

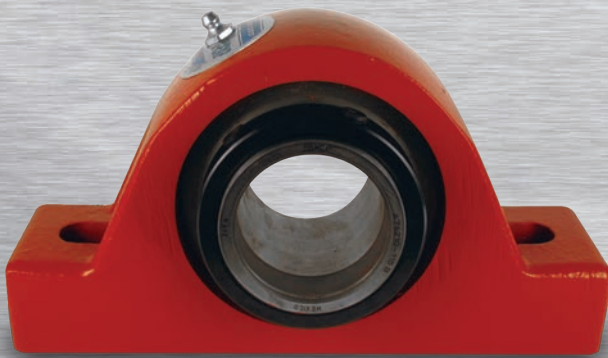


# ROYERSFORD™

FOUNDRY AND MACHINE CO., INC.

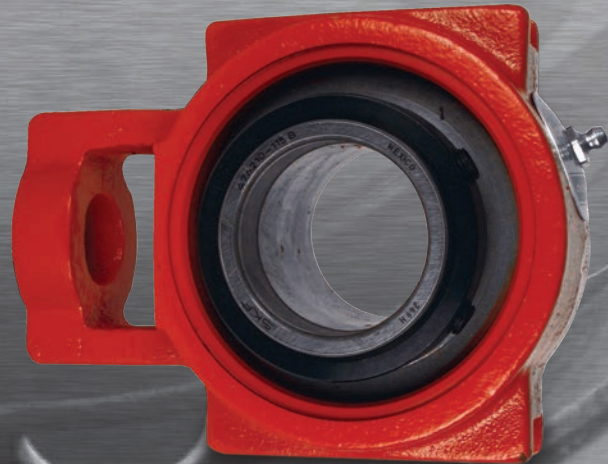
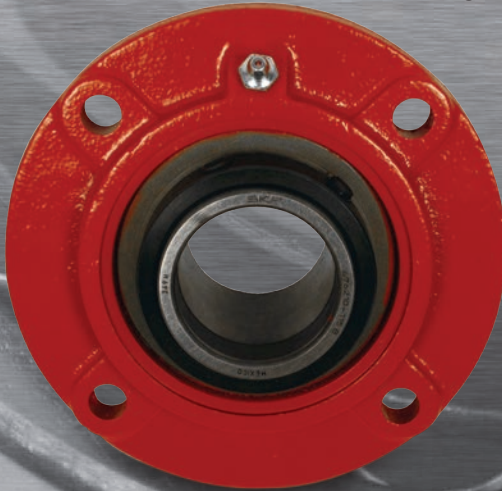
## R2000

MOUNTED SPHERICAL ROLLER BEARINGS WITH SKF® INSERTS

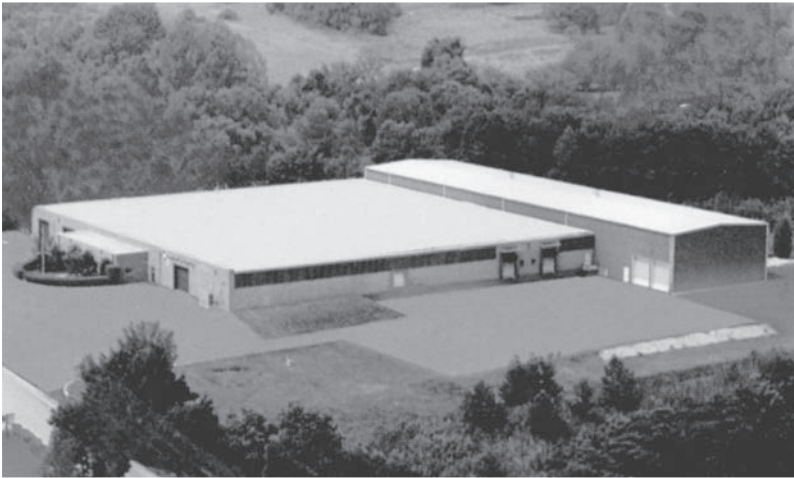


*Precision...*

*When precision counts.*



*Over 100 years of service...*



Since 1890 ROYERSFORD has stood for precision products and unparalleled service in the manufacture of quality Power Transmission Appliances and Machine Tools. Literally thousands of our products have endured the test of time giving trouble free service in the OEM and replacement markets. People change, methods change, companies change, and we at ROYERSFORD have changed; however, the quality and service that the manufacturing community has received for over 100 years is still here. Our new modern facility has the latest in both conventional and CNC machine tools. The latest engineering principles are applied to material flow and mechanical handling equipment.

All of this combines to give our customers what they deserve: a quality product with service at a competitive price.

*Precision...when precision counts.*

## TABLE OF CONTENTS

R2000 Bearings.....	3
2-Bolt Pillow Block .....	4
4-Bolt Pillow Block .....	5
Square Flange.....	6
Piloted Flange .....	7
Wide Slot Take-Up .....	8
Bearing Basic Load Ratings .....	9
Selection .....	10-11
R2000 Interchange .....	12-14
Standard Terms & Conditions .....	15

**Royersford Foundry & Machine Co., Inc.**  
PO Box 190  
Royersford, PA 19468-0190  
Phone: 610-935-7200  
Fax: 610-935-7411  
Toll Free: 800-533-9307

**Royersford R2000 Mounted Spherical Bearings** are suitable for a wide variety of applications. They work extremely well in situations where a high capacity alignable bearing is required. They are available in a wide range of shaft sizes and a variety of mounts.

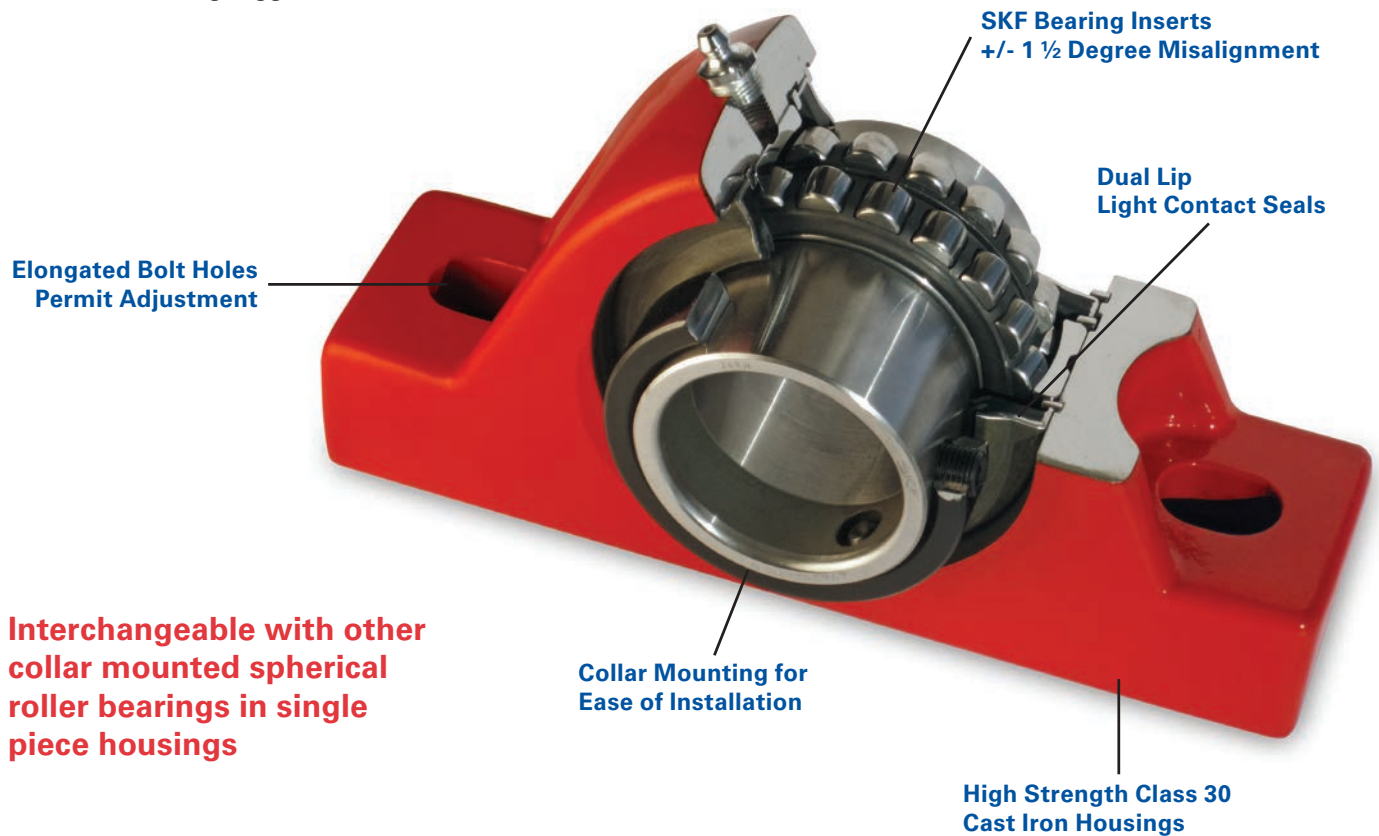
SKF® spherical bearing units are used exclusively in the Royersford R2000 series of bearings. They are capable of handling heavy radial and axial loads, running and static misalignment and high operating temperatures.

