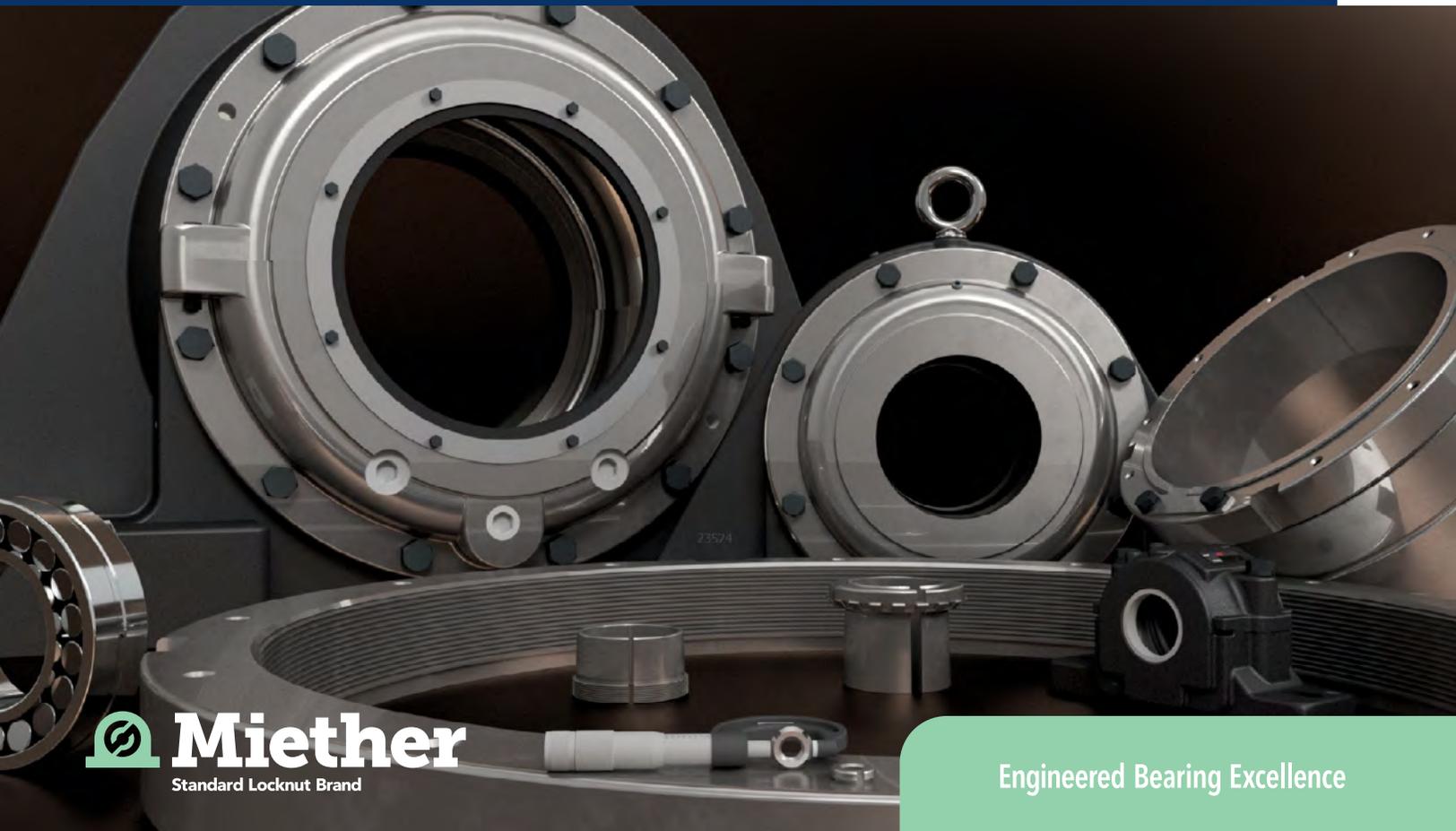




# Engineered mounted bearings and accessories

for mission critical industrial applications



Engineered Bearing Excellence

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# High-quality, precision engineered industrial products



**Standard Locknut has been a premier American manufacturer and supplier of mounted bearings, accessories, and pillow blocks for more than 80 years. We offer a broad variety of mounted bearing and accessory products machined to precise tolerances and dimensions.**

We fabricate USA imperial and metric sized cast iron, ductile iron, and cast steel housings, sleeve assemblies, locknuts, lockwashers and seals in our central Indiana manufacturing facilities. Operations in our Indiana-based, ISO 9001-certified manufacturing facility are supported by talented product designers and mechanical engineers to ensure the highest product quality.

We proudly support the needs of a broad range of heavy industries including power generation, heavy moveable structures, aggregate, material handling, steel, and mining with the highest quality industrial products...delivered on spec and on time.

Our products are Made in the USA and designed to perform to the tightest specifications under any operating conditions for years to come. We work tirelessly to cater to the needs of industrial distributors and OEMs everywhere.

Whatever your bearing and accessory needs, you can count on Standard Locknut to deliver high-quality products on time, every time. Our products are built to last, maximizing return on your bearing- related investments and reducing costly production downtime.



## Driven by our Core Values

At Standard Locknut, we operate against a set of clearly defined values. We strive to consistently deliver against the following five core values:



### Easy to work with

We take the pain out of industrial product procurement



### Quality

Our products will perform in the field as intended for years to come



### Accessibility

We're here for you when you need us



### Value

We provide our customers with the highest value products anywhere



### Partnership

We're much more than just a supplier

Miether Machine Works, a brand of Standard Locknut, developed the first split pillow block housing for industrial application in 1957. It became Miether Bearing Products in 1980 and merged with Standard Locknut in 2016.



# Installation General Guidelines

**This publication assumes best practices when developing new product installations, and that the bearing and housing units have structurally sound mounting surfaces capable of withstanding the load being applied without compromising alignment between the drive and the driven component(s).**

Standard Locknut and Miether's product lines consist of bearing housings and accessories made to our standards, following the American Bearing Manufacturer Association (ABMA) specifications.

Many applications in industry cannot be solved with standard hardware and configurations, and we have the engineering expertise and production machining capability to modify standard housings or castings with specialty features to accommodate bore variations, float, milled feet, thermocouple ports, vibration monitoring ports, bore centerline variants, dowel holes, oversized drains for oil circulating systems, and special paints to name a few.

If you require a non-standard casting pattern, we can quote unique castings per your prints.

If you have any questions regarding accessories please contact our experts toll free at 1-800-783-6887

Email: [sales@stdlocknut.com](mailto:sales@stdlocknut.com)

Sales: 1-800-783-6887

Quotes: [rfq@stdlocknut.com](mailto:rfq@stdlocknut.com)

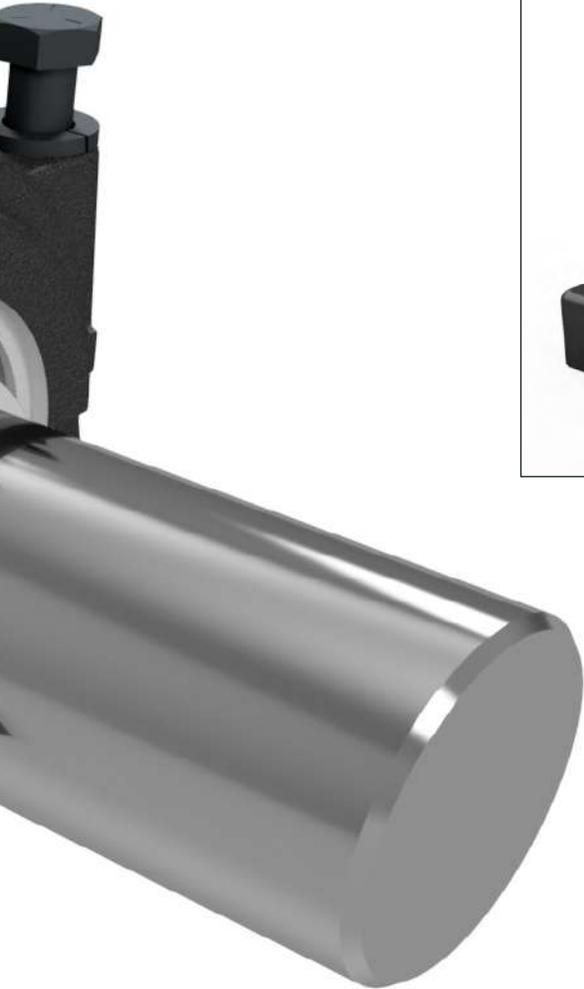
FAX: 1-800-573-5515

Web: [stdlocknut.com](http://stdlocknut.com)



Larger size housings, sizes are supplied with either 1 or 2 tapped holes for installing eye bolts to aid in moving the housing to and from the point of use. Do not lift housings that include extra weight from attachments.

**See figures below for recommended lifting procedures:**

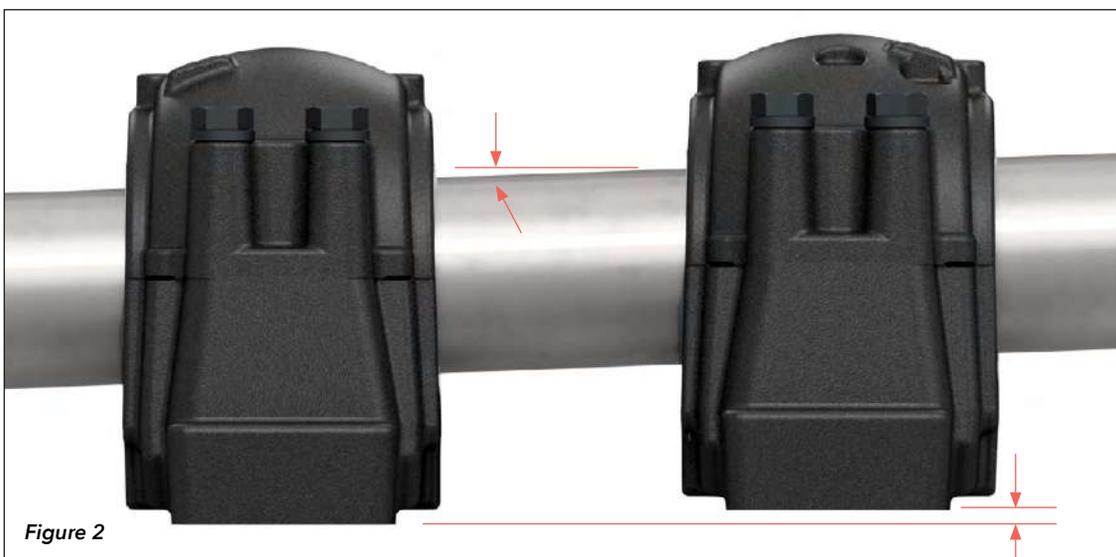
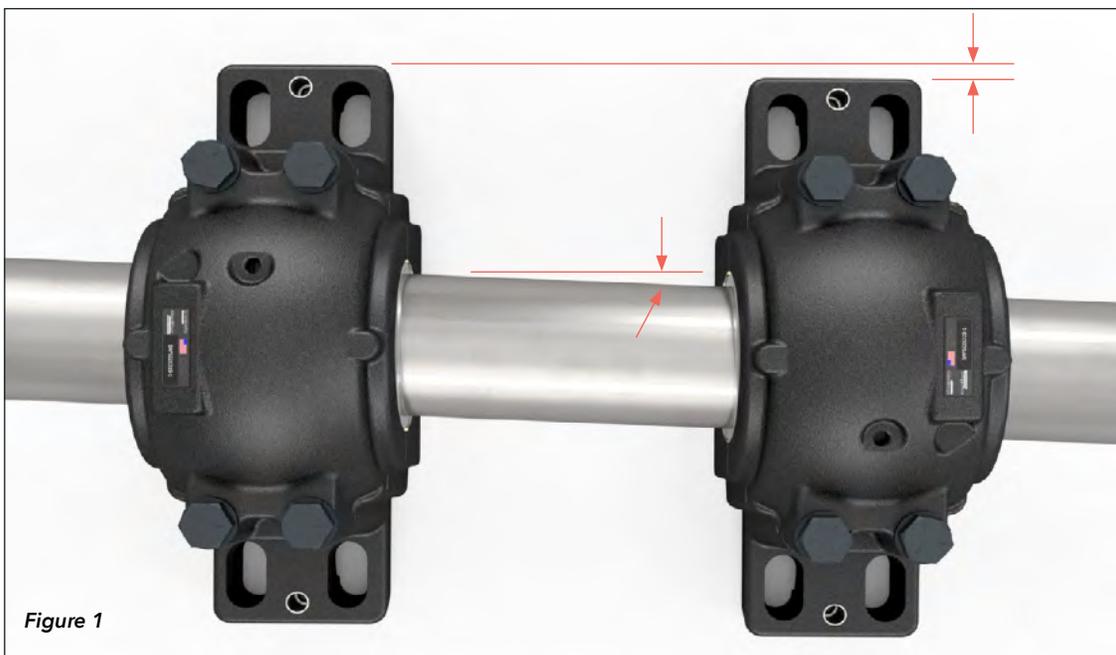


As shown above, eyebolts should be threaded flush, flange to housing, and tightened prior to lifting.

## Mounting Surface Preparation

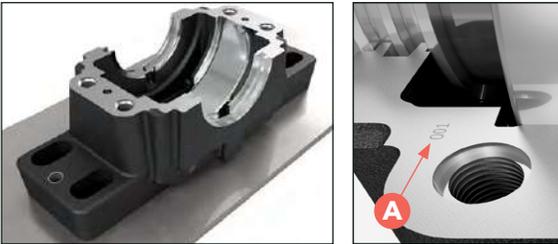
Certain requirements must be maintained during new installations or unit replacements to insure the maximum misalignment specification is not exceeded. This will ensure maximum product life and best performance. Roughness of the mounting surfaces will provide some form of misalignment. Clean and prepare the mating surfaces, removing any dust, rust, grease, paint, burrs, and raised areas. Flatness is a measure of the surface form indicating whether all points measured lie in the same plane. Static misalignment should be minimized in each mounting plane. **Figure 1** shows skew of base bottom mountings. **Figure 2** shows base bottom height differential which may be shimmed to matching heights. Shims shall provide full support under the entire area of the base bottom.

Typical arrangements require 125 $\mu$ -inch (max) surface finishes with a flatness of 0.002" per foot of the mounting surfaces where the blocks are to be mounted.





Safely rough mount the pillow blocks onto the prepared mounting surface. Snug mounting bolts on the base.



Remove the housing caps. **NOTE: Caps and bases are match marked as a set, do not mismatch! See Detail (A).** Thoroughly clean and prepare the base and cap ensuring all debris are removed. Great care should be taken to remove any contaminant as it can shorten the bearing and seal life.



Ensure the shaft is cleaned and all burrs are removed from the shaft. Components should be at similar temperatures. Lubricate adapter sleeve bore, seal, and shaft with a light oil.

Freely slide the inboard seal onto the shaft. Next, slide the adapter sleeve (threads outward) onto the shaft. Position the adapter sleeve on the shaft taking into account the drive up distance of the bearing onto the adapter sleeve. **See charts on pages 16 and 17 for values.**



Check and record the Unmounted Radial Internal Clearance (RIC) of bearing prior to installing. Prior to checking, freely rotate the inner ring of the bearing to ensure proper seating of all rollers. Ensure to check clearance with feeler gauges simultaneously over both rollers. The clearance should be checked in an unload roller position. For example if the bearing is sitting on a bench upright, the unloaded position would be a 12 O'clock position.



Carefully clean the bore of the bearing and apply light oil before sliding it onto the adapter sleeve. Next, install the locknut (chamfer face toward the bearing) onto the adapter sleeve. Leave the lockwasher off until future step. Safely tighten the locknut until the Mounted RIC is achieved.

Maintain specification per charts on pages 16 and 17.

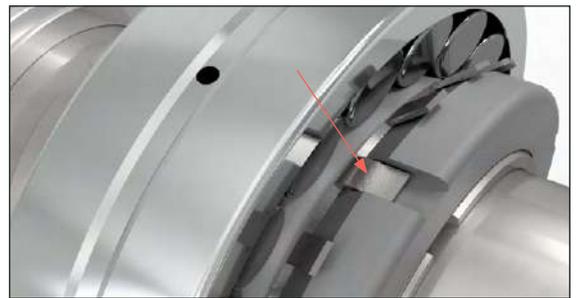
It is recommended to utilize a Hydraulic Nut for larger diameter bearings which will decrease the frictional force required to drive the bearing onto the adapter sleeve.

## Adapter Mounted Assembly (cont.)

Remove the locknut and install the lockwasher (tang outward) and reinstall the locknut. Snug the locknut. Recheck and record the Mounted RIC across both unloaded rollers simultaneously to ensure proper mounting.



Finally, bend over a tang on the lockwasher into the slot of the locknut. If a tang doesn't fully align, slightly tighten locknut to achieve tang alignment to a slot; Never loosen. Use care to bend the tang; a brass bar is recommended to not introduce contaminants. Check that the outer race and shaft rotate freely by hand.



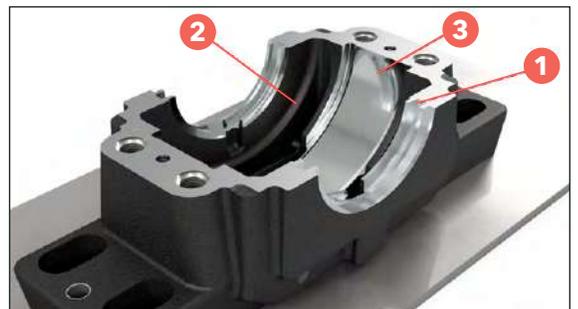
Note: For larger diameter locknuts, a lockplate is utilized in lieu of a lockwasher as shown here. Bolts are provided with holes so safety wire can be utilized.



Pack the bearing free space 100% with the recommended grease to coat rolling components and surfaces. Ensure the workspace is free of debris to avoid contamination. Slide the outboard labyrinth seals onto the shaft and roughly position.

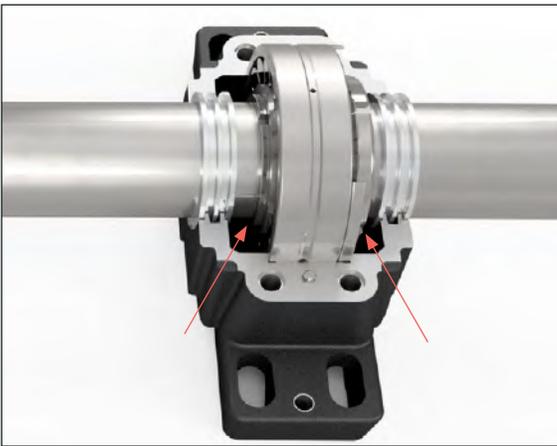


Prepare the housing base and cap by introducing grease into the *LER Grooves* (**Detail #1**) on both sides of the housing and the *Bearing Seat* (**Detail #3**). The *Sump* (**Detail #2**) will be filled with grease later.





Safely lift the shaft assembly and place into housing base, aligning the labyrinth seals appropriately. If stabilizer ring(s) are used, slide in to secure bearing position in housing. Position gap in stabilizer upward.



Fill the sump areas of the base with the appropriate lubrication. See lube info on page 10. Reinstall the Cap ensuring the correct base and cap are paired. Torque the cap bolts according to bolt torque specifications (see page 18). Add additional lubrication via the cap if necessary to achieve the proper fill. Proper alignment of components must be performed before securing the base mounting bolts to the framework. This may require leveling of the bearing and reduction of any skew in the shaft assembly.



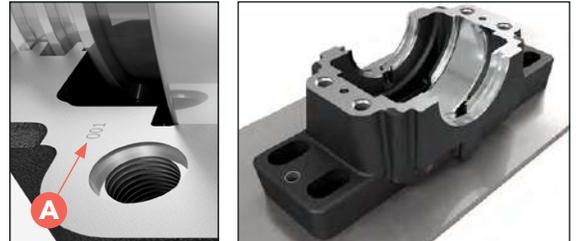
After final alignment is achieved properly torque the base mounting bolts. Test assembly for smooth, free rotation. Note: Additional support via the end of the pillow block base may be required when loads are not directed into the base of the housing.

## Cylindrical Shaft Mounted Assembly

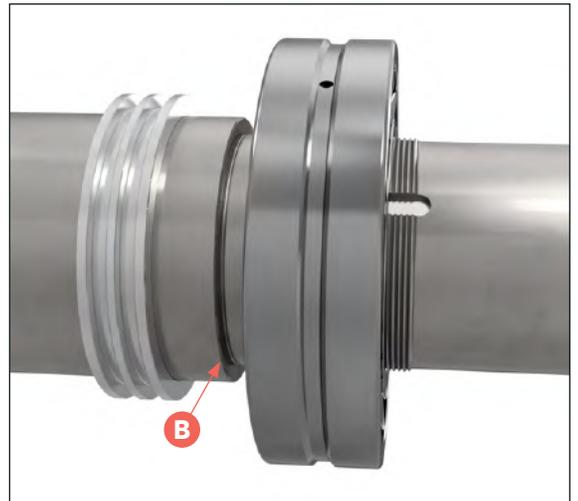
Safely rough mount the pillow block(s) onto the prepared mounting surface. Snug mounting bolts on the base.



Remove the housing caps. **NOTE: Caps and bases are match marked as a set, do not mismatch! See Detail (A).** Thoroughly clean and prepare the base and cap ensuring all debris are removed. Great care should be taken to remove any contaminant as it can shorten the bearing and seal life.



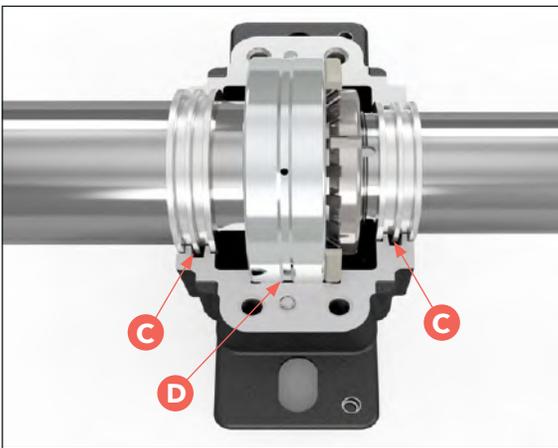
Ensure that the bearing and shaft are thoroughly cleaned. Remove all burrs from shaft and lubricate with a light oil. Freely slide the inboard seal onto the shaft. Preheating the bearing is strongly recommended via an induction heater, not to exceed 200°F. Be sure that the bearing and shaft are aligned and quickly install bearing onto the shaft. Ensure the bearing is seated against the shoulder **(B)**.





Quickly install the locknut (chamfer face toward the bearing) and the lockwasher (Tang in slot, tabs facing outward matching locknut chamfer) onto the shaft. Safely tighten the locknut until the bearing is properly seated against the shoulder. Using a feeler gauge, confirm the abutment of the bearings inner race against the shoulder on the shaft. For larger bearings, special locknuts with drilled and tapped holes utilize a **lockplate** in place of the locknut/lockwasher combination, and it is recommended to utilize a Hydraulic Nut to seat larger diameter bearings overcoming the frictional force required to drive the bearing onto the shaft.

After seating the bearing, **tighten** the locknut to align lockwasher tab with spanner slot and bend tab into the slot. **Do not loosen locknut for alignment of tab.**



Pack the bearing free space 100% with the recommended grease to coat rolling components and surfaces. Ensure the workspace is free of debris to avoid contamination.

Ensure the housing bearing seat(s) are thoroughly cleaned and prepared. Prepare the housing base and cap by introducing grease into the "LER Grooves" (**C**) on both sides of the housing and the "Bearing Seat" (**D**). The "Sump" will be filled with grease later.

