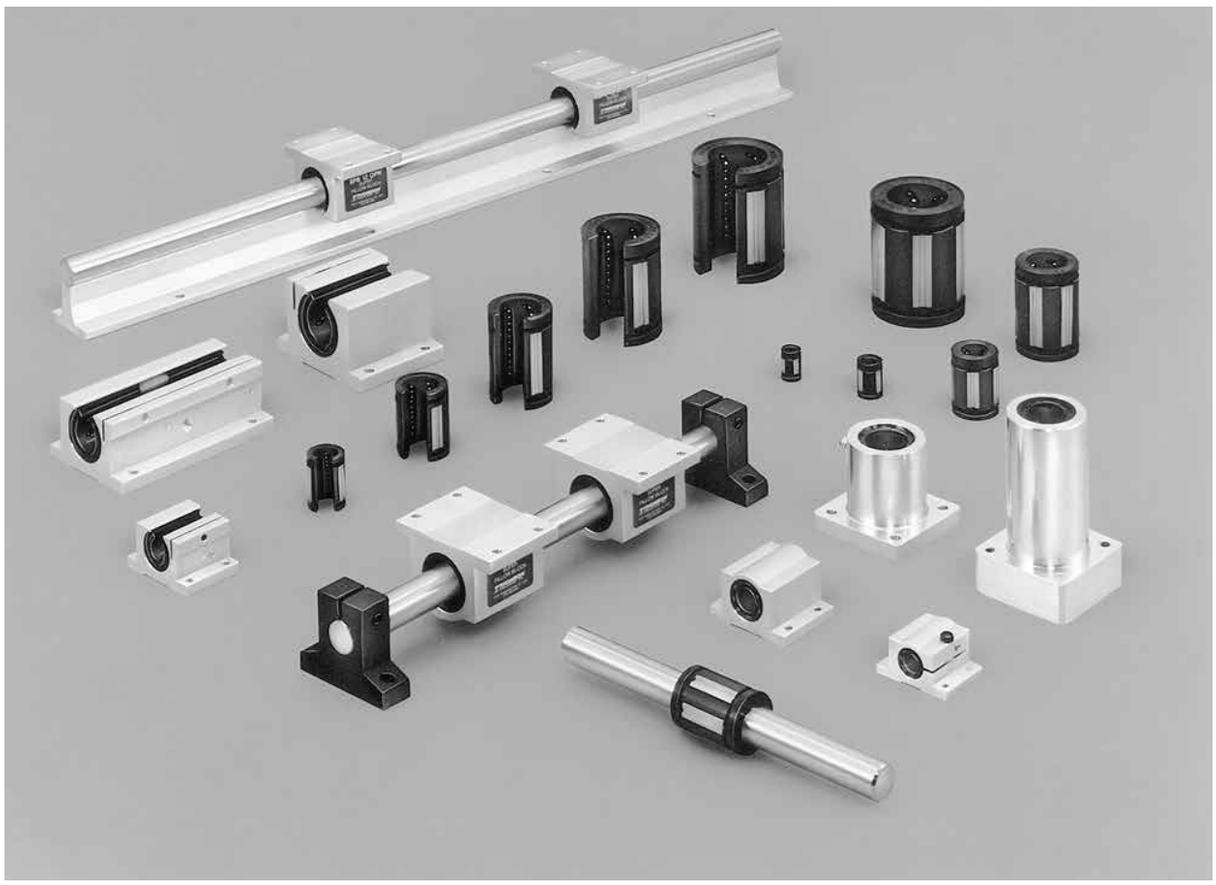
Super Ball Bushing® Bearing Products



Thomson Super Ball Bushing Bearing products offer:

- A self-aligning capability up to .5° compensating for inaccuracies in base flatness or carriage machining.
- The RoundRail Advantage combined with the self-aligning feature, eliminating the need for derating factors commonly required for linear guides.
- Travel speeds up to 10 ft./s without a reduction in load capacity.
- Lightweight, wear-resistant, engineered-polymer retainers and outer sleeves that reduce inertia and noise.
- Radially floating bearing plates. When installed in an adjustable housing, the Super Ball Bushing Bearing may be adjusted to a specific diametrical fit-up for accurate and repeatable movement.
- A constant coefficient of friction as low as .001.
- The use of smaller, less expensive drive motors, belts, linkages, gears and ball screws, when replacing high-friction plain bearings.
- A closed configuration for end-supported applications and an open configuration for continuously supported applications.
- Ready-to-install pillow blocks with double-acting seals and an access for lubrication. Installation and downtime is minimized.

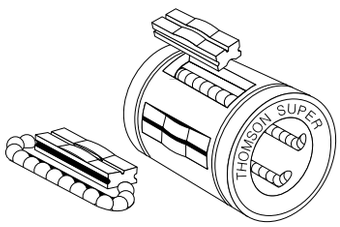


Figure 1

The Super Ball Bushing Bearing has been the industry standard for self-aligning linear bearings for more than 20 years. This bearing provides three times the load capacity or 27 times the travel life of conventional linear bearings. This dramatic improvement in bearing performance significantly reduces downtime and maintenance, while increasing machine reliability. Thomson invented the Super Ball Bushing Bearing with many unique design features. Besides the dramatic increase in load capacity, the Super Ball Bushing Bearing is self-aligning, lightweight and adjustable with a low coefficient of friction (Figure 1).

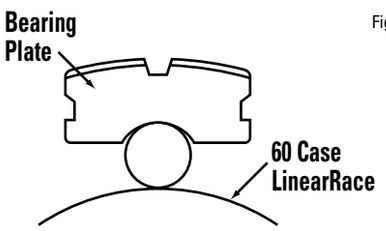


Figure 2

Three Times the Load Capacity
The bearing plates are hardened, bearing quality steel with ball-conforming grooves (Figure 2). The groove is slightly larger than the ball diameter, providing an optimal area for ball contact. The greater ball-to-bearing plate contact provides the increase in load capacity or travel life.

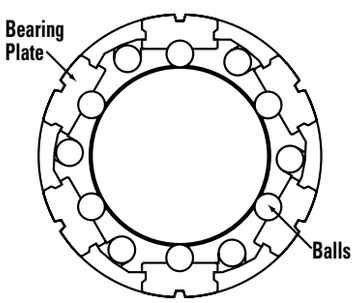


Figure 3

Cross-section of Super Ball Bushing Bearing

Zero Clearance Fit
The bearing plates are also designed to float radially (Figure 3). When the bearing is mounted in an adjustable housing, selected fit-ups can be achieved on the 60 Case® LinearRace® (shaft).

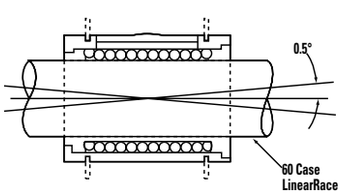


Figure 4

Self-Aligning
The Super Ball Bushing Bearing plates pivot .5° about their centers (Figure 4) to assure smooth entry and exit of the precision bearing balls. Each plate aligns itself automatically to compensate for inaccurate housing bore alignment, base flatness or carriage machining. This provides uniform ball loading, smooth ball recirculation and a constant coefficient of friction.

Smooth, Quiet Operation
The Super Ball Bushing Bearing's outer sleeve and retainer are made of wear-resistant, low-friction engineering polymer. It reduces inertia and operating noise levels significantly.

Part Number Description and Specification

Super Ball Bushing® Bearings (Closed Type) for End-Supported Applications

SUPER16-DDCR

Type	Description
SUPER	Super Ball Bushing bearings
SCB	Super Ball Bushing Cartridge bearings

Size	Nominal Diameter
3	.188
4	.250
6	.375
8	.500
10	.625
12	.750
16	1.000
20	1.250
24	1.500
32	2.000

Seals Options

Blank	No Seals
DD	Integral Seals

Ball Options

Option	Description
CR	Corrosion Resistant
NB	Nylon Balls
NBA	Alternating Nylon Balls

Lube Options

DP	Dry Pack
LL	Lubricated with Thomson Linear Lube

Other Options

RP	Roll Pack (no box)

Super Ball Bushing Pillow Blocks (Closed Type) for End Supported Applications

SPB16ADJ-CR

Type	Description
SPB	Super Ball Bushing Pillow Blocks
TWN	Super Ball Bushing Twin Pillow Blocks

Size	Nominal Diameter
4	.250
6	.375
8	.500
10	.625
12	.750
16	1.000
20	1.250
24	1.500
32	2.000

Ball Options

Option	Description
CR	Corrosion Resistant
NB	Nylon Balls
NBA	Alternating Nylon Balls

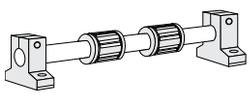
Lube Options

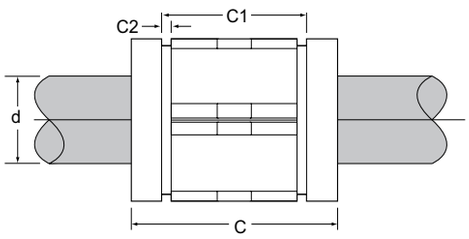
DP	Dry Pack
LL	Lubricated with Thomson Linear Lube
L4L	Lube for Life

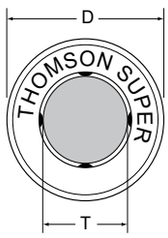
Type	Description
–	Closed Type, Non-Adjustable
ADJ	Closed Type, Adjustable Pillow Block

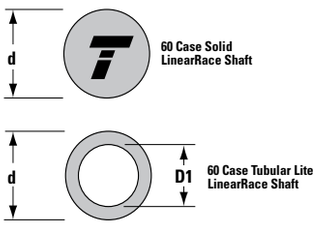
Not all options are available in all sizes.
See catalog pages or contact Thomson Customer Support for combination availability.
For additional information on bearing options, see page 264.