These bearings are completely assembled, sealed & lubricated at the factory so they are ready for use right from the box. The self-aligning feature provides for rapid mounting with a minimum of adjustment. The high strength grey iron housings are designed to be compact without sacrificing ruggedness.

The R2000 are available in two and four bolt Pillow Blocks, Square Flange, Piloted Flange and Wide Slot Take-up styles. All sizes and styles are available in both non-expansion and expansion types. The expansion units have the capacity to move .100". Both can handle misalignment up to +/- 1 ½ deg.

All R2000 bearings come with a specially designed double lip seal that prohibits the entry of contaminants, retains lubrication and is self-purging.

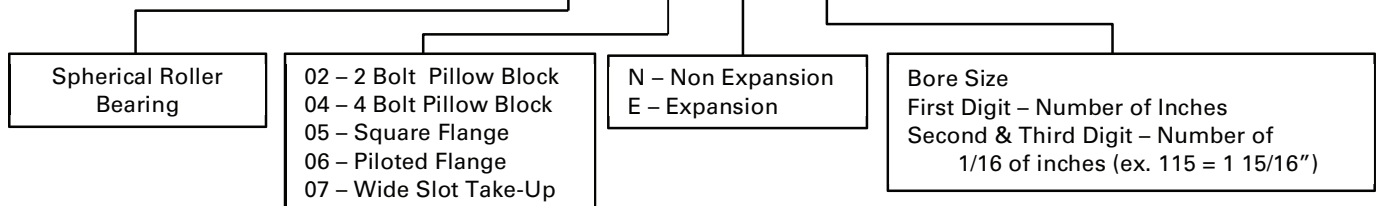
Royersford R2000 Bearings come in shaft sizes from 1 7/16" thru 5" and are available from warehouses and distributor stocks throughout the United States and Canada.



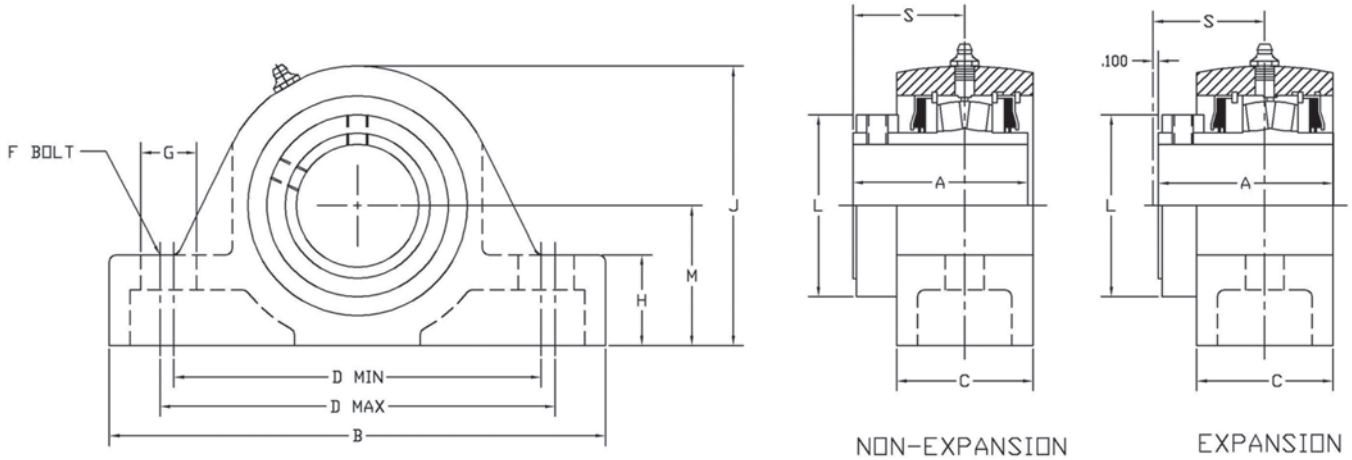
**Interchangeable with other collar mounted spherical roller bearings in single piece housings**

## Spherical Roller Bearing Nomenclature

**40-02-N 115**

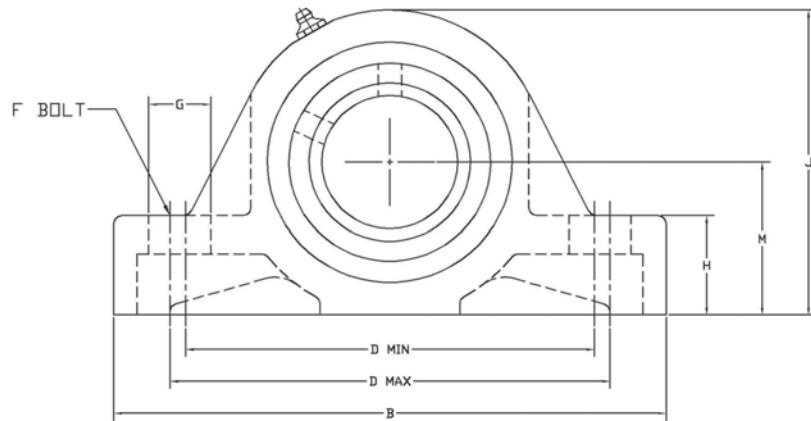


## 2-Bolt Pillow Block

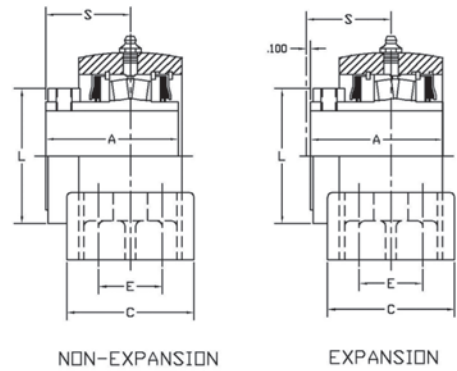


SHAFT SIZE	PART NUMBER		WT.	A	B	C	D		E	F BOLT	G	H	J	L	M	S
	Non-Expansion	Expansion					Min	Max								
1 7/16 1 1/2	40-02-N107 40-02-N108	40-02-E107 40-02-E108	7.0	2 3/4	6 7/8	2 3/16	4 11/16	5 5/16	---	1/2	7/8	1 3/16	3 7/8	2 3/8	1 7/8	1 3/4
1 11/16 1 3/4	40-02-N111 40-02-N112	40-02-E111 40-02-E112	8.1	2 7/8	7 3/8	2 3/16	5 3/16	5 13/16	---	1/2	7/8	1 5/16	4 1/4	2 5/8	2 1/8	1 7/8
1 15/16 2	40-02-N115 40-02-N200	40-02-E115 40-02-E200	10.0	2 7/8	8 3/8	2 3/16	6	6 1/2	---	5/8	1 1/16	1 3/8	4 9/16	2 7/8	2 1/4	1 7/8
2 3/16	40-02-N203	40-02-E203	12.0	3 1/8	8 7/8	2 7/16	6 7/16	7 1/16	---	5/8	1	1 5/8	5	3 1/4	2 1/2	2
2 7/16 2 1/2	40-02-N207 40-02-N208	40-02-E207 40-02-E208	18.1	3 3/8	9 1/4	2 11/16	6 13/16	7 7/16	---	5/8	1	1 3/4	5 1/16	4	2 3/4	2 1/8
2 11/16 2 3/4 2 15/16 3	40-02-N211 40-02-N212 40-02-N215 40-02-N300	40-02-E211 40-02-E212 40-02-E215 40-02-E300	23.2	3 5/8	10 7/16	2 13/16	7 13/16	8 7/16	---	3/4	1 3/16	2	6 7/16	4 1/2	3 1/4	2 3/8
3 3/16 3 7/16 3 1/2	40-02-N303 40-02-N307 40-02-N308	40-02-E303 40-02-E307 40-02-E308	33.7	4 1/32	13	3 3/16	9 3/16	10 13/16	---	7/8	1 3/4	2 1/4	7 1/2	5 5/8	3 3/4	2 19/32
3 11/16 3 15/16 4	40-02-N311 40-02-N315 40-02-N400	40-02-E311 40-02-E315 40-02-E400	55.6	4 19/32	14 1/4	3 3/16	10	11 3/4	---	1	2	2 1/2	8 7/16	6	4 1/8	2 31/32

