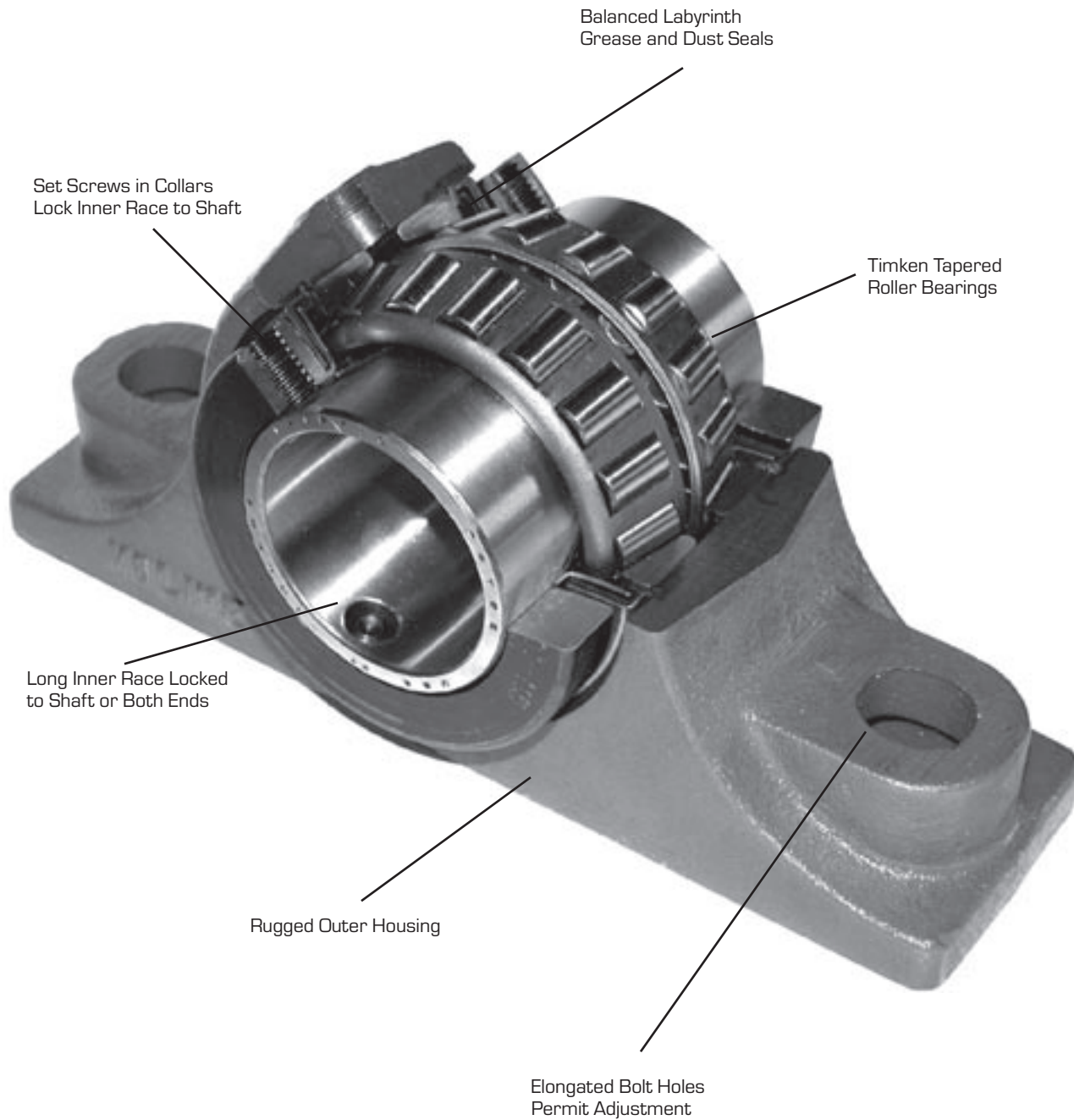




## Features of Moline "Type E" Mounted Bearings With Timken® Tapered Roller Bearings

- Available in shaft sizes from 1-3/16" to 6", and 35mm to 125mm
- Easy installation and maintenance
- Supplied from the factory in shaft ready condition
- Assembled, adjusted and pre-lubricated in advance for immediate use
- Dimensionally interchangeable with comparable competitive Type E units
- Tapered roller bearings with double-extended inner race
- Extended inner race has two locking collars
- Case hardened rollers and races
- 120° set screw spacing on locking collars
- Timken® tapered roller bearing inserts allow for a combination of radial and thrust loads
- Excellent thrust load capacity
- Close fit oversized collars act as flingers for additional protection in dusty or damp environments
- Rugged housings are made of Class 30 cast iron
- Standard grease operating temperature is up to 250°
- High temperature grease is available up to 350°
- For custom lubrication, please call the factory for more information
- Housings available in the standard painted finish. Nickel-plating, Epoxy, Teflon and other coatings are available upon request
- Custom machining and design is available. Please call the factory for further information
- Made in the United States



TYPE E



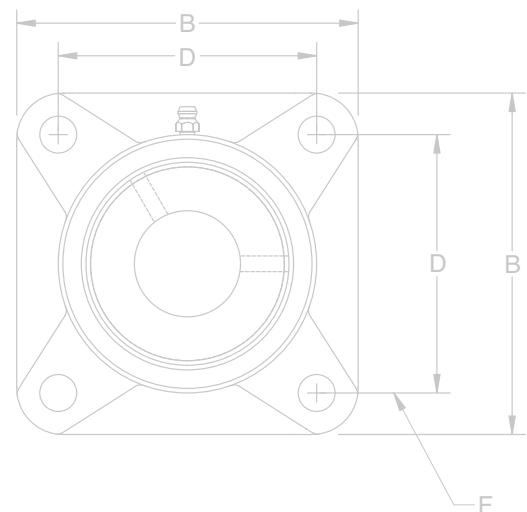
**M**oline “Type E” Pillow Blocks offer many advantages including **high-speed suitability, positive locking to the shaft, ruggedness, and low price.**

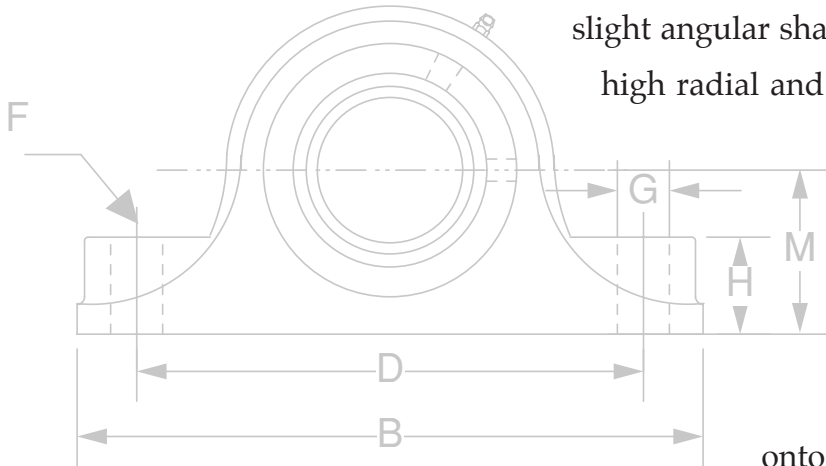


The  **housings** are as compact as possible without sacrificing their brawny ruggedness. Made of high quality gray iron, they are precision machined to close tolerances.