Super Ball Bushing Bearings
(Closed Type) for End-Supported Applications









Super Ball Bushing Bearings (Closed Type) and 60 Case® LinearRace® (Dimensions in inches)

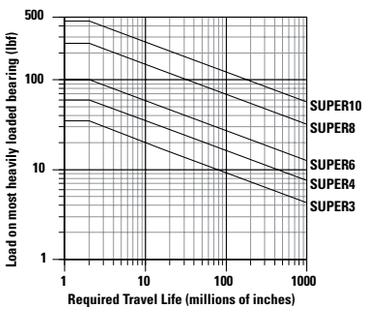
Part Number [1]		Nominal Diameter	Length C	Distance Between Retaining Ring Grooves C1	Retaining Ring Groove min. C2	Number of Ball Circuits	Ball Bushing Bearing Mass lb	60 Case LinearRace Minimum Depth of Hardness	60 Case Solid LinearRace Mass lb/in	60 Case Tubular Lite LinearRace Mass lb/in	60 Case Tubular Lite LinearRace ID D1
Ball Bushing Bearing	60 Case Linear Race										
SUPER3	3/16 L	.188	.562/.547	–	–	4	.003	.027	.008	–	–
SUPER4	1/4 L	.250	.750/.735	.511/.501	.039	4	.01	.027	.01	–	–
SUPER6	3/8 L	.375	.875/.860	.699/.689	.039	4	.02	.027	.03	–	–
SUPER8	1/2 L	.500	1.250/1.230	1.032/1.012	.050	4	.04	.04	.06	–	–
SUPER10	5/8 L	.625	1.500/1.480	1.105/1.095	.056	5	.10	.04	.09	–	–
SUPER12	3/4 L	.750	1.625/1.605	1.270/1.250	.056	6	.14	.06	.13	.08	.46/.41
SUPER16	1 L	1.000	2.250/2.230	1.884/1.864	.070	6	.25	.08	.22	.16	.62/.56
SUPER20	1 1/4 L	1.250	2.625/2.600	2.004/1.984	.068	6	.45	.08	.35	–	–
SUPER24	1 1/2 L	1.500	3.000/2.970	2.410/2.390	.086	6	.85	.08	.50	.33	.93/.84
SUPER32	2 L	2.000	4.000/3.960	3.193/3.163	.105	6	1.45	.10	.89	.54	1.31/1.18

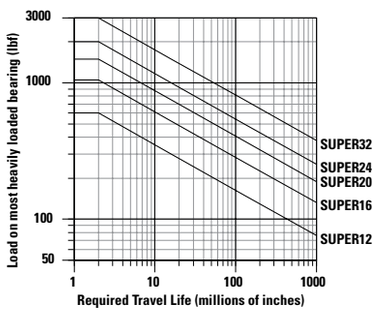
Part Number [1]	Working Bore Diameter T	Recommended Housing Bore		60 Case LinearRace Diameter d	Ball Bushing Bearing/LinearRace Fit Up ‡		Dynamic [2] Load Capacity lb_f
Ball Bushing Bearing		Fixed D	Adjustable D		Fixed Diameter Housing	Adjustable Diameter Housing (Before Adjustment)	
SUPER3	.1875/.1870	.3755/.3750	.3760/.3750	.1870/.1865	.0015C/.0000	.002C/.0000	35
SUPER4	.2500/.2495	.5005/.5000	.5010/.5000	.2495/.2490	.0015C/.0000	.002C/.0000	60
SUPER6	.3750/.3745	.6255/.6250	.6260/.6250	.3745/.3740	.0015C/.0000	.002C/.0000	100
SUPER8	.5000/.4995	.8755/.8750	.8760/.8750	.4995/.4990	.0015C/.0000	.002C/.0000	255
SUPER10	.6250/.6245	1.1255/1.1250	1.1260/1.1250	.6245/.6240	.0015C/.0000	.002C/.0000	450
SUPER12	.7500/.7495	1.2505/1.2500	1.2510/1.2500	.7495/.7490	.0015C/.0000	.002C/.0000	600
SUPER16	1.0000/.9995	1.5630/1.5625	1.5635/1.5625	.9995/.9990	.0015C/.0000	.002C/.0000	1050
SUPER20	1.2500/1.2494	2.0008/2.0000	2.0010/2.0000	1.2495/1.2490	.0018C/.0001P	.002C/.0001P	1500
SUPER24	1.5000/1.4994	2.3760/2.3750	2.3760/2.3750	1.4994/1.4989	.0021C/.0000	.0021C/.0000	2000
SUPER32	2.0000/1.9992	3.0010/3.0000	3.0010/3.0000	1.9994/1.9987	.0023C/.0002P	.0023C/.0002P	3000

‡ P = Preload, C = Clearance
(1) For part number description and specifications, see page 46.
(2) The Dynamic Load Capacity is based on a rated travel life of 2 million inches. The actual Dynamic Load Capacity can be affected by the orientation of the bearing or the direction of the applied load. For Dynamic Load Correction Factors, see following polar graphs.
Note: For additional technical information, see the Engineering section beginning on page 252.

Load/Life Graph

(Lines indicate limiting load for given Ball Bushing® Bearing)



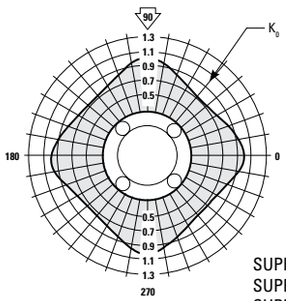


Determining Ball Bushing Bearing Size
To determine the proper Ball Bushing Bearing size, enter the chart with the maximum load of the most heavily loaded bearing and the required travel life. Mark where the two lines intersect. All Ball Bushing Bearing sizes that pass through or above and to the right of this point may be suitable for this application.

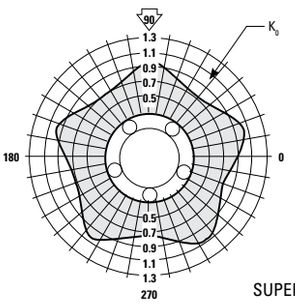
Note: For the purpose of using this chart, load on most heavily loaded bearing = maximum applied load/K_0. Where K_0 can be determined from the Polar Graph to the right.

Polar Graphs

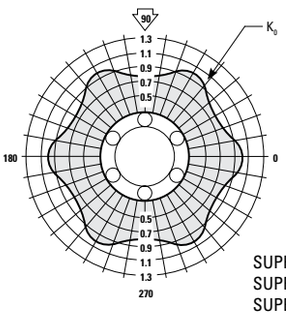
The actual dynamic load capacity of a Ball Bushing Bearing is determined by the orientation of the bearing or direction of the applied load. The load correction factor K_0 is found by knowing the direction of the applied load relative to the orientation of the bearings ball tracks and referring to the polar graph. To determine the actual dynamic load capacity, multiply the proper correction factor by the dynamic load capacity listed in the product table on the previous page.



SUPER3
SUPER4
SUPER6
SUPER8

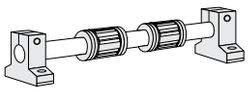


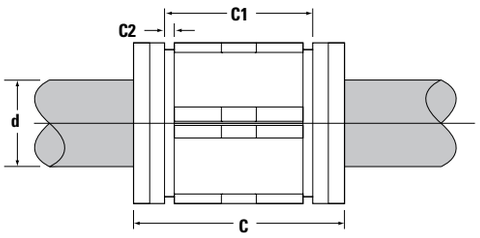
SUPER10

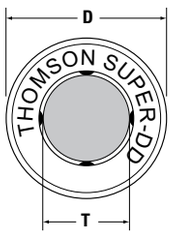


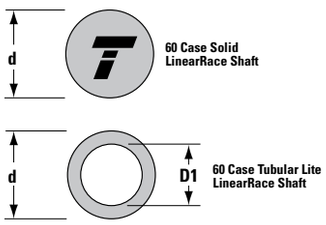
SUPER12
SUPER16
SUPER20
SUPER24
SUPER32

Sealed Super Ball Bushing Bearings
(Closed Type) for End-Supported Applications









Sealed Super Ball Bushing Bearings (Closed Type, seal at both ends) and 60 Case® LinearRace® (Dimensions in inches)

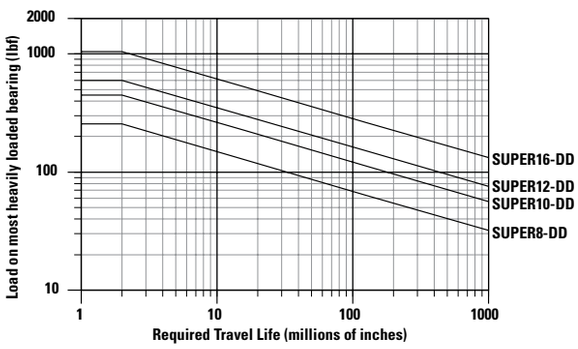
Part Number (1)		Nominal Diameter	Length C	Distance Between Retaining Ring Grooves C1	Retaining Ring Groove min. C2	Number of Ball Circuits	Ball Bushing Bearing Mass lb	60 Case LinearRace Minimum Depth of Hardness	60 Case Solid LinearRace Mass lb/in	60 Case Tubular Lite LinearRace Mass lb/in	60 Case Tubular Lite LinearRace ID D1
Ball Bushing Bearing	60 Case Linear Race										
SUPER8-DD	1/2 L	.500	1.500/1.460	1.032/1.012	.050	4	.05	.04	.06	–	–
SUPER10-DD	5/8 L	.625	1.750/1.710	1.105/1.095	.056	5	.11	.04	.09	–	–
SUPER12-DD	3/4 L	.750	1.875/1.835	1.270/1.250	.056	6	.15	.06	.13	.08	.46/.41
SUPER16-DD	1 L	1.000	2.625/2.585	1.884/1.864	.070	6	.27	.08	.22	.16	.62/.56

Part Number (1)	Working Bore Diameter T	Recommended Housing Bore Dia.		60 Case LinearRace Diameter d	Ball Bushing Bearing/LinearRace Fit Up ‡		Dynamic (2) Load Capacity lb_f
Ball Bushing Bearing		Fixed D	Adjustable D		Fixed Diameter Housing	Adjustable Diameter Housing (Before Adjustment)	
SUPER8-DD	.5000/.4995	.8750/.8755	.8750/.8760	.4995/.4990	.0015C/.0000	.002C/.0000	255
SUPER10-DD	.6250/.6245	1.1250/1.1255	1.1250/1.1260	.6245/.6240	.0015C/.0000	.002C/.0000	450
SUPER12-DD	.7500/.7495	1.2500/1.2505	1.2500/1.2510	.7495/.7490	.0015C/.0000	.002C/.0000	600
SUPER16-DD	1.0000/.9995	1.5625/1.5630	1.5625/1.5635	.9995/.9990	.0015C/.0000	.002C/.0000	1050

‡ P = Preload, C = Clearance
(1) For part number description and specifications, see page 46.
(2) The Dynamic Load Capacity is based on a rated travel life of 2 million inches. The actual Dynamic Load Capacity can be affected by the orientation of the bearing or the direction of the applied load. For Dynamic Load Correction Factors, see following polar graphs.
Note: For additional technical information, see the Engineering section beginning on page 252.