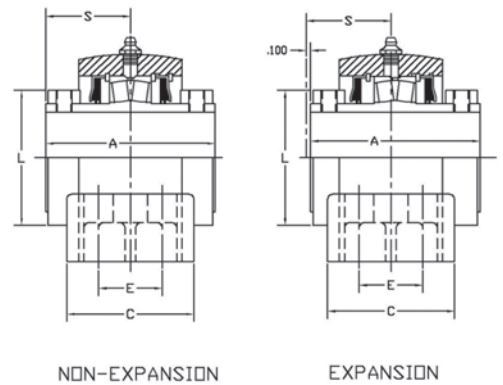
# 4-Bolt Pillow Block



2 7/16 THRU 4 CONSTRUCTION

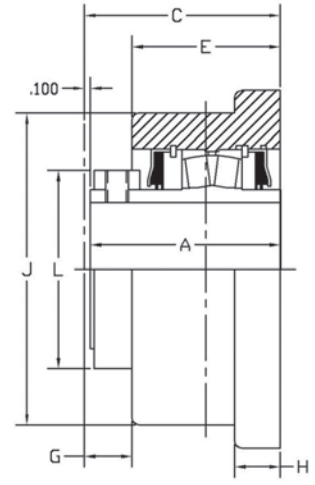
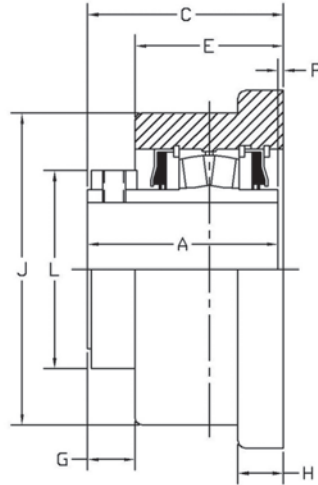
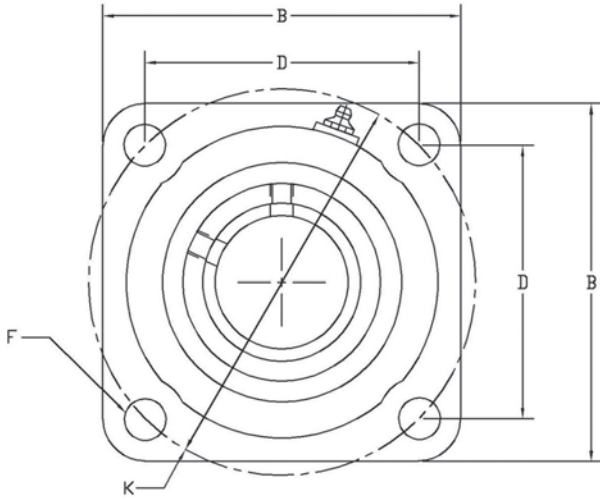


4 7/16 THRU 4 15/16 CONSTRUCTION



SHAFT SIZE	PART NUMBER		WT.	A	B	C	D		E	F BOLT	G	H	J	L	M	S
	Non-Expansion	Expansion					Min	Max								
2 7/16	40-04-N207	40-04-E207	18.7	3 3/8	9 1/4	3 1/4	6 7/8	7 5/8	1 3/4	1/2	1	1 3/4	5 11/16	4	2 3/4	2 1/8
2 1/2	40-04-N208	40-04-E208														
2 11/16	40-04-N 211	40-04-E 211	25.6	3 5/8	10 7/16	3 3/4	7 7/8	8 3/8	1 7/8	5/8	1	2	6 7/16	4 1/2	3 1/4	2 3/8
2 3/4	40-04-N212	40-04-E212														
2 15/16	40-04-N215	40-04-E215														
3	40-04-N300	40-04-E300														
3 3/16	40-04-N303	40-04-E303	36.7	4 1/32	13	3 7/8	9 1/4	10 3/4	2	3/4	1 1/2	2 1/4	7 1/2	5 1/8	3 3/4	2 19/32
3 7/16	40-04-N307	40-04-E307														
3 1/2	40-04-N308	40-04-E308														
3 11/16	40-04-N 311	40-04-E 311	57.0	4 19/32	15 1/4	4 1/2	11	13	2 1/4	3/4	1 7/8	2 1/2	8 7/16	6	4 1/4	2 31/32
3 15/16	40-04-N315	40-04-E315														
4	40-04-N400	40-04-E400														
4 7/16	40-04-N407	40-04-E407	67.6	6 1/8	16 5/8	4 5/8	13	14	2 1/2	3/4	1 3/8	2 3/4	9 3/8	6 1/8	4 3/4	3 1/16
4 1/2	40-04-N408	40-04-E408														
4 15/16	40-04-N415	40-04-E415	100.0	6 5/8	18 1/2	5 1/8	15	16	2 3/4	7/8	1 1/2	3	10 7/8	6 7/8	5 1/2	3 5/16
5	40-04-N500	40-04-E500														

