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## FEATURES/BENEFITS

### Type E-Xtra/DOUBLE-INTERLOCK/Type K/TAF/EXL

These five product lines have many common features and benefits that are shown on this page. Unique features for each product are shown on the following pages.

The common components used by all four lines include:

- Bearings
- Seals
- Locking collars
- Bore range

### E-Xtra Tough Sealing

#### Importance of Sealing:

- 40% of mounted bearing failures in the industry involve liquid or solid contamination or lack of adequate lubrication
- Obstructs contaminant entry
- Retains essential lubrication
- Increased life equals decreased downtime

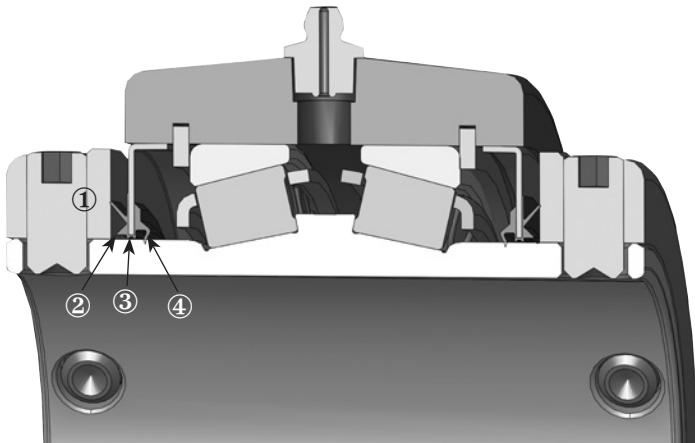
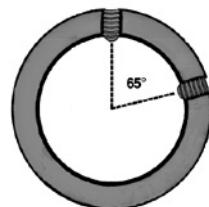
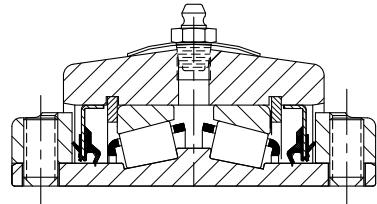
### XTS Sealing System

Standard on all Baldor Dodge Type E-Xtra, EXL, TAF, Double Interlock and Type K Bearings

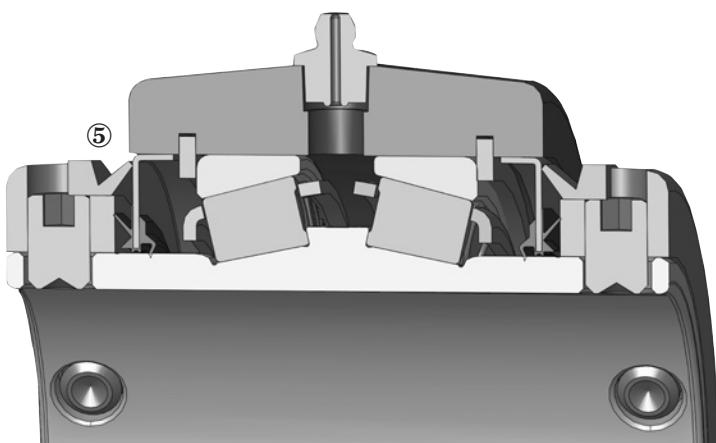
1. Collar-riding seal lip provides the first level of defense against contaminants
2. Trash guard protects inner seals
3. Primary contact seal protects internal components and helps retain grease
4. Contact seal for grease retention and secondary trash guard for increased protection
5. Optional E-Tect seal kit for harsh-duty environments

#### General Features:

- Factory assembled, adjusted and prelubricated
- Case hardened rollers and races
- Easy installation and maintenance
- 65 degree set screw angle Springlok collar/ flingers - more holding power than 90 to 120 degree
- Triple rubber lip contacting seals



**XTS Sealing**



**XTS Sealing with E-Tect Option**

**NOTE:** Instruction manuals for Dodge bearings are available on [www.dodge-pt.com](http://www.dodge-pt.com)



## FEATURES/BENEFITS

### Type E-Xtra

#### DODGE Type E One Bearing, One Seal For Dusty or Damp Environments



- “E” stands for economy
- Type E allows easy upgrade from ball bearings
- Comparable mounting dimensions with ball bearings
- Moderate price premium vs. ball bearings
- Steel housed pillow blocks available in selected sizes

### The Original DODGE Type E Bearing, Only Better

- New Dodge manufactured bearings increase load ratings 13-14% depending on size
- New “XTS” seal provides added protection against contamination
- Completely assembled, factory adjusted and properly lubricated - shaft ready
- Stocked in all configurations
- Extra protection - E-TECT seal option
- Steel end covers available up to 3”, 75mm



Top Angle Take-Ups  
1-3/4 to 4"  
45 - 100mm



Center Pull Frame With  
Wide Slot Take-UP  
1-3/8 to 3"  
35 - 75mm



Pillow Block  
1-3/16 to 7"  
35 - 180mm



Piloted Flange  
1-3/16 to 5"  
35 - 125mm



Flange  
1-3/16 to 4-1/2"  
35 - 115mm



## FEATURES/BENEFITS

### Type EXL for Extended Life

The Dodge Type EXL offers misalignment and expansion capability by incorporating a totally sealed inner unit into a split housing design with standard Type E mounting dimensions.

#### Standard Features

- XTS Triple-Lip Seal
- Up to  $\pm 4^\circ$  of misalignment capability
- Totally Sealed Inner Unit
- High Strength Ductile Iron Housings
- Available in Expansion and Non-Expansion Housings

#### Product Offering

- 2-Bolt Pillow Blocks: 1-3/16" - 3-1/2"  
4-Bolt Pillow Blocks: 2-1/4" - 5"





## FEATURES/BENEFITS

### Type K and DOUBLE-INTERLOCK

#### DODGE DOUBLE-INTERLOCK COMBINES DURABILITY WITH MOUNTING FLEXIBILITY

##### Heavy Duty Housing Construction Has Proven Performance

- Offers tapered roller bearing durability in a variety of mounting styles
- “XTS” triple lip seal standard
- Extra protection E-TECT Seal Option
- Special clearances and greases available
- Self aligning
- Factory assembled, adjusted and lubricated - **shaft ready**
- End covers available up to 5"



Pillow Block  
1-3/16 to 7"



Flanges  
1-3/16 to 5"



S-1 Unit



B-1 Unit  
1-3/16 up to 5"

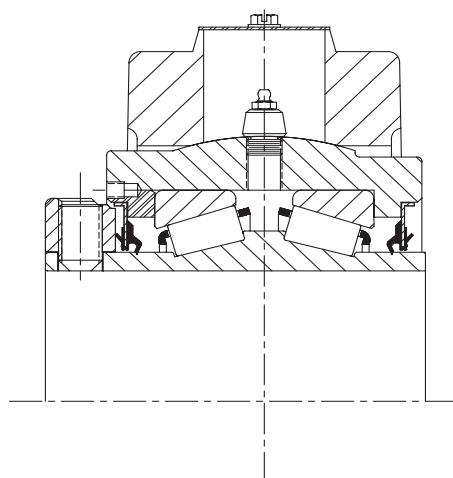


D Unit  
1-3/16 up to 5"

#### DODGE TYPE K FITS WHERE COMPETITORS WON'T

##### Tapered Roller Bearings With Reduced Length Thru Bore

- Reduces length thru bore design in a variety of mounting styles
- Single collar design saves space and installation time
- Allows bearing to be closer to the load for reduced shaft design
- Self-aligning
- Factory assembled, adjusted and lubricated - shaft ready
- Same housing as DOUBLE-INTERLOCK
- End covers available up to 5"



S-1 & B-1 Units  
1-3/16 - 3-15/16"



Pillow Block  
Expansion & Non-Expansion  
1-3/16 - 3-15/16"



Wide Slot Take-Up  
Frame  
1-3/8 - 3"



Top Angle Take-Ups  
1-3/4 - 3-15/16"



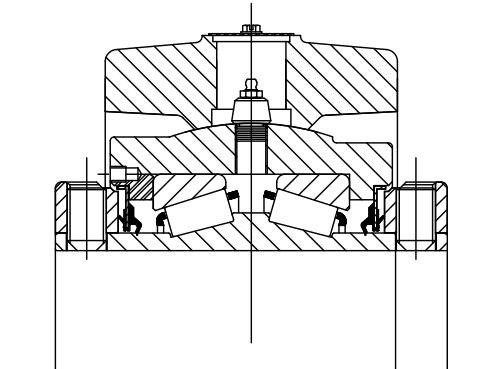
## FEATURES/BENEFITS

### TAF

#### TAF IS A COST SAVING ALTERNATIVE TO SAF SPHERICAL BEARINGS

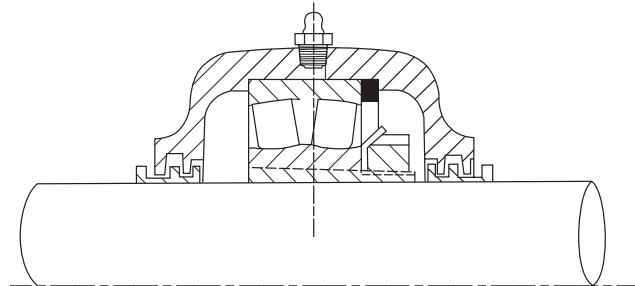
##### Mounts Fast, Stays Cleaner And Extends Service Life

- Shaft ready - mounts six times faster than SAF
- Interchangeable with SAF style pillow blocks
- Self-aligning, factory assembled, adjusted and lubricated
- Available in 1-7/16" up to 7" shaft diameters
- Equipped with expansion or non-expansion housing
- "XTS" seal standard
- E-TECT seal option available up to 7"
- Optional Smart Housings accommodate speed, vibration and temperature sensor kits



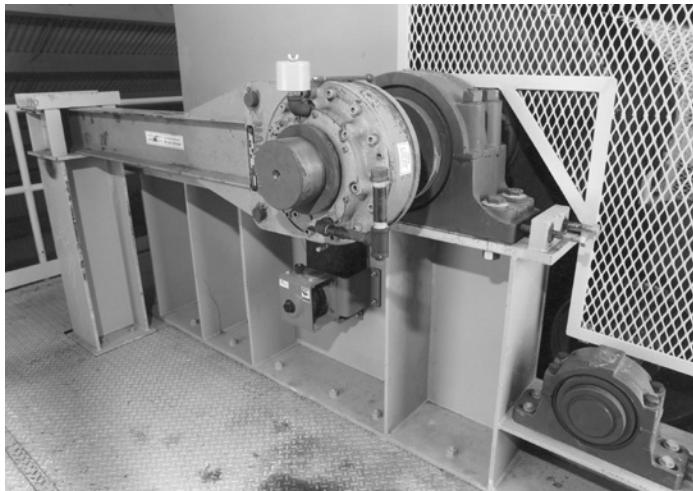
**TAF**

Self-aligning provided by spherically-machined housing

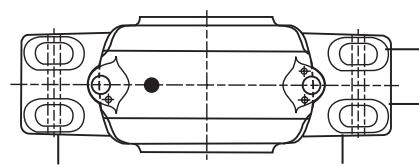


**SAF**

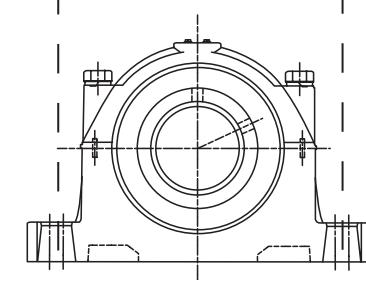
Self-aligning provided by insert, limited by seal interference



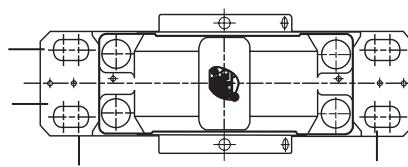
**TAF Is Interchangeable With  
SAF Mounting Dimensions**



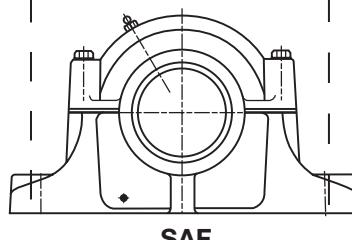
**SAF**



**TAF**



**TAF**



**SAF**



## FEATURES/BENEFITS

### Type K/DOUBLE-INTERLOCK/TAF

#### DODGE BEARINGS SAVE YOU TIME AND MONEY

Compare These DODGE TAF, Type K & DOUBLE-INTERLOCK Bearing Advantages Against Standard SAF Pillow Blocks

##### Standard SAF

- Four pieces
- Up to six packages
- Open bearing
- Feeler gauge required
- Grease required

##### DODGE TAF, Type K and DOUBLE-INTERLOCK

- One piece
- Sealed bearing
- Factory adjusted
- Factory lubricated
- Shaft ready



#### Compare Standard SAF and DODGE Sealing Designs

##### Standard SAF

- Seals ride independently of bearing
- Less than 1° static misalignment
- Sealing effectiveness decreases as misalignment increases
- Seals distort when misalignment occurs



##### DODGE TAF, Type K and DOUBLE-INTERLOCK

- Inner unit carries seal
- Up to 5° static misalignment
- Seal and bearing ride together in inner unit
- Seals maintain contact on cones even with misalignment



**NOTE:** Instruction manuals for Dodge bearings are available on [www.dodge-pt.com](http://www.dodge-pt.com)



# SPECIFICATION

## Type E-Xtra, Type K, DOUBLE-INTERLOCK/TAF and EXL

Type E-Xtra, Type K, DOUBLE-INTERLOCK, TAF and EXL mounted bearings are all general purpose high capacity tapered roller bearings capable of handling any combination of radial and thrust load within the capacity of the bearing.

All of these bearings are mounted to the shaft by means of set screw collars having 65 degree set screw spacing for optimum clamping force. The Type E-Xtra, DOUBLE-INTERLOCK, TAF and EXL mounted bearings have locking collars at each end of their extended inner races. Type K has a single locking collar. The tapered roller bearings for these mounted bearings all have case carburized inner races (cones), outer races (cups), and rollers.

Bearings are preassembled, prelubricated and factory adjusted. They are normally equipped with land riding contact type seals with a metal deflector guard.

The standard housing material for most of these mounted bearings is ASTM A48 Class 30 Iron having a minimum tensile strength of 30,000 psi. The outer housing for the Type K and DOUBLE-INTERLOCK flange bearings thru 4" bore size and all Type EXL housings utilize housings made of ductile iron (ASTM A536 Grade 65-45-12) with 65,000 psi tensile strength. Type E pillow blocks are also available with cast steel housing having a tensile strength of 70,000 psi for 2-bolt base thru 3-1/2" bore size and 4-bolt base from 3-15/16" thru 5" bore size on an assembled or order basis.

The Type K, DOUBLE-INTERLOCK pillow blocks and flange bearings plus the TAF pillow blocks all have split outer housings used with completely assembled, lubricated and adjusted inner units simplifying replacement of the bearing in the pillow block or flange bearing. All Type E mounted bearings, Type K take up units and all D units, S-1 units, and B-1 units have solid one piece housings.



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## HOW TO ORDER

### Type E-Xtra, Type K, DOUBLE-INTERLOCK/TAF and EXL

There are two ways to specify DODGE Bearings. Most of the product offering have part numbers with listings shown throughout this catalog. Use of part numbers ensures accurate order processing.

When part numbers are not shown, the product may be specified by description or part name. This method is used when ordering units that include modifications or options. To order by description, use the nomenclature key shown on page and add any special instructions to the end of the description for options not covered by the nomenclature.

### SPECIAL BEARING REQUIREMENTS AND SPECIAL LUBRICANTS

DODGE Bearings are factory adjusted and pre-lubricated. For applications where extreme ambient temperatures, high speeds or high loads are expected, a variety of specialty lubricants and adjustments are available. Standard grease provided is Mobilgrease XHP222, a lithium complex based grease. High

temperature greases available upon request. Special lubricant options usually involve set-up charges and premiums. To order, specify type of lubricant required at the end of the product name or after the standard part number.

Example:

F4B-E-207 except with Mobil Grease HTS #2 grease and .012 to .015 lateral end play

or

023106 except with Mobil Grease HTS #2 grease and .012 to .015 lateral end play

### OTHER SPECIAL REQUIREMENTS NOT LISTED

For applications requiring modifications not listed, we encourage you to contact our Application Engineering Department for Bearings at 864-284-5700.

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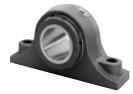
# NOMENCLATURE



## Type E-Xtra, Type K, DOUBLE-INTERLOCK, TAF and EXL

P2B - 515-TAF - 207 - RE

HOUSING STYLE OPTION	BEARING TYPE OPTIONS	Size	OTHER OPTIONS
P2B = Pillow Block 2-Bolt, Cast Iron	E = Type E  EXL = Type EXL  K = Type K	Inches & 16TH 2 = 2 Inches 07 = 7/16 Inches Or 207 = 2-7/16"	R = "XTS" Triple Lip Seal E = Expansion Type Bearing.
P4B = Pillow Block 4-Bolt, Cast Iron			<b>Note:</b> If E Does Not Appear After Seal Type, Then Bearing Is Non-Expansion Type
SP2B = Pillow Block 2-Bolt, Cast Steel	DI = DOUBLE-INTERLOCK	METRIC	
SP4B = Pillow Block 4-Bolt, Cast Steel	TAF = TAF  5XX = Housing Series (TAF Only)	060M = 60 Millimeters	
F4B = Flange Bearing 4-Bolt, Cast Iron			
FC = Piloted Flange Bearing (Flanged Cartridge)			
B1U = B1 Unit Cast Iron			
DU = D Unit Cast Iron			
S1U = S-1, Unit Cast Iron			
WSTU = Wide Slot Take-Up Bearing Cast Iron			
TP = Top Angle Take-Up Bearing Cast Iron			
H2S = Pillow Block Housing Only 2-Bolt, Cast Iron			
H4S = Pillow Block Housing 4-Bolt, Cast Iron			



## SELECTION

### Type E-Xtra, Type K, DOUBLE-INTERLOCK, TAF and EXL Tapered Roller Bearings

DODGE Type E-Xtra, K, DI, TAF and EXL Double Row Tapered Roller Bearings have the capacity to carry heavy radial loads and combined radial and thrust loads. The maximum recommended load which can be applied is limited by various components in the system such as bearing, housing, shaft, shaft attachment, speed and life requirements as listed in this catalog. DODGE tapered roller bearings have been applied successfully even when these limits have been exceeded under controlled operating conditions. Contact DODGE Application Engineering (864) 284-5700 for applications which exceed the recommendations of this catalog.

**L<sub>10</sub> Hours Life** --- The life which may be expected from at least 90% of a given group of bearings operating under identical conditions.

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

Where: C<sub>90</sub> = Dynamic Capacity (Table 1, pg. B10-13), lbs.  
P = Equivalent Radial Load, lbs.

#### GENERAL

**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. Consult DODGE Application Engineering for additional selection assistance.

Thrust load values shown in the table below are recommended as a guide for general applications that will give adequate L<sub>10</sub> life for pillow blocks. The maximum thrust load should not exceed values shown on Table 3. Where substantial radial load is also present, it is advisable to calculate actual L<sub>10</sub> life to assure that it meets the requirements. The effectiveness of the shaft attachment to carry thrust load depends on proper tightening of the setscrews, 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 thrust loads heavier than shown below, or where extreme reliability is desired.

RPM Range	20-200	201 - 2000	Over 2000
Recommended	E, DI, TAF	C <sub>90</sub> /4	C <sub>90</sub> /8
Thrust Load	K	C <sub>90</sub> /5	C <sub>90</sub> /12

The shaft tolerances recommended below are adequate for normal radial and radial/thrust load applications. The radial load is limited by the attachment to the shaft (see Table 1). Where the applied radial load (F<sub>R</sub>) exceeds this limit (maximum allowable slip fit radial load), a snug-to-light press fit of the shaft is required. Since the allowable load, especially at a 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 uplift loads are involved, see Tables 6, 7, and, pg. B10-19 for maximum values.** 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 load for flange units.

Shaft Size	Tolerance, Inches
UP TO 1-1/2"	+.0000 -.0005"
1-5/8 TO 4"	+.000 -.001"
4-7/16 TO 6"	+.000 -.0015"
6-7/16 - 8"	+.000 -.002"

**NOTE:** The L<sub>10</sub> life calculated using the above formula is subject to life adjustment factors in accordance with ABMA standards described on page B16-9.

**NOTE:** Instruction manuals for Dodge bearings are available on [www.dodge-pt.com](http://www.dodge-pt.com)

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# SELECTION



## Type E-Xtra, Type K, DOUBLE-INTERLOCK, TAF and EXL Tapered Roller Bearings

### SELECTING BEARINGS SUPPORTING RADIAL LOADS ONLY

1. Define L<sub>10</sub> Life Hours desired.
2. Establish bearing radial load, F<sub>R</sub> (F<sub>R</sub> = P for Pure Radial Load Conditions). The DODGE program BEST™\* can be used to find application loads.
3. Establish RPM.

Using the easy selection Table 3, pg B10-15 find, under the RPM column, the equivalent radial load that equals or is higher than the application radial load for the desired life. The shaft size on the far left will be the minimum shaft size that you can use for your application. If the desired life is different than the values shown on the chart, use alternate Method A shown below.

Example: 1. L<sub>10</sub> Life = 30,000 Hours  
 2. Radial load = 4200 lbs.  
 3. RPM = 1,200

At the intersection of the 1,200 RPM column and the 30,000 hours L<sub>10</sub> life row, the equivalent radial load of 4286 lbs. exceeds the 4200 lbs. radial load for shaft sizes 2-11/16 - 3". A bearing with bore ranging from 2-11/16" to 3" may be used for this application.

### ALTERNATE METHOD A ---

#### SELECTING A BEARING FOR AN L<sub>10</sub> LIFE VALUE NOT SHOWN IN THE EASY SELECTION CHART.

The L<sub>10</sub> life equation can be rearranged so that the bearing dynamic capacity C<sub>90</sub> is identified in terms of L<sub>10</sub>, RPM and P.

$$C_{90} = \left( \frac{L_{10} \times RPM}{1,500,000} \right)^{0.3} \times P$$

(P = F<sub>R</sub> for Pure Radial Load Conditions)

Since the L<sub>10</sub>, RPM, and P are known, solve for C<sub>90</sub>. Select from the dynamic capacity column on Table 2, pg B10-14. The C<sub>90</sub> value equal to or greater than the C<sub>90</sub> value just calculated.

The bore size on the far left represents the bore size selection. Check that the application RPM does not exceed the MAX. RPM on Table 2. Also check that the radial load does not exceed the Maximum Allowable Slip Fit Radial Load shown on Table 2. If it does, a line to line to light press fit of shaft is required. When selecting an L<sub>10</sub> life of less than 30,000 hours, particular attention must be paid to shaft deflection and proper lubricant selection.

### SELECTING BEARINGS SUPPORTING COMBINATION RADIAL AND THRUST LOADS

When a bearing supports both a radial load and a thrust load, 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 2 converts the applied thrust load and radial loads to an equivalent radial load having the same effect on the life of the bearing as a radial load of this magnitude.

The equivalent radial load P = X F<sub>R</sub> + Y F<sub>A</sub>

Where: P= Equivalent radial load, lbs.

F<sub>R</sub>= Radial load, lbs. (see Table 2 for allowable slip fit maximum)

F<sub>A</sub>= Thrust (axial) load, lbs.

e = Thrust load to radial load factor (Table 2)

X = Radial load factor (Table 2)

Y= Thrust load factor (Table 2)

To find X and Y, calculate F<sub>A</sub>/F<sub>R</sub> and compare to e for the selected bore size. Determine X and Y from Table 2, pg. B10-14 depending on whether F<sub>A</sub>/F<sub>R</sub> is equal to or less than e, or F<sub>A</sub>/F<sub>R</sub> is greater than e. Substitute all known values into the equivalent radial load equation. P (equivalent radial load) can be used in the life formula to determine L<sub>10</sub>, or it can be compared to the allowable equivalent radial load ratings for the speed and hours life desired in the easy selection Table 3, pg B10-15.

\*The DODGE Bearing Evaluation and Selection Technique (BEST) is a menu driven computer program that calculates bearing loads, fatigue life and operating temperature for a two bearing shaft system based on user supplied input parameters. This interactive program is available at [www.ptwizard.com](http://www.ptwizard.com) under the Product Selection area.



# SELECTION

## Type E-Xtra, Type K, DOUBLE-INTERLOCK, TAF and EXL Tapered Roller Bearings

### SELECTING BEARINGS SUPPORTING ONLY THRUST LOADS

Tapered Roller Bearings perform extremely well under pure thrust load applications. Use  $P = YF_A$  for the equivalent radial load. The value of  $Y$  is obtained from Table 2, pg. B10-14 for  $F_A/F_R > e$ . Substitute  $Y$  and  $F_A$  into the equivalent load equation.  $P$  (equivalent radial load) can be used in the life formula to determine  $L_{10}$  or it can be compared to the allowable equivalent radial load ratings for the speed and hours life desired in the easy selection Table 3, pg. B10-15.

### LUBRICATION

DODGE E, K, DI, EXL, and TAF tapered roller bearings up to 5" bore are lubricated at the factory with Mobilgrease XHP222 grease. This grease will adequately handle low and medium speeds with low and medium loads at normal temperatures as defined on Table 6, pg. B10-18. For very low and high speeds, for heavy loads and for low and high temperatures, special greases must be used. Contact DODGE Application Engineering (864) 284-5700. DODGE engineers will recommend bearings and lubricants for the above unusual conditions. DODGE also has the expertise to custom design and build special bearings for your needs. The only maintenance requirement for DODGE Tapered Roller Bearings is periodic relubrication at regular intervals as outlined in the appropriate instruction manuals.

### Relubrication Schedule

Hours Run per Day	Suggested Lubrication Period In Weeks							
	1 to 250	251 to	501 to	751 to	1001 to	1501 to	2001 to	2501 to
	RPM	500 RPM	750 RPM	1000 RPM	1500 RPM	2000 RPM	2500 RPM	3000 RPM
8	12	12	10	7	5	4	3	2
16	12	7	5	4	2	2	2	1
24	10	5	3	2	1	1	1	1

**High Speed Operation** --- In the higher speed ranges too much grease will cause overheating. The amount of grease that the bearing will take for particular high speed application can only be determined by experience --- see "Operating Temperature" below. If excess grease in the bearing caused overheating, it will be necessary to remove grease fitting (also drain plug when furnished) to permit excess grease to escape. When establishing a relubrication 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 the higher speed ranges too much grease will cause overheating --- see "High Speed Operation". In the 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.

### INSTALLATION AND MAINTENANCE

In nearly all applications good design practice requires two bearings supporting the shaft. In cases where three or more bearings are installed, unless precautions are taken to line the bearings up, both vertically and horizontally, it is possible to induce heavy loads. In the case of two bearings, alignment is not as critical, especially with DODGE K, DI, TAF and EXL Tapered Roller Bearings. K, DI, and TAF bearings are designed to allow as much as 2° to 7° of static misalignment depending on bore size. To ensure good alignment, mounting surfaces must be checked for flatness and must lie in the same plane. When tightening base bolts and cap bolts, each bolt should be alternately tightened in incremental torque values until full torque is achieved to prevent the angular shifting of the pillow block that occurs when one bolt is tightened to its full torque. Shimming may be required to minimize misalignment..

**Table 1 - Set Screw Torque Table**

Shaft Size (Inches)	Set Screws Size	Tightening Torque
1-3/16 - 1-11/16	5/16 - 18	165 in-lbs
1-3/4 - 2-1/2	3/8 - 16	290 in-lbs
2-11/16 - 3-1/2	1/2 - 13	620 in-lbs
3-15/16 - 5	5/8 - 11	1325 in-lbs
5-7/16 - 6	3/4 - 10	2150 in-lbs
6-7/16 - 7	7/8 - 9	5130 in-lbs

Shaft Size (mm)	Set Screws Size	Tightening Torque
35 - 40mm	M8	17.8 NM
45 - 65mm	M10	35 NM
70 - 75mm	M12	57 NM
80 - 90mm	M12	57 NM
100 - 125mm	M16	126 NM

# SELECTION



## Type E-Xtra, Type K, DOUBLE-INTERLOCK, TAF and EXL

**Table 2 - E, K, DI, TAF and EXL Tapered Roller Bearing Radial And Thrust Factors**

Shaft Size	e	F <sub>A</sub> /F <sub>R</sub> <e		F <sub>A</sub> /F <sub>R</sub> >e		Dynamic Capacity C <sub>90</sub>	Static Capacity C <sub>0</sub>	Maximum RPM	Maximum RPM	Maximum Allowable Slip Fit Radial Load, F <sub>R</sub> **, Lbs	
		X	Y	X	Y					E, DI, EXL & TAF	K
1-3/16 1-1/4	0.49	0.87	1.77	0.70	2.14	3,450	15,760	4,490	3,100	3,100	2,100
1-3/8 1-7/16	0.46	0.87	1.89	0.70	2.28	5,500	26,000	3,820	2,675	5,000	3,300
1-1/2 1-5/8 1-11/16	0.44	0.87	1.96	0.70	2.37	7,070	33,000	3,320	2,325	6,400	4,300
1-3/4 1-7/8 1-15/16 2	0.33	0.87	2.64	0.70	3.18	9,300	43,000	3,050	2,135	8,400	5,600
2-3/16	0.36	0.87	2.38	0.70	2.87	9,850	48,200	2,730	1,900	8,900	5,900
2-1/4 2-7/16 2-1/2	0.40	0.87	2.17	0.70	2.63	10,600	54,000	2,420	1,700	9,500	6,300
2-11/16 2-3/4 2-15/16 3	0.46	0.87	1.87	0.70	2.26	11,120	61,200	2,060	1,440	10,000	6,700
3-3/16 3-1/4 3-7/16 3-1/2	0.50	0.87	1.71	0.70	2.07	17,750	108,600	1,640	1,145	16,000	10,500
3-15/16 4	0.49	0.87	1.77	0.70	2.14	24,400	154,000	1,530	1,070	22,000	14,600
4-7/16 4-1/2	0.53	0.87	1.63	0.70	1.97	30,000	188,400	1,360	950	27,000	----
4-15/16 5	0.47	0.87	1.83	0.70	2.21	41,310	266,000	1,200	840	35,000	----
5-7/16 5-15/16 6	0.49	0.87	1.76	0.70	2.12	40,700	354,000	915	640	42,400	----
6-7/16 6-1/2 6-15/16 7	0.54	0.87	1.61	0.70	1.95	69,200	574,000	790	550	72,000	----

**Comparing Spherical To Taper Roller Bearings:** The dynamic capacity C (spherical) and C<sub>90</sub> (taper) are not to the same base. To compare basic dynamic capacities, multiply C x .259 and compare to C<sub>90</sub>.

\*C<sub>90</sub> - Dynamic capacity based on a rated life of 90 million revolutions or 3000 hours at 500 RPM.

\*\* If load exceeds maximum allowable slip fit radial load, (F<sub>R</sub>), line-to-line, to light press fit of shaft required. Application up to maximum slip fit radial load may be applied if recommended shaft tolerances are used.