Load/Life Graph

(Lines indicate limiting load for given Ball Bushing® Bearing)

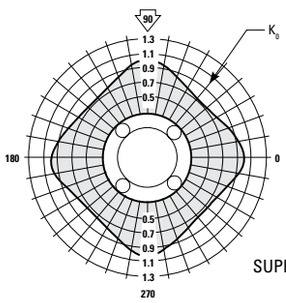


Determining Ball Bushing Bearing Size
To determine the proper Ball Bushing Bearing size, enter the chart with the maximum load of the most heavily loaded bearing and the required travel life. Mark where the two lines intersect. All Ball Bushing Bearing sizes that pass through or above and to the right of this point may be suitable for this application.

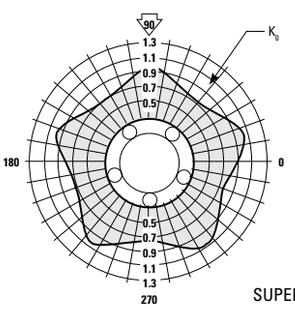
Note: For the purpose of using this chart, load on most heavily loaded bearing = maximum applied load/K_0. Where K_0 can be determined from the Polar Graph to the right.

Polar Graphs

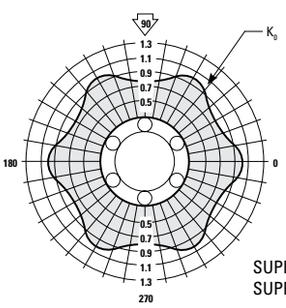
The actual dynamic load capacity of a Ball Bushing Bearing is determined by the orientation of the bearing or direction of the applied load. The load correction factor K_0 is found by knowing the direction of the applied load relative to the orientation of the bearings ball tracks and referring to the polar graph. To determine the actual dynamic load capacity, multiply the proper correction factor by the dynamic load capacity listed in the product table on the previous page.



SUPER8-DD

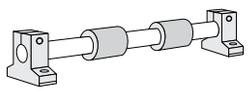


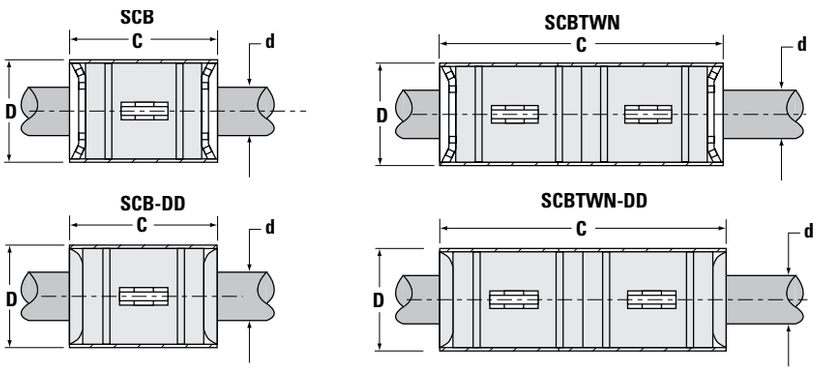
SUPER10-DD



SUPER12-DD
SUPER16-DD

Super Ball Bushing Cartridge Bearings
(Closed Type) for End-Supported Applications





Super Ball Bushing Cartridge Bearings and 60 Case® LinearRace® (Dimensions in inches)

Part Number [1]			Nominal Diameter	Length C ±.005	Number of Ball Circuits	Ball Bushing Mass w/out Seals lb	Ball Bushing Mass with Seals lb	60 Case LinearRace Diameter d	Nominal Outside Diameter D	Rec. Housing Bore Dia. Fixed	60 Case LinearRace Minimum Depth of Hardness	60 Case Solid LinearRace Mass lb/in	Dynamic[2] Load Capacity lb_f
Without Seals	With Seals	60 Case Linear Race											
SCB4	SCB4-DD	1/4 L	.250	1.000	4	.01	.02	.2495/.2490	.531/.529	.535/.533	.027	.01	60
SCB6	SCB6-DD	3/8 L	.375	1.125	4	.02	.03	.3745/.3740	.656/.654	.660/.658	.027	.03	100
SCB8	SCB8-DD	1/2 L	.500	1.500	4	.06	.07	.4995/.4990	.906/.904	.910/.908	.04	.06	255

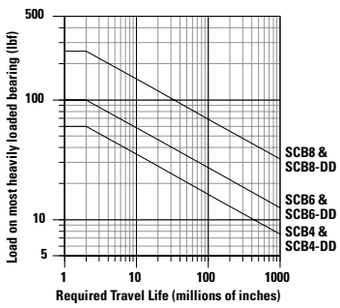
Super Ball Bushing Twin Cartridge Bearings and 60 Case LinearRace (Dimensions in inches)

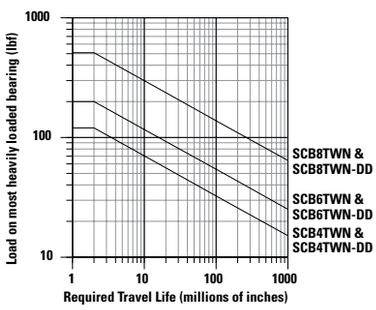
Part Number [1]			Nominal Diameter	Length C ±.005	Number of Ball Circuits	Ball Bushing Mass w/out Seals lb	Ball Bushing Mass with Seals lb	60 Case LinearRace Diameter d	Nominal Outside Diameter D	Rec. Housing Bore Dia. Fixed	60 Case LinearRace Minimum Depth of Hardness	60 Case LinearRace Mass lb/in	Dynamic[2] Load Capacity lb_f
Without Seals	With Seals	60 Case Linear Race											
SCB4TWN	SCB4TWN-DD	1/4 L	.250	1.750	4	.02	.04	.2495/.2490	.531/.529	.535/.533	.027	.01	120
SCB6TWN	SCB6TWN-DD	3/8 L	.375	2.000	4	.03	.04	.3745/.3740	.656/.654	.660/.658	.027	.03	200
SCB8TWN	SCB8TWN-DD	1/2 L	.500	2.750	4	.12	.13	.4995/.4990	.906/.904	.910/.908	.04	.06	510

(1) For part number description and specifications, see page 46.
(2) The Dynamic Load Capacity is based on a rated travel life of 2 million inches. The actual Dynamic Load Capacity can be affected by the orientation of the bearing or the direction of the applied load. For Dynamic Load Correction Factors, see following polar graphs. Dynamic load capacity for Twin configuration is based on two bearings equally loaded.
Note: For additional technical information, see the Engineering section beginning on page 252.

Load/Life Graph

(Lines indicate limiting load for given Ball Bushing® Cartridge Bearing)



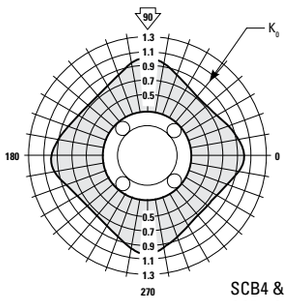


Determining Ball Bushing Bearing Size
To determine the proper Ball Bushing Bearing size enter the chart with the maximum load of the most heavily loaded bearing and the required travel life. Mark where the two lines intersect. All Ball Bushing Bearing sizes that pass through or above and to the right of this point may be suitable for this application.

Note: For the purpose of using this chart, load on most heavily loaded bearing = maximum applied load/K_0. Where K_0 can be determined from the Polar Graph to the right.

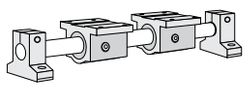
Polar Graphs

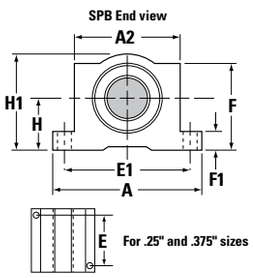
The actual dynamic load capacity of a Ball Bushing Bearing is determined by the orientation of the bearing or direction of the applied load. The load correction factor K_0 is found by knowing the direction of the applied load relative to the orientation of the bearings ball tracks and referring to the polar graph. To determine the actual dynamic load capacity, multiply the proper correction factor by the dynamic load capacity listed in the product table on the previous page.