On each end of the inner race there is a **Drive Collar** with two headless set screws spaced 120° apart. These extend through clearance holes in the inner race, locking it to the shaft.

Moline uses only **genuine Timken® Tapered Roller Bearings**. They are made from vacuum degassed steel which gives rollers and races added life, and provides superior load and speed characteristics. A long inner race insures load distribution over a considerable length of shaft. In addition, the arrangements of Timken rollers and races





is such that Moline "Type E" Mounted Bearings will handle slight angular shaft misalignment. These bearings also have high radial and thrust load capacities, and are capable of handling most combinations of loads found in all normal applications.

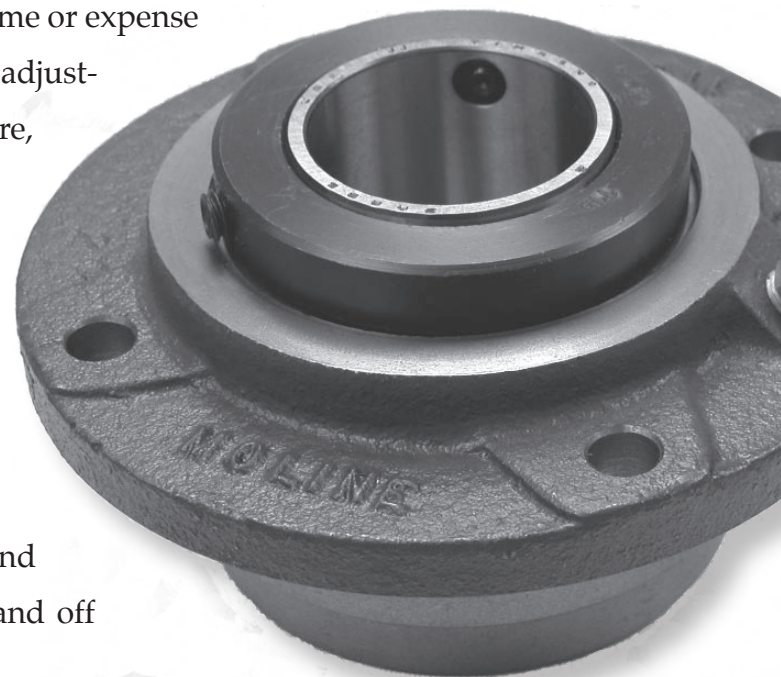


TYPE E

Moline "Type E" Pillow Blocks, Flange Bearings, Piloted Flange Bearings, and Wide Slot Take-ups are ready to slip onto the shaft when received, because they are **completely assembled, adjusted, sealed and**

**pre-lubricated at the factory.** There is no danger of bearing failure resulting from dirt or dust entering the bearing before or during installation. Such contamination is very difficult to prevent in bearings that are not shaft ready. No time or expense is required for cleaning housings, for adjusting, or for initial lubrication. Therefore, overall installed cost is less in many instances. Operating expense over time is also generally less.

The **balanced labyrinth seals** that are built in at each end of the bearing during factory assembly, effectively seal against loss of lubricant and admission of dust and dirt, both on and off





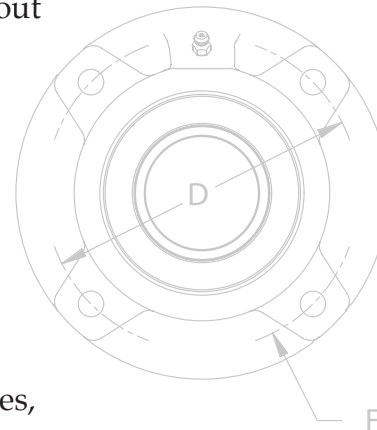
the shaft. Efficiency of the seal is equally good throughout the allowable range of self-alignment.

Bore tolerance is  $+0.001''/-0.000''$  for 3" and smaller bores;  $+0.002''/-0.000''$  for bores larger than 3".

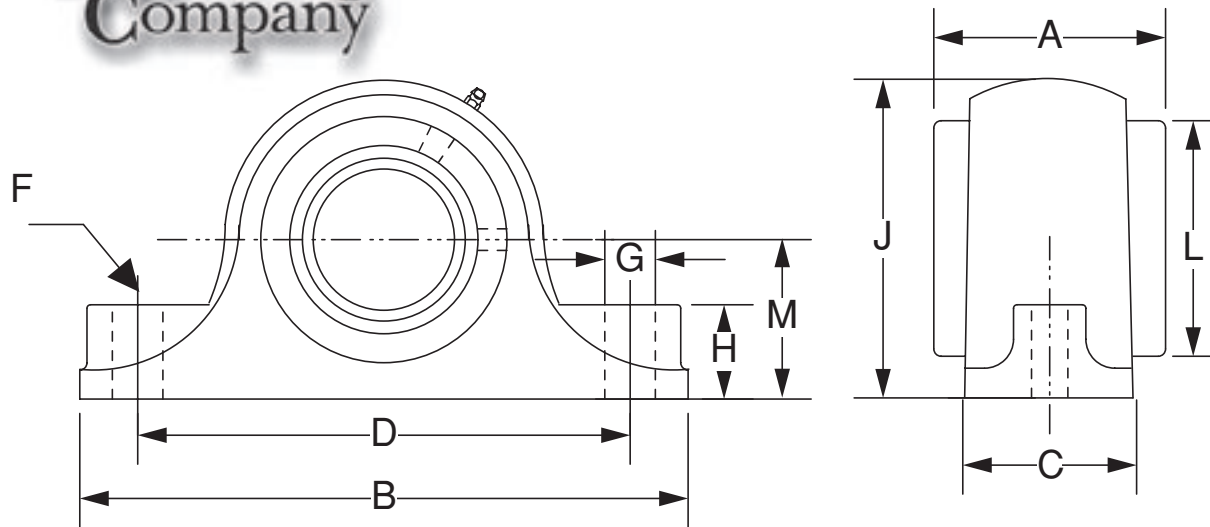
Moline Mounted "Type E" bearings are available in **shaft sizes** from 1-3/16" to 6" and 35 to 125 mm in Pillow Blocks, 1-3/16" to 4-1/2" and 35 to 100 mm in Flanges, 1-3/4" to 5" and 45 to 125 mm in Piloted Flanges, and 1-3/4" to 3" and 45 to 75 mm in Wide Slot Take-ups.