# Square Flange



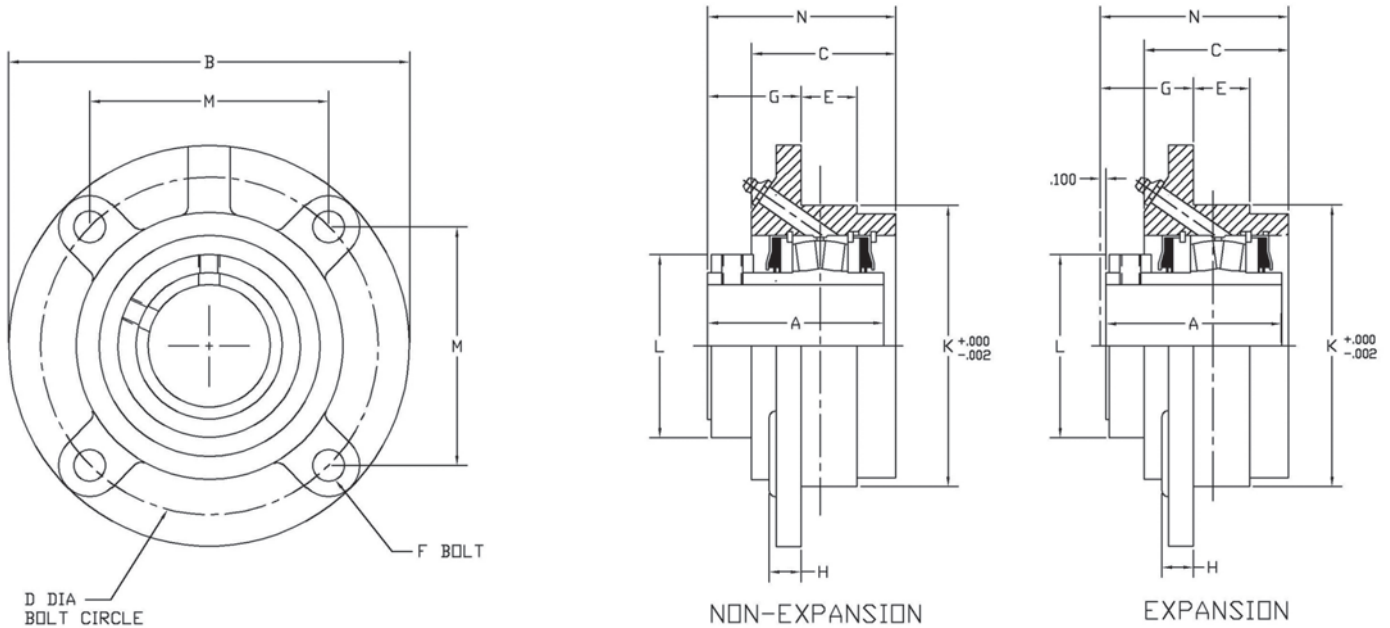
NON-EXPANSION

EXPANSION

SHAFT SIZE	PART NUMBER		WT.	A	B	C	D	E	F BOLT	G	H	J	K	L	P
	Non-Expansion	Expansion													
1 1/16 1 1/2	40-05-N107 40-05-N108	40-05-E107 40-05-E108	7.2	2 3/4	4 5/8	2 7/8	3 11/32	2 1/4	1/2	5/8	3/4	3 7/8	5	2 3/8	1/8
1 1/16 1 3/4	40-05-N111 40-05-N112	40-05-E111 40-05-E112	10.0	2 7/8	5	3	3 57/64	2 1/4	1/2	3/4	3/4	4 1/2	5 1/2	2 5/8	1/8
1 15/16 2	40-05-N115 40-05-N200	40-05-E115 40-05-E200	11.0	2 7/8	5 3/16	3	4 1/16	2 1/4	1/2	3/4	3/4	4 3/4	5 3/4	2 7/8	1/8
2 3/16	40-05-N203	40-05-E203	13.5	3 1/8	5 7/8	3 7/32	4 17/32	2 7/16	5/8	25/32	3/4	5 1/8	6 3/8	3 1/4	3/32
2 7/16 2 1/2	40-05-N207 40-05-N208	40-05-E207 40-05-E208	17.3	3 3/8	6 1/8	3 15/32	4 25/32	2 11/16	5/8	25/32	7/8	5 3/4	6 3/4	4	3/32
2 11/16 2 3/4 2 15/16 3	40-05-N211 40-05-N212 40-05-N215 40-05-N300	40-05-E211 40-05-E212 40-05-E215 40-05-E300	28.5	3 5/8	7 3/16	3 13/16	5 9/16	2 7/8	3/4	15/16	1	6 5/8	7 7/8	4 1/2	3/16
3 3/16 3 7/16 3 1/2	40-05-N303 40-05-N307 40-05-N308	40-05-E303 40-05-E307 40-05-E308	40.6	4 1/32	8 3/8	4 1/4	6 23/32	3 5/16	3/4	15/16	1 1/8	7 5/8	9 1/2	5 1/8	7/32
3 11/16 3 15/16 4	40-05-N311 40-05-N315 40-05-N400	40-05-E311 40-05-E315 40-05-E400	69.1	4 19/32	9 1/2	4 3/4	7 19/32	3 3/16	7/8	1 3/16	1 3/16	8 3/8	10 3/4	6	5/32

\*Square Flange series available second half of 2013.

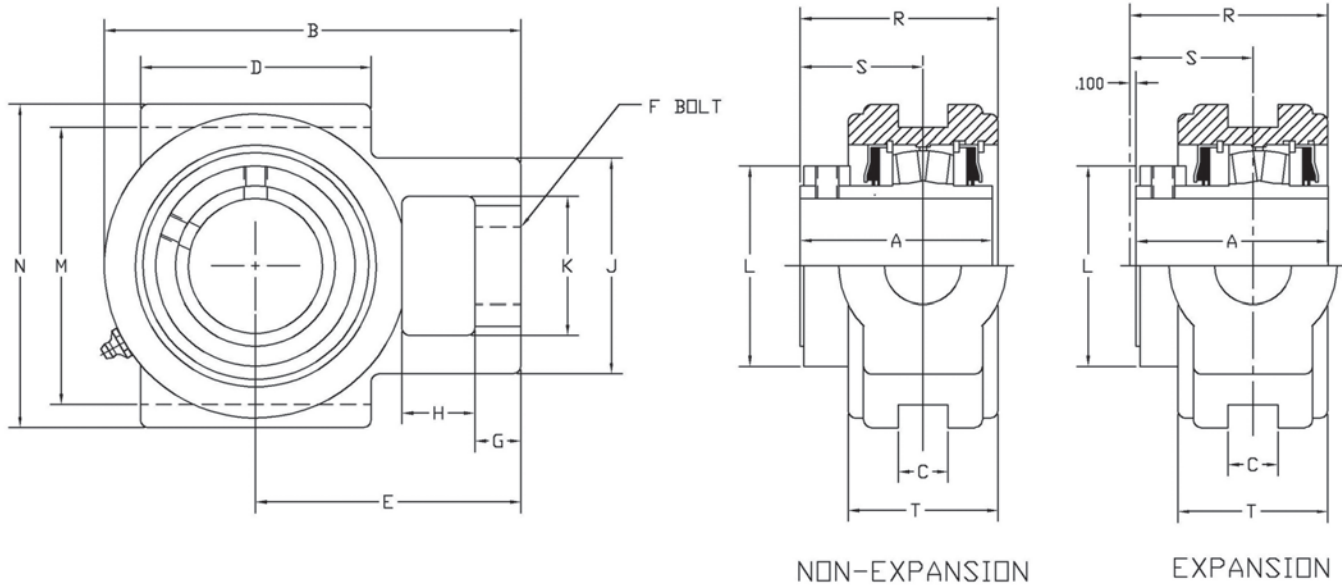
# Piloted Flange



SHAFT SIZE	PART NUMBER		WT.	A	B	C	D	E	F BOLT	G	H	K	L	M	N
	Non-Expansion	Expansion													
1 7/16	40-06-N107	40-06-E107	7.0	2 3/4	5 1/4	2 3/16	4 3/8	3/4	3/8	1 15/32	1/2	3.625	2 3/8	3 3/32	2 13/16
1 1/2	40-06-N108	40-06-E108													
1 11/16	40-06-N111	40-06-E111	8.5	2 7/8	6 1/8	2 3/16	5 1/8	7/8	7/16	1 1/2	1/2	4.250	2 5/8	3 5/8	2 13/16
1 3/4	40-06-N112	40-06-E112													
1 15/16	40-06-N115	40-06-E115	10.5	2 7/8	6 3/8	2 3/16	5 3/8	7/8	7/16	1 1/2	9/16	4.500	2 7/8	3 5/16	2 7/8
2	40-06-N200	40-06-E200													
2 3/16	40-06-N203	40-06-E203	14.5	3 3/8	7 1/8	2 7/16	6	1	1/2	1 1/16	5/16	5.000	3 1/4	4 1/4	3 1/4
2 7/16	40-06-N207	40-06-E207	16.0	3 3/8	7 5/8	2 11/16	6 1/2	1	1/2	1 7/8	5/8	5.500	4	4 19/32	3 1/2
2 1/2	40-06-N208	40-06-E208													
2 11/16	40-06-N211	40-06-E211	22.0	3 5/8	8 3/4	2 13/16	7 1/2	1 1/4	5/8	2	3/4	6.375	4 1/2	5 19/64	3 13/16
2 3/4	40-06-N212	40-06-E212													
2 15/16	40-06-N215	40-06-E215													
3	40-06-N300	40-06-E300													
3 3/16	40-06-N303	40-06-E303	33.0	4 1/32	10 1/4	3 3/16	8 5/8	1 1/4	3/4	2 5/16	15/16	7.375	5 1/8	6 3/32	4 1/4
3 7/16	40-06-N307	40-06-E307													
3 1/2	40-06-N308	40-06-E308													
3 11/16	40-06-N311	40-06-E311	45.0	4 19/32	10 7/8	3 3/16	9 3/8	1 1/2	3/4	2 5/8	1 1/16	8.125	6	6 5/8	4 3/4
3 15/16	40-06-N315	40-06-E315													
4	40-06-N400	40-06-E400													

\*Piloted Flange series available second half of 2013.