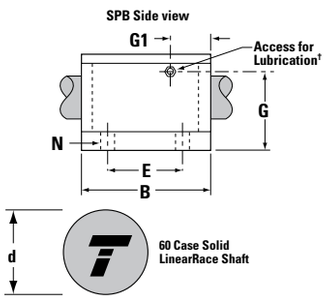


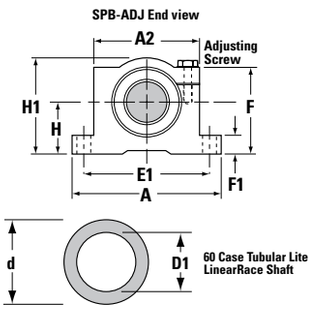
SCB4 & SCB4-DD
SCB6 & SCB6-DD
SCB8 & SCB8-DD
SCB4TWN & SCB4TWN-DD
SCB6TWN & SCB6TWN-DD
SCB8TWN & SCB8TWN-DD

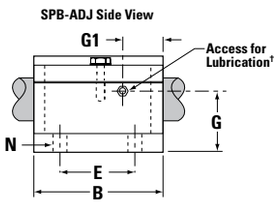
Super Ball Bushing Pillow Blocks
(Closed and Adjustable Type) for End-Supported Applications











† Sizes .25, .375 and .500 have oil lubricant fitting. Sizes .625 and above have 1/4-28 access for lubrication.

Super Ball Bushing Pillow Blocks (Closed and Adjustable Types, seal at both ends) and 60 Case® LinearRace® (Dim. in in.)

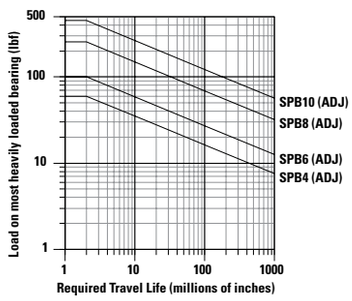
Part Number [1]			Nominal Diameter	H ±.003	H1	60 Case LinearRace Diameter d	60 Case LinearRace Minimum Depth of Hardness	60 Case Solid LinearRace Mass lb/in	60 Case Tubular Lite LinearRace Mass lb/in	60 Case Tubular Lite LinearRace ID D1
Super Ball Bushing Pillow Block		60 Case LinearRace								
Fixed	Adjustable									
SPB4	SPB4ADJ	1/4 L	.250	.437	.81	.2495/.2490	.027	.01	–	–
SPB6	SPB6ADJ	3/8 L	.375	.500	.94	.3745/.3740	.027	.03	–	–
SPB8	SPB8ADJ	1/2 L	.500	.687	1.25	.4995/.4990	.04	.06	–	–
SPB10	SPB10ADJ	5/8 L	.625	.875	1.63	.6245/.6240	.04	.09	–	–
SPB12	SPB12ADJ	3/4 L	.750	.937	1.75	.7495/.7490	.06	.13	.08	.46/.41
SPB16	SPB16ADJ	1 L	1.000	1.187	2.19	.9995/.9990	.08	.22	.16	.62/.56
SPB20	SPB20ADJ	1 1/4 L	1.250	1.500	2.81	1.2495/1.2490	.08	.35	–	–
SPB24	SPB24ADJ	1 1/2 L	1.500	1.750	3.25	1.4994/1.4989	.08	.50	.33	.93/.84
SPB32	SPB32ADJ	2 L	2.000	2.125	4.06	1.9994/1.9987	.10	.89	.54	1.31/1.18

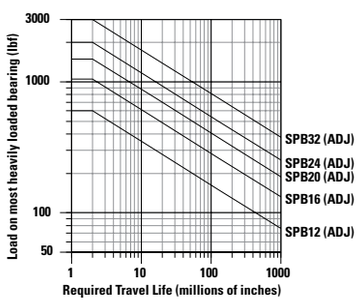
Part Number [1]		A	A2	B	E ±.010	E1 ±.010	F	F1	G	G1	N		Pillow Block Mass lb	Dynamic[2] Load Capacity lb_f
Super Ball Bushing Pillow Block											Hole	Bolt		
Fixed	Adjustable													
SPB4	SPB4ADJ	1.63	1.00	1.19	.750	1.313	.75	.19	.60	.41	.16	#6	.10	60
SPB6	SPB6ADJ	1.75	1.13	1.31	.875	1.438	.88	.19	.70	.41	.16	#6	.13	100
SPB8	SPB8ADJ	2.00	1.38	1.69	1.000	1.688	1.13	.25	.97	.44	.16	#6	.20	255
SPB10	SPB10ADJ	2.50	1.75	1.94	1.125	2.125	1.44	.28	1.20	.69	.19	#8	.50	450
SPB12	SPB12ADJ	2.75	1.88	2.06	1.250	2.375	1.56	.31	.94	.78	.19	#8	.60	600
SPB16	SPB16ADJ	3.25	2.38	2.81	1.750	2.875	1.94	.38	1.19	.91	.22	#10	1.20	1050
SPB20	SPB20ADJ	4.00	3.00	3.63	2.000	3.500	2.50	.44	1.50	1.37	.22	#10	2.50	1500
SPB24	SPB24ADJ	4.75	3.50	4.00	2.500	4.125	2.88	.50	1.75	1.13	.28	1/4	3.80	2000
SPB32	SPB32ADJ	6.00	4.50	5.00	3.250	5.250	3.63	.63	1.30	1.25	.41	3/8	7.00	3000

(1) For part number description and specifications, see page 46.
(2) The Dynamic Load Capacity is based on a rated travel life of 2 million inches. The actual Dynamic Load Capacity can be affected by the orientation of the bearing or the direction of the applied load. For Dynamic Load Correction Factors, see following polar graphs.
Note: For additional technical information, see the Engineering section beginning on page 252.

Load/Life Graph

(Lines indicate limiting load for given Ball Bushing® Pillow Block)



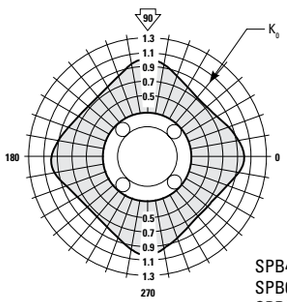


Determining Ball Bushing Bearing Size
To determine the proper Ball Bushing Bearing size, enter the chart with the maximum load of the most heavily loaded bearing and the required travel life. Mark where the two lines intersect. All Ball Bushing Bearing sizes that pass through or above and to the right of this point may be suitable for this application.

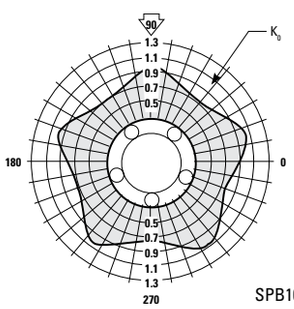
Note: For the purpose of using this chart, load on most heavily loaded bearing = maximum applied load/K_0. Where K_0 can be determined from the Polar Graph to the right.

Polar Graphs

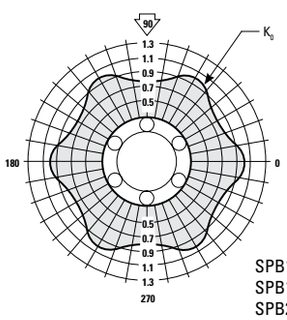
The actual dynamic load capacity of a Ball Bushing Bearing is determined by the orientation of the bearing or direction of the applied load. The load correction factor K_0 is found by knowing the direction of the applied load relative to the orientation of the bearings ball tracks and referring to the polar graph. To determine the actual dynamic load capacity, multiply the proper correction factor by the dynamic load capacity listed in the product table on the previous page.



SPB4 (ADJ)
SPB6 (ADJ)
SPB8 (ADJ)

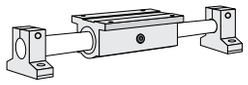


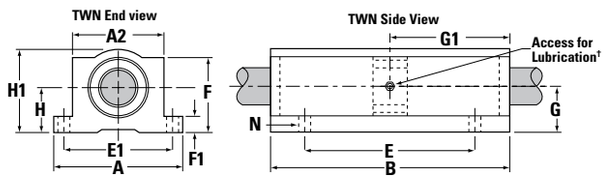
SPB10 (ADJ)



SPB12 (ADJ)
SPB16 (ADJ)
SPB20 (ADJ)
SPB24 (ADJ)
SPB32 (ADJ)

Super Ball Bushing Twin Pillow Blocks
(Closed Type) for End-Supported Applications





† Sizes .25, .375 and .500 have oil lubricant fitting. Sizes .625 and above have 1/4-28 access for lubrication.

Super Ball Bushing Twin Pillow Blocks (Closed and Adjustable Type, seal at both ends) and LinearRace® (Dim. in in.)

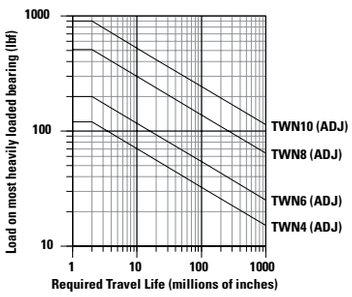
Part Number (1)			Nominal Diameter	H ±.003	H1	60 Case LinearRace Diameter d	60 Case LinearRace Minimum Depth of Hardness	60 Case Solid LinearRace Mass lb/in	60 Case Tubular Lite LinearRace Mass lb/in	60 Case Tubular Lite LinearRace ID D1
Super Ball Bushing Twin Pillow Block		60 Case LinearRace								
Fixed	Adjustable									
TWN4	TWN4ADJ	1/4 L	.250	.437	.81	.2495/.2490	.027	.01	–	–
TWN6	TWN6ADJ	3/8 L	.375	.500	.94	.3745/.3740	.027	.03	–	–
TWN8	TWN8ADJ	1/2 L	.500	.687	1.25	.4995/.4990	.04	.06	–	–
TWN10	TWN10ADJ	5/8 L	.625	.875	1.63	.6245/.6240	.04	.09	–	–
TWN12	TWN12ADJ	3/4 L	.750	.937	1.75	.7495/.7490	.06	.13	.08	.46/.41
TWN16	TWN16ADJ	1 L	1.000	1.187	2.19	.9995/.9990	.08	.22	.16	.62/.56
TWN20	TWN20ADJ	1 1/4 L	1.250	1.500	2.81	1.2495/1.2490	.08	.35	–	–
TWN24	TWN24ADJ	1 1/2 L	1.500	1.750	3.25	1.4994/1.4989	.08	.50	.33	.93/.84