# SELECTION



## Type E-Xtra, Type K, DOUBLE-INTERLOCK, TAF and EXL

**Table 3 - Easy Selection for Type E-Xtra, Type K, TAF and EXL**

Shaft Size	L10 hours	Allowable Equivalent Radial Load (lbs.) at various Revolutions Per Minute																			
		50	100	150	250	500	790	915	1200	1360	1530	1640	1750	2060	2420	2730	3050	3320	3600	3820	4490
1-3/8" 1-1/4"	10000	4797	3896	3450	2960	2404	2096	2005	1849	1781	1719	1683	1651	1572	1498	1445	1398	1362	1330	1306	1244
	30000	3450	2802	2481	2129	1729	1507	1442	1330	1281	1236	1211	1187	1131	1077	1039	1005	980	956	939	895
	40000	3165	2571	2276	1953	1586	1383	1323	1220	1175	1134	1111	1089	1037	988	953	922	899	877	862	821
	60000	2802	2276	2015	1729	1404	1224	1172	1080	1040	1004	983	964	918	875	844	816	796	777	763	727
	100000	2404	1953	1729	1483	1205	1050	1005	927	892	861	844	827	788	751	724	700	683	666	655	624
1-3/8" 1-7/16"	10000	7647	6211	5500	4719	3833	3341	3197	2947	2839	2740	2684	2632	2506	2388	2303	2228	2172	2120	2082	
	30000	5500	4467	3956	3394	2757	2403	2299	2120	2042	1971	1930	1893	1803	1718	1657	1602	1562	1525	1498	
	40000	5045	4098	3629	3113	2529	2204	2109	1945	1873	1808	1771	1736	1654	1576	1520	1470	1433	1399	1374	
	60000	4467	3629	3213	2757	2239	1952	1868	1722	1658	1601	1568	1538	1464	1395	1346	1302	1269	1238	1217	
	100000	3833	3113	2757	2365	1921	1675	1602	1477	1423	1373	1345	1319	1256	1197	1154	1117	1089	1062	1044	
1-1/2" 1-5/8" 1-11/16"	10000	9830	7984	7070	6065	4927	4295	4110	3789	3649	3522	3450	3383	3222	3070	2961	2864	2792			
	30000	7070	5743	5085	4362	3543	3089	2956	2725	2625	2533	2481	2433	2317	2208	2129	2060	2008			
	40000	6485	5268	4664	4002	3250	2834	2711	2500	2408	2324	2276	2232	2126	2025	1953	1889	1842			
	60000	5743	4664	4130	3543	2878	2509	2401	2213	2132	2058	2015	1976	1882	1793	1730	1673	1631			
	100000	4927	4002	3543	3040	2469	2153	2060	1899	1829	1765	1729	1696	1615	1539	1484	1435	1399			
1-3/4" 1-7/8" 1-15/16" 2"	10000	12931	10503	9300	7979	6481	5650	5406	4984	4800	4633	4538	4450	4238	4038	3895	3767				
	30000	9300	7554	6689	5738	4661	4063	3888	3584	3452	3332	3264	3201	3048	2904	2801	2709				
	40000	8531	6929	6136	5264	4276	3727	3567	3288	3167	3057	2994	2936	2796	2664	2569	2485				
	60000	7554	6136	5433	4661	3786	3300	3158	2911	2804	2707	2651	2600	2476	2359	2275	2201				
	100000	6481	5264	4661	3999	3248	2832	2709	2498	2406	2322	2274	2230	2124	2024	1952	1888				
2-3/16"	10000	13695	11124	9850	8450	6864	5984	5726	5278	5084	4907	4806	4714	4489	4277	4125					
	30000	9850	8001	7084	6078	4937	4304	4118	3796	3656	3530	3457	3390	3228	3076	2967					
	40000	9036	7339	6499	5575	4529	3948	3778	3483	3354	3238	3171	3110	2961	2822	2721					
	60000	8001	6499	5754	4937	4010	3496	3345	3084	2970	2867	2808	2754	2622	2498	2410					
	100000	6864	5575	4937	4235	3440	2999	2870	2646	2548	2460	2409	2362	2250	2143	2067					
2-1/4" 2-7/16" 2-1/2"	10000	14738	11971	10600	9094	7387	6439	6162	5680	5471	5281	5172	5072	4830	4602						
	30000	10600	8610	7624	6541	5313	4631	4432	4085	3935	3798	3720	3648	3474	3310						
	40000	9724	7898	6993	6000	4873	4248	4065	3748	3610	3484	3412	3347	3187	3036						
	60000	8610	6993	6192	5313	4315	3762	3600	3318	3196	3085	3022	2963	2822	2689						
	100000	7387	6000	5313	4558	3702	3227	3088	2847	2742	2647	2592	2542	2421	2307						
2-11/16" 2-3/4" 2-15/16" 3"	10000	15461	12558	11120	9540	7749	6755	6464	5959	5739	5540	5426	5321	5067							
	30000	11120	9032	7998	6861	5573	4859	4649	4286	4128	3985	3902	3827	3644							
	40000	10201	8285	7336	6294	5112	4457	4265	3932	3787	3655	3580	3511	3343							
	60000	9032	7336	6496	5573	4527	3946	3776	3481	3353	3237	3170	3109	2960							
	100000	7749	6294	5573	4781	3884	3386	3240	2987	2777	2719	2667	2540								
3-3/16" 3-1/4" 3-7/16" 3-1/2"	10000	24679	20046	17750	15228	12369	10783	10318	9512	9161	8843	8661									
	30000	17750	14417	12766	10952	8896	7755	7421	6841	6589	6360	6229									
	40000	16282	13225	11711	10047	8160	7114	6807	6276	6044	5834	5714									
	60000	14417	11711	10369	8896	7226	6299	6028	5557	5352	5166	5060									
	100000	12369	10047	8896	7632	6199	5404	5171	4767	4592	4432	4341									
3-15/16" 4"	10000	33925	27556	24400	20933	17003	14823	14184	13076	12594	12157										
	30000	24400	19819	17549	15056	12229	10661	10201	9404	9058	8743										
	40000	22382	18180	16098	13811	11218	9779	9358	8627	8309	8020										
	60000	19819	16098	14254	12229	9933	8659	8286	7639	7357	7102										
	100000	17003	13811	12229	10491	8522	7429	7109	6553	6312	6093										

For maximum RPM see Table 2 on page B10-14

In the shaded area, E, DI, EXL, and TAF mounted units require a line-to-line to light press fit of shaft

In the boxed area, Type K mounted units require a line-to-line to light press fit of shaft.

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# SELECTION

## Type E-Xtra, Type K, DOUBLE-INTERLOCK, TAF and EXL

**Table 3 - Easy Selection for Type E-Xtra, Type K, TAF and EXL**

Shaft Size	L10 hours	Allowable Equivalent Radial Load (Lbs.) at various Revolutions Per Minute																		
		50	100	150	250	500	790	915	1200	1360	1530	1640	1750	2060	2420	2730	3050	3320	3600	3820
4-7/16" 4-1/2"	10000	41712	33880	30000	25738	20905	18225	17439	16077	15484										
	30000	30000	24368	21577	18511	15036	13108	12543	11563	11137										
	40000	27519	22353	19793	16980	13792	12024	11505	10607	10216										
	60000	24368	19793	17526	15036	12213	10647	10188	9392	9046										
	100000	20905	16980	15036	12899	10477	9134	8740	8057	7760										
4-15/16" 5"	10000	57437	46653	41310	35441	28787	25095	24014	22137											
	30000	41310	33554	29711	25490	20704	18049	17271	15922											
	40000	37894	30780	27254	23382	18992	16557	15843	14605											
	60000	33554	27254	24133	20704	16817	14661	14028	12933											
	100000	28787	23382	20704	17762	14428	12578	12035	11095											
5-7/16 5-15/16 6	10000	56589	45964	40700	34917	28362	24725	23659												
	30000	40700	33059	29272	25113	20398	17783	17016												
	40000	37335	30325	26852	23037	18712	16312	15609												
	60000	33059	26852	23777	20398	16569	14444	13821												
	100000	28362	23037	20398	17500	14214	12392	11858												
6-7/16 6-1/2 6-15/16 7	10000	96215	78151	69200	59368	48222	42038													
	30000	69200	56208	49770	42699	34682	30235													
	40000	63478	51560	45655	39168	31814	27735													
	60000	56208	45655	40426	34682	28171	24558													
	100000	48222	39168	34682	29754	24168	21069													

For maximum RPM see Table 2 on page B10-14

In the shaded area, E, DI, EXL, and TAF mounted units require a line-to-line to light press fit of shaft

In the boxed area, Type K mounted units require a line-to-line to light press fit of shaft.

# SELECTION



## Type E-Xtra, DOUBLE-INTERLOCK, TAF and EXL

**Table 4 - Permissible Thrust Load, Lbs.\***

Shaft Size Inches	*E		*K/DI, TAF, EXL	
	2-Bolt	4-Bolt	2-Bolt	4-Bolt
1-3/16	2000		1400	
1-1/4	2000		1400	
1-3/8	2590		2590	
1-7/16	2590		2590	
1-1/2	2590		2590	
1-5/8	2590		2590	
1-11/16	2590		2590	
1-3/4	3454		3454	
1-7/8	3454		3454	
1-15/16	3454		3454	
2	3454		3454	
2-3/16	3454		3454	
2-1/4	3454	3454	3454	3454
2-7/16	3454	3454	3454	3454
2-1/2	3454	3454	3454	3454
2-11/16	5181	5181	5181	5181
2-3/4	5181	5181	5181	5181
2-15/16	5181	5181	5181	5181
3	5181	5181	5181	5181
3-3/16	5181	5181	4300	5181
3-1/4	5181	5181	4300	5181
3-7/16	5181	5181	4300	5181
3-1/2	5181	5181	4300	5181
3-15/16		6908		6908
4		6908		6908
4-7/16		6908		6908
4-1/2		6908		6908
4-15/16		6908		6908
5		6908		6908
5-7/16		8635		8635
5-15/16		8635		8635
6		8635		8635
6-7/16		12282		12282
6-1/2		12282		12282
6-15/16		12282		12282
7		12282		12282

**Note:** The limits above apply to set screw shaft mounting or pillow block over turning force. Under heavy thrust loads it is always wise to use shear bars. At all times, the  $L_{10}$  life of the bearing should be checked for proper selection and life requirements. For thrust loads larger than listed or heavy thrust loading on other style housing, contact DODGE Engineering for recommendations.

- \* Does not include Piloted Flange  
Piloted Flange up to and including 3-1/2" and all sizes of Type K only have one setscrew locking collar and therefore the above listed permissible thrust load values must be decreased by 1/2.



# SELECTION

## Type E-Xtra, Type K, DOUBLE-INTERLOCK, TAF and EXL

**Table 5 - K, DI and TAF Maximum Axial Expansion (Inches)**

Bore Size (Inches)	Type K DOUBLE-INTERLOCK		TAF	EXL
	Pillow Block	Flange		
1-3/16 - 1-1/4	0.252	--	--	.280
1-3/8 - 1-7/16	0.188	0.187	0.188	.280
1-1/2 - 1-11/16	0.188	0.187	0.188	.280
1-3/4 - 2	0.562	0.187	0.562	.280
2-3/16	0.562	0.187	0.562	.280
2-1/4 - 2-1/2	0.562	0.312	0.562	.280
2-11/16 - 3	0.562	0.312	0.562	.280
3-3/16 - 3-1/2	0.562	0.312	0.562	.280
3-15/16 - 4	0.674	0.312	0.674	.280
4-7/16 - 4-1/2	0.674	0.812	0.674	.280
4-15/16 - 5	0.674	0.812	0.674	.280
5-7/16 - 6	0.500	--	0.875	--
6-7/16 - 7	0.500	--	0.875	--

**Table 6 - Definition Of Operating Conditions For Tapered Roller Bearings**

LOW SPEED	UP TO 20% OF MAX. RPM (TABLE 1)
MEDIUM SPEED	OVER 20% TO 80% OF MAX. RPM
HIGH SPEED	OVER 80% OF MAX. RPM
LIGHT LOAD	UP TO 30% OF C <sub>90</sub> (TABLE 1)
NORMAL LOAD	OVER 30% TO 70% OF C <sub>90</sub>
HEAVY LOAD	OVER 70% OF C <sub>90</sub>
LOW TEMPERATURE	-100°F TO 20°F
MEDIUM TEMPERATURE	OVER 20°F TO 200°F
HIGH TEMPERATURE	OVER 200°F TO 300°F
VERY HIGH TEMPERATURE	OVER 300°F TO 400°F



## Type E-Xtra

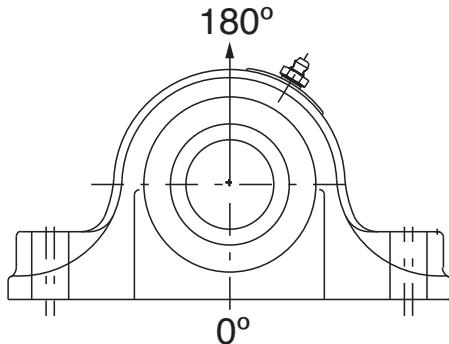


Table 7 - Housing Ratings - Type E-Xtra (Solid Housing)

Shaft Size (Inches)	Maximum Recommended Housing Cap Loads, Lbs. Gray Iron 180°
1-3/16 - 1-1/4	1,600
1-3/8 - 1-7/16	3,150
1-1/2 - 1-11/16	3,000
1-3/4 - 2	5,150
2-3/16	3,500
2-1/4 - 2-1/2	6,550
2-11/16 - 3	7,000
3-3/16 - 3-1/2	15,700
3-15/16 - 4	16,250
4-7/16 - 4-1/2	21,000
4-15/16 - 5	22,860
5-7/16 - 6	43,600
6-7/16 - 7	46,000

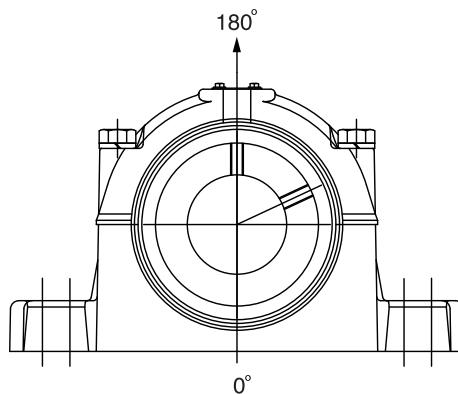
\*When utilizing heavy cap loads on pillow block housings, the installation must adhere to the following procedures.

1. The pillow block base bolts must be of **Grade 8 strength with hardened washers and properly tightened** to the mounting structure.
2. The use of stop bars (shear strips) against pillow block where side loads are encountered
3. In all cases where loads are heave, the  $L_{10}$  life of the bearing should be checked for proper selection and life requirements



# SELECTION

## Type K, DOUBLE-INTERLOCK, TAF and EXL



**Table 8: Housing Ratings  
Type K, DI, and EXL Housing (Split Housing)**

Shaft Size (Inches)	Maximum Recommended Housing Cap Loads, Lbs. 180°
1-3/16 - 1-1/4	4,300
1-3/8 - 1-7/16	5,060
1-1/2 - 1-11/16	5,940
1-3/4 - 2	8,660
2-3/16	10,100
2-1/4 - 2-1/2	10,100
2-11/16 - 3	11,220
3-3/16 - 3-1/2	16,170
3-15/16 - 4	19,580
4-7/16 - 4-1/2	20,130
4-15/16 - 5	24,530
5-7/16 - 6	35,200
6-7/16 - 7	56,000

**Table 9: Housing Ratings  
TAF (Split Housing)**

Shaft Size (Inches)	Maximum Recommended Housing Cap Loads, Lbs. 180°
1-7/16	4,600
1-11/16	5,400
1-15/16	7,875
2-3/16	9,200
2-7/16 - 2-1/2	9,220
2-15/16 - 3	10,200
3-7/16 - 3-1/2	14,700
3-15/16 - 4	17,800
4-7/16 - 4-1/2	18,300
4-15/16 - 5	22,300
5-7/16 - 6	30,000
6-7/16 - 6-1/2	30,000
6-15/16 - 7	48,000

\*When utilizing heavy cap loads on pillow block housings, the installation must adhere to the following procedures.

1. The pillow block base bolts must be of **Grade 8 strength with hardened washers and properly tightened to the mounting structure.**
2. The use of stop bars (shear strips) against pillow block where side loads are encountered
3. In all cases where loads are heavy, the  $L_{10}$  life of the bearing should be checked for proper selection and life requirements

# SELECTION/DIMENSIONS



Type E-Xtra, Type K, DOUBLE-INTERLOCK, TAF and EXL



## MOUNTED BEARINGS APPLICATION DATA SHEET

Instructions: Complete all applicable information and Fax to DODGE 864-297-4800.

Company \_\_\_\_\_ DIST.  USER  OEM  Date \_\_\_\_\_

Address \_\_\_\_\_

Name \_\_\_\_\_ Phone \_\_\_\_\_ Fax \_\_\_\_\_

Type of Equipment (sketch drive on separate sheet) \_\_\_\_\_

### Service Conditions:

Shaft Speed: Normal \_\_\_\_\_ Maximum \_\_\_\_\_

Loads: Radial \_\_\_\_\_ Thrust \_\_\_\_\_ Shock (frequency) \_\_\_\_\_

Shaft Size: \_\_\_\_\_ Shaft Tolerance (specify if not commercial) \_\_\_\_\_

Duty Cycle: Hours/Day \_\_\_\_\_ Days/Week \_\_\_\_\_ Weeks/Year \_\_\_\_\_

### Environment:

Ambient Temperature: Summer \_\_\_\_\_ °F Winter \_\_\_\_\_ °F

External Heat: Source of Heat \_\_\_\_\_

Temperature \_\_\_\_\_ °F Distance from Bearing \_\_\_\_\_

Air: Clean \_\_\_\_\_ Contaminated \_\_\_\_\_ Contamination Type \_\_\_\_\_

Gas: Clean \_\_\_\_\_ Contaminated \_\_\_\_\_ Contamination Type \_\_\_\_\_

Liquid: Type \_\_\_\_\_ Concentration \_\_\_\_\_

Other: (Including washdowns) \_\_\_\_\_

### Experience: (If applicable)

Type of Bearing Currently Used: \_\_\_\_\_

Life Realized \_\_\_\_\_ Type of Failure \_\_\_\_\_

### Other Pertinent Data

\_\_\_\_\_

\_\_\_\_\_

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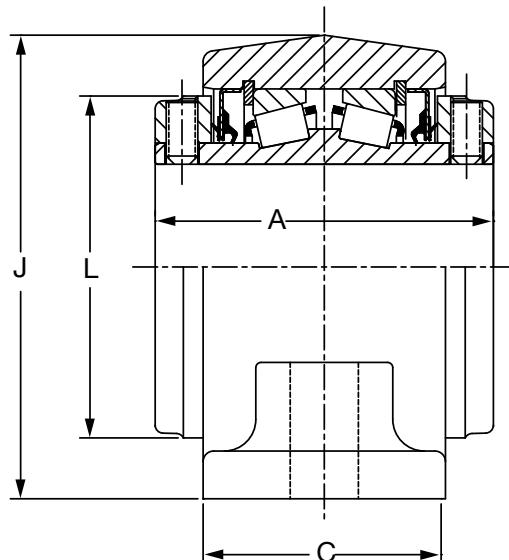
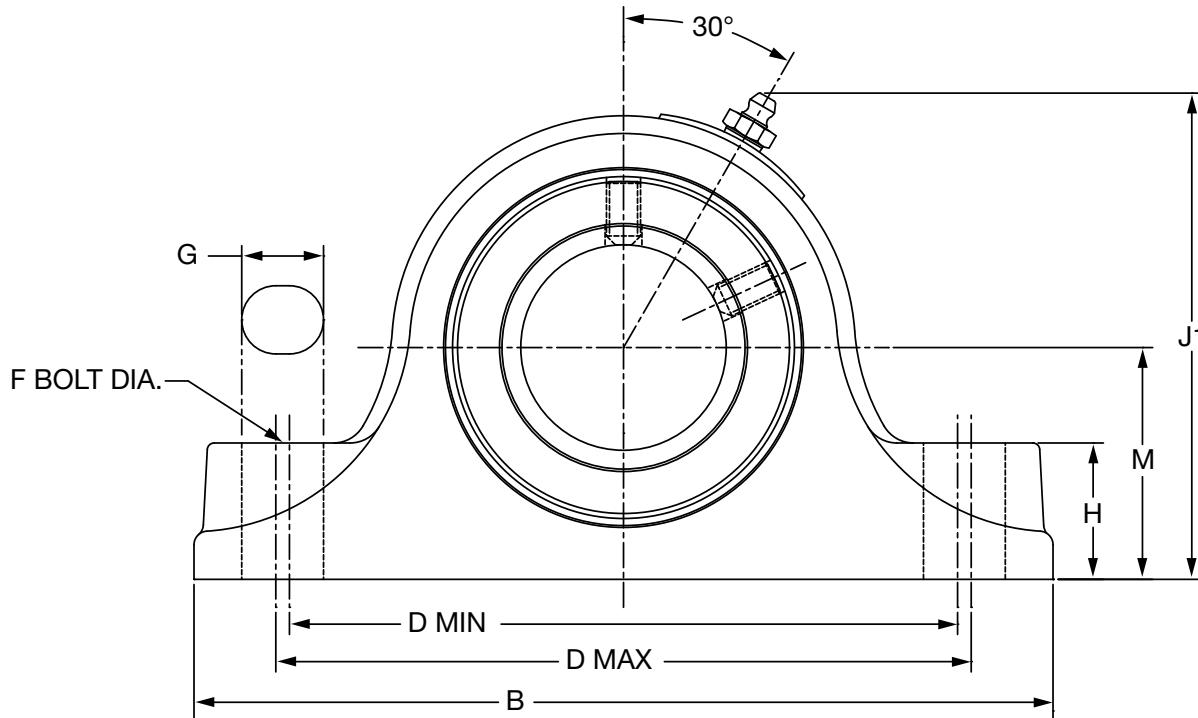
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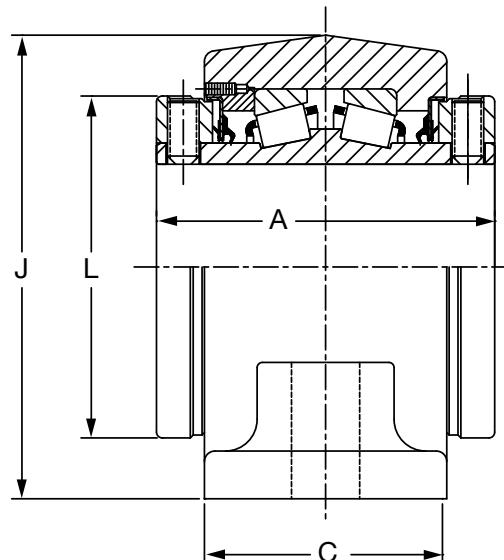


## SELECTION/DIMENSIONS

### Type E-Xtra Pillow Block - Inch 2-BOLT BASE



1-3/16" THRU 3" CONSTRUCTION



3-3/16" THRU 3-12" CONSTRUCTION



## SELECTION/DIMENSIONS

Type E-Xtra Pillow Block - Inch  
2-BOLT BASE

Gray Iron				Cast Steel			
Shaft Size Inches #	Part Number	Part Name	Weight Lbs (Approx)	Shaft Size Inches #	Part Number	Part Name	Weight Lbs
1-3/16	023000	P2B-E-103R	4	1-3/16	023047	SP2B-E-103R	4
1-1/4	023001	P2B-E-104R	4	1-1/4	023048	SP2B-E-104R	4
1-3/8	023002	P2B-E-106R	7	1-3/8	023049	SP2B-E-106R	7
1-7/16	023003	P2B-E-107R	7	1-7/16	023050	SP2B-E-107R	7
1-1/2	023004	P2B-E-108R	10	1-1/2	023051	SP2B-E-108R	10
1-5/8	023005	P2B-E-110R	10	1-5/8	023052	SP2B-E-110R	10
1-11/16	023006	P2B-E-111R	10	1-11/16	023053	SP2B-E-111R	10
1-3/4	023007	P2B-E-112R	12	1-3/4	023054	SP2B-E-112R	11
1-7/8	023008	P2B-E-114R	12	1-7/8	023055	SP2B-E-114R	11
1-15/16	023009	P2B-E-115R	12	1-15/16	023056	SP2B-E-115R	11
2	023010	P2B-E-200R	12	2	023057	SP2B-E-200R	11
2-3/16	023011	P2B-E-203R	15	2-3/16	023058	SP2B-E-203R	14
2-1/4	023012	P2B-E-204R	21	2-1/4	023059	SP2B-E-204R	19
2-7/16	023013	P2B-E-207R	20	2-7/16	023060	SP2B-E-207R	19
2-1/2	023014	P2B-E-208R	20	2-1/2	023061	SP2B-E-208R	19
2-11/16	023015	P2B-E-211R	29	2-11/16	023062	SP2B-E-211R	26
2-3/4	023016	P2B-E-212R	28	2-3/4	023063	SP2B-E-212R	26
2-15/16	023017	P2B-E-215R	27	2-15/16	023064	SP2B-E-215R	26
3	023018	P2B-E-300R	27	3	023065	SP2B-E-300R	26
3-3/16	023019	P2B-E-303R	48	3-3/16	023066	SP2B-E-303R	44
3-1/4	023020	P2B-E-304R	47	3-1/4	023067	SP2B-E-304R	44
3-7/16	023021	P2B-E-307R	46	3-7/16	023068	SP2B-E-307R	44
3-1/2	023022	P2B-E-308R	45	3-1/2	023069	SP2B-E-308R	44

# Consult DODGE For Sizes Not Listed

# Consult DODGE For Sizes Not Listed

Shaft Size (Inches)	A	B	C	D		F Bolt Dia	G	H	J	J1	L	M
				Min	Max							
1-3/16	2.75	6.00	1.88	4.75	4.81	1/2	0.59	0.88	3.00	3.28	2.25	1.50
1-1/4												
1-3/8	3.00	7.38	2.13	5.63	5.88	1/2	0.75	1.13	3.75	4.00	2.75	1.88
1-7/16												
1-1/2	3.38	7.88	2.38	6.13	6.38	1/2	0.75	1.25	4.25	4.47	3.19	2.13
1-5/8												
1-11/16												
2	3.50	8.88	2.50	6.88	7.13	5/8	0.88	1.31	4.50	4.69	3.44	2.25
1-3/4												
1-7/8												
1-15/16												
2	3.75	9.63	2.63	7.63	7.88	5/8	0.88	1.50	5.00	5.17	3.75	2.50
2-1/4												
2-7/16	4.00	10.50	2.88	8.38	8.63	5/8	0.88	1.63	5.50	5.63	4.06	2.75
2-1/2												
2-11/16												
2-3/4	4.50	12.00	3.00	9.31	9.69	3/4	1.00	1.88	6.25	6.34	4.72	3.13
2-15/16												
3												
3-3/16	5.00	14.00	3.50	10.81	11.19	7/8	1.19	2.25	7.50	7.50	5.50	3.75
3-1/4												
3-7/16												
3-1/2												

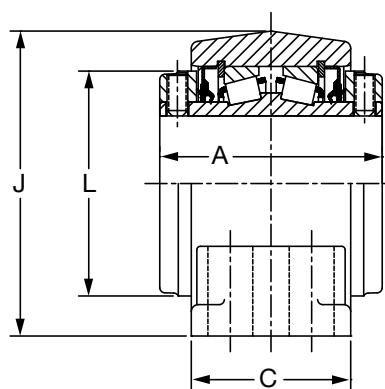
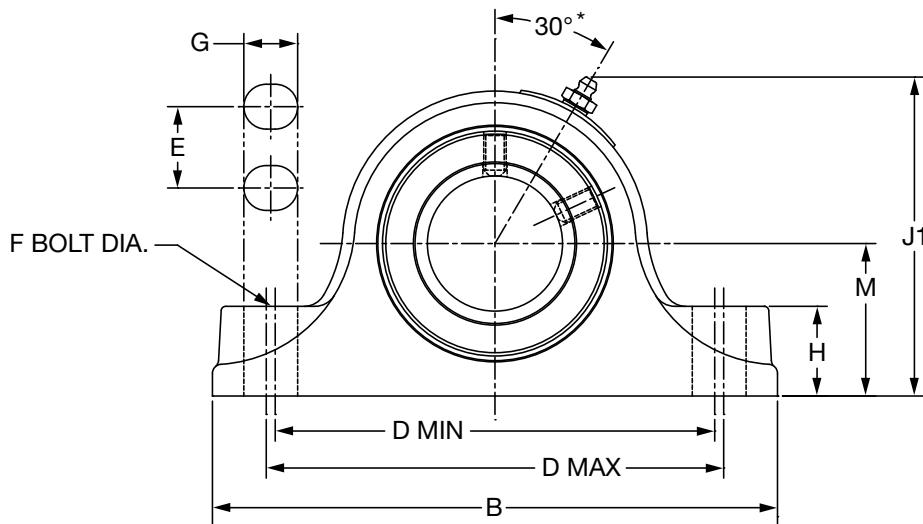
NOTE: All sizes use a 1/8-27 NPT hydraulic grease fitting

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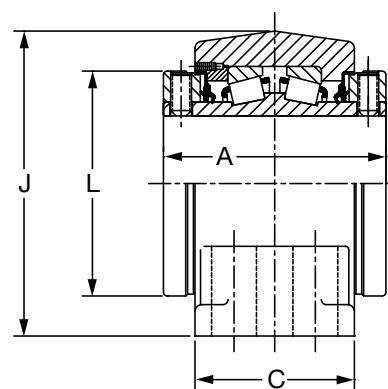


## SELECTION/DIMENSIONS

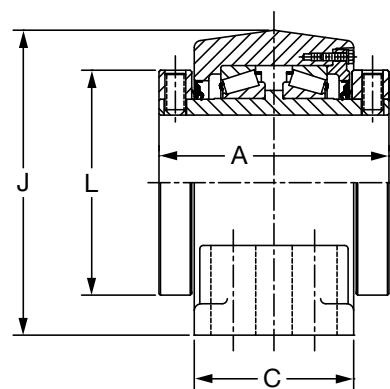
### Type E-Xtra Pillow Block - Inch 4-BOLT BASE



