



# Roller Pillow Block Technology



## Performance

- High Loads
- High Speeds
- Superior Reliability

## Versatile

- Designed for shafts from 1/2" to 3"
- Industry Standard Interchangeable

## Heavy Duty

Loads Up to 12500 lb



Configure Online at  
[pbclinear.com](http://pbclinear.com)

1-800-962-8979

# Roller Pillow Block

## Reliability

- Large cam follower design with side seals delivers superior contaminant resistance
- Excels in long travel joined shafts or rail assemblies
- Accessories such as lubrication ports and scrapers available for ease of maintenance and maximum life

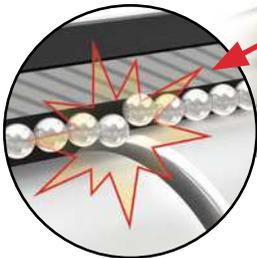


Roller pillow block's large cam follower navigates joined shafts and rail assemblies with ease



Watch the product overview video

Misalignment of shafts due to installation procedures or non-matched shafts can lead to premature or catastrophic ball bearing failures



## High Performance

- Speeds up to 2.5 times faster than a linear ball bearing pillow block
- Higher dynamic load capacity compared to industry standard linear ball bearing pillow blocks
- Smoother travel equals lower vibration and noise

### Dynamic Load Ratings

#### Shaft Diameter

1"

1½"

2"



#### Open-Style Ball Bearing

220 lb

490 lb

858 lb

#### Single Roller Pillow Block



955 lb

1,660 lb

2,400 lb

#### Double & Twin Roller Pillow Block



1,910 lb

3,320 lb

4,800 lb

Dynamic load rating for a 3" shaft would be 6,260 lb for the Single Roller Pillow Block and 12,520 lb for the Double and Twin Roller Pillow Block.

Inch Part # 8 (½")

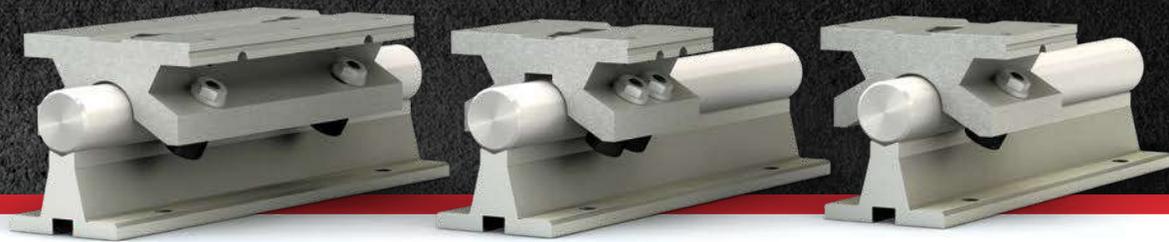
Inch Part # 12 (¾") • Metric Part # 20 mm

Inch Part # 20 (1¼") • Metric Part # 30 mm

Inch Part # 10 (¾") • Metric Part # 16 mm

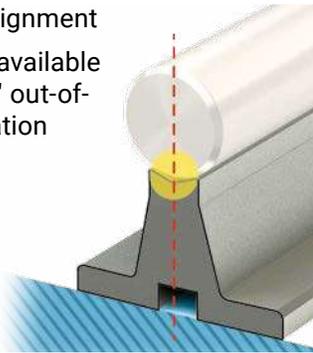
Inch Part # 16 (1") • Metric Part # 25 mm

Carriage profiles shown at 1:1 scale.



## Lower System Cost

- Simplified installation and alignment
- Floating pillow block option available accommodating up to 0.125" out-of-parallelism, reducing installation time and cost dramatically
- Simple eccentric bearing adjustment allows for tailored bearing fit to application requirements



V-block shaped support rail design aligns shaft centerlines simplifying joined rail assemblies

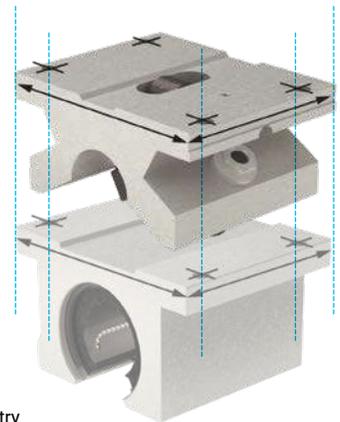
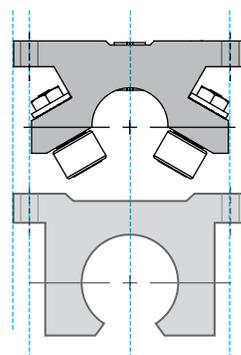


Watch the Roller Pillow Block adjustment video

Eccentric bearing adjustment enables fine-tuned adjustments

## Design Compatibility

- Interchangeability to industry standard mounting holes and centerlines for linear bearing pillow blocks from leading competitors



PBC Linear Roller Pillow Block is industry standard interchangeable, simplifying replacement and lowering costs

**Note:** When a linear ball bearing failure occurs, the shafting is easily damaged and needs to be replaced. When using the roller pillow block, that is not always the case. Consult factory for details.

Inch Part # 48 (3")

Inch Part # 32 (2")

Inch Part # 24 (1½")

# Roller Pillow Block Advantage

## Roller Pillow Block

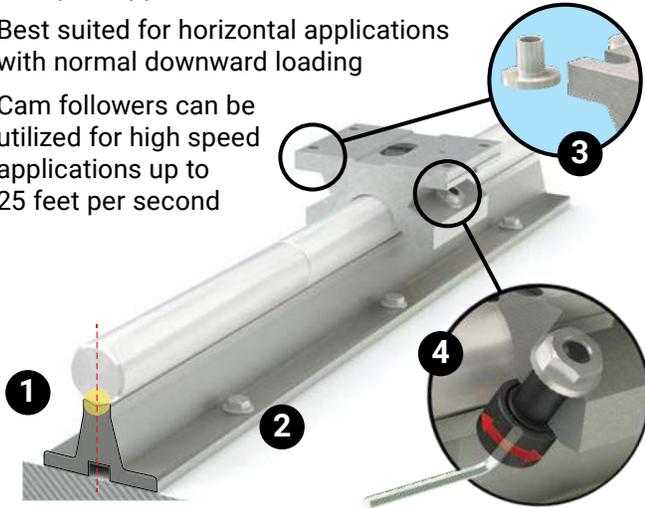


VS.



## Profile Rail Technology

- Superior for joined rail applications
- Low coefficient of friction ideal for heavy load transport applications
- Best suited for horizontal applications with normal downward loading
- Cam followers can be utilized for high speed applications up to 25 feet per second



1. V-block shaped support rail design aligns shaft centerlines simplifying joined rail assemblies
2. Support rail mounts using standard fasteners
3. Floating pillow block option available absorbing up to 0.125" out-of-parallelism reducing installation time and cost dramatically
4. Simple eccentric bearing adjustment allows tailored bearing fit to application requirements

- Superior for high precision applications
- Proper installation requires machining and detailed alignment procedures as highlighted below



- Manufacturer guidelines require a machined mounting surface and datum plane that can be extremely expensive or impractical in long rail lengths
- Factory-matched rails must be specified when joining guides to ensure precise alignment of running surfaces, adding expense and time
- Precision tapped mounting holes are required
- Specified torque sequencing is needed to avoid rail distortion

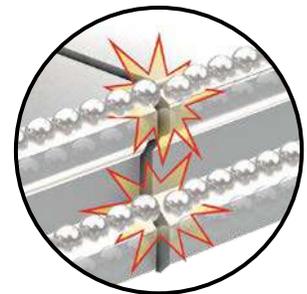
## Reliability

- Large cam follower design delivers superior contaminant resistance
- Excels in long travel applications requiring joined shafts or rail assemblies
- Accessories such as lubrication ports and scrapers available for ease of maintenance and maximum life



## Reliability

- Misalignment of rails due to installation procedures or non matched rails can lead to premature or catastrophic ball bearing failure