The  **housings**  are available in the standard painted finish. Nickel plating, Epoxy and Teflon coatings will be quoted on request. Special machining is also available.

Moline "Type E" bearings are carried in warehouse and distributor stocks all over the United States.



*You will not find a company more committed to the highest levels of quality and service.*

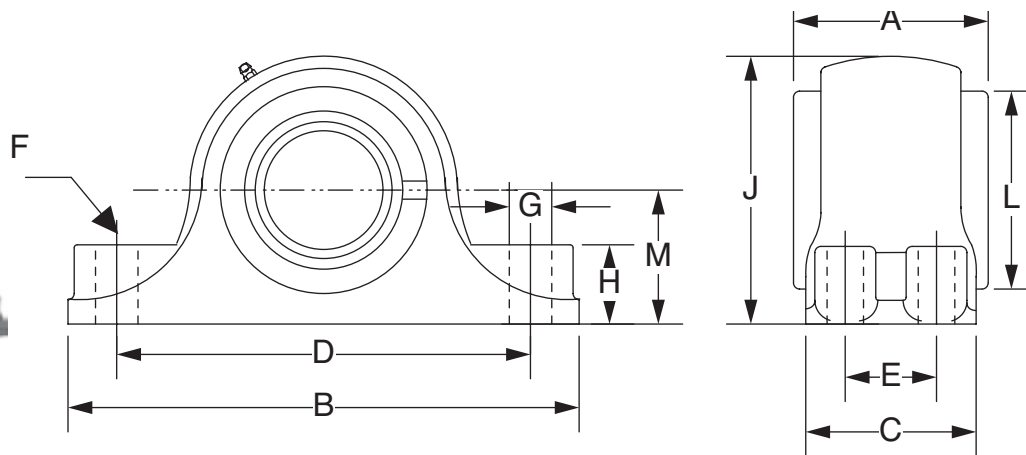


TYPE E

Shaft Size	Moline Part #	A	B	C	center to center D	Min D	Max D	F	G	H	J	L	M	Wgt. Lbs.
1-3/16 1-1/4	19321103 19321104	2-3/4	6	1-7/8	4-25/32	4-3/4	4-13/16	3/8	19/32	7/8	3	2-1/4	1-1/2	4
1-3/8 1-7/16 35mm	19321106 19321107 19321035	3	7-3/8	2-1/8	5-3/4	5-5/8	5-7/8	1/2	3/4	1-1/8	3-3/4	2-3/4	1-7/8	6.9
1-1/2 1-5/8 1-11/16 40mm	19321108 19321110 19321111 19321040	3-3/8	7-7/8	2-3/8	6-1/4	6-1/8	6-3/8	1/2	3/4	1-1/4	4-1/4	3-3/16	2-1/8	9.5
1-3/4 1-7/8 1-15/16 2 45mm 50mm	19321112 19321114 19321115 19321200 19321045 19321050	3-1/2	8-7/8	2-1/2	7	6-7/8	7-1/8	5/8	7/8	1-5/16	4-1/2	3-7/16	2-1/4	11
2-3/16	19321203	3-3/4	9-5/8	2-5/8	7-3/4	7-5/8	7-7/8	5/8	7/8	1-1/2	5	3-3/4	2-1/2	14
2-1/4 2-7/16 2-1/2 60mm 65mm	19321204 19321207 19321208 19321060 19321065	4	10-1/2	2-7/8	8-1/2	8-3/8	8-5/8	5/8	7/8	1-5/8	5-1/2	4-1/16	2-3/4	19
2-11/16 2-3/4 2-15/16 3 70mm 75mm	19321211 19321212 19321215 19321300 19321070 19321075	4-1/2	12	3	9-1/2	9-5/16	9-11/16	3/4	1	1-7/8	6-1/4	4-23/32	3-1/8	26
3-3/16 3-1/4 3-7/16 3-1/2 80mm 85mm 90mm	19321303 19321304 19321307 19321308 19321080 19321085 19321090	5	14	3-5/8	11	10-13/16	11-3/16	7/8	1-3/16	2-1/4	7-1/2	5-7/16	3-3/4	44

Refer to the Moline List Price Book for pricing.