Safely lift the shaft assembly and place into housing base(s), aligning the labyrinth seals appropriately. If stabilizer ring(s) are used, slide in to secure bearing position in housing. Position gap in stabilizer upward.



Fill "Sump" areas of the base with grease and align housing cap(s) and seat (**E**) using the two or four attaching bolts. Torque according to bolt tightness specifications. See page 18. Test assembly for smooth, free rotation. Proper alignment of components must be performed before securing the base mounting bolts to the framework. This may require leveling of the bearing and reduction of any skew in the shaft assembly. Refer to figures 1 and 2 on page 6 for leveling and alignment skew views.

Lubrication and maintenance sustain the life of roller bearings giving reliable operation over long periods of time. The lubricant should create a lubricating film on the rolling contact surfaces within the bearing and must be capable of supporting loads to prevent fatigue. Lubricants can dissipate heat with recirculating oil systems that can be chilled and fitted with filtering systems to remove unwanted contamination.

Design of the systems require decisions to be made as to the type of lubrication, taking into consideration the operating conditions, type and size of bearing, and the lubrication feed system.

Grease lubricants require the bearing and components be thoroughly cleaned prior to the assembly process, and do provide some protection from contaminants by purge methods and different sealing methods. Grease also provides the most dampening of noise from rolling components under load. A film of grease provides the bearing a level of protection from corrosion. The housing provides a reservoir of supplied grease lubricant, used for lower speed and intermittent operations where heat dissipation is no requirement of the lubricant. Grease provides no rinsing action of wear debris and particulate matter. **To prevent over-greasing, remove the base plugs opposing the grease inlet plug while lubricating or re-lubricating the entire bearing unit. This method (Figure below) provides fresh grease through the entire bearing. Harsh environmental conditions may present contaminants when the plugs are removed and care must be taken.**



Oil lubrication can utilize a continuous bath which requires a level of oil be maintained, sight tubes being a level indicator. Higher speeds must have a redistribution system which will circulate the oil and supply the contact areas of the bearing. Higher speeds and continuous operations can require some form of chilling and filtering to provide the best possible lubrication. The system should provide the shortest supply and return lines possible. Steel supply lines provide the best possible uninterrupted supply, as other supply lines tend to plug up and blister creating a blockage of the oil flow. Monitoring of the pressure at select points can provide key indications of the condition of the lubrication system. Oil requires extra consideration as to sealing methods to contain the lubricant.



**NOTE:** When oil is the lubrication medium, a small bead of non-hardening Permatex® or equivalent sealant needs to be added to the split line surfaces to seal and prevent leakage through the mating surface and the bolt towers. **Do not use an excess.**

**Large amounts can upset the clearances between the bearing and the housing seat and contaminate the internal cavity.**



## Unmounted RIC

Check Unmounted RIC prior to drive up, **at 12 o'clock, across the unloaded roller pair.** See charts on pages 16 and 17 depending on the application, for recommended clearances.



Measure the Unmounted RIC in the bearing using progressively larger feeler gauges to size across both of the *most vertical unloaded* rollers then record the radial clearance.



## Mounted RIC

Drive up of the adapter sleeve will reduce the radial internal clearance of the rolling components. Refer to charts on pages 16 and 17 and drive up sleeve to achieve stated RIC across both of the least vertical unloaded rollers. With the bearing hanging from the shaft, the unloaded rollers would be at the 6 o'clock position.

For proper drive up of the larger bearing sizes 250mm and larger, it is recommended to use a Hydraulic Nut.

# Bearing Nomenclature

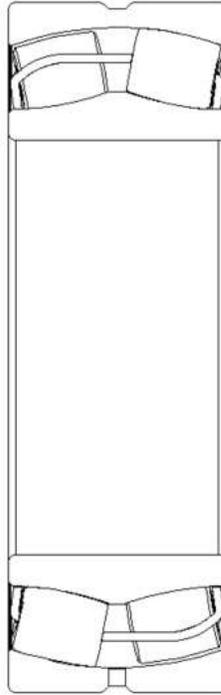
230	52	K	C3
Series	Size	Style	Internal Clearance



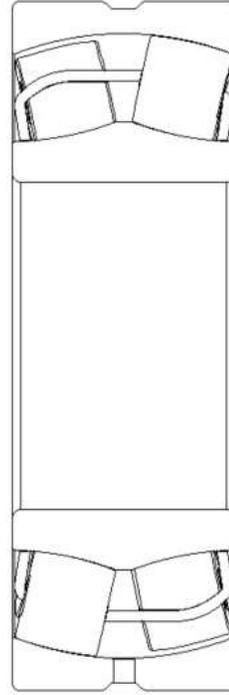
**230XX**



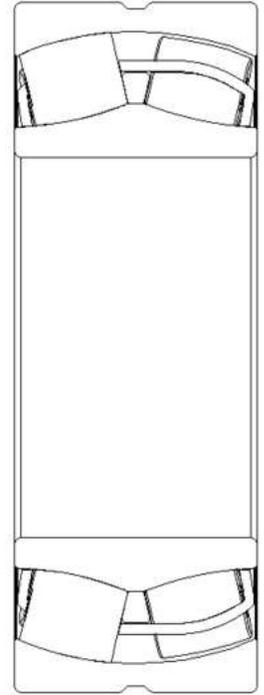
**222XX**



**231XX**



**223XX**



**232XX**

Shown Above: Bearing Outer Diameter (OD) constant while bearing width changes between series

## Series

- 230 230XX Series Spherical Roller Bearing
- 222 222XX Series Spherical Roller Bearing
- 231 231XX Series Spherical Roller Bearing
- 223 223XX Series Spherical Roller Bearing
- 232 232XX Series Spherical Roller Bearing

## Style

- K Tapered Bore, 1:12 taper
- K30 Tapered Bore, 1:30 taper

## Size

- XX 1/5 Bore in millimeters when 2 digits
- /XXX Bore in millimeters
- /XXXX Bore in millimeters

## Internal Clearance

- Normal (CN) Clearance
- C3 C3 Internal Clearance
- C4 C4 Internal Clearance

Bearings with an Unmounted RIC in the upper half of the tolerance range are mounted using the larger value for the Reduction in RIC, while bearings in the lower half of the tolerance range are mounted using the smaller value for the Reduction in RIC.

**Example:** Adapter sleeve mounting of 23084K bearing

Bearing Bore	= 84 x 5 = 420 mm
Bearing Clearance	= CN

From Reduction in RIC chart on page 16:

Unmounted RIC (Target)	0.0130" - 0.0173"
Reduction in RIC	0.0079" - 0.0102"
Mounted RIC (min)	0.0051"

Actual Unmounted RIC check:



Unmounted RIC (Actual Measurement)	0.016"
------------------------------------	--------

Actual Unmounted RIC check:

Unmounted RIC (Max)	'0.0173" rounds to 0.017'''
Reduction in RIC (Max)	'0.0102 rounds to 0.010"
Mounted RIC (Target) =	'0.017 - 0.010 = 0.007"

# Reduction in Radial Internal Clearance (RIC) 1:12 Taper (Drive-up Table 1)

NOMINAL Bearing Bore		Unmounted RIC						REDUCTION In Radial Internal Clearance		Linear Axial Displacement On A Solid Steel Shaft 1:12 (one inch per foot) Taper				Mounted RIC		
		(CN)-Normal		(C3)		(C4)				SHAFT		SLEEVE		(CN)	(C3)	(C4)
over	&include	min	max	min	max	min	max	min	max	min	max	min	max	min	min	max
24	30	0.0012	0.0018	0.0018	0.0022	0.0022	0.0029	0.0006	0.0008	0.012	0.014	0.012	0.016	0.0006	0.0008	0.0014
30	40	0.0014	0.0020	0.0020	0.0026	0.0026	0.0034	0.0008	0.0010	0.014	0.016	0.014	0.018	0.0006	0.0010	0.0016
40	50	0.0018	0.0024	0.0024	0.0032	0.0032	0.0039	0.0010	0.0012	0.016	0.018	0.018	0.020	0.0008	0.0012	0.0020
50	65	0.0022	0.0030	0.0030	0.0037	0.0037	0.0047	0.0012	0.0016	0.018	0.024	0.020	0.028	0.0010	0.0016	0.0028
65	80	0.0028	0.0037	0.0037	0.0047	0.0047	0.0059	0.0016	0.0020	0.024	0.030	0.028	0.033	0.0012	0.0016	0.0028
80	100	0.0032	0.0043	0.0043	0.0055	0.0055	0.0071	0.0018	0.0024	0.028	0.035	0.030	0.039	0.0014	0.0020	0.0031
100	120	0.0039	0.0053	0.0053	0.0067	0.0067	0.0087	0.0020	0.0028	0.035	0.043	0.031	0.047	0.0020	0.0026	0.0039
120	140	0.0047	0.0063	0.0063	0.0079	0.0079	0.0102	0.0026	0.0035	0.043	0.055	0.047	0.059	0.0022	0.0031	0.0043
140	160	0.0051	0.0071	0.0071	0.0091	0.0091	0.0118	0.0030	0.0039	0.047	0.063	0.051	0.067	0.0023	0.0035	0.0051
160	180	0.0055	0.0079	0.0079	0.0102	0.0102	0.0134	0.0031	0.0043	0.051	0.067	0.055	0.075	0.0024	0.0039	0.0059
180	200	0.0063	0.0087	0.0087	0.0114	0.0114	0.0146	0.0035	0.0051	0.055	0.079	0.059	0.087	0.0028	0.0039	0.0063
200	225	0.0071	0.0098	0.0098	0.0126	0.0126	0.0160	0.0039	0.0055	0.063	0.087	0.067	0.094	0.0031	0.0047	0.0071
225	250	0.0079	0.0106	0.0106	0.0138	0.0138	0.0177	0.0043	0.0059	0.067	0.094	0.075	0.102	0.0035	0.0051	0.0079
250	280	0.0087	0.0118	0.0118	0.0154	0.0154	0.0193	0.0047	0.0067	0.075	0.102	0.079	0.114	0.0039	0.0055	0.0087
280	315	0.0095	0.0130	0.0130	0.0169	0.0169	0.0213	0.0051	0.0075	0.079	0.118	0.087	0.126	0.0043	0.0059	0.0094
315	355	0.0106	0.0142	0.0142	0.0185	0.0185	0.0232	0.0059	0.0083	0.094	0.134	0.102	0.142	0.0047	0.0067	0.0102
355	400	0.0118	0.0158	0.0158	0.0205	0.0205	0.0256	0.0067	0.0091	0.102	0.142	0.114	0.154	0.0051	0.0075	0.0114
400	450	0.0130	0.0173	0.0173	0.0224	0.0224	0.0284	0.0079	0.0102	0.122	0.161	0.134	0.173	0.0052	0.0079	0.0123
450	500	0.0146	0.0193	0.0193	0.0248	0.0248	0.0311	0.0083	0.0110	0.130	0.173	0.142	0.189	0.0063	0.0091	0.0138
500	560	0.0161	0.0213	0.0213	0.0268	0.0268	0.0343	0.0094	0.0126	0.146	0.197	0.161	0.213	0.0067	0.0098	0.0142
560	630	0.0181	0.0236	0.0236	0.0299	0.0299	0.0386	0.0102	0.0138	0.157	0.213	0.173	0.232	0.0079	0.0114	0.0161
630	710	0.0201	0.0264	0.0264	0.0335	0.0335	0.0429	0.0118	0.0157	0.181	0.244	0.201	0.268	0.0083	0.0122	0.0177
710	800	0.0224	0.0295	0.0295	0.0378	0.0378	0.0480	0.0134	0.0177	0.209	0.276	0.228	0.299	0.0091	0.0138	0.0201
800	900	0.0252	0.0331	0.0331	0.0421	0.0421	0.0539	0.0146	0.0197	0.224	0.307	0.248	0.335	0.0106	0.0154	0.0224
900	1000	0.0280	0.0366	0.0366	0.0469	0.0469	0.0598	0.0161	0.0217	0.248	0.335	0.276	0.370	0.0118	0.0169	0.0252
1000	1120	0.0307	0.0402	0.0402	0.0512	0.0512	0.0650	0.0177	0.0236	0.268	0.354	0.299	0.402	0.0126	0.0189	0.0276
1120	1250	0.0339	0.0441	0.0441	0.0559	0.0559	0.0709	0.0193	0.0256	0.291	0.386	0.327	0.433	0.0134	0.0213	0.0303
1250	1400	0.0370	0.0480	0.0480	0.0610	0.0610	0.0772	0.0217	0.0283	0.327	0.425	0.366	0.476	0.0142	0.0232	0.0331
1400	1600	0.0417	0.0543	0.0543	0.0689	0.0689	0.0866	0.0244	0.0319	0.366	0.480	0.417	0.543	0.0173	0.0260	0.0370
1600	1800	0.0465	0.0606	0.0606	0.0768	0.0768	0.0984	0.0272	0.0366	0.409	0.551	0.461	0.622	0.0189	0.0287	0.0402
1800	2000	0.0516	0.0673	0.0673	0.0846	0.0846	0.1083	0.0303	0.0409	0.457	0.614	0.516	0.697	0.0213	0.0319	0.0437
2000	2250	0.0571	0.0748	0.0748	0.0945	0.0945	0.1201	0.0335	0.0453	0.500	0.677	0.571	0.768	0.0236	0.0374	0.0610
2250	2500	0.0630	0.0827	0.0827	0.1043	0.1043	0.1319	0.0374	0.0504	0.563	0.756	0.638	0.846	0.0256	0.0453	0.0669

## Reduction in Radial Internal Clearance (RIC) 1:30 Taper (Drive-up Table 2)

NOMINAL Bearing Bore (mm)		Unmounted RIC						REDUCTION In Radial Internal Clearance		Linear Axial Displacement On A Solid Steel Shaft 1:30 (0.4 inch per foot) Taper				Mounted RIC		
		(CN)-Normal		(C3)		(C4)		min	max	SHAFT		SLEEVE		(CN)	(C3)	(C4)
over	&include	min	max	min	max	min	max			min	max	min	max	min	max	min
24	30	0.0012	0.0018	0.0018	0.0022	0.0022	0.0029	0.0006	0.0008					0.0006	0.0008	0.0014
30	40	0.0014	0.0020	0.0020	0.0026	0.0026	0.0034	0.0008	0.0010					0.0006	0.0010	0.0016
40	50	0.0018	0.0024	0.0024	0.0032	0.0032	0.0039	0.0010	0.0012					0.0008	0.0012	0.0020
50	65	0.0022	0.0030	0.0030	0.0037	0.0037	0.0047	0.0012	0.0016					0.0010	0.0016	0.0028
65	80	0.0028	0.0037	0.0037	0.0047	0.0047	0.0059	0.0016	0.0020					0.0012	0.0016	0.0028
80	100	0.0032	0.0043	0.0043	0.0055	0.0055	0.0071	0.0018	0.0024					0.0014	0.0020	0.0031
100	120	0.0039	0.0053	0.0053	0.0067	0.0067	0.0087	0.0020	0.0028	0.075	0.106	0.079	0.110	0.0020	0.0026	0.0039
120	140	0.0047	0.0063	0.0063	0.0079	0.0079	0.0102	0.0026	0.0035	0.106	0.138	0.110	0.142	0.0022	0.0031	0.0043
140	160	0.0051	0.0071	0.0071	0.0091	0.0091	0.0118	0.0030	0.0039	0.118	0.157	0.122	0.165	0.0023	0.0035	0.0051
160	180	0.0055	0.0079	0.0079	0.0102	0.0102	0.0134	0.0031	0.0043	0.126	0.165	0.130	0.181	0.0024	0.0039	0.0059
180	200	0.0063	0.0087	0.0087	0.0114	0.0114	0.0146	0.0035	0.0051	0.138	0.177	0.142	0.197	0.0028	0.0039	0.0063
200	225	0.0071	0.0098	0.0098	0.0126	0.0126	0.0160	0.0039	0.0055	0.157	0.217	0.165	0.224	0.0031	0.0047	0.0071
225	250	0.0079	0.0106	0.0106	0.0138	0.0138	0.0177	0.0043	0.0059	0.165	0.236	0.181	0.272	0.0035	0.0051	0.0079
250	280	0.0087	0.0118	0.0118	0.0154	0.0154	0.0193	0.0047	0.0067	0.185	0.264	0.189	0.272	0.0039	0.0055	0.0087
280	315	0.0095	0.0130	0.0130	0.0169	0.0169	0.0213	0.0051	0.0075	0.197	0.295	0.205	0.303	0.0043	0.0059	0.0094
315	355	0.0106	0.0142	0.0142	0.0185	0.0185	0.0232	0.0059	0.0083	0.236	0.323	0.244	0.331	0.0047	0.0067	0.0102
355	400	0.0118	0.0158	0.0158	0.0205	0.0205	0.0256	0.0067	0.0091	0.256	0.354	0.268	0.362	0.0051	0.0075	0.0114
400	450	0.0130	0.0173	0.0173	0.0224	0.0224	0.0284	0.0079	0.0102	0.303	0.394	0.315	0.409	0.0051	0.0079	0.0123
450	500	0.0146	0.0193	0.0193	0.0248	0.0248	0.0311	0.0083	0.0110	0.323	0.433	0.331	0.441	0.0063	0.0091	0.0138
500	560	0.0161	0.0213	0.0213	0.0268	0.0268	0.0343	0.0094	0.0126	0.362	0.492	0.378	0.504	0.0067	0.0098	0.0142
560	630	0.0181	0.0236	0.0236	0.0299	0.0299	0.0386	0.0102	0.0138	0.394	0.531	0.409	0.551	0.0079	0.0114	0.0161
630	710	0.0201	0.0264	0.0264	0.0335	0.0335	0.0429	0.0118	0.0157	0.453	0.610	0.472	0.630	0.0083	0.0122	0.0177
710	800	0.0224	0.0295	0.0295	0.0378	0.0378	0.0480	0.0134	0.0177	0.524	0.689	0.535	0.709	0.0091	0.0138	0.0201
800	900	0.0252	0.0331	0.0331	0.0421	0.0421	0.0539	0.0146	0.0197	0.563	0.768	0.583	0.787	0.0106	0.0154	0.0224
900	1000	0.0280	0.0366	0.0366	0.0469	0.0469	0.0598	0.0161	0.0217	0.622	0.827	0.646	0.866	0.0118	0.0169	0.0252
1000	1120	0.0307	0.0402	0.0402	0.0512	0.0512	0.0650	0.0177	0.0236	0.669	0.906	0.709	0.945	0.0126	0.0189	0.0276
1120	1250	0.0339	0.0441	0.0441	0.0559	0.0559	0.0709	0.0193	0.0256	0.728	0.984	0.772	1.020	0.0134	0.0213	0.0303
1250	1400	0.0370	0.0480	0.0480	0.0610	0.0610	0.0772	0.0217	0.0283	0.827	1.063	0.874	1.114	0.0142	0.0232	0.0331
1400	1600	0.0417	0.0543	0.0543	0.0689	0.0689	0.0866	0.0244	0.0319	0.929	1.213	0.972	1.276	0.0173	0.0260	0.0370
1600	1800	0.0465	0.0606	0.0606	0.0768	0.0768	0.0984	0.0272	0.0366	1.031	1.390	1.087	1.465	0.0189	0.0287	0.0402
1800	2000	0.0516	0.0673	0.0673	0.0846	0.0846	0.1083	0.0303	0.0409	1.154	1.555	1.213	1.638	0.0213	0.0319	0.0437
2000	2250	0.0571	0.0748	0.0748	0.0945	0.0945	0.1201	0.0335	0.0453	1.276	1.728	1.339	1.811	0.0236	0.0374	0.0610
2250	2500	0.0630	0.0827	0.0827	0.1043	0.1043	0.1319	0.0374	0.0504	1.425	1.921	1.496	2.016	0.0256	0.0453	0.0669

## Cap Bolt Torque Specification



Tightening Torque (ft lbs.)		
Bolt Size	SAE Grade 5	SAE Grade 8
7/16" - 14 UNC	35	35
1/2" - 13 UNC	55	55
5/8" - 11 UNC	105	105
3/4" - 10 UNC	185	185
7/8" - 9 UNC	300	300
1" - 8 UNC	450	450
1 1/8" - 7 UNC	555	650
1 1/4" - 7 UNC	785	940
1 3/8" - 6 UNC	1,030	1,190
1 1/2" - 6 UNC	1,365	1,580
1 3/4" - 5 UNC	1,600	2,500
1-7/8" - 5 UNC	2,000	3,125
2" - 4 1/2 UNC	2,410	3,750
2 1/4" - 4 1/2 UNC	3,515	5,480
2 1/2" - 4 UNC	4,800	7,500
2 3/4" - 4 UNC	6,500	8,900

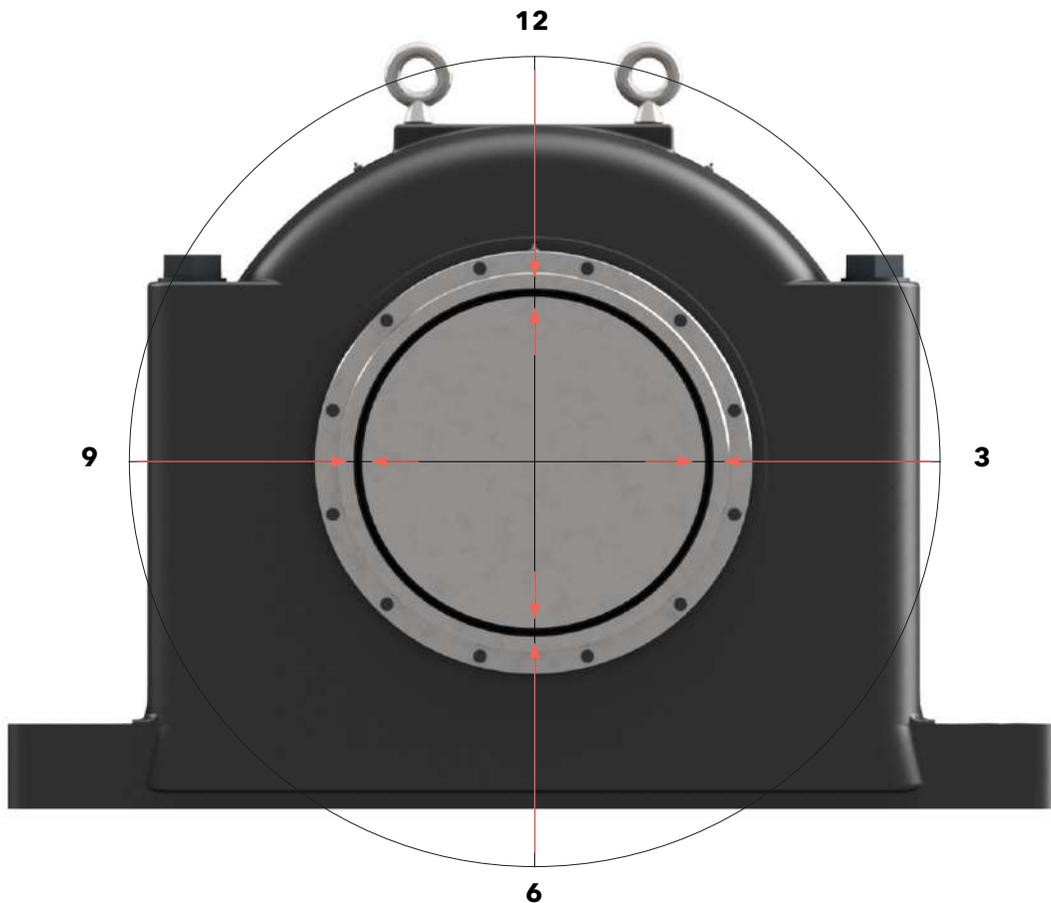
### NOTE:

- Torque values shown above are lubricated values ( $k = 0.15$ )
- All Cast Iron housing (SAF, SAW, & SDAF) are provided with Grade 5 bolts.
- All Ductile Iron housing (SAFD & SDAFD) are provided with Grade 8 bolts.
- All Cast Steel housing (SAFS, SAWS, & SDAFS) are provided with Grade 8 bolts.