# The Reliable Heavy Roller

## Roller Pillow Blocks

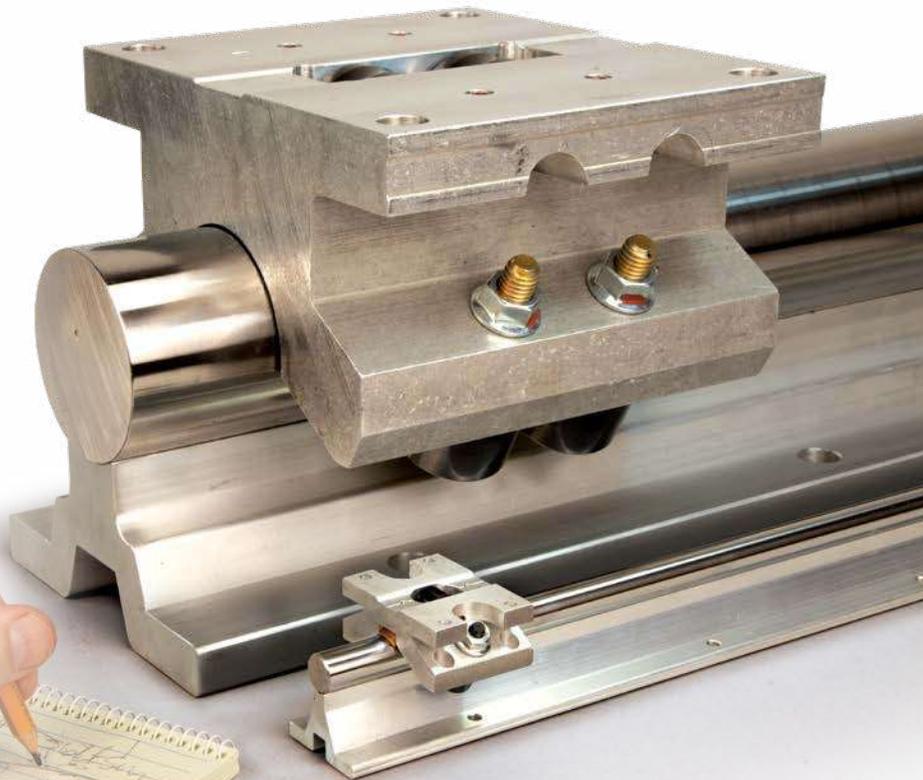
Roller Pillow Block is available in Single, Double, and Twin carriage size types for various shaft diameters.

- Loads up to 12,500 pounds
- Self-aligning
- Adjustable
- Corrosion resistant
- High speeds
- Standard mounting holes
- Re-buildable
- Interchangeability with industry standards



## Table of Contents

<b>Applications</b> .....	4-5
<b>Roller Pillow Blocks</b> .....	6-8
Single.....	6
Double .....	7
Twin.....	8
Support Block System.....	9
Support Rail System.....	10
<b>Accessories</b> .....	11-12
<b>Technical Information</b> .....	13-15



**Online Configurator**



**E-mail an Application Engineer**



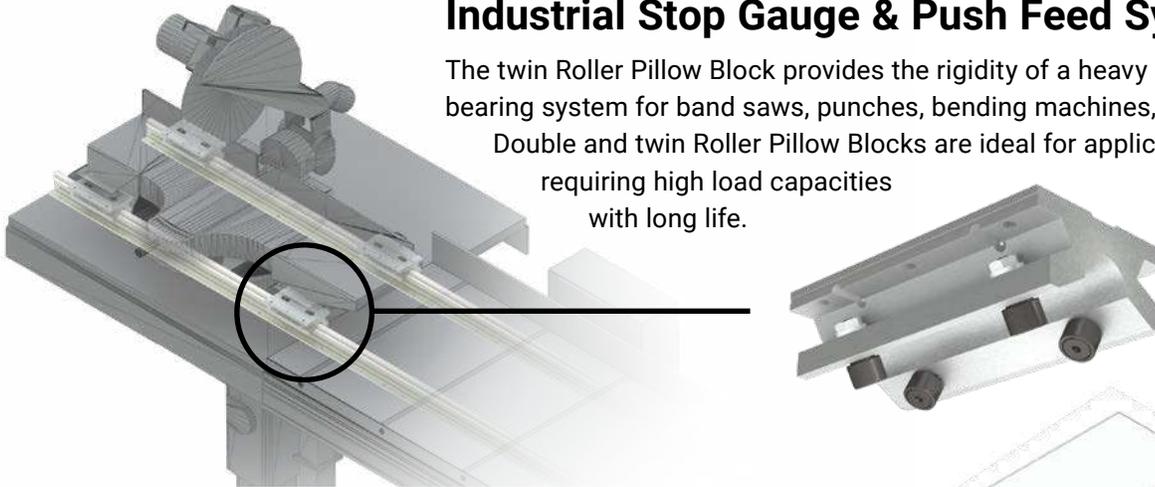
**Consult Factory • 800-962-8979**

# Applications

## Industrial Stop Gauge & Push Feed System

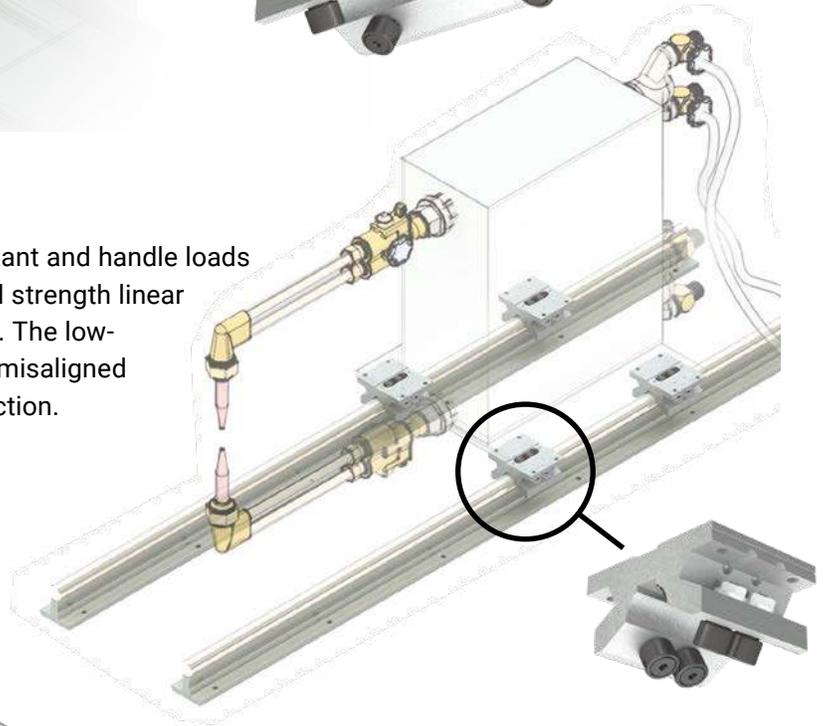
The twin Roller Pillow Block provides the rigidity of a heavy duty bearing system for band saws, punches, bending machines, and brakes.

Double and twin Roller Pillow Blocks are ideal for applications requiring high load capacities with long life.



## Welding Machines

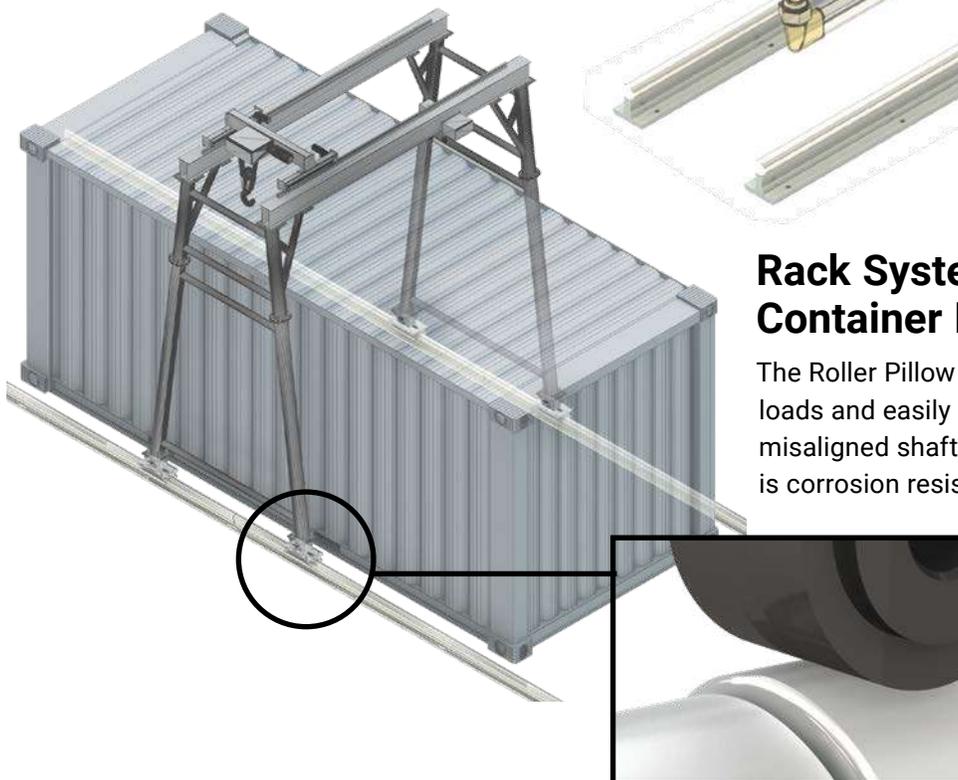
Roller Pillow Blocks are corrosion resistant and handle loads up to 12,500 lbs, providing the industrial strength linear motion required in welding applications. The low-friction rollers easily navigate joined or misaligned shafts and also account for shaft deflection.



## Rack Systems & Industrial Container Mobility

The Roller Pillow Block system carries heavy loads and easily maneuvers over joined or misaligned shafts over long travels. The system is corrosion resistant and provides high speeds and rigidity in the toughest applications.