2-1/4" THRU 3" CONSTRUCTION



3-3/16" THRU 5" CONSTRUCTION



5-7/16" THRU 7" CONSTRUCTION



## SELECTION/DIMENSIONS

## Type E-Xtra Pillow Block - Inch

## 4-BOLT BASE

Gray Iron				Cast Steel			
Shaft Size Inches #	Part Number	Part Name	Weight Lbs (Approx)	Shaft Size Inches #	Part Number	Part Name	Weight Lbs
2-1/4	023023	P4B-E-204R	20	2-1/4	-----	-----	-----
2-7/16	023024	P4B-E-207R	20	2-7/16	-----	-----	-----
2-1/2	023025	P4B-E-208R	19	2-1/2	-----	-----	-----
2-11/16	023026	P4B-E-211R	30	2-11/16	-----	-----	-----
2-3/4	023027	P4B-E-212R	28	2-3/4	-----	-----	-----
2-15/16	023028	P4B-E-215R	28	2-15/16	-----	-----	-----
3	023029	P4B-E-300R	28	3	-----	-----	-----
3-3/16	023030	P4B-E-303R	47	3-3/16	-----	-----	-----
3-1/4	023031	P4B-E-304R	47	3-1/4	-----	-----	-----
3-7/16	023032	P4B-E-307R	46	3-7/16	-----	-----	-----
3-1/2	023033	P4B-E-308R	45	3-1/2	-----	-----	-----
3-15/16	023690	P4B-E-315R	69	3-15/16	023070	SP4B-E-315R	65
4	023691	P4B-E-400R	69	4	023071	SP4B-E-400R	65
4-7/16	023692	P4B-E-407R	85	4-7/16	023072	SP4B-E-407R	81
4-1/2	023693	P4B-E-408R	85	4-1/2	023073	SP4B-E-408R	81
4-15/16	023694	P4B-E-415R	134	4-15/16	023074	SP4B-E-415R	132
5	023695	P4B-E-500R	133	5	023075	SP4B-E-500R	132
5-7/16	023040	P4B-E-507R	230	5-7/16	-----	-----	-----
5-15/16	023041	P4B-E-515R	250	5-15/16	-----	-----	-----
6	023042	P4B-E-600R	245	6	-----	-----	-----
6-7/16	023043	P4B-E-607R	356	6-7/16	-----	-----	-----
6-1/2	023044	P4B-E-608R	350	6-1/2	-----	-----	-----
6-15/16	023045	P4B-E-615R	340	6-15/16	-----	-----	-----
7	023046	P4B-E-700R	335	7	-----	-----	-----

# Consult DODGE For Sizes Not Listed

# Consult DODGE For Sizes Not Listed

Shaft Size Inches	A	B	C*	D		E	F Bolt Dia	G	H	J1	J	L	M
				Min	Max								
2-1/4													
2-7/16	4.00	10.50	3.50	8.31	8.69	1.88	5/8	0.88	1.63	5.50	5.63	4.06	2.75
2-1/2													
2-11/16													
2-3/4	4.50	12.00	4.00	9.19	9.81	2.13	5/8	1.00	1.88	6.25	6.34	4.72	3.13
2-15/16													
3													
3-3/16													
3-1/4	5.00	13.50	4.50	10.75	11.25	2.38	3/4	1.19	2.25	7.50	7.50	5.50	3.75
3-7/16													
3-1/2													
3-15/16	6.25	15.25	4.50	12.25	12.75	2.25	3/4	1.13	2.44	8.50	8.44	6.00	4.25
4													
4-7/16	6.75	16.63	4.63	13.25	13.75	2.50	3/4	1.13	2.75	9.38	9.28	6.45	4.75
4-1/2													
4-15/16	7.25	18.50	5.13	15.25	15.75	2.88	7/8	1.25	3.00	10.88	10.69	7.45	5.50
5													
5-7/16													
5-15/16	9.00	22.00	6.25	17.38	19.13	3.75	1	2.00	3.25	13.19	----	9.38	6.69
6													
6-7/16													
6-1/2	10.50	26.00	7.13	21.25	23.25	4.63	1	2.00	3.69	14.94	----	11.38	7.50
6-15/16													
7													

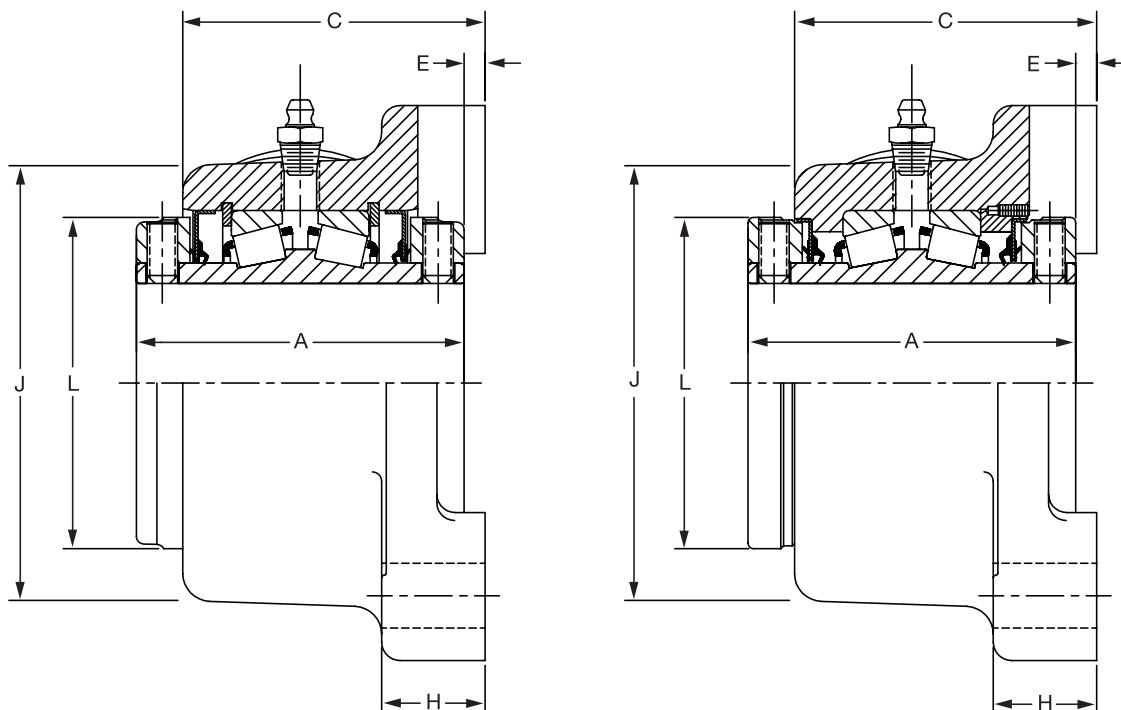
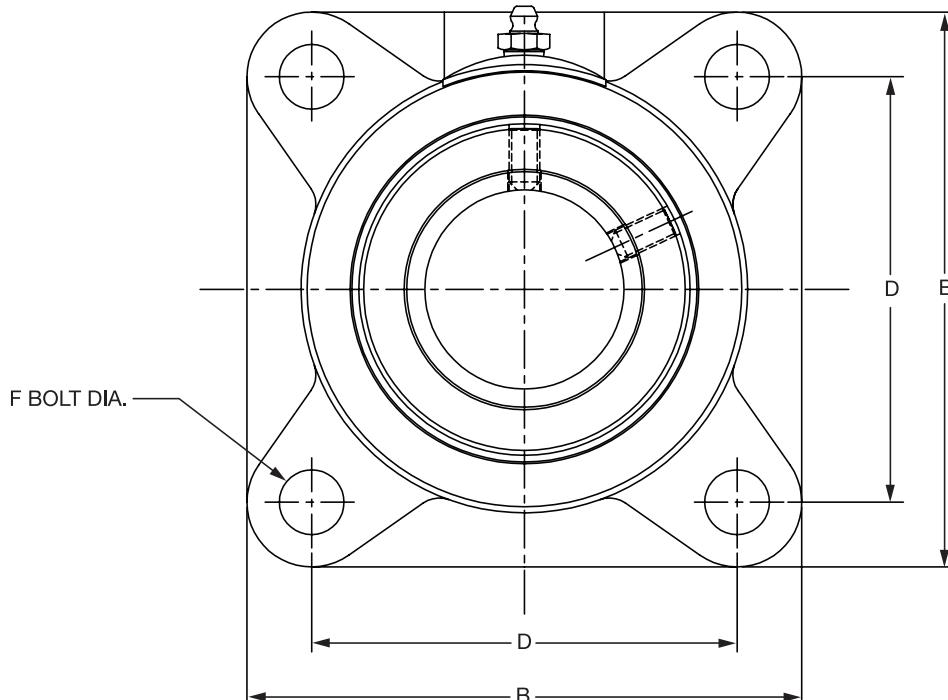
NOTE: All sizes use a 1/8-27 NPT hydraulic grease fitting

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## SELECTION/DIMENSIONS

### Type E-Xtra Flange Bearing - Inch 4-BOLT BASE





# SELECTION/DIMENSIONS

## Type E-Xtra Flange Bearing - Inch 4-BOLT BASE

Gray Iron			
Shaft Size Inches #	Part Number	Part Name	Weight Lbs (Approx)
1-3/16	<b>023093</b>	F4B-E-103R	4
1-1/4	<b>023094</b>	F4B-E-104R	4
1-3/8	<b>023095</b>	F4B-E-106R	7
1-7/16	<b>023096</b>	F4B-E-107R	7
1-1/2	<b>023097</b>	F4B-E-108R	11
1-5/8	<b>023098</b>	F4B-E-110R	11
1-11/16	<b>023099</b>	F4B-E-111R	11
1-3/4	<b>023100</b>	F4B-E-112R	12
1-7/8	<b>023101</b>	F4B-E-114R	12
1-15/16	<b>023102</b>	F4B-E-115R	12
2	<b>023103</b>	F4B-E-200R	12
2-3/16	<b>023104</b>	F4B-E-203R	15
2-1/4	<b>023105</b>	F4B-E-204R	21
2-7/16	<b>023106</b>	F4B-E-207R	20
2-1/2	<b>023107</b>	F4B-E-208R	19
2-11/16	<b>023108</b>	F4B-E-211R	28
2-3/4	<b>023109</b>	F4B-E-212R	28
2-15/16	<b>023110</b>	F4B-E-215R	27
3	<b>023111</b>	F4B-E-300R	26
3-3/16	<b>023112</b>	F4B-E-303R	52
3-1/4	<b>023113</b>	F4B-E-304R	51
3-7/16	<b>023114</b>	F4B-E-307R	50
3-1/2	<b>023115</b>	F4B-E-308R	50
3-15/16	<b>023116</b>	F4B-E-315R	75
4	<b>023117</b>	F4B-E-400R	75
4-7/16	<b>023118</b>	F4B-E-407R	90
4-1/2	<b>023119</b>	F4B-E-408R	90

# Consult DODGE For Sizes Not Listed.

Shaft Size Inches	A	B	C	D	E	F Bolt Dia.	H	J	L
1-3/16									
1-1/4	2.75	3.75	2.34	2.88	0.06	3/8	1.00	2.94	2.25
1-3/8									
1-7/16	3.00	4.63	2.59	3.50	0.06	1/2	1.06	3.50	2.75
1-1/2									
1-5/8									
1-11/16	3.38	5.38	2.97	4.13	0.13	1/2	1.19	4.19	3.19
1-3/4									
1-7/8									
1-15/16	3.50	5.63	3.09	4.38	0.13	1/2	1.19	4.44	3.44
2									
2-3/16	3.75	6.25	3.28	4.88	0.13	5/8	1.38	4.88	3.75
2-1/4									
2-7/16	4.00	6.88	3.56	5.38	0.19	5/8	1.50	5.31	4.06
2-1/2									
2-11/16									
2-3/4									
2-15/16	4.50	7.75	3.94	6.00	0.19	3/4	1.63	6.00	4.72
3									
3-3/16									
3-1/4									
3-7/16	5.00	9.25	4.50	7.00	0.25	3/4	1.88	7.25	5.50
3-1/2									
3-15/16									
4	6.25	10.25	5.63	7.75	0.25	7/8	2.13	8.25	6.00
4-7/16									
4-1/2	6.75	10.88	5.94	8.75	0.34	7/8	2.44	8.75	6.45

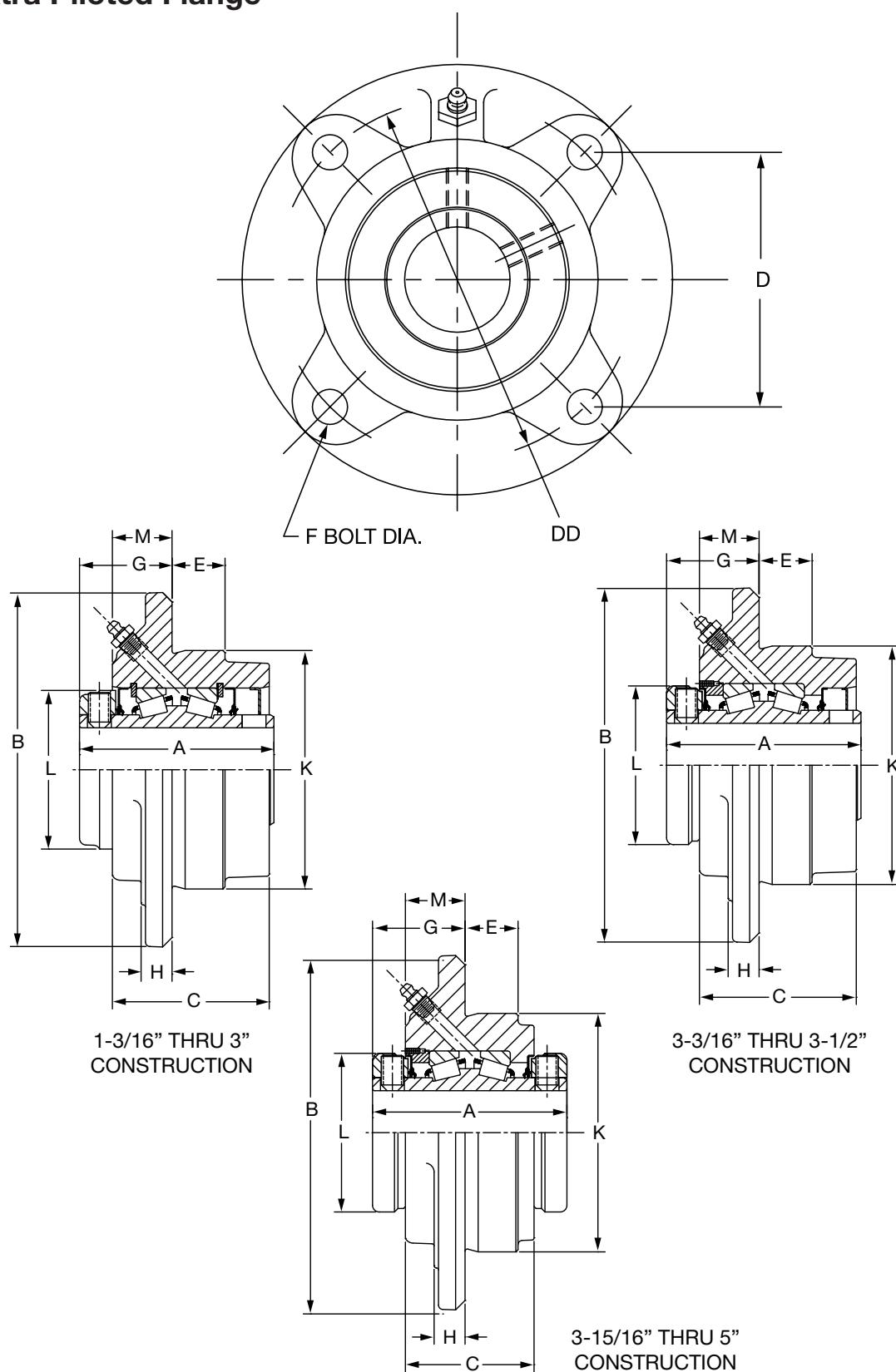
NOTE: All sizes use a 1/8-27 NPT hydraulic grease fitting

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## SELECTION/DIMENSIONS

### Type E-Xtra Piloted Flange



# SELECTION/DIMENSIONS



## Type E-Xtra Piloted Flange

Gray Iron			
Shaft Size Inches #	Part Number	Part Name	Weight Lbs (Approx)
1-3/16	<b>023120</b>	FC-E-103R	5
1-1/4	<b>023121</b>	FC-E-104R	5
1-3/8	<b>023122</b>	FC-E-106R	7
1-7/16	<b>023123</b>	FC-E-107R	6
1-1/2	<b>023124</b>	FC-E-108R	10
1-5/8	<b>023125</b>	FC-E-110R	9
1-11/16	<b>023126</b>	FC-E-111R	9
1-3/4	<b>023127</b>	FC-E-112R	11
1-7/8	<b>023128</b>	FC-E-114R	10
1-15/16	<b>023129</b>	FC-E-115R	10
2	<b>023130</b>	FC-E-200R	10
2-3/16	<b>023131</b>	FC-E-203R	14
2-1/4	<b>023132</b>	FC-E-204R	18
2-7/16	<b>023133</b>	FC-E-207R	18
2-1/2	<b>023134</b>	FC-E-208R	17
2-11/16	<b>023135</b>	FC-E-211R	27
2-3/4	<b>023136</b>	FC-E-212R	27
2-15/16	<b>023137</b>	FC-E-215R	25
3	<b>023138</b>	FC-E-300R	25
3-3/16	<b>023139</b>	FC-E-303R	44
3-1/4	<b>023140</b>	FC-E-304R	44
3-7/16	<b>023141</b>	FC-E-307R	43
3-1/2	<b>023142</b>	FC-E-308R	42
3-15/16	<b>023143</b>	FC-E-315R	59
4	<b>023144</b>	FC-E-400R	58
4-7/16 ##	<b>023145</b>	FC-E-407R	110
4-1/2 ##	<b>023146</b>	FC-E-408R	110
4-15/16 ##	<b>023147</b>	FC-E-415R	130
5 ##	<b>023148</b>	FC-E-500R	130

# Consult DODGE For Sizes Not Listed.

Shaft Size Inches	A	B	C	D	ØDD	E	F Bolt#	G	H	K**	L	M
1-3/16 1-1/4	2.75	5.00	2.22	2.92	4.13	0.75	3/8	1.31	0.44	3.38	2.25	0.84
1-3/8 1-7/16	3.00	5.25	2.47	3.09	4.38	0.88	3/8	1.50	0.50	3.63	2.75	1.03
1-1/2 1-5/8 1-11/16	3.38	6.13	2.39	3.62	5.13	1.06	7/16	1.56	0.50	4.25	3.19	1.03
1-3/4 1-7/8 1-15/16 2	3.50	6.38	2.91	3.80	5.38	1.19	7/16	1.56	0.56	4.50	3.44	1.03
2-3/16	3.75	7.13	3.09	4.24	6.00	1.19	1/2	1.69	0.56	5.00	3.75	1.09
2-1/4 2-7/16 2-1/2	4.00	7.63	3.31	4.60	6.50	1.31	1/2	1.81	0.63	5.50	4.06	1.19
2-11/16 2-3/4 2-15/16 3	4.50	8.75	3.69	5.30	7.50	1.50	5/8	2.00	0.75	6.38	4.72	1.25
3-3/16 3-1/4 3-7/16 3-1/2	5.00	10.25	4.19	6.10	8.63	1.25	3/4	2.44	0.94	7.38	5.50	1.69
3-15/16 4	6.25	10.88	4.50	6.63	9.38	1.50	3/4	2.69	1.00	8.13	6.00	1.81
4-7/16 4-1/2	6.75	13.50	4.63	##	11.75	1.50	3/4##	3.00	1.00	10.25	6.45	1.94
4-15/16 5	7.25	14.75	5.06	##	12.75	1.75	7/8##	2.97	1.25	11.00	7.45	1.88

\* 1-3/16 To 3-1/2 - One Collar  
3-15/16 To 5, - Two Collars

## (6) BOLTS EQUALLY SPACED

NOTE: All sizes use a 1/8-27 NPT hydraulic grease fitting

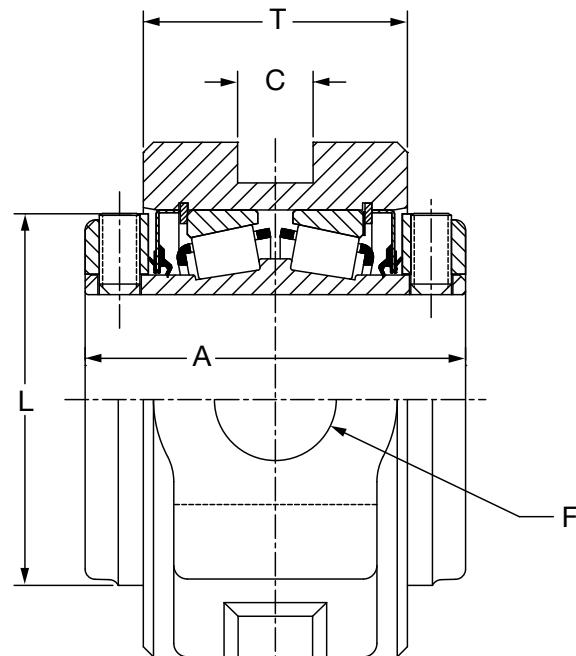
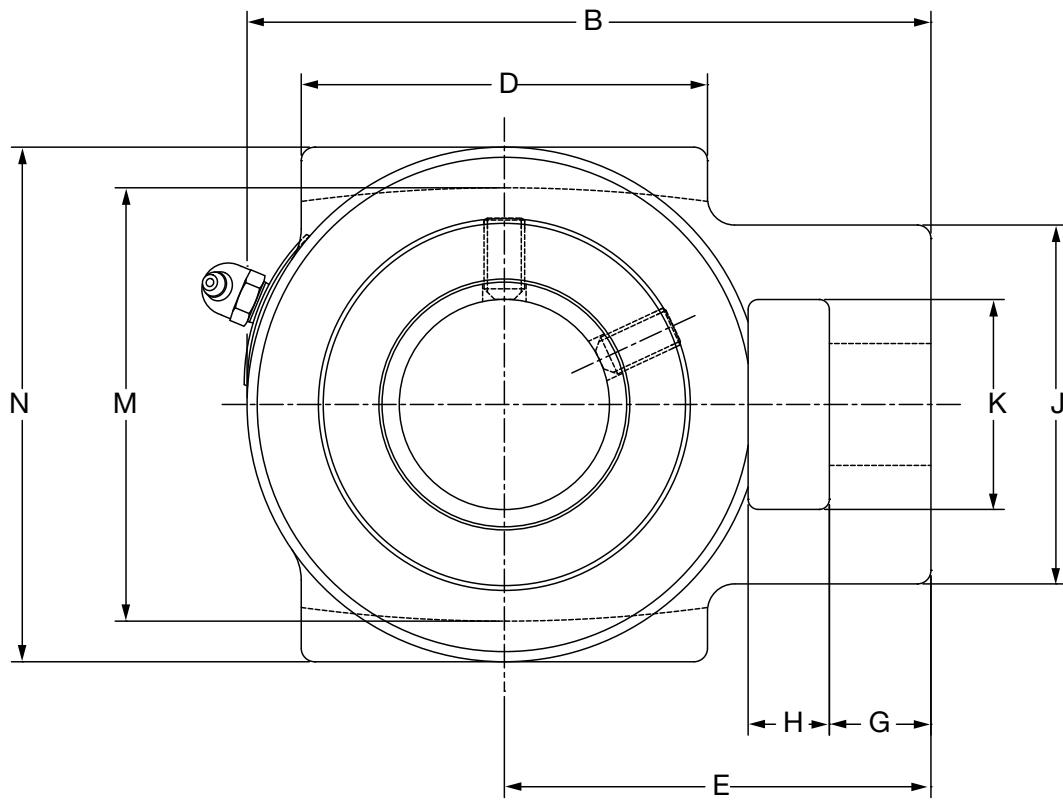
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## SELECTION/DIMENSIONS

### Type E-Xtra Wide Slot Take-Up Unit



1-3/8" THRU 3" CONSTRUCTION



# SELECTION/DIMENSIONS

## Type E-Xtra Wide Slot Take-Up Unit

Gray Iron				
Shaft Size # Inches	Part Number	Part Name	Weight Lbs (Approx)	Frame Δ
1-3/8	<b>023076</b>	WSTU-E-106R	8	CP308
1-7/16	<b>023077</b>	WSTU-E-107R	8	
1-1/2	<b>023078</b>	WSTU-E-108R	10	CP400
1-5/8	<b>023079</b>	WSTU-E-110R	10	
1-11/16	<b>023080</b>	WSTU-E-111R	10	CP400
1-3/4	<b>023081</b>	WSTU-E-112R	12	
1-7/8	<b>023082</b>	WSTU-E-114R	12	
1-15/16	<b>023083</b>	WSTU-E-115R	12	
2	<b>023084</b>	WSTU-E-200R	12	CP408
2-3/16	<b>023085</b>	WSTU-E-203R	16	
2-1/4	<b>023086</b>	WSTU-E-204R	21	
2-7/16	<b>023087</b>	WSTU-E-207R	21	CP502
2-1/2	<b>023088</b>	WSTU-E-208R	21	
2-11/16	<b>023089</b>	WSTU-E-211R	30	CP515
2-3/4	<b>023090</b>	WSTU-E-212R	30	
2-15/16	<b>023091</b>	WSTU-E-215R	30	
3	<b>023092</b>	WSTU-E-300R	30	

# Consult DODGE For Sizes Not Listed.

Δ See page B15-20 for CP Take-Up Frame

Shaft Size Inches	A	B	C	D	E	F Screw Dia	G	H	J	K	L	M	N	T
1-3/8	3.00	5.09	0.53	2.75	3.22	3/4	0.69	0.63	2.44	1.44	2.75	3.50	4.13	2.06
1-7/16														
1-1/2	3.38	6.00	0.69	3.25	3.81	1	0.94	0.75	3.31	1.94	3.79	4.00	4.75	2.31
1-5/8														
1-11/16														
1-3/4	3.50	6.31	0.69	3.75	3.94	1	0.94	0.75	3.31	1.94	3.44	4.00	4.75	2.44
1-7/8														
1-15/16														
2														
2-3/16	3.75	7.13	0.81	3.75	4.63	1-1/8	1.00	1.25	3.88	2.25	3.75	4.50	5.25	2.56
2-1/4														
2-7/16	4.00	7.81	1.06	4.50	5.06	1-1/4	1.06	1.25	4.25	2.50	4.06	5.13	6.00	2.75
2-1/2														
2-11/16														
2-3/4	4.50	9.13	1.81	4.75	5.88	1-1/2	1.13	1.50	4.88	2.75	4.72	5.94	6.75	3.00
2-15/16														
3														

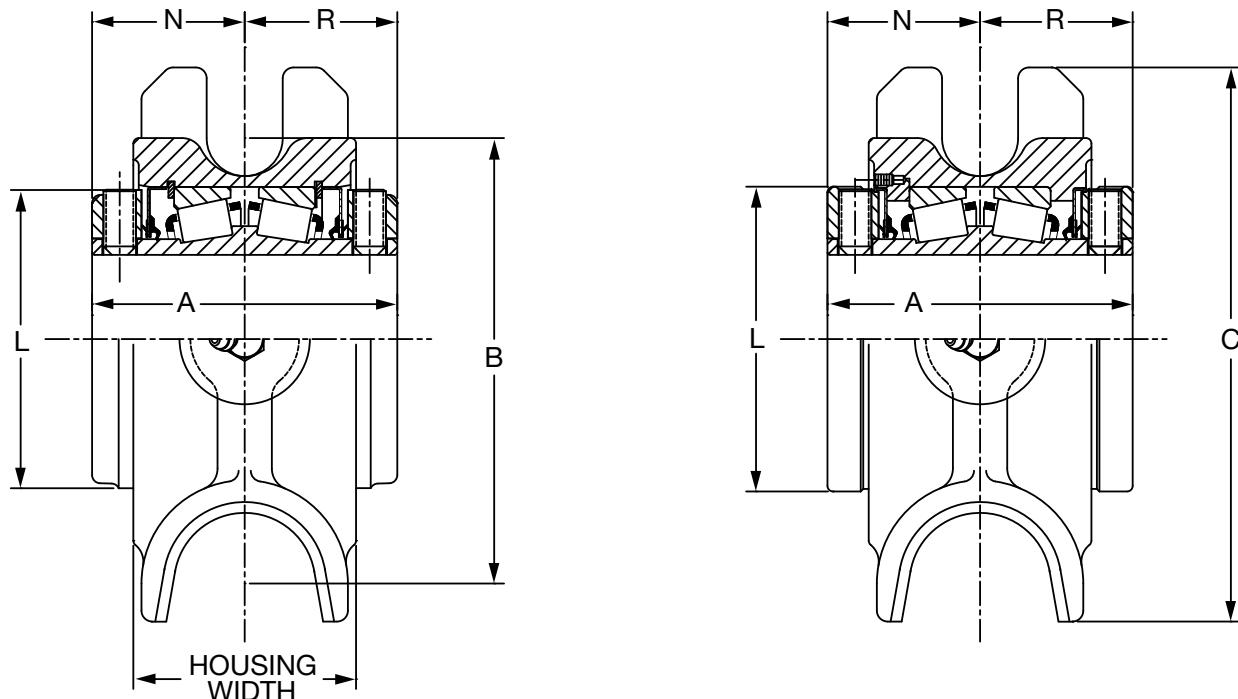
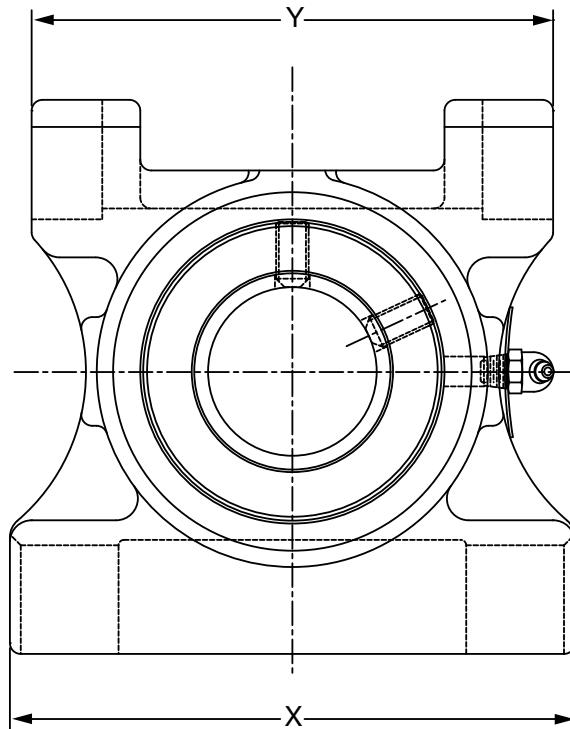
NOTE: All sizes use a 1/8-27 NPT hydraulic grease fitting

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## SELECTION/DIMENSIONS

### Type E-Xtra TP Take-Up Bearing - Inch



1-3/4" THRU 3" CONSTRUCTION

3-3/16" THRU 4" CONSTRUCTION



# SELECTION/DIMENSIONS

## Type E-Xtra TP Take-Up Bearing - Inch

Gray Iron				
Shaft Size Inches #	Part Number	Part Name	Weight Lbs (Approx)	Frame Size Ref.
1-3/4	<b>023149</b>	TP-E-112R	14	TP10
1-7/8	<b>023150</b>	TP-E-114R	14	TP10
1-15/16	<b>023151</b>	TP-E-115R	14	TP10
2	<b>023152</b>	TP-E-200R	14	TP10
2-3/16	<b>023153</b>	TP-E-203R	16	TP20
2-1/4	<b>023154</b>	TP-E-204R	21	TP30
2-7/16	<b>023155</b>	TP-E-207R	21	TP30
2-1/2	<b>023156</b>	TP-E-208R	21	TP30
2-11/16	<b>023157</b>	TP-E-211R	29	TP40
2-3/4	<b>023158</b>	TP-E-212R	29	TP40
2-15/16	<b>023159</b>	TP-E-215R	29	TP40
3	<b>023160</b>	TP-E-300R	29	TP40
3-3/16	<b>023161</b>	TP-E-303R	43	TP50
3-1/4	<b>023162</b>	TP-E-304R	43	TP50
3-7/16	<b>023163</b>	TP-E-307R	42	TP50
3-1/2	<b>023164</b>	TP-E-308R	42	TP50
3-15/16	<b>023165</b>	TP-E-315R	62	TP60
4	<b>023166</b>	TP-E-400R	62	TP60