**TYPE E 4-BOLT PILLOW BLOCK**  
 Furnished in non-expansion type only.

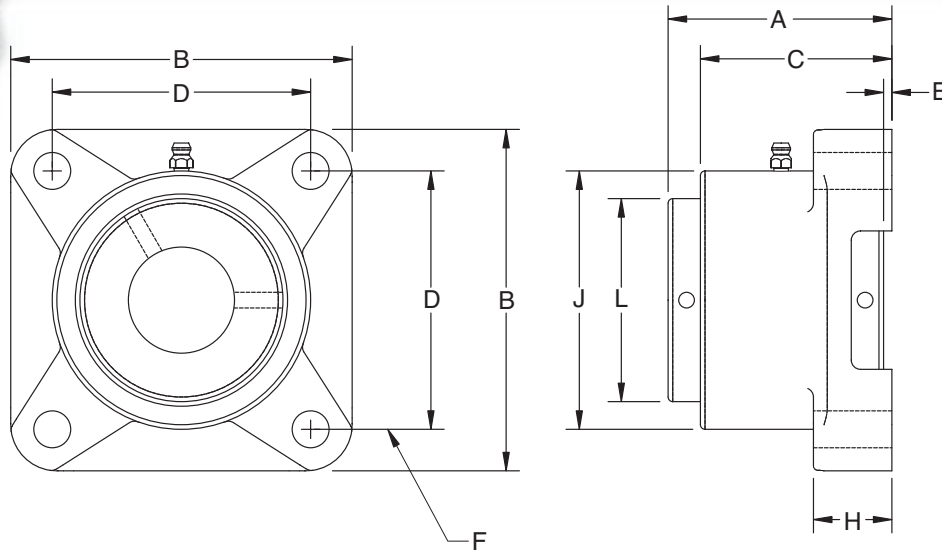


TYPE E



Shaft Size	Moline Part #	A	B	C	center to center D	Min D	Max D	E	F	G	H	J	L	M	Wgt. Lbs.
2-1/4 2-7/16 2-1/2 60mm 65mm	19341204 19341207 19341208 19341060 19341065	4	10-1/2	3-1/2	8-1/2	8-5/16	8-11/16	1-7/8	5/8	7/8	1-5/8	5-1/2	4-1/16	2-3/4	19
2-11/16 2-3/4 2-15/16 3 70mm 75mm	19341211 19341212 19341215 19341300 19341070 19341075	4-1/2	12	4	9-1/2	9-3/16	9-13/16	2-1/8	5/8	1-1/16	1-7/8	6-1/4	4-23/32	3-1/8	26
3-3/16 3-1/4 3-7/16 3-1/2 80mm 85mm 90mm	19341303 19341304 19341307 19341308 19341080 19341085 19341090	5	14	4-1/2	11	10-3/4	11-1/4	2-3/8	3/4	1-3/16	2-1/4	7-1/2	5-7/16	3-3/4	44
3-15/16 4 100mm	19341315 19341400 19341100	6-1/4	15-1/4	4-1/2	12-1/2	12-1/4	12-3/4	2-1/4	3/4	1-1/8	2-7/16	8-1/2	5-15/16	4-1/4	65
4-7/16 4-1/2 110mm 115mm	19341407 19341408 19341110 19341115	6-3/4	16-5/8	4-5/8	13-1/2	13-1/4	13-3/4	2-1/2	3/4	1-1/8	2-3/4	9-3/8	6-13/32	4-3/4	81
4-15/16 5 125mm	19341415 19341500 19341125	7-1/4	18-1/2	5-1/8	15-1/2	15-1/4	15-3/4	2-7/8	7/8	1-1/4	3	10-7/8	7-13/32	5-1/2	132
5-7/16 5-15/16 6	19341507 19341515 19341600	9	22	6-1/4	18-1/4	17-3/8	19-1/8	3-3/4	1	2	3-1/4	13-1/16	9-1/8	6-11/16	243

Refer to the Moline List Price Book for pricing.



TYPE E

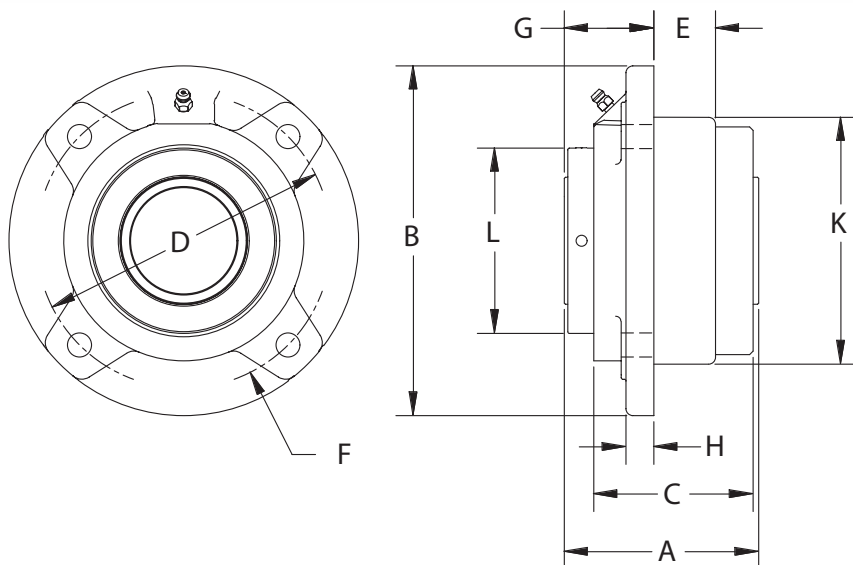
Shaft Size	Moline Part #	A	B	C	D	E	F	H	J	L	Wgt. Lbs.
1-3/16 1-1/4	19311103 19311104	2-13/16	3-3/4	2-11/16	2-7/8	1/16	3/8	1	2-15/16	2-1/4	4.5
1-3/8 1-7/16 35mm	19311106 19311107 19311035	3-1/16	4-5/8	2-19/32	3-1/2	1/16	1/2	1-1/16	3-1/2	2-3/4	6.7
1-1/2 1-5/8 1-11/16 40mm	19311108 19311110 19311111 19311040	3-1/2	5-3/8	2-31/32	4-1/8	1/8	1/2	1-3/16	4-3/16	3-3/16	10
1-3/4 1-7/8 1-15/16 2 45mm 50mm	19311112 19311114 19311115 19311200 19311045 19311050	3-5/8	5-5/8	3-3/32	4-3/8	1/8	1/2	1-3/16	4-7/16	3-7/16	12
2-3/16	19311203	3-7/8	6-1/4	3-9/32	4-7/8	1/8	5/8	1-3/8	4-7/8	3-3/4	16
2-1/4 2-7/16 2-1/2 60mm 65mm	19311204 19311207 19311208 19311060 19311065	4-3/16	6-7/8	3-9/16	5-3/8	3/16	5/8	1-1/2	5-5/16	4-1/16	21
2-11/16 2-3/4 2-15/16 3 70mm 75mm	19311211 19311212 19311215 19311300 19311070 19311075	4-11/16	7-3/4	3-15/16	6	3/16	3/4	1-5/8	6	4-23/32	28
3-3/16 3-1/4 3-7/16 3-1/2 80mm 85mm 90mm	19311303 19311304 19311307 19311308 19311080 19311085 19311090	5-1/4	9-1/4	4-1/2	7	1/4	3/4	1-7/8	7-1/4	5-7/16	46
3-15/16 4 100mm	19311315 19311400 19311100	6-1/2	10-1/4	5-5/8	7-3/4	1/4	7/8	2-1/8	8-1/4	5-15/16	74
4-7/16 4-1/2	19311407 19311408	7-3/32	10-7/8	5-15/16	8-3/4	11/32	7/8	2-7/16	8-3/4	6-7/16	96

Refer to the Moline List Price Book for pricing.