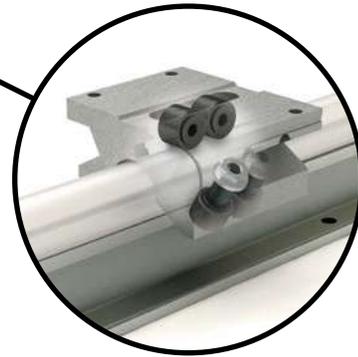
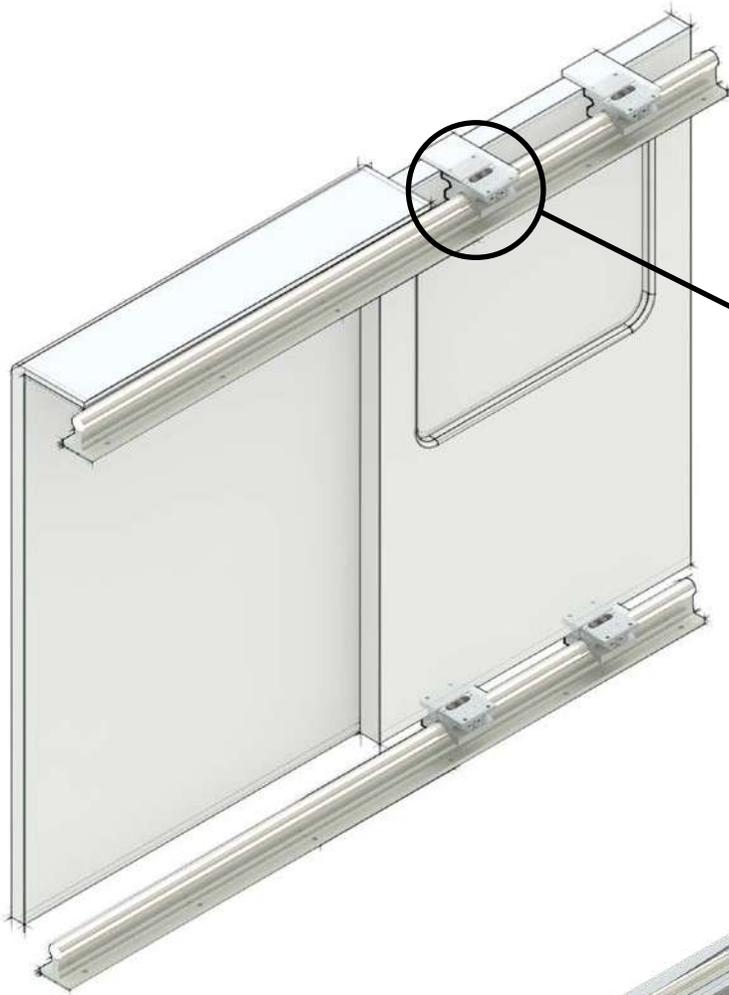
Roller Bearings move smoothly over misaligned and joined shafts over long travels.



# Applications

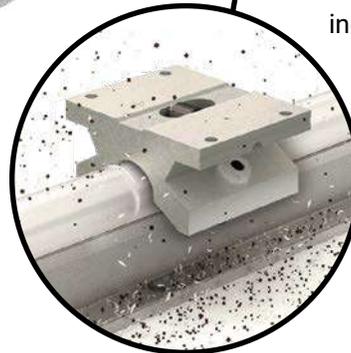
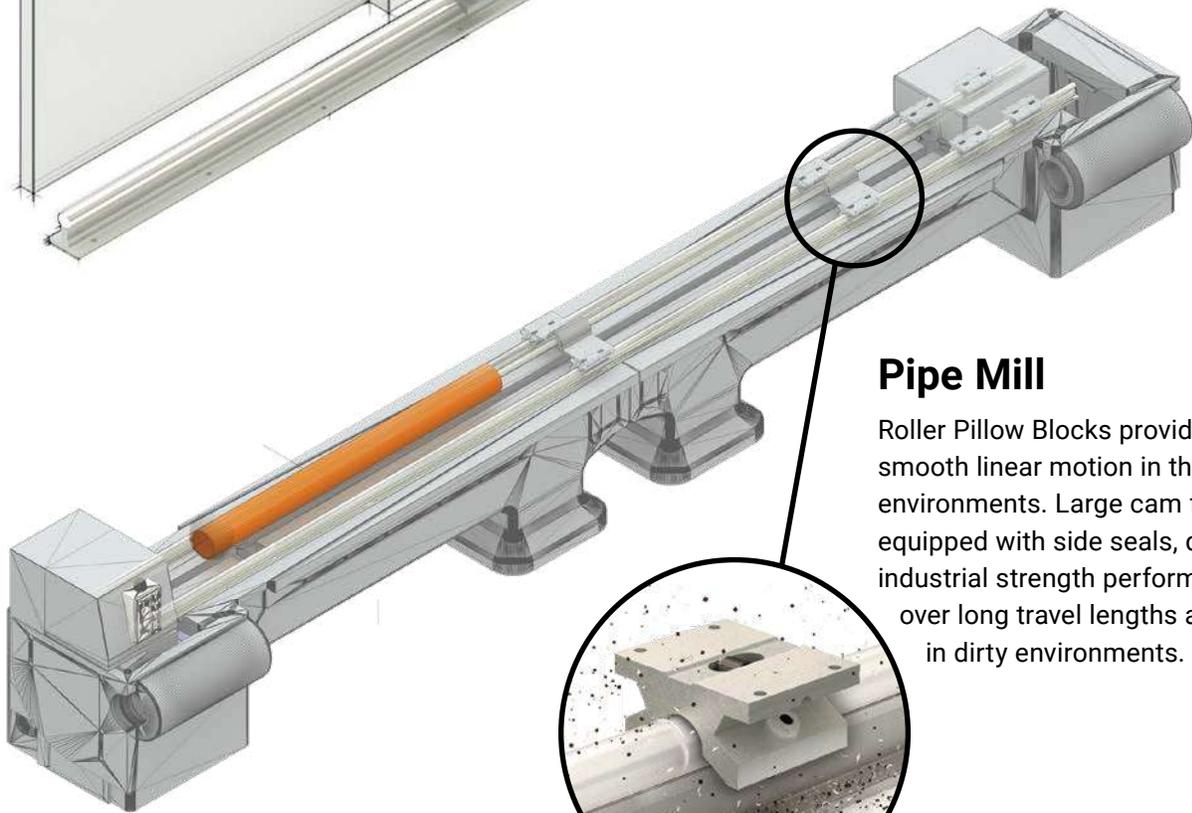
## Sliding Doors

Roller Pillow Block systems provide smooth and quiet travel in a wide range of environments.



## Pipe Mill

Roller Pillow Blocks provide smooth linear motion in the toughest environments. Large cam followers, equipped with side seals, deliver industrial strength performance over long travel lengths and excel in dirty environments.



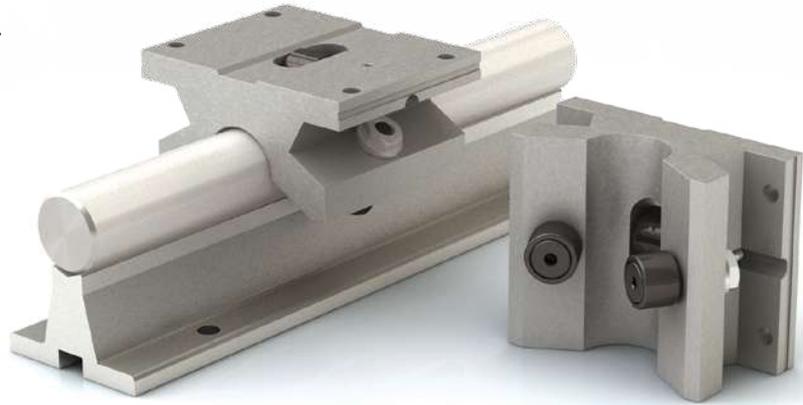
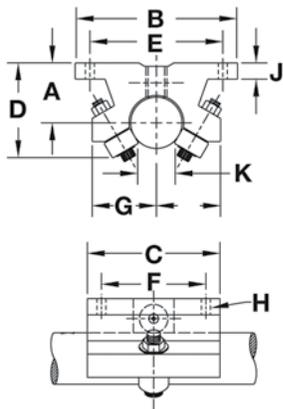
# Roller Pillow Blocks

## Single Roller Pillow Block

Low friction single Roller Pillow Blocks are selected for standard linear movement or for situations with shaft deflection. Self-aligning Roller Pillow Blocks can handle a half of a degree in misalignment.



**Note:** To learn more about turning a curve with a single Roller Pillow Block, please reference the technical information on page 11.