# Consult DODGE For Sizes Not Listed.

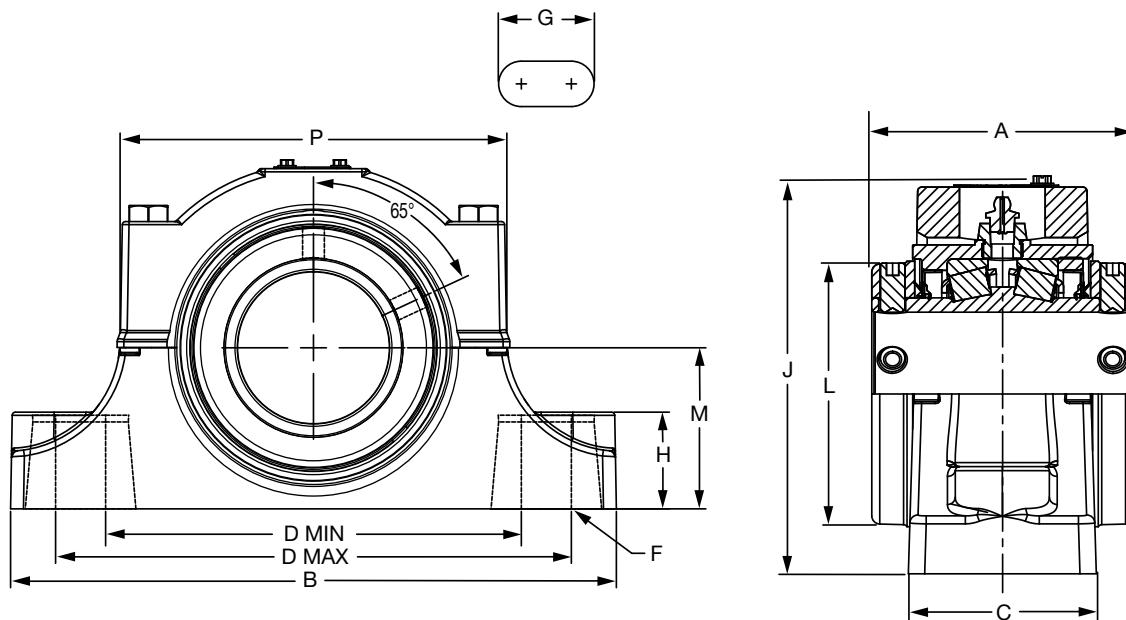
Shaft Size	A	B	C	L	N	Housing Width	X	Y
1-3/4								
1-7/8								
1-15/16	3.50	5.19	6.38	3.44	1.75	2.56	6.50	6.00
2								
2-3/16	3.75	5.81	6.88	3.75	1.88	2.56	6.75	7.00
2-1/4								
2-7/16	4.00	6.25	7.44	4.06	2.00	3.00	7.50	7.00
2-1/2								
2-11/16								
2-3/4								
2-15/16	4.50	7.19	8.31	4.72	2.25	3.00	850	8.00
3								
3-3/16								
3-1/4								
3-7/16	5.00	8.31	9.63	5.50	2.50	3.75	9.50	9.00
3-1/2								
3-15/16								
4	6.25	9.06	11.00	6.00	3.13	4.75	11.00	10.50

NOTE: All sizes use a 1/8-27 NPT hydraulic grease fitting



## SELECTION/DIMENSIONS

### Type EXL Pillow Block 2-Bolt Base



Shaft Size	Non-Expansion Part No.	Part Name	Expansion Part No.	Part Name
1-3/16	<b>077221</b>	P2B-EXL-103R	<b>077244</b>	P2B-EXL-103RE
1-1/4	<b>077222</b>	P2B-EXL-104R	<b>077245</b>	P2B-EXL-104RE
1-3/8	<b>077223</b>	P2B-EXL-106R	<b>077246</b>	P2B-EXL-106RE
1-7/16	<b>077224</b>	P2B-EXL-107R	<b>077247</b>	P2B-EXL-107RE
1-1/2	<b>077225</b>	P2B-EXL-108R	<b>077248</b>	P2B-EXL-108RE
1-5/8	<b>077226</b>	P2B-EXL-110R	<b>077249</b>	P2B-EXL-110RE
1-11/16	<b>077227</b>	P2B-EXL-111R	<b>077250</b>	P2B-EXL-111RE
1-3/4	<b>077228</b>	P2B-EXL-112R	<b>077251</b>	P2B-EXL-112RE
1-7/8	<b>077229</b>	P2B-EXL-114R	<b>077252</b>	P2B-EXL-114RE
1-15/16	<b>077230</b>	P2B-EXL-115R	<b>077253</b>	P2B-EXL-115RE
2	<b>077231</b>	P2B-EXL-200R	<b>077254</b>	P2B-EXL-200RE
2-3/16	<b>077232</b>	P2B-EXL-203R	<b>077255</b>	P2B-EXL-203RE
2-1/4	<b>077233</b>	P2B-EXL-204R	<b>077256</b>	P2B-EXL-204RE
2-7/16	<b>077234</b>	P2B-EXL-207R	<b>077257</b>	P2B-EXL-207RE
2-1/2	<b>077235</b>	P2B-EXL-208R	<b>077258</b>	P2B-EXL-208RE
2-11/16	<b>077236</b>	P2B-EXL-211R	<b>077259</b>	P2B-EXL-211RE
2-3/4	<b>077237</b>	P2B-EXL-212R	<b>077260</b>	P2B-EXL-212RE
2-15/16	<b>077238</b>	P2B-EXL-215R	<b>077261</b>	P2B-EXL-215RE
3	<b>077239</b>	P2B-EXL-300R	<b>077262</b>	P2B-EXL-300RE
3-3/16	<b>077240</b>	P2B-EXL-303R	<b>077263</b>	P2B-EXL-303RE
3-1/4	<b>077241</b>	P2B-EXL-304R	<b>077264</b>	P2B-EXL-304RE
3-7/16	<b>077242</b>	P2B-EXL-307R	<b>077265</b>	P2B-EXL-307RE
3-1/2	<b>077243</b>	P2B-EXL-308R	<b>077266</b>	P2B-EXL-308RE



# SELECTION/DIMENSIONS

## Type EXL Pillow Block

### 2-Bolt Base

Shaft Size	Weight lbs (Approx)	A	B	C	D		F Bolt Dia.	
					Min	Max		
1-3/16	10	2.75	6.25	1.88	4.56	4.94	1/2	
1-1/4	10							
1-3/8	12	3.00	7.25	2.19	5.31	5.94	1/2	
1-7/16	12							
1-1/2	12							
1-5/8	15	3.38	7.75	2.37	5.56	6.44	1/2	
1-11/16	15							
1-3/4	15							
1-7/8	19							
1-15/16	19	3.50	8.88	2.54	6.31	7.19	5/8	
2	19							
2-3/16	24	3.75	9.62	2.65	6.69	7.94	5/8	
2-1/4	24							
2-7/16	29	4.00	10.38	2.88	6.94	8.69	5/8	
2-1/2	29							
2-11/16	42							
2-3/4	42							
2-15/16	43	4.50	11.75	3.32	8.06	10.00	3/4	
3	43							
3-3/16	73							
3-1/4	73							
3-7/16	73	5.00	13.75	4.00	10.12	11.75	7/8	
3-1/2	73							
Shaft Size	Weight lbs (Approx)	G	H	J	L	M	P	EXP *
1-3/16	10	0.75	0.88	3.51	2.25	1.50	4.06	0.56
1-1/4	10							
1-3/8	12	0.94	1.13	4.17	2.75	1.88	4.63	0.56
1-7/16	12							
1-1/2	12							
1-5/8	15	1.07	1.25	4.69	3.19	2.13	5.13	0.56
1-11/16	15							
1-3/4	15							
1-7/8	19							
1-15/16	19	1.19	1.31	4.99	3.44	2.25	5.56	0.56
2	19							
2-3/16	24	1.38	1.50	5.42	3.75	2.50	6.00	0.56
2-1/4	24							
2-7/16	29	1.63	1.63	6.08	4.06	2.75	6.41	0.56
2-1/2	29							
2-11/16	42							
2-3/4	42							
2-15/16	43	1.85	1.88	6.77	4.72	3.13	7.50	0.56
3	43							
3-3/16	73							
3-1/4	73							
3-7/16	73	1.82	2.25	7.97	5.50	3.75	9.31	0.56
3-1/2	73							

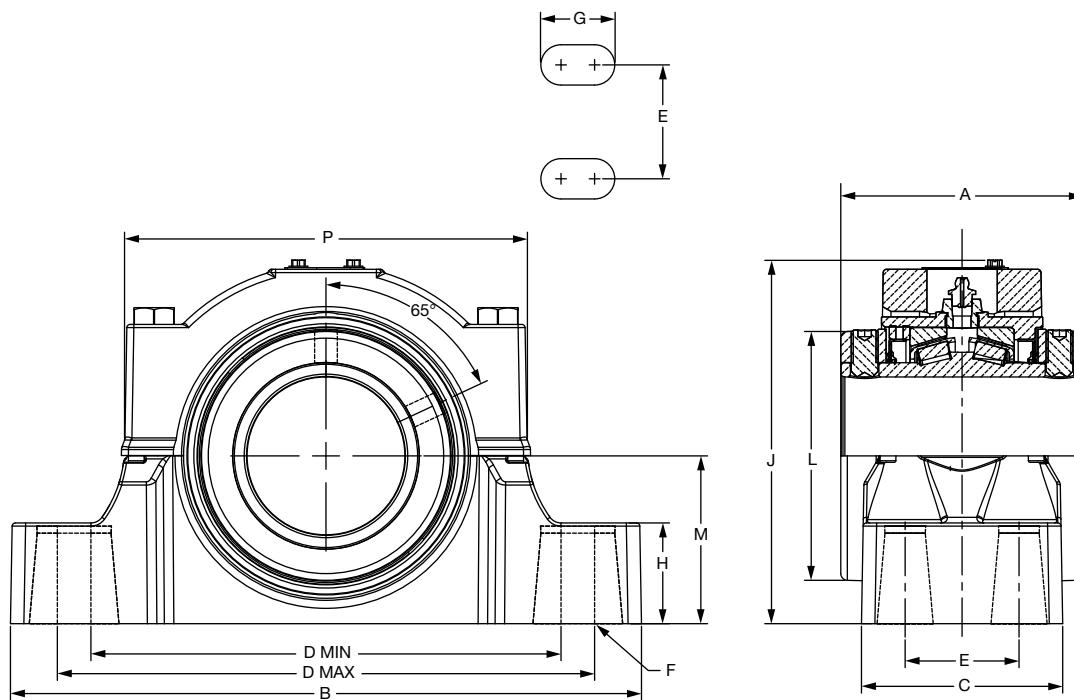
\* EXP. Total Expansion Divided Equally On Both Sides Of Bearing (Expansion Bearing Only)

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## SELECTION/DIMENSIONS

### Type EXL Pillow Block 4-Bolt Base



Shaft Size	Non-Expansion Part No.	Part Name	Expansion Part No.	Part Name
2-1/4	<b>077267</b>	P4B-EXL-204R	<b>077284</b>	P4B-EXL-204RE
2-7/16	<b>077268</b>	P4B-EXL207R	<b>077285</b>	P4B-EXL-207RE
2-1/2	<b>077269</b>	P4B-EXL-208R	<b>077286</b>	P4B-EXL-208RE
2-11/16	<b>077270</b>	P4B-EXL-211R	<b>077287</b>	P4B-EXL-211RE
2-3/4	<b>077271</b>	P4B-EXL-212R	<b>077288</b>	P4B-EXL-212RE
2-15/16	<b>077272</b>	P4B-EXL-215R	<b>077289</b>	P4B-EXL-215RE
3	<b>077273</b>	P4B-EXL-300R	<b>077290</b>	P4B-EXL-300RE
3-3/16	<b>077274</b>	P4B-EXL-303R	<b>077291</b>	P4B-EXL-303RE
3-1/4	<b>077275</b>	P4B-EXL-304R	<b>077292</b>	P4B-EXL-304RE
3-7/16	<b>077276</b>	P4B-EXL-307R	<b>077293</b>	P4B-EXL-307RE
3-1/2	<b>077277</b>	P4B-EXL-308R	<b>077294</b>	P4B-EXL-308RE
3-15/16	<b>077278</b>	P4B-EXL-315R	<b>077295</b>	P4B-EXL-315RE
4	<b>077279</b>	P4B-EXL-400R	<b>077296</b>	P4B-EXL-400RE
4-7/16	<b>077280</b>	P4B-EXL-407R	<b>077297</b>	P4B-EXL-407RE
4-1/2	<b>077281</b>	P4B-EXL-408R	<b>077298</b>	P4B-EXL-408RE
4-15/16	<b>077282</b>	P4B-EXL-415R	<b>077299</b>	P4B-EXL-415RE
5	<b>077283</b>	P4B-EXL-500R	<b>077300</b>	P4B-EXL-500RE



# SELECTION/DIMENSIONS

## Type EXL Pillow Block 4-Bolt Base

Shaft Size	Weight lbs (Approx.)	A	B	C	D		E	F Bolts Dia.
					Min	Max		
2-1/4	29				7.75	8.25	1.88	5/8
2-7/16	29	4.00	10.38	3.50				
2-1/2	29							
2-11/16	42							
2-3/4	42							
2-15/16	42	4.50	11.75	3.75	8.75	10.00	2.12	5/8
3	42							
3-3/16	73							
3-1/4	73							
3-7/16	73	5.00	13.75	4.50	10.56	11.75	2.38	3/4
3-1/2	73							
3-15/16	109							
4	109	6.25	15.25	4.74	11.00	13.00	2.25	3/4
4-7/16	154							
4-1/2	154	6.75	16.50	5.08	12.00	13.88	2.50	3/4
4-15/16	192							
5	192	7.25	18.50	5.66	13.50	15.88	2.88	3/4

Shaft Size	Weight lbs (Approx.)	G	H	J	L	M	P	EXP *
2-1/4	29							
2-7/16	29	1.25	1.63	6.08	4.06	2.75	6.41	0.56
2-1/2	29							
2-11/16	42							
2-3/4	42							
2-15/16	42	1.38	1.88	6.77	4.72	3.13	7.50	0.56
3	42							
3-3/16	73							
3-1/4	73							
3-7/16	73	1.48	2.25	7.97	5.50	3.75	9.31	0.56
3-1/2	73							
3-15/16	109							
4	109	1.88	2.44	8.81	6.00	4.25	10.08	0.56
4-7/16	154							
4-1/2	154	1.82	2.75	9.79	6.45	4.75	11.08	0.56
4-15/16	192							
5	192	2.23	3.00	11.36	7.25	5.50	12.71	0.56

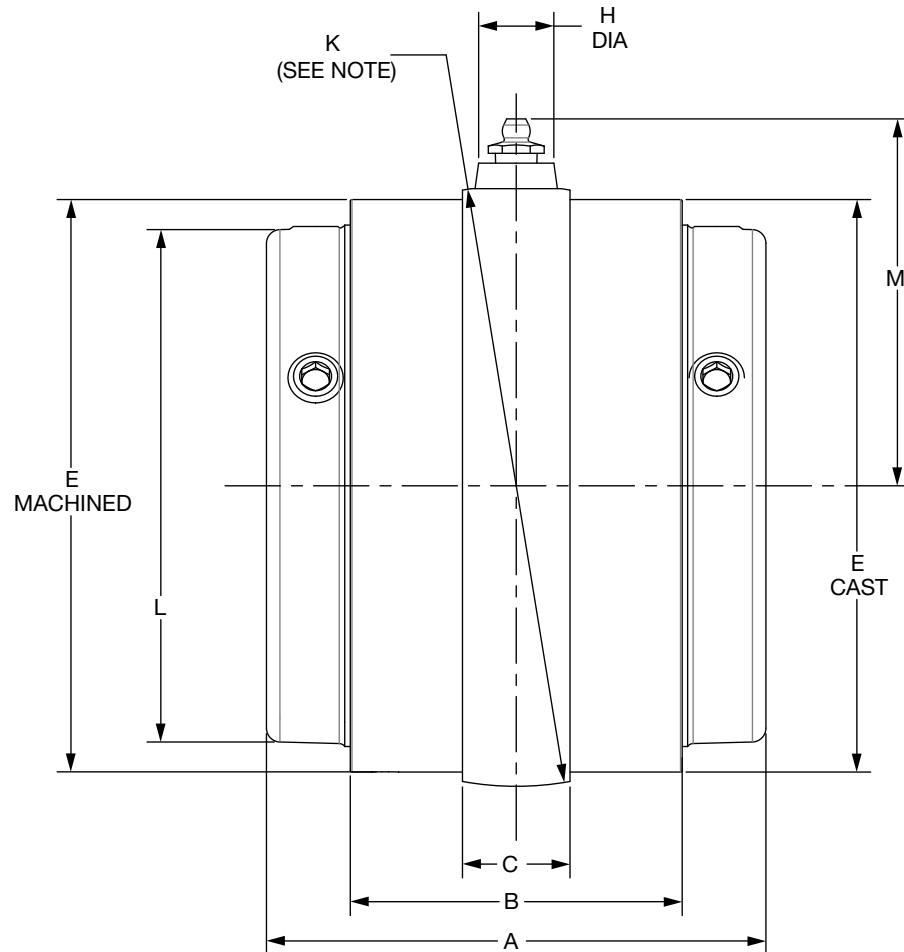
\* EXP - Total Expansion Divided Equally On Both Sides Of Bearing (Expansion Bearings Only)

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## SELECTION/DIMENSIONS

### Type EXL S-1 UNIT





## SELECTION/DIMENSIONS

## Type EXL S-1 UNIT

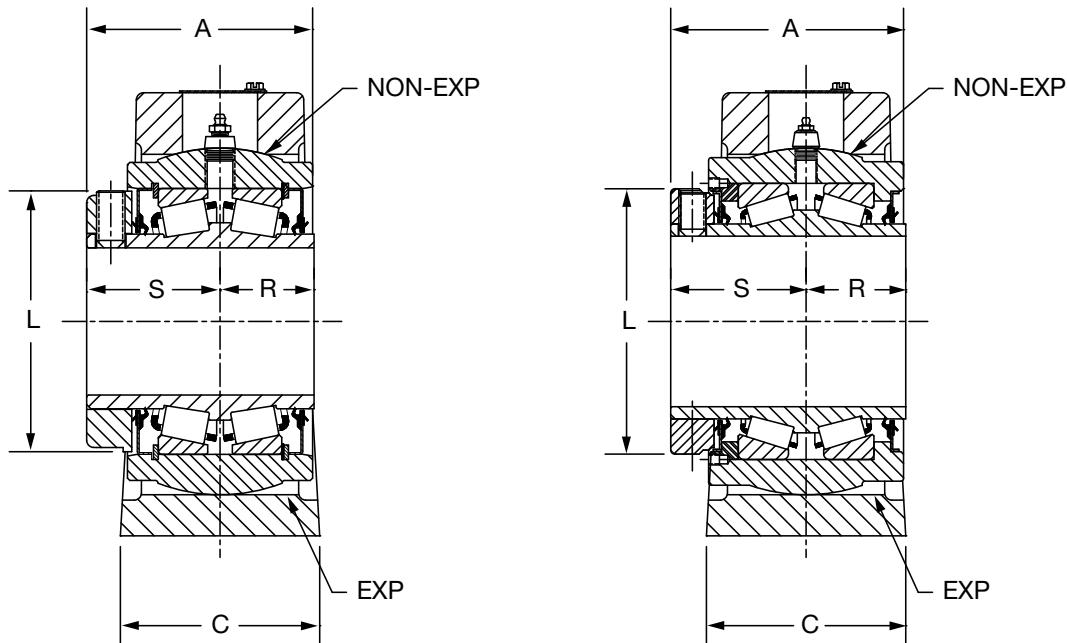
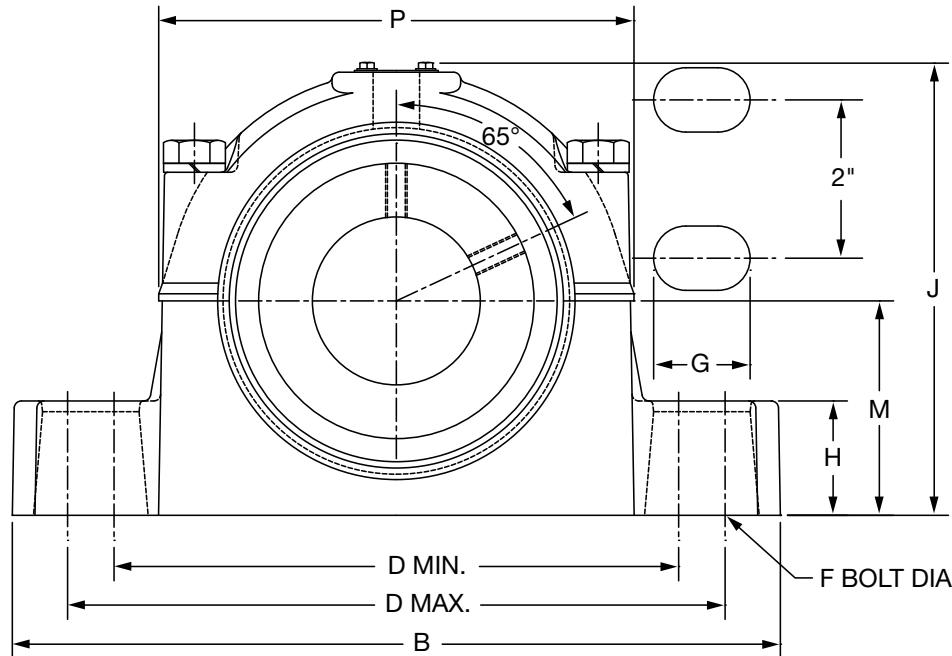
Shaft Size	Part Number	Part Name	Weight lbs (Approx.)	A	B	C	E	K *	L	M
1-3/16	<b>077192</b>	S1U-EXL-103R	3							
1-1/4	<b>077193</b>	S1U-EXL-104R	3	2.75	1.88	0.56	2.51	2.6370	2.25	1.66
1-3/8	<b>077194</b>	S1U-EXL-106R	4							
1-7/16	<b>077195</b>	S1U-EXL-107R	4	3.00	2.06	0.62	3.03	3.2000	2.75	1.94
1-1/2	<b>077196</b>	S1U-EXL-108R	4							
1-5/8	<b>077197</b>	S1U-EXL-110R	6	3.38	2.31	0.75	3.49	3.6920	3.19	2.19
1-11/16	<b>077198</b>	S1U-EXL-111R	6							
1-3/4	<b>077199</b>	S1U-EXL-112R	6							
1-7/8	<b>077200</b>	S1U-EXL-114R	6							
1-15/16	<b>077201</b>	S1U-EXL-115R	7							
2	<b>077202</b>	S1U-EXL-200R	7							
2-3/16	<b>077203</b>	S1U-EXL-203R	9	3.75	2.56	0.84	4.22	4.4380	3.75	2.61
2-1/4	<b>077204</b>	S1U-EXL-204R	11							
2-7/16	<b>077205</b>	S1U-EXL-207R	11	4.00	2.75	0.85	4.56	4.7810	4.06	3.04
2-1/2	<b>077206</b>	S1U-EXL-208R	11							
2-11/16	<b>077207</b>	S1U-EXL-211R	16							
2-3/4	<b>077208</b>	S1U-EXL-212R	16							
2-15/16	<b>077209</b>	S1U-EXL-215R	16							
3	<b>077210</b>	S1U-EXL-300R	16							
3-3/16	<b>077211</b>	S1U-EXL-303R	30							
3-1/4	<b>077212</b>	S1U-EXL-304R	30							
3-7/16	<b>077213</b>	S1U-EXL-307R	30	5.00	3.50	1.12	6.30	6.5940	5.50	3.95
3-1/2	<b>077214</b>	S1U-EXL-308R	30							
3-15/16	<b>077215</b>	S1U-EXL-315R	42							
4	<b>077216</b>	S1U-EXL-400R	42	6.25	4.50	1.56	6.84	7.2640	6.00	4.28
4-7/16	<b>077217</b>	S1U-EXL-407R	56							
4-1/2	<b>077218</b>	S1U-EXL-408R	56	6.75	4.63	1.63	7.56	8.0000	6.45	4.65
4-15/16	<b>077219</b>	S1U-EXL-415R	81							
5	<b>077220</b>	S1U-EXL-500R	81	7.25	5.13	1.87	8.79	9.2900	7.25	5.30

\* ±.0005



## SELECTION/DIMENSIONS

### Type K Pillow Block 2 & 4 BOLT BASE - INCH\*



1-3/16" THRU 3" CONSTRUCTION

3-3/16" THRU 3-15/16" CONSTRUCTION

1-13/16" THRU 3-1/2" (2 BOLT BASE)  
3-15/16" (4 BOLT BASE)



## SELECTION/DIMENSIONS

## Type K Pillow Block

## 2 &amp; 4 BOLT BASE - INCH\*

Gray Iron Non-Expansion				Gray Iron Expansion			
Shaft Size Inches #	Part Number	Part Name	Weight Lbs (Approx)	Shaft Size Inches #	Part Number	Part Name	Weight Lbs (Approx)
1-3/16	023167	P2B-K-103R	9	1-3/16	023189	P2B-K-103RE	9
1-1/4	023168	P2B-K-104R	9	1-1/4	023190	P2B-K-104RE	9
1-7/16	023170	P2B-K-107R	11	1-7/16	023192	P2B-K-107RE	11
1-1/2	023171	P2B-K-108R	15	1-1/2	023193	P2B-K-108RE	15
1-5/8	023172	P2B-K-110R	14	1-5/8	023194	P2B-K-110RE	14
1-11/16	023173	P2B-K-111R	14	1-11/16	023195	P2B-K-111RE	14
1-3/4	023174	P2B-K-112R	20	1-3/4	023196	P2B-K-112RE	20
1-15/16	023175	P2B-K-115R	19	1-15/16	023197	P2B-K-115RE	19
2	023176	P2B-K-200R	19	2	023198	P2B-K-200RE	19
2-3/16	023177	P2B-K-203R	24	2-3/16	023199	P2B-K-203RE	24
2-1/4	023178	P2B-K-204R	28	2-1/4	023200	P2B-K-204RE	28
2-7/16	023179	P2B-K-207R	28	2-7/16	023201	P2B-K-207RE	28
2-1/2	023180	P2B-K-208R	28	2-1/2	023200	P2B-K-208RE	28
2-11/16	023181	P2B-K-211R	40	2-11/16	023203	P2B-K-211RE	40
2-3/4	023182	P2B-K-212R	40	2-3/4	023204	P2B-K-212RE	40
2-15/16	023183	P2B-K-215R	39	2-15/16	023205	P2B-K-215RE	39
3	023184	P2B-K-300R	39	3	023206	P2B-K-300RE	39
3-7/16	023186	P2B-K-307R	67	3-7/16	023208	P2B-K-307RE	67
3-1/2	023187	P2B-K-308R	66	3-1/2	023209	P2B-K-308RE	66
3-15/16▲	023188	P4B-K-315R	106	3-15/16▲	023210	P4B-K-315RE	106

Non-Expansion Furnished Unless Otherwise Specified

# Consult DODGE For Sizes Not Listed

# Consult DODGE For Sizes Not Listed

Shaft Size Inches	A	B	C	D		F Bolt Dia	G	H	J	L	M	P	R	S	Exp*
				Min.	Max.										
1-3/16	2.28	7.50	1.88	6.00	6.38	3/8	0.69	1.00	4.53	2.25	2.13	5.00	1.00	1.38	3/32
1-1/4															
1-3/8	2.55	8.00	2.19	6.25	6.63	1/2	0.75	1.25	5.23	2.75	2.38	5.52	1.03	1.50	3/32
1-7/16															
1-1/2	2.83	9.00	2.38	6.88	7.63	1/2	1.00	1.38	5.75	3.19	2.63	5.81	1.56	1.69	3/32
1-5/8															
1-11/16															
1-3/4	2.95	10.00	2.53	7.38	8.44	5/8	1.30	1.50	6.27	3.44	2.88	6.36	1.20	1.75	9/32
1-15/16															
2															
2-3/16	3.16	11.00	2.66	8.06	9.25	5/8	1.33	1.50	6.52	3.75	3.00	6.95	1.25	1.88	9/32
2-1/4															
2-7/16	3.34	12.00	2.81	9.25	10.25	5/8	1.27	1.75	7.03	4.06	3.25	7.38	1.31	2.00	9/32
2-1/2															
2-11/16															
2-3/4															
2-15/16															
3	3.78	13.44	2.94	9.88	11.50	3/4	1.69	2.00	7.92	4.72	3.75	8.31	1.44	2.25	9/32
3-3/16															
3-7/16	4.27	16.00	3.44	12.81	13.81	7/8	1.50	2.25	9.42	5.50	4.50	10.09	1.69	2.50	9/32
3-1/2															
3-15/16▲	5.41	17.44	4.75	13.13	14.75	3/4	1.70	2.75	10.42	6.00	5.00	10.70	2.13	3.13	11/32

\*Exp=Total Expansion Divided Equally On Both Sides Of Bearing (Expansion Bearings Only)

NOTE: All sizes use a 1/8-27 NPT hydraulic grease fitting

▲ 4-Bolt Base (See Page For Bolts Spacing)

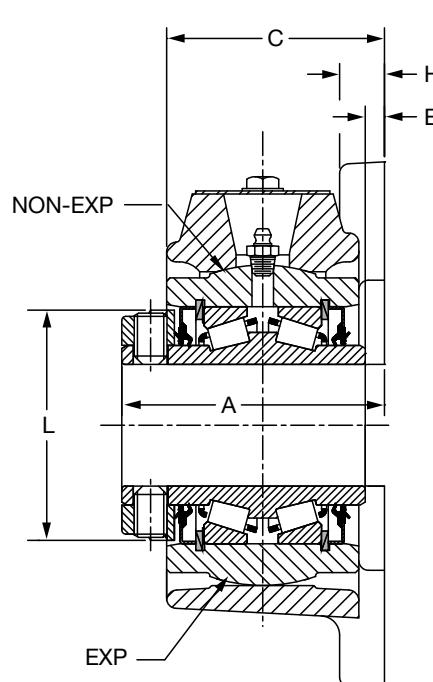
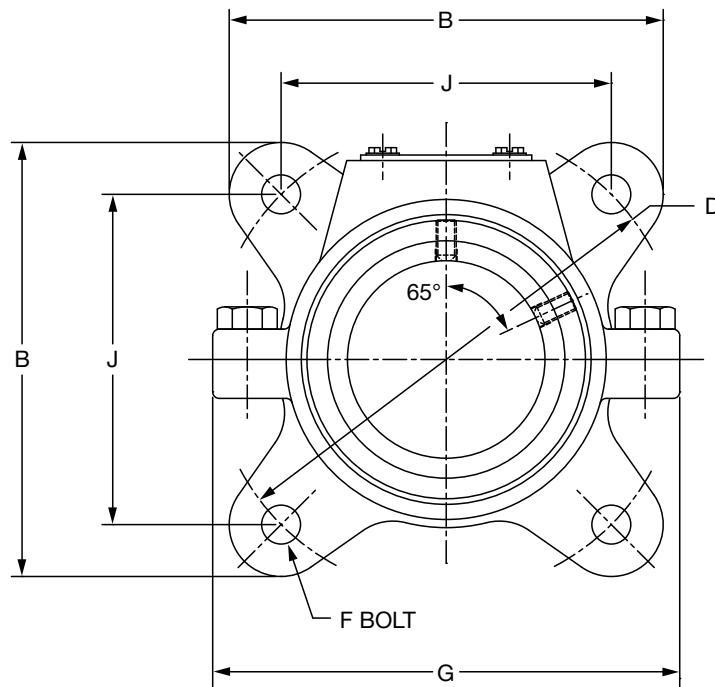
Dowel Hole Locations For Precision Positioning - See Page -