# TYPE E PILOTED FLANGE

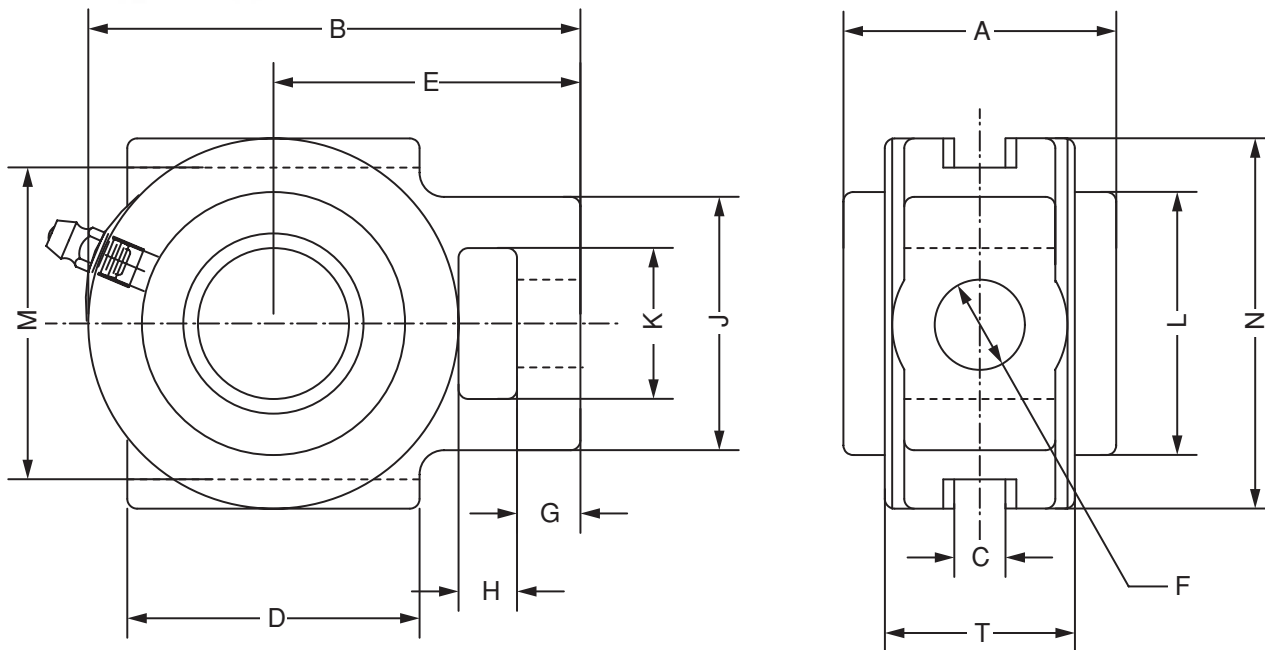
Furnished in non-expansion type only.



Shaft Size	Moline Part #	A	B	C	D	E	F	G	H	K	L	Wgt. Lbs.
1-3/4 1-7/8 1-15/16 2 45mm 50mm	19331112 19331114 19331115 19331200 19331045 19331050	3-1/2	6-3/8	2-29/32	5-3/8	1-3/16	7/16	1-9/16	9/16	4-1/2	3-7/16	9.4
2-3/16	19331203	3-3/4	7-1/8	3-3/32	6	1-3/16	1/2	1-11/16	9/16	5	3-3/4	12
2-1/4 2-7/16 2-1/2 60mm 65mm	19331204 19331207 19331208 19331060 19331065	4	7-5/8	3-5/16	6-1/2	1-5/16	1/2	1-13/16	5/8	5-1/2	4-1/16	16
2-11/16 2-3/4 2-15/16 3 70mm 75mm	19331211 19331212 19331215 19331300 19331070 19331075	4-1/2	8-3/4	3-29/32	7-1/2	1-1/2	5/8	2	3/4	6-3/8	4-23/32	24
3-3/16 3-1/4 3-7/16 3-1/2 80mm 85mm 90mm	19331303 19331304 19331307 19331308 19331080 19331085 19331090	5	10-1/4	4-3/16	8-5/8	1-1/4	3/4	2-7/16	7/8	7-3/8	5-7/16	44
3-15/16 4 100mm	19331315 19331400 19331100	6-1/4	10-7/8	4-1/2	9-3/8	1-1/2	3/4	2-11/16	15/16	8-1/8	5-15/16	58
4-7/16 4-1/2 110mm 115mm	19331407 19331408 19331110 19331115M	6-3/4	13-1/2	4-5/8	11-3/4	1-1/2	3/4	3-1/32	1	10-1/4	6-13/32	93
4-15/16 5 125mm	19331415 19331500 19331125	7-1/4	14-3/4	5-1/16	12-3/4	1-3/4	7/8	2-31/32	1-1/4	11	7-13/32	122

**Note: Sizes 1-3/4" - 3-1/2" have one drive collar. Sizes 3-15/16" and larger have 2 collars. Also, sizes 4-7/16" and larger units have 6 equally spaced holes. All other units have 4 holes.**

Refer to the Moline List Price Book for pricing.



TYPE E

Shaft Size	Moline Part #	A	B	C	D	E	F	G	H	J	K	L	M	N	T	Wgt. Lbs.
1-3/4 1-7/8 1-15/16 2 45mm 50mm	19351112 19351114 19351115 19351200 19351045 19351050	3-1/2	6-5/16	11/16	3-3/4	3-15/16	1	15/16	3/4	3-5/16	1-15/16	3-7/16	4	4-3/4	2-7/16	12
2-3/16	19351203	3-3/4	7-1/8	13/16	3-3/4	4-5/8	1-1/8	1	1	3-7/8	2-1/4	3-3/4	4-1/2	5-1/4	2-9/16	16
2-1/4 2-7/16 2-1/2 60mm 65mm	19351204 19351207 19351208 19351060 19351065	4	7-13/16	1-1/32	4-1/2	5-1/16	1-1/2	1-1/16	1-1/4	4-1/4	2-1/2	4-1/16	5-1/8	6	2-3/4	21
2-11/16 2-3/4 2-15/16 3 70mm 75mm	19351211 19351212 19351215 19351300 19351070 19351075	4-1/2	9-1/8	1-25/32	4-3/4	5-7/8	1-1/2	1-3/8	1-1/4	4-7/8	2-3/4	4-23/32	5-15/16	6-3/4	3	30

Refer to the Moline List Price Book for pricing.

## APPLICATION GUIDE FOR TYPE E TAPERED ROLLER BEARINGS

### MOUNTING INSTRUCTIONS

It is critical to the performance of the bearing that it be mounted properly. Failure to follow proper mounting practice may result in reduced bearing life.

For best results, clean the shaft and bore of the bearing. The shaft should be straight, free of burrs and nicks, and the correct size.

Lubricate the shaft and bearing bore with grease or oil to facilitate assembly. Slip bearing into position. When light press fit is required, press against the end of the inner ring of bearing. Do not strike or exert pressure on the housings or seals.

Bolt the unit to the support, using shims where necessary to align bearing so the inner ring doesn't rub on the housing bore. Use shims that cover across the entire housing base.

Determine the final shaft position and tighten the set screws securely. Check the rotation. If there is any strain, or vibration, it could be due to incorrect alignment, a bent shaft or bent supports. Installation should be rechecked and corrections made where necessary.

Shaft Diameter	Shaft Tolerances
1-3/16 - 1-1/2	Plus .0000" to minus .0005"
1-5/8 - 4	Plus .0000" to minus .0010"
4-7/16 - 6	Plus .0000" to minus .0015"

## LUBRICATION INSTRUCTIONS

All Moline bearings are factory lubricated with number 2 consistency lithium base grease that is suitable for most applications. Relubricate with lithium base grease or a grease that is compatible with original lubricant and suitable for roller bearing service. It should be noted that when re-lubricating, adding a small amount of grease on a frequent basis is preferable to a large amount of grease infrequently. In unusual cases consult the factory or a reputable grease supplier.