## Appendix 1: Specific to Model 59 Garlock Seals

**This procedure is utilized to align housing centerline and skew at the seal carriers to achieve maximum contact seal life.**

- To ensure the housings are located on the same plane, measure the nominal annular gap at the 12 O'clock position and 6 O'clock position and ensure the dimensions have a maximum difference of 0.030".
- To ensure the housings are located parallel, measure the nominal annular gap at the 3 O'clock position and 9 O'clock position and ensure the dimensions have a maximum difference of 0.030".



If you have any questions regarding accessories please contact our experts toll free at 1-800-783-6887

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# SAF Pillow Blocks



**SAF pillow blocks are versatile mounted spherical roller bearing assemblies designed for industrial applications. They are some of the most commonly used types of mounted bearing systems used to provide shaft support.**

SAF pillow blocks are essentially a high capacity spherical roller bearing system used to support rotating shafts along with other bearings and accessories. They are crucial machinery components that ensure shafts remain in position and operate smoothly. All SAF pillow blocks consist of a mounted housing (pillow block) that houses a bearing and are designed for maximum load capacity and service life in the most demanding heavy duty applications. There are two main types of pillow blocks: split and solid.

**SAF split pillow blocks** are housed bearing units made of two pieces. A distinctive feature of split pillow blocks is the fact that the bearing housing element can be separated from the base. Split pillow blocks, by design, can be separated for easier bearing replacement, cleaning or lubrication.

SAF split pillow blocks are the ideal solution for applications and assemblies requiring load support for rotating shafts. They provide maximum protection against impact loads while minimizing radial loading problems associated with other conventional split housings.

## The Standard Locknut Difference

Standard Locknut offers a variety of pillow block housing assemblies to address a wide range of industrial applications. Our SAF, SAW and SDAF split pillow block bearing housings have a proven track record in meeting the toughest demands of heavy industry. They allow incorporated high-capacity spherical roller bearings to reach their maximum service life with minimal maintenance.

You can choose from different housing variants and seal designs, which eliminates the need for tailored housings and allows for more cost-effective bearing arrangements.

Our SAF split pillow blocks meet ABMA and ISO standards and are designed to accommodate a wide variety of spherical roller bearing series and virtually any shaft size (1-5/8" to 30" and larger) while handling extreme loads. They are cast iron and we offer special grades of castings, along with ductile iron and cast steel.

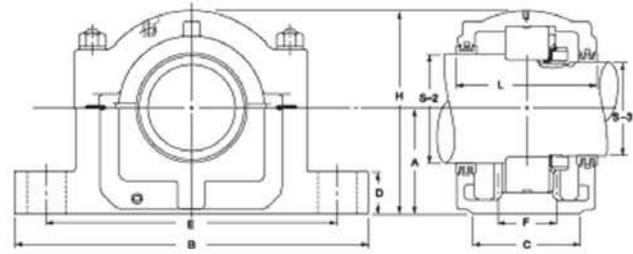
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# SAF/SAFD 200 SERIES

## Cast Iron (SAF) and Ductile Iron (SAFD) Pillow Blocks

Straight Bore Mounting



### SAF-200 SERIES

STYLE	SHAFT DIA.		PILLOW BLOCK HOUSING ONLY	STABILIZING RING	TRIPLE SEAL		LOCKNUT NO.	LOCKWASHER NO.	COMPLETE PILLOW BLOCK NO.	APP. WT. (LB.)
	S-2 IN.	S-3 IN.			1 REQUIRED	S-2 SHAFT				
■	2 3/8	1 7/8	SAF210*	SR-10-0	LER35	LER23	N10	W10	SAF22210	12
■	2 9/16	2 1/16	SAF211*	SR-11-0	LER40	LER27	N11	W11	SAF22211	14
■	3 1/16	2 7/16	SAF213*	SR-13-0	LER55	LER37	N13	W13	SAF22213	21
■	3 7/16	2 13/16	SAF215*	SR-15-0	LER79	LER456	AN15	W15	SAF22215	24
■	3 7/16	2 13/16	FSAF215	SR-15-0	LER79	LER456	AN15	W15	SAF22215	24
■	3 5/8	3	SAF216*	SR-16-13	LER82	LER54	AN16	W16	SAF22216	35
■	3 5/8	3	FSAF216	SR-16-13	LER82	LER54	AN16	W16	SAF22216	35
■	3 15/16	3 3/16	SAF217*	SR-17-14	LER89	LER63	AN17	W17	SAF22217	43
■	3 15/16	3 3/16	FSAF217	SR-17-14	LER89	LER63	AN17	W17	FSAF22217	43
■	4 1/8	3 3/8	SAF218*	SR-18-15	LER96	LER72	AN18	W18	SAF22218	50
■	4 1/8	3 3/8	FSAF218	SR-18-15	LER96	LER72	AN18	W18	FSAF22218	50
■	4 1/2	3 13/16	SAF220*	SR-20-17	LER118	LER106	AN20	W20	SAF22220	71
■	4 1/2	3 13/16	FSAF220	SR-20-17	LER118	LER106	AN20	W20	FSAF22220	71
■	4 7/8	4 3/16	SAF222	SR-22-19	LER121	LER113	AN22	W22	SAF22222	81
■	5 5/16	4 9/16	SAF224	SR-24-20	LER127	LER119	AN24	W24	SAF22224	90
■	5 7/8	4 15/16	SAF226	SR-26-0	LER136	LER122	AN26	W26	SAF22226	127
■	6 1/4	5 5/16	SAF228	SR-28-0	LER144	LER127	AN28	W28	SAF22228	149
■	6 5/8	5 3/4	SAF230	SR-30-0	LER151	LER134	AN30	W30	SAF22230	175
■	7	6 1/16	SAF232	SR-32-0	LER156	LER142	AN32	W32	SAF22232	210
■	7 7/16	6 7/16	SAF234	SR-34-0	LER161	LER148	AN34	W34	SAF22234	280
■	7 13/16	6 7/8	SAF236	SR-36-30	LER165	LER154	AN36	W36	SAF22236	305
■	8 3/8	7 1/4	SAF238	SR-38-32	LER171	LER160	AN38	W38	SAF22238	350
■	8 3/4	7 5/8	SAF240	SR-40-34	LER175	LER164	AN40	W40	SAF22240	420
■	9 9/16	8 5/16	SAF244	SR-44-38	LER179	LER170	N44	W44	SAF22244	590

### SAF-200 SERIES

STYLE	PILLOW BLOCK HOUSING ONLY	BASE BOLTS REQUIRED										
		A	B	C	D	E		F	H	L	NO.	SIZE
■	SAF210	2 1/2	8 1/4	2 3/8	15/16	MAX.	MIN.	---	4 11/16	3 7/16	2	7/16
■	SAF211	2 3/4	9 5/8	2 3/4	15/16	7 7/8	7 3/8	---	5 1/32	3 3/4	2	5/8
■	SAF213	3	11	3 1/8	1	9 1/2	8 1/8	---	5 25/32	4 5/16	2	5/8
■	SAF215	3 1/4	11 1/4	3 1/8	1 1/8	9 5/8	8 5/8	---	6 3/8	4 3/4	2	5/8
■	FSAF215	3 1/4	11 1/4	3 1/8	1 1/8	9 5/8	8 5/8	1 7/8	6 3/8	4 3/4	4	1/2
■	SAF216	3 1/2	13	3 1/2	1 3/16	11	9 5/8	---	6 7/8	4 7/8	2	3/4
■	FSAF216	3 1/2	13	3 1/2	1 3/16	11	9 5/8	2 1/8	6 7/8	4 7/8	4	5/8
■	SAF217	3 3/4	13	3 1/2	1 1/4	11	9 7/8	---	7 1/4	4 7/8	2	3/4
■	FSAF217	3 3/4	13	3 1/2	1 1/4	11	9 7/8	2 1/8	7 1/4	4 7/8	4	5/8
■	SAF218	4	13 3/4	3 7/8	1 1/2	11 5/8	10 3/8	---	7 3/4	6 1/8	2	3/4
■	FSAF218	4	13 3/4	3 7/8	1 1/2	11 5/8	10 3/8	2 1/8	7 3/4	6 1/8	4	5/8
■	SAF220	4 1/2	15 1/4	4 3/8	1 3/4	13 1/8	11 5/8	---	8 11/16	5 7/8	2	7/8
■	FSAF220	4 1/2	15 1/4	4 3/8	1 11/16	13 1/8	11 5/8	2 3/8	8 11/16	5 7/8	4	3/4
■	SAF222	4 15/16	16 1/2	4 3/4	2	14 7/16	12 11/16	2 3/4	9 9/16	6 1/4	4	3/4
■	SAF224	5 1/4	16 1/2	4 3/4	2 1/8	14 1/2	13 1/4	2 3/4	10 1/4	7 1/4	4	3/4
■	SAF226	6	18 3/8	5 1/8	2 3/8	16	14 5/8	3 1/4	11 9/16	7 7/8	4	7/8
■	SAF228	6	20 1/8	5 7/8	2 3/8	17 1/8	16	3 3/8	11 3/4	7 5/8	4	1
■	SAF230	6 5/16	21 1/4	6 1/4	2 1/2	18 1/4	17	3 3/4	12 1/2	8 1/4	4	1
■	SAF232	6 11/16	22	6 1/4	2 5/8	19 1/4	17 3/8	3 3/4	13 5/16	8 5/8	4	1
■	SAF234	7 1/16	24 3/4	6 3/4	2 13/16	21 5/8	19 3/8	4 1/4	14 9/16	9 1/4	4	1
■	SAF236	7 1/2	26 3/4	7 1/8	3	23 5/8	20 7/8	4 5/8	15 1/2	9 11/16	4	1
■	SAF238	7 7/8	28	7 1/2	3 1/8	24 3/8	21 5/8	4 1/2	15 11/16	10 5/8	4	1 1/4
■	SAF240	8 1/4	29 1/2	8	3 3/8	25	22 1/2	5	17 3/16	10 13/16	4	1 1/4
■	SAF244	9 1/2	32 3/4	8 3/4	3 3/4	27 7/8	24 3/4	5 1/4	19 5/8	11 1/2	4	1 1/2

#### NOTES:

Triple seal rings (LER series) and stabilizing ring (SR series) are included with the pillow block.

Stabilizing ring used only for "fixed" mounting, not used for "free" mounting.

Available in ductile iron as well (SAFD series)

\* Pillow blocks with 2-hole mounting base, all others have 4-hole mounting base.

#### Style



Round top

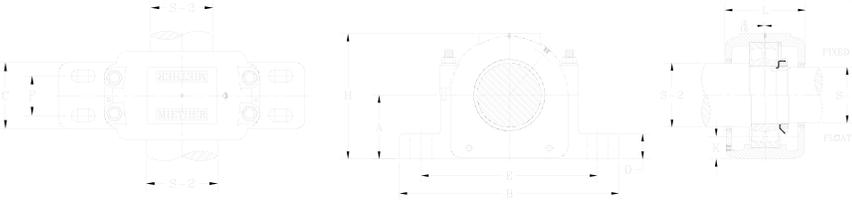


Flat top

# SAFS 200 SERIES

## Cast Steel (SAFS) Pillow Blocks

Straight Bore Mounting and  
Tapered Bore/Adapter Mounting



### SAFS-200 SERIES STRAIGHT BORE MOUNTING

STYLE	SHAFT DIA.		PILLOW BLOCK HOUSING ONLY	STABILIZING RING 1 REQUIRED	TRIPLE SEAL		LOCKNUT NO.	LOCKWASHER NO.	COMPLETE PILLOW BLOCK NO.	APP. WT. (LB.)
	S-2 IN.	S-3 IN.			S-2 SHAFT 1 REQUIRED	S-3 SHAFT 1 REQUIRED				
SAFS217*	3 15/16	3 3/16	SAFS217*	SR-17-14	LER89	LER63	AN17	W17	SAFS22217	43
FSAFS217	3 15/16	3 3/16	FSAFS217	SR-17-14	LER89	LER63	AN17	W17	FSAFS22217	43
SAFS218*	4 1/8	3 3/8	SAFS218*	SR-18-15	LER96	LER72	AN18	W18	SAFS22218	50
FSAFS218	4 1/8	3 3/8	FSAFS218	SR-18-15	LER96	LER72	AN18	W18	FSAFS22218	50
SAFS220*	4 1/2	3 13/16	SAFS220*	SR-20-17	LER118	LER106	AN20	W20	SAFS22220	71
FSAFS220	4 1/2	3 13/16	FSAFS220	SR-20-17	LER118	LER106	AN20	W20	FSAFS22220	71
SAFS222	4 7/8	4 3/16	SAFS222	SR-22-19	LER121	LER113	AN22	W22	SAFS22222	81
SAFS224	5 5/16	4 9/16	SAFS224	SR-24-20	LER127	LER119	AN24	W24	SAFS22224	90
SAFS226	5 7/8	4 15/16	SAFS226	SR-26-0	LER136	LER122	AN26	W26	SAFS22226	127
SAFS228	6 1/4	5 5/16	SAFS228	SR-28-0	LER144	LER127	AN28	W28	SAFS22228	149
SAFS230	6 5/8	5 3/4	SAFS230	SR-30-0	LER151	LER134	AN30	W30	SAFS22230	175
SAFS232	7	6 1/16	SAFS232	SR-32-0	LER156	LER142	AN32	W32	SAFS22232	210
SAFS234	7 7/16	6 7/16	SAFS234	SR-34-0	LER161	LER148	AN34	W34	SAFS22234	280
SAFS236	7 13/16	6 7/8	SAFS236	SR-36-30	LER165	LER154	AN36	W36	SAFS22236	305
SAFS238	8 3/8	7 1/4	SAFS238	SR-38-32	LER171	LER160	AN38	W38	SAFS22238	350
SAFS240	8 3/4	7 5/8	SAFS240	SR-40-34	LER175	LER164	AN40	W40	SAFS22240	420
SAFS244	9 9/16	8 5/16	SAFS244	SR-44-38	LER179	LER170	N44	W44	SAFS22244	590

### SAFS-200 SERIES STRAIGHT BORE MOUNTING

STYLE	PILLOW BLOCK HOUSING ONLY	A	B	C	D	E		F	H	L	BASE BOLTS REQUIRED	
						MAX.	MIN.				NO.	SIZE
SAFS217*	SAFS217*	3 3/4	13	3 1/2	1 3/16	11	9 7/8	---	7 3/8	4 15/16	2	3/4
FSAFS217	FSAFS217	3 3/4	13	3 1/2	1 3/16	11	9 7/8	2 1/8	7 3/8	4 15/16	4	5/8
SAFS218*	SAFS218*	4	13 3/4	3 7/8	1 5/16	11 5/8	10 3/8	---	7 3/4	5 5/8	2	3/4
FSAFS218	FSAFS218	4	13 3/4	3 7/8	1 5/16	11 5/8	10 3/8	2 1/8	7 3/4	5 5/8	4	5/8
SAFS220*	SAFS220*	4 1/2	15 1/4	4 3/8	1 3/4	13 1/8	11 5/8	---	8 11/16	5 7/8	2	7/8
FSAFS220	FSAFS220	4 1/2	15 1/4	4 3/8	1 3/4	13 1/8	11 5/8	2 3/8	8 11/16	5 7/8	4	3/4
SAFS222	SAFS222	4 15/16	16 1/2	4 3/4	1 29/32	14 1/2	12 5/8	2 3/4	9 5/8	6 1/4	4	3/4
SAFS224	SAFS224	5 1/4	16 1/2	4 3/4	2 1/8	14 1/2	13 1/4	2 3/4	10 1/4	7 1/8	4	3/4
SAFS226	SAFS226	6	18 3/8	5 1/8	2 9/32	16	14 5/8	3 1/4	11 1/2	7 3/4	4	7/8
SAFS228	SAFS228	6	20 1/8	5 7/8	2 13/32	17 1/8	16	3 3/8	11 3/4	7 3/8	4	1
SAFS230	SAFS230	6 5/16	21 1/4	6 1/4	2 13/32	18 1/4	17	3 3/4	12 1/2	8 1/8	4	1
SAFS232	SAFS232	6 11/16	22	6 1/4	2 5/8	19 1/4	17 3/8	3 3/4	13 5/16	8 1/2	4	1
SAFS234	SAFS234	7 1/16	24 3/4	6 3/4	2 3/4	21 5/8	19 3/8	4 1/4	14 3/16	9 3/8	4	1
SAFS236	SAFS236	7 1/2	26 3/4	7 1/8	3	23 5/8	20 7/8	4 5/8	14 7/8	10	4	1
SAFS238	SAFS238	7 7/8	28	7 1/2	3 1/8	24 3/8	21 5/8	4 1/2	15 11/16	10 1/2	4	1 1/4
SAFS240	SAFS240	8 1/4	29 1/2	8	3 3/8	25	22 1/2	5	17 3/16	11	4	1 1/4
SAFS244	SAFS244	9 1/2	32 3/4	8 3/4	3 3/4	27 7/8	24 3/4	5 1/4	19 5/8	11 5/8	4	1 1/2

#### NOTES:

Triple seal rings (LER series) and stabilizing ring (SR series) are included with the pillow block.

Stabilizing ring used only for "fixed" mounting, not used for "free" mounting.

\* Pillow blocks with 2-hole mounting base, all others have 4-hole mounting base.

#### Style

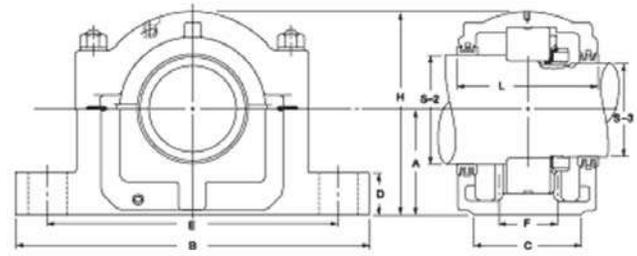


Flat top

# SAF/SAFD/SAFS 300 Series

## Cast Iron (SAF), Ductile Iron (SAFD), and Cast Steel (SAFS) Pillow Blocks

Straight Bore Mounting



### SAF-300 SERIES

STYLE	SHAFT DIA.		PILLOW BLOCK HOUSING ONLY	STABILIZING RING 1 REQUIRED	TRIPLE SEAL		LOCKNUT NO.	LOCKWASHER NO.	COMPLETE PILLOW BLOCK NO.	APP. WT. (LB.)
	S-2 IN.	S-3 IN.			S-2 SHAFT 1 REQUIRED	S-3 SHAFT 1 REQUIRED				
■	3 7/16	2 13/16	SAF315	SR-18-5	LER79	LER46	AN15	W15	SAF22315	53
■	3 15/16	3 3/16	SAF317*	SR-20-17	LER109	LER188	AN17	W17	SAF22317	80
■	3 15/16	3 3/16	FSAF317	SR-20-17	LER109	LER188	AN17	W17	FSAF22317	80
■	4 1/8	3 3/8	SAF318	SR-21-18	LER112	LER191	AN18	W18	SAF22318	92
■	4 1/2	3 13/16	SAF320	SR-24-20	LER118	LER106	AN20	W20	SAF22320	109
■	4 7/8	4 3/16	SAF322	SR-0-22	LER121	LER113	AN22	W22	SAF22322	145
■	5 5/16	4 9/16	SAF324	SR-0-24	LER127	LER119	AN24	W24	SAF22324	195
■	5 7/8	4 15/16	SAF326	SR-0-26	LER136	LER122	AN26	W26	SAF22326	235
■	6 1/4	5 5/16	SAF328	SR-0-28	LER144	LER127	AN28	W28	SAF22328	300
■	6 5/8	5 3/4	SAF330	SR-36-30	LER151	LER134	AN30	W30	SAF22330	335
■	7	6 1/16	SAF332	SR-38-32	LER156	LER142	AN32	W32	SAF22332	105
■	7 7/16	6 7/16	SAF334	SR-40-34	LER161	LER148	AN34	W34	SAF22334	465
■	7 11/16	6 7/8	SAF336	SR-0-36	LER165	LER154	AN36	W36	SAF22336	525
■	8 3/8	7 1/4	SAF338	SR-44-38	LER171	LER160	AN38	W38	SAF22338	635
■	8 3/4	7 5/8	SAF340	SR-0-40	LER175	LER164	AN40	W40	SAF22340	700

### SAF-300 SERIES

STYLE	PILLOW BLOCK HOUSING ONLY	A	B	C	D	E		F	H	L	BASE BOLTS REQUIRED	
						MAX.	MIN.				NO.	SIZE
■	SAF315	4	13 3/4	3 7/8	1 5/16	11 5/8	10 3/8	---	7 13/16	6 1/8	2	5/8
■	SAF317	4 1/2	15 1/4	4 3/8	1 3/4	13 1/8	11 5/8	---	8 11/16	6 5/8	2	7/8
■	FSAF317	4 1/2	15 1/4	4 3/8	1 3/4	13 1/8	11 5/8	2 3/8	8 11/16	6 5/8	4	3/4
■	SAF318	4 3/4	15 1/2	4 3/8	2	13 1/2	12	2 1/4	9 3/16	6 7/8	4	3/4
■	SAF320	5 1/4	16 1/2	4 3/4	2 1/8	14 1/2	13 1/4	2 3/4	10 1/4	7 1/4	4	3/4
■	SAF322	6	18 3/8	5 1/8	2 3/8	16	14 5/8	3 1/4	11 9/16	7 7/8	4	7/8
■	SAF324	6 5/16	21 1/4	6 1/4	2 1/2	18 1/4	17	3 3/4	12 1/2	8 1/4	4	1
■	SAF326	6 11/16	22	6 1/4	2 5/8	19 1/4	17 3/8	3 3/4	13 5/16	8 5/8	4	1
■	SAF328	7 1/16	24 3/4	6 3/4	2 1/4	21 5/8	19 3/8	4 1/4	14 9/16	9 1/4	4	1
■	SAF330	7 1/2	26 3/4	7 1/8	3	23 5/8	20 7/8	4 5/8	15 1/2	9 11/16	4	1
■	SAF332	7 7/8	28	7 1/2	3 1/8	24 3/8	21 5/8	4 1/2	15 11/16	10 5/8	4	1 1/4
■	SAF334	8 1/4	29 1/2	8	3 3/8	25	22 1/2	5	17 3/16	10 13/16	4	1 1/4
■	SAF336	8 7/8	31 1/4	8 1/4	3 1/2	26 5/8	24	5 1/4	18 1/2	11 1/4	4	1 1/4
■	SAF338	9 1/2	32 3/4	8 3/4	3 3/4	28 1/8	24 3/4	5 1/4	19 5/8	11 1/2	4	1 1/2
■	SAF340	9 7/8	34 1/4	9	4 3/32	29 1/2	26 1/4	5 1/2	20 3/16	12 1/4	4	1 1/2

#### NOTES:

Triple seal rings (LER series) and stabilizing ring (SR series) are included with the pillow block.

Stabilizing ring used only for "fixed" mounting, not used for "free" mounting.

Available in ductile iron (SAFD series) as well as cast steel (SAFS)

All SAFS series are flat top style

\* Pillow blocks with 2-hole mounting base, all others have 4-hole mounting base.