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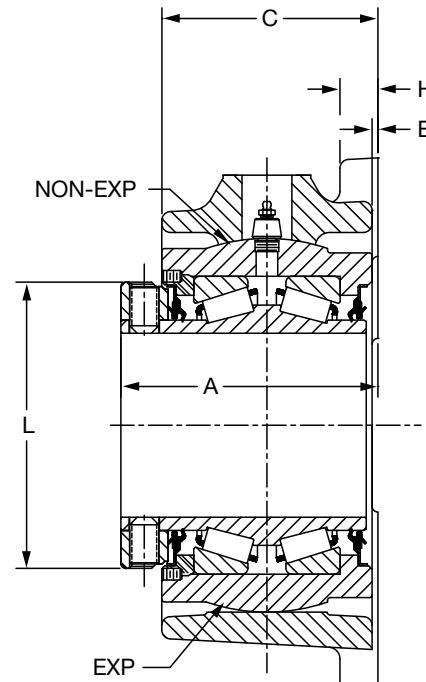


## SELECTION/DIMENSIONS

### Type K Flange Bearing - Inch



1-3/16" THRU 3" INTERNAL CONSTRUCTION



3-3/16" THRU 3-15/16" INTERNAL CONSTRUCTION



## SELECTION/DIMENSIONS

## Type K Flange Bearing - Inch

DUCTILE Iron - Non-Expansion				DUCTILE Iron - Expansion			
Shaft Size Inches	Part Number	Description	Weight Lbs (Approx)	Shaft Size Inches	Part Number	Description	Weight Lbs (Approx)
1-3/16	<b>023211</b>	F4B-K-103R	6	1-3/16	<b>023233</b>	F4B-K-103RE	6
1-1/4	<b>023212</b>	F4B-K-104R	6	1-1/4	<b>023234</b>	F4B-K-104RE	6
1-3/8	<b>023213</b>	F4B-K-106R	7	1-3/8	<b>023235</b>	F4B-K-106RE	7
1-7/16	<b>023214</b>	F4B-K-107R	8	1-7/16	<b>023236</b>	F4B-K-107RE	8
1-1/2	<b>023215</b>	F4B-K-108R	12	1-1/2	<b>023237</b>	F4B-K-108RE	12
1-5/8	<b>023216</b>	F4B-K-110R	12	1-5/8	<b>023238</b>	F4B-K-110RE	12
1-11/16	<b>023217</b>	F4B-K-111R	12	1-11/16	<b>023239</b>	F4B-K-111RE	12
1-3/4	<b>023218</b>	F4B-K-112R	13	1-3/4	<b>023240</b>	F4B-K-112RE	13
1-15/16	<b>023219</b>	F4B-K-115R	15	1-15/16	<b>023241</b>	F4B-K-115RE	15
2	<b>023220</b>	F4B-K-200R	14	2	<b>023242</b>	F4B-K-200RE	14
2-3/16	<b>023221</b>	F4B-K-203R	17	2-3/16	<b>023243</b>	F4B-K-203RE	17
2-1/4	<b>023222</b>	F4B-K-204R	17	2-1/4	<b>023244</b>	F4B-K-204RE	17
2-7/16	<b>023223</b>	F4B-K-207R	20	2-7/16	<b>023245</b>	F4B-K-207RE	20
2-1/2	<b>023224</b>	F4B-K-208R	20	2-1/2	<b>023246</b>	F4B-K-208RE	20
2-11/16	<b>023225</b>	F4B-K-211R	24	2-11/16	<b>023247</b>	F4B-K-211RE	24
2-3/4	<b>023226</b>	F4B-K-212R	24	2-3/4	<b>023248</b>	F4B-K-212RE	24
2-15/16	<b>023227</b>	F4B-K-215R	29	2-15/16	<b>023249</b>	F4B-K-215RE	29
3	<b>023228</b>	F4B-K-300R	29	3	<b>023250</b>	F4B-K-300RE	29
3-3/16	<b>023229</b>	F4B-K-303R	45	3-3/16	<b>023251</b>	F4B-K-303RE	45
3-7/16	<b>023230</b>	F4B-K-307R	47	3-7/16	<b>023252</b>	F4B-K-307RE	47
3-1/2	<b>023231</b>	F4B-K-308R	45	3-1/2	<b>023253</b>	F4B-K-308RE	45
3-15/16	<b>023232</b>	F4B-K-315R	73	3-15/16	<b>023254</b>	F4B-K-315RE	73

Non-Expansion Furnished Unless Otherwise Specified

Shaft Size Inches	A	B #	C #	D	E	F Bolt Dia.	G #	H #	J	L	Exp*
1-3/16											
1-1/4	2.56	5.19	2.13	5.66	0.19	3/8	5.25	0.44	4.00	2.25	9/32
1-3/8											
1-7/16	2.69	5.75	2.13	6.25	0.16	1/2	5.75	0.50	4.41	2.75	3/16
1-1/2											
1-5/8	3.00	6.13	2.44	6.75	0.16	1/2	6.75	0.50	4.78	3.19	3/16
1-11/16											
1-3/4											
1-15/16	3.13	6.88	2.56	7.50	0.16	5/8	7.25	0.56	5.31	3.44	3/16
2											
2-3/16	3.31	7.19	2.72	8.00	0.16	5/8	7.81	0.56	5.66	3.75	3/16
2-1/4											
2-7/16	3.56	7.63	2.92	8.50	0.25	5/8	8.56	0.63	6.00	4.06	5/16
2-1/2											
2-11/16											
2-3/4											
2-15/16	4.00	8.88	3.34	9.75	0.25	3/4	9.50	0.69	6.91	4.72	5/16
3											
3-3/16											
3-7/16	4.50	10.25	3.72	11.50	0.25	7/8	11.38	0.75	8.13	5.50	5/16
3-1/2											
3-15/16	5.50	11.44	4.63	13.00	0.13	1	12.88	0.81	9.19	6.00	5/16

# – These are as cast surfaces. Dimensions may fluctuate due to draft angles and pattern shifts.

Exp\* – Total expansion divided equally on both sides of bearing (Expansion Bearings only)

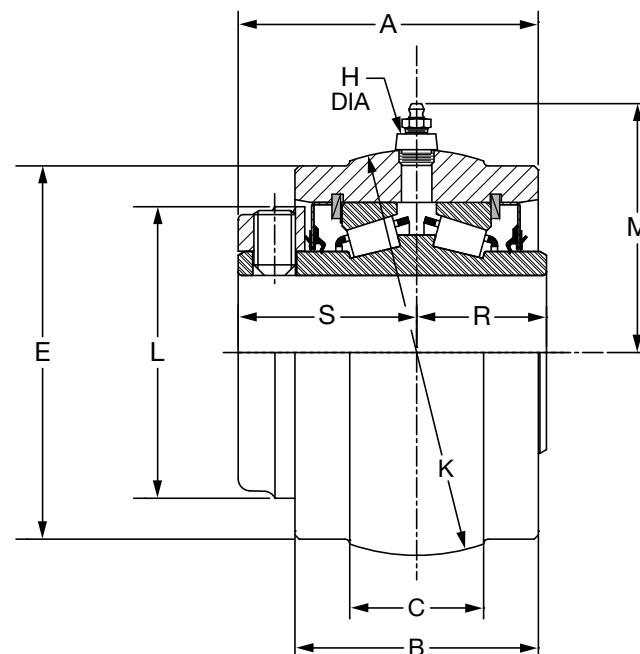
NOTE: All sizes use a 1/8-27 NPT hydraulic grease fitting

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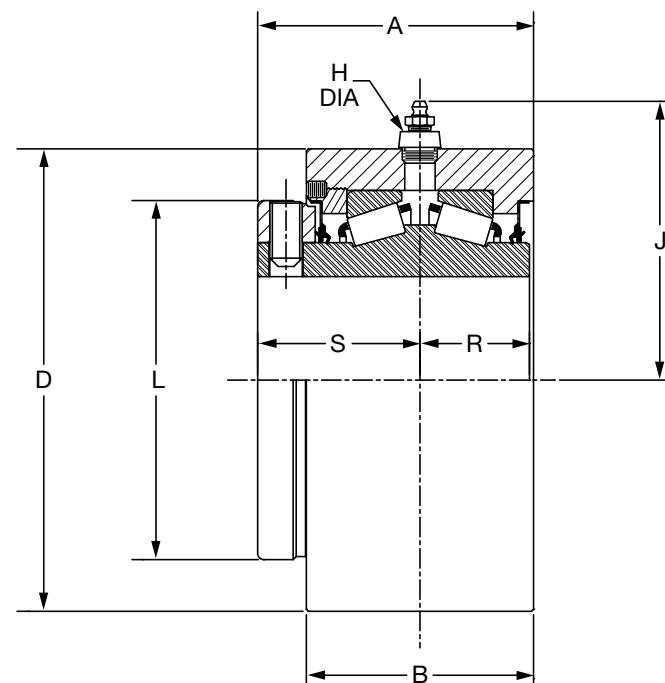


## SELECTION/DIMENSIONS

### Type K Units - Inch



**S-1 UNIT**  
1-3/16" THRU 3" CONSTRUCTION



**B-1 UNIT**  
3-3/16" THRU 3-15/16" CONSTRUCTION

# SELECTION/DIMENSIONS

**DODGE**



## Type K Units - Inch

Type S-1 Units -- Gray Iron				Type B-1 Units -- Gray Iron			
Shaft Size Inches #	Part Number	Part Name	Weight Lbs (Approx)	Shaft Size Inches #	Part Number	Part Name	Weight Lbs (Approx)
1-3/16	<b>023271</b>	S1U-K-103R	3	1-3/16	-----	B1U-K-103R	3
1-1/4	<b>023272</b>	S1U-K-104R	3	1-1/4	-----	B1U-K-104R	3
1-3/8	<b>023273</b>	S1U-K-106R	4	1-3/8	<b>023293</b>	B1U-K-106R	4
1-7/16	<b>023274</b>	S1U-K-107R	4	1-7/16	<b>023294</b>	B1U-K-107R	4
1-1/2	<b>023275</b>	S1U-K-108R	5	1-1/2	<b>023295</b>	B1U-K-108R	5
1-5/8	<b>023276</b>	S1U-K-110R	5	1-5/8	<b>023296</b>	B1U-K-110R	5
1-11/16	<b>023277</b>	S1U-K-111R	5	1-11/16	<b>023297</b>	B1U-K-111R	5
1-3/4	<b>023278</b>	S1U-K-112R	7	1-3/4	<b>023298</b>	B1U-K-112R	7
1-15/16	<b>023279</b>	S1U-K-115R	7	1-15/16	<b>023299</b>	B1U-K-115R	7
2	<b>023280</b>	S1U-K-200R	7	2	<b>023300</b>	B1U-K-200R	7
2-3/16	<b>023281</b>	S1U-K-203R	9	2-3/16	<b>023301</b>	B1U-K-203R	9
2-1/4	<b>023282</b>	S1U-K-204R	11	2-1/4	<b>023302</b>	B1U-K-204R	11
2-7/16	<b>023283</b>	S1U-K-207R	11	2-7/16	<b>023303</b>	B1U-K-207R	11
2-1/2	<b>023284</b>	S1U-K-208R	11	2-1/2	<b>023304</b>	B1U-K-208R	11
2-11/16	<b>023285</b>	S1U-K-211R	15	2-11/16	<b>023305</b>	B1U-K-211R	15
2-3/4	<b>023286</b>	S1U-K-212R	15	2-3/4	<b>023306</b>	B1U-K-212R	15
2-15/16	<b>023287</b>	S1U-K-215R	15	2-15/16	<b>023307</b>	B1U-K-215R	15
3	<b>023288</b>	S1U-K-300R	15	3	<b>023308</b>	B1U-K-300R	15
3-3/16	<b>023289</b>	S1U-K-303R	28	3-3/16	<b>023309</b>	B1U-K-303R	28
3-7/16	<b>023290</b>	S1U-K-307R	28	3-7/16	<b>023310</b>	B1U-K-307R	28
3-1/2	<b>023291</b>	S1U-K-308R	28	3-1/2	<b>023311</b>	B1U-K-308R	28
3-15/16	<b>023292</b>	S1U-K-315R	40	3-15/16	<b>023312</b>	B1U-K-315R	40

# Consult DODGE For Sizes Not Listed.

# Consult DODGE For Sizes Not Listed.

Shaft Size Inches	A	B	C	D *	E%		H	J	K **	L	M	R	S
					Machine Side	Cast Side							
1-3/16	2.31	1.88	1.03	----	2.81	3.13	0.44	----	3.125	2.25	2.03	1.00	1.38
1-1/4													
1-3/8	2.53	2.06	1.16	3.438	3.25	3.31	0.69	2.63	3.625	2.75	2.63	1.03	1.50
1-7/16													
1-1/2	2.84	2.31	1.19	3.948	3.75	3.81	0.69	2.88	4.125	3.19	2.81	1.16	1.69
1-5/8													
1-11/16													
1-3/4	2.97	2.44	1.50	4.250	4.13	4.19	0.69	3.00	4.562	3.44	3.06	1.20	1.75
1-15/16													
2													
2-3/16	3.16	2.56	1.56	4.625	4.50	4.56	0.69	3.25	5.000	3.75	3.25	1.25	1.88
2-1/4													
2-7/16	3.38	2.75	1.44	5.000	4.81	4.88	0.69	3.44	5.186	4.06	3.38	1.31	2.00
2-1/2													
2-11/16													
2-3/4	3.75	3.00	1.88	5.875	5.56	5.63	0.69	3.88	6.061	4.72	3.81	1.44	2.25
2-15/16													
3													
3-3/16													
3-7/16	4.25	3.50	2.00	7.125	6.81	6.88	0.69	4.50	7.373	5.50	4.50	1.69	2.50
3-1/2													
3-15/16	5.38	4.50	2.38	7.875	7.44	7.50	0.94	5.50	7.997	6.00	5.16	2.13	3.13

\* +.000 -.002"

% Machined side of unit is on collar side only.

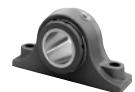
NOTE: All sizes use a 1/8-27 NPT hydraulic grease fitting

\*\* +.000 -.001 Sizes 1-3/16 THRU 3,"

±.0005, Sizes 3-3/16 THRU 3-15/16,"

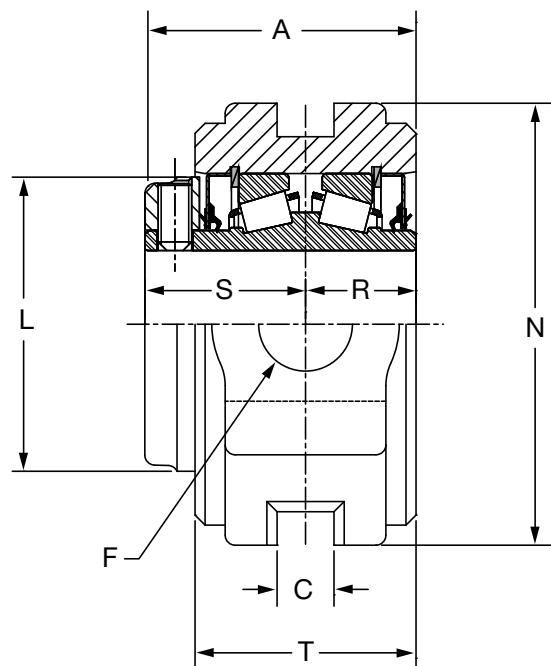
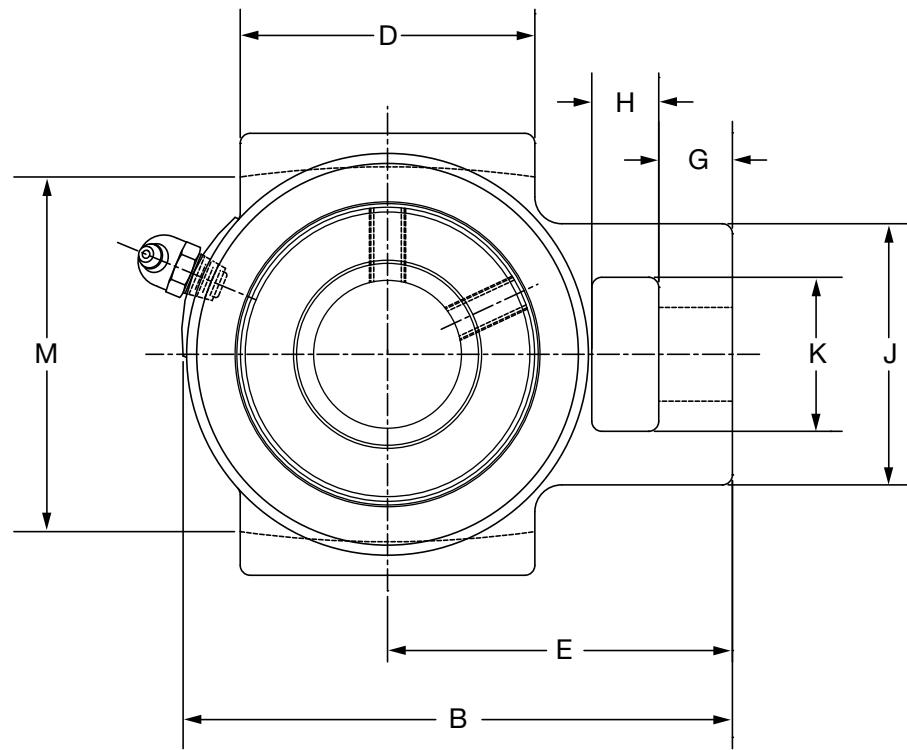
ALL DIMENSIONS SHOWN IN INCHES

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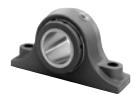


## SELECTION/DIMENSIONS

### Type K Wide Slot Take-Up Unit - Inch



1-3/8" THRU 3" CONSTRUCTION



# SELECTION/DIMENSIONS

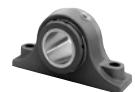
## Type K Wide Slot Take-Up Unit - Inch

Gray Iron				
Shaft Size Inches #	Part Number	Part Name	Weight Lbs (Approx)	CP FRAME Size
1-7/16	<b>023256</b>	WSTU-K-107R	8	CP308
1-15/16	<b>023261</b>	WSTU-K-115R	11	CP400
2-3/16	<b>023263</b>	WSTU-K-203R	15	CP408
2-7/16	<b>023265</b>	WSTU-K-207R	20	
2-1/2	<b>023266</b>	WSTU-K-208R	20	CP502
2-15/16	<b>023269</b>	WSTU-K-215R	28	
3	<b>023270</b>	WSTU-K-300R	28	CP515

# Consult DODGE For Sizes Not Listed.

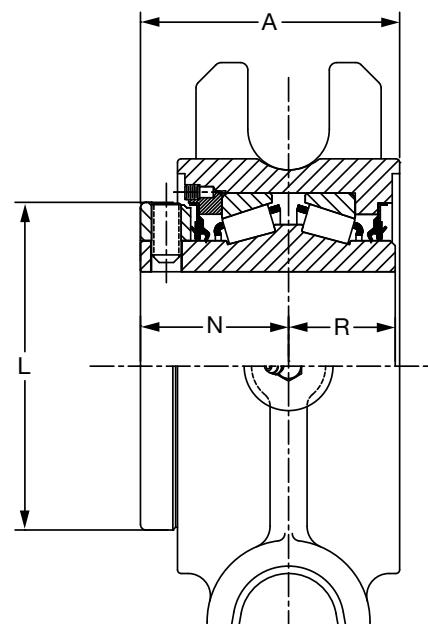
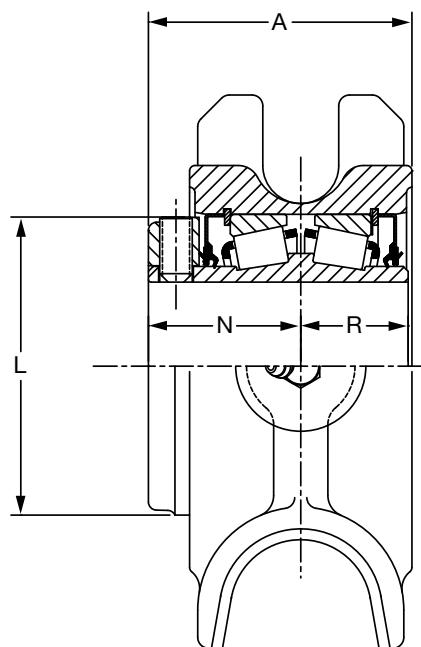
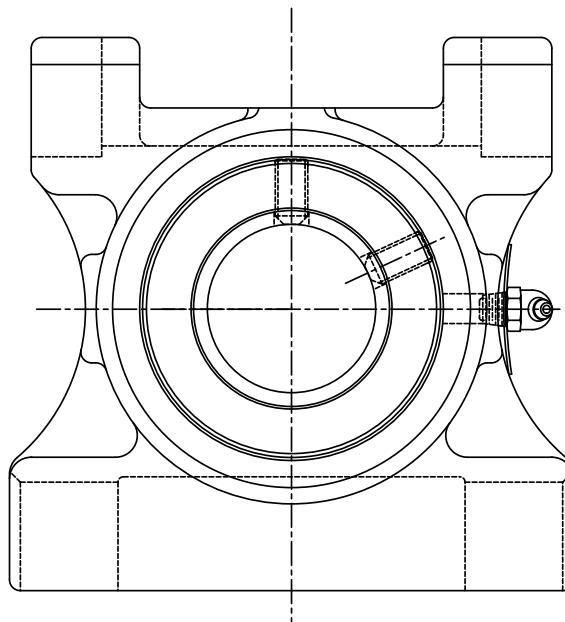
Shaft Size Inches	A	B	C	D	E	F Screw Dia	G	H	J	K	L	M	N	R	S	T
1-7/16	2.53	5.09	0.53	2.75	3.22	3/4	0.69	0.63	2.44	1.44	2.75	3.50	4.13	1.03	1.50	2.06
1-15/16	2.97	6.31	0.69	3.75	3.94	1	0.94	0.75	3.31	1.94	3.44	4.00	4.75	1.20	1.75	2.44
2-3/16	3.16	7.13	0.81	3.75	4.63	1-1/8	1.00	1.25	3.88	2.25	3.75	4.50	5.25	1.25	1.88	2.56
2-7/16	3.38	7.891	1.06	4.50	5.06	1-1/2	1.06	1.25	4.25	2.50	4.06	5.13	6.00	1.31	2.00	2.75
2-15/16	3	9.13	1.81	4.75	5.88	1-1/2	1.38	1.50	4.88	2.75	4.72	5.94	6.75	1.44	2.25	3.00

**NOTE:** All sizes use a 1/8-27 NPT hydraulic grease fitting



## SELECTION/DIMENSIONS

### Type K TP Take-Up Bearing - Inch





## SELECTION/DIMENSIONS

### Type K TP Take-Up Bearing - Inch

Gray Iron			
Shaft Size Inches #	Part Number	Part Name	Weight Lbs (Approx)
1-15/16	<b>023314</b>	TP-K-115R	13
2-3/16	<b>023316</b>	TP-K-203R	16
2-7/16	<b>023318</b>	TP-K-207R	20
2-15/16	<b>023322</b>	TP-K-215R	27
3-7/16	<b>023325</b>	TP-K-307R	40
3-15/16	<b>023327</b>	TP-K-315R	59

# Consult DODGE For Sizes Not Listed.

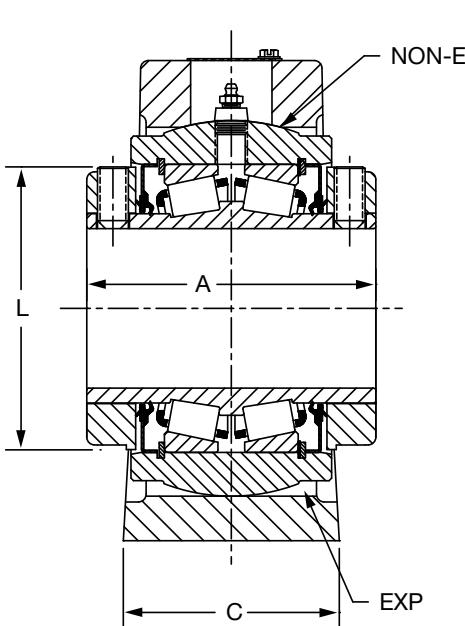
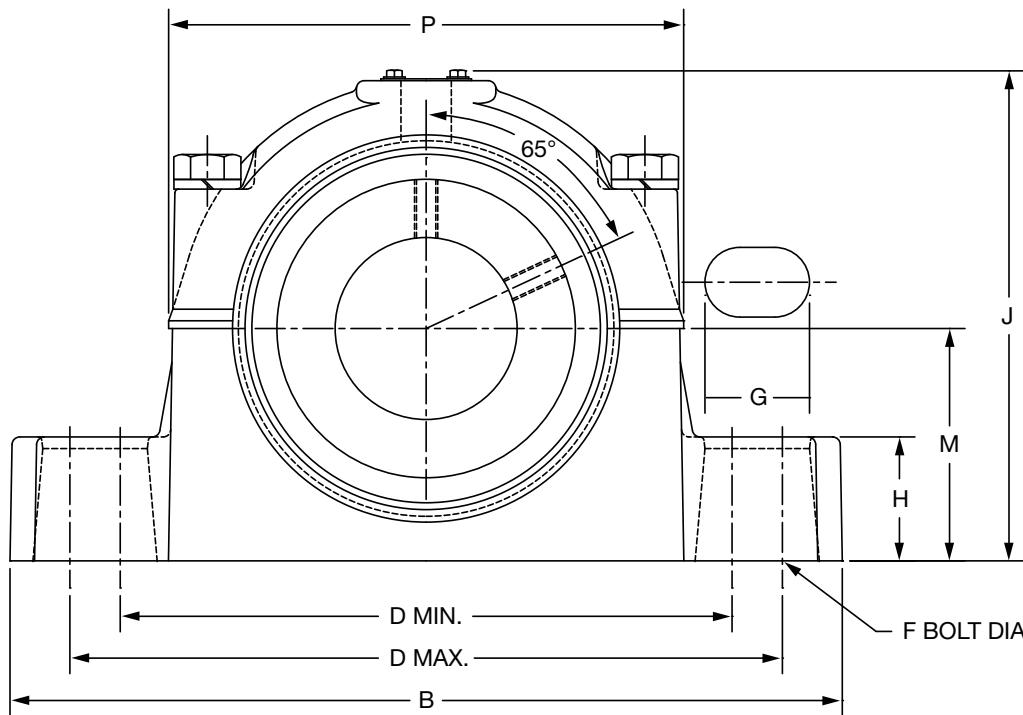
Shaft Size Inches	Frame Size Ref.	A	L	N	R
1-15/16	TP10	3.03	3.44	1.75	1.22
2-3/16	TP20	3.19	3.75	1.88	1.25
2-7/16	TP30	3.50	4.06	2.00	1.31
2-15/16	TP40	3.75	4.72	2.25	1.44
3-7/16	TP50	4.28	5.50	2.41	1.78
3-15/16	TP60	5.50	6.00	3.13	2.13

**NOTE:** All sizes use a 1/8-27 NPT hydraulic grease fitting

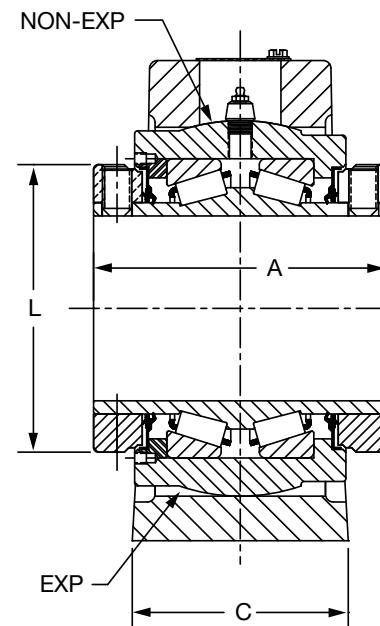


## SELECTION/DIMENSIONS

### DOUBLE-INTERLOCK Pillow Block - Inch 2-BOLT BASE



1-3/16" THRU 3" CONSTRUCTION



3-3/16" THRU 3-1/2" CONSTRUCTION



## SELECTION/DIMENSIONS

DOUBLE-INTERLOCK Pillow Block - Inch  
2-BOLT BASE

Gray Iron Non-Expansion						Gray Iron Expansion					
Shaft Size Inches#	Shaft Size Symbol	Pillow Block Assy	Housing Only	Bearing Inner Unit	PIL. BLK. Wt., Aprx Lbs	Shaft Size Inches#	Shaft Size Symbol	Pillow Block Assy	Housing Only	Bearing Inner Unit	PIL. BLK. Wt., Aprx Lbs
1-1/4	104	023329	056130	023508	9	1-1/4	104	023376	056100	023508	9
1-3/8	106	023330	056132	023509	11	1-3/8	106	023377	056102	023509	11
1-7/16	107	023331	056132	023510	11	1-7/16	107	023378	056102	023510	11
1-1/2	108	023332	056134	023511	15	1-1/2	108	023379	056104	023511	15
1-5/8	110	023333	056134	023512	15	1-5/8	110	023380	056104	023512	15
1-11/16	111	023334	056134	023513	15	1-11/16	111	023381	056104	023513	15
1-3/4	112	023335	056136	023514	18	1-3/4	112	023382	056106	023514	18
1-15/16	115	023337	056136	023516	17	1-15/16	115	023384	056106	023516	17
2	200	023338	056136	023517	17	2	200	023385	056106	023517	17
2-3/16	203	023339	056138	023518	25	2-3/16	203	023386	056108	023518	22
2-1/4	204	023340	056140	023519	29	2-1/4	204	023387	056110	023519	29
2-7/16	207	023341	056140	023520	26	2-7/16	207	023388	056110	023520	26
2-1/2	208	023342	056140	023521	26	2-1/2	208	023389	056110	023521	26
2-11/16	211	023343	056142	023522	41	2-11/16	211	023390	056112	023522	42
2-3/4	212	023344	056142	023523	41	2-3/4	212	023391	056112	023523	42
2-15/16	215	023345	056142	023524	40	2-15/16	215	023392	056112	023524	41
3	300	023346	056142	023525	40	3	300	023393	056112	023525	41
3-3/16	303	023347	056144	023526	67	3-3/16	303	023394	056114	023526	69
3-7/16	307	023349	056144	023528	66	3-7/16	307	023396	056114	023528	68
3-1/2	308	023350	056144	023529	66	3-1/2	308	023397	056114	023529	68