## Single Roller Pillow Block Dimensions and Load Ratings Inch Shafting

Part Number	Shaft Diameter in.	DYN. Load Rating lb.	Weight lb.	A	B	C	D	E	F	G	H		J	K
				±0.003	in.	in.	in.	±0.005	±0.005	in.	Bolt	Hole	in.	in.
SPB-08-OPN	1/2	400	0.40	0.687	2	1-1/2	1-5/32	1.688	1.000	1	#6	5/32	0.240	5/16
SPB-10-OPN	5/8	500	0.50	0.875	2-1/2	1-3/4	1-13/32	2.125	1.125	1-1/16	#8	3/16	0.270	3/8
SPB-12-OPN	3/4	600	0.60	0.937	2-3/4	1-7/8	1-9/16	2.375	1.250	1-1/16	#8	3/16	0.303	7/16
SPB-16-OPN	1	955	1.00	1.187	3-1/4	2-5/8	2	2.875	1.750	1-3/8	#10	7/32	0.360	11/16
SPB-20-OPN	1-1/4	1400	2.00	1.500	4	3-3/8	2-9/16	3.500	2.000	1-3/4	#10	7/32	0.424	13/16
SPB-24-OPN	1-1/2	1660	2.80	1.750	4-3/4	3-3/4	2-7/8	4.125	2.500	1-7/8	1/4	9/32	0.474	1-1/16
SPB-32-OPN	2	2400	5.00	2.125	6	4-3/4	3-1/2	5.250	3.250	2-1/2	3/8	13/32	0.600	1-3/8
SPB-48-OPN	3	6260	14.00	3.500	8-3/8	5-1/2	5-1/2	7.000	4.000	3-5/8	5/8	21/32	1.000	2-1/8

## Single Roller Pillow Block Dimensions and Load Ratings Metric Shafting

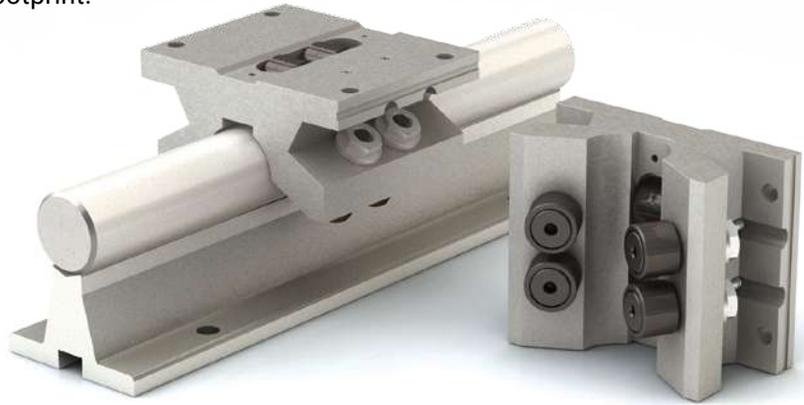
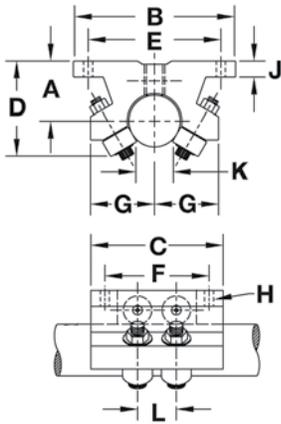
Part Number	Shaft Diameter mm	DYN. Load Rating lb.	Weight lb.	A	B	C	D	E	F	G	H		J	K
				±0.003	in.	in.	in.	±0.005	±0.005	in.	Bolt	Hole	in.	in.
MSPB-16-OPN	16	500	0.50	0.877	2-1/2	1-3/4	1-13/32	2.125	1.125	1-1/16	#8	3/16	0.270	3/8
MSPB-20-OPN	20	600	0.60	0.956	2-3/4	1-7/8	1-9/16	2.375	1.250	1-1/16	#8	3/16	0.300	7/16
MSPB-25-OPN	25	955	1.00	1.179	3-1/4	2-5/8	2	2.875	1.750	1-3/8	#10	7/32	0.360	11/16
MSPB-30-OPN	30	1400	2.00	1.465	4	3-3/8	2-9/16	3.500	2.000	1-3/4	#10	7/32	0.424	13/16

# Roller Pillow Blocks

## Double Roller Pillow Block



With double the capacity of the single Roller Pillow Block, the double Roller Pillow Blocks offer twice the dynamic load rating in a similar mounting footprint. The double Roller Pillow Blocks are used when longer travel life or an increase in load capacity is required.



## Double Roller Pillow Block Dimensions and Load Ratings Inch Shafting

Part Number	Shaft Diameter in.	DYN. Load Rating lb.	Weight lb.	A	B	C	D	E	F	G	H		J	K	L
				±0.003	in.	in.	in.	±0.005	±0.005	in.	Bolt	Hole	in.	in.	in.
DPB-08-OPN	1/2	800	0.50	0.687	2	2	1-5/32	1.688	1.625	1	#6	5/32	0.240	5/16	0.562
DPB-10-OPN	5/8	1000	0.70	0.875	2-1/2	2-1/2	1-13/32	2.125	2.000	1-1/16	#8	3/16	0.270	3/8	0.526
DPB-12-OPN	3/4	1200	0.80	0.937	2-3/4	2-5/8	1-9/16	2.375	1.250	1-1/16	#8	3/16	0.300	7/16	0.562
DPB-16-OPN	1	1910	1.20	1.187	3-1/4	2-5/8	2	2.875	1.750	1-3/8	#10	7/32	0.360	11/16	0.720
DPB-20-OPN	1-1/4	2800	2.30	1.500	4	3-3/8	2-9/16	3.500	2.000	1-3/4	#10	7/32	0.424	13/16	0.937
DPB-24-OPN	1-1/2	3320	3.00	1.750	4-3/4	3-3/4	2-7/8	4.125	2.500	1-7/8	1/4	9/32	0.474	1-1/16	0.937
DPB-32-OPN	2	4800	5.50	2.125	6	4-3/4	3-1/2	5.250	3.250	2-1/2	3/8	13/32	0.603	1-3/8	1.187
DPB-48-OPN	3	12520	20.00	3.500	8-3/8	7-1/4	5-1/2	7.000	5.875	3-5/8	5/8	21/32	1.000	2-1/8	2.080

## Double Roller Pillow Block Dimensions and Load Ratings Metric Shafting

Part Number	Shaft Diameter mm	DYN. Load Rating lb.	Weight lb.	A	B	C	D	E	F	G	H		J	K	L
				±0.003	in.	in.	in.	±0.005	±0.005	in.	Bolt	Hole	in.	in.	in.
MDPB-16-OPN	16	1000	0.70	0.877	2-1/2	2-1/2	1-13/32	2.125	2.00	1-1/16	#8	3/16	0.270	3/8	0.562
MDPB-20-OPN	20	1200	0.80	0.956	2-3/4	2-5/8	1-9/16	2.375	1.25	1-1/16	#8	3/16	0.300	7/16	0.562
MDPB-25-OPN	25	1910	1.20	1.179	3-1/4	2-5/8	2	2.875	1.75	1-3/8	#10	7/32	0.360	11/16	0.720
MDPB-30-OPN	30	2800	3.00	1.465	4	3-3/8	2-9/16	3.500	2.00	1-3/4	#10	7/32	0.424	13/16	0.937

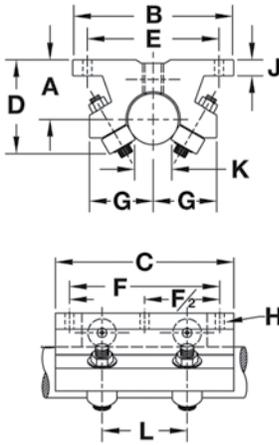
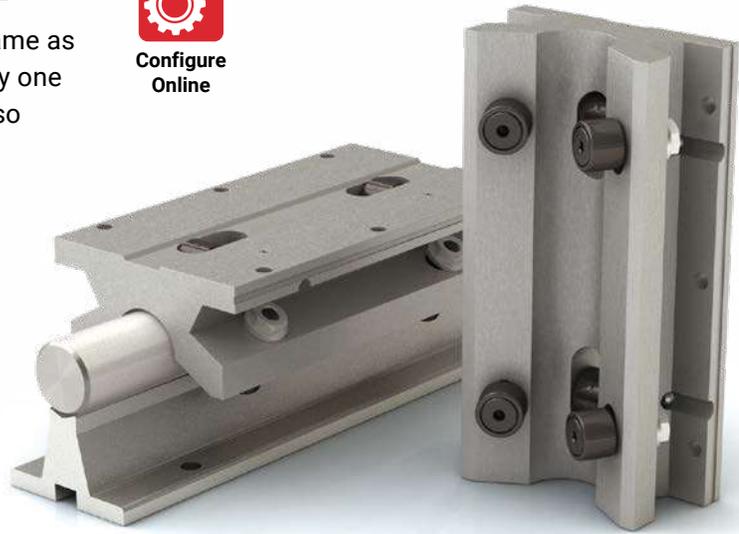
# Roller Pillow Blocks

## Twin Roller Pillow Block

The twin Roller Pillow Block load rating is the same as the double and is a good choice when using only one Roller Pillow Block per shaft. The twin model also offers an additional pair of mounting holes.