#### Style

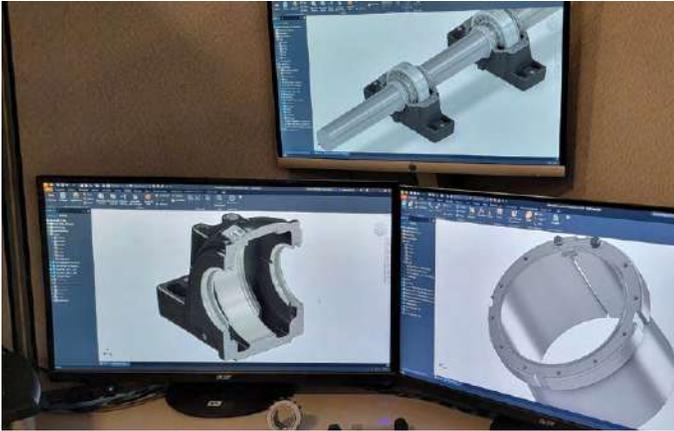


Round top



Flat top

# Standard Locknut provides a range of customized services



## Custom engineering

Our engineering team can work with you to design a bearing solution and accessory product that will fit your needs. We provide:

- Custom-designed or modified standard bearing housings, adapter assemblies, accessories, and seal configurations to meet specific application requirements
- CAD and 3D Modeling
- Pattern and tooling design and manufacturing
- Specialty coatings for protection in extreme environments



## Customized machining

Our Westfield, IN based manufacturing facilities are equipped to machine products larger than 62" (1575mm) in diameter if required. Our customers work one-on-one with our in-house engineering team to create innovative, high-quality solutions to virtually any component or assembly need.



## Precision engineering made easy

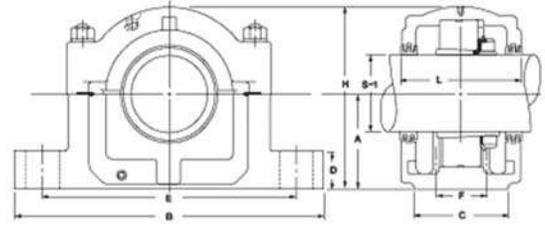
At Standard Locknut, our partners know they can count on us to provide the highest quality mounted bearings, accessories and components to suit individual applications. Our experienced team of engineers will work closely with you to evaluate your application needs and design a customized solution.

**Our mission is simple: to make your next mounted bearing and accessory project easy.**

# SAF/SAFD 500 SERIES

## Cast Iron (SAF) and Ductile Iron (SAFD) Pillow Blocks

Tapered Bore/Adapter Mounting



### SAF-500 SERIES

STYLE	SHAFT DIA. S-1 IN.	PILLOW BLOCK HOUSING ONLY	STABILIZING RING	TRIPLE SEAL	COMPLETE PILLOW BLOCK NO.	ADAPTER NO.	APP. WT. (LB.)
			1 REQUIRED	2 REQUIRED			
■	1 11/16	SAF510**	SR-10-8	LER20	SAF22510	SNW-10	12
■	1 15/16	SAF511**	SR-11-0	LER24	SAF22511	SNW-11	14
■	2 3/16	SAF513**	SR-13-0	LER29	SAF22513	SNW-13	21
■	2 7/16	SAF515*	SR-15-0	LER37	SAF22515	SNW-15	24
■	2 7/16	FSAF515	SR-15-0	LER37	FSAF22515	SNW-15	32
■	2 11/16	SAF516*	SR-16-13	LER44	SAF22516	SNW-16	37
■	2 11/16	FSAF516	SR-16-13	LER44	FSAF22516	SNW-16	37
■	2 15/16	SAF517*	SR-17-14	LER53	SAF22517	SNW-17	40
■	2 15/16	FSAF517	SR-17-14	LER53	FSAF22517	SNW-17	40
■	3 3/16	SAF518*	SR-18-15	LER69	SAF22518	SNW-18	49
■	3 3/16	FSAF518	SR-18-15	LER69	FSAF22518	SNW-18	49
■	3 7/16	SAF520*	SR-20-17	LER102	SAF22520	SNW-20	65
■	3 7/16	FSAF520	SR-20-17	LER102	FSAF22520	SNW-20	65
■	3 15/16	SAF522	SR-22-19	LER109	SAF22522	SNW-22	81
■	4 3/16	SAF524	SR-24-20	LER113	SAF22524	SNW-24	94
■	4 7/16	SAF526	SR-26-0	LER117	SAF22526	SNW-26	137
■	4 15/16	SAF528	SR-28-0	LER122	SAF22528	SNW-28	159
■	5 3/16	SAF530	SR-30-0	LER125	SAF22530	SNW-30	189
■	5 7/16	SAF532	SR-32-0	LER130	SAF22532	SNW-32	225
■	5 15/16	SAF534	SR-34-0	LER140	SAF22534	SNW-34	300
■	6 7/16	SAF536	SR-36-30	LER148	SAF22536	SNW-36	330
■	6 15/16	SAF538	SR-38-32	LER155	SAF22538	SNW-38	375
■	7 3/16	SAF540	SR-40-34	LER159	SAF22540	SNW-40	445
■	7 15/16	SAF544	SR-44-38	LER167	SAF22544	SNW-44	615

### SAF-500 SERIES

STYLE	PILLOW BLOCK HOUSING ONLY	A	B	C	D	E		F	H	L	BASE BOLTS REQUIRED	
						MAX.	MIN.				NO.	SIZE
■	SAF510**	2 1/2	8 1/4	2 3/8	15/16	7	6 1/2	--	4 11/16	3 7/16	2	7/16
■	SAF511**	2 3/4	9 5/8	2 3/4	15/16	7 7/8	7 3/8	--	5 1/32	3 3/4	2	5/8
■	SAF513**	3	11	3 1/8	1	9 1/2	8 1/8	--	5 25/32	4 5/16	2	5/8
■	SAF515*	3 1/4	11 1/4	3 1/8	1 1/8	9 5/8	8 5/8	--	6 3/8	4 3/4	2	5/8
■	FSAF515	3 1/4	11 1/4	3 1/8	1 1/8	9 5/8	8 5/8	1 7/8	6 3/8	4 3/4	4	1/2
■	SAF516*	3 1/2	13	3 1/2	1 3/16	11	9 5/8	--	6 7/8	4 7/8	2	3/4
■	FSAF516	3 1/2	13	3 1/2	1 3/16	11	9 5/8	2 1/8	6 7/8	4 7/8	4	5/8
■	SAF517*	3 3/4	13	3 1/2	1 1/4	11	9 7/8	--	7 1/4	4 7/8	2	3/4
■	FSAF517	3 3/4	13	3 1/2	1 1/4	11	9 7/8	2 1/8	7 1/4	4 7/8	4	5/8
■	SAF518*	4	13 3/4	3 7/8	1 1/2	11 5/8	10 3/8	--	7 3/4	6 1/8	2	3/4
■	FSAF518	4	13 3/4	3 7/8	1 1/2	11 5/8	10 3/8	2 1/8	7 3/4	6 1/8	4	5/8
■	SAF520*	4 1/2	15 1/4	4 3/8	1 3/4	13 1/8	11 5/8	--	8 11/16	5 7/8	2	7/8
■	FSAF520	4 1/2	15 1/4	4 3/8	1 11/16	13 1/8	11 5/8	2 3/8	8 11/16	5 7/8	4	3/4
■	SAF522	4 15/16	16 1/2	4 3/4	2	14 7/16	12 11/16	2 3/4	9 9/16	6 1/4	4	3/4
■	SAF524	5 1/4	16 1/2	4 3/4	2 1/8	14 1/2	13 1/4	2 3/4	10 1/4	7 1/4	4	3/4
■	SAF526	6	18 3/8	5 1/8	2 3/8	16	14 5/8	3 1/4	11 9/16	7 7/8	4	7/8
■	SAF528	6	20 1/8	5 7/8	2 3/8	17 1/8	16	3 3/8	11 3/4	7 5/8	4	1
■	SAF530	6 5/16	21 1/4	6 1/4	2 1/2	18 1/4	17	3 3/4	12 1/2	8 1/4	4	1
■	SAF532	6 11/16	22	6 1/4	2 5/8	19 1/4	17 3/8	3 3/4	13 5/16	8 5/8	4	1
■	SAF534	7 1/16	24 3/4	6 3/4	2 13/16	21 5/8	19 3/8	4 1/4	14 9/16	9 1/4	4	1
■	SAF536	7 1/2	26 3/4	7 1/8	3	23 5/8	20 7/8	4 5/8	15 1/2	9 11/16	4	1
■	SAF538	7 7/8	28	7 1/2	3 1/8	24 3/8	21 5/8	4 1/2	15 11/16	10 5/8	4	1 1/4
■	SAF540	8 1/4	29 1/2	8	3 3/8	25	22 1/2	5	17 3/16	10 5/8	4	1 1/4
■	SAF544	9 1/2	32 3/4	8 3/4	3 3/4	27 7/8	24 3/4	5 1/4	19 5/8	11 1/2	4	1 1/2

#### NOTES:

Triple seal rings (LER series) and stabilizing ring (SR series) are included with the pillow block.

Stabilizing ring used only for "fixed" mounting, not used for "free" mounting.

Available in ductile iron as well (SAFD series)

\* Pillow blocks with 2-hole mounting base, all others have 4-hole mounting base.

\*\* 2-Bolt cap and 2-bolt base.

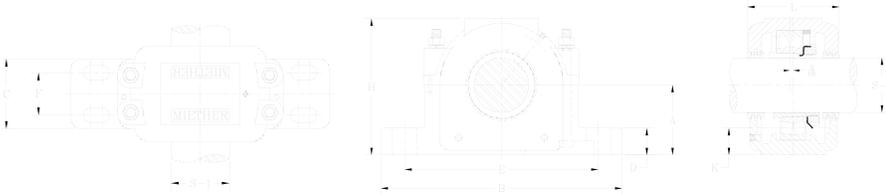
#### Style



Round top



Flat top



## Cast Steel (SAFS) Pillow Blocks

Straight Bore Mounting and  
Tapered Bore/Adapter Mounting

### SAFS-500 ADAPTER MOUNTING

STYLE	SHAFT DIA.	PILLOW BLOCK HOUSING ONLY	STABILIZING RING	TRIPLE SEAL		LOCKNUT NO.	LOCKWASHER NO.	COMPLETE PILLOW BLOCK	APP. WT. (LB.)
	S-1 IN.			S-2 SHAFT 2 REQUIRED	S-3 SHAFT	ADAPTER NO.			
■ 2 7/16		SAFS515*	SR-15-0	LER37		SNW-15		SAFS22515	30
■ 2 7/16		FSAFS515	SR-15-0	LER37		SNW-15		FSAFS22515	30
■ 2 11/16		SAFS516*	SR-16-13	LER44		SNW-16		SAFS22516	37
■ 2 11/16		FSAFS516	SR-16-13	LER44		SNW-16		FSAFS22516	37
■ 2 15/16		SAFS517*	SR-17-14	LER53		SNW-17		SAFS22517	40
■ 2 15/16		FSAFS517	SR-17-14	LER53		SNW-17		FSAFS22517	40
■ 3 3/16		SAFS518*	SR-18-15	LER69		SNW-18		SAFS22518	49
■ 3 3/16		FSAFS518	SR-18-15	LER69		SNW-18		FSAFS22518	49
■ 3 7/16		SAFS520*	SR-20-17	LER102		SNW-20		SAFS22520	65
■ 3 7/16		FSAFS520	SR-20-17	LER102		SNW-20		FSAFS22520	65
■ 3 15/16		SAFS522	SR-22-19	LER109		SNW-22		SAFS22522	81
■ 4 3/16		SAFS524	SR-24-20	LER113		SNW-24		SAFS22524	94
■ 4 7/16		SAFS526	SR-26-0	LER117		SNW-26		SAFS22526	137
■ 4 15/16		SAFS528	SR-28-0	LER122		SNW-28		SAFS22528	159
■ 5 3/16		SAFS530	SR-30-0	LER125		SNW-30		SAFS22530	189
■ 5 7/16		SAFS532	SR-32-0	LER130		SNW-32		SAFS22532	225
■ 5 15/16		SAFS534	SR-34-0	LER140		SNW-34		SAFS22534	300
■ 6 7/16		SAFS536	SR-36-30	LER148		SNW-36		SAFS22536	330
■ 6 15/16		SAFS538	SR-38-32	LER155		SNW-38		SAFS22538	375
■ 7 3/16		SAFS540	SR-40-34	LER159		SNW-40		SAFS22540	445
■ 7 15/16		SAFS544	SR-44-34	LER167		SNW-44		SAFS22544	615

### SAFS-500 ADAPTER MOUNTING

PILLOW BLOCK STYLE	HOUSING ONLY	A	B	C	D	E		F	H	L	BASE BOLTS REQUIRED	
						MAX.	MIN.				NO.	SIZE
■ SAFS515*		3 1/8	11 1/4	3 1/8	1 1/8	9 5/8	8 5/8	---	6 3/8	4 11/16	2	5/8
■ FSAFS515		3 1/8	11 1/4	3 1/8	1 1/8	9 5/8	8 5/8	1 7/8	6 3/8	4 11/16	4	1/2
■ SAFS516*		3 1/2	13	3 1/2	1 1/4	11	9 5/8	---	6 7/8	4 53/64	2	3/4
■ FSAFS516		3 1/2	13	3 1/2	1 1/4	11	9 5/8	2 1/8	6 7/8	4 53/64	4	5/8
■ SAFS517*		3 7/8	13	3 1/2	1 3/16	11	9 7/8	---	7 3/8	4 13/16	2	3/4
■ FSAFS517		3 7/8	13	3 1/2	1 3/16	11	9 7/8	2 1/8	7 3/8	4 13/16	4	5/8
■ SAFS518*		4	13 3/4	3 7/8	1 5/16	11 5/8	10 3/8	---	7 3/4	5 5/8	2	7/8
■ FSAFS518		4	13 3/4	3 7/8	1 5/16	11 5/8	10 3/8	2 1/8	7 3/4	5 5/8	4	3/4
■ SAFS520*		4 1/2	15 1/4	4 3/8	1 3/4	13 1/8	11 5/8	---	8 11/16	5 7/8	2	3/4
■ FSAFS520		4 1/2	15 1/4	4 3/8	1 3/4	13 1/8	11 5/8	2 3/8	8 11/16	5 7/8	4	3/4
■ SAFS522		4 15/16	16 1/2	4 3/4	1 29/32	14 1/2	12 5/8	2 3/4	9 5/8	6 1/4	4	7/8
■ SAFS524		5 1/4	16 1/2	4 3/4	2 1/8	14 1/2	13 1/4	2 3/4	10 1/4	7 1/8	4	1
■ SAFS526		6	18 3/8	5 1/8	2 9/32	16	14 5/8	3 1/4	11 1/2	7 1/2	4	1
■ SAFS528		6	20 1/8	5 7/8	2 13/32	17 1/8	16	3 3/8	11 3/4	7 3/8	4	1
■ SAFS530		6 5/16	21 1/4	6 1/4	2 13/32	18 1/4	17	3 3/4	12 1/2	8 1/8	4	1
■ SAFS532		6 11/16	22	6 1/4	2 5/8	19 1/4	17 3/8	3 3/4	13 5/16	8 1/2	4	1
■ SAFS534		7 1/16	24 3/4	6 3/4	2 3/4	21 5/8	19 3/8	4 1/4	14 3/16	9 3/8	4	1
■ SAFS536		7 1/2	26 3/4	7 1/8	3	23 5/8	20 7/8	4 5/8	14 7/8	10	4	1
■ SAFS538		7 1/8	28	7 1/2	3 1/8	24 3/8	21 5/8	4 1/2	15 11/16	10 1/2	4	1 1/4
■ SAFS540		8 1/4	29 1/2	8	3 3/8	25	22 1/2	5	16 1/2	11	4	1 1/4
■ SAFS544		9 1/2	32 3/4	8 3/4	3 3/4	27 7/8	24 3/4	5 1/4	18 5/8	11 5/8	4	1 1/2

#### NOTES:

Triple seal rings (LER series) and stabilizing ring (SR series) are included with the pillow block.

Stabilizing ring used only for "fixed" mounting, not used for "free" mounting.

\* Pillow blocks with 2-hole mounting base, all others have 4-hole mounting base.

#### Style

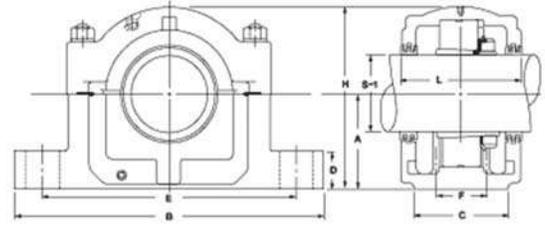


Flat top

# SAF/SAFD/SAFS 600 Series

## Cast Iron (SAF), Ductile Iron (SAFD), and Cast Steel (SAFS) Pillow Blocks

Tapered Bore/Adapter Mounting



### SAF-600 SERIES

STYLE	SHAFT DIA. S-1 IN.	PILLOW BLOCK HOUSING ONLY	STABILIZING RING	TRIPLE SEAL	COMPLETE PILLOW BLOCK NO.	ADAPTER NO.	APP. WT. (LB.)
			1 REQUIRED	2 REQUIRED			
■	2 7/16	SAF615	SR-18-15	LER37	SAF22615	SNW-115	55
■	2 15/16	SAF617*	SR-20-17	LER184	SAF22617	SNW-117	81
■	2 15/16	FSAF617	SR-20-17	LER184	FSAF22617	SNW-117	81
■	3 3/16	SAF618	SR-21-18	LER188	SAF22618	SNW-118	90
■	3 7/16	SAF620	SR-24-20	LER102	SAF22620	SNW-120	113
■	3 15/16	SAF622	SR-0-22	LER109	SAF22622	SNW-122	151
■	4 3/16	SAF624	SR-0-24	LER113	SAF22624	SNW-124	201
■	4 7/16	SAF626	SR-0-26	LER117	SAF22626	SNW-126	245
■	4 15/16	SAF628	SR-0-28	LER122	SAF22628	SNW-128	310
■	5 3/16	SAF630	SR-36-30	LER125	SAF22630	SNW-130	350
■	5 7/16	SAF632	SR-38-32	LER130	SAF22632	SNW-132	420
■	5 15/16	SAF634	SR-40-34	LER140	SAF22634	SNW-134	485
■	6 7/16	SAF636	SR-0-36	LER148	SAF22636	SNW-136	545
■	6 15/16	SAF638	SR-44-38	LER155	SAF22638	SNW-138	665
■	7 3/16	SAF640	SR-0-40	LER159	SAF22640	SNW-140	725

### SAF-600 SERIES

STYLE	PILLOW BLOCK HOUSING ONLY	A	B	C	D	E		F	H	L	BASE BOLTS REQUIRED	
						MAX.	MIN.				NO.	SIZE
■	SAF615	4	13 3/4	3 7/8	1 5/16	11 5/8	10 3/8	--	7 13/16	6 1/8	2	5/8
■	SAF617*	4 1/2	15 1/4	4 3/8	1 3/4	13 1/8	11 5/8	--	8 11/16	6 5/8	2	7/8
■	FSAF617	4 1/2	15 1/4	4 3/8	1 3/4	13 1/8	11 5/8	2 3/8	8 11/16	6 5/8	4	3/4
■	SAF618	4 3/4	15 1/2	4 3/8	2	13 1/2	12	2 1/4	9 3/16	6 7/8	4	3/4
■	SAF620	5 1/4	16 1/2	4 3/4	2 1/8	14 1/2	13 1/4	2 3/4	10 1/4	7 1/4	4	3/4
■	SAF622	6	18 3/8	5 1/8	2 3/8	16	14 5/8	3 1/4	11 9/16	7 7/8	4	7/8
■	SAF624	6 5/16	21 1/4	6 1/4	2 1/2	18 1/4	17	3 3/4	12 1/2	8 1/4	4	1
■	SAF626	6 11/16	22	6 1/4	2 5/8	19 1/4	17 3/8	3 3/4	13 5/16	8 5/8	4	1
■	SAF628	7 1/16	24 3/4	6 3/4	2 3/4	21 5/8	19 3/8	4 1/4	14 9/16	9 1/4	4	1
■	SAF630	7 1/2	26 3/4	7 1/8	3	23 5/8	20 7/8	4 5/8	15 1/2	9 11/16	4	1
■	SAF632	7 7/8	28	7 1/2	3 1/8	24 3/8	21 5/8	4 1/2	15 11/16	10 5/8	4	1 1/4
■	SAF634	8 1/4	29 1/2	8	3 3/8	25	22 1/2	5	17 3/16	10 13/16	4	1 1/4
■	SAF636	8 7/8	31 1/4	8 1/4	3 1/2	26 5/8	24	5 1/4	18 1/2	11 1/4	4	1 1/4
■	SAF638	9 1/2	32 3/4	8 3/4	3 3/4	27 7/8	24 1/4	5 1/4	19 5/8	11 1/2	4	1 1/2
■	SAF640	9 7/8	34 1/4	9	4 3/32	29 1/2	26 1/4	5 1/2	20 3/16	12 1/4	4	1 1/2

#### NOTES:

Triple seal rings (LER series) and stabilizing ring (SR series) are included with the pillow block.

Stabilizing ring used only for "fixed" mounting, not used for "free" mounting.

Available in ductile iron (SAFD series) as well as cast steel (SAFS series)

All SAFS series are flat top style

\* Pillow blocks with 2-hole mounting base, all others have 4-hole mounting base.

\*\* 2-Bolt cap and 2-bolt base.