## Wide Slot Take-Up



SHAFT SIZE	PART NUMBER		WT.	A	B	C	D	E	F BOLT	G	H	J	K	L	M	N	S	T
	Non-Expansion	Expansion																
1 7/16 1 1/2	40-07-N107 40-07-N108	40-07-E107 40-07-E108	7.0	2 3/4	5 3/8	1 7/32	3	3 7/16	3/4	5/8	1 1/16	2 7/16	1 7/16	2 3/8	3 1/2	4 1/8	1 3/4	2 3/16
1 11/16 1 3/4	40-07-N111 40-07-N112	40-07-E111 40-07-E112	9.2	2 7/8	6	1 1/16	3 3/8	3 13/16	1	3/4	1 1/16	2 7/8	1 15/16	2 5/8	4	4 3/4	1 7/8	2 3/16
1 15/16 2	40-07-N115 40-07-N200	40-07-E115 40-07-E200	14.0	2 7/8	6 1/8	1 1/16	3 1/2	3 15/16	1	3/4	1 1/16	2 7/8	1 15/16	2 7/8	4	4 3/4	1 7/8	2 3/16
2 3/16	40-07-N203	40-07-E203	18.0	3 1/8	6 25/32	1 3/16	3 3/4	4 5/16	1 1/8	3/4	1 3/16	3 1/2	2 1/4	3 1/4	4 1/2	5 1/4	2	2 7/16
2 7/16 2 1/2	40-07-N207 40-07-N208	40-07-E207 40-07-E208	24.0	3 3/8	7 3/4	1 1/16	4 3/4	4 15/16	1 1/4	7/8	1 5/16	3 3/4	2 1/2	4	5 1/8	5 7/8	2 1/8	2 11/16
2 11/16 2 3/4 2 15/16 3	40-07-N211 40-07-N212 40-07-N215 40-07-N300	40-07-E211 40-07-E212 40-07-E215 40-07-E300	20.5	3 5/8	8 13/16	1 13/16	4 3/4	5 9/16	1 1/2	1	1 1/16	4 1/4	2 3/4	4 1/2	5 15/16	6 3/4	2 3/8	2 13/16
3 3/16 3 7/16 3 1/2	40-07-N303 40-07-N307 40-07-N308	40-07-E303 40-07-E307 40-07-E308	37.0	4 1/32	10 1/8	1 13/16	6 1/4	6 7/16	1 3/4	1	1 13/16	4 7/8	2 7/8	5 1/8	6 13/16	7 5/8	2 19/32	3 3/16
3 11/16 3 15/16 4	40-07-N311 40-07-N315 40-07-N400	40-07-E311 40-07-E315 40-07-E400	47.3	4 19/32	11 15/16	2 1/16	7	7 3/8	2	1 1/8	2 1/8	5 5/8	3 3/8	6	8 5/8	9 7/16	2 31/32	3 9/16

\*Wide Slot Take-Up series available second half of 2013.



## Basic Bearing Load Ratings

SHAFT SIZE	DYNAMIC CAPACITY	STATIC CAPACITY
1 <sup>7</sup> / <sub>16</sub> 1 <sup>1</sup> / <sub>2</sub>	16,600	18,300
1 <sup>11</sup> / <sub>16</sub> 1 <sup>3</sup> / <sub>4</sub>	17,300	19,800
1 <sup>15</sup> / <sub>16</sub> 2	19,000	22,500
2 <sup>3</sup> / <sub>16</sub>	22,400	26,500
2 <sup>7</sup> / <sub>16</sub> 2 <sup>1</sup> / <sub>2</sub>	33,300	41,100
2 <sup>11</sup> / <sub>16</sub> 2 <sup>3</sup> / <sub>4</sub> 2 <sup>15</sup> / <sub>16</sub> 3	35,500	46,800
3 <sup>3</sup> / <sub>16</sub> 3 <sup>7</sup> / <sub>16</sub> 3 <sup>1</sup> / <sub>2</sub>	56,900	76,400
3 <sup>15</sup> / <sub>16</sub> 4	69,900	93,300
4 <sup>7</sup> / <sub>16</sub> 4 <sup>1</sup> / <sub>2</sub>	91,700	126,000
4 <sup>15</sup> / <sub>16</sub> 5	123,000	180,000



**Selection –  
R2000 Spherical Roller Bearings**

Royersford R2000 Spherical Roller Bearings have the capacity to carry substantial radial loads, thrust loads and combined radial/thrust loads. The maximum recommended load which can be applied is limited by the various components of the system, such as bearing, housing, shaft, shaft attachment, speed and life requirements as listed in this catalog.

Select a bearing from the R2000 Selection Chart having a radial load rating at the operating speed equal to or greater than the calculated "Equivalent Radial Load" for a desired L<sub>10</sub> Life. This simple method is all that is required for a majority of general applications and provides for occasional average shock loads.

L<sub>10</sub> Hours of Life – is the life that may be expected from at least 90% of a given group of bearings operating under identical conditions.

To determine L<sub>10</sub> hours for loads & RPM's not listed, use the following equation.

$$L_{10} = \left(\frac{C}{P}\right)^{10/3} \times \frac{16667}{RPM}$$

Where:

L<sub>10</sub> = Life hours

C = Dynamic Capacity (from table 1)

P = Equivalent Radial Load

If the load on a double row spherical bearing is only in the radial direction (no axial load), the Equivalent Radial Load (P) is equal to the actual radial load. In situations where the bearing load consists of radial and axial (thrust) loads, the total load must be converted into an Equivalent Radial Load by the following equation.

$$P = XF_R + YF_A$$

Where:

F<sub>A</sub> = Axial (thrust) Load

F<sub>R</sub> = Radial Load

X = Radial Load Factor from table 1

Y = Thrust Load Factor from table 1

To find the X and Y values, first calculate F<sub>A</sub>/F<sub>R</sub> and compare to the value of e in Table 1. Using the appropriate values for X and Y, substitute all known values into the Equivalent Radial Load equation. The result can then be used to determine the L<sub>10</sub> life or compared to the radial load ratings in Table 2.

If P is less than F<sub>R</sub> use P=F<sub>R</sub>

If you have only axial (thrust) load, the equivalent radial load P = YF<sub>A</sub> where Y is taken from the column for values >e.

The magnitude and direction of both radial and thrust loads must be taken into account when selecting a housing. When pillow blocks are utilized, heavy loads should be directed thru the base. Where a load pulls the housing away

from the mounting base, both the hold-down bolts and housing must be of adequate strength. Auxiliary load carrying devices (such as shear bars) are advisable for side or end loading of pillow blocks and radial loads for flanged units.

The effectiveness of the shaft attachment to carry a thrust load depends on proper tightening of the set screws, shaft tolerance and shaft deflections. It is advisable to use auxiliary thrust carrying devices (shaft shoulder, thrust collar, snap ring, etc.) to locate the bearing under heavier thrust loads or where extreme reliability is desired (see Table 3 for set screw information).

The shaft tolerances recommended below are adequate for normal radial and radial/thrust load applications. Where the applied radial load exceeds the Maximum Slip Fit Radial Load, a snug-to-light press fit of the shaft is required. Since the allowable load, especially at low RPM, is very large, the shaft should be checked to assure adequate shaft strength.