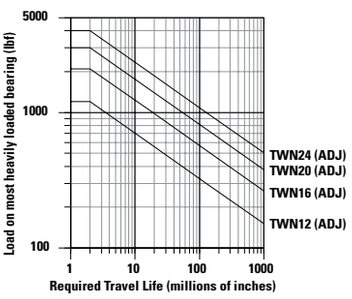
Part Number (1)		A	A2	B	E ±.010	E1 ±.010	F	F1	G	G1	N		Pillow Block Mass lb	Dynamic (2) Load Capacity lb_f
Super Ball Bushing Twin Pillow Block											Hole	Bolt		
Fixed	Adjustable													
TWN4	TWN4ADJ	1.63	1.00	2.50	2.000	1.313	.75	.19	.44	1.25	.16	#6	.19	120
TWN6	TWN6ADJ	1.75	1.13	2.75	2.250	1.438	.88	.19	.50	1.37	.16	#6	.25	200
TWN8	TWN8ADJ	2.00	1.38	3.50	2.500	1.688	1.13	.25	.59	1.75	.16	#6	.40	510
TWN10	TWN10ADJ	2.50	1.75	4.00	3.000	2.125	1.44	.28	.85	2.00	.19	#8	1.00	900
TWN12	TWN12ADJ	2.75	1.88	4.50	3.500	2.375	1.56	.31	.94	2.25	.19	#8	1.20	1200
TWN16	TWN16ADJ	3.25	2.38	6.00	4.500	2.875	1.94	.38	1.19	3.00	.22	#10	2.40	2100
TWN20	TWN20ADJ	4.00	3.00	7.50	5.500	3.500	2.50	.44	1.50	3.75	.22	#10	5.00	3000
TWN24	TWN24ADJ	4.75	3.50	9.00	6.500	4.125	2.88	.50	1.75	4.50	.28	1/4	7.80	4000

(1) For part number description and specifications, see page 46.
(2) The Dynamic Load Capacity is based on a rated travel life of 2 million inches. The actual Dynamic Load Capacity can be affected by the orientation of the bearing or the direction of the applied load. For Dynamic Load Correction Factors, see following polar graphs. Dynamic load capacity is based on two bearings equally loaded.
Note: For additional technical information, see the Engineering section beginning on page 252.

Load/Life Graph

(Lines indicate limiting load for given Ball Bushing® Pillow Block)



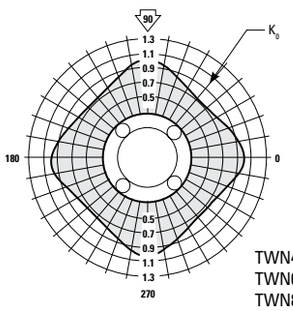


Determining Ball Bushing Bearing Size
To determine the proper Ball Bushing Bearing size, enter the chart with the maximum load of the most heavily loaded bearing and the required travel life. Mark where the two lines intersect. All Ball Bushing Bearing sizes that pass through or above and to the right of this point may be suitable for this application.

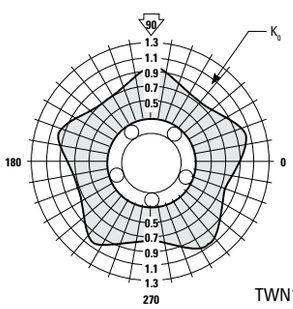
Note: For the purpose of using this chart, load on most heavily loaded bearing = maximum applied load/K_0. Where K_0 can be determined from the Polar Graph to the right.

Polar Graphs

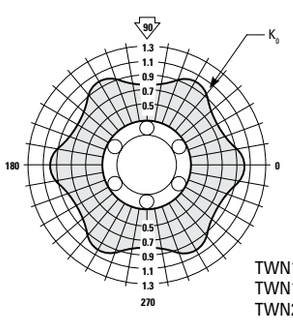
The actual dynamic load capacity of a Ball Bushing Bearing is determined by the orientation of the bearing or direction of the applied load. The load correction factor K_0 is found by knowing the direction of the applied load relative to the orientation of the bearings ball tracks and referring to the polar graph. To determine the actual dynamic load capacity, multiply the proper correction factor by the dynamic load capacity listed in the product table on the previous page.



TWN4 (ADJ)
TWN6 (ADJ)
TWN8 (ADJ)

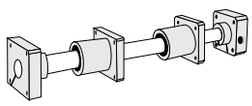


TWN10 (ADJ)

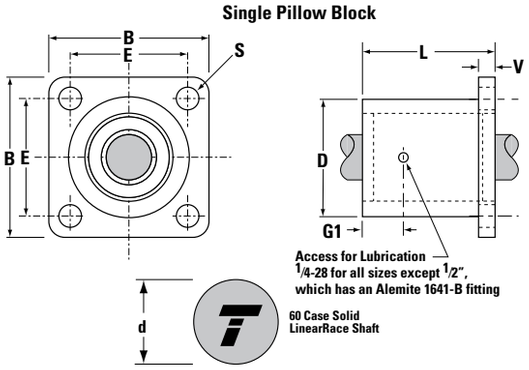


TWN12 (ADJ)
TWN16 (ADJ)
TWN20 (ADJ)
TWN24 (ADJ)

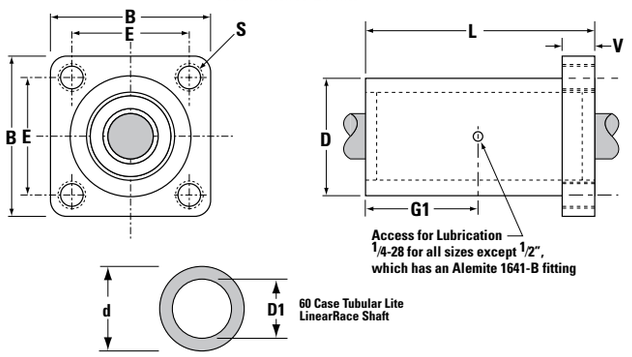
Super Ball Bushing® Flanged Single and Twin Pillow Blocks for End-Supported Applications



Single Pillow Block



Twin Pillow Block



Super Ball Bushing Flanged Pillow Blocks and 60 Case® LinearRace® Shaft (Dimensions in inches)

Part Number (1)		Nominal Diameter	B	E ±.010	L	D	V	G1	S Hole Dia.	60 Case LinearRace Diameter d	60 Case LinearRace Minimum Depth of Hardness	60 Case Solid LinearRace Mass lb/in	60 Case Tubular Lite LinearRace Mass lb/in	60 Case Tubular Lite LinearRace ID D1	Pillow Block Mass lb	Dynamic(2) Load Cap. lb_f
Super Smart Ball Bushing Flanged Pillow Block	60 Case LinearRace															
SFB8	1/2 L	.500	1.63	1.250	1.69	1.25	.25	.72	.19	.4995/.4990	.04	.06	–	–	.23	255
SFB12	3/4 L	.750	2.38	1.750	2.06	1.75	.38	.89	.22	.7495/.7490	.06	.13	.08	.460/.416	.52	600
SFB16	1 L	1.000	2.75	2.125	2.81	2.25	.50	1.27	.28	.9995/.9990	.08	.22	.16	.629/.569	1.04	1050
SFB20	1 1/4 L	1.250	3.50	2.750	3.63	3.00	.63	1.67	.35	1.2495/1.2490	.08	.35	–	–	2.21	1500
SFB24	1 1/2 L	1.500	4.00	3.125	4.00	3.62	.75	1.86	.41	1.4994/1.4989	.08	.50	.33	.93/.84	3.68	2000

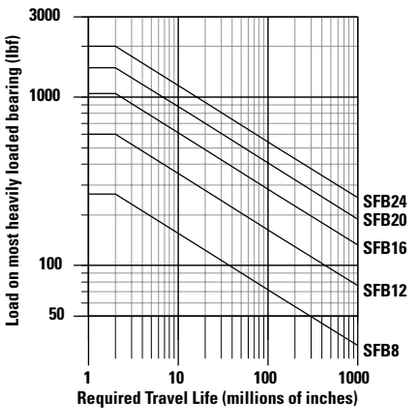
Super Ball Bushing Flanged Twin Pillow Blocks and 60 Case LinearRace Shaft (Dimensions in inches)

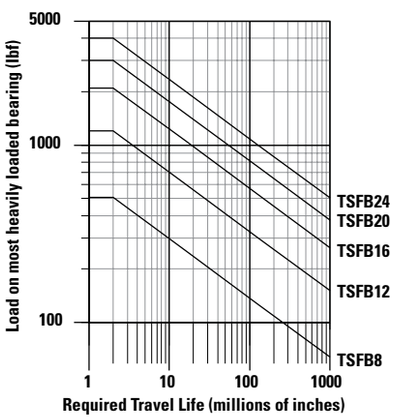
Part Number (1)		Nominal Diameter	B	E ±.010	L	D	V	G1	S Thread	60 Case LinearRace Diameter d	60 Case LinearRace Minimum Depth of Hardness	60 Case Solid LinearRace Mass lb/in	60 Case Tubular Lite LinearRace Mass lb/in	60 Case Tubular Lite LinearRace ID D1	Pillow Block Mass lb	Dynamic(2) Load Cap. lb_f
Super Smart Ball Bushing Flanged Twin Pillow Block	60 Case LinearRace															
TSFB8	1/2 L	.500	1.63	1.250	3.20	1.25	.90	1.48	1/4-20	.4995/.4990	.04	.06	–	–	.45	510
TSFB12	3/4 L	.750	2.38	1.750	3.95	1.75	.90	1.98	1/4-20	.7495/.7490	.06	.13	.08	.460/.416	1.05	1200
TSFB16	1 L	1.000	2.75	2.125	5.33	2.25	.90	2.67	5/16-18	.9995/.9990	.08	.22	.16	.629/.569	1.95	2100
TSFB20	1 1/4 L	1.250	3.50	2.750	6.70	3.00	.90	3.35	5/16-18	1.2495/1.2490	.08	.35	–	–	4.06	3000
TSFB24	1 1/2 L	1.500	4.00	3.125	7.50	3.62	1.00	3.75	3/8-16	1.4994/1.4989	.08	.50	.33	.93/.84	6.84	4000

(1) For part number description and specifications, see page 25.
(2) The Dynamic Load Capacity is based on a rated travel life of 2 million inches. The actual Dynamic Load Capacity can be affected by the orientation of the bearing or the direction of the applied load. For Dynamic Load Correction Factors, see following polar graphs. Dynamic load capacity for Twin configuration is based on two bearings equally loaded.
Note: For additional technical information, see the Engineering section beginning on page 252.