### Storage or Special Shutdown

If exposed to wet or dusty conditions or to corrosive vapors, extra protection is necessary: add grease until it shows at the seals; rotate the bearing to distribute grease; cover the bearing. After storage or idle period, add a little fresh grease before running.

### High Speed Operation

In the higher speed ranges, too much grease will cause overheating. The amount of grease that the bearing will take for a particular high-speed application can only be determined by experience (see "Operating Temperature" below). If excess grease in the bearing causes overheating, it will be necessary to remove grease fitting (also drain plug when furnished) to permit excess grease to escape. The bearing has been greased at the factory and is ready to run. When establishing a re-lubrication schedule, note that a small amount of grease at frequent intervals is preferable to a large amount at infrequent intervals.

### Operation in Presence of Dust, Water, or Corrosive Vapors

Under these conditions the bearing should contain as much grease as speed will permit, since a full bearing with consequent slight leakage is the best protection against entrance of foreign material. In higher speed ranges too much grease will cause overheating (see



TYPE E



“High Speed Operation” above). In lower speed ranges, it is advisable to add extra grease to a new bearing before putting into operation. Bearings should be greased as often as necessary (daily if required) to maintain a slight leakage at the seals.

**Normal Operation**

The bearing has been greased at the factory and is ready to run. The following table is a general guide for re-lubrication. However, certain conditions may require a change of lubricating periods as dictated by experience. See “High Speed Operation” and “Operation in Presence of Dust, Water, or Corrosive Vapors” above.

**Operating Temperature**

Abnormal bearing temperature may indicate faulty lubrication. Normal temperature may range from “cool to warm to the touch” up to a point “too hot to touch for more than a few seconds,” depending on bearing size and speed, and surrounding conditions. Unusually high temperature accompanied by excessive leakage of grease indicates too much grease. High temperature with no grease showing at the seals, particularly if the bearing seems noisy usually indicates too little grease. Normal temperature and a slight showing of grease at the seals indicate proper lubrication.

**Lubrication Guide**

Read preceding paragraphs before establishing lubrication schedule.

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

### **Kind of Grease**

Many ordinary cup greases will disintegrate at speeds far below those at which Moline bearings will operate successfully if proper grease is used. Moline bearings have been lubricated at the factory with No. 2 consistency lithium base grease that is suitable for normal operating conditions. Re-lubricate with lithium base grease or a grease that is compatible with original lubricant and suitable for roller bearing service. In unusual or doubtful cases, the recommendation of a reputable grease manufacturer should be secured.

### **Special Operating Conditions**

Refer acid, chemical, extreme or other special operating conditions to the Moline Bearing Company, St. Charles, Illinois.

### **THRUST LOAD RATINGS**

Moline "Type E" bearings have the capacity to carry heavy radial, thrust, and combined radial/thrust loads. The maximum recommended load which can be applied is limited by various components in the system, such as the bearing, housing, shaft, shaft attachment, speed and life requirements as listed in this catalog.

Select a bearing from the "Type E" selection chart having a radial load rating at the operating speed equal to or greater than the calculated "Equivalent Radial Load" for a desired L10 life. This simple method is all that is required for the majority of applications and provides for occasional average shock loads. (Equivalent Radial Load = P).

L10 Hours of Life is the life that may be expected from at least 90% of a given group of bearings operating under identical conditions.



TYPE E



For L10 Hours of Life other than those listed in the selection chart, multiply the Equivalent radial load by one the following factors. For 50000 L10 Hours of Life use the factor of 1.16; 80,000 - 1.34. Then select a bearing from the bold face (30000) L10 ratings only in the selection chart having a rating equal to or greater than this value.

**Heavy service**

For heavy shock loads, frequent shock loads or severe vibrations, add up to 50% (according to severity of conditions) to the Equivalent Radial Load to obtain a modified radial load.

Thrust load values shown in the table below are recommended as a guide for normal applications that will give adequate L10 life. Where substantial radial load is also present, it is advisable to calculate the L10 life to assure it meets the requirements. The effectiveness of the shaft attachment to carry thrust load depends on proper tightening of the set screws, shaft tolerance, and shaft deflections. Therefore, it is advisable to use auxiliary thrust carrying devices such as shaft shoulder, snap ring, or a thrust collar to locate the bearing under heavier thrust loads or where extreme reliability is desired.

RPM Range	20-200	201-2000	Over 2000
Recommended Thrust Load	C90/4	C90/8	C90/12

The shaft tolerances recommended are adequate under normal radial, thrust, and combination radial / thrust load applications. The radial load is limited by the attachment to the shaft (see Table 1). Since the allowable load, especially at low speed, is very large, the shaft should be checked to assure adequate shaft strength.

The magnitude and direction of both the thrust and radial load must be taken into account when selecting a housing. When pillow blocks are utilized, heavy loads should be directed through the base. Where a load pulls the housing away from the mounting base, both the hold down bolts and housing must be of adequate strength. Auxiliary load carrying devices such as shear bars are advisable for side or end loading of pillow blocks and radial loads for flange units.

To determine the L10 hours of life for loads and RPM's not listed, use the following equation:

$$L_{10} = \left( \frac{C_{90}}{P} \right)^{10/3} \times \frac{1,500,000}{\text{RPM}}$$

Where: L10 = Life, hours  
 C90 = Dynamic Capacity, lbs. (Table 1)  
 P = Equivalent Radial Load, lbs.

When the load on a two row roller bearing is solely a radial load with no thrust (axial) load, the load is shared equally by both rows of rollers and the equivalent load is the same as the actual load. However, when a thrust (axial) load is applied, the loading on the two rows is shared unequally depending on the ratio of thrust to radial load. The use of the X (radial factor) and Y (thrust) factor from Table 1 convert the actual applied thrust and radial loads to equivalent radial load which has the same effect on the life of a bearing as a radial load of this magnitude.

$$P = XF_R + YF_A$$

Where:

P = Equivalent radial load, lbs.	e = Thrust load to radial load factor (Table 1)
FR = Radial load, lbs. - (See Table 1 for allowable slip fit maximum)	X = Radial load factor (Table 1)
FA = Thrust (axial) load, lbs.	Y = Thrust load factor (Table 1)



TYPE E



To find X and Y, first calculate FA/FR and compare to e. Determine X and Y from Table 1. Light Thrust FA/FR less than or equal to e or heavy thrust FA/FR greater than e.

Substitute all known values into the equivalent radial load equation. The equivalent radial load (P) thus determined can be used in the L10 life formula or compared to the allowable equivalent radial load rating desired in the expanded rating table to select a bearing.

If the calculated value of P is less than FR then use  $P = FR$ .