SHAFT TOLERANCES	
SHAFT SIZE	TOLERANCE
UP TO 1-15/16"	+0.0000 -0.0005"
2" TO 5"	+0.0000 -0.0010"

**Table 1 – Radial/Thrust Factors**

SHAFT SIZE INCHES	e	F <sub>A</sub> /F <sub>R</sub> ≤ e		F <sub>A</sub> /F <sub>R</sub> > e		DYNAMIC CAPACITY		STATIC CAPACITY LBS	SEAL SPEED LIMIT RPM	MAXIMUM ALLOWABLE SLIP FIT RADIAL LOAD (F <sub>R</sub> ) LBS
		X	Y	X	Y	LBS	NEWTONS			
1 7/16 - 1 1/2	0.28	1.0	2.4	0.67	3.6	16600	73400	18300	2800	2000
1 11/16 - 1 3/4	0.26	1.0	2.6	0.67	3.9	17300	77000	19800	2650	2100
1 15/16 - 2	0.24	1.0	2.8	0.67	4.2	19000	84500	22500	2400	2300
2 3/16	0.24	1.0	2.8	0.67	4.2	22400	99600	26500	2150	2700
2 7/16 - 2 1/2	0.24	1.0	2.8	0.67	4.2	33300	148000	41100	1800	4000
2 11/16 - 3	0.22	1.0	3.0	0.67	4.6	35500	158000	46800	1600	4200
3 3/16 - 3 1/2	0.23	1.0	2.9	0.67	4.4	56900	253000	76400	1300	6800
3 11/16 - 4	0.24	1.0	2.8	0.67	4.2	69900	311000	93300	1200	8400
4 7/16 - 4 1/2	0.25	1.0	2.7	0.67	4.0	91700	408000	126000	1100	11000
4 15/16 - 5	0.26	1.0	2.6	0.67	3.9	123000	547000	180000	900	14800

**Table 2 – Easy Selection Table**

SHAFT SIZE INCHES	L10 LIFE HOURS	RADIAL LOAD RATINGS (LBS.) AT VARIOUS REVOLUTIONS PER MINUTE									
		50	100	250	500	1000	1200	1500	1750	2000	2500
1 7/16 - 1 1/2	5000	7365	5980	4545	3690	3000	2835	2655	2535	2435	2275
	10000	5980	4860	3690	3000	2435	2305	2155	2055	1975	1850
	30000	4300	3495	2655	2455	1750	1655	1550	1480	1420	1330
	50000	3690	3000	2275	1850	1500	1420	1330	1270	1220	1140
	100000	3000	2435	1850	1500	1220	1155	1080	1030	990	925
1 11/16 - 1 3/4	5000	7675	6235	4735	3845	3125	2955	2765	2640	2535	2370
	10000	6235	5065	3845	3125	2535	2400	2245	2145	2060	1925
	30000	4485	3640	2765	2245	1825	1725	1615	1540	1480	1385
	50000	3845	3125	2370	1925	1565	1480	1385	1320	1270	1190
	100000	3125	2535	1925	1565	1270	1200	1125	1075	1030	966
1 15/16 - 2	5000	8430	6845	5200	4225	3430	3245	3035	2900	2785	----
	10000	6845	5560	4225	3430	2785	2635	2465	2355	2260	----
	30000	4925	4000	3035	2465	2005	1900	1775	1695	1625	----
	50000	4225	3430	2605	2115	1720	1625	1520	1450	1395	----
	100000	3430	2785	2115	1720	1395	1320	1235	1180	1135	----
2 3/16	5000	9940	8070	6130	4980	4045	3830	3580	3420	3285	----
	10000	8070	6555	4980	4045	3285	3110	2910	2775	2665	----
	30000	5805	4715	3580	2910	2360	2235	2090	1995	1920	----
	50000	4980	4045	3070	2495	2025	1920	1795	1710	1645	----
	100000	4045	3285	2495	2025	1645	1555	1455	1390	1335	----
2 7/16 - 2 1/2	5000	14775	12000	9115	7405	6015	5695	5325	5085	4885	----
	10000	12000	9745	7405	6015	4885	4625	4325	4130	3965	----
	30000	8630	7010	5325	4325	3510	3325	3110	2970	2850	----
	50000	7405	6015	4570	3410	3015	2850	2665	2545	2445	----
	100000	6015	4885	3710	3015	2445	2315	2165	2070	1985	----
2 11/16 - 3	5000	15750	12795	9720	7895	6410	6070	5675	5420	----	----
	10000	12795	10390	7895	6410	5205	4930	4610	4400	----	----
	30000	9200	7475	5675	4610	3745	3545	3315	3165	----	----
	50000	7895	6410	4870	3955	3210	3040	2845	2715	----	----
	100000	6410	5205	3955	3210	2610	2470	2310	2205	----	----
3 3/16 - 3 1/2	5000	25250	20510	15580	12655	10275	9730	----	----	----	----
	10000	20510	16655	12655	10275	8345	7905	----	----	----	----
	30000	14750	11980	9100	7390	6005	5685	----	----	----	----
	50000	12655	10275	7805	6340	5150	4875	----	----	----	----
	100000	10275	9345	6340	5150	4180	3960	----	----	----	----
3 11/16 - 4	5000	31020	25195	19140	15545	12625	11955	----	----	----	----
	10000	25195	20465	15545	12625	10255	9710	----	----	----	----
	30000	18120	14715	11180	9080	7375	6980	----	----	----	----
	50000	15545	12625	9590	7790	6325	5990	----	----	----	----
	100000	12625	10255	7790	6325	5140	4865	----	----	----	----
4 7/16 - 4 1/2	5000	40695	66050	25110	20395	16565	15680	----	----	----	----
	10000	33050	26845	20395	16565	13455	12740	----	----	----	----
	30000	23770	19310	14665	11915	9675	9160	----	----	----	----
	50000	20395	16565	12585	10220	8300	7860	----	----	----	----
	100000	16565	13455	10220	8300	6740	6385	----	----	----	----
4 15/16 - 5	5000	54585	44335	33680	27355	22220	----	----	----	----	----
	10000	44335	36010	27355	22220	18045	----	----	----	----	----
	30000	31885	25900	19675	15980	12980	----	----	----	----	----
	50000	27355	22220	16880	13710	11135	----	----	----	----	----
	100000	22220	18045	13710	11135	9045	----	----	----	----	----

**Table 3 – Set Screw Information**

SHAFT SIZE INCHES	SET SCREW		TIGHTENING TORQUE IN-LBS	PERMISSIBLE AXIAL LOAD LBS
	NO.	SIZE		
1 7/16 - 2 3/16	2	3/8"-24	250	515
2 7/16 - 3 1/2	2	1/2"-20	620	900
3 11/16 - 4	2	5/8"-18	1325	1200
4 7/16 - 5	4	5/8"-18	1325	2400

## 2-Bolt Pillow Block

NON-EXPANSION				
ROYERSFORD	DODGE	MOLINE	SEALMASTER	SKF
40-02-N107	P2B-S2-107R	19221107	USRB5000-107	SYR 1 7/16 H
40-02-N108	P2B-S2-108R	19221108	USRB5000-108	SYR 1 1/2 H
40-02-N111	P2B-S2-111R	19221111	USRB5000-111	SYR 1 11/16 H
40-02-N112	P2B-S2-112R	19221112	USRB5000-112	SYR 1 3/4 H
40-02-N115	P2B-S2-115R	19221115	USRB5000-115	SYR 1 15/16 H
40-02-N200	P2B-S2-200R	19221200	USRB5000-200	SYR 2 H
40-02-N203	P2B-S2-203R	19221203	USRB5000-203	SYR 2 3/16 H
40-02-N207	P2B-S2-207R	19221207	USRB5000-207	SYR 2 7/16 H
40-02-N208	P2B-S2-208R	19221208	USRB5000-208	SYR 2 1/2 H
40-02-N211	P2B-S2-211R	19221211	USRB5000-211	SYR 2 11/16 H
40-02-N212	P2B-S2-212R	19221212	USRB5000-212	SYR 2 3/4 H
40-02-N215	P2B-S2-215R	19221215	USRB5000-215	SYR 2 15/16 H
40-02-N300	P2B-S2-300R	19221300	USRB5000-300	SYR 3 H
40-02-N303	N/A	19221303	USRB5000-303	N/A
40-02-N307	P2B-S2-307R	19221307	USRB5000-307	SYR 3 7/16 H
40-02-N308	P2B-S2-308R	19221308	USRB5000-308	SYR 3 1/2 H
40-02-N311	P2B-S2-311R	19221311	USRB5000-311	SYR 3 11/16 H
40-02-N315	P2B-S2-315R	19221315	USRB5000-315	SYR 3 15/16 H
40-02-N400	N/A	19221400	USRB5000-400	SYR 4 H