Configure  
Online



### Twin Roller Pillow Block Dimensions and Load Ratings Inch Shafting

Part Number	Shaft Diameter in.	DYN. Load Rating lb.	Weight lb.	A ±0.003	B in.	C in.	D in.	E ±0.005	F ±0.005	G in.	H		J in.	K in.	L in.
											Bolt	Hole			
TWN-08-OPN	1/2	800	0.80	0.687	2	3-1/2	1-5/32	1.688	2.50	1	#6	5/32	0.240	5/16	1.500
TWN-10-OPN	5/8	1000	1.00	0.875	2-1/2	4	1-13/32	2.125	3.00	1-1/16	#8	3/16	0.270	3/8	2.125
TWN-12-OPN	3/4	1200	1.20	0.937	2-3/4	4-1/2	1-9/16	2.375	3.50	1-1/16	#8	3/16	0.300	7/16	2.500
TWN-16-OPN	1	1910	2.30	1.187	3-1/4	6	2	2.875	4.50	1-3/8	#10	7/32	0.360	11/16	3.750
TWN-20-OPN	1-1/4	2800	4.40	1.500	4	7-1/2	2-9/16	3.500	5.50	1-3/4	#10	7/32	0.424	13/16	4.625
TWN-24-OPN	1-1/2	3320	6.50	1.750	4-3/4	9	2-7/8	4.125	6.50	1-7/8	1/4	9/32	0.474	1-1/16	5.500
TWN-32-OPN	2	4800	12.40	2.125	6	12	3-1/2	5.250	10.50	2-1/2	3/8	13/32	0.600	1-3/8	8.250

### Twin Roller Pillow Block Dimensions and Load Ratings Metric Shafting

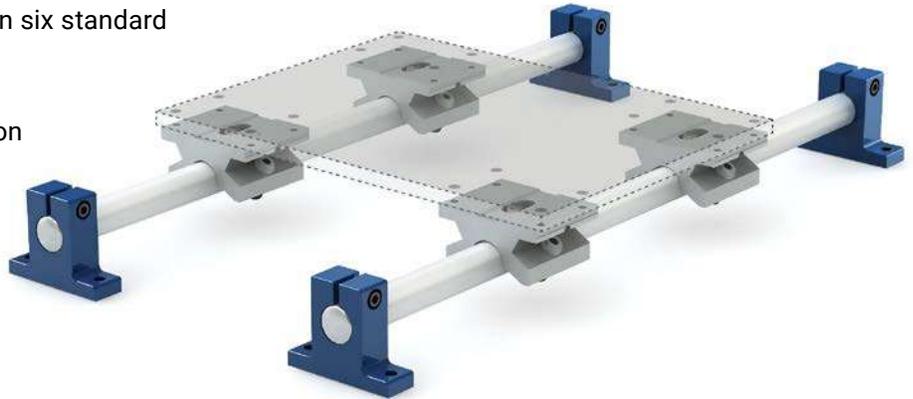
Part Number	Shaft Diameter mm	DYN. Load Rating lb.	Weight lb.	A ±0.003	B in.	C in.	D in.	E ±0.005	F ±0.005	G in.	H		J in.	K in.	L in.
											Bolt	Hole			
MTWN-16-OPN	16	1000	1.00	0.877	2-1/2	4	1-13/32	2.125	3.00	1-1/16	#8	3/16	0.270	3/8	2.125
MTWN-20-OPN	20	1200	1.20	0.956	2-3/4	4-1/2	1-9/16	2.375	3.50	1-1/16	#8	3/16	0.300	7/16	2.500
MTWN-25-OPN	25	1910	2.30	1.179	3-1/4	6	2	2.875	4.50	1-3/8	#10	7/32	0.360	11/16	3.750
MTWN-30-OPN	30	2800	4.40	1.465	4	7-1/2	2-9/16	3.500	5.50	1-3/4	#10	7/32	0.424	13/16	4.625

# Shaft and Rail Systems

## Shaft & Rail Systems

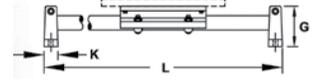
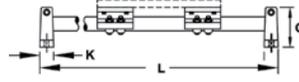
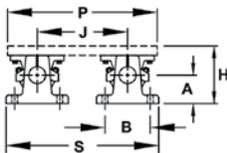
PBC Linear offers shaft and rail systems composed of world-class linear motion components in six standard configurations in four different sizes.

These systems also come with the option of carriage plates with or without mounted pillow blocks.



## Support Block System

Support block systems are manufactured with Roller Pillow Block(s), 60 Plus® precision case hardened and ground shaft, and two steel support blocks.



Support Block System  
End View

Single Pillow Block System  
Part Number Prefix: **S1S**

Double Pillow Block System  
Part Number Prefix: **S1D**

Twin Pillow Block System  
Part Number Prefix: **S1T**

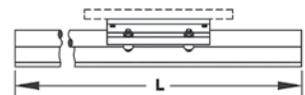
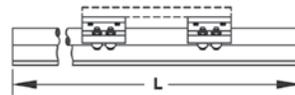
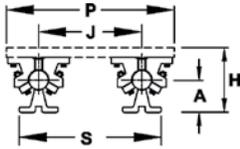
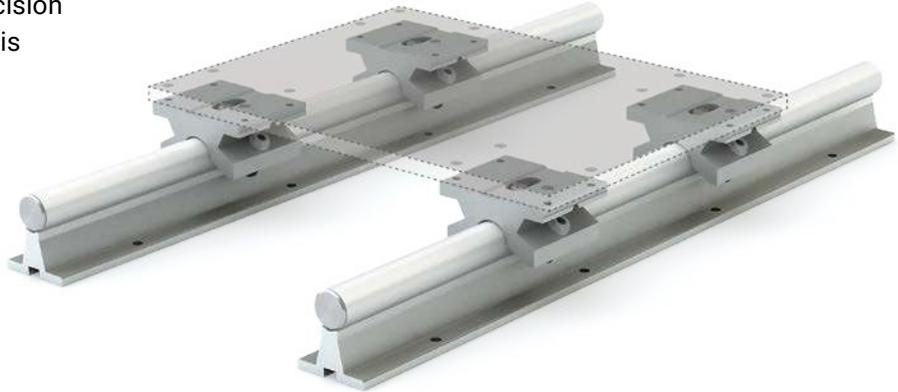
## Technical Information

Type Roller Pillow Block	Part Number	Shaft Diameter in.	Total Basic Dynamic Rating lb.	Number Roller Pillow Blocks	Number Support Blocks	Number Hardened Shafts	A in.	B in.	G in.	H in.	J in.	K in.	P in.	S in.
Single	<b>S1S08</b>	0.50	800	2	2	1	1.00	2.00	1.63	2.187	3.25	0.63	5.50	5.25
Double	<b>S1D08</b>	0.50	1600	2	2	1	1.00	2.00	1.63	2.187	3.25	0.63	5.50	5.25
Twin	<b>S1T08</b>	0.50	800	1	2	1	1.00	2.00	1.63	2.187	3.25	0.63	5.50	5.25
Single	<b>S1S12</b>	0.75	1200	2	2	1	1.25	2.75	2.13	2.937	4.50	0.75	7.50	7.25
Double	<b>S1D12</b>	0.75	2400	2	2	1	1.25	2.75	2.13	2.937	4.50	0.75	7.50	7.25
Twin	<b>S1T12</b>	0.75	1200	1	2	1	1.25	2.75	2.13	2.937	4.50	0.75	7.50	7.25
Single	<b>S1S16</b>	1.00	1910	2	2	1	1.50	3.25	2.63	3.437	5.50	1.00	9.00	8.75
Double	<b>S1D16</b>	1.00	3820	2	2	1	1.50	3.25	2.63	3.437	5.50	1.00	9.00	8.75
Twin	<b>S1T16</b>	1.00	1910	1	2	1	1.50	3.25	2.63	3.437	5.50	1.00	9.00	8.75
Single	<b>S1S24</b>	1.50	3320	2	2	1	2.00	4.75	3.50	5.000	8.00	1.25	13.00	12.75
Double	<b>S1D24</b>	1.50	6640	2	2	1	2.00	4.75	3.50	5.000	8.00	1.25	13.00	12.75
Twin	<b>S1T24</b>	1.50	3320	1	2	1	2.00	4.75	3.50	5.000	8.00	1.25	13.00	12.75

# Shaft and Rail Systems

## Support Rail Systems

Support rail systems are manufactured with Roller Pillow Blocks and 60 Plus® precision case hardened and ground shaft that is mounted on a continuous aluminum support rail. To prevent the carriage from sliding off the shaft, end stops can be purchased.