#### Style



Round top



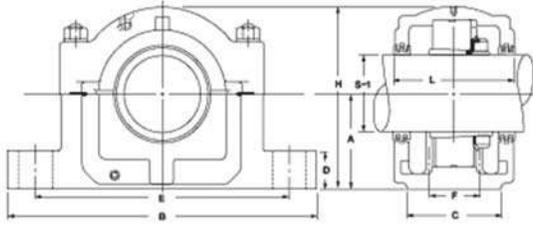
Flat top

# SAF/SAFD/SAFS 230 Series

## Cast Iron (SAF), Ductile Iron (SAFD), and Cast Steel (SAFS) Pillow Blocks

Tapered Bore/Adapter Mounting

**Large Bore**



### SAF-230 SERIES

STYLE	SHAFT DIA. S-1 IN.	PILLOW BLOCK HOUSING ONLY	SHAFT DIA.	STABILIZING RING		TRIPLE SEAL		COMPLETE PILLOW BLOCK NO.	ADAPTER NO.	APP. WT. (LB.)
				1 REQUIRED	2 REQUIRED	1 REQUIRED	2 REQUIRED			
■	4 3/16	SAF024		SR-20-17		LER113		SAF23024	SNW-3024	60
■	4 7/16	SAF026		SR-22-19		LER117		SAF23026	SNW-3026	76
■	4 15/16	SAF028		SR-0-20		LER122		SAF23028	SNW-3028	90
■	5 7/16	SAF032		SR-0-22		LER130		SAF23032	SNW-3032	132
■	6 15/16	SAF038		SR-32-0		LER155		SAF23038	SNW-3038	220
■	7 3/16	SAF040		SR-34-0		LER159		SAF23040	SNW-3040	295
■	7 15/16	SAF044		SR-38-32		LER167		SAF23044	SNW-3044	370
■	8 7/16	SAF048	8 7/16	A8897		LER526		SAF23048	SNP-3048	430
■	8 1/2	SAF048	8 1/2	A8897		LER527		SAF23048	SNP-3048	428
■	8 15/16	SAF048	8 15/16	A8897		LER529		SAF23048	SNP-3048	422
■	9	SAF048	9	A8897		LER530		SAF23048	SNP-3048	420
■	9 7/16	SAF052	9 7/16	A8898		LER178-1		SAF23052	SNP-3052	587
■	9 1/2	SAF052	9 1/2	A8898		LER178		SAF23052	SNP-3052	585
■	9 15/16	SAF056	9 15/16	A8819		ER751		SAF23056	SNP-3056	640
■	10	SAF056	10	A8819		ER705		SAF23056	SNP-3056	635
■	10 7/16	SAF056	10 7/16	A8819		ER745		SAF23056	SNP-3056	625
■	10 1/2	SAF056	10 1/2	A8819		ER710		SAF23056	SNP-3056	620

### SAF-230 SERIES

STYLE	PILLOW BLOCK HOUSING ONLY	SHAFT DIA.	A	B	C	D	E		F	H	L	BASE BOLTS REQUIRED	
							MAX.	MIN.				NO.	SIZE
■	SAF024		4 1/2	15 1/4	4 3/8	1 3/4	13 1/8	11 5/8	2 3/8	8 11/16	5 7/8	4	3/4
■	SAF026		4 15/16	16 1/2	4 3/4	2	14 7/16	12 5/8	2 3/4	9 9/16	6 1/4	4	3/4
■	SAF028		5 1/4	16 1/2	4 3/4	2 1/8	14 1/2	13 1/4	2 3/4	10 1/4	7 1/4	4	3/4
■	SAF032		6	18 3/8	5 1/8	2 3/8	16	14 5/8	3 1/4	11 9/16	7 7/8	4	7/8
■	SAF038		6 11/16	22	6 1/4	2 5/8	19 1/4	17 3/8	3 3/4	13 5/16	8 5/8	4	1
■	SAF040		7 1/16	24 3/4	6 3/4	2 13/16	21 5/8	19 3/8	4 1/2	14 9/16	9 1/4	4	1
■	SAF044		7 7/8	28	7 1/2	3 1/8	24 3/8	21 5/8	4 1/2	15 11/16	10 5/8	4	
■	SAF048	8 7/16	8 1/4	29 1/2	8	3 3/8	25	22 1/2	5	17 3/16	10 13/16	4	1 1/4
■	SAF048	8 1/2	8 1/4	29 1/2	8	3 3/8	25	22 1/2	5	17 3/16	10 13/16	4	1 1/4
■	SAF048	8 15/16	8 1/4	29 1/2	8	3 3/8	25	22 1/2	5	17 3/16	10 13/16	4	1 1/4
■	SAF048	9	8 1/4	29 1/2	8	3 3/8	25	22 1/2	5	17 3/16	10 13/16	4	1 1/4
■	SAF052	9 7/16	9 1/2	32 3/4	8 3/4	3 3/4	27 7/8	24 3/4	5 1/4	19 5/8	11 1/2	4	1 1/2
■	SAF052	9 1/2	9 1/2	32 3/4	8 3/4	3 3/4	27 7/8	24 3/4	5 1/4	19 5/8	11 1/2	4	1 1/2
■	SAF056	9 15/16	9 7/8	34 1/4	9	4 3/32	29 1/2	26 1/4	5 1/2	20 3/16	12 1/4	4	1 1/2
■	SAF056	10	9 7/8	34 1/4	9	4 3/32	29 1/2	26 1/4	5 1/2	20 3/16	12 1/4	4	1 1/2
■	SAF056	10 7/16	9 7/8	34 1/4	9	4 3/32	29 1/2	26 1/4	5 1/2	20 3/16	12 1/4	4	1 1/2
■	SAF056	10 1/2	9 7/8	34 1/4	9	4 3/32	29 1/2	26 1/4	5 1/2	20 3/16	12 1/4	4	1 1/2

#### NOTES:

Triple seal rings (LER series) and stabilizing ring (SR series) are included with the pillow block.

Stabilizing ring used only for "fixed" mounting, not used for "free" mounting.

Available in ductile iron (SAFD series) as well as cast steel (SAFS series)

All SAFS series are flat top style

\* Pillow blocks with 2-hole mounting base, all others have 4-hole mounting base.

#### Style



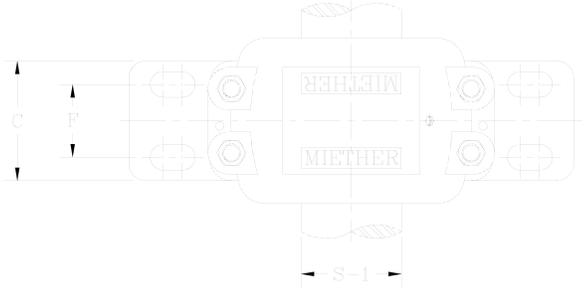
Round top



Flat top

## Split Pillow Blocks: How to order

- When you order SAW 23224 you receive;
  - 1 SAW 224 Housing (Housing, seal rings and Stab Ring).
  - 1 No. 23224 Bearing.
  - 1 No. AN Locknut, and 1 NO. W 24 Lockwasher.
- If you order a closed housing the proper end plug is included.
- All housings include stabilizing ring, either use or discard.
- Always specify shaft size when ordering.
- Housing styles include;
  - SAW Cast Iron
  - SAWS Cast Steel
- All Miether housings have four bolt cap.
- The sizes listed below are standard items.



### SAW 232 CYLINDRICAL MOUNTED PILLOW BLOCK PART NUMBERS

SHAFT DIAMETER		COMPLETE PILLOW BLOCK NUMBER	PILLOW BLOCK HOUSING ONLY	BEARING NUMBER	LOCKNUT	LOCK-WASHER	TRIPLE SEAL RING		STABILIZING RING (1 REQUIRED)
S-2 IN.	S-3 IN.						S-2 SHAFT 1 REQD'	S-3 SHAFT 1 REQD'	
4 7/8	4 3/16	*SAWS 23222	SAWS 222	23222	AN 22	W 22	LER 121 A	LER 113 A	SR- 22-19
5 5/16	4 9/16	SAW 23224	SAW 224	23224	AN 24	W 24	LER 127 A	LER 119 A	SR- 24-20
5 7/8	4 15/16	SAW 23226	SAW 226	23226	AN 26	W 26	LER 136 A	LER 122 A	SR- 26-0
6 1/4	5 5/16	** SAW 23228	SAW 228	23228	AN 28	W 28	LER 144 A	LER 127 A	SR- 28-0
6 5/8	5 3/4	** SAW 23230	SAW 230	23230	AN 30	W 30	LER 151 A	LER 134 A	SR- 30-0
7	6 1/16	SAW 23232	SAW 232	23232	AN 32	W 32	LER 156 A	LER 142 A	SR- 32-0
7 7/16	6 7/16	SAW 23234	SAW 234	23234	AN 34	W 34	LER 161 A	LER 148 A	SR- 34-0
7 13/16	6 7/8	SAW 23236	SAW 236	23236	AN 36	W 36	LER 165 A	LER 154 A	SR- 36-30
8 3/8	7 1/4	SAW 23238	SAW 238	23238	AN 38	W 38	LER 171 A	LER 160 A	SR- 38-32
8 3/4	7 5/8	SAW 23240	SAW 240	23240	AN 40	W 40	LER 175 A	LER 164 A	SR- 40-34
9 9/16	8 5/16	SAW 23244	SAW 244	23244	N 44	W 44	LER 179 A	LER 170 A	SR- 44-38

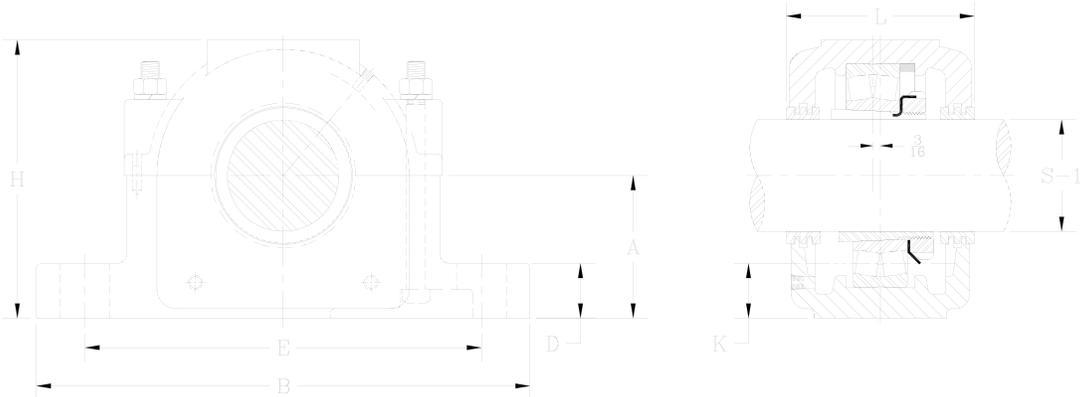
### SAW 235 ADAPTER MOUNTED PILLOW BLOCK PART NUMBERS

SHAFT DIAMETER S-1 IN.	COMPLETE PILLOW BLOCK NUMBER	PILLOW BLOCK HOUSING ONLY	BEARING NUMBER	ADAPTER LOCKNUT AND LOCKWASHER	TRIPLE SEAL RING (2 REQUIRED)	STABILIZING RING (1 REQUIRED)
3 15/16	* SAWS 23522 03-15	SAWS 522	23222 K	SNW 122	LER 109 A	SR- 22-19
4 3/16	SAW 23524 04-03	SAW 524	23224 K	SNW 124	LER 113 A	SR- 24-20
4 7/16	SAW 23526 04-07	SAW 526	23226 K	SNW 126	LER 117 A	SR- 26-0
4 15/16	** SAW 23528 04-15	SAW 528	23228 K	SNW 128	LER 122 A	SR- 28-0
5 3/16	** SAW 23530 05-03	SAW 530	23230 K	SNW 130	LER 125 A	SR- 30-0
5 7/16	SAW 23532 05-07	SAW 532	23232 K	SNW 132	LER 130 A	SR- 32-0
5 15/16	SAW 23534 05-15	SAW 534	23234 K	SNW 134	LER 140 A	SR- 34-0
6 7/16	SAW 23536 06-07	SAW 536	23236 K	SNW 136	LER 148 A	SR- 36-30
6 15/16	SAW 23538 06-15	SAW 538	23238 K	SNW 138	LER 155 A	SR- 38-32
7 3/16	SAW 23540 07-03	SAW 540	23240 K	SNW 140	LER 159 A	SR- 40-34
7 15/16	SAW 23544 07-15	SAW 544	23244 K	SNW 144	LER 167 A	SR- 44-38

\* Steel only \*\* Cast Iron Only



**Style**  
SAW/SAWS



### SAW 232 PILLOW BLOCK DIMENSIONS

A	B	C	D	E		F	H	K STATIC OIL LEVEL	L	BOLTS (NO. REQ'D) IN.	WEIGHT LBS. HOUSING LER,SR	COMPLETE PILLOW BLOCK NUMBER
				MAX IN.	MIN IN.							
IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.		
4 15/16	16 1/2	4 3/4	2	14 1/2	12 5/8	2 3/4	9 5/8	1 13/16	7 13/16	(4)- 3/4	90	*SAWS 23222
5 1/4	16 1/2	4 3/4	2 1/8	14 1/2	13 1/4	2 3/4	10 1/4	1 7/8	7 3/8	(4)- 3/4	91	SAW 23224
6	18 3/8	5 1/8	2 3/8	16	14 7/8	3 1/4	11 9/16	2 3/8	8	(4)- 7/8	125	SAW 23226
6	20 1/8	5 7/8	2 3/8	17 1/8	16	3 3/8	11 3/4	2 1/16	9 1/8	(4)- 1	140	** SAW 23228
6 5/16	21 1/4	6 1/4	2 1/2	18 1/4	17	3 3/4	12 1/2	2 1/16	8 3/8	(4)- 1	175	** SAW 23230
6 11/16	22	6 1/4	2 5/8	19 1/4	17 3/8	3 3/4	13 5/16	2 1/8	8 3/4	(4)- 1	202	SAW 23232
7 1/16	24 3/4	6 3/4	2 3/4	21 5/8	19 3/8	4 1/4	14 3/16	2 3/16	9 5/8	(4)- 1	248	SAW 23234
7 1/2	26 3/4	7 1/8	3	23 5/8	20 7/8	4 5/8	14 7/8	2 7/16	10	(4)- 1	290	SAW 23236
7 7/8	28	7 1/2	3 1/8	24 3/8	21 5/8	4 1/2	15 11/16	2 1/2	10 5/8	(4)- 1 1/4	322	SAW 23238
8 1/4	29 1/2	8	3 3/8	25	22 1/2	5	16 1/2	2 9/16	11 1/8	(4)- 1 1/4	348	SAW 23240
9 1/2	32 3/4	8 3/4	3 3/4	27 7/8	24 3/4	5 1/4	18 5/8	3 3/16	11 7/8	(4)- 1 1/2	448	SAW 23244

### SAW 235 PILLOW BLOCK DIMENSIONS

A	B	C	D	E		F	H	K STATIC OIL LEVEL	L	BOLTS (NO. REQ'D) IN.	WEIGHT LBS. HOUSING LER, SR	COMPLETE PILLOW BLOCK NUMBER
				MAX IN.	MIN IN.							
IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.		
4 15/16	16 1/2	4 3/4	2	14 1/2	12 5/8	2 3/4	9 5/8	1 13/16	7 13/16	(4)- 3/4	93	* SAW S 23522 03-15
5 1/4	16 1/2	4 3/4	2 1/8	14 1/2	13 1/4	2 3/4	10 1/4	1 7/8	7 3/8	(4)- 3/4	93	SAW 23524 04-03
6	18 3/8	5 1/8	2 3/8	16	14 7/8	3 1/4	11 9/16	2 3/8	8	(4)- 7/8	131	SAW 23526 04-07
6	20 1/8	5 7/8	2 3/8	17 1/8	16	3 3/8	11 3/4	2 1/16	9 1/8	(4)- 1	144	** SAW 23528 04-15
6 5/16	21 1/4	6 1/4	2 1/2	18 1/4	17	3 3/4	12 1/2	2 1/16	8 3/8	(4)- 1	182	** SAW 23530 05-03
6 11/16	22	6 1/4	2 5/8	19 1/4	17 3/8	3 3/4	13 5/16	2 1/8	8 3/4	(4)- 1	206	SAW 23532 05-07
7 1/16	24 3/4	6 3/4	2 3/4	21 5/8	19 3/8	4 1/4	14 3/16	2 3/16	9 5/8	(4)- 1	259	SAW 23534 05-15
7 1/2	26 3/4	7 1/8	3	23 5/8	20 7/8	4 5/8	14 7/8	2 7/16	10	(4)- 1	303	SAW 23536 06-07
7 7/8	28	7 1/2	3 1/8	24 3/8	21 5/8	4 1/2	15 11/16	2 1/2	10 5/8	(4)- 1 1/4	324	SAW 23538 06-15
8 1/4	29 1/2	8	3 3/8	25	22 1/2	5	16 1/2	2 9/16	11 1/8	(4)- 1 1/4	352	SAW 23540 07-03
9 1/2	32 3/4	8 3/4	3 3/4	27 7/8	24 3/4	5 1/4	18 5/8	3 3/16	11 7/8	(4)- 1 1/2	490	SAW 23544 07-15

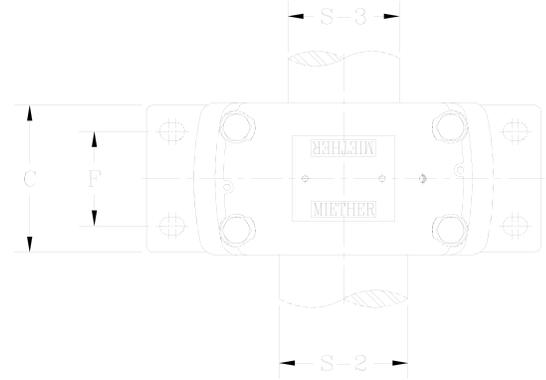


**Style**  
SAW/SAWS

# SDAF/SDAFD/SDAFS 200 & 300 Series

## Split Pillow Blocks: How to order

- When you order SDAF 22220 you receive;
  - 1 SDAF 220 Housing (Housing, seal rings and stabilizing ring).
  - 1 No. 22220 Bearing.
  - 1 No. AN 20 Locknut, 1 No. W 20 Lockwasher.
- If you order a closed housing the proper end plug is included.
- All housings include stabilizing ring, either use or discard.
- Always specify shaft size when ordering.
- Housing styles include;
  - SDAF - Cast Iron    SDAFD - Ductile Iron    SDAFS - Cast Steel
- All Miether housings have four bolt cap.
- The sizes listed below are standard items.



### SDAF 222 CYLINDRICAL MOUNTED PILLOW BLOCK PART NUMBERS

SHAFT DIAMETER		COMPLETE PILLOW BLOCK NUMBER	PILLOW BLOCK HOUSING ONLY	BEARING NUMBER	LOCKNUT	LOCK-WASHER	TRIPLE SEAL RING		STABILIZING RING (1 REQUIRED)
S-2 IN.	S-3 IN.						S-2 SHAFT 1 REQD'	S-3 SHAFT 1 REQD'	
4 1/2	3 13/16	SDAF 22220	SDAF 220	22220	AN20	W 20	LER 118	LER 106	SR- 20-17
4 7/8	4 3/16	*SDAFS 22222	SDAFS 222	22222	AN22	W 22	LER 121	LER 113	SR- 22-19
5 5/16	4 9/16	SDAF 22224	SDAF 224	22224	AN24	W 24	LER 127	LER 119	SR- 24-20
5 7/8	4 15/16	SDAF 22226	SDAF 226	22226	AN26	W 26	LER 136	LER 122	SR- 26-0
6 1/4	5 5/16	*SDAFS 22228	SDAFS 228	22228	AN28	W 28	LER 144	LER 127	SR- 28-0
6 5/8	5 3/4	SDAF 22230	SDAF 230	22230	AN30	W 30	LER 151	LER 134	SR- 30-0
7	6 1/16	SDAF 22232	SDAF 232	22232	AN32	W 32	LER 156	LER 142	SR- 32-0
7 7/16	6 7/16	SDAF 22234	SDAF 234	22234	AN34	W 34	LER 161	LER 148	SR- 34-0
7 13/16	6 7/8	SDAF 22236	SDAF 236	22236	AN36	W 36	LER 165	LER 154	SR- 36-30
8 3/8	7 1/4	SDAF 22238	SDAF 238	22238	AN38	W 38	LER 240	LER 229	SR- 38-32
8 3/4	7 5/8	SDAF 22240	SDAF 240	22240	AN40	W 40	LER 244	LER 233	SR- 40-34
9 9/16	8 5/16	SDAF 22244	SDAF 244	22244	N44	W 44	LER 248	LER 239	SR- 44-38

\* Available in Steel Only. All housings come with stabilizing ring. Use for fixed, discard for float. Use only one "Fixed" bearing per shaft.

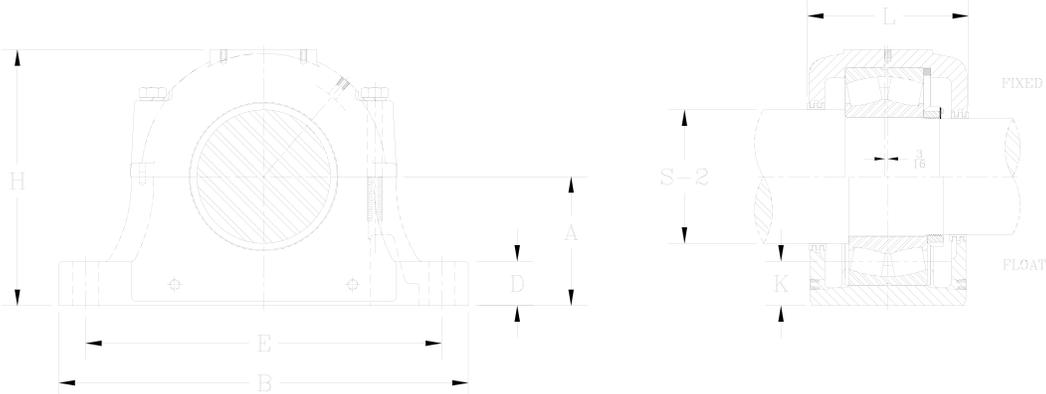
### SDAF 223 CYLINDRICAL MOUNTED PILLOW BLOCK PART NUMBERS

SHAFT DIAMETER		COMPLETE PILLOW BLOCK NUMBER	PILLOW BLOCK HOUSING ONLY	BEARING NUMBER	LOCKNUT	LOCK-WASHER	TRIPLE SEAL RING		STABILIZING RING (1 REQUIRED)
S-2 IN.	S-3 IN.						S-2 SHAFT 1 REQD'	S-3 SHAFT 1 REQD'	
3 15/16	3 3/16	SDAF 22317	SDAF 317	22317	AN 17	W 17	LER 109	LER 188	SR- 20-17
4 1/8	3 3/8	SDAF 22318	SDAF 318	22318	AN 18	W 18	LER 112	LER 191	SR- 21-18
4 1/2	3 13/16	SDAF 22320	SDAF 320	22320	AN 20	W 20	LER 118	LER 106	SR- 24-20
4 7/8	4 3/16	SDAF 22322	SDAF 322	22322	AN 22	W 22	LER 121	LER 113	SR- 0-22
5 5/16	4 9/16	SDAF 22324	SDAF 324	22324	AN 24	W 24	LER 127	LER 119	SR- 0-24
5 7/8	4 15/16	SDAF 22326	SDAF 326	22326	AN 26	W 26	LER 136	LER 122	SR- 0-26
6 1/4	5 5/16	SDAF 22328	SDAF 328	22328	AN 28	W 28	LER 144	LER 127	SR- 0-28
6 5/8	5 3/4	SDAF 22330	SDAF 330	22330	AN 30	W 30	LER 151	LER 134	SR- 36-30
7	6 1/16	SDAF 22332	SDAF 332	22332	AN 32	W 32	LER 225	LER 217	SR- 38-32
7 7/16	6 7/16	SDAF 22334	SDAF 334	22334	AN 34	W 34	LER 230	LER 220	SR- 40-34
7 13/16	6 7/8	SDAF 22336	SDAF 336	22336	AN 36	W 36	LER 234	LER 223	SR- 0-36
8 3/8	7 1/4	SDAF 22338	SDAF 338	22338	AN 38	W 38	LER 240	LER 229	SR- 44-38
8 3/4	7 5/8	SDAF 22340	SDAF 340	22340	AN 40	W 40	LER 244	LER 233	SR- 0-40



**Style**  
SDAF/SDAFD/SDAFS

# SDAF/SDAFD/SDAFS 200 & 300 Series



## SDAF 222

### PILLOW BLOCK DIMENSIONS

A	B	C	D	E		F	H	K	L	BOLTS (NO. REQ'D)	WEIGHT LBS. HOUSING LER, SR	COMPLETE PILLOW BLOCK NUMBER
				MAX IN.	MIN IN.							
IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.		
4 1/2	15 1/4	6	1 7/8	13 1/8	11 5/8	3 3/8	8 15/16	1 3/4	6 3/4	(4)- 3/4	76	SDAF 22220
4 15/16	16 1/2	6 3/4	2 1/8	14 1/2	12 5/8	4	9 7/8	1 7/8	7 1/4	(4)- 7/8	101	*SDAFS 22222
5 1/4	16 1/2	6 7/8	2 1/4	14 1/2	13 1/4	4 1/8	10 1/2	1 15/16	7 3/8	(4)- 7/8	99	SDAF 22224
6	18 3/8	7 1/2	2 3/8	16	14 5/8	4 1/2	11 7/8	2 7/16	8	(4)- 1	153	SDAF 22226
6	20 1/8	7 1/2	2 3/8	17 1/8	16	4 1/2	12 1/16	2 1/8	7 13/16	(4)- 1 1/8	160	*SDAFS 22228
6 5/16	21 1/4	7 7/8	2 1/2	18 1/4	17	4 3/4	12 13/16	2 3/16	8 3/8	(4)- 1 1/8	181	SDAF 22230
6 11/16	22	8 1/4	2 1/2	19 1/4	17 3/8	5	13 11/16	2 3/16	8 3/4	(4)- 1 1/8	214	SDAF 22232
7 1/16	24 3/4	9	2 1/2	21 5/8	19 3/8	5 1/2	14 1/4	2 5/16	9 5/8	(4)- 1 1/4	261	SDAF 22234
7 1/2	26 3/4	9 3/8	2 3/4	23 5/8	20 7/8	5 7/8	15 3/16	2 9/16	10	(4)- 1 1/4	333	SDAF 22236
7 7/8	27 5/8	10	3	23 1/2	21 1/2	6 1/4	16 1/4	2 5/8	10 5/8	(4)- 1 3/8	379	SDAF 22238
8 1/4	28 3/4	10 1/2	3 1/4	25	23	6 3/4	17 1/8	2 11/16	11 1/8	(4)- 1 3/8	420	SDAF 22240
9 1/2	32	11 1/4	3 1/2	27 7/8	25 5/8	7 1/4	19 1/4	3 3/8	12 3/16	(4)- 1 1/2	624	SDAF 22244

\* Available in Steel Only. All housings come with stabilizing ring. Use for fixed, discard for float. Use only one "Fixed" bearing per shaft.