Load/Life Graph

(Lines indicate limiting load for given Ball Bushing Pillow Block)





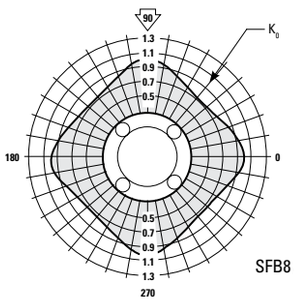
Determining Ball Bushing Bearing Size

To determine the proper Ball Bushing Bearing size, enter the chart with the maximum load of the most heavily loaded bearing and the required travel life. Mark where the two lines intersect. All Ball Bushing Bearing sizes that pass through or above and to the right of this point may be suitable for this application.

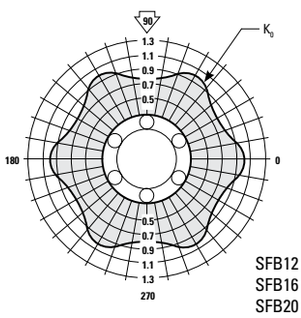
Note: For the purpose of using this chart, load on most heavily loaded bearing = maximum applied load/K_0. Where K_0 can be determined from the Polar Graph to the right.

Polar Graphs

The actual dynamic load capacity of a Ball Bushing Bearing is determined by the orientation of the bearing or direction of the applied load. The load correction factor K_0 is found by knowing the direction of the applied load relative to the orientation of the bearings ball tracks and referring to the polar graph. To determine the actual dynamic load capacity, multiply the proper correction factor by the dynamic load capacity listed in the product table on the previous page.



SFB8 / TSFB8



SFB12 / TSFB12
SFB16 / TSFB16
SFB20 / TSFB20
SFB24 / TSFB24

Part Number Description and Specification

Super Ball Bushing Bearings (Open Type) for Continuously Supported Applications

SUPER16OPNDD-CR

Type	Description
SUPER	Super Ball Bushing bearings

Size	Nominal Diameter
8	.500
10	.625
12	.750
16	1.000
20	1.250
24	1.500
32	2.000

Seals Options	
Blank	No Seals
DD	Integral Seals

Type	Description
OPN	Open Type for continuously supported applications

Ball Options	
Option	Description
CR	Corrosion Resistant
NB	Nylon Balls
NBA	Alternating Nylon Balls

Lube Options	
DP	Dry Pack
LL	Lubricated with Thomson Linear Lube

Other Options	
RP	Roll Pack (no box)

Super Ball Bushing Pillow Blocks (Open Type) for Continuously Supported Applications

SPB16OPN-CR

Type	Description
SPB	Super Ball Bushing Pillow Blocks
TWN	Super Ball Bushing Twin Pillow Blocks

Size	Nominal Diameter
8	.500
10	.625
12	.750
16	1.000
20	1.250
24	1.500
32	2.000

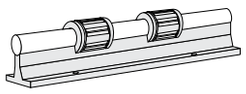
Type	Description
OPN	Open Type for continuously supported applications

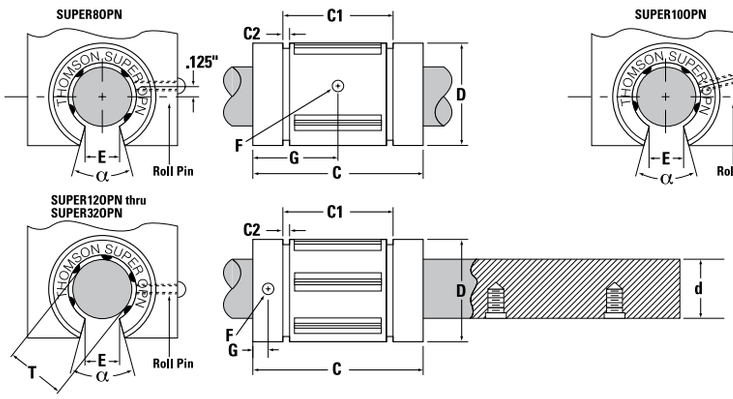
Ball Options	
Option	Description
CR	Corrosion Resistant
NB	Nylon Balls
NBA	Alternating Nylon Balls

Lube Options	
DP	Dry Pack
LL	Lubricated with Thomson Linear Lube
L4L	Lube for Life

Not all options are available in all sizes.
See catalog pages or contact Thomson Customer Support for combination availability.
For additional information on bearing options, see page 264.

Super Ball Bushing® Bearings
(Open Type) for Continuously Supported Applications





Super Ball Bushing Bearings (Open Type) and 60 Case® LinearRace® (Dimensions in inches)

Part Number [1]		Nominal Diameter	Length C	Distance Between Retaining Rings C1	Ret. Ring Groove min. C2	Min. Slot Width E	Retention Hole		Angle deg α	Number of Ball Circuits	Ball Bushing Bearing Mass lb
Ball Bushing Bearing	60 Case Linear Race*						Dia. F	Loc. G			
SUPER8OPN	1/2 L PD	.500	1.250/1.230	1.032/1.012	.050	.31	.14	.63	30	4	.04
SUPER10OPN	5/8 L PD	.625	1.500/1.480	1.105/1.095	.056	.37	.11	.13	30	4	.08
SUPER12OPN	3/4 L PD	.750	1.625/1.605	1.270/1.250	.056	.43	.14	.13	30	5	.12
SUPER16OPN	1 L PD	1.000	2.250/2.230	1.884/1.864	.070	.56	.14	.13	30	5	.21
SUPER20OPN	1 1/4 L PD	1.250	2.625/2.600	2.004/1.984	.068	.62	.20	.19	30	5	.38
SUPER24OPN	1 1/2 L PD	1.500	3.000/2.970	2.410/2.390	.086	.75	.20	.19	30	5	.71
SUPER32OPN	2 L PD	2.000	4.000/3.960	3.193/3.163	.105	1.00	.27	.31	30	5	1.20

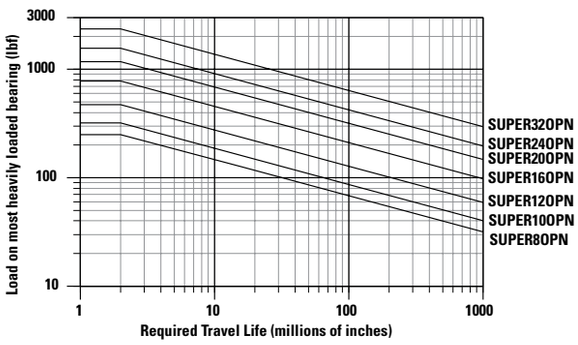
* 60 Case begins on page 170.

Part Number [1]	Working Bore Diameter T	Recommended Housing Bore Dia.		60 Case LinearRace Diameter d	Ball Bushing Bearing/LinearRace Fit Up ‡		Dynamic [2] Load Capacity lb_f
Ball Bushing Bearing		Fixed D	Adjustable D		Fixed Diameter Housing	Adjustable Diameter Housing (Before Adjustment)	
SUPER8OPN	.5000/.4995	.8755/.8750	.8760/.8750	.4995/.4990	.0015C/.0000	.002C/.0000	230
SUPER10OPN	.6250/.6245	1.1255/1.1250	1.1260/1.1250	.6245/.6240	.0015C/.0000	.002C/.0000	320
SUPER12OPN	.7500/.7495	1.2505/1.2500	1.2510/1.2500	.7495/.7490	.0015C/.0000	.002C/.0000	470
SUPER16OPN	1.0000/.9995	1.5630/1.5625	1.5635/1.5625	.9995/.9990	.0015C/.0000	.002C/.0000	780
SUPER20OPN	1.2500/1.2494	2.0008/2.0000	2.0010/2.0000	1.2495/1.2490	.0018C/.0001P	.002C/.0001P	1170
SUPER24OPN	1.5000/1.4994	2.3760/2.3750	2.3760/2.3750	1.4994/1.4989	.0021C/.0000	.0021C/.0000	1560
SUPER32OPN	2.000/1.9992	3.0010/3.0000	3.0010/3.0000	1.9994/1.9987	.0023C/.0002P	.0023C/.0002P	2350

‡ P = Preload, C = Clearance
(1) For part number description and specifications, see page 59.
(2) The Dynamic Load Capacity is based on a rated travel life of 2 million inches. The actual Dynamic Load Capacity can be affected by the orientation of the bearing or the direction of the applied load. For Dynamic Load Correction Factors, see following polar graphs.
Note: For additional technical information, see the Engineering section beginning on page 252.

Load/Life Graph

(Lines indicate limiting load for given Ball Bushing Pillow Block)

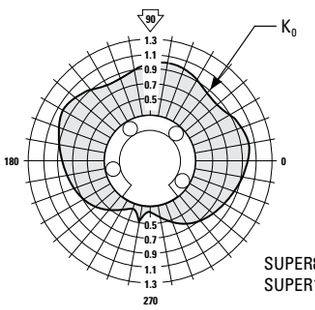


Determining Ball Bushing Bearing Size
To determine the proper Ball Bushing Bearing size, enter the chart with the maximum load of the most heavily loaded bearing and the required travel life. Mark where the two lines intersect. All Ball Bushing Bearing sizes that pass through or above and to the right of this point may be suitable for this application.