**TABLE 1**

Shaft Size	e	Light Thrust If Fa/FR ≤ e		Heavy Thrust If Fa/FR ≥ e		Dynamic Capacity C90 *		Maximum RPM	Maximum Slip Fit Radial Load FA**
		X	Y	X	Y	Lbs.	Newtons		
		1-3/16 - 1-1/4	.49	.87	1.77	.70	2.14		
1-3/8 - 1-7/16 135mm	.46	.87	1.89	.70	2.28	4760	21180	3820	5000
1-1/2 - 1-11/16 140mm	.44	.87	1.96	.70	2.37	6140	27320	3320	6400
1-3/4 - 2 45mm, 50mm	.33	.87	2.64	.70	3.18	8070	35908	3050	8400
2-3/16	.36	.87	2.38	.70	2.87	8550	38044	2730	8900
2-1/4 - 2-1/2 60mm, 65mm	.40	.87	2.17	.70	2.63	9090	40477	2420	9500
2-11/16 - 3 70mm, 75mm	.46	.87	1.87	.70	2.26	9600	42716	2060	10000
3-3/16 - 3-1/2 80mm, 85mm, 90mm	.50	.87	1.71	.70	2.07	15300	68078	1640	16000
3-15/16 - 4 100mm	.49	.87	1.77	.70	2.14	21000	93440	1530	22000
4-7/16 - 4-1/2 110mm, 115mm	.53	.87	1.63	.70	1.97	25800	114799	1360	27000
4-15/16 - 5 125mm	.47	.87	1.83	.70	2.21	35500	157959	1200	37000
5-7/16 - 6	.54	.87	1.76	.70	2.12	40700	181097	915	42400

\*C90 - Dynamic capacity based on a rated life of 90 million revolutions or 3,000 hours at 500 RPM.

\*\*If load exceeds maximum allowable slip fit radial load, snug to light press fit of shaft is required.



### RADIAL LOAD RATINGS IN POUNDS

Shaft Sizes	Minimum Hours Life*	Radial Load Ratings at Various Revolutions Per Minute														
		10	25	50	100	250	500	750	1000	1250	1500	1750	2000	2500	3000	3500
1-3/16 1-1/4	10000	6716	5100	4143	3366	2556	2007	1838	1686	1578	1493	1427	1371	1281	1213	1159
	30000	4831	3669	2980	2421	1839	1494	1322	1213	1135	1074	1026	986	922	872	834
	40000	4431	3365	2733	2221	1687	1370	1213	1113	1041	985	941	904	804	800	765
	60000	3924	2980	2421	1967	1494	1213	1074	985	922	872	834	801	801	709	677
	100000	3366	2556	2077	1687	1281	1041	921	845	791	748	715	687	687	608	581
1-3/8 1-7/16 35mm	10000	10727	8147	6618	5377	4083	3317	2396	2693	2521	2385	2279	2189	2047	1937	1851
	30000	7716	5860	4760	3868	2937	2386	2112	1937	1813	1716	1639	1575	1472	1393	1321
	40000	7078	5375	4366	3548	2694	2189	1937	1777	1663	1574	1504	1444	1350	1278	1221
	60000	6268	4760	3867	3142	2386	1938	1715	1574	1473	1394	1331	1279	1196	1132	1081
	100000	5377	4083	3317	2695	2047	1663	1471	1350	1264	1195	1142	1097	1026	971	928
1-1/2 1-5/8 1-11/16 40mm	10000	13837	10509	8536	6936	5267	4279	3787	3474	3252	3076	2939	2824	2640	2499	-----
	30000	9953	7559	6140	4989	3789	3078	2724	2499	2339	2213	2114	2031	1899	1797	-----
	40000	9130	6933	5632	4576	3475	2823	2498	2292	2145	2030	1939	1863	1742	1649	-----
	60000	8085	6140	4988	4053	3078	2500	2213	2030	1900	1798	1718	1650	1543	1460	-----
	100000	6936	5267	4278	3476	2640	2145	1898	1741	1630	1542	1473	1415	1323	1252	-----
1-3/4 1-7/8 1-15/16 2 45mm 50mm	10000	18187	13812	11219	9116	6923	5624	4977	4566	4274	4043	3863	3712	3470	3284	-----
	30000	13082	9935	8070	6557	4980	4045	3580	3285	3074	2908	2779	2670	2496	2362	-----
	40000	11999	9113	7402	6014	4567	3710	3284	3013	2820	2668	2549	2449	2289	2167	-----
	60000	10626	8070	6555	5326	4045	3286	2908	2668	2497	2363	2257	2169	2027	1919	-----
	100000	9116	6923	5623	4569	3470	2819	2495	2289	2142	2027	1936	1860	1739	1646	-----
2-3/16	10000	19269	14633	11887	9658	7335	5958	5273	4838	4528	4284	4093	3932	3676	-----	-----
	30000	13860	10526	8550	6947	5276	4286	3973	3480	3257	3081	2944	2829	2644	-----	-----
	40000	12713	9655	7842	6372	4839	3931	3479	3192	2988	2826	2701	2594	2425	-----	-----
	60000	11258	8550	6945	5643	4285	3481	3081	2827	2646	2503	2392	2298	2148	-----	-----
	100000	9658	7335	5958	4841	3676	2986	2643	2425	2270	2147	2052	1971	1843	-----	-----
2-1/4 2-7/16 2-1/2 60mm 65mm	10000	20486	15558	12637	10268	7798	6334	5606	5144	4814	4555	4352	4181	3908	-----	-----
	30000	14735	11190	9090	7386	5609	4556	4032	3700	3463	3276	3130	3007	2811	-----	-----
	40000	13516	10264	8338	6775	5145	4179	3699	3394	3176	3005	2871	2758	2579	-----	-----
	60000	11969	9090	7384	6000	4556	3701	3276	3005	2813	2661	2543	2443	2284	-----	-----
	100000	10268	7798	6334	5147	3908	3175	2810	2578	2413	2283	2181	2095	1959	-----	-----
2-11/16 2-3/4 2-15/16 3 70mm 75mm	10000	21635	16430	13346	10844	8235	6690	5921	5432	5084	4810	4596	4415	-----	-----	-----
	30000	15562	11818	9600	7800	5924	4812	4259	3907	3657	3460	3306	3176	-----	-----	-----
	40000	14274	10840	8806	7155	5433	4414	3906	3584	3354	3174	3032	2913	-----	-----	-----
	60000	12641	9600	7798	6336	4812	3309	3459	3174	2971	2810	2685	2580	-----	-----	-----
	100000	10844	8235	6689	5435	4128	3353	2968	2723	2548	2411	2304	2213	-----	-----	-----
3-3/16 3-1/4 3-7/16 3-1/2 80mm 85mm 90mm	10000	34481	26186	21271	17283	13125	10662	9436	8658	8103	7666	7325	-----	-----	-----	-----
	30000	24802	18335	15300	12432	9441	7669	6787	6227	5829	5514	5269	-----	-----	-----	-----
	40000	22750	17277	14034	11403	8659	7034	6226	5712	5346	5058	4833	-----	-----	-----	-----
	60000	20147	15300	12428	10098	7669	6230	5513	5058	4735	4479	4280	-----	-----	-----	-----
	100000	17283	13125	10661	8663	6579	5344	4729	4339	4061	3842	3671	-----	-----	-----	-----
3-15/16 4 100mm	10000	47327	35941	29195	23722	18015	14634	12951	11883	11122	10522	-----	-----	-----	-----	-----
	30000	34042	25853	21000	17063	12958	10525	9316	8547	8000	7568	-----	-----	-----	-----	-----
	40000	31225	23713	19262	15651	11886	9655	8545	7840	7338	6942	-----	-----	-----	-----	-----
	60000	27652	21000	17058	13860	10526	8550	7567	6943	6498	6148	-----	-----	-----	-----	-----
	100000	23721	18015	14633	11890	9029	7335	6491	5956	5575	5274	-----	-----	-----	-----	-----
4-7/16 4-1/2 110mm 115mm	10000	58144	44157	35868	29144	22132	17979	15911	14599	13664	-----	-----	-----	-----	-----	-----
	30000	41823	31762	25800	20963	15920	12932	11445	10501	9829	-----	-----	-----	-----	-----	-----
	40000	38362	29133	23665	19228	14602	11862	10498	9632	9015	-----	-----	-----	-----	-----	-----
	60000	33973	25800	20957	17028	12932	10505	9297	8530	7984	-----	-----	-----	-----	-----	-----
	100000	29143	22132	17978	14608	11093	9012	7975	7317	6849	-----	-----	-----	-----	-----	-----
4-15/16 5 125mm	10000	80005	60758	49354	40101	30453	24739	21894	20088	18801	-----	-----	-----	-----	-----	-----
	30000	57547	43703	35500	28845	21905	17794	15748	14449	13524	-----	-----	-----	-----	-----	-----
	40000	52785	40086	32562	26458	20092	16322	14445	13253	12405	-----	-----	-----	-----	-----	-----
	60000	46746	35500	28837	23341	17793	14454	12792	11737	10985	-----	-----	-----	-----	-----	-----
	100000	40100	30453	24737	20100	15264	12400	10974	10068	9424	-----	-----	-----	-----	-----	-----
5-7/16 5-15/16 6	10000	91711	69669	56590	45965	34915	28360	25115	23035	-----	-----	-----	-----	-----	-----	-----
	30000	65961	50108	40700	33060	25115	20400	18060	16570	-----	-----	-----	-----	-----	-----	-----
	40000	60507	45964	37335	30325	23035	18710	16570	15200	-----	-----	-----	-----	-----	-----	-----
	60000	53577	40700	33060	26850	20400	16570	14670	13455	-----	-----	-----	-----	-----	-----	-----
	100000	45964	34917	28360	23035	17500	14215	12585	11545	-----	-----	-----	-----	-----	-----	-----