Description = P2B-DI-207R For 2-7/16" Size

# Consult DODGE For Sizes Not Listed.

Non-Expansion Furnished Unless Otherwise Specified

Description = P2B-DI-207RE For 2-7/16" Size

# Consult DODGE For Sizes Not Listed.

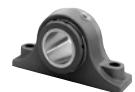
Shaft Size Inches	A	B	C	D		F Bolt Dia.	G	H	J	L	M	P	Exp*
				Min.	Max.								
1-1/4	2.75	7.50	1.88	6.00	6.38	3/8	0.67	1.00	4.53	2.25	2.13	5.00	3/32
1-3/8	3.00	8.00	2.19	6.25	6.63	1/2	0.75	1.25	5.23	2.75	2.38	5.52	3/32
1-7/16													
1-1/2													
1-5/8	3.38	9.00	2.38	6.88	7.63	1/2	1.00	1.38	5.75	3.19	2.63	5.81	3/32
1-11/16													
1-3/4													
1-15/16	3.50	10.00	2.53	7.38	8.44	5/8	1.30	1.50	6.27	3.44	2.88	6.36	9/32
2													
2-3/16	3.75	11.00	2.66	8.06	9.25	5/8	1.33	1.50	6.52	3.75	3.00	6.97	9/32
2-1/4													
2-7/16	4.00	12.00	2.81	9.27	10.25	5/8	1.27	1.75	7.03	4.06	3.25	7.38	9/32
2-1/2													
2-11/16													
2-3/4													
2-15/16	4.50	13.44	2.94	9.88	11.50	3/4	1.69	2.00	7.92	4.72	3.75	8.31	9/32
3													
3-3/16													
3-7/16	5.00	16.00	3.44	12.81	13.81	7/8	1.50	2.25	9.42	5.50	4.50	10.09	9/32
3-1/2													

\* EXP - Total Expansion Divided Equally On Both Sides Of Bearing (Expansion Bearings Only)

NOTE: All sizes use a 1/8-27 NPT hydraulic grease fitting

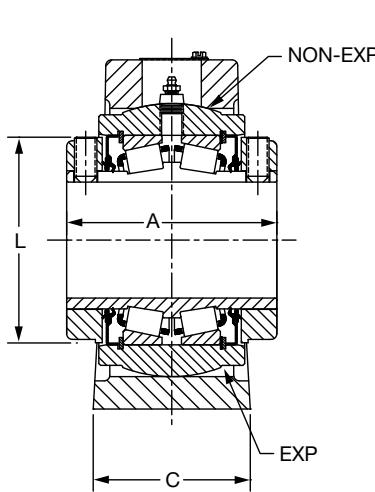
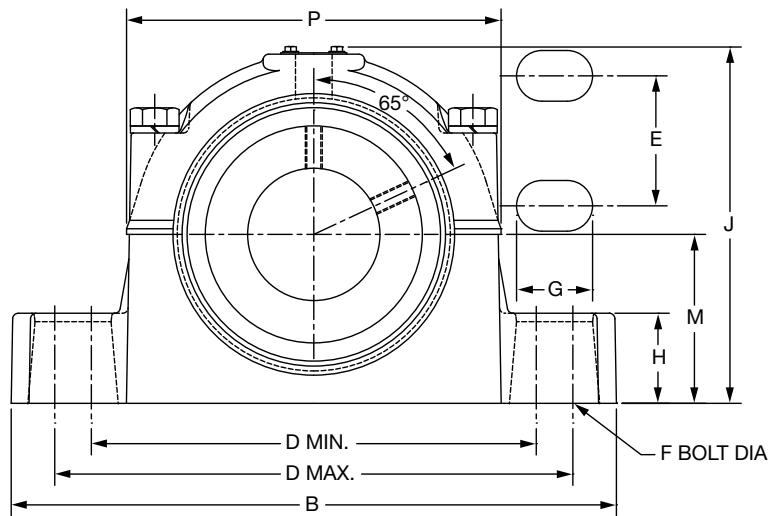
Dowel Hole Locations For Precision Positioning - See Page -

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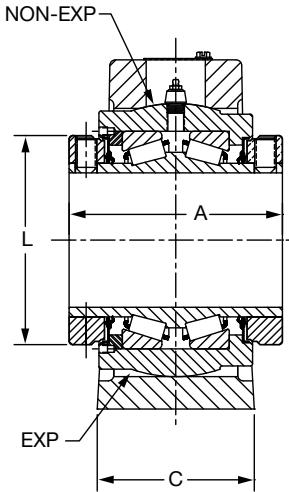


## SELECTION/DIMENSIONS

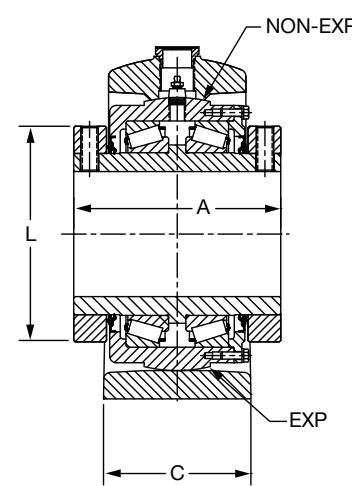
### DOUBLE-INTERLOCK Pillow Block - Inch 4-BOLT BASE



2-1/4" THRU 3" CONSTRUCTION



3-3/16" THRU 5" CONSTRUCTION



5-7/16" THRU 7" CONSTRUCTION



## SELECTION/DIMENSIONS

DOUBLE-INTERLOCK Pillow Block - Inch  
4-BOLT BASE

Gray Iron NON EXPANSION						Gray Iron EXPANSION					
Shaft Size Inches#	Shaft Size Symbol	Pillow Block ASSY	Housing Only	Bearing Inner Unit	PIL. BLK. WT., Aprx Lbs	Shaft Size Inches#	Shaft Size Symbol	Pillow Block ASSY	Housing Only	Bearing Inner Unit	PIL. BLK. WT., Aprx Lbs
2-7/16	207	023352	060745	023520	28	2-7/16	207	023399	060746	023520	28
2-1/2	208	023353	060745	023521	28	2-1/2	208	023400	060746	023521	28
2-11/16	211	023354	060747	023522	38	2-11/16	211	023401	060748	023522	38
2-15/16	215	023356	060747	023524	38	2-15/16	215	023403	060748	023524	38
3	300	023357	060747	023525	38	3	300	023404	060748	023525	38
3-7/16	307	023360	060749	023528	69	3-7/16	307	023407	060750	023528	69
3-1/2	308	023361	060749	023529	69	3-1/2	308	023408	060750	023529	69
3-15/16	315	023362	060751	023530	109	3-15/16	315	023409	060752	023530	110
4	400	023363	060751	023531	109	4	400	023410	060752	023531	110
4-7/16	407	023364	060753	023532	139	4-7/16	407	023411	060754	023532	139
4-1/2	408	023365	060753	023533	135	4-1/2	408	023412	060754	023533	135
4-15/16	415	023366	060755	023534	183	4-15/16	415	023413	060756	023534	181
5	500	023367	060755	023535	181	5	500	023414	060756	023535	179
5-7/16	507	023368	060579	023536	310	5-7/16	507	023415	060578	023536	310
5-15/16	515	023369	060579	023537	299	5-15/16	515	023416	060578	023537	299

Non-Expansion Furnished Unless Otherwise Specified

# Consult DODGE For Sizes Not Listed.

Shaft Size Inches	A	B	C	D		E	F Bolt Dia	G	H	J	L	M	P	Exp*
				Min.	Max									
2-7/16	4.00	12.00	3.38	9.27	10.25	1.75	1/2	1.06	1.75	7.03	4.06	3.25	7.38	9/32
2-11/16														
2-15/16	4.50	13.44	3.50	9.88	11.50	1.88	5/8	1.56	2.00	7.92	4.72	3.75	8.31	9/32
3														
3-7/16	5.00	16.00	4.00	12.81	13.81	2.00	3/4	1.45	2.25	9.42	5.50	4.50	10.09	9/32
3-15/16	6.25	17.44	4.75	13.13	14.75	2.00	3/4	1.70	2.75	10.42	6.00	5.00	10.70	11/32
4														
4-7/16	6.75	19.00	4.63	14.38	16.25	2.25	3/4	1.81	3.00	11.59	6.45	5.75	12.45	11/32
4-1/2														
4-15/16	7.25	20.50	5.13	15.50	18.06	2.50	7/8	2.28	3.25	12.83	7.45	6.25	13.36	11/32
5														
5-7/16	9.00	23.69	6.25	19.00	20.63	3.00	1	1.94	3.50	14.59	9.38	7.13	15.13	1/2
5-15/16														

\*EXP - Total Expansion Divided Equally On Both Sides Of Bearing (Expansion Bearings Only)

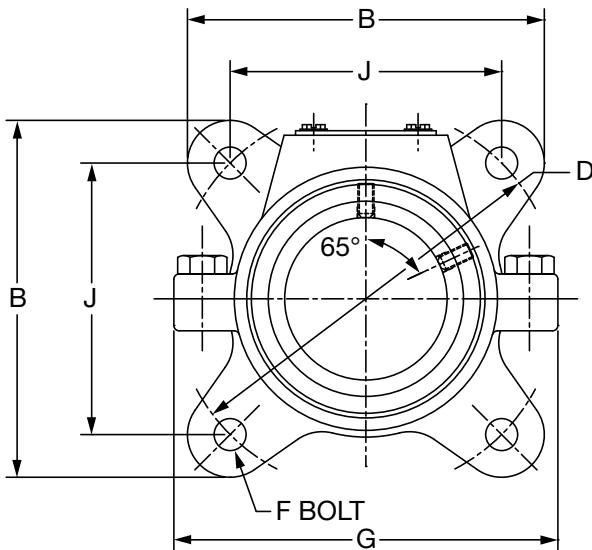
NOTE: All sizes use a 1/8-27 NPT hydraulic grease fitting

Dowel Hole Locations For Precision Positioning - See Page -

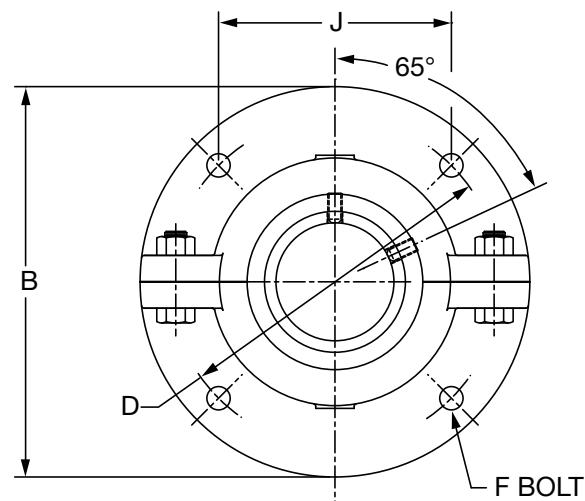


## SELECTION/DIMENSIONS

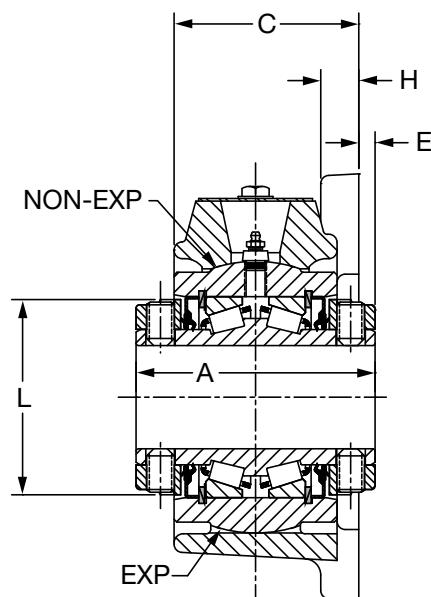
### DOUBLE-INTERLOCK Flange Bearing - Inch



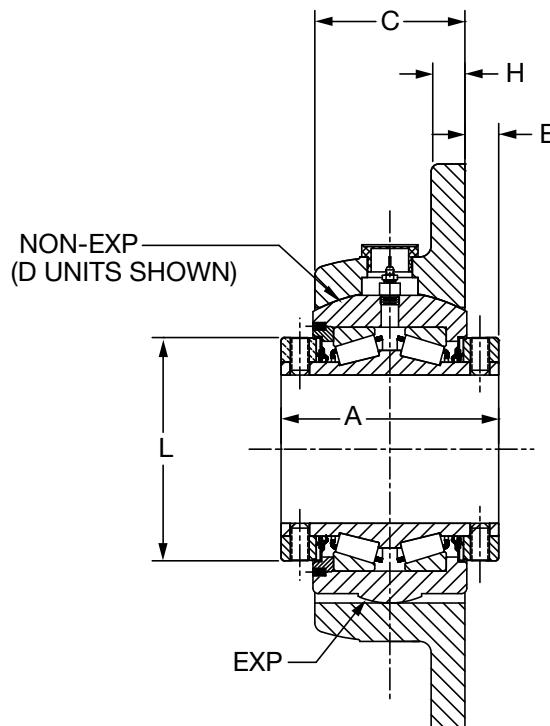
1-3/16" THRU 4" EXTERNAL CONSTRUCTION



4-7/16" THRU 5" EXTERNAL CONSTRUCTION



1-3/16" THRU 3" INTERNAL CONSTRUCTION



3-3/16" THRU 5" INTERNAL CONSTRUCTION

# SELECTION/DIMENSIONS



## DOUBLE-INTERLOCK Flange Bearing - Inch

DUCTILE Iron Non-Expansion				DUCTILE Iron Expansion			
Shaft Size Inches #	Part Number	Part Name	Weight Lbs (Approx)	Shaft Size Inches #	Part Number	Part Name	Weight Lbs (Approx)
1-3/16	023422	F4B-DI-103R	7	1-3/16	023451	F4B-DI-103RE	7
1-1/4	023423	F4B-DI-104R	7	1-1/4	023452	F4B-DI-104RE	7
1-3/8	023424	F4B-DI-106R	10	1-3/8	023453	F4B-DI-106RE	10
1-7/16	023425	F4B-DI-107R	9	1-7/16	023454	F4B-DI-107RE	9
1-1/2	023426	F4B-DI-108R	14	1-1/2	023455	F4B-DI-108RE	14
1-5/8	023427	F4B-DI-110R	14	1-5/8	023456	F4B-DI-110RE	14
1-11/16	023428	F4B-DI-111R	13	1-11/16	023457	F4B-DI-111RE	13
1-3/4	023429	F4B-DI-112R	16	1-3/4	023458	F4B-DI-112RE	16
1-7/8	023430	F4B-DI-114R	16	1-7/8	023459	F4B-DI-114RE	16
1-15/16	023431	F4B-DI-115R	16	1-15/16	023460	F4B-DI-115RE	16
2	023432	F4B-DI-200R	15	2	023461	F4B-DI-200RE	15
2-3/16	023433	F4B-DI-203R	19	2-3/16	023462	F4B-DI-203RE	19
2-1/4	023434	F4B-DI-204R	23	2-1/4	023463	F4B-DI-204RE	23
2-7/16	023435	F4B-DI-207R	22	2-7/16	023464	F4B-DI-207RE	22
2-1/2	023436	F4B-DI-208R	22	2-1/2	023465	F4B-DI-208RE	22
2-11/16	023437	F4B-DI-211R	34	2-11/16	023466	F4B-DI-211RE	34
2-3/4	023438	F4B-DI-212R	33	2-3/4	023467	F4B-DI-212RE	33
2-15/16	023439	F4B-DI-215R	31	2-15/16	023468	F4B-DI-215RE	31
3	023440	F4B-DI-300R	31	3	023469	F4B-DI-300RE	31
3-3/16	023441	F4B-DI-303R	54	3-3/16	023470	F4B-DI-303RE	54
3-1/4	023442	F4B-DI-304R	53	3-1/4	023471	F4B-DI-304RE	53
3-7/16	023443	F4B-DI-307R	52	3-7/16	023472	F4B-DI-307RE	52
3-1/2	023444	F4B-DI-308R	52	3-1/2	023473	F4B-DI-308RE	52
3-15/16	023445	F4B-DI-315R	82	3-15/16	023474	F4B-DI-315RE	82
4	023446	F4B-DI-400R	81	4	023475	F4B-DI-400RE	81
4-7/16 ♀	023447	F4B-DI-407R	158	4-7/16 ♀	023476	F4B-DI-407RE	158
4-1/2 ♀	023448	F4B-DI-408R	158	4-1/2 ♀	023477	F4B-DI-408RE	158
4-15/16 ♀	023449	F4B-DI-415R	257	4-15/16 ♀	023478	F4B-DI-415RE	271
5 ♀	023450	F4B-DI-500R	329	5	023479	F4B-DI-500RE	329

Non-Expansion Furnished Unless Otherwise Specified

◊ 4-7/16" - 5" Housings Are Made Of Cast Iron

Shaft Size Inches	A	B #	C #	D	E	F Bolt Dia.	G #	H #	J	L	Exp *
1-3/16											
1-1/4	2.75	5.13	2.13	5.66	0.19	3/8	5.25	0.44	4.00	2.25	5/16
1-3/8											
1-7/16	3.00	5.75	2.13	6.25	0.31	1/2	5.75	0.50	4.42	2.75	3/16
1-1/2											
1-5/8											
1-11/16	3.38	6.13	2.44	6.75	0.38	1/2	6.75	0.50	4.78	3.19	3/16
1-3/4											
1-7/8											
1-15/16	3.50	6.88	2.56	7.50	0.38	5/8	7.25	0.56	5.31	3.44	3/16
2											
2-3/16	3.75	7.19	2.72	8.00	0.44	5/8	7.81	0.56	5.66	3.75	3/16
2-1/4											
2-7/16	4.00	7.66	2.94	8.50	0.44	5/8	8.56	0.63	6.00	4.06	5/16
2-1/2											
2-11/16											
2-3/4											
2-15/16	4.50	8.88	3.34	9.75	0.50	3/4	9.50	0.69	6.89	4.72	5/16
3											
3-3/16											
3-1/4											
3-7/16	5.00	10.25	3.72	11.50	0.50	7/8	11.38	0.75	8.13	5.50	5/16
3-1/2											
3-15/16	6.25	11.44	4.63	13.00	0.75	1	12.88	0.81	9.19	6.00	5/16
4											
4-7/16	6.75	17.75	4.63	15.00	1.06	1	—	1.00	10.61	6.45	13/16
4-1/2											
4-15/16	7.25	19.00	5.00	16.00	1.13	1-1/8	—	1.13	11.31	7.45	13/16
5											

# - These are as cast surfaces. Dimensions may fluctuate due to draft angles and pattern shifts.

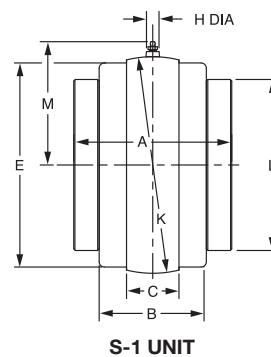
Exp \* - Total expansion divided equally on both sides of bearing (Expansion Bearings only) NOTE: All sizes use a 1/8-27 NPT hydraulic grease fitting

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# SELECTION/DIMENSIONS



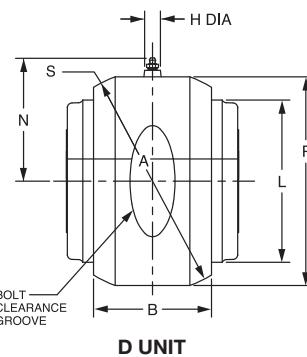
## DOUBLE-INTERLOCK Units - Inch


**Pillow Block**

S-1 units are used in expansion and non-expansion pillow block housings

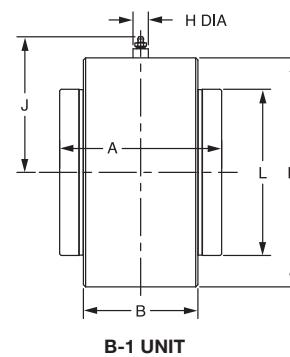
**Flange**

S-1 unit is used in expansion flange housings and non-expansion flange housings for 1-3/16 - 4"


**Flange**

D units are used in non-expansion flange housings

- 4-7/16 - 5" bore size
- Formerly used in DOUBLE-INTERLOCK non-expansion flange bearing and pillow blocks thru 5 bore size prior to '78


**B-1 UNIT**

B-1 units can only be used in a customer manufactured housing and are often mounted in machines where bored holes can be provided. B-1 units can be used either as non-expansion or expansion bearings by providing a suitable means of locating the unit axially. B-1 units will handle slight misalignment requirements. Shaft must be supported by another unit or bearing. For mounting in rotating wheels the Type C B-1 units is preferred or consult the factory.

Shaft Size Inches	A	B	C	$\sigma$ D	E		H	J	K	L	M	N	P	S
					Mach Side	Cast Side								
1-3/16 1-1/4	2.75	1.88	1.03	3.000	2.81	2.28	**	2.42	3.125 •	2.25	2.03	---	---	---
1-3/8 1-7/16	3.00	2.06	1.16	3.438	3.25	3.31	11/16	2.54	3.625 •	2.75	2.64	2.88	3.63	3.844 •
1-1/2 1-5/8 1-11/16	3.38	2.31	1.19	3.938	3.75	3.81	11/16	2.79	4.125 •	3.19	2.89	3.13	4.09	4.344 •
1-3/4 1-7/8 1-15/16 2	3.50	2.44	1.50	4.250	4.13	4.19	11/16	2.95	4.562 •	3.44	3.10	3.25	4.44	4.656 •
2-3/16	3.75	2.56	1.56	4.625	4.50	4.63	11/16	3.13	5.000 •	3.75	3.32	3.44	4.72	5.000 •
2-1/4	4.00	2.75	1.44	5.000	4.81	4.88	11/16	3.32	5.186 •	4.06	3.41	3.58	5.16	5.437 •
2-7/16 2-1/2	4.50	3.00	1.88	5.875	5.56	5.63	11/16	3.76	6.061 •	4.72	3.85	4.00	5.81	6.094 •
2-11/16 2-3/4 2-15/16 3	5.00	3.50	2.00	7.125	6.81	6.88	11/16	4.38	7.373#	5.50	4.51	4.69	7.22	7.500 ^
3-3/16 3-1/4 3-7/16 3-1/2	6.25	4.50	2.38	7.875	7.44	7.50	*	5.48	7.997#	6.00	5.16	5.13	8.13	8.375 ^
4-7/16 4-1/2	6.75	4.63	2.38	8.750	8.31	8.38	*	5.91	8.872#	6.45	5.60	5.50	8.88	9.125 ^
4-15/16 5	7.25	5.13	2.88	10.125	9.56	9.63	*	6.6	10.184#	7.45	6.26	6.19	10.25	10.500 ^
5-7/16 5-15/16 6	9.00	6.06	2.88	---	11.19	11.19	15/16	---	11.874	9.38	7.10	---	---	---
6-7/16 6-1/2 6-15/16 7	10.50	7.13	3.00	---	13.25	13.25	15/16	---	14.248	11.38	8.29	---	---	---

\* 11/16" DIA ON D Units; 15/16" ON S-1 Units AND 3/4 HEX ON B-1 Units

\*\* 11/16" DIA ON B-1 Units; 7/16" DIA ON S-1 Units

• +.000 TO .001"

# ±.0005"

$\sigma$  +.000 TO -.002"

+.000 TO -.003"

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## SELECTION/DIMENSIONS

### DOUBLE-INTERLOCK Units - Inch

"S-1" Units -- Gray Iron			
1-3/16" thru 3"			
Shaft Size Inches #	Part Number	Part Name	Weight Lbs (Approx)
1-3/16	023507	S1U-DI-103R	3
1-1/4	023508	S1U-DI-104R	4
1-3/8	023509	S1U-DI-106R	5
1-7/16	023510	S1U-DI-107R	5
1-1/2	023511	S1U-DI-108R	7
1-5/8	023512	S1U-DI-110R	7
1-11/16	023513	S1U-DI-111R	7
1-3/4	023514	S1U-DI-112R	8
1-7/8	023515	S1U-DI-114R	8
1-15/16	023516	S1U-DI-115R	8
2	023517	S1U-DI-200R	8
2-3/16	023518	S1U-DI-203R	10
2-1/4	023519	S1U-DI-204R	12
2-7/16	023520	S1U-DI-207R	11
2-1/2	023521	S1U-DI-208R	11
2-11/16	023522	S1U-DI-211R	18
2-3/4	023523	S1U-DI-212R	17
2-15/16	023524	S1U-DI-215R	17
3	023525	S1U-DI-300R	17

# Consult DODGE For Sizes Not Listed.

"S-1" Units -- Gray Iron			
3-3/16" thru 7"			
Shaft Size Inches #	Part Number	Part Name	Weight Lbs (Approx)
3-3/16	023526	S1U-DI-303R	34
3-1/4	023527	S1U-DI-304R	31
3-7/16	023528	S1U-DI-307R	31
3-1/2	023529	S1U-DI-308R	31
3-15/16	023530	S1U-DI-315R	43
4	023531	S1U-DI-400R	43
4-7/16	023532	S1U-DI-407R	57
4-1/2	023533	S1U-DI-408R	64
4-15/16	023534	S1U-DI-415R	82
5	023535	S1U-DI-500R	82
5-7/16	023536	S1U-DI-507R	159
5-15/16	023537	S1U-DI-515R	135
6	023538	S1U-DI-600R	128
6-7/16	023539	S1U-DI-607R	187
6-1/2	023540	S1U-DI-608R	182
6-15/16	023541	S1U-DI-615R	180
7	023542	S1U-DI-700R	178

# Consult DODGE For Sizes Not Listed.

"D" Units -- Gray Iron			
Shaft Size Inches #	Part Number	Part Name	Weight Lbs (Approx)
1-3/16	-----	DU-DI-103R	-----
1-1/4	-----	DU-DI-104R	-----
1-3/8	023480	DU-DI-106R	5
1-7/16	023481	DU-DI-107R	5
1-1/2	023482	DU-DI-108R	8
1-5/8	023483	DU-DI-110R	7
1-11/16	023484	DU-DI-111R	7
1-3/4	023485	DU-DI-112R	8
1-7/8	023486	DU-DI-114R	8
1-15/16	023487	DU-DI-115R	8
2	023488	DU-DI-200R	8
2-3/16	023489	DU-DI-203R	9
2-1/4	023490	DU-DI-204R	12
2-7/16	023491	DU-DI-207R	12
2-1/2	023492	DU-DI-208R	12
2-11/16	023493	DU-DI-211R	18
2-3/4	023494	DU-DI-212R	17
2-15/16	023495	DU-DI-215R	16
3	023496	DU-DI-300R	16
3-3/16	023497	DU-DI-303R	32
3-1/4	023498	DU-DI-304R	31
3-7/16	023499	DU-DI-307R	30
3-1/2	023500	DU-DI-308R	29
3-15/16	023501	DU-DI-315R	46
4	023502	DU-DI-400R	43
4-7/16	023503	DU-DI-407R	57
4 1/2	023504	DU-DI-408R	64
4-15/16	023505	DU-DI-415R	85
5	023506	DU-DI-500R	85

# Consult DODGE For Sizes Not Listed.

"B-1" Units -- Gray Iron			
Shaft Size Inches #	Part Number	Part Name	Weight Lbs (Approx)
1-3/16	023543	BIU-DI-103R	3
1-3/8	023545	BIU-DI-106R	5
1-7/16	023546	BIU-DI-107R	5
1-1/2	023547	BIU-DI-108R	6
1-5/8	023548	BIU-DI-110R	6
1-3/4	023550	BIU-DI-112R	8
1-15/16	023552	BIU-DI-115R	8
2	023553	BIU-DI-200R	7
2-3/16	023554	BIU-DI-203R	9
2-7/16	023556	BIU-DI-207R	12
2-1/2	023557	BIU-DI-208R	11
2-11/16	023558	BIU-DI-211R	17
2-3/4	023559	BIU-DI-212R	17
2-15/16	023560	BIU-DI-215R	17
3	023561	BIU-DI-300R	17
3-7/16	023564	BIU-DI-307R	30
3-1/2	023565	BIU-DI-308R	30
3-15/16	023566	BIU-DI-315R	45
4	023567	BIU-DI-400R	44
4-7/16	023568	BIU-DI-407R	58
4 1/2	023569	BIU-DI-408R	64
4-15/16	023570	BIU-DI-415R	87
5	023571	BIU-DI-500R	86

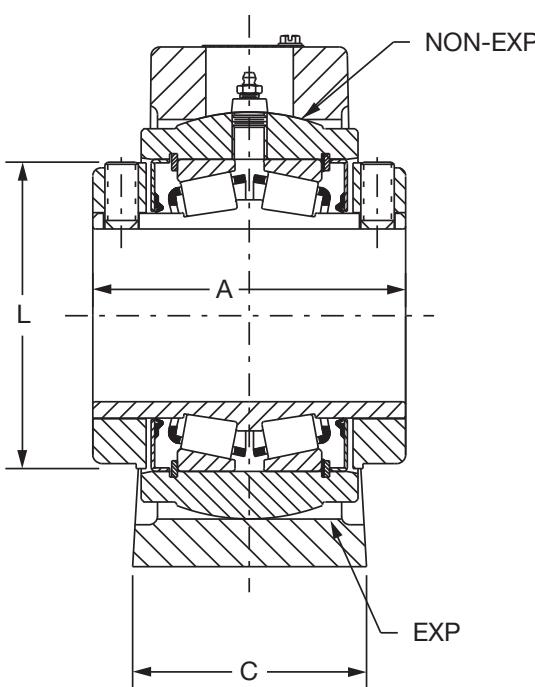
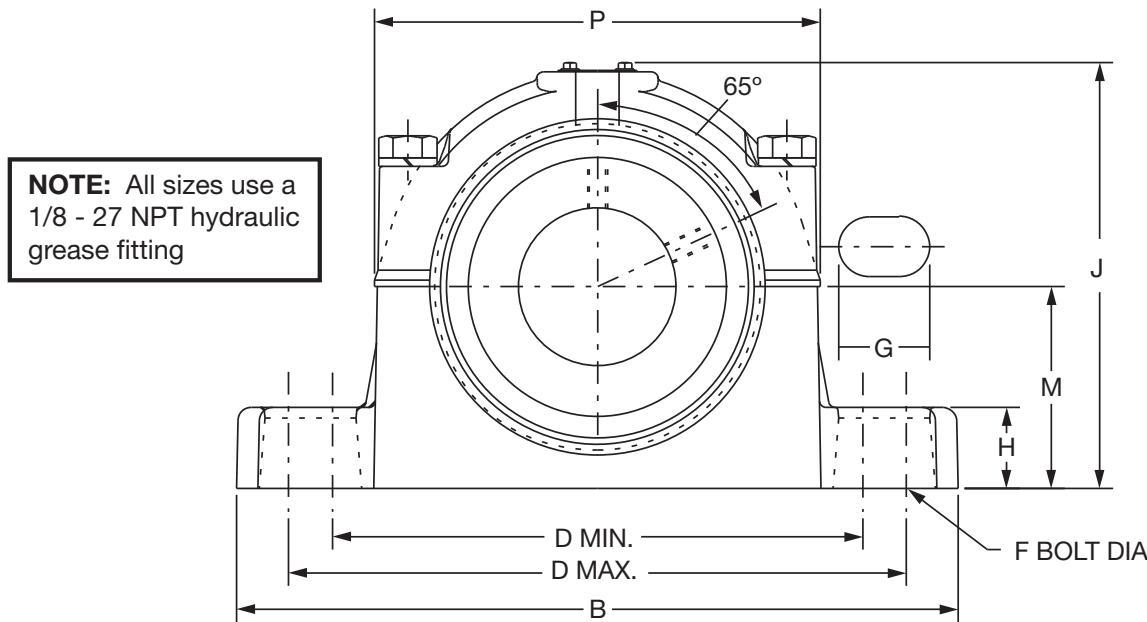
# Consult DODGE For Sizes Not Listed.