## SDAF 223

### PILLOW BLOCK DIMENSIONS

A	B	C	D	E		F	H	K	L	BOLTS (NO. REQ'D)	WEIGHT LBS. HOUSING LER, SR	COMPLETE PILLOW BLOCK NUMBER
				MAX IN.	MIN IN.							
IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.		
4 1/2	15 1/4	6	1 7/8	13 1/8	11 5/8	3 3/8	8 15/16	1 13/16	6 3/4	(4)- 3/4	77	SDAF 22317
4 3/4	15 1/2	6 1/8	2	13 1/2	12	3 5/8	9 7/16	2	6 7/8	(4)- 3/4	93	SDAF 22318
5 1/4	16 1/2	6 7/8	2 1/4	14 1/2	13 1/4	4 1/8	10 1/2	2 1/8	7 3/8	(4)- 7/8	101	SDAF 22320
6	18 3/8	7 1/2	2 3/8	16	14 5/8	4 1/2	11 7/8	2 1/2	8	(4)- 1	147	SDAF 22322
6 5/16	21 1/4	7 7/8	2 1/2	18 1/4	17	4 3/4	12 13/16	2 9/16	8 3/8	(4)- 1 1/8	173	SDAF 22324
6 11/16	22	8 1/4	2 1/2	19 1/4	17 3/8	5	13 11/16	2 5/8	8 3/4	(4)- 1 1/8	205	SDAF 22326
7 1/16	24 3/4	9	2 1/2	21 5/8	19 3/8	5 1/2	14 1/4	2 11/16	9 5/8	(4)- 1 1/4	250	SDAF 22328
7 1/2	26 3/4	9 3/8	2 3/4	23 5/8	20 7/8	5 7/8	15 3/16	2 7/8	9 3/4	(4)- 1 1/4	319	SDAF 22330
7 7/8	27 5/8	10	3	23 1/2	21 1/2	6 1/4	16 1/4	2 15/16	10 5/8	(4)- 1 3/8	363	SDAF 22332
8 1/4	28 3/4	10 1/2	3 1/4	25	23	6 3/4	17 1/8	3 1/16	11 1/8	(4)- 1 3/8	401	SDAF 22334
8 7/8	30 1/2	10 3/4	3 1/4	26 3/8	24 1/8	6 7/8	17 15/16	3 3/8	11 3/8	(4)- 1 1/2	509	SDAF 22336
9 1/2	32	11 1/4	3 1/2	27 7/8	25 5/8	7 1/4	19 1/4	3 11/16	11 13/16	(4)- 1 1/2	568	SDAF 22338
9 7/8	33 1/2	11 3/4	3 1/2	29 1/4	26 5/8	7 5/8	19 15/16	3 3/4	12 3/16	(4)- 1 5/8	599	SDAF 22340

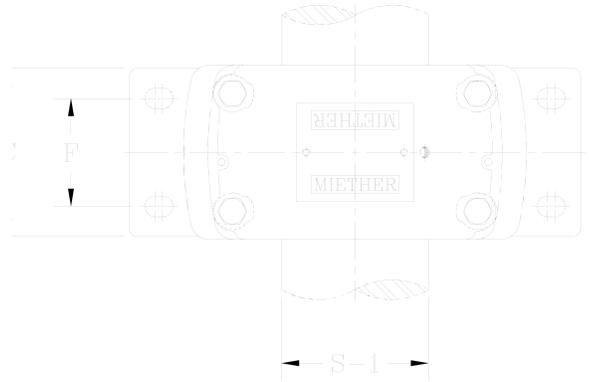


**Style**  
SDAF/SDAFD/SDAFS

# SDAF/SDAFD/SDAFS 500 & 600 Series

## Split Pillow Blocks: How to order

- When you order SDAF 22520 you receive;
  - 1 SDAF 520 Housing (Housing, seal rings and stabilizing ring).
  - 1 No. 22220 K Bearing.
  - 1 No. SNW 20 Adapter (Sleeve, Locknut and Lockwasher).
- If you order a closed housing the proper end plug is included.
- All housings include stabilizing ring, either use or discard.
- Always specify shaft size when ordering.
- Housing styles include;
  - SDAF - Cast Iron    SDAFD - Ductile Iron    SDAFS - Cast Steel
- All Miether housings have four bolt cap.
- The sizes listed below are standard items.



### SDAF 225 ADAPTER MOUNTED PILLOW BLOCK PART NUMBERS

SHAFT DIAMETER S-1 IN.	COMPLETE PILLOW BLOCK NUMBER	PILLOW BLOCK HOUSING ONLY	BEARING NUMBER	ADAPTER LOCKNUT AND LOCKWASHER	TRIPLE SEAL RING (2 REQUIRED)	STABILIZING RING (1 REQUIRED)
3 <sup>7</sup> / <sub>16</sub>	SDAF 22520	SDAF 520	22220 K	SNW 20	LER 102	SR- 20-17
3 <sup>15</sup> / <sub>16</sub>	*SDAFS 22522	SDAFS 522	22222 K	SNW 22	LER 109	SR- 22-19
4 <sup>3</sup> / <sub>16</sub>	SDAF 22524	SDAF 524	22224 K	SNW 24	LER 113	SR- 24-20
4 <sup>7</sup> / <sub>16</sub>	SDAF 22526	SDAF 526	22226 K	SNW 26	LER 117	SR- 26-0
4 <sup>15</sup> / <sub>16</sub>	*SDAFS 22528	SDAFS 528	22228 K	SNW 28	LER 122	SR- 28-0
5 <sup>3</sup> / <sub>16</sub>	SDAF 22530	SDAF 530	22230 K	SNW 30	LER 125	SR- 30-0
5 <sup>7</sup> / <sub>16</sub>	SDAF 22532	SDAF 532	22232 K	SNW 32	LER 130	SR- 32-0
5 <sup>15</sup> / <sub>16</sub>	SDAF 22534	SDAF 534	22234 K	SNW 34	LER 140	SR- 34-0
6 <sup>7</sup> / <sub>16</sub>	SDAF 22536	SDAF 536	22236 K	SNW 36	LER 148	SR- 36-30
6 <sup>15</sup> / <sub>16</sub>	SDAF 22538	SDAF 538	22238 K	SNW 38	LER 224	SR- 38-32
7 <sup>3</sup> / <sub>16</sub>	SDAF 22540	SDAF 540	22240 K	SNW 40	LER 228	SR- 40-34
7 <sup>15</sup> / <sub>16</sub>	SDAF 22544	SDAF 544	22244 K	SNW 44	LER 236	SR- 44-38

\* Available in Steel Only. All housings come with stabilizing ring. Use for fixed, discard for float. Use only one "Fixed" bearing per shaft.

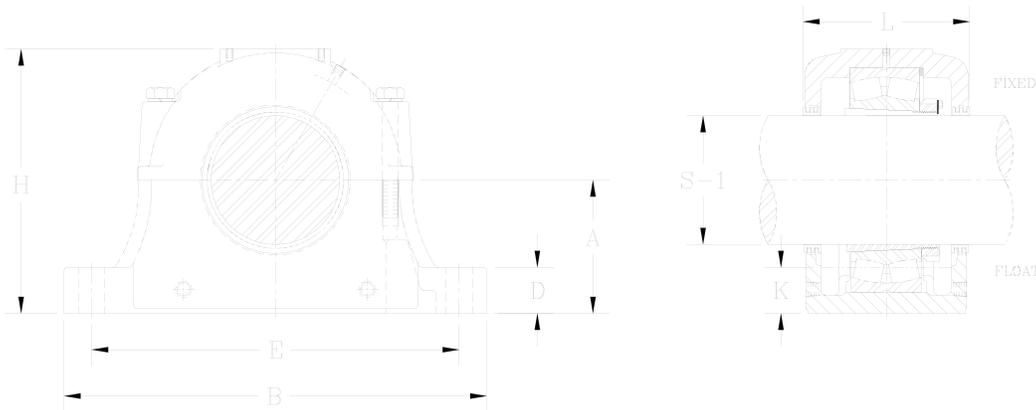
### SDAF 226 ADAPTER MOUNTED PILLOW BLOCK PART NUMBERS

SHAFT DIAMETER S-1 IN.	COMPLETE PILLOW BLOCK NUMBER	PILLOW BLOCK HOUSING ONLY	BEARING NUMBER	ADAPTER LOCKNUT AND LOCKWASHER	TRIPLE SEAL RING (2 REQUIRED)	STABILIZING RING (1 REQUIRED)
2 <sup>15</sup> / <sub>16</sub>	SDAF 22617	SDAF 617	22317 K	SNW 117	LER 53	SR- 20-17
3 <sup>3</sup> / <sub>16</sub>	SDAF 22618	SDAF 618	22318 K	SNW 118	LER 188	SR- 21-18
3 <sup>7</sup> / <sub>16</sub>	SDAF 22620	SDAF 620	22320 K	SNW 120	LER 102	SR- 24-20
3 <sup>15</sup> / <sub>16</sub>	SDAF 22622	SDAF 622	22322 K	SNW 122	LER 93	SR- 0-22
4 <sup>3</sup> / <sub>16</sub>	SDAF 22624	SDAF 624	22324 K	SNW 124	LER 113	SR- 0-24
4 <sup>7</sup> / <sub>16</sub>	SDAF 22626	SDAF 626	22326 K	SNW 126	LER 117	SR- 0-26
4 <sup>15</sup> / <sub>16</sub>	SDAF 22628	SDAF 628	22328 K	SNW 128	LER 122	SR- 0-28
5 <sup>3</sup> / <sub>16</sub>	SDAF 22630	SDAF 630	22330 K	SNW 130	LER 125	SR- 36-30
5 <sup>7</sup> / <sub>16</sub>	SDAF 22632	SDAF 632	22332 K	SNW 132	LER 211	SR- 38-32
5 <sup>15</sup> / <sub>16</sub>	SDAF 22634	SDAF 634	22334 K	SNW 134	LER 215	SR- 40-34
6 <sup>7</sup> / <sub>16</sub>	SDAF 22636	SDAF 636	22336 K	SNW 136	LER 220	SR- 0-36
6 <sup>15</sup> / <sub>16</sub>	SDAF 22638	SDAF 638	22338 K	SNW 138	LER 224	SR- 44-38
7 <sup>3</sup> / <sub>16</sub>	SDAF 22640	SDAF 640	22340 K	SNW 140	LER 228	SR- 0-40



**Style**  
SDAF/SDAFD/SDAFS

# SDAF/SDAFD/SDAFS 500 & 600 Series



## SDAF 225

### PILLOW BLOCK DIMENSIONS

A	B	C	D	E		F	H	K STATIC OIL LEVEL	L	BOLTS (NO. REQ'D)	WEIGHT LBS. HOUSING LER, SR	COMPLETE PILLOW BLOCK NUMBER
				MAX IN.	MIN IN.							
IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.		
4 1/2	15 1/4	6	1 7/8	13 1/8	11 5/8	3 3/8	8 15/16	1 3/4	6 3/4	(4)- 3/4	77	SDAF 22520
4 15/16	16 1/2	6 3/4	2 1/8	14 1/2	12 5/8	4	9 7/8	1 7/8	7 1/4	(4)- 7/8	103	*SDAFS 22522
5 1/4	16 1/2	6 7/8	2 1/4	14 1/2	13 1/4	4 1/8	10 1/2	1 15/16	7 3/8	(4)- 7/8	102	SDAF 22524
6	18 3/8	7 1/2	2 3/8	16	14 5/8	4 1/2	11 7/8	2 7/16	8	(4)- 1	156	SDAF 22526
6 20 1/8	7 1/2	2 3/8	17 1/8	16	16	4 1/2	12 1/16	2 1/8	7 13/16	(4)- 1 1/8	171	*SDAFS 22528
6 5/16	21 1/4	7 7/8	2 1/2	18 1/4	17	4 3/4	12 13/16	2 3/16	8 3/8	(4)- 1 1/8	185	SDAF 22530
6 11/16	22	8 1/4	2 1/2	19 1/4	17 3/8	5	13 11/16	2 3/16	8 3/4	(4)- 1 1/8	217	SDAF 22532
7 1/16	24 3/4	9	2 1/2	21 5/8	19 3/8	5 1/2	14 1/4	2 5/16	9 5/8	(4)- 1 1/4	267	SDAF 22534
7 1/2	26 3/4	9 3/8	2 3/4	23 5/8	20 7/8	5 7/8	15 3/16	2 9/16	10	(4)- 1 1/4	340	SDAF 22536
7 7/8	27 5/8	10	3	23 1/2	21 1/2	6 1/4	16 1/4	2 5/8	10 5/8	(4)- 1 3/8	387	SDAF 22538
8 1/4	28 3/4	10 1/2	3 1/4	25	23	6 3/4	17 1/8	2 11/16	11 1/8	(4)- 1 3/8	429	SDAF 22540
9 1/2	32	11 1/4	3 1/2	27 7/8	25 5/8	7 1/4	19 1/4	3 3/8	12 3/16	(4)- 1 1/2	637	SDAF 22544

\* Available in Steel Only. All housings come with stabilizing ring. Use for fixed, discard for float. Use only one "Fixed" bearing per shaft.

## SDAF 226

### PILLOW BLOCK DIMENSIONS

A	B	C	D	E		F	H	K STATIC OIL LEVEL	L	BOLTS (NO. REQ'D)	WEIGHT LBS. HOUSING LER, SR	COMPLETE PILLOW BLOCK NUMBER
				MAX IN.	MIN IN.							
IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.		
4 1/2	15 1/4	6	1 7/8	13 1/8	11 5/8	3 3/8	8 15/16	1 13/16	6 3/4	(4)- 3/4	78	SDAF 22617
4 3/4	15 1/2	6 1/8	2	13 1/2	12	3 5/8	9 7/16	2	6 7/8	(4)- 3/4	93	SDAF 22618
5 1/4	16 1/2	6 7/8	2 1/4	14 1/2	13 1/4	4 1/8	10 1/2	2 1/8	7 3/8	(4)- 7/8	103	SDAF 22620
6	18 3/8	7 1/2	2 3/8	16	14 5/8	4 1/2	11 7/8	2 1/2	8	(4)- 1	150	SDAF 22622
6 5/16	21 1/4	7 7/8	2 1/2	18 1/4	17	4 3/4	12 13/16	2 9/16	8 3/8	(4)- 1 1/8	177	SDAF 22624
6 11/16	22	8 1/4	2 1/2	19 1/4	17 3/8	5	13 11/16	2 5/8	8 3/4	(4)- 1 1/8	209	SDAF 22626
7 1/16	24 3/4	9	2 1/2	21 5/8	19 3/8	5 1/2	14 1/4	2 11/16	9 5/8	(4)- 1 1/4	255	SDAF 22628
7 1/2	26 3/4	9 3/8	2 3/4	23 5/8	20 7/8	5 7/8	15 3/16	2 7/8	9 3/4	(4)- 1 1/4	337	SDAF 22630
7 7/8	27 5/8	10	3	23 1/2	21 1/2	6 1/4	16 1/4	2 15/16	10 5/8	(4)- 1 3/8	371	SDAF 22632
8 1/4	28 3/4	10 1/2	3 1/4	25	23	6 3/4	17 1/8	3 1/16	11 1/8	(4)- 1 3/8	410	SDAF 22634
8 7/8	30 1/2	10 3/4	3 1/4	26 3/8	24 1/8	6 7/8	17 15/16	3 3/8	11 3/8	(4)- 1 1/2	520	SDAF 22636
9 1/2	32	11 1/4	3 1/2	27 7/8	25 5/8	7 1/4	19 1/4	3 11/16	11 13/16	(4)- 1 1/2	580	SDAF 22638
9 7/8	33 1/2	11 3/4	3 1/2	29 1/4	26 5/8	7 5/8	19 15/16	3 3/4	12 3/16	(4)- 1 5/8	612	SDAF 22640

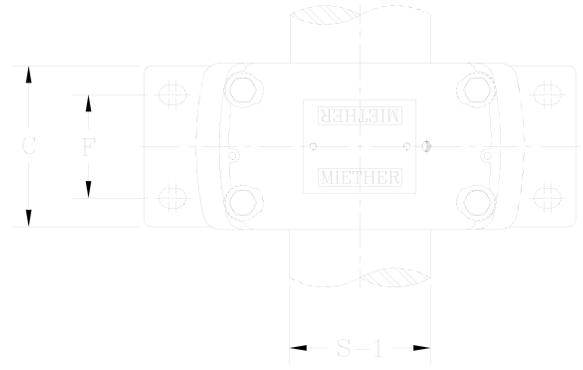


**Style**  
SDAF/SDAFD/SDAFS

# SDAF/SDAFD/SDAFS 230 K Series

## Split Pillow Blocks: How to order

- When you order SDAF 23060 K you receive;
  - 1 SDAF 060 K Housing (Housing, seal rings and stabilizing ring).
  - 1 No. 23060 K Bearing.
  - 1 No. SNP 3060 Adapter (Sleeve, Locknut, and Lockwasher).
- If you order a closed housing the proper end plug is included.
- All housings include stabilizing ring, either use or discard.
- Always specify shaft size when ordering.
- Housing styles include;
  - SDAF - Cast Iron    SDAFD - Ductile Iron    SDAFS - Cast Steel
- All Miether housings have four bolt cap.



### SDAF 230 K ADAPTER MOUNTED PILLOW BLOCK PART NUMBERS

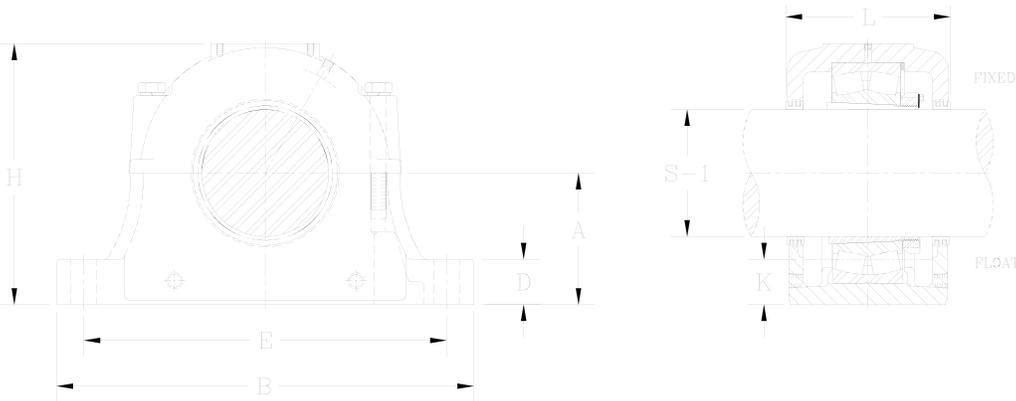
SHAFT DIAMETER S-1 IN.	COMPLETE PILLOW BLOCK NUMBER	PILLOW BLOCK HOUSING ONLY	BEARING NUMBER	ADAPTER LOCKNUT AND LOCKPLATE	TRIPLE SEAL RING (2 REQUIRED)	STABILIZING RING (1 REQUIRED)
10 <sup>15/16</sup>	SDAF 23060 K/10 15/16	SDAF 060 K/10 15/16	23060 K	SNP 3060 /10 15/16	ER 858	A- 8967
11	SDAF 23060 K/11	SDAF 060 K/11	23060 K	SNP 3060 /11	ER 825	A- 8967
11 <sup>7/16</sup>	SDAF 23064 K/11 7/16	SDAF 064 K/11 7/16	23064 K	SNP 3064 /11 7/16	ER 861	A- 8968
11 <sup>1/2</sup>	SDAF 23064 K/11 1/2	SDAF 064 K/11 1/2	23064 K	SNP 3064 /11 1/2	ER 832	A- 8968
11 <sup>15/16</sup>	SDAF 23064 K/11 15/16	SDAF 064 K/11 15/16	23064 K	SNP 3064 /11 15/16	ER 859	A- 8968
12	SDAF 23064 K/12	SDAF 064 K/12	23064 K	SNP 3064 /12	ER 818	A- 8968
12 <sup>7/16</sup>	SDAF 23068 K/12 7/16	SDAF 068 K/12 7/16	23068 K	SNP 3068 /12 7/16	ER 865	A- 8969
12 <sup>1/2</sup>	SDAF 23068 K/12 1/2	SDAF 068 K/12 1/2	23068 K	SNP 3068 /12 1/2	ER 866	A- 8969
12 <sup>15/16</sup>	SDAF 23072 K/12 15/16	SDAF 072 K/12 15/16	23072 K	SNP 3072 /12 15/16	ER 869	A- 8970
13	SDAF 23072 K/13	SDAF 072 K/13	23072 K	SNP 3072 /13	ER 846	A- 8970
13 <sup>7/16</sup>	SDAF 23072 K/13 7/16	SDAF 072 K/13 7/16	23072 K	SNP 3072 /13 7/16	ER 872	A- 8970
13 <sup>1/2</sup>	SDAF 23072 K/13 1/2	SDAF 072 K/13 1/2	23072 K	SNP 3072 /13 1/2	ER 823	A- 8970
13 <sup>15/16</sup>	SDAF 23076 K/13 15/16	SDAF 076 K/13 15/16	23076 K	SNP 3076 /13 15/16	ER 875	A- 8971
14	SDAF 23076 K/14	SDAF 076 K/14	23076 K	SNP 3076 /14	ER 876	A- 8971
15	SDAF 23080 K/15	SDAF 080 K/15	23080 K	SNP 3080 /15	ER 847	A- 8974
15 <sup>3/4</sup>	SDAF 23084 K/15 3/4	SDAF 084 K/15 3/4	23084 K	SNP 3084 /15 3/4	ER 885	A- 8978
16 <sup>1/2</sup>	SDAF 23088 K/16 1/2	SDAF 088 K/16 1/2	23088 K	SNP 3088 /16 1/2	ER 958	(2)A- 8979
17	SDAF 23092 K/17	SDAF 092 K/17	23092 K	SNP 3092 /17	ER 838	(2)A- 8980
18	SDAF 23096 K/18	SDAF 096 K/18	23096 K	SNP 3096 /18	ER 888	(2)A- 8984
18 <sup>1/2</sup>	SDAF 230/500 K/18 1/2	SDAF 30/500 K/18 1/2	230/500 K	SNP 30/500 18 1/2	ER 978	(2)A- 8976
19 <sup>1/2</sup>	SDAF 230/530 K/19 1/2	SDAF 30/530 K/19 1/2	230/530 K	SNP 30/530 19 1/2	ER 926	
21	SDAF 230/560 K/21	SDAF 30/560 K/21	230/560 K	SNP 30/560 21	ER 933	
22	SDAF 230/600 K/22	SDAF 30/600 K/22	230/600 K	SNP 30/600 22		
24	SDAF 230/630 K/24	SDAF 30/630 K/24	230/630 K	SNP 30/630 24		

All housings come with stabilizing ring. Use for fixed, discard for float. Use only one "Fixed" bearing per shaft.