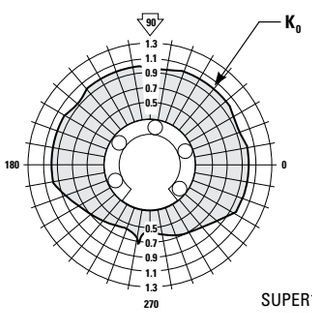
Note: For the purpose of using this chart, load on most heavily loaded bearing = maximum applied load/K_0. Where K_0 can be determined from the Polar Graph to the right.

Polar Graphs

The actual dynamic load capacity of a Ball Bushing Bearing is determined by the orientation of the bearing or direction of the applied load. The load correction factor K_0 is found by knowing the direction of the applied load relative to the orientation of the bearings ball tracks and referring to the polar graph. To determine the actual dynamic load capacity, multiply the proper correction factor by the dynamic load capacity listed in the product table on the previous page.

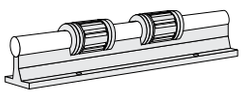


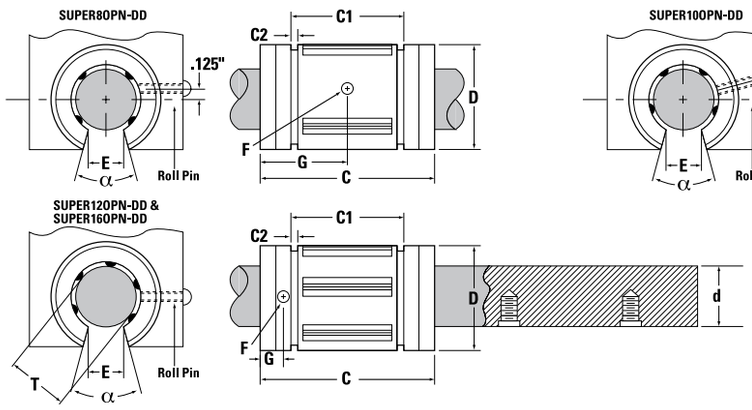
SUPER8OPN
SUPER10OPN



SUPER12OPN
SUPER16OPN
SUPER20OPN
SUPER24OPN
SUPER32OPN

Sealed Super Ball Bushing® Bearings
(Open Type) for Continuously Supported Applications





Sealed Super Ball Bushing Bearings (Open Type, seal at both ends) and 60 Case® LinearRace® (Dimensions in inches)

Part Number [1]		Nom. Dia.	Length C	Distance Between Retaining Rings C1	Ret. Ring Groove min. C2	Min. Slot Width E	Retention Hole		Angle deg α	Number of Ball Circuits	Ball Bushing Bearing Mass lb
Ball Bushing Bearing	60 Case Linear Race*						Dia. F	Loc. G			
SUPER8OPN-DD	1/2 L PD	.500	1.500/1.460	1.032/1.012	.050	.31	.14	.750	30	4	.03
SUPER10OPN-DD	5/8 L PD	.625	1.750/1.710	1.105/1.095	.056	.37	.11	.250	30	4	.08
SUPER12OPN-DD	3/4 L PD	.750	1.875/1.835	1.270/1.250	.056	.43	.14	.250	30	5	.12
SUPER16OPN-DD	1 L PD	1.000	2.625/2.585	1.884/1.864	.070	.56	.14	.313	30	5	.21

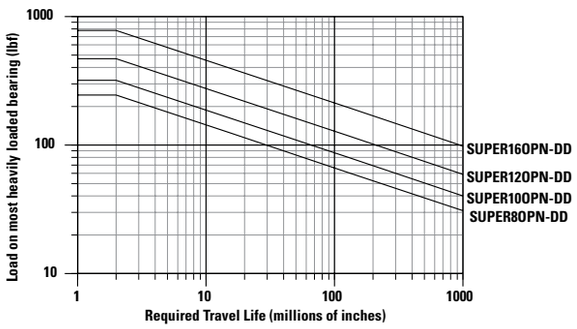
* 60 Case begins on page 170.

Part Number [1]	Working Bore Diameter T	Recommended Housing Bore Dia.		60 Case LinearRace Diameter d	Ball Bushing Bearing/LinearRace Fit Up ‡		Dynamic [2] Load Capacity lb_f
Ball Bushing Bearing		Fixed D	Adjustable D		Fixed Diameter Housing	Adjustable Diameter Housing (Before Adjustment)	
SUPER8OPN-DD	.5000/.4995	.8755/.8750	.8760/.8750	.4995/.4990	.0015C/.0000	.002C/.0000	230
SUPER10OPN-DD	.6250/.6245	1.1255/1.1250	1.1260/1.1250	.6245/.6240	.0015C/.0000	.002C/.0000	320
SUPER12OPN-DD	.7500/.7495	1.2505/1.2500	1.2510/1.2500	.7495/.7490	.0015C/.0000	.002C/.0000	470
SUPER16OPN-DD	1.0000/.9995	1.5630/1.5625	1.5635/1.5625	.9995/.9990	.0015C/.0000	.002C/.0000	780

‡ P = Preload, C = Clearance
(1) For part number description and specifications, see page 59.
(2) The Dynamic Load Capacity is based on a rated travel life of 2 million inches. The actual Dynamic Load Capacity can be affected by the orientation of the bearing or the direction of the applied load. For Dynamic Load Correction Factors, see following polar graphs.
Note: For additional technical information, see the Engineering section beginning on page 252.

Load/Life Graph

(Lines indicate limiting load for given Ball Bushing Pillow Block)

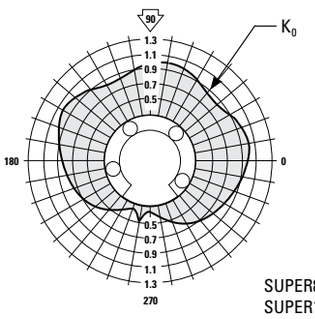


Determining Ball Bushing Bearing Size
To determine the proper Ball Bushing Bearing size, enter the chart with the maximum load of the most heavily loaded bearing and the required travel life. Mark where the two lines intersect. All Ball Bushing Bearing sizes that pass through or above and to the right of this point may be suitable for this application.

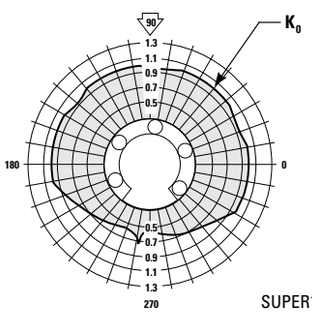
Note: For the purpose of using this chart, load on most heavily loaded bearing = maximum applied load/K_0. Where K_0 can be determined from the Polar Graph to the right.

Polar Graphs

The actual dynamic load capacity of a Ball Bushing Bearing is determined by the orientation of the bearing or direction of the applied load. The load correction factor K_0 is found by knowing the direction of the applied load relative to the orientation of the bearings ball tracks and referring to the polar graph. To determine the actual dynamic load capacity, multiply the proper correction factor by the dynamic load capacity listed in the product table on the previous page.



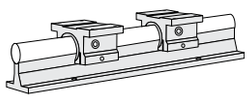
SUPER8OPN-DD
SUPER10OPN-DD



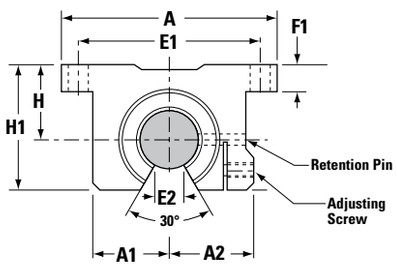
SUPER12OPN-DD
SUPER16OPN-DD

THOMSON
Linear Motion. Optimized.™

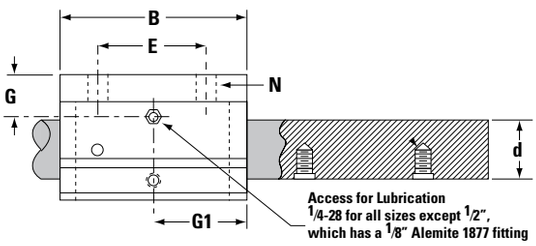
Super Ball Bushing® Pillow Blocks
(Open Type) for Continuously Supported Applications



SPB-OPN End view



SPB-OPN Side view



Super Ball Bushing Pillow Blocks (Open Type, seal at both ends) and 60 Case® LinearRace® (Dimensions in inches)

Part Number (1)		Nominal Diameter	H ±.003	H1	A	A1	A2	B
Super Ball Bushing Pillow Block	60 Case LinearRace*							
SPB8OPN	1/2 L PD	.500	.687	1.13	2.00	.69	.75	1.50
SPB10OPN	5/8 L PD	.625	.875	1.44	2.50	.88	.94	1.75
SPB12OPN	3/4 L PD	.750	.937	1.56	2.75	.94	1.00	1.88
SPB16OPN	1 L PD	1.000	1.187	2.00	3.25	1.19	1.25	2.63
SPB20OPN	1 1/4 L PD	1.250	1.500	2.50	4.00	1.50	1.63	3.38
SPB24OPN	1 1/2 L PD	1.500	1.750	2.94	4.75	1.75	1.88	3.75
SPB32OPN	2 L PD	2.000	2.125	3.63	6.00	2.25	2.44	4.75

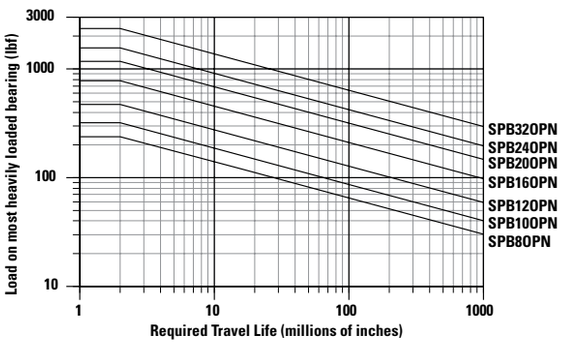
* 60 Case begins on page 170.