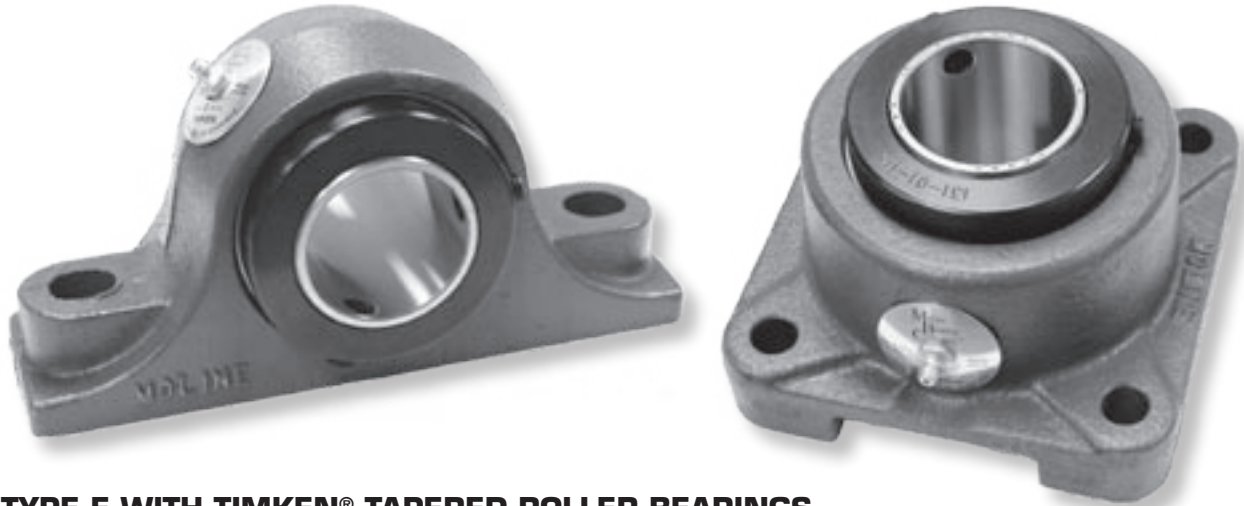


TYPE E

**Note:** Because the allowable loads, especially at low speeds, are extremely high, be sure the shaft strength is adequate and pillow blocks are base loaded. When imposed load is horizontal, be sure hold-down bolts are adequate. If bearings are cap loaded, full details on load, speed and shaft size should be referred to Moline Bearing Company. Consult Moline for speeds and loads greater than listed.

\*"Minimum Hours Life" is the life expected from at least 90% of a given group of bearings operating under identical conditions. Average life will be approximately five times the minimum life.

**TYPE E**



**TYPE E WITH TIMKEN® TAPERED ROLLER BEARINGS**

<b>MOLINE</b>	<b>BROWNING</b>	<b>DODGE</b>	<b>REX*</b>	<b>ROYERSFORD</b>	<b>HUB CITY</b>	<b>SEALMASTER</b>	<b>SKF*</b>
2-Bolt Pillow Block	PBE920	P2BE	ZEP2000	20-02-0103	EPB2	EPB-2	SYE
4-Bolt Pillow Block	PBE920F	P4BE	ZEP2000-F	20-04-0204	EPB4	EPB-4	FSYE
4-Bolt Square Flange	FBE920	F4BE	ZEF2000-F	20-05-0103	EFB4	EFB	-----
Piloted Flange	-----	FCE	-----	20-06-0103	EFC4	-----	-----
Wide Slot Take-Up	TUE920	WSTUE	-----	20-07-0106	ETUWS	ETU	-----

\*Rex and SKF units feature spherical single collar inserts.

**Note:** This is a general dimensional interchange. For exact dimensions and comparison information on inserts and seals, please contact the factory.



TYPE E

