is cool, warm, or somewhat hot, its temperature is probably appropriate. If the housing is too hot to touch, there is likely excessive grease.

Under normal operating conditions, the following table can serve as a guide for suggested lubrication.

HOURS RUN PER DAY	SUGGESTED LUBRICATION PERIOD IN WEEKS							
	1 TO 250 RPM	251 TO 500 RPM	501 TO 750 RPM	751 TO 1000 RPM	1001 TO 1500 RPM	1501 TO 2000 RPM	2001 TO 2500 RPM	2501 TO 3000 RPM
8	12	12	10	7	5	4	3	2
16	12	7	5	4	2	2	2	1
24	12	5	3	2	1	1	1	1

*Type E Application Guide*

## Split Housing Style Type E Mounted Units

The split housing style holds many functional similarities to standard Type E units, but provides greater flexibility in difficult settings. These bearings contain two housings, allowing the cap and the base to be detached; this allows for superior sealing when operating under misaligned or expanded conditions.

Dimensionally interchangeable with all Type E products Split housing, Type E units include set screw locking collars for simple installation, compensating for up to  $\pm 4^\circ$  of misalignment and helping to maintain excellent rolling.

The bearing design also ensures greater overall positive contact, increasing uptime and improving bearing performance. Available in expansion styles, split housing style bearings accommodate overlong linear shafts that enlarge with significant temperature differentials between themselves and the mounting structures.

### Benefits of Split Housing Units

Split housing units offer additional features, including benefits such as:

- **Durability:** These bearings include a unitized cartridge insert which accommodates heavy-duty tapered roller bearings for radial, thrust, and combination loading. They also come with double locking collars for positive mounting.
- **Versatility:** This style of bearing accommodates multiple sealing options and offers full interchangeability between Moline, Sealmaster, and Dodge brands.
- **Expedited Replacement:** Cartridges for split housing units fit all housing styles; the bearing's housing base remains fixed and aligned with the shaft throughout the insert replacement process. This style reduces downtime by allowing for the fastest insert replacement, and drop-in replacements are also available.

## Available Styles

These bearings accommodate two bolts and are available in bore sizes ranging from 1-3/16" to 5" and 35mm to 125mm in the following configurations:

- Pillow Block
- Flange
- Piloted Flange

## Industries and Applications

Rugged, heavy-duty, and versatile, Type E split housing units are built from ductile iron, cast iron, or cast steel. Their sturdy construction makes them ideal for highly demanding industries and applications, including:

- Aggregate and cement
- Forestry
- Marine
- Fans and blowers
- Unit handling
- Oil and Gas

## Shelf Life and Storage

Type E products' approximate shelf lives vary according to product models. In general, properly stored bearing components do not suffer significantly from contamination or oxidation over time; however, greases used in the pre-lubrication process do have expiration dates. Predicted shelf lives assume adherence to a product's storage and handling guidelines.

**Adhering to the following instructions will ensure maximum storage life for your products:**

- **Packaging:** Keep products in their original packaging. Bearing products should be used as soon as possible after removing packaging. Do not remove labels or stencil markings.
- **Storage Environment:** Store at temperatures between 32°F and 104°F (0° to 40°C). Make sure the humidity of the storage location is less than 60% and that all surfaces are dry. Storage areas must be free from contaminants and excess vibration. Do not store bearings in extreme conditions, including excessive temperatures or chemical exposure.
- **Storage Process:** Make sure stored products are safe from crushing, piercing, or other damage. If you are storing products in bulk and need to remove one, reseal the bulk container immediately. Discard products that have exceeded their shelf lives.

## Installation

One of the most common causes for excessive and premature wear on bearings is improper installation. For the best performance, adhere to the following steps:

- Make sure the shaft is clean, straight, in the correct diameter, and free of burrs and nicks.
- Never mount bearings on a worn portion of the shaft.
- Avoid using shafts with greater than HRC 45 hardness levels, as excessive hardness interferes with effective locking.
- Ensure that set screws and housing units are properly aligned. Use shims across the whole housing base when required and securely torque bolts to mounting supports.
- Use properly sized flat washers.

## Contact Us

Proper installation, care, and maintenance will ensure optimal performance from both standard style and split housing bearings.

At Emerson Bearing, our Type E units are among our best-selling products. They account for a significant component part of our heavy duty product selection, which also includes M2000 models, though our offerings extend beyond mounted units to include ball bearings, roller bearings, roller chains, linear motion devices, and much more.

To request a custom quote, place an order, or receive further information about our Type E bearings or any of our other products, contact us directly.