Part Number (1)	60 Case LinearRace Diameter d	E ±.010	E1 ±.010	E2 Min.	F1	G	G1	N		Pillow Block Mass lb	Dynamic (2) Load Capacity lb_f
Super Ball Bushing Pillow Block								Hole	Bolt		
SPB8OPN	.4995/.4990	1.000	1.688	.31	.25	.50	.89	.16	#6	.2	230
SPB10OPN	.6245/.6240	1.125	2.125	.37	.28	.55	.95	.19	#8	.4	320
SPB12OPN	.7495/.7490	1.250	2.375	.43	.31	.67	1.08	.19	#8	.5	470
SPB16OPN	.9995/.9990	1.750	2.875	.56	.38	.87	1.45	.22	#10	1.0	780
SPB20OPN	1.2495/1.2490	2.000	3.500	.62	.44	1.15	1.83	.22	#10	2.1	1170
SPB24OPN	1.4994/1.4989	2.500	4.125	.75	.50	1.28	2.02	.28	.25	3.2	1560
SPB32OPN	1.9994/1.9987	3.250	5.250	1.00	.63	1.55	3.19	.41	.38	6.0	2350

(1) For part number description and specifications, see page 59.
(2) The Dynamic Load Capacity is based on a rated travel life of 2 million inches. The actual Dynamic Load Capacity can be affected by the orientation of the bearing or the direction of the applied load. For Dynamic Load Correction Factors, see following polar graphs.
Note: For additional technical information, see the Engineering section beginning on page 252.

Load/Life Graph

(Lines indicate limiting load for given Ball Bushing Pillow Block)

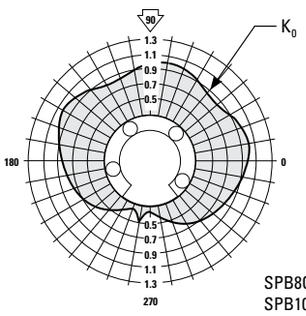


Determining Ball Bushing Bearing Size
To determine the proper Ball Bushing Bearing size, enter the chart with the maximum load of the most heavily loaded bearing and the required travel life. Mark where the two lines intersect. All Ball Bushing Bearing sizes that pass through or above and to the right of this point may be suitable for this application.

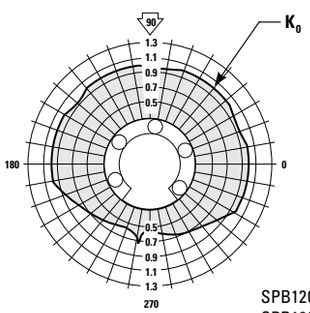
Note: For the purpose of using this chart, load on most heavily loaded bearing = maximum applied load/K_0. Where K_0 can be determined from the Polar Graph to the right.

Polar Graphs

The actual dynamic load capacity of a Ball Bushing Bearing is determined by the orientation of the bearing or direction of the applied load. The load correction factor K_0 is found by knowing the direction of the applied load relative to the orientation of the bearings ball tracks and referring to the polar graph. To determine the actual dynamic load capacity, multiply the proper correction factor by the dynamic load capacity listed in the product table on the previous page.

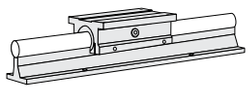


SPB8OPN
SPB10OPN

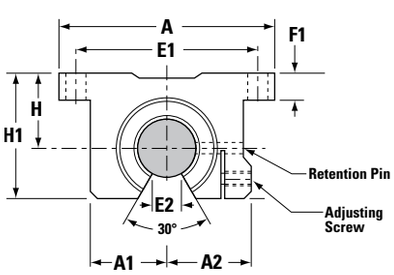


SPB12OPN
SPB16OPN
SPB20OPN
SPB24OPN
SPB32OPN

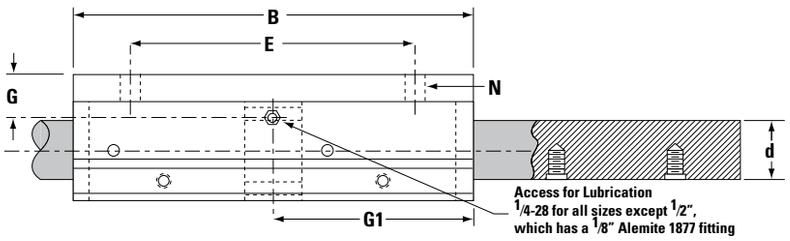
Super Ball Bushing® Twin Pillow Blocks
(Open Type) for Continuously Supported Applications



TWN-OPN End view



TWN-OPN Side view



Super Ball Bushing Twin Pillow Blocks (Open Type, seal at both ends) and 60 Case® LinearRace® (Dimensions in inches)

Part Number (1)		Nominal Diameter	H ±.003	H1	A	A1	A2	B
Super Ball Bushing Twin Pillow Block	60 Case LinearRace*							
TWN8OPN	1/2 L PD	.500	.687	1.13	2.00	.69	.75	3.50
TWN10OPN	5/8 L PD	.625	.875	1.44	2.50	.88	.94	4.00
TWN12OPN	3/4 L PD	.750	.937	1.56	2.75	.94	1.00	4.50
TWN16OPN	1 L PD	1.000	1.187	2.00	3.25	1.19	1.25	6.00
TWN20OPN	1 1/4 L PD	1.250	1.500	2.50	4.00	1.50	1.63	7.50
TWN24OPN	1 1/2 L PD	1.500	1.750	2.94	4.75	1.75	1.88	9.00

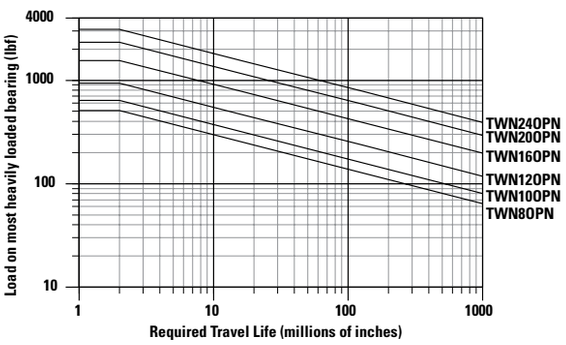
* 60 Case begins on page 170.

Part Number (1)	60 Case LinearRace Diameter d	E ±.010	E1 ±.010	E2 Min.	F1	G	G1	N		Pillow Block Mass lb	Dynamic (2) Load Capacity lb_t
Super Ball Bushing Twin Pillow Block								Hole	Bolt		
TWN8OPN	.4995/.4990	2.500	1.688	.31	.25	.56	1.75	.16	#6	.4	460
TWN10OPN	.6245/.6240	3.000	2.125	.37	.28	.67	2.00	.19	#8	.8	640
TWN12OPN	.7495/.7490	3.500	2.375	.43	.31	.94	2.25	.19	#8	1.0	940
TWN16OPN	.9995/.9990	4.500	2.875	.56	.38	1.20	3.00	.22	#10	2.0	1560
TWN20OPN	1.2495/1.2490	5.500	3.500	.62	.44	1.50	3.75	.22	#10	4.2	2340
TWN24OPN	1.4994/1.4989	6.500	4.125	.75	.50	1.75	4.50	.28	.25	6.7	3120

(1) For part number description and specifications, see page 59.
(2) The Dynamic Load Capacity is based on a rated travel life of 2 million inches. The actual Dynamic Load Capacity can be affected by the orientation of the bearing or the direction of the applied load. or Dynamic Load Correction Factors, see following polar graphs. Dynamic load capacity is based on two bearings equally loaded.
Note: For additional technical information, see the Engineering section beginning on page 252.

Load/Life Graph

(Lines indicate limiting load for given Ball Bushing Pillow Block)

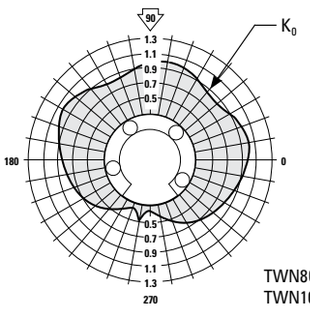


Determining Ball Bushing Bearing Size
To determine the proper Ball Bushing Bearing size, enter the chart with the maximum load of the most heavily loaded bearing and the required travel life. Mark where the two lines intersect. All Ball Bushing Bearing sizes that pass through or above and to the right of this point may be suitable for this application.

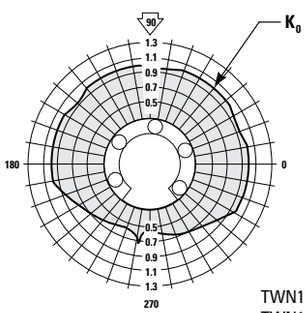
Note: For the purpose of using this chart, load on most heavily loaded bearing = maximum applied load/K_0. Where K_0 can be determined from the Polar Graph to the right.

Polar Graphs

The actual dynamic load capacity of a Ball Bushing Bearing is determined by the orientation of the bearing or direction of the applied load. The load correction factor K_0 is found by knowing the direction of the applied load relative to the orientation of the bearings ball tracks and referring to the polar graph. To determine the actual dynamic load capacity, multiply the proper correction factor by the dynamic load capacity listed in the product table on the previous page.



TWN80PN
TWN100PN



TWN120PN
TWN160PN
TWN200PN
TWN240PN

Cam-Actuated Part Transfer Mechanism for Multiple-Transfer Press

Objective
Improve production rate and increase the service life of a transfer table mechanism.

Solution
Replace the conventional linear bearings with Adjustable Super Ball Bushing® Twin Pillow Blocks. Bearing service life increased to five years.

Products Specified
2 - TWN16ADJ (Super Ball Bushing Twin Pillow Blocks)
4 - ASB16 (60 Case® LinearRace® End Support Blocks)
2 - 1 L CTL x 24.00 in (60 Case LinearRace)

Benefits
The table achieved maximum cycle efficiency by reducing costly downtime and improving service life.