End View

Single Pillow Block System  
Part Number Prefix: **S2S**

Double Pillow Block  
Part Number Prefix: **S2D**

Twin Pillow Block  
Part Number Prefix: **S2T**

## Technical Information

Type Roller Pillow Block	Part Number	Shaft Diameter in.	Total Basic Dynamic Rating lb.	Number Roller Pillow Blocks	Number Continuous Support Rail	Number Hardened Shafts	A in.	H in.	J in.	P in.	S in.
Single	S2S08	1/2	800	2	1	1	1.125	2.187	3.25	5.5	4.75
Double	S2D08	1/2	1600	2	1	1	1.125	2.187	3.25	5.5	4.75
Twin	S2T08	1/2	800	1	1	1	1.125	2.187	3.25	5.5	4.75
Single	S2S12	3/4	1200	2	1	1	1.500	2.937	4.50	7.5	6.25
Double	S2D12	3/4	2400	2	1	1	1.500	2.937	4.50	7.5	6.25
Twin	S2T12	3/4	1200	1	1	1	1.500	2.937	4.50	7.5	6.25
Single	S2S16	1	1910	2	1	1	1.750	3.437	5.50	9.0	7.63
Double	S2D16	1	3820	2	1	1	1.750	3.437	5.50	9.0	7.63
Twin	S2T16	1	1910	1	1	1	1.750	3.437	5.50	9.0	7.63
Single	S2S24	1-1/2	3320	2	1	1	2.500	5.000	8.00	13.0	11.00
Double	S2D24	1-1/2	6640	2	1	1	2.500	5.000	8.00	13.0	11.00
Twin	S2T24	1-1/2	3320	1	1	1	2.500	5.000	8.00	13.0	11.00

# Accessories

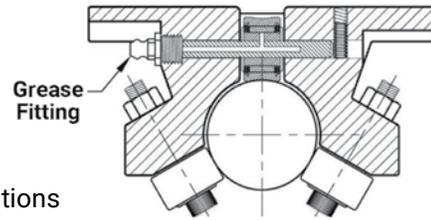
## Accessories & Options

To increase the performance of Roller Pillow Blocks the following options are offered.

### Top Grease Option

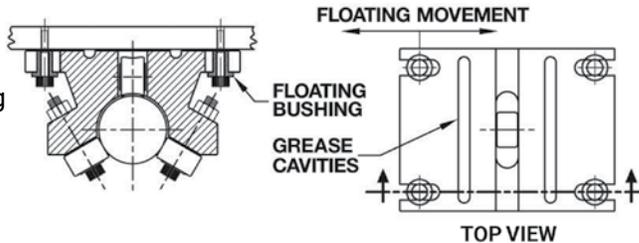
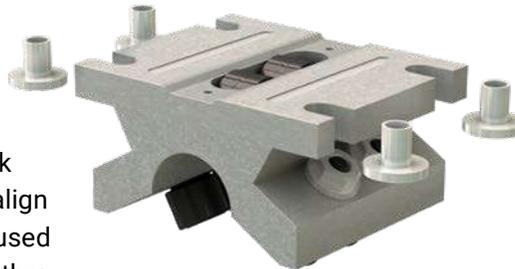
Roller Pillow Block rollers are lubricated and sealed. In some applications it is desired to re-grease the main support roller. The top grease option can help achieve full bearing life in applications that reduce or contaminate the grease of the roller. Such conditions may exist in applications where solvents or contaminants leach out the grease through the vents in the seals, or where contaminants are so fine or extreme they must be purged out of the roller with fresh grease. The top grease option is also recommended when high speeds or high temperatures are present. The top grease option is available on pillow blocks that are 1-1/4" or larger. To order, add the suffix, "TG" after the pillow block model number.

**Note:** Shock, vibration, and moments may affect the life of the pillow block.



### Floating Option

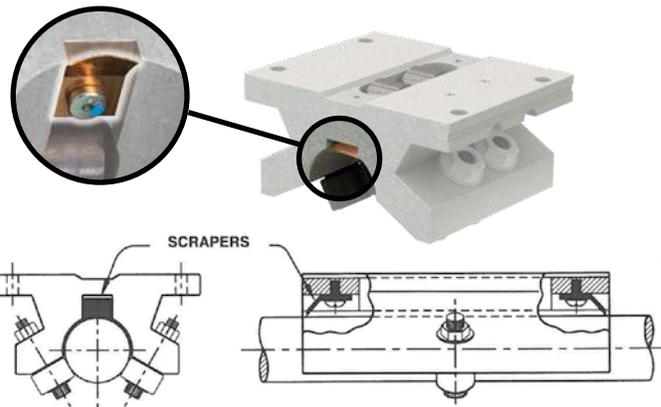
The only product on the market that addresses the non-parallel shafting problem is a Roller Pillow Block with the floating option. Also useful when trying to align long shafts, floating Roller Pillow Blocks should be used on one shaft with the standard pillow block on the other. Special grease is included for the grooves on top of each floating pillow block. During installation do not over-tighten the mounting bushings as this will cause them to bind. To order, add the prefix, "F-" to the single, double, or twin Roller Pillow Block number.



Pillow Block Size	Floating Movement
8	1/16"
10	1/16"
12	1/16"
16	3/32"
20	1/8"
24	1/8"
32	5/32"
48	3/16"
64	3/16"

### Scraper Option

Reduce the amount of dirt accumulation that lands on the top of the Roller Pillow Block shaft with the scraper option. Available only on specially machined pillow blocks, the scraper is mounted to each end of the bearing assembly to clean the shaft in either direction. Made from spring-tempered beryllium copper that conforms to the shaft diameter, the scraper will perform successfully after a short break in period. Scraper model is not available as a retrofit. To order this option, add the suffix "-S" after the pillow block model number.



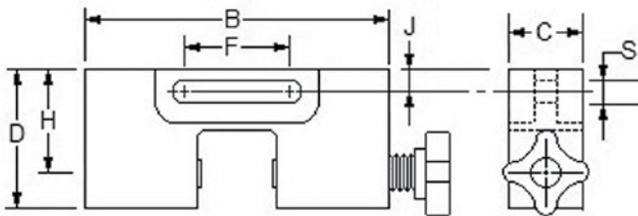
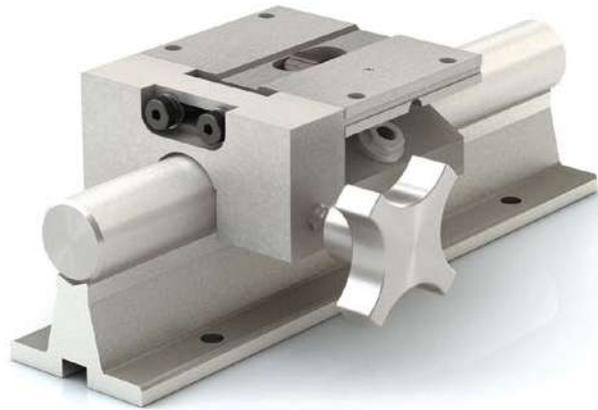
# Accessories

## Linear Carriage Lock

The linear carriage lock is a positive locking device for linear slides, carriages, and bearings.

The locks are:

- Self-centering
- Contaminant resistant
- Corrosion resistant
- Easily mounted
- Strong holding
- Maintenance-free



Part Number	Shaft Diameter in.	D in.	B in.	C in.	J in.	F in.	H in.	S in.
LCL-08	1/2	0.92	2.00	1	0.22	0.81	0.69	0.26
LCL-12	3/4	1.25	2.75	1	0.22	0.81	0.94	0.26
LCL-16	1	1.60	3.25	1	0.27	0.81	1.18	0.26
LCL-24	1-1/2	2.29	4.75	1	0.40	0.81	1.75	0.26
LCL-32	2	2.85	6.00	1	0.50	1.25	2.13	0.50

**Note:** When ordering with a Roller Pillow Block that it will be mounted to, just add "-LCL" to the Roller Pillow Block part number (EX: SPB-12-0PN-LCL)

## Pillow Block Rebuild Kits

The Roller Pillow Block rebuild kit contains all the parts required for a complete unit rebuild:

- One fixed side roller
- One eccentric side roller
- One top support roller
- One top roller axle
- One set screw



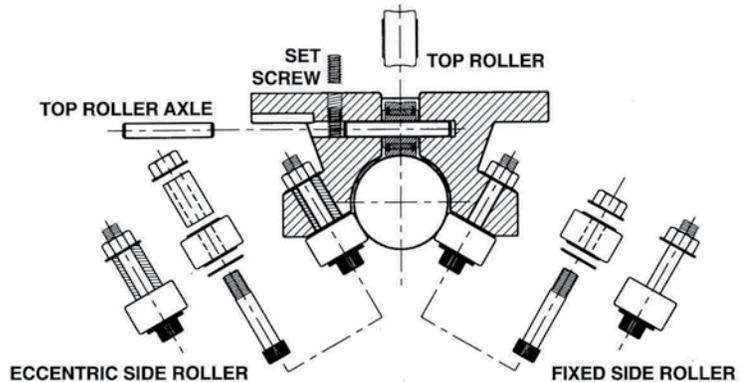
FUBK08-16

FUBK20-48

To rebuild a **Double** or **Twin Roller Pillow Block**, please order 2 kits.