EXPANSION				
ROYERSFORD	DODGE	MOLINE	SEALMASTER	SKF
40-02-E107	P2B-S2-107RE	19121107	USRB5000E-107	SYR 1 7/16
40-02-E108	P2B-S2-108RE	19121108	USRB5000E-108	SYR 1 1/2
40-02-E111	P2B-S2-111RE	19121111	USRB5000E-111	SYR 1 11/16
40-02-E112	P2B-S2-112RE	19121112	USRB5000E-112	SYR 1 3/4
40-02-E115	P2B-S2-115RE	19121115	USRB5000E-115	SYR 1 15/16
40-02-E200	P2B-S2-200RE	19121200	USRB5000E-200	SYR 2
40-02-E203	P2B-S2-203RE	19121203	USRB5000E-203	SYR 2 3/16
40-02-E207	P2B-S2-207RE	19121207	USRB5000E-207	SYR 2 7/16
40-02-E208	P2B-S2-208RE	19121208	USRB5000E-208	SYR 2 1/2
40-02-E211	P2B-S2-211RE	19121211	USRB5000E-211	SYR 2 11/16
40-02-E212	P2B-S2-212RE	19121212	USRB5000E-212	SYR 2 3/4
40-02-E215	P2B-S2-215RE	19121215	USRB5000E-215	SYR 2 15/16
40-02-E300	P2B-S2-300RE	19121300	USRB5000E-300	SYR 3
40-02-E303	N/A	19121303	USRB5000E-303	N/A
40-02-E307	P2B-S2-307RE	19121307	USRB5000E-307	SYR 3 7/16
40-02-E308	P2B-S2-308RE	19121308	USRB5000E-308	SYR 3 1/2
40-02-E311	P2B-S2-311RE	19121311	USRB5000E-311	SYR 3 11/16
40-02-E315	P2B-S2-315RE	19121315	USRB5000E-315	SYR 3 15/16
40-02-E400	N/A	19121400	USRB5000E-400	SYR 4

## 4-Bolt Pillow Block

NON-EXPANSION				
ROYERSFORD	DODGE	MOLINE	SEALMASTER	SKF
40-04-N207	P4B-S2-207R	19241207	USRBF5000-207	N/A
40-04-N208	N/A	19241208	USRBF5000-208	N/A
40-04-N211	P4B-S2-211R	19241211	USRBF5000-211	N/A
40-04-N212	N/A	19241212	USRBF5000-212	N/A
40-04-N215	P4B-S2-215R	19241215	USRBF5000-215	N/A
40-04-N300	P4B-S2-300R	19241300	USRBF5000-300	N/A
40-04-N303	N/A	19241303	USRBF5000-303	N/A
40-04-N307	P4B-S2-307R	19241307	USRBF5000-307	N/A
40-04-N308	N/A	19241308	USRBF5000-308	N/A
40-04-N311	N/A	19241311	USRBF5000-311	N/A
40-04-N315	P4B-S2-315R	19241315	USRBF5000-315	N/A
40-04-N400	N/A	19241400	USRBF5000-400	N/A
40-04-N407	P4B-S2-407R	19241407	USRBF5000-407	N/A
40-04-N408	N/A	19241408	USRBF5000-408	N/A
40-04-N415	P4B-S2-415R	19241415	USRBF5000-415	N/A
40-04-N500	N/A	N/A	N/A	N/A

EXPANSION				
ROYERSFORD	DODGE	MOLINE	SEALMASTER	SKF
40-04-E207	P4B-S2-207RE	19141207	USRBF5000E-207	N/A
40-04-E208	N/A	19141208	USRBF5000E-208	N/A
40-04-E211	P4B-S2-211RE	19141211	USRBF5000E-211	N/A
40-04-E212	N/A	19141212	USRBF5000E-212	N/A
40-04-E215	P4B-S2-215RE	19141215	USRBF5000E-215	N/A
40-04-E300	P4B-S2-300RE	19141300	USRBF5000E-300	N/A
40-04-E303	N/A	19141303	USRBF5000E-303	N/A
40-04-E307	P4B-S2-307RE	19141307	USRBF5000E-307	N/A
40-04-E308	N/A	19141308	USRBF5000E-308	N/A
40-04-E311	N/A	19141311	USRBF5000E-311	N/A
40-04-E315	P4B-S2-315RE	19141315	USRBF5000E-315	N/A
40-04-E400	N/A	19141400	USRBF5000E-400	N/A
40-04-E407	P4B-S2-407RE	19141407	USRBF5000E-407	N/A
40-04-E408	N/A	19141408	USRBF5000E-408	N/A
40-04-E415	P4B-S2-415RE	19141415	USRBF5000E-415	N/A
40-04-E500	N/A	N/A	N/A	N/A

This is a general bearing interchange. For exact dimensional and load comparisons, please contact the factory.

## Square Flange

NON-EXPANSION				
ROYERSFORD	DODGE	MOLINE	SEALMASTER	SKF
40-05-N107	F4S-S2-107R	19211107	USFB5000-107	FYR 1 7/16 H
40-05-N108	F4S-S2-108R	19211108	USFB5000-108	FYR 1 1/2 H
40-05-N111	F4S-S2-111R	19211111	USFB5000-111	FYR 1 11/16 H
40-05-N112	F4S-S2-112R	19211112	USFB5000-112	FYR 1 3/4 H
40-05-N115	F4S-S2-115R	19211115	USFB5000-115	FYR 1 15/16 H
40-05-N200	F4S-S2-200R	19211200	USFB5000-200	FYR 2 H
40-05-N203	F4S-S2-203R	19211203	USFB5000-203	FYR 2 3/16 H
40-05-N207	F4S-S2-207R	19211207	USFB5000-207	FYR 2 7/16 H
40-05-N208	N/A	19211208	USFB5000-208	FYR 2 1/2 H
40-05-N211	F4S-S2-211R	19211211	USFB5000-211	FYR 2 11/16 H
40-05-N212	N/A	19211212	USFB5000-212	FYR 2 3/4 H
40-05-N215	F4S-S2-215R	19211215	USFB5000-215	FYR 2 15/16 H
40-05-N300	F4S-S2-300R	19211300	USFB5000-300	FYR 3 H
40-05-N303	N/A	19211303	USFB5000-303	N/A
40-05-N307	F4S-S2-307R	19211307	USFB5000-307	FYR 3 7/16 H
40-05-N308	N/A	19211308	USFB5000-308	FYR 3 1/2 H
40-05-N311	N/A	19211311	USFB5000-311	FYR 3 11/16 H
40-05-N315	F4S-S2-315R	19211315	USFB5000-315	FYR 3 15/16 H
40-05-N400	N/A	19211400	USFB5000-400	FYR 4 H

EXPANSION				
ROYERSFORD	DODGE	MOLINE	SEALMASTER	SKF
40-05-E107	F4S-S2-107RE	19111107	USFB5000E-107	FYR 1 7/16
40-05-E108	F4S-S2-108RE	19111108	USFB5000E-108	FYR 1 1/2
40-05-E111	F4S-S2-111RE	19111111	USFB5000E-111	FYR 1 11/16
40-05-E112	F4S-S2-112RE	19111112	USFB5000E-112	FYR 1 3/4
40-05-E115	F4S-S2-115RE	19111115	USFB5000E-115	FYR 1 15/16
40-05-E200	F4S-S2-200RE	19111200	USFB5000E-200	FYR 2
40-05-E203	F4S-S2-203RE	19111203	USFB5000E-203	FYR 2 3/16
40-05-E207	F4S-S2-207RE	19111207	USFB5000E-207	FYR 2 7/16
40-05-E208	N/A	19111208	USFB5000E-208	FYR 2 1/2
40-05-E211	F4S-S2-211RE	19111211	USFB5000E-211	FYR 2 11/16
40-05-E212	N/A	19111212	USFB5000E-212	FYR 2 3/4
40-05-E215	F4S-S2-215RE	19111215	USFB5000E-215	FYR 2 15/16
40-05-E300	F4S-S2-300RE	19111300	USFB5000E-300	FYR 3
40-05-E303	N/A	19111303	USFB5000E-303	N/A
40-05-E307	F4S-S2-307RE	19111307	USFB5000E-307	FYR 3 7/16
40-05-E308	N/A	19111308	USFB5000E-308	FYR 3 1/2
40-05-E311	N/A	19111311	USFB5000E-311	FYR 3 11/16
40-05-E315	F4S-S2-315RE	19111315	USFB5000E-315	FYR 3 15/16
40-05-E400	N/A	19111400	USFB5000E-400	FYR 4