**Style**  
SDAF/SDAFD/SDAFS

# SDAF/SDAFD/SDAFS 230 K Series



## SDAF 230 K

### PILLOW BLOCK DIMENSIONS

A	B	C	D	E		F	H	K5 STATIC OIL LEVEL	L	BOLTS (NO. REQ'D)	WEIGHT LBS. HOUSING LER, SR	COMPLETE PILLOW BLOCK NUMBER
				MAX IN.	MIN IN.							
12	38 1/4	14 3/4	3 1/2	33 1/2	32 3/4	9	24	4 7/16	15 1/2	(4)- 1 5/8	1011	SDAF 23060 K/10 15/16
12	38 1/4	14 3/4	3 1/2	33 1/2	32 3/4	9	24	4 7/16	15 1/2	(4)- 1 5/8	1011	SDAF 23060 K/11
12	38 1/4	15 1/8	3 1/2	33 1/2	32 3/4	9	24	4 1/16	16 1/2	(4)- 1 5/8	1010	SDAF 23064 K/11 7/16
12	38 1/4	15 1/8	3 1/2	33 1/2	32 3/4	9	24	4 1/16	16 1/2	(4)- 1 5/8	1010	SDAF 23064 K/11 1/2
12	38 1/4	15 1/8	3 1/2	33 1/2	32 3/4	9	24	4 1/16	16 1/2	(4)- 1 5/8	1010	SDAF 23064 K/11 15/16
12	38 1/4	15 1/8	3 1/2	33 1/2	32 3/4	9	24	4 1/16	16 1/2	(4)- 1 5/8	1010	SDAF 23064 K/12
12	39	15 1/4	4 3/16	33 1/2	32	10	24	3 7/16	15 3/4	(4)- 1 7/8	1075	SDAF 23068 K/12 7/16
12	39	15 1/4	4 3/16	33 1/2	32	10	24	3 7/16	15 3/4	(4)- 1 7/8	1075	SDAF 23068 K/12 1/2
12 13/16	41 3/4	15 3/4	4 1/2	36 1/2	35	10 1/2	26	3 7/8	16 1/4	(4)- 1 7/8	1353	SDAF 23072 K/12 15/16
12 13/16	41 3/4	15 3/4	4 1/2	36 1/2	35	10 1/2	26	3 7/8	16 1/4	(4)- 1 7/8	1353	SDAF 23072 K/13
12 13/16	41 3/4	15 3/4	4 1/2	36 1/2	35	10 1/2	26	3 7/8	16 1/4	(4)- 1 7/8	1353	SDAF 23072 K/13 7/16
12 13/16	41 3/4	15 3/4	4 1/2	36 1/2	35	10 1/2	26	3 7/8	16 1/4	(4)- 1 7/8	1353	SDAF 23072 K/13 1/2
12 13/16	41 3/4	15 3/4	4 1/2	36 1/2	35	10 1/2	26	3 7/16	16 1/4	(4)- 1 7/8	1739	SDAF 23076 K/13 15/16
12 13/16	41 3/4	15 3/4	4 1/2	36 1/2	35	10 1/2	26	3 7/16	16 1/4	(4)- 1 7/8	1739	SDAF 23076 K/14
14 1/2	46	17 1/8	5	40 3/4	39 1/4	11	28 3/4	4 7/16	18	(4)- 2	1868	SDAF 23080 K/15
14 1/2	46	17 1/8	5	40 3/4	39 1/4	11	28 3/4	4 1/16	18	(4)- 2	1799	SDAF 23084 K/15 3/4
15 1/2	48 3/4	18 3/4	5 1/2	43 1/2	41 1/2	12 1/4	31	4 1/2	19 3/8	(4)- 2 1/4	2440	SDAF 23088 K/16 1/2
15 1/2	48 3/4	18 3/4	5 1/2	43 1/2	41 1/2	12 1/4	31	4	19 3/8	(4)- 2 1/4	2336	SDAF 23092 K/17
17	52 3/4	22 1/4	5 1/2	46 5/8	44 1/2	14 1/2	34	5 1/8	21 3/4	(4)- 2 1/4	3183	SDAF 23096 K/18
17	52 3/4	22 1/4	5 1/2	46 5/8	44 1/2	14 1/2	34	4 3/4	21 3/4	(4)- 2 1/4	3102	SDAF 230/500 K/18 1/2
18	54 1/4	21 5/8	5 3/4	48 7/8	47 1/8	15	35 3/4	4 13/16	22 3/4	(4)- 2 1/2	3502	SDAF 230/530 K/19 1/2
18	54 1/4	21 5/8	5 3/4	48 7/8	47 1/8	15	35 3/4		22 3/4	(4)- 2 1/2	2988	SDAF 230/560 K/21
20	60	22	6	54	52 1/2	16	40		24 5/8	(4)- 3	4669	SDAF 230/600 K/22
20	60	22	6	54	52 1/2	16	40		24 5/8	(4)- 3	4326	SDAF 230/630 K/24

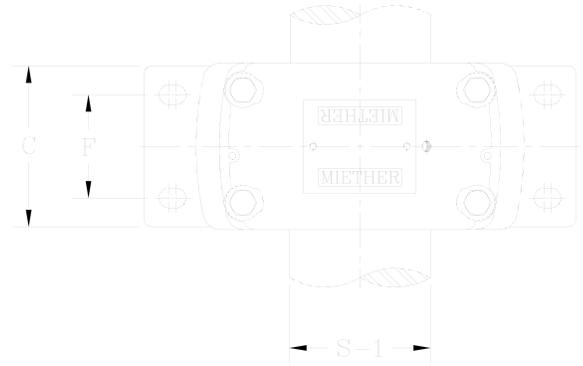


**Style**  
SDAF/SDAFD/SDAFS

# SDAF/SDAFD/SDAFS 231 & 232 Series

## Split Pillow Blocks: How to order

- When you order SDAF 23156 you receive;
  - 1 SDAF 3156 Housing (Housing, seal rings and stabilizing ring).
  - 1 No. 23156 Bearing.
  - 1 No. N 056 Locknut, 1 No. P 56 Lockplate.
- If you order a closed housing the proper end plug is included.
- All housings include stabilizing ring, either use or discard.
- Always specify shaft size when ordering.
- Housing styles include;
  - SDAF - Cast Iron    SDAFD - Ductile Iron    SDAFS - Cast Steel



### SDAF 231 CYLINDRICAL MOUNTED PILLOW BLOCK PART NUMBERS

SHAFT DIAMETER		COMPLETE PILLOW BLOCK NUMBER	PILLOW BLOCK HOUSING ONLY	BEARING NUMBER	LOCKNUT	LOCK-PLATE	TRIPLE SEAL RING		STABILIZING RING (2 REQUIRED)
S-2 IN.	S-3 IN.						S-2 SHAFT 1 REQD'	S-3 SHAFT 1 REQD'	
11 1/2	9 15/16	SDAF 23152	SDAF 3152	23152	N 052	P 52	ER 832	ER 845	A- 5679
12 1/2	10 3/4	SDAF 23156	SDAF 3256	23156	N 056	P 56	ER 866	ER 826	A- 8967
13	11 1/2	SDAF 23160	SDAF 3160	23160	N 060	P 60	ER 824	ER 832	A- 8975
14	12 1/4	SDAF 23164	SDAF 3164	23164	N 064	P 64	ER 876	ER 983	A- 8970
15	13	SDAF 23168	SDAF 3168	23168	N 068	P 68	ER 847	ER 846	A- 8977
16	13 3/4	SDAF 23172	SDAF 3172	23172	N 072	P 72	ER 809	ER 874	A- 8974
17	14 1/2	SDAF 23176	SDAF 3176	23176	N 076	P 76	ER 811	ER 950	A- 8978
17 1/2	15 1/4	SDAF 23180	SDAF 3180	23180	N 080	P 80	ER 967	ER 895	A- 8979
18 1/2	15 3/4	SDAF 23184	SDAF 3184	23184	N 084	P 84	ER 978	ER 907	A- 8984
19 1/2	17	SDAF 23188	SDAF 3188	23188	N 088	P 88	ER 926	ER 838	A- 8976
20	17 3/4	SDAF 23192	SDAF 3192	23192	N 092	P 92	ER 808	ER 906	A- 8990
N/A	N/A	SDAF 23196	SDAF 3196	23196	N 096	P 96			A- 8988
N/A	N/A	SDAF 231/500	SDAF 31/500	231/500	N 500	P 500			
N/A	N/A	SDAF 231/530	SDAF 31/530	231/530	N 530	P 530			
N/A	N/A	SDAF 231/560	SDAF 31/560	231/560	N 560	P 560			

All housings come with stabilizing ring. Use for fixed, discard for float. Use only one "Fixed" bearing per shaft.

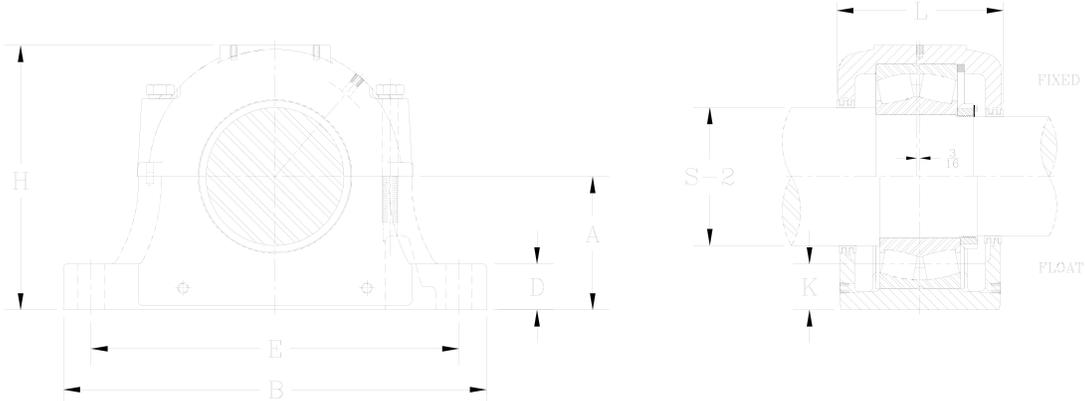
### SDAF 232 CYLINDRICAL MOUNTED PILLOW BLOCK PART NUMBERS

SHAFT DIAMETER		COMPLETE PILLOW BLOCK NUMBER	PILLOW BLOCK HOUSING ONLY	BEARING NUMBER	LOCKNUT	LOCK-PLATE	TRIPLE SEAL RING		STABILIZING RING (2 REQUIRED)
S-2 IN.	S-3 IN.						S-2 SHAFT 1 REQD'	S-3 SHAFT 1 REQD'	
10 1/2	9 3/16	SDAF 23248	SDAF 3248	23248	N 048	P 48	ER 840	ER 923	A- 5679
11 1/2	9 15/16	SDAF 23252	SDAF 3252	23252	N 052	P 52	ER 832	ER 845	A- 8968
12 1/2	10 3/4	SDAF 23256	SDAF 3256	23256	N 056	P 56	ER 866	ER 826	A- 8975
13	11 1/2	SDAF 23260	SDAF 3260	23260	N 060	P 60	ER 846	ER 856	A- 8970
14	12 1/4	SDAF 23264	SDAF 3264	23264	N 064	P 64	ER 876	ER 983	A- 8977
15	13	SDAF 23268	SDAF 3268	23268	N 068	P 68	ER 847	ER 846	A- 8978
16	13 3/4	SDAF 23272	SDAF 3272	23272	N 072	P 72	ER 965	ER 981	A- 8979
17	14 1/2	SDAF 23276	SDAF 3276	23276	N 076	P 76	ER 838	ER 984	A- 8980
17 1/2	15 1/4	SDAF 23280	SDAF 3280	23280	N 080	P 80	ER 967	ER 895	A- 8976
18 1/2	15 3/4	SDAF 23284	SDAF 3284	23284	N 084	P 84	ER 978	ER 907	A- 990
19 1/2	17	SDAF 23288	SDAF 3288	23288	N 088	P 88	ER 926	ER 838	A- 8988
20	17 3/4	SDAF 23292	SDAF 3292	23292	N 092	P 92	ER 808	ER 906	
N/A	N/A	SDAF 23296	SDAF 3296	23296	N 096	P 96			
N/A	N/A	SDAF 232/500	SDAF 32/500	232/500					



**Style**  
SDAF/SDAFD/SDAFS

# SDAF/SDAFD/SDAFS 231 & 232 Series



## SDAF 231 PILLOW BLOCK DIMENSIONS

A	B	C	D	E		F	H	K	L	BOLTS (NO. REQ'D)	WEIGHT LBS. HOUSING LER, SR	COMPLETE PILLOW BLOCK NUMBER
				MAX IN.	MIN IN.							
IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.		
10 <sup>1/4</sup>	35	14 <sup>1/2</sup>	3 <sup>3/4</sup>	30 <sup>1/2</sup>	29	8 <sup>3/4</sup>	20 <sup>1/2</sup>	3 <sup>1/8</sup>	14 <sup>1/8</sup>	(4)- 1 5/8	792	SDAF 23152
12	38 <sup>1/4</sup>	14 <sup>3/4</sup>	3 <sup>1/2</sup>	33 <sup>1/2</sup>	32 <sup>3/4</sup>	9	24	4 <sup>1/2</sup>	15 <sup>1/2</sup>	(4)- 1 5/8	1000	SDAF 23156
12	38 <sup>1/4</sup>	15 <sup>1/8</sup>	3 <sup>1/2</sup>	33 <sup>1/2</sup>	32 <sup>3/4</sup>	9	24	3 <sup>7/8</sup>	16 <sup>1/2</sup>	(4)- 1 5/8	1032	SDAF 23160
12 <sup>13/16</sup>	41 <sup>3/4</sup>	15 <sup>3/4</sup>	4 <sup>1/2</sup>	36 <sup>1/2</sup>	35	10 <sup>1/2</sup>	26	4 <sup>1/16</sup>	16 <sup>1/4</sup>	(4)- 1 7/8	1339	SDAF 23164
14	43 <sup>3/4</sup>	18 <sup>1/4</sup>	5	38 <sup>1/4</sup>	36 <sup>3/4</sup>	10 <sup>3/4</sup>	28	4 <sup>5/8</sup>	18	(4)- 2	1720	SDAF 23168
14 <sup>1/2</sup>	46	17 <sup>1/8</sup>	5	40 <sup>3/4</sup>	39 <sup>1/4</sup>	11	28 <sup>3/4</sup>	4 <sup>5/8</sup>	18	(4)- 2	1848	SDAF 23172
14 <sup>1/2</sup>	46	17 <sup>1/8</sup>	5	40 <sup>3/4</sup>	39 <sup>1/4</sup>	11	28 <sup>3/4</sup>	4 <sup>9/32</sup>	18	(4)- 2	1780	SDAF 23176
15 <sup>1/2</sup>	48 <sup>3/4</sup>	18 <sup>3/4</sup>	5 <sup>1/2</sup>	43 <sup>1/2</sup>	41 <sup>1/2</sup>	12 <sup>1/4</sup>	31	4 <sup>13/16</sup>	19 <sup>3/8</sup>	(4)- 2 1/4	2415	SDAF 23180
17	52 <sup>3/4</sup>	22 <sup>1/4</sup>	5 <sup>1/2</sup>	46 <sup>5/8</sup>	44 <sup>1/2</sup>	14 <sup>1/2</sup>	34	5 <sup>19/32</sup>	21 <sup>3/4</sup>	(4)- 2 1/4	3149	SDAF 23184
17	52 <sup>3/4</sup>	22 <sup>1/4</sup>	5 <sup>1/2</sup>	46 <sup>5/8</sup>	44 <sup>1/2</sup>	14 <sup>1/2</sup>	34	5 <sup>5/16</sup>	21 <sup>3/4</sup>	(4)- 2 1/4	3063	SDAF 23188
18	54 <sup>1/4</sup>	21 <sup>5/8</sup>	5 <sup>3/4</sup>	48 <sup>7/8</sup>	47 <sup>1/8</sup>	15	35 <sup>3/4</sup>	5 <sup>7/16</sup>	22 <sup>3/4</sup>	(4)- 2 1/2	3465	SDAF 23192
18	54 <sup>1/4</sup>	21 <sup>5/8</sup>	5 <sup>3/4</sup>	48 <sup>7/8</sup>	47 <sup>1/8</sup>	15	35 <sup>3/4</sup>	5 <sup>3/16</sup>	22 <sup>3/4</sup>	(4)- 2 1/2	3309	SDAF 23196
18	54 <sup>1/4</sup>	21 <sup>5/8</sup>	5 <sup>3/4</sup>	48 <sup>7/8</sup>	47 <sup>1/8</sup>	15	35 <sup>3/4</sup>		22 <sup>3/4</sup>	(4)- 2 1/2	2956	SDAF 231/500
20	60	22	6	54	52 <sup>1/2</sup>	16	40		24 <sup>5/8</sup>	(4)- 3	4620	SDAF 231/530
20	60	22	6	54	52 <sup>1/2</sup>	16	40		24 <sup>5/8</sup>	(4)- 3	4282	SDAF 231/560

All housings come with stabilizing ring. Use for fixed, discard for float. Use only one fixed bearing per shaft.

## SDAF 232 PILLOW BLOCK DIMENSIONS

A	B	C	D	E		F	H	K	L	BOLTS (NO. REQ'D)	WEIGHT LBS. HOUSING LER, SR	COMPLETE PILLOW BLOCK NUMBER
				MAX IN.	MIN IN.							
IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.		
10 <sup>1/4</sup>	35	14 <sup>1/2</sup>	3 <sup>3/4</sup>	30 <sup>1/2</sup>	29	8 <sup>3/4</sup>	20 <sup>1/2</sup>	3 <sup>9/32</sup>	14 <sup>1/8</sup>	(4)- 1 5/8	792	SDAF 23248
12	38 <sup>1/4</sup>	15 <sup>1/8</sup>	3 <sup>1/2</sup>	33 <sup>1/2</sup>	32 <sup>3/4</sup>	9	24	4 <sup>3/8</sup>	16 <sup>1/2</sup>	(4)- 1 5/8	949	SDAF 23252
12	38 <sup>1/4</sup>	15 <sup>1/8</sup>	3 <sup>1/2</sup>	33 <sup>1/2</sup>	32 <sup>3/4</sup>	9	24	4	16 <sup>1/2</sup>	(4)- 1 5/8	888	SDAF 23256
12 <sup>13/16</sup>	41 <sup>3/4</sup>	15 <sup>3/4</sup>	4 <sup>1/2</sup>	36 <sup>1/2</sup>	35	10 <sup>1/2</sup>	26	4 <sup>3/32</sup>	16 <sup>1/4</sup>	(4)- 1 7/8	1339	SDAF 23260
14	43 <sup>3/4</sup>	18 <sup>1/4</sup>	5	38 <sup>1/4</sup>	36 <sup>3/4</sup>	10 <sup>3/4</sup>	28	4 <sup>3/4</sup>	18	(4)- 2	1720	SDAF 23264
14 <sup>1/2</sup>	46	17 <sup>1/8</sup>	5	40 <sup>3/4</sup>	39 <sup>1/4</sup>	11	28 <sup>3/4</sup>	4 <sup>17/32</sup>	18	(4)- 2	1848	SDAF 23268
15 <sup>1/2</sup>	48 <sup>3/4</sup>	18 <sup>3/4</sup>	5 <sup>1/2</sup>	43 <sup>1/2</sup>	41 <sup>1/2</sup>	12 <sup>1/4</sup>	31	5 <sup>1/8</sup>	19 <sup>3/8</sup>	(4)- 2 1/4	2415	SDAF 23272
15 <sup>1/2</sup>	48 <sup>3/4</sup>	18 <sup>3/4</sup>	5 <sup>1/2</sup>	43 <sup>1/2</sup>	41 <sup>1/2</sup>	12 <sup>1/4</sup>	31	4 <sup>9/16</sup>	19 <sup>3/8</sup>	(4)- 2 1/4	2286	SDAF 23276
17	52 <sup>3/4</sup>	22 <sup>1/4</sup>	5 <sup>1/2</sup>	46 <sup>5/8</sup>	44 <sup>1/2</sup>	14 <sup>1/2</sup>	34	5 <sup>5/8</sup>	21 <sup>3/4</sup>	(4)- 2 1/4	3149	SDAF 23280
18	54 <sup>1/4</sup>	21 <sup>5/8</sup>	5 <sup>3/4</sup>	48 <sup>7/8</sup>	47 <sup>1/8</sup>	15	35 <sup>3/4</sup>	5 <sup>25/32</sup>	22 <sup>3/4</sup>	(4)- 2 1/2	3465	SDAF 23284
18	54 <sup>1/4</sup>	21 <sup>5/8</sup>	5 <sup>3/4</sup>	48 <sup>7/8</sup>	47 <sup>1/8</sup>	15	35 <sup>3/4</sup>	5 <sup>1/4</sup>	22 <sup>3/4</sup>	(4)- 2 1/2	3309	SDAF 23288
18	54 <sup>1/4</sup>	21 <sup>5/8</sup>	5 <sup>3/4</sup>	48 <sup>7/8</sup>	47 <sup>1/8</sup>	15	35 <sup>3/4</sup>		22 <sup>3/4</sup>	(4)- 2 1/2	2956	SDAF 23292
20	60	22	6	54	52 <sup>1/2</sup>	16	40		24 <sup>5/8</sup>	(4)- 3	4620	SDAF 23296
20	60	22	6	54	52 <sup>1/2</sup>	16	40		24 <sup>5/8</sup>	(4)- 3	4282	SDAF 232/500

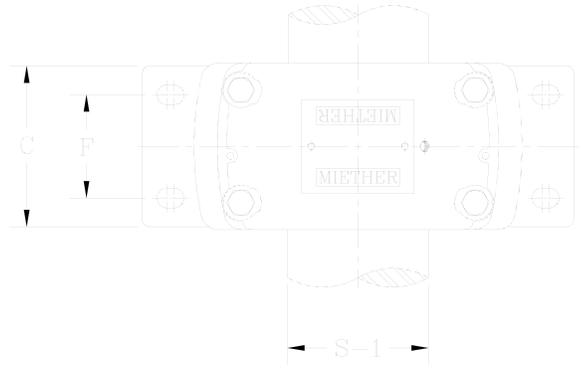


**Style**  
SDAF/SDAFD/SDAFS

# SDAF/SDAFD/SDAFS 231 K & 232 K Series

## Split Pillow Blocks: How to order

- When you order SDAF 23152 K you receive;
  - 1 SDAF 3152K Housing (Housing, seal rings and Stab Ring).
  - 1 No. 23152 K Bearing.
  - 1 No. SNP 3152 Adapter (Sleeve, Locknut, and Lockwasher).
- If you order a closed housing the proper end plug is included.
- All housings include stabilizing ring, either use or discard.
- Always specify shaft size when ordering.
- Housing styles include;
  - SDAF - Cast Iron    SDAFD - Ductile Iron    SDAFS - Cast Steel
- All Miether housings have four bolt cap.
- The sizes listed below are standard items.