**NOTE:** All sizes use a 1/8-27 NPT hydraulic grease fitting

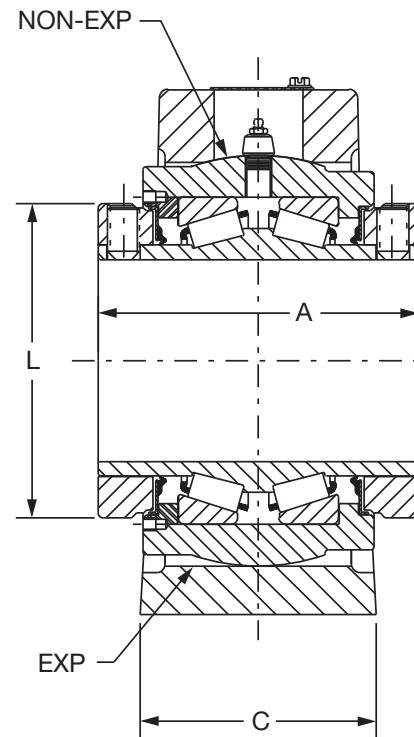


## SELECTION/DIMENSIONS

### TAF Pillow Block - Inch 2-BOLT BASE



1-7/16" THRU 3" CONSTRUCTION



3-7/16" THRU 3-1/2" CONSTRUCTION



# SELECTION/DIMENSIONS

## TAF Pillow Block - Inch 2-BOLT BASE

Gray Iron Non-Expansion							Gray Iron Expansion						
Shaft Size Inches #	Shaft Size Symbol	Saf Housing Number	Pillow Block Assy	Housing Only	Bearing Inner Unit	Pil. Blk.Wt. Aprx Lbs	Shaft Size Inches #	Shaft Size Symbol	Saf Housing Number	Pillow Block Assy	Housing Only	Bearing Inner Unit	Pil. Blk.Wt. Aprx Lbs
1-7/16	107	509	037580	037540	037632	12	1-7/16	107	509	037592	037555	037632	12
1-11/16	111	510	037581	037541	037633	15	1-11/16	111	510	037593	037556	037633	15
1-15/16	115	511	037582	037542	037634	17	1-15/16	115	511	037594	037557	037634	17
2-3/16	203	513	037583	037543	037635	25	2-3/16	203	513	037595	037558	037635	25
2-7/16	207	515	037584	037544	037636	30	2-7/16	207	515	037596	037559	037636	30
2-1/2	208		037585	037544	037637	30	2-1/2	208		037597	037559	037637	30
2-11/16	211	516	037586	037545	037638	38	2-11/16	211	516	037598	037560	037638	38
2-3/4	212		037587	037545	037639	38	2-3/4	212		037599	037560	037639	38
2-15/16	215	517	037588	037546	037640	45	2-15/16	215	517	037600	037561	037640	45
3	300		037589	037546	037641	44	3	300		037601	037561	037641	44
3-7/16	307	520	037590	037547	037642	71	3-7/16	307	520	037602	037562	037642	71
3-1/2	308		037591	037547	037643	70	3-1/2	308		037603	037562	037643	70

Non-Expansion Furnished Unless Otherwise Specified.

# Consult DODGE For Sizes Not Shown

Shaft Size Inches	Saf Series	A	B	C	D		F Bolt Dia	G	H	J	L	M	P	Exp*
					Min.	Max.								
1-7/16	509	3.00	8.25	2.19	6.25	7.00	1/2	0.94	0.88	5.11	2.75	2.25	5.52	3/32
1-11/16	510	3.38	8.25	2.38	6.50	7.00	1/2	0.88	1.03	5.63	3.19	2.50	5.81	3/32
1-15/16	511	3.50	9.63	2.75	7.38	8.25	5/8	1.20	1.03	6.14	3.44	2.75	6.36	9/32
2-3/16	513	3.75	11.00	3.25	8.66	9.50	5/8	1.44	1.03	6.52	3.75	3.00	6.95	9/32
2-7/16	515	4.00	11.13	3.13	8.63	9.63	5/8	1.27	1.25	7.03	4.06	3.25	7.38	9/32
2-11/16														
2-3/4	516	4.50	12.59	3.50	9.88	11.00	3/4	1.44	1.00	7.67	4.72	3.50	8.31	9/32
2-15/16	517	4.50	12.59	3.50	9.88	11.00	3/4	1.44	1.25	7.92	4.72	3.75	8.31	9/32
3-7/16														
3-1/2	520	5.00	15.38	4.34	11.81	13.13	7/8	1.66	1.66	9.42	5.50	4.50	10.09	9/32

\*EXP Total Expansion Divided Equally On Both Sides Of Bearing (Expansion Bearing Only).

**NOTE:** All sizes use a 1/8-27 NPT hydraulic grease fitting

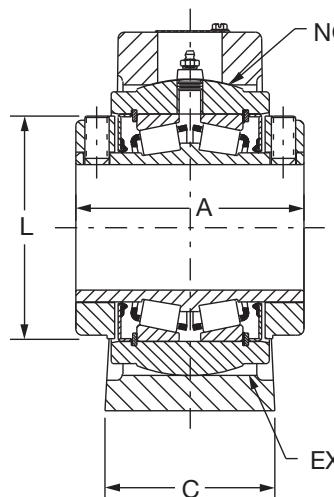
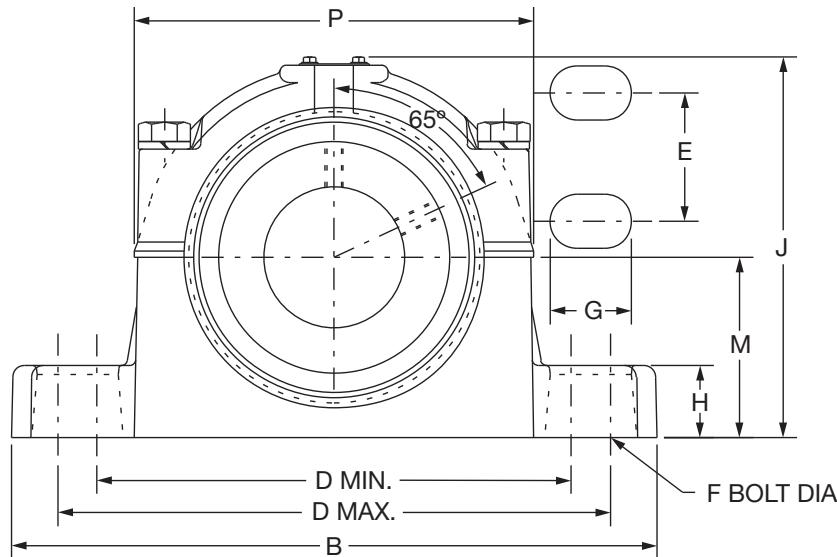
FEATURES/BENEFITS PAGE B10-2	HOW TO ORDER/NOMENCLATURE PAGE B10-9	EASY SELECTION PAGE B10-15	ACCESSORIES PAGE B10-64
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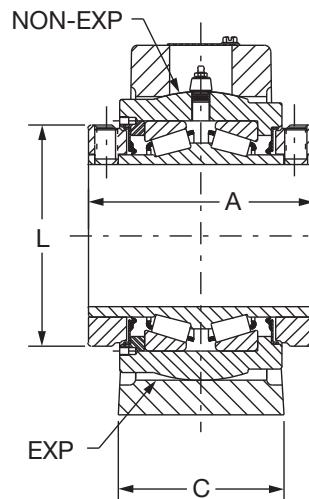
## SELECTION/DIMENSIONS

### TAF Pillow Block - Inch 4-BOLT BASE

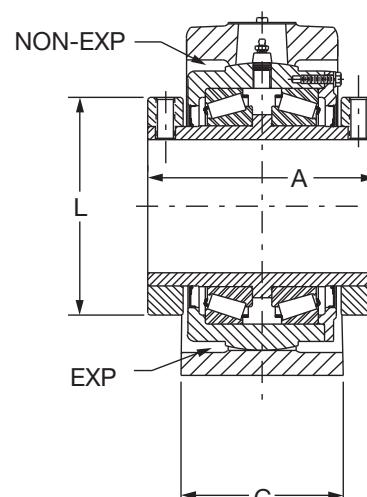
**NOTE:** All sizes use a 1/8 - 27 NPT hydraulic grease fitting



2-7/16" THRU 3"  
CONSTRUCTION



3-7/16" THRU 5"  
CONSTRUCTION



5-7/16" THRU 7"  
CONSTRUCTION

# SELECTION/DIMENSIONS



## TAF Pillow Block - Inch 4-BOLT BASE

Gray Iron Non-Expansion							Gray Iron Expansion						
Shaft Size Inches #	Shaft Size Symbol	SAF Housing Number	Pillow Block Assy	Housing Only	Bearing Inner Unit	Pil. Blk.Wt. Aprx Lbs	Shaft Size Inches #	Shaft Size Symbol	SAF Housing Number	Pillow Block Assy	Housing Only	Bearing Inner Unit	Pil. Blk.Wt. Aprx Lbs
2-7/16	207	515	037604	037548	037636	30	2-7/16	207	515	037618	037563	037636	30
2-1/2	208	515	037605	037548	037637	30	2-1/2	208	515	037619	037563	037637	30
2-11/16	211	516	037606	037549	037638	38	2-11/16	211	516	037620	037564	037638	38
2-3/4	212	516	037607	037549	037639	38	2-3/4	212	516	037621	037564	037639	38
2-15/16	215	517	037608	037550	037640	45	2-15/16	215	517	037622	037565	037640	45
3	300	517	037609	037550	037641	44	3	300	517	037623	037565	037641	44
3-7/16	307	520	037610	037551	037642	71	3-7/16	307	520	037624	037566	037642	71
3-1/2	308	520	037611	037551	037643	70	3-1/2	308	520	037625	037566	037643	70
3-15/16	315	522	037612	037552	037644	110	3-15/16	315	522	037626	037567	037644	110
4	400	522	037613	037552	037645	110	4	400	522	037627	037567	037645	110
4-7/16	407	526	037614	037553	037646	140	4-7/16	407	526	037628	037568	037646	140
4-1/2	408	526	037615	037553	037647	140	4-1/2	408	526	037629	037568	037647	140
4-15/16	415	528	037616	037554	037648	180	4-15/16	415	528	037630	037569	037648	180
5	500	528	037617	037554	037649	180	5	500	528	037631	037569	037649	180
5-7/16	507	532	023584	042628	023610	300	5-7/16	507	532	023603*	042627*	023610	300
5-15/16	515	534	023585	042630	023611	300	5-15/16	515	534	023604*	042629*	023611	300
6	600	534	023586	042630	023612	300	6	600	534	023605*	042629*	023612	300
6-7/16	607	536	023587	042632	023613	510	6-7/16	607	536	023606*	042631*	023613	510
6-1/2	608	536	023588	042632	023614	510	6-1/2	608	536	023607*	042631*	023614	510
6-15/16	615	538	023589	042634	023615	52	6-15/16	615	538	023608*	042633*	023615	520
7	700	538	023590	042634	023616	0520	7	700	538	023609*	042633*	023616	520

Non-Expansion Furnished Unless Otherwise Specified

Consult DODGE For Sizes Not Shown

Shaft Size	SAF Series	A	B	C	D		E	F Bolt Dia	G	H	J	L	M	P	Exp*
					min.	max.									
2-7/16	515	4.00	11.13	3.13	8.63	9.63	1.88	1/2	1.13	1.25	7.03	4.06	3.25	7.38	9/32
2-1/2															
2-11/16	516	4.50	12.59	3.50	9.88	11.00	2.13	5/8	1.33	1.00	7.67	4.72	3.50	8.31	9/32
2-3/4															
2-15/16	517	4.50	12.59	3.50	9.88	11.00	2.13	5/8	1.33	1.25	7.92	4.72	3.75	8.31	9/32
3															
3-7/16	520	5.00	15.38	4.34	11.63	13.13	2.38	3/4	1.63	1.66	9.42	5.50	4.50	10.09	9/32
3-1/2															
3-15/16	522	6.25	16.50	4.75	12.59	14.50	2.75	3/4	1.83	1.78	10.36	6.00	4.94	10.70	11/32
4															
4-7/16	526	6.75	18.38	5.13	14.50	16.00	3.25	7/8	1.75	2.06	11.83	6.45	6.00	12.45	11/32
4-1/2															
4-15/16	528	7.25	19.70	5.88	15.63	17.38	3.38	1	2.00	2.06	12.58	7.45	6.00	13.36	11/32
5															
5-7/16	532	9.00	21.66	6.25	17.63	19.25	3.75	1	1.92	2.34	14.00	9.38	6.69	15.13	13/32
5-15/16	534	9.00	24.75	6.75	19.00	21.63	4.25	1	2.44	2.88	14.38	9.38	7.06	15.13	13/32
6															
6-7/16	536	10.50	26.75	7.13	21.00	23.63	4.63	1	2.44	3.00	16.19	11.38	7.50	18.31	13/32
6-1/2															
6-15/16	538	10.50	28.00	7.50	21.63	24.38	4.50	1-1/4	2.75	3.13	16.56	11.38	7.88	18.31	13/32
7															

\*EXP - Total Expansion Divided Equally On Both Sides Of Bearing (Expansion Bearings Only)

Note: All sizes use a 1/8-27 NPT hydraulic grease fitting

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PAGE B10-2

HOW TO ORDER/NOMENCLATURE  
PAGE B10-9

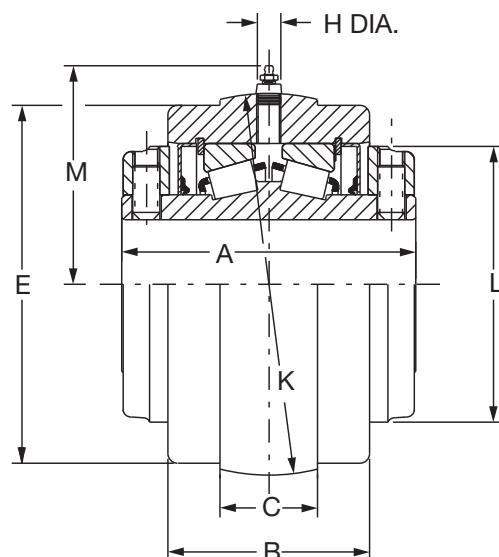
EASY SELECTION  
PAGE B10-15

ACCESSORIES  
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## SELECTION/DIMENSIONS

### TAF Units - Inch

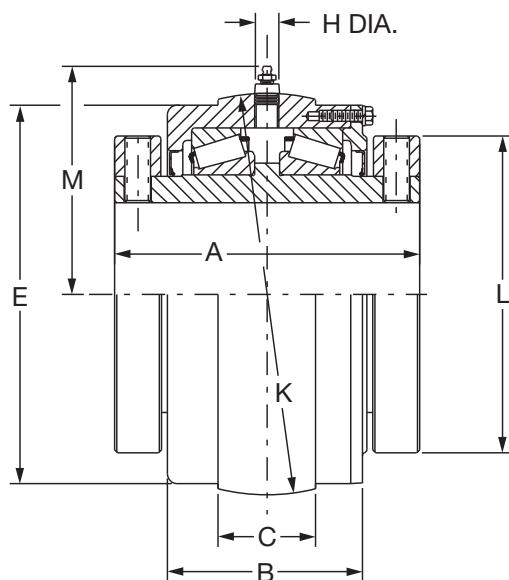
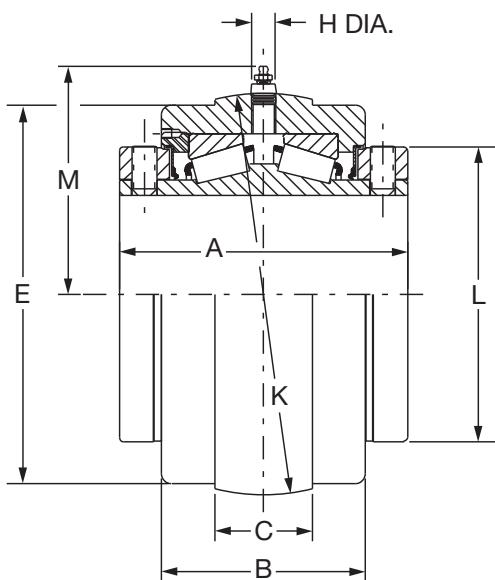


**NOTE:** All sizes use a 1/8 - 27 NPT hydraulic grease fitting

TAF S1 Unit Is Used In All Expansion And Non-Expansion TAF Housings

#### S-1 UNIT

1-7/16" THRU 3" CONSTRUCTION



#### S-1 UNIT

3-3/16" THRU 5" CONSTRUCTION

#### S-1 UNIT

5-7/16" THRU 7" CONSTRUCTION

# SELECTION/DIMENSIONS



## TAF Units - Inch

"S-1" Units - Gray Iron

Shaft Size # Inches	Part Number	Part Name	Weight Lbs (Approx)
1-7/16	<b>037632</b>	S1U509-TAF-107	5
1-11/16	<b>037633</b>	S1U510-TAF-111	7
1-15/16	<b>037634</b>	S1U511-TAF-115	8
2-3/16	<b>037635</b>	S1U513-TAF-203	9
2-7/16	<b>037636</b>	S1U515-TAF-207	11
2-1/2	<b>037637</b>	S1U515-TAF-208	11
2-11/16	<b>037638</b>	S1U516-TAF-211	18
2-3/4	<b>037639</b>	S1U516-TAF-212	17
2-15/16	<b>037640</b>	S1U517-TAF-215	17
3	<b>037641</b>	S1U517-TAF-300	17
3-7/16	<b>037642</b>	S1U520-TAF-307	31
3-1/2	<b>037643</b>	S1U520-TAF-307	31
3-15/16	<b>037644</b>	S1U522-TAF-315	43
4	<b>037645</b>	S1U522-TAF-400	43
4-7/16	<b>037646</b>	S1U526-TAF-407	57
4-1/2	<b>037647</b>	S1U526-TAF-408	68
4-15/16	<b>037648</b>	S1U528-TAF-415	82
5	<b>037649</b>	S1U528-TAF-500	82
5-7/16	<b>023610</b>	S1U-TAF-507R	155
5-15/16	<b>023611</b>	S1U-TAF-515R	143
6	<b>023612</b>	S1U-TAF-600R	138
6-7/16	<b>023613</b>	S1U-TAF-607R	187
6-1/2	<b>023614</b>	S1U-TAF-608R	182
6-15/16	<b>023615</b>	S1U-TAF-615R	180
7	<b>023616</b>	S1U-TAF-700R	178

**NOTE:** TAF inserts below 5-7/16" are not interchangeable with TAF-XT housings, with shafts of 5" or less, order DOUBLE-INTERLOCK S-1 units on Page B10-50

Shaft Size Inches	A	B	C	E		H	K	L	M
				Mach. Side	Cast Side				
1-7/16	3.00	2.06	1.16	3.25	3.31	0.75	3.595 •	2.75	2.50
1-11/16	3.38	2.31	1.19	3.75	3.81	0.75	4.095 •	3.19	2.88
1-15/16	3.50	2.44	1.50	4.13	4.18	0.75	4.502 •	3.44	2.75
2-3/16	3.75	2.56	1.56	4.50	4.56	0.75	4.940 •	3.75	2.95
2-7/16	4.00	2.75	1.44	4.81	4.87	0.75	5.156 •	4.06	3.38
2-1/2									
2-11/16	4.50	3.00	1.88	5.56	5.63	0.75	6.001	4.72	3.88
2-3/4									
2-15/16	4.50	3.00	1.88	5.56	5.63	0.75	6.001 •	4.72	3.88
3									
3-7/16	5.00	3.50	2.19	6.81	6.88	0.75	7.313 *	5.50	4.50
3-1/2									
3-15/16	6.25	4.50	2.59	7.44	7.40	0.94	7.937 *	6.00	5.13
4									
4-7/16	6.75	4.63	2.56	8.31	8.32	0.94	8.812 *	6.45	5.50
4-1/2									
4-15/16	7.25	5.13	3.13	9.56	9.54	0.94	10.124 *	7.45	6.19
5									
5-7/16									
5-15/16	9.00	5.88	2.56	11.19	11.19	0.94	11.563 ^	9.38	6.91
6									
6-7/16									
6-1/2									
6-15/16	10.50	7.13	3.00	13.25	13.25	0.94	13.748 ^	11.38	8.00
7									

• +.000, -.001"

^.000, -.003"

\* +.0005

# Consult DODGE For Sizes Not Listed

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# MODIFICATIONS ACCESSORIES

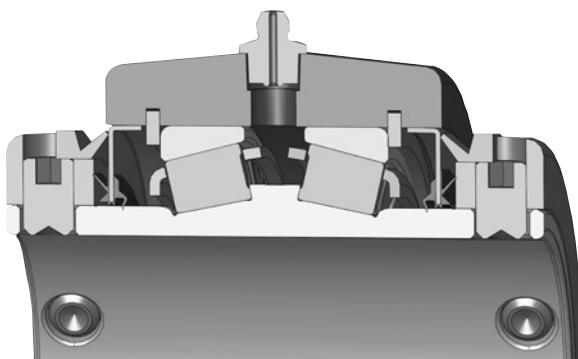
**DODGE**



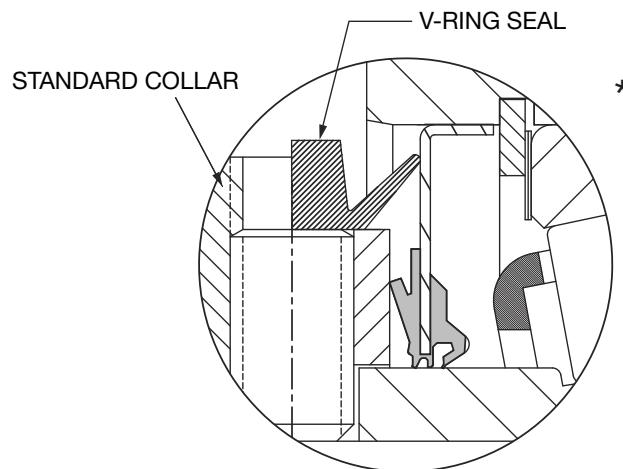
## Type E-Xtra / Type K / DOUBLE-INTERLOCK /TAF E-TECT SEAL KITS

Shaft Size Inches	Kit Part Number
1-3/16 TO 1-1/4	037650*
1-3/8 TO 1-7/16	037651*
1-1/2 TO 1-11/16	037652*
1-3/4 TO 2	037653*
2-3/16	037654*
2-1/4 TO 2-1/2	037655*
2-11/16 TO 3	037656*
3-3/16 TO 3-1/2	037657*
3-15/16 TO 4	037658*
4-7/16 TO 4-1/2	037659*
4-15/16 TO 5	037660*
5-7/16 TO 6	037673**
6-7/16 TO 7	037674**

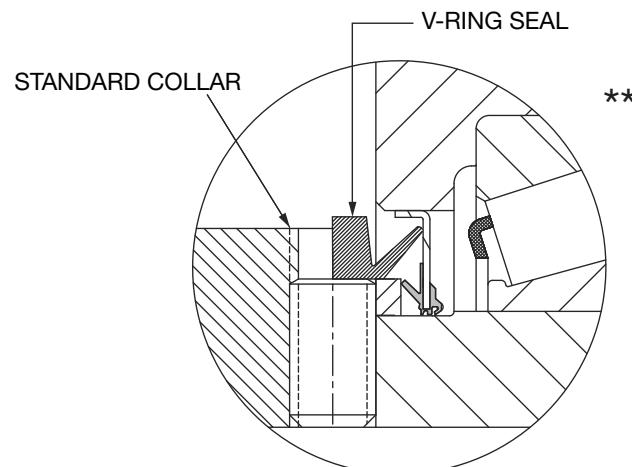
- \* Kit includes one collar, set screws and seal
- \*\* Kit for 5-7/16" consists of a modified v-ring seal. This seal can only be used with bearings produced after September 1995



XTS Sealing with E-Tect Option



**SMALL E-TECT SEAL**  
**1-3/16 THRU 5"**



**LARGE E-TECT SEAL**  
**5-7/16 THRU 7"**

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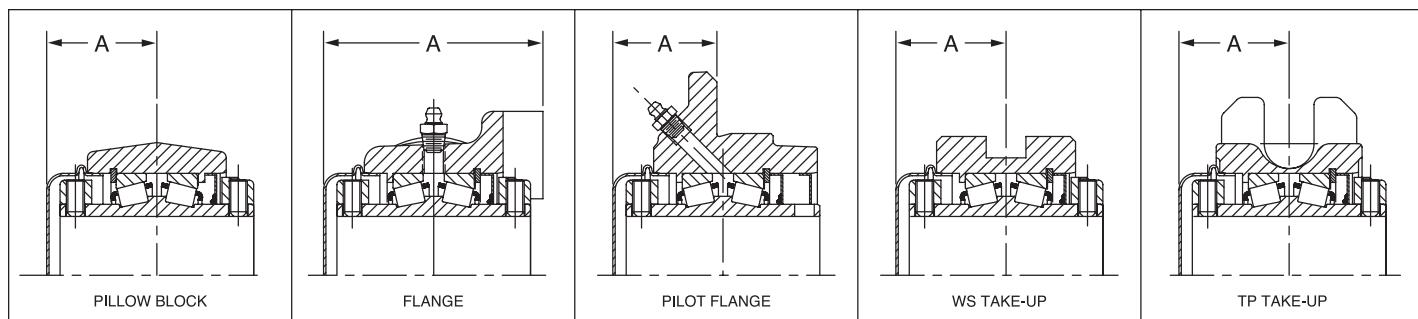
# MODIFICATIONS ACCESSORIES

**DODGE**



## Type E-Xtra

### Type E-Xtra END CLOSURE KITS - INCH



\*\* Seal must be removed before installing the end cover

Shaft Size $\Delta$ Inches	Kit* Part No.	“A” Dimension (Inch)				
		Pillow Block	Flange	Pilot Flange	WS Take-Up	TP Take-Up
1-3/16 TO 1-1/4	<b>023795</b>	1.56	2.97	1.47	-----	-----
1-3/8 TO 1-7/16	<b>023796</b>	1.34	3.22	1.66	1.66	-----
1-1/2 TO 1-11/16	<b>023797</b>	1.89	3.67	1.73	1.76	-----
1-3/4 TO 2	<b>023798</b>	1.95	3.80	1.73	1.92	1.98
2-3/16	<b>023799</b>	2.09	4.06	1.88	2.06	2.06
2-1/4 TO 2-1/2	<b>023800</b>	2.25	4.38	2.00	2.19	2.31
2-11/16 TO 3	<b>023801</b>	2.44	4.88	2.19	2.44	2.44

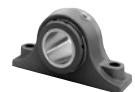
Δ - Consult DODGE For Sizes Not Listed.

\* - Kit Includes End Closure And Special Collar.

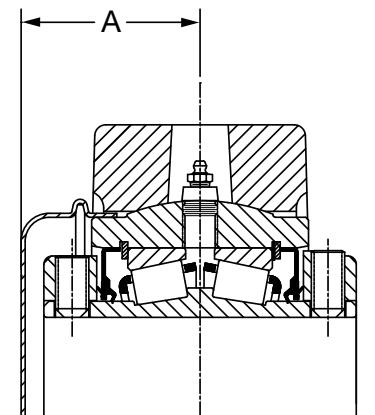
FEATURES/BENEFITS PAGE B10-2	HOW TO ORDER/NOMENCLATURE PAGE B10-9	EASY SELECTION PAGE B10-15	SELECTION/DIMENSIONS PAGE B10-22
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# MODIFICATIONS ACCESSORIES

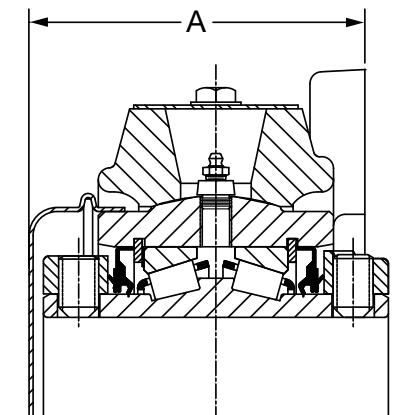
**DODGE**



## Type K, DOUBLE-INTERLOCK and TAF End Covers



DOUBLE-INTERLOCK SHOWN  
K, DI, & TAF



DOUBLE-INTERLOCK SHOWN  
K & DI

Shaft Size Inches	Part Number	“A” Dimension	
		Pillow Block	Flange Bearing
1-3/8 TO 1-7/16	<b>037681</b>	1.66	2.84
1-1/2 TO 1-11/16	<b>037682</b>	1.86	3.17
1-3/4 TO 2	<b>037683</b>	1.92	3.30
2-3/16	<b>037684</b>	2.06	3.50
2-1/4 TO 2-1/2	<b>037685</b>	2.19	3.75
2-11/16 TO 3	<b>037686</b>	2.44	4.19
3-3/16 TO 3-1/2	<b>037687</b>	2.69	4.94
3-5/16 TO 4	<b>037688</b>	3.31	5.81
4-7/16 TO 4-1/2	<b>037689</b>	3.56	5.88
4-15/16 TO 5	<b>037690</b>	3.81	6.31

END CLOSURE MOUNTS ON MACHINED OD SIDE OF S-1 UNIT



# SELECTION

## TAF - Smart Stock Selections HOW TO ORDER

### Step 1:

#### The Housing Choices Standard Or Drilled

When speed only will be monitored, select the standard housing.



When vibration, and / or temperature will be monitored, select the drilled housing

All housing part numbers shown are 4-bolt base, non-expansion

Shaft Size	Series	Standard Housing Part Numbers If you are monitoring speed only Part #	Drilled Housing Part Number For temperature and/or vibration Part #
207	515	037548	053067
215	517	037550	053628
307	520	037551	067350
315	522	037552	054960
407	526	037553	067352
415	528	037554	067353
507	532	042628	067354
515	534	042630	067357
615	538	042634	067234

### Step 2:

#### Pick An S1 Unit

Smart S-1 units feature

Embedded thermocouple drilled and tapped holes for prox covers

Special locking collar with prox targets



Shaft Size	S1 Unit
207	055805
215	055806
307	055807
315	049235
407	055915
415	055840
507	067355
515	067356
615	067323

### Step 3:

#### The Sensor Choices

For speed monitoring, use AC prox and prox cover or DC prox and prox cover.

For temperature monitoring, use thermocouple transmitter.