## Piloted Flange

NON-EXPANSION				
ROYERSFORD	DODGE	MOLINE	SEALMASTER	SKF
40-06-N107	FC-S2-107R	19231107	USFC5000-107	FYRP 1 7/16 H
40-06-N108	FC-S2-108R	19231108	USFC5000-108	FYRP 1 1/2 H
40-06-N111	FC-S2-111R	19231111	USFC5000-111	FYRP 1 11/16 H
40-06-N112	FC-S2-112R	19231112	USFC5000-112	FYRP 1 3/4 H
40-06-N115	FC-S2-115R	19231115	USFC5000-115	FYRP 1 15/16 H
40-06-N200	FC-S2-200R	19231200	USFC5000-200	FYRP 2 H
40-06-N203	FC-S2-203R	19231203	USFC5000-203	FYRP 2 3/16 H
40-06-N207	FC-S2-207R	19231207	USFC5000-207	FYRP 2 7/16 H
40-06-N208	N/A	19231208	USFC5000-208	FYRP 2 1/2 H
40-06-N211	FC-S2-211R	19231211	USFC5000-211	FYRP 2 11/16 H
40-06-N212	N/A	19231212	USFC5000-212	FYRP 2 3/4 H
40-06-N215	FC-S2-215R	19231215	USFC5000-215	FYRP 2 15/16 H
40-06-N300	FC-S2-300R	19231300	USFC5000-300	FYRP 3 H
40-06-N303	N/A	19231303	USFC5000-303	N/A
40-06-N307	FC-S2-307R	19231307	USFC5000-307	FYRP 3 7/16 H
40-06-N308	N/A	19231308	USFC5000-308	FYRP 3 1/2 H
40-06-N311	N/A	19231311	USFC5000-311	FYRP 3 11/16 H
40-06-N315	FC-S2-315R	19231315	USFC5000-315	FYRP 3 15/16 H
40-06-N400	N/A	19231400	USFC5000-400	FYRP 4 H

EXPANSION				
ROYERSFORD	DODGE	MOLINE	SEALMASTER	SKF
40-06-E107	FC-S2-107RE	19131107	USFC5000E-107	FYRP 1 7/16
40-06-E108	FC-S2-108RE	19131108	USFC5000E-108	FYRP 1 1/2
40-06-E111	FC-S2-111RE	19131111	USFC5000E-111	FYRP 1 11/16
40-06-E112	FC-S2-112RE	19131112	USFC5000E-112	FYRP 1 3/4
40-06-E115	FC-S2-115RE	19131115	USFC5000E-115	FYRP 1 15/16
40-06-E200	FC-S2-200RE	19131200	USFC5000E-200	FYRP 2
40-06-E203	FC-S2-203RE	19131203	USFC5000E-203	FYRP 2 3/16
40-06-E207	FC-S2-207RE	19131207	USFC5000E-207	FYRP 2 7/16
40-06-E208	N/A	19131208	USFC5000E-208	FYRP 2 1/2
40-06-E211	FC-S2-211RE	19131211	USFC5000E-211	FYRP 2 11/16
40-06-E212	N/A	19131212	USFC5000E-212	FYRP 2 3/4
40-06-E215	FC-S2-215RE	19131215	USFC5000E-215	FYRP 2 15/16
40-06-E300	FC-S2-300RE	19131300	USFC5000E-300	FYRP 3
40-06-E303	N/A	19131303	USFC5000E-303	N/A
40-06-E307	FC-S2-307RE	19131307	USFC5000E-307	FYRP 3 7/16
40-06-E308	N/A	19131308	USFC5000E-308	FYRP 3 1/2
40-06-E311	N/A	19131311	USFC5000E-311	FYRP 3 11/16
40-06-E315	FC-S2-315RE	19131315	USFC5000E-315	FYRP 3 15/16
40-06-E400	N/A	19131400	USFC5000E-400	FYRP 4

This is a general bearing interchange. For exact dimensional and load comparisons, please contact the factory.



## STANDARD TERMS & CONDITIONS

### 1. QUOTATIONS & PUBLISHED PRICES

Quotations will expire 30 days from date of issue unless otherwise stated and are subject to revision within that period with notice. Published prices and other literature issued by the Company are not unconditional offers to sell and are subject to change without notice.

### 2. TAXES

The Company's prices do not include any applicable sales, use, excise or similar taxes. Any taxes the Company is required to pay will be added to each invoice or billed separately unless a valid certificate of exemption is on file with the Company.

### 3. TERMS OF PAYMENT

Standard terms are 1/2% 10 days, NET 30 for approved accounts. Amounts past due are subject to a 1.5% service charge per month.

### 4. FOB

Shipments are FOB shipping point unless the order and items qualified for freight allowance as provided for in the appropriate discount sheet. Any order shipped partial at the customer's request, for whatever reason, which does not meet the applicable freight allowance criteria, will be subject to standard freight charges. The buyer is responsible for filing any claims against the carrier for shortages or items damaged in transit.

### 5. ORDERS

Verbal orders are requested to be confirmed via FAX or US Mail prior to shipment. Disputes regarding quantities, items, prices, method of shipment and or destination will be honored **only** if confirmation of the applicable order is received by the factory prior to shipment. All priority shipments (*i.e. Fed Ex Priority, UPS Red, UPS Blue, etc.*) must be confirmed by FAX or EMAIL.

### 6. MINIMUM ORDERS

All orders are subject to a minimum charge as defined in the applicable discount schedule (*this does not include freight or miscellaneous charges*).

### 7. CANCELLATION

Orders may be cancelled only if mutually agreed upon by the purchaser and the Company. Special orders and certain non-stock items may be subject to a cancellation charge.

### 8. RETURNS

Certain items may be returned within 12 months from shipment with prior written permission accompanied by applicable RGA number. **NOT ALL ITEMS** are subject to return. Credit will be issued against the original invoice or future purchases only (*i.e. no cash refunds*). All returns are subject to a 20% restocking charge and must be received in "*as new condition*". Any rework charges or original "*freight allowed*" charges will be deductible from the credit issued. All credits must be used within 12 months from date of issue.

### 9. WARRANTIES

COMPANY EXPRESSLY WARRANTS THE PRODUCTS MANUFACTURED BY IT AS SET FORTH HEREIN, COMPANY MAKES NO OTHER WARRANTIES, EITHER EXPRESS OR IMPLIED (INCLUDING WITHOUT LIMITATION WARRANTIES AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE). IN ADDITION, THE FOLLOWING SHALL CONSTITUTE THE SOLE AND EXCLUSIVE REMEDIES OF BUYER FOR ANY BREACH BY COMPANY OF ITS WARRANTIES HEREUNDER.

### 10. LIMITATION OF DAMAGES

The Company shall not be liable for any loss, claim, expense or damage caused by, contributed to, or arising out of the acts or omissions of Buyer or third parties, whether negligent or otherwise. In no event shall the Company's liability for any cause of action whatsoever exceed the cost of the item giving rise to the claim whether based in contract, warranty, or tort (*including negligence*). Any suit arising hereunder must be commenced within one (1) year from the date of purchase. **IN NO EVENT SHALL COMPANY BE LIABLE FOR ANY TYPE OF SPECIAL, CONSEQUENTIAL, INCIDENTAL OR PENAL DAMAGES WHETHER SUCH DAMAGES ARISE OUT OF OR ARE A RESULT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE.**

## Products by Royersford Foundry & Machine Co., Inc.

- R2000 Mounted Spherical Bearings with SKF Inserts (2 & 4 Bolt Pillow Blocks, Square Flanges, Piloted Flanges & Take-Ups)
- Type 'E' Mounted Bearings with Timken Inserts (2 & 4 Bolt Pillow Blocks, Square Flanges, Piloted Flanges & Take-Ups)
- Babbitt & Bronze Sleeved Journal Bearings (Solid, 2 Bolt Split, 4 Bolt Rigid Split, 4 Bolt Rigid Split - Gibbed Joint & 40 Deg Split Angle) Other lining materials available upon request
- Custom Bearing Manufacturing
- Rigid Shaft Couplings (Clamp, Flanged & Sleeve)
- Solid Steel & Solid Cast Iron Collars
- Split Cast Iron Collars
- Commercial Roller Bearings
- Custom Precision Components
- Most items are available in inch & metric sizes (metric items are made to order)



PO Box 190  
Royersford, PA 19468-0190

Phone: 610-935-7200

Fax: 610-935-7411

Toll Free: 800-533-9307

[www.royersford.com](http://www.royersford.com)