All parts of a Roller Pillow Block should be replaced before re-installation.

Part Number	Shaft Diameter	
	INCH	METRIC
FUBK08	1/2"	12 mm
FUBK10	5/8"	16 mm
FUBK12	3/4"	20 mm
FUBK16	1"	25 mm
FUBK20	1-1/4"	30 mm
FUBK24	1-1/2"	N/A
FUBK32	2"	N/A
FUBK48	3"	N/A

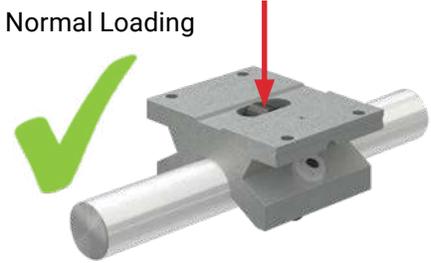


# Technical Information

## Orientation & Cantilever Loads

When a linear motion system is subjected to a cantilever load or moment, the system designer must take into consideration these type of loads will greatly affect the performance of the system. Roller Pillow Blocks are not suitable for these types of applications because the moments will load the side rollers and cause premature failure. If the moments or cantilever loads are minor, loads may be acceptable. For this reason we ask that you consult the factory.

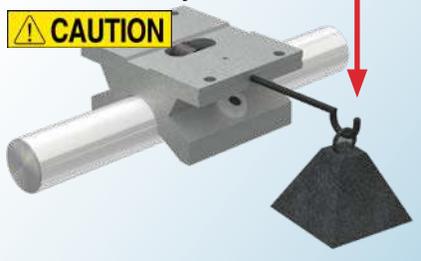
Normal Loading



Inverted Load



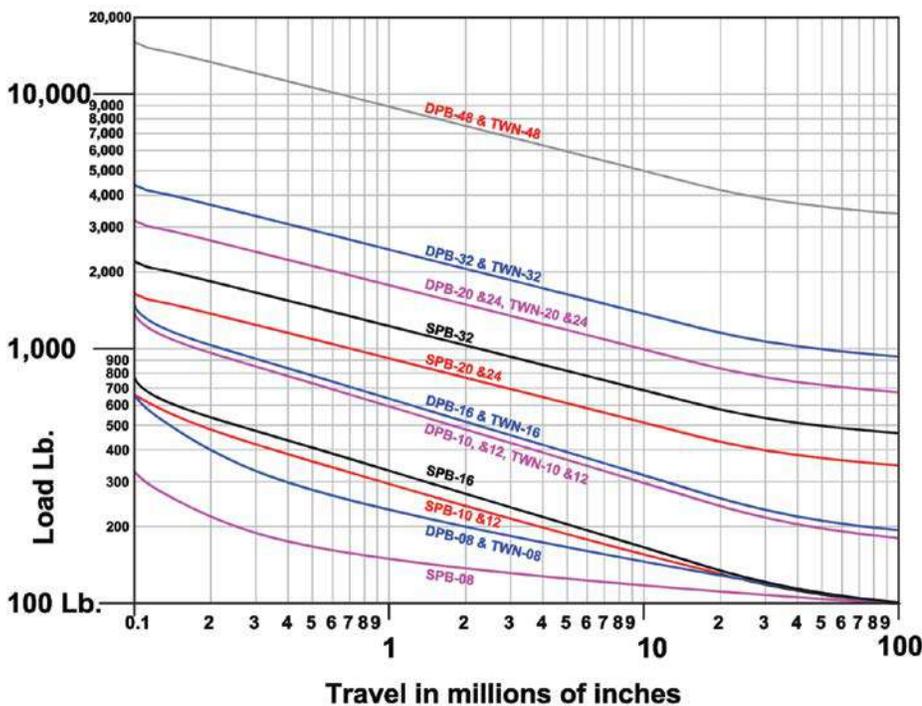
Moment Load  
Consult Factory



Vertical Load  
Consult Factory



Consult Factory  
800-962-8979



## Determining Pillow Block Size & Model

To determine the proper size Roller Pillow Block for an application, refer to the chart using the worst-case load and the required travel life. Select the Roller Pillow Block above where the lines intersect. This should be suitable for anticipated travel life and loading.

**Note:** Shock, vibration, and moments may affect the life of the pillow block.

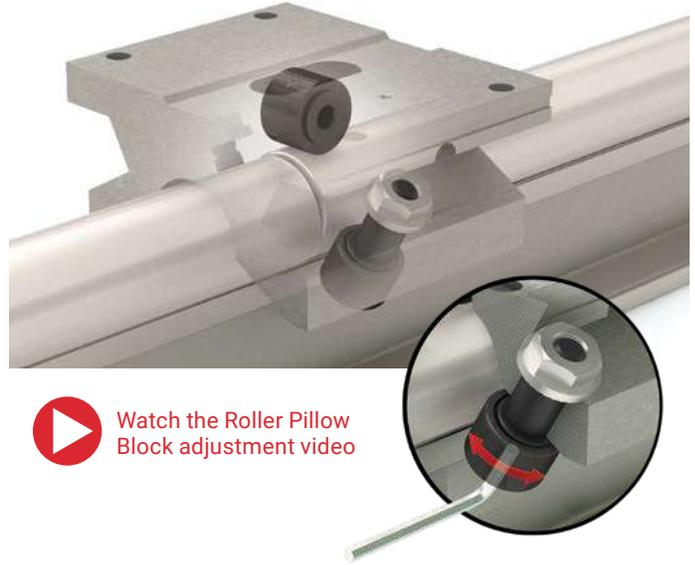
**Note:** Chart is rated at 10% accuracy. Figures are based on a safety factor of one.

# Technical Information

## Adjustments

Roller Pillow Blocks are factory set for Simplicity® 60 Plus® shafting. Adjustments can be made to the eccentric cam follower to either increase or decrease the shaft clearance.

Located on the same side of the Roller Pillow Block as the set screw, the eccentric cam follower is adjusted by using a stubby allen wrench while allowing a 0.002" feeler gauge to freely move between the shaft and the eccentric roller. The fixed side must remain in contact with the shaft. If care is taken not to overload the roller, then a slight pre-load is possible. Rollers should never be tightened to the point where they cannot move freely.



 [Watch the Roller Pillow Block adjustment video](#)

## Turning a Curve

A single Roller Pillow Block has the ability to turn a curve or run on a non-linear system. The following table lists the minimum track radius that the single Roller Pillow Block can tolerate without additional alteration.

Pillow Block Size	Minimum Shaft Radius
8	6"
10	12"
12	14"
16	18"
20	36"
24	40"
32	44"
48	52"



## Lubrication, Rails & Bearings

The rollers are internally lubricated for life, but the rails must always have a layer of grease. As a guideline, reapply fresh grease every 50,000 cycles.

# Technical Information

## Cross Reference Guide

Below is a chart that cross-references our product with competitors.  
For more assistance, please consult the factory.

## Standard Linear Ball Bearings

PBC Linear	PBC Linear Sealed	Thomson	Thomson Sealed	INA	INA Sealed	NB Steel Retainer	NB Steel Retainer Sealed	NB Plast'c Retainer	NB Plast'c Retainer Sealed
IP4G-0S	IP4G	A4812		KBZ04	KBZ04PP	SW4	SW4UU	SW4G	SW4GUU
IP6G-0S	IP6G	A61014		KBZ06	KBZ06PP	SW6	SW6UU	SW6G	SW6GUU
IP8G-0S	IP8G	A81420	A81420DD	KBZ08	KBZ08PP	SW8	SW8UU	SW8G	SW8GUU
IP10G-0S	IP10G	A101824		KBZ10	KBZ10PP	SW10	SW10UU	SW10G	SW10GUU
IP12G-0S	IP12G	A122026	A122026DD	KBZ12	KBZ12PP	SW12	SW12UU	SW12G	SW12GUU
IP16G-0S	IP16G	A162536	A162536DD	KBZ16	KBZ16PP	SW16	SW16UU	SW16G	SW16GUU
IP20G-0S	IP20G	A203242		KBZ20	KBZ20PP	SW20	SW20UU	SW20G	SW20GUU
IP24G-0S	IP24G	A243848		KBZ24	KBZ24PP	SW24	SW24UU	SW24G	SW24GUU
IP32G-0S	IP32G	A324864		KBZ32	KBZ32PP	SW32	SW32UU	SW32G	SW32GUU