Prox Covers		
Shaft	Housing	Part Number
207	515	067340
215	517	067342
307	520	067343
315	522	067344
407	526	067345
415	528	067346
507	532	067347
515	534	067347
615	538	067348

TAF Sensor kits	Part Number
AC Prox	055943
Thermocouple Transmitter	055931
Cable Connector Kit	063694
4-20 ma Accelerometer and Thermocouple	067576

\* For additional details on DODGE Smart Bearings, see brochure DMR-2026-6

# SELECTION



## Type E-Xtra - Metric

### SELECTION

#### METRIC TYPE E-XTRA TAPERED ROLLER BEARINGS

**DODGE Type E-Xtra Double Row Tapered Roller Bearings** have the capacity to carry heavy radial loads, thrust loads, and combined radial and thrust loads. The maximum recommended load which can be applied is limited by various components in the system such as bearing, housing, shaft, shaft attachment, speed and life requirements as listed in this catalog. DODGE Unitized Type E-Xtra Roller Bearings have been applied successfully even when these limits have been exceeded under controlled operating conditions. Contact DODGE Application Engineering (864-284-5700) for applications which exceed the recommendations of this catalog.

**L<sub>10</sub> Life, Hours** -- The fatigue life which may be expected from at least 90% of a given group of bearings operating under identical conditions.

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

Where: C<sub>90</sub> = Dynamic Capacity (Table 9), kN  
P = Equivalent Radial Load, kN

### GENERAL

**Heavy Service** -- For heavy shock loads, frequent shock loads, or severe vibrations, increase the Equivalent Radial Load up to 50% (according to severity of conditions) to obtain a Modified Equivalent Radial Load. Consult Application Engineering at 864-284-5700 for additional selection assistance.

Thrust load values shown in the table below are recommended as a guide for general applications that will give adequate L<sub>10</sub> life. With substantial radial loads also present, it is advisable to calculate actual L<sub>10</sub> life to assure the bearing meets requirements.

RPM RANGE	20 - 200	201 - 2000	Over 2000
RECOMMENDED THRUST LOAD	C <sub>90</sub> /4	C <sub>90</sub> /8	C <sub>90</sub> /12

The shaft tolerances recommended below are adequate for the conditions outlined in this catalog. Since the allowable load, especially at a 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 shaft size. **Heavy loads should be directed through the base. Where uplift loads are involved see Table 13 for maximum values.** 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 plummer blocks.

### Shaft Tolerances

Shaft Size	Tolerance
Up to 35mm	+.000 -.013mm
40 to 100mm	+.000 -.025mm
100 - 150mm	+.000 -.038mm
160 - 180mm	+.000 -.051mm

## Type E-Xtra - Metric

### SELECTING BEARINGS SUPPORTING RADIAL LOADS ONLY

1. Define the desired L<sub>10</sub> Life, in Hours
2. Establish bearing radial load, F<sub>R</sub>, kN
3. Establish RPM.

F<sub>R</sub> = P for Pure Radial Load Conditions.

P = Equivalent radial load, kN

(The Dodge program BEST• can be used to find application loads.)

Using the easy selection Table 1, Page B10-14 under the RPM column find the equivalent load that equals or is higher than the application radial load for the desired life. The shaft size on the far left will be the minimum shaft size that you can use for your application. If the desired life is different than the values shown on the chart, use alternate Method A shown below.

Example: L<sub>10</sub> Life = 30,000 Hours  
Radial load = 17.5 kN  
RPM = 1000

At the intersection of the 1000 RPM column and at the 30,000 hours L<sub>10</sub> life row, the equivalent radial load of 18 kN exceeds the 17.5kN application radial load for shaft size 55mm. Therefore, an 55mm E bearing can be used to meet the application bearing conditions of the above example:

### ALTERNATE METHOD A --SELECTING A BEARING FOR AN L<sub>10</sub> LIFE VALUE NOT SHOWN IN THE EASY SELECTION CHART.

The L<sub>10</sub> life equation can be rearranged so that the bearing dynamic capacity C<sub>90</sub> is identified in terms of L<sub>10</sub>, RPM and P.

$$C_{90} = \left( \frac{L^{10} \times \text{RPM}}{1,500,000} \right)^{0.3} \times P$$

(P = F<sub>R</sub> for Pure Radial Load Conditions)

Since the L<sub>10</sub>, RPM, and P are known, solve for C<sub>90</sub>. Select from the dynamic capacity column on Table 10 the C<sub>90</sub> value equal to or greater than the C<sub>90</sub> value just calculated. The bore size on the far left represents the minimum shaft size selection. Check that the application RPM does not exceed the MAX. RPM on Table 10. When selecting a L<sub>10</sub> life of less than 30,000 hours particular attention must be paid to shaft deflection and proper lubricant selection.

- The DODGE Bearing Evaluation and Selection Technique (BEST) is a menu driven computer program that calculates bearing loads, fatigue life, and operating temperature for a two bearing shaft system based on user supplied input parameters. This interactive program is available at [www.ptwizard.com](http://www.ptwizard.com) under the Product Selection area.

# SELECTION



## Type E-Xtra - Metric

### SELECTING BEARINGS SUPPORTING BOTH RADIAL AND THRUST LOADS

When a bearing supports both a radial load and a thrust load, 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 9 convert the applied thrust load and radial loads to an equivalent radial load having the same effect on the life of the bearing as a radial load of this magnitude.

The equivalent radial load  $P = XF_R + YF_A$  (Equation 1)

Where:

$P$  = Equivalent radial load, kN

$F_R$  = Radial load, kN

$F_A$  = Thrust (axial) load, kN

$e$  = Thrust load to radial load factor (Table 1)

X = Radial load factor (Table 1)

Y = Thrust load factor (Table 1)

Calculate FA/FR and compare to e for the selected bore size. Determine X and Y from Table 1 depending on whether FA/FR is equal to or less than e, or FA/FR greater than e. Substitute all known values into the equivalent radial load equation. P (equivalent radial load) can be used in the life formula to determine L<sub>10</sub> life in hours or compared to the allowable equivalent radial load ratings for the speed and hours life desired in the easy selection table.

### SELECTING BEARINGS SUPPORTING ONLY THRUST LOADS

Type E-Xtra tapered roller bearings are well suited to carry pure thrust loads. Follow the same selection procedure used above "Selecting Bearings Supporting Both Radial and Thrust Loads" except the equation  $P = XF_R + YF_A$  reduces to  $P = YF_A$ . ( $XF_R$  is equal to zero)

**Table 10: Radial And Thrust Factors For Type E-Xtra Tapered Roller Bearings (Metric)**

Shaft Size (MM)	$e$	$F_A/F_R \leq e$		$F_A/F_R > e$		Dynamic Capacity $C_{90}^*$ K Newtons	Maximum RPM	Maximum Slip Fit Radial Load, $(F_R)K N^{**}$
		X	Y	X	Y			
35	0.46	.87	1.89	.70	2.28	24.5	3,820	22.2
40	0.44	.87	1.96	.70	2.37	31.4	3,320	28.5
45, 50	0.33	.87	2.64	.70	3.18	41.4	3,050	37.4
55	0.35	.87	2.38	.70	2.87	43.8	2,730	39.6
60, 65	0.40	.87	2.17	.70	2.63	47.2	2,420	42.2
70, 75	0.45	.87	1.87	.70	2.26	49.5	2,060	44.5
80, 85, 90	0.50	.87	1.71	.70	2.07	79.0	1,640	71.2
100	0.49	.87	1.77	.70	2.14	108.5	1,530	98.0
110, 115	0.53	.87	1.63	.70	1.97	133.4	1,360	120.0
125	0.47	.87	1.83	.70	2.21	183.8	1,200	164.6
135, 140, 150	0.49	.87	1.76	.70	2.12	181.1	915	188.6
160, 170, 180	0.54	.87	1.61	.70	1.95	307.9	790	320.2

### COMPARING SPHERICAL TO TAPER ROLLER BEARING

The dynamic capacity C (spherical) and  $C_{90}$  (taper) are not to the same base. To compare basic dynamic capacities, multiply C x .259 and compare to  $C_{90}$ .

To select and then compare, use the complete selection procedure for each type bearing and then compare.

\*  $C_{90}$ ---Dynamic capacity based on a rated life of 90 million revolutions or 3000 hours at 500 RPM.

\*\* If load exceeds maximum allowable slip fit radial load ( $F_R$ ), line to line, to-light press fit of shaft required. Application loads up to maximum slip fit radial load may be applied if recommended shaft tolerances are used.

**SELECTION****Type E-Xtra - Metric****Table 11 - Easy Selection for Type E-Xtra Metric**

	Shaft Size	L10 Hours	Allowable Equivalent Radial Load Rating (kN) At Various Revolutions Per Minute														
			50	100	150	250	500	750	1000	1250	1500	1750	2000	2500	2700	3000	3500
E-Family Roller Bearings	35mm	10000	34	28	24	21	17	15	14	13	12	12	11	11	10	10	10
		30000	24	20	18	15	12	11	10	9	9	8	8	8	7	7	7
		40000	22	18	16	14	11	10	9	9	8	8	7	7	7	7	6
		60000	20	16	14	12	10	9	8	8	7	7	7	6	6	6	6
		100000	17	14	12	11	9	8	7	6	6	6	5	5	5	5	5
Specialty Tapered Products	40mm	10000	44	36	31	27	22	19	18	17	16	15	14	14	13	13	12
		30000	31	26	23	19	16	14	13	12	11	11	10	10	10	9	9
		40000	29	23	21	18	14	13	12	11	10	10	10	9	9	8	8
		60000	26	21	18	16	13	11	10	10	9	9	8	8	8	7	7
		100000	22	18	16	14	11	10	9	8	8	8	7	7	7	6	6
S-2000	45mm 50mm	10000	58	47	41	35	29	26	23	22	21	20	19	18	17	17	
		30000	41	34	30	26	21	18	17	16	15	14	14	13	13	12	
		40000	38	31	27	23	19	17	15	14	14	13	13	12	11	11	
		60000	34	27	24	21	17	15	14	13	12	12	11	10	10	10	
		100000	29	23	21	18	14	13	12	11	10	10	9	9	8		
UNISPHERE II	55mm	10000	61	49	44	38	31	27	25	23	22	21	20	19	18	18	
		30000	44	36	32	27	22	19	18	17	16	15	14	14	13	13	
		40000	40	33	29	25	20	18	16	15	14	14	13	12	12	12	
		60000	36	29	26	22	18	16	14	14	13	12	12	11	11	10	
		100000	31	25	22	19	15	14	12	12	11	11	10	9	9	9	
IMPERIAL	60mm 65mm	10000	66	53	47	40	33	29	27	25	24	23	22	20			
		30000	47	38	34	29	24	21	19	18	17	16	15	14			
		40000	43	35	31	27	22	19	18	16	15	14	14	13			
		60000	38	31	28	24	19	17	16	15	14	13	13	12			
		100000	33	27	24	20	16	15	13	13	12	11	11	10			
UNISPHERE II	70mm 75mm	10000	69	56	49	42	34	31	28	26	25	24	23				
		30000	49	40	36	31	25	22	20	19	18	17	16				
		40000	45	37	33	28	23	20	18	17	16	16	15				
		60000	40	33	29	25	20	18	16	15	14	14	13				
		100000	34	28	25	21	17	15	14	13	12	12	11				
UNIFIED SAF	80mm 85mm 90mm	10000	110	89	79	68	55	49	45	42	40	38					
		30000	79	64	57	49	40	35	32	30	28	27					
		40000	72	59	52	45	36	32	29	28	26	25					
		60000	64	52	46	40	32	28	26	24	23	22					
		100000	55	45	40	34	28	24	22	21	20	19					
IMPERIAL	100mm	10000	151	123	109	93	76	67	61	57	54						
		30000	109	88	78	67	54	48	44	41	39						
		40000	100	81	72	61	50	44	41	38	36						
		60000	88	72	63	54	44	39	36	34	32						
		100000	76	61	54	47	38	34	31	29	27						

For Maximum RPM See Table 1 on Page B10-14

In the Shaded Area E, DI &amp; TAF Mounted Units Required Line-To-Line Press Fit to Shaft:

FEATURES/BENEFITS PAGE B10-2	HOW TO ORDER/NOMENCLATURE PAGE B10-9	SELECTION/DIMENSIONS PAGE B10-22	ACCESSORIES PAGE B10-64
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# SELECTION



## Type E-Xtra - Metric

**Table 11 - Easy Selection for Type E-Xtra Metric**

Shaft Size	L10 Hours	Allowable Equivalent Radial Load Rating (kN) At Various Revolutions Per Minute													
		50	100	150	250	500	750	1000	1250	1500	1750	2000	2500	2700	3000
110mm 115mm	10000	186	151	133	114	93	82	76	71						
	30000	133	108	96	82	67	59	54	51						
	40000	122	99	88	76	61	54	50	47						
	60000	108	88	78	67	54	48	44	41						
	100000	93	76	67	57	47	41	38	35						
125mm	10000	255	208	184	158	128	113	104	97						
	30000	184	149	132	113	92	82	75	70						
	40000	169	137	121	104	84	75	69	64						
	60000	149	121	107	92	75	66	61	57						
	100000	128	104	92	79	64	57	52	49						
135mm 140mm 145mm 150mm	10000	250	205	180	155	125	110	100							
	30000	180	145	130	110	90	80	75							
	40000	165	135	120	100	85	75	65							
	60000	145	120	105	90	75	65	60							
	100000	125	100	90	75	65	55	50							
160mm 170mm 180mm	10000	430	345	305	265	215	190								
	30000	305	250	220	190	155	135								
	40000	280	230	205	175	140	125								
	60000	250	205	180	155	125	110								
	100000	215	175	155	130	105	95								

For Maximum RPM See Table 1 on Page B10-14

In the Shaded Area E, DI & TAF Mounted Units Required Line-To-Line Press Fit to Shaft:



# SELECTION

## Type E-Xtra

### LUBRICATION

DODGE Type E-Xtra Metric Tapered Roller Bearings are lubricated at the factory with Mobil Mobilgrease XHP222, a superior industrial grease using a lithium complex thickener and a highly refined base oil. This grease will adequately handle low and medium speeds with low and medium loads at normal temperatures as defined on Table 15. For very low and high speeds, for heavy loads and for low and high temperatures, special greases must be used. Contact DODGE Application Engineering (864) 284-5700. DODGE engineers will recommend bearings and lubricants for the unusual conditions. DODGE also has the expertise to custom design and build special bearings for your needs.

**High Speed Operation** --- In the higher speed ranges too much grease will cause overheating. The amount of grease that the bearing will take for particular high speed application can only be determined by experience. If excess grease in the bearing caused overheating, it will be necessary to remove grease fitting (also drain plug when furnished) to permit excess grease to escape. When establishing a relubrication 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 the higher speed ranges too much grease will cause overheating --- see "High Speed Operation". In the 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.

### INSTALLATION AND MAINTENANCE

In nearly all applications good design practice requires two bearings supporting the shaft. In cases where three or more bearings are installed, unless precautions are taken to line the bearings up, both vertically and horizontally, it is possible to induce heavy loads. To ensure good alignment, mounting surfaces must be checked for flatness and must lie in the same plane. When tightening base bolts and cap bolts, each bolt should be alternately tightened in incremental torque values until full torque is achieved to prevent the angular shifting of the pillow block that occurs when one bolt is tightened to its full torque. Shimming may be required to minimize misalignment.

**Table 12 - Relubrication 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	10	5	3	2	1	1	1	1



## Type E-Xtra - Metric

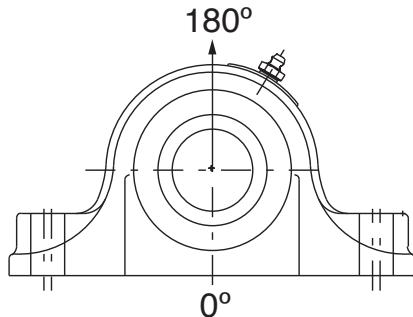


Table 13 - Type Housing Ratings, Gray Iron

Bore Size MM	Maximum Housing Cap Loads, kN
	P180
35	14
40	13
45, 50	23
55	16
60, 65	29
70, 75	31
80, 85, 90	70
100	72
110, 115	93
125	116
135, 140, 150	194
160, 170, 180	204

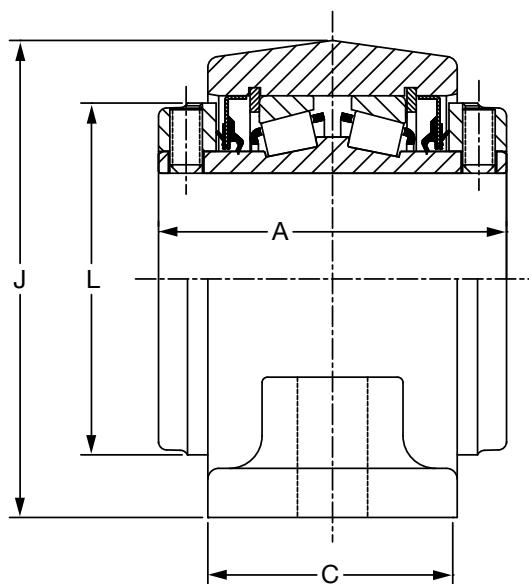
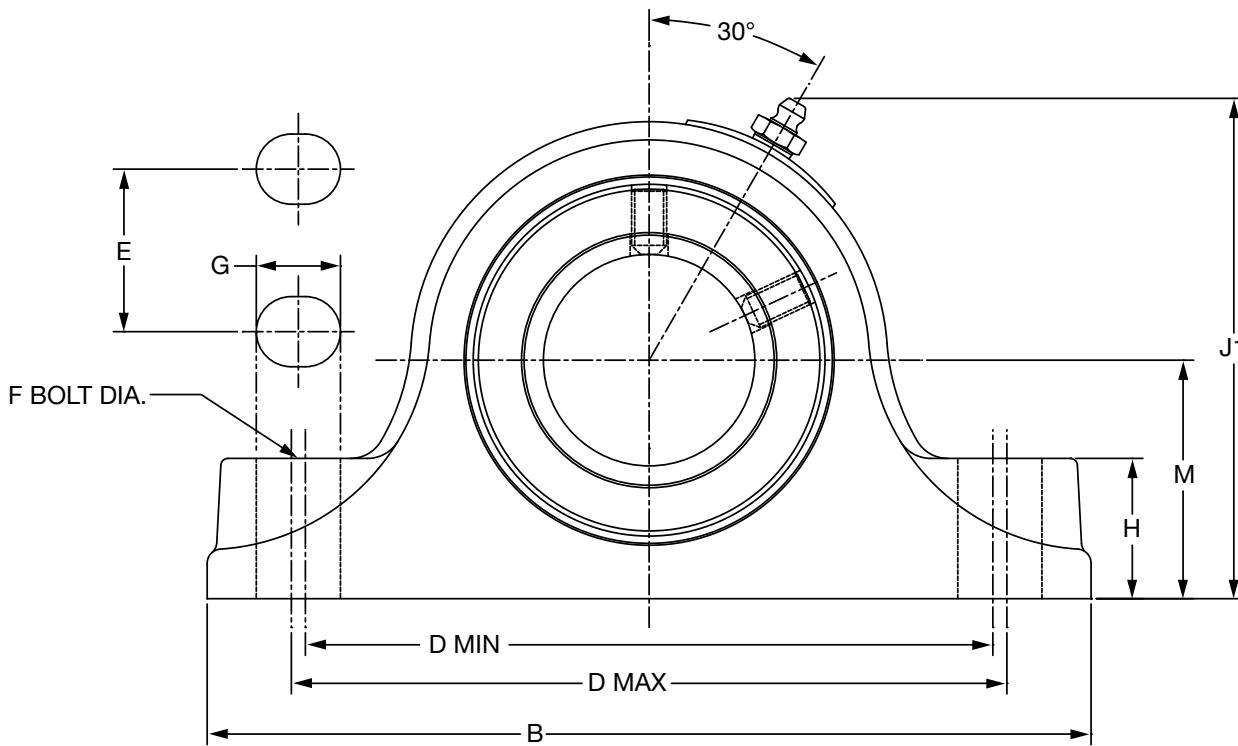
Table 14 - Definition Of Operating Conditions For Tapered Roller Bearings

LOW SPEED	UP TO 20% OF MAX. RPM (TABLE 9)
MEDIUM SPEED	OVER 20% TO 80% OF MAX. RPM
HIGH SPEED	OVER 80% OF MAX. RPM
LIGHT LOAD	UP TO 30% OF C <sub>90</sub> (TABLE 9)
NORMAL LOAD	OVER 30% TO 70% OF C <sub>90</sub>
HEAVY LOAD	OVER 70% OF C <sub>90</sub>
LOW TEMPERATURE	-75°C TO - 10°C
MEDIUM TEMPERATURE	ABOVE - 10°C TO 100°C
HIGH TEMPERATURE	ABOVE 100°C TO 150°C
VERY HIGH TEMPERATURE	ABOVE 150°C TO 205°C

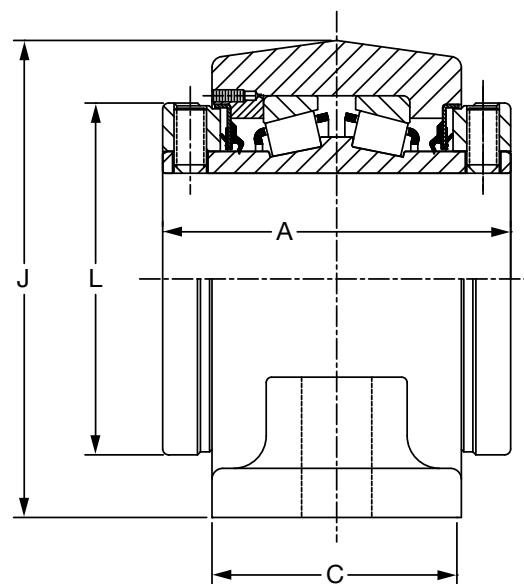


## SELECTION/DIMENSIONS

Type E-Xtra - Plummer Block - Metric  
2 & 4 BOLT BASE



35mm THRU 75mm CONSTRUCTION



80 mm THRU 125 mm CONSTRUCTION

# SELECTION/DIMENSIONS



## Type E-Xtra - Plummer Block - Metric

### Type E-Xtra Plummer Blocks, 2-Bolt

Shaft Size (mm)	Part Number	Part Name	Weight Lbs. (Approx.)
35mm	023620	P2B-E-035MR	7
40mm	023621	P2B-E-040MR	10
45mm	023622	P2B-E-045MR	12
50mm	023623	P2B-E-050MR	12
55mm	023624	P2B-E-055MR	15
60mm	023625	P2B-E-060MR	20
65mm	023626	P2B-E-065MR	20
70mm	023627	P2B-E-070MR	29
75mm	023628	P2B-E-075MR	27
80mm	023629	P2B-E-080MR	49
85mm	023630	P2B-E-085MR	47
90mm	023631	P2B-E-090MR	45

### Type E-Xtra Plummer Blocks, 4-Bolt

Shaft Size (mm)	Part Number	Part Name	Weight Lbs. (Approx.)
100mm	023632	P4B-E-100MR	69
110mm	023633	P4B-E-110MR	85
115mm	023634	P4B-E-115MR	91
125mm	023635	P4B-E-125MR	136
135mm	023636	P4B-E-135MR	245
140mm	023637	P4B-E-140MR	240
150mm	023638	P4B-E-150MR	235
160mm	023639	P4B-E-160MR	355
170mm	023640	P4B-E-170MR	345
180mm	023641	P4B-E-180MR	345

### Type E-Xtra Plummer Blocks, 2-Bolt Base

Shaft Size (mm)	A	B	C	D		F Bolts	G	H	J1	L	M
				Min.	Max						
35mm	76.2	187.0	54.0	142.8	149.2	M12	19	29	101.6	70	47.6
40mm	85.7	200.0	60.0	155.5	161.9	M12	19	32	113.5	81	54.0
45mm 50mm	88.9	225.0	64.0	174.6	181.0	M16	22	33	119	87	57.2
55mm	95.3	244.0	67.0	193.7	200.0	M16	22	38	131.4	95	63.5
60mm 65mm	101.6	267.0	73.0	212.7	219.0	M16	22	41	142.8	103	69.9
70mm 75mm	114.3	305.0	76.0	236.5	246.0	M20	27	48	161.1	120	79.4
80mm											
85mm	127.0	356.0	89.0	274.6	284.2	M20	30	57	190.5	139.7	95.3
90mm											

### Type E-Xtra Plummer Blocks, 4-Bolt Base

Shaft Size (mm)	A	B	C	D		E	F Bolts	G	H	J1	L	M
				Min.	Max							
100mm	158.8	387	114	311.2	323.9	57.2	M20	28	62	216	152.4	108.0
110mm												
115mm	171.5	422	117	336.6	349.3	63.5	M20	28	70	238	164	120.7
125mm	184.2	470	130	387.4	400.0	73.0	M24	32	76	276	189	139.7
135mm												
140mm	228.6	559	159	441.3	485.8	95.3	M24	51	83	335	238	169.9
150mm												
160mm												
170mm	266.7	660	181	539.8	590.6	117.5	M24	51	94	379	289	190.5
180mm												

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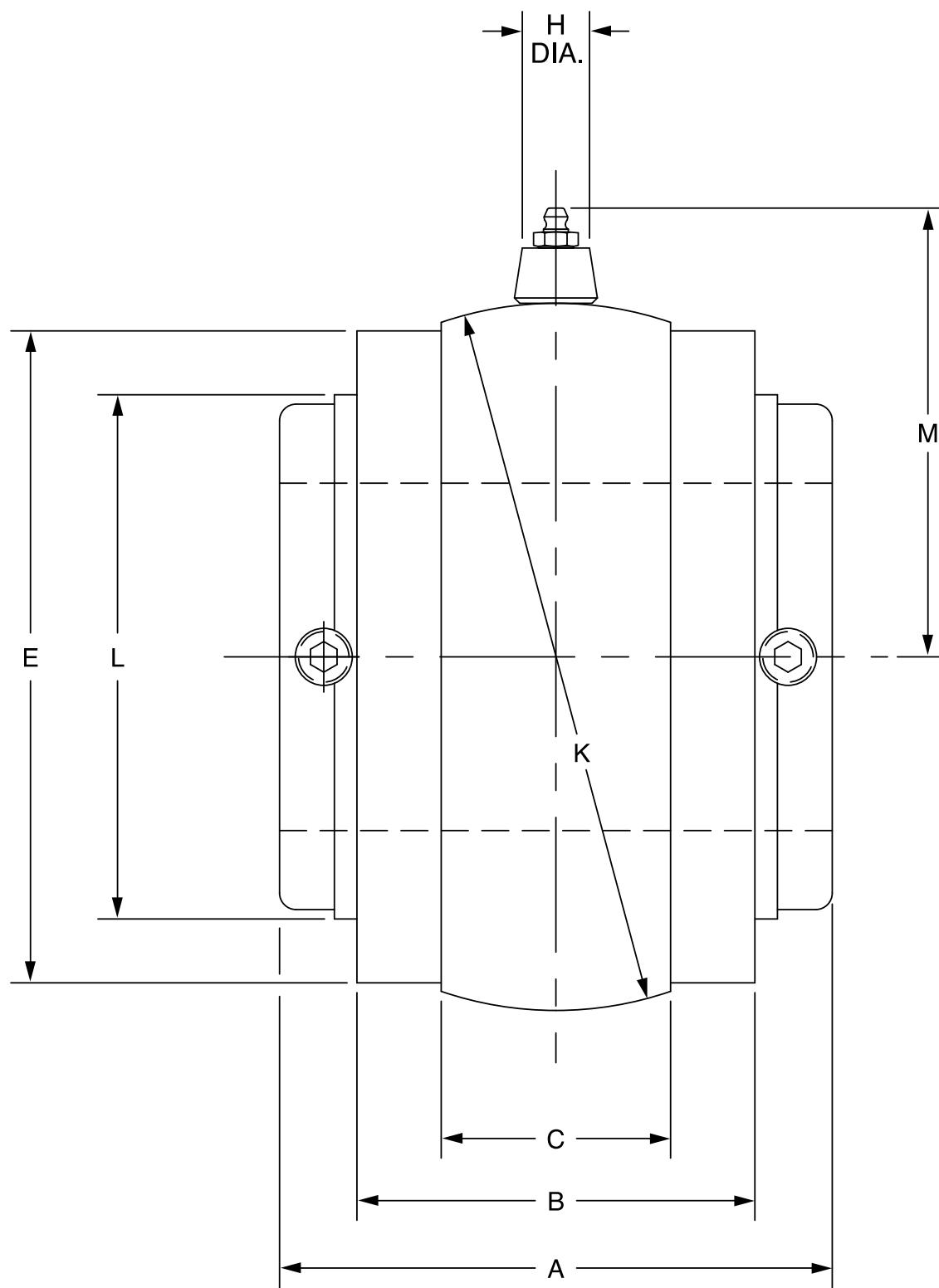
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## SELECTION/DIMENSIONS

### DOUBLE-INTERLOCK - Metric



# SELECTION/DIMENSIONS



## DOUBLE-INTERLOCK - Metric

Metric Double Interlock "S-1" Units - Fray Iron			
Shaft Size #	Part Number	Part Name	Weight Lbs (Approx)
35mm	<b>023700</b>	S1U-DI-035M	5
40mm	<b>023701</b>	S1U-DI-040M	6
45mm	<b>023702</b>	S1U-DI-045M	8
50mm	<b>023703</b>	S1U-DI-050M	8
55mm	<b>023704</b>	S1U-DI-055M	10
60mm	<b>023705</b>	S1U-DI-060M	11
65mm	<b>023706</b>	S1U-DI-065M	10
70mm	<b>023707</b>	S1U-DI-070M	17
75mm	<b>023708</b>	S1U-DI-075M	17
80mm	<b>023709</b>	S1U-DI-080M	33
85mm	<b>023710</b>	S1U-DI-085M	32
90mm	<b>023711</b>	S1U-DI-090M	31
100mm	<b>023712</b>	S1U-DI-100M	42
110mm	<b>023713</b>	S1U-DI-110M	55
115mm	<b>023714</b>	S1U-DI-115M	71
125mm	<b>023715</b>	S1U-DI-125M	85

For housing references see the following pages: Pillow Blocks (B10-22 - B10-25) Flange Bearings (B10-26 - B10-29)

Shaft Size (mm)	A	B	C	E		H Dia	K	L	M
				Mach Size	Cast Size				
35mm	3.00	2.063	1.156	3.250	3-5/16	0.688	3.625 *	2.750	2.640
40mm	3.375	2.313	1.188	3.750	3-13/16	0.688	4.125 *	3.188	2.890
45mm 50mm	3.500	2.875	1.500	4.125	4-3/16	0.688	4.562 *	3.438	3.100
55mm	3.750	2.563	1.563	4.500	4-5/8	0.688	5.000 *	3.750	3.320
60mm 65mm	4.000	2.750	1.438	4.812	4-7/8	0.688	5.186 *	4.063	3.410
70mm 75mm	4.500	3.000	1.875	5.563	5-5/8	0.688	6.061 *	4.719	3.850
80mm 85mm 90mm	5.000	3.500	2.00	6.813	6-7/8	0.688	7.373#	5.531	4.510
100mm	6.250	4.500	2.375	7.438	7-1/2	0.313	7.997#	6.125	5.160
110mm 115mm	6.750	4.625	2.375	8.313	8-3/8	0.313	8.872#	6.438	5.600
125mm	7.250	5.125	2.875	9.563	9-5/8	0.313	10.184#	7.438	6.260

All Dimensions Are Shown In Inches

\* +.000 to -.001"

# +/- .0005"



# NOTES

Bearing Reference  
Guide

E-Family Roller  
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S-2000

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