## Open Type Linear Ball Bearings

PBC Linear	PBC Linear Sealed	Thomson	Thomson Sealed	INA	INA Sealed	NB Steel Retainer	NB Steel Retainer Sealed	NB Plast'c Retainer	NB Plast'c Retainer Sealed
IP8G-OP-0S	IP8G-OP	OPN81420	OPN81420DD	KBZ08OP	KBZ08OPPP	SW8OP	SW8OPUU	SW8GOP	SW8GOPUU
IP10G-OP-0S	IP10G-OP	OPN101824		KBZ10OP	KBZ10OPPP	SW10OP	SW10OPUU	SW10GOP	SW10GOPUU
IP12G-OP-0S	IP12G-OP	OPN122026	OPN122026DD	KBZ12OP	KBZ12OPPP	SW12OP	SW12OPUU	SW12GOP	SW12GOPUU
IP16G-OP-0S	IP16G-OP	OPN162536	OPN162536DD	KBZ16OP	KBZ16OPPP	SW16OP	SW16OPUU	SW16GOP	SW16GOPUU
IP20G-OP-0S	IP20G-OP	OPN203242		KBZ20OP	KBZ20OPPP	SW20OP	SW20OPUU	SW20GOP	SW20GOPUU
IP24G-OP-0S	IP24G-OP	OPN243848		KBZ24OP	KBZ24OPPP	SW24OP	SW24OPUU	SW24GOP	SW24GOPUU
IP32G-OP-0S	IP32G-OP	OPN324864		KBZ32OP	KBZ32OPPP	SW32OP	SW32OPUU	SW32GOP	SW32GOPUU

## High Load Self Aligning Linear Ball Bearings

PBC Linear	Thomson	INA	NB	PBC Linear	Thomson	INA	NB
IPS6	SUPER6	KX6PP	TW6UU	IPPS08-GL	SPB8UU	KGX8PP	TWA8UU
IPS8	SUPER8	KX8PP	TW8UU	IPPS10-GL	SPB10UU	KGX10PP	TWA10UU
IPS10	SUPER10	KX10PP	TW10UU	IPPS12-GL	SPB12UU	KGX12PP	TWA12UU
IPS12	SUPER12	KX12PP	TW12UU	IPPS16-GL	SPB16UU	KGX16PP	TWA16UU
IPS16	SUPER16	KX16PP	TW16UU	IPPS20-GL	SPB20UU	KGX20PP	TWA20UU
IPS20	SUPER20	KX20PP	TW20UU	IPPS24-GL	SPB24UU	KGX24PP	TWA24UU
IPS24	SUPER24	KX24PP	TW24UU	IPPNS08-GLP	SPB8OPN	KGX08PP	TWD8UU
IP8-OP	SUPER8OPN	KX08PP	TW8OPUU	IPPNS10-GLP	SPB10OPN	KGX010PP	TWD10UU
IP10-OP	SUPER10OPN	KX010PP	TW10OPUU	IPPNS12-GLP	SPB12OPN	KGX012PP	TWD12UU
IP12-OP	SUPER12OPN	KX012PP	TW12OPUU	IPPNS16-GLP	SPB16OPN	KGX016PP	TWD16UU
IP16-OP	SUPER16OPN	KX016PP	TW16OPUU	IPPNS20-GLP	SPB20OPN	KGX020PP	TWD20UU
IP20-OP	SUPER20OPN	KX020PP	TW20OPUU	IPPNS24-GLP	SPB24OPN	KGX024PP	TWD24UU
IP24-OP	SUPER24OPN	KX024PP	TW24OPUU				



Consult Factory • 800-962-8979

# Check Out PBC Linear Configurators

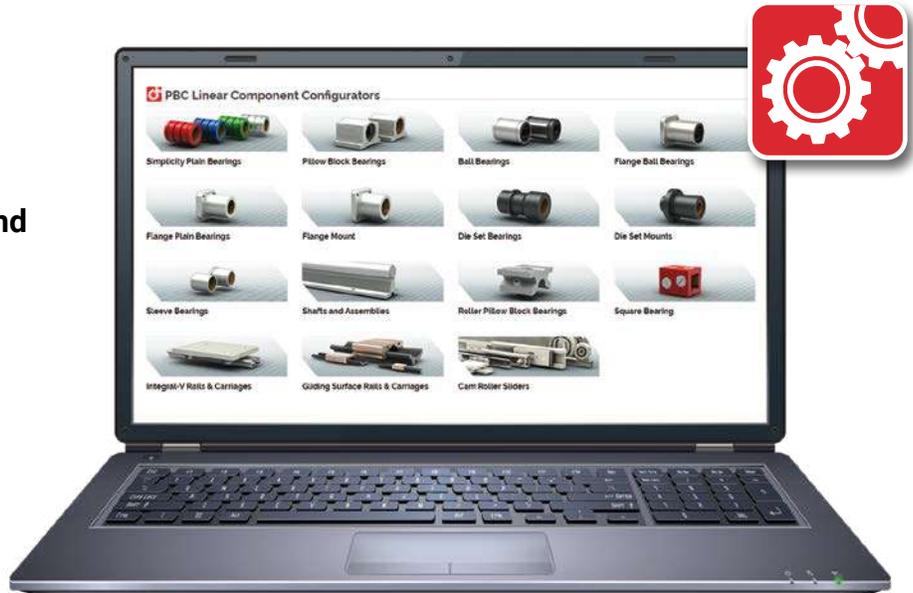
Roller Pillow Block • Support Rail Assembly • Shafting

- The PBC Linear configuration tools allow you to customize and configure linear components to exact specifications.

- Simple steps to configure and select product offerings

- Custom CAD file delivered in minutes

- Custom quote generated quickly and easily



- Visit [pbclinear.com/Configure-Price-Quote](http://pbclinear.com/Configure-Price-Quote) and start designing!



# Components Built to Match • Systems Made to Last Get Your Linear Motion Needs in One Stop

## Shafting and Custom Machined Ends

Steel, Stainless Steel, and Aluminum shafting with various available machined end options and either solid or pre-drilled and tapped. Shafting designed specifically for optimal bearing performance.

Precision-matched bearings and shafting provide:

- Lower costs
- Maximize life
- Improve overall performance
- Minimize downtime and replacement cost

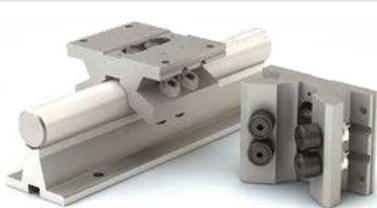


## Supports and Assemblies

- Shaft and rail assemblies
- Ceramic coated aluminum
- End support blocks
- Non-drilled or Pre-Drilled support rails
- Low support rails for tight spaces



## Assemblies and Systems



For more information on linear motion components and full mechatronics solutions visit [pbclinear.com](http://pbclinear.com) or contact the us at 800-962-8979.



A Pacific Bearing Company

Engineering Your Linear Motion Solutions



## Global Footprint



### 📍 PBC Linear Worldwide Headquarters

6402 E. Rockton Road, Roscoe, Illinois 61073 USA  
Tel: +1.815.389.5600 • Toll-Free: +1.800.962.8979  
Fax: +1.815.389.5790  
sales@pbclinear.com • pbclinear.com

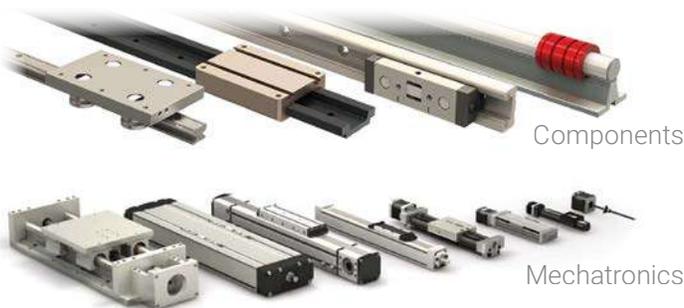
### 📍 PBC Linear Europe GmbH European Headquarters

Bonner Straße 363, 40589 Duesseldorf, Germany  
Tel: +49 211 545590 20 • Fax: +49 211 545590 39  
info@pbclinear.eu • pbclinear.eu

### 📍 PBC-MOONS China Headquarters

168 Mingjia Road, Minhang District, Shanghai 201107, P.R. China  
Tel: +86 21 52634688 • Fax: +86 21 52634098  
info@moons.com.cn • www.moons.com.cn

## Range of Offerings



### Distributed by

PBC Linear has a global network of distributors with thousands of locations worldwide.

Visit [pbclinear.com](http://pbclinear.com) to find a distributor near you.

All information within this catalog is correct at the time of printing. However, in some instances adjustments need to be made, and this may cause specific information to become outdated. For the most current version, please reference our online catalog through the resources menu at [pbclinear.com](http://pbclinear.com).

©2016 PBC Linear®, A Pacific Bearing Company • "PBC Linear" and "PBC Lineartechnik GmbH" are subsidiaries of Pacific Bearing Company ("PBC"). Specifications are subject to change without notice. It is the responsibility of the user to determine and ensure the suitability of PBC Linear products for a specific application. The only obligation of PBC Linear will be to repair or replace, without charge, any defective components if returned promptly. No liability is assumed beyond such replacement. Other corporate and product names, images, text and logos may be trademarks or copyrights of other companies and are used only for explanation and to the owners benefit, without intent to infringe. This document may not be reproduced, in part or whole, without the prior written authorization of PBC Linear. Consult [pbclinear.com](http://pbclinear.com) for the latest technical updates.

LITRST-008 v11 (09-2025)