### SDAF 231 K ADAPTER MOUNTED PILLOW BLOCK PART NUMBERS

SHAFT DIAMETER S-1 IN.	COMPLETE PILLOW BLOCK NUMBER	PILLOW BLOCK HOUSING ONLY	BEARING NUMBER	ADAPTER LOCKNUT AND LOCKWASHER	TRIPLE SEAL RING (2 REQUIRED)	STABILIZING RING (2 REQUIRED)
9 <sup>7/16</sup>	SDAF 23152 K	SDAF 3152 K	23152 K	SNP 3152 9 7/16	ER 891 S	A- 5679
10 <sup>7/16</sup>	SDAF 23156 K	SDAF 3156 K	23156 K	SNP 3156 10 7/16	ER 973 S	A- 8967
10 <sup>15/16</sup>	SDAF 23160 K	SDAF 3160 K	23160 K	SNP 3160 10 15/16	ER 858 S	A- 8975
11 <sup>15/16</sup>	SDAF 23164 K	SDAF 3164 K	23164 K	SNP 3164 11 15/16	ER 900 S	A- 8970
12 <sup>7/16</sup>	SDAF 23168 K	SDAF 3168 K	23168 K	SNP 3168 12 7/16	ER 975 S	A- 8977
13 <sup>7/16</sup>	SDAF 23172 K	SDAF 3172 K	23172 K	SNP 3172 13 7/16	ER 872 S	A- 8974
13 <sup>15/16</sup>	SDAF 23176 K	SDAF 3176 K	23176 K	SNP 3176 13 15/16	ER 875 S	A- 8978
15	SDAF 23180 K	SDAF 3180 K	23180 K	SNP 3180 15	ER 976 S	A- 8979
15 <sup>3/4</sup>	SDAF 23184 K	SDAF 3184 K	23184 K	SNP 3184 15 3/4	ER 907 S	A- 8984
16 <sup>1/2</sup>	SDAF 23188 K	SDAF 3188 K	23188 K	SNP 3188 16 1/2	ER 958 S	A- 8976
17	SDAF 23192 K	SDAF 3192 K	23192 K	SNP 3192 17	ER 838 S	A- 8990
18	SDAF 23196 K	SDAF 3196 K	23196 K	SNP 3196 18	ER 888 S	A- 8988
18 <sup>1/2</sup>	SDAF 231500 K	SDAF 31500 K	231500 K	SNP 31500 18 1/2		
19 <sup>1/2</sup>	SDAF 231530 K	SDAF 31530 K	231530 K	SNP 31530 19 1/2		
21	SDAF 231560 K	SDAF 31560 K	231560 K	SNP 31560 21		

All housings come with stabilizing ring. Use for fixed, discard for float. Use only one "Fixed" bearing per shaft.

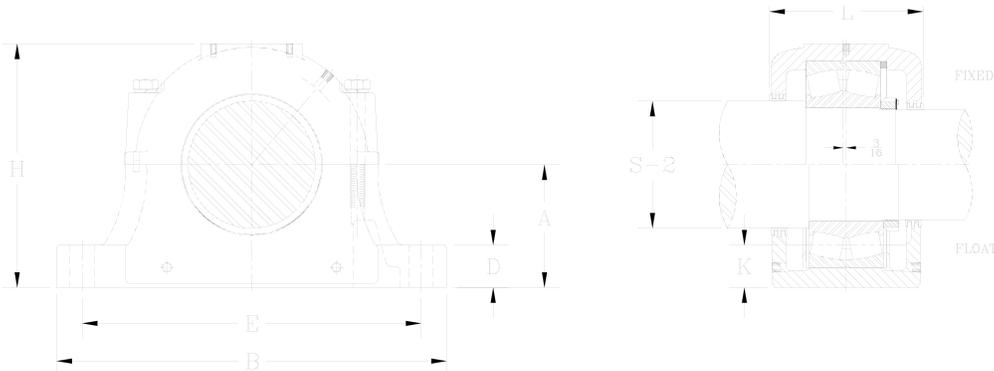
### SDAF 232 K ADAPTER MOUNTED PILLOW BLOCK PART NUMBERS

SHAFT DIAMETER S-1 IN.	COMPLETE PILLOW BLOCK NUMBER	PILLOW BLOCK HOUSING ONLY	BEARING NUMBER	ADAPTER LOCKNUT AND LOCKWASHER	TRIPLE SEAL RING (2 REQUIRED)	STABILIZING RING (2 REQUIRED)
8 <sup>15/16</sup>	SDAF 23248 K	SDAF 3248 K	23248 K	SNP 148 8-15/16	ER 914 S	A- 5679
9 <sup>7/16</sup>	SDAF 23252 K	SDAF 3252 K	23252 K	SNP 152 9-7/16	ER 891 S	A- 8968
10 <sup>7/16</sup>	SDAF 23256 K	SDAF 3256 K	23256 K	SNP 3256 10-7/16	ER 973 S	A- 8975
10 <sup>15/16</sup>	SDAF 23260 K	SDAF 3260 K	23260 K	SNP 3260 10-15/16	ER 974 S	A- 8970
11 <sup>15/16</sup>	SDAF 23264 K	SDAF 3264 K	23264 K	SNP 3264 11-15/16	ER 900 S	A- 8977
12 <sup>7/16</sup>	SDAF 23268 K	SDAF 3268 K	23268 K	SNP 3268 12-7/16	ER 975 S	A- 8978
13 <sup>7/16</sup>	SDAF 23272 K	SDAF 3272 K	23272 K	SNP 3272 13-7/16	ER 979 S	A- 8979
13 <sup>15/16</sup>	SDAF 23276 K	SDAF 3276 K	23276 K	SNP 3276 13-15/16	ER 977 S	A- 8980
15	SDAF 23280 K	SDAF 3280 K	23280 K	SNP 3280 15	ER 976 S	A- 8976
15 <sup>3/4</sup>	SDAF 23284 K	SDAF 3284 K	23284 K	SNP 3284 15-3/4	ER 907 S	A- 8990
16 <sup>1/2</sup>	SDAF 23288 K	SDAF 3288 K	23288 K	SNP 3288 16-1/2	ER 958 S	A- 8988
17	SDAF 23292 K	SDAF 3292 K	23292 K	SNP 3292 17	ER 838 S	
18	SDAF 23296 K	SDAF 3296 K	23296 K	SNP 3296 18	ER 888 S	
18 <sup>1/2</sup>	SDAF 232500 K	SDAF 32500 K	232500 K	SNP 32500 18-1/2	ER 978 S	



**Style**  
SDAF/SDAFD/SDAFS

# SDAF/SDAFD/SDAFS 231 K & 232 K Series



## SDAF 231 K

### PILLOW BLOCK DIMENSIONS

A	B	C	D	E		F	H	K STATIC OIL LEVEL	L	BOLTS (NO. REQ'D)	WEIGHT LBS. HOUSING ER,A	COMPLETE PILLOW BLOCK NUMBER
				MAX IN.	MIN IN.							
IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.		
10 1/4	35	14 1/2	3 3/4	30 1/2	29	8 3/4	20 1/2	3 1/8	14 1/8	(4)- 1 5/8	792	SDAF 23152 K
12	38 1/4	14 3/4	3 1/2	33 1/2	32 3/4	9	24	4 1/2	15 1/2	(4)- 1 5/8	1000	SDAF 23156 K
12	38 1/4	15 1/8	3 1/2	33 1/2	32 3/4	9	24	3 7/8	16 1/2	(4)- 1 5/8	1032	SDAF 23160 K
12 13/16	41 3/4	15 3/4	4 1/2	36 1/2	35	10 1/2	26	4 1/16	16 1/4	(4)- 1 7/8	1339	SDAF 23164 K
14	43 3/4	18 1/4	5	38 1/4	36 3/4	10 3/4	28	4 5/8	18	(4)- 2	1720	SDAF 23168 K
14 1/2	46	17 1/8	5	40 3/4	39 1/4	11	28 3/4	4 5/8	18	(4)- 2	1848	SDAF 23172 K
14 1/2	46	17 1/8	5	40 3/4	39 1/4	11	28 3/4	4 9/32	18	(4)- 2	1780	SDAF 23176 K
15 1/2	48 3/4	18 3/4	5 1/2	43 1/2	41 1/2	12 1/4	31	4 13/16	19 3/8	(4)- 2 1/4	2415	SDAF 23180 K
17	52 3/4	22 1/4	5 1/2	46 5/8	44 1/2	14 1/2	34	5 19/32	21 3/4	(4)- 2 1/4	3149	SDAF 23184 K
17	52 3/4	22 1/4	5 1/2	46 5/8	44 1/2	14 1/2	34	5 5/16	21 3/4	(4)- 2 1/4	3063	SDAF 23188 K
18	54 1/4	21 5/8	5 3/4	48 7/8	47 1/8	15	35 3/4	5 7/16	22 3/4	(4)- 2 1/2	3465	SDAF 23192 K
18	54 1/4	21 5/8	5 3/4	48 7/8	47 1/8	15	35 3/4	5 3/16	22 3/4	(4)- 2 1/2	3309	SDAF 23196 K
18	54 1/4	21 5/8	5 3/4	48 7/8	47 1/8	15	35 3/4		22 3/4	(4)- 2 1/2	2956	SDAF 231/500 K
20	60	22	6	54	52 1/2	16	40		24 5/8	(4)- 3	4620	SDAF 231/530 K
20	60	22	6	54	52 1/2	16	40		24 5/8	(4)- 3	4282	SDAF 231/560 K

All housings come with stabilizing ring. Use for fixed, discard for float. Use only one "Fixed" bearing per shaft.

## SDAF 232 K

### PILLOW BLOCK DIMENSIONS

A	B	C	D	E		F	H	K STATIC OIL LEVEL	L	BOLTS (NO. REQ'D)	WEIGHT LBS. HOUSING ER,A	COMPLETE PILLOW BLOCK NUMBER
				MAX IN.	MIN IN.							
IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.		
10 1/4	35	14 1/2	3 3/4	30 1/2	29	8 3/4	20 1/2	3 9/32	14 1/8	(4)- 1 5/8	792	SDAF 23248 K
12	38 1/4	15 1/8	3 1/2	33 1/2	32 3/4	9	24	4 3/8	16 1/2	(4)- 1 5/8	949	SDAF 23252 K
12	38 1/4	15 1/8	3 1/2	33 1/2	32 3/4	9	24	4	16 1/2	(4)- 1 5/8	888	SDAF 23256 K
12 13/16	41 3/4	15 3/4	4 1/2	36 1/2	35	10 1/2	26	4 3/32	16 1/4	(4)- 1 7/8	1339	SDAF 23260 K
14	43 3/4	18 1/4	5	38 1/4	36 3/4	10 3/4	28	4 3/4	18	(4)- 2	1720	SDAF 23264 K
14 1/2	46	17 1/8	5	40 3/4	39 1/4	11	28 3/4	4 17/32	18	(4)- 2	1848	SDAF 23268 K
15 1/2	48 3/4	18 3/4	5 1/2	43 1/2	41 1/2	12 1/4	31	5 1/8	19 3/8	(4)- 2 1/4	2415	SDAF 23272 K
15 1/2	48 3/4	18 3/4	5 1/2	43 1/2	41 1/2	12 1/4	31	4 9/16	19 3/8	(4)- 2 1/4	2286	SDAF 23276 K
17	52 3/4	22 1/4	5 1/2	46 5/8	44 1/2	14 1/2	34	5 5/8	21 3/4	(4)- 2 1/4	3149	SDAF 23280 K
18	54 1/4	21 5/8	5 3/4	48 7/8	47 1/8	15	35 3/4	5 25/32	22 3/4	(4)- 2 1/2	3465	SDAF 23284 K
18	54 1/4	21 5/8	5 3/4	48 7/8	47 1/8	15	35 3/4	5 1/4	22 3/4	(4)- 2 1/2	3309	SDAF 23288 K
18	54 1/4	21 5/8	5 3/4	48 7/8	47 1/8	15	35 3/4		22 3/4	(4)- 2 1/2	2956	SDAF 23292 K
20	60	22	6	54	52 1/2	16	40		24 5/8	(4)- 3	4620	SDAF 23296 K
20	60	22	6	54	52 1/2	16	40		24 5/8	(4)- 3	4282	SDAF 232/500 K



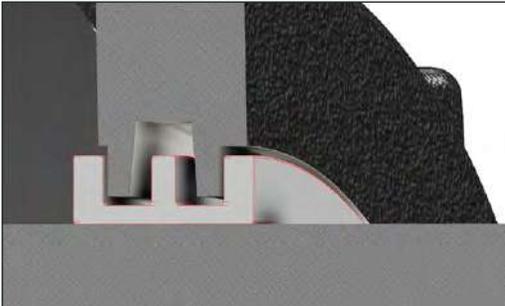
**Style**  
SDAF/SDAFD/SDAFS

# Seals, Taconite Seals, and End Plugs



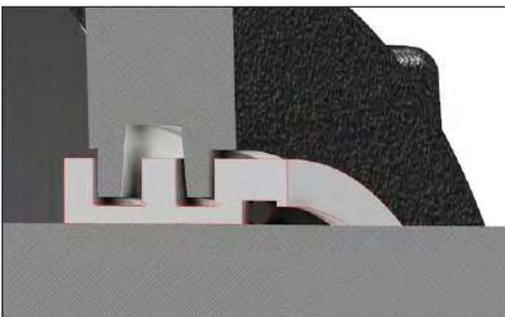
- Labyrinth triple-seal rotating rings: seal out foreign matter... seal in oil and grease
- Taconite seals are a special auxiliary seal featuring 3 seals in one for extremely dirty, dusty, abrasive and wet environments. The taconite seal can be supplied with either a lip type oil seal or a V type v-ring seal.
- End plugs come in either a rubber or steel configuration.

## Available Seal Configurations



### Labyrinth Seals

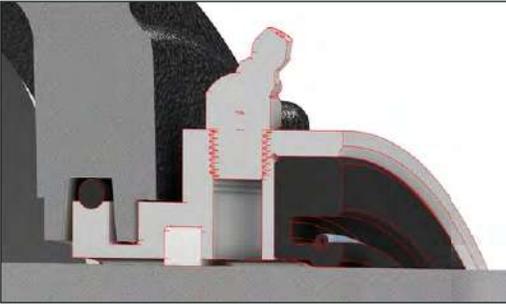
- Standard seal on split pillow blocks
- One-piece rotating labyrinth seal
- Standard aluminum composition, steel optional
- Close running tolerance between shaft and housing surfaces
- Provides protection from contaminants
- Provides grease retention
- Allows for maximum shaft misalignment



### Labyrinth Seals with O-Ring

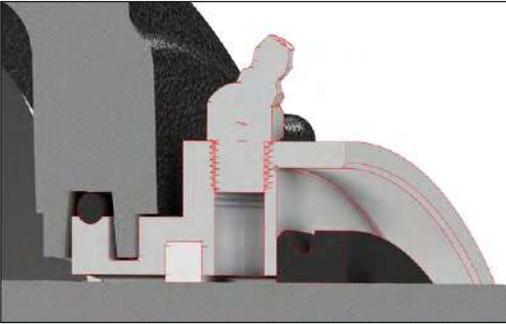
- O-Ring provides additional sealing between shaft and seal ring
- Drop in replacement for Labyrinth Seals





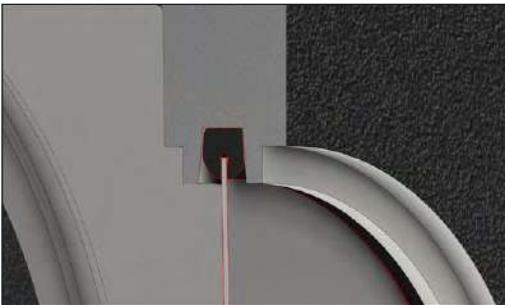
### Taconite Seal (TER)

- Special auxiliary seal featuring 3 seals in 1 unit
  1. Outboard contact seal on shaft
  2. Inboard felt seal on shaft
  3. Purgeable grease cavity to flush out contaminants
- Advanced protection for extremely dirty, dusty, abrasive, and wet environments
- Drop in replacement for Labyrinth Seals
- Carrier and seal are static



### Taconite Seal (TERV)

- Special auxiliary seal featuring 3 seals in 1 unit
  1. Outboard V-Ring seals on carrier while rotating with shaft
  2. Inboard felt seal on shaft
  3. Purgeable grease cavity to flush out contaminants
- Advanced protection for extremely dirty, dusty, abrasive, and wet environments
- Drop in replacement for Labyrinth Seals
- Carrier is static while V-Ring is rotating
  - Allows greater misalignment than TER
  - Provides sealing even if shaft out-of-round or rotating eccentrically



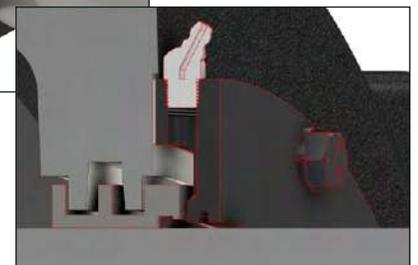
### Drop In End Plug - Rubber or Steel

- Contact fit to close off housing



### Drop In End Plug - Cast Iron

- Contact fit to close off housing

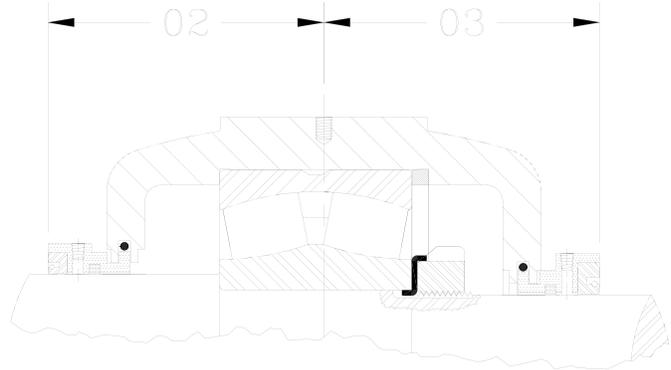
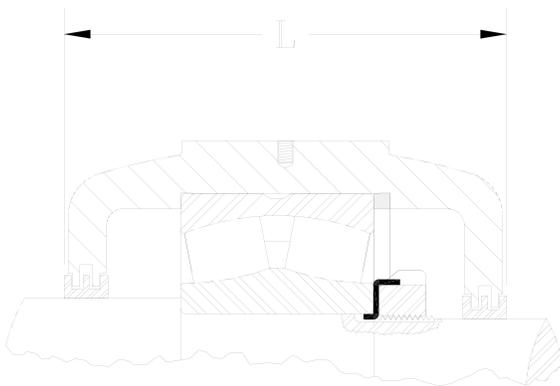


### Shrouds

- Provides additional bolt on protection for inner seal
- Housings seal faces are machined with a bolt pattern
- Purgeable grease cavity to flush out contaminants

# SAF 200, 300

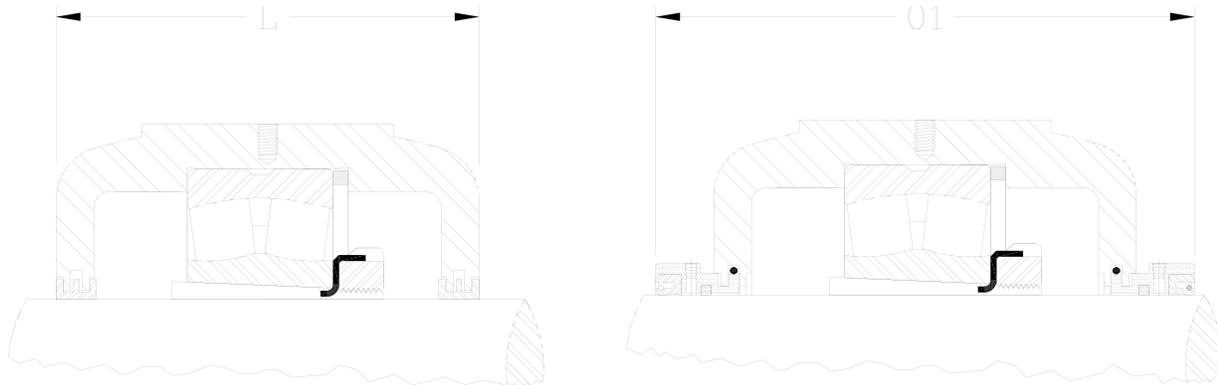
## Seals, Taconites, and End Plugs



### SAF 200 - 300

SHAFT DIAMETER		HOUSING NUMBER	TRIPLE SEAL		L dim.	TACONITE SEAL		O2 dim.	O3 dim.	PLUGS	
S-2 IN.	S-3 IN.		S-2	S-3		S-2	S-3			RUBBER	STEEL
3 1/16	2 7/16	SAF 213	LER 55	LER 37	4 1/2	TER 55	TER 37	3 3/4	3 11/16	EP 04 R	EP 04 S
3 7/16	2 13/16	SAF 215	LER 79	LER 46	4 3/4	TER 79	TER 46	3 1/2	3 1/2	EP 05 R	EP 05 S
3 5/8	3"	SAF 216	LER 82	LER 54	4 7/16	TER 82	TER 54	4"	4"	EP 06 R	EP 06 S
3 15/16	3 3/16	SAF 217	LER 89	LER 63	5"	TER 89	TER 63	3 13/16	3 13/16	EP 08 R	EP 08 S
4 1/8	3 3/8	SAF 218	LER 96	LER 191	5 3/4	TER 96	TER 191	4"	4"	EP 09 R	EP 09 S
4 1/2	3 13/16	SAF 220	LER 118	LER 106	6"	TER 118	TER 106	4 5/16	4 5/16	EP 12 R	EP 12 S
4 7/8	4 3/16	SAF 222	LER 121	LER 113	6 1/2	TER 121	TER 113	4 1/2	4 1/2	EP 14 R	EP 14 S
5 5/16	4 9/16	SAF 224	LER 127	LER 119	7 3/8	TER 127	TER 119	5"	5"	EP 15 R	EP 15 S
5 7/8	4 15/16	SAF 226	LER 136	LER 122	8"	TER 136	TER 122	5 1/4	5 1/4	EP 16 R	EP 16 S
6 1/4	5 5/16	SAF 228	LER 144	LER 127	7 5/8	TER 144	TER 127	5 1/8	5 1/8	EP 17 R	EP 17 S
6 5/8	5 3/4	SAF 230	LER 151	LER 134	8 3/8	TER 151	TER 134	5 7/16	5 1/2	EP 19 R	EP 19 S
7"	6 1/16	SAF 232	LER 156	LER 142	8 3/4	TER 156	TER 142	5 13/16	5 3/4	EP 20 R	EP 20 S
7 7/16	6 7/16	SAF 234	LER 161	LER 148	9 5/8	TER 161	TER 148	6 3/16	6 1/8	EP 21 R	EP 21 S
7 13/16	6 7/8	SAF 236	LER 165	LER 154	10"	TER 165	TER 154	6 1/4	6 1/4	EP 22 R	EP 22 S
8 3/16	7 1/4	SAF 238	LER 171	LER 160	10 5/8	TER 171	TER 160	6 13/16	6 13/16	EP 23 R	EP 23 S
8 3/4	7 5/8	SAF 240	LER 175	LER 164	11 1/8	TER 175	TER 164	6 15/16	6 15/16		EP 24 S
9 9/16	8 5/16	SAF 244	LER 179	LER 170	11 7/8	TER 179	TER 170	7 7/16	7 7/16		EP 26 S
4 1/8	3 3/8	SAF 318	LER 112	LER 191	6 7/8	TER 112	TER 191	4 3/4	4 5/8	EP 09 R	EP 09 S
4 1/2	3 13/16	SAF 320	LER 118	LER 106	7 3/8	TER 118	TER 106	5"	5"	EP 12 R	EP 12 S
4 7/8	4 3/16	SAF 322	LER 121	LER 113	8"	TER 121	TER 113	5 1/4	5 1/4	EP 14 R	EP 14 S
5 5/16	4 9/16	SAF 324	LER 127	LER 119	8 3/8	TER 127	TER 119	5 1/2	5 1/2	EP 15 R	EP 15 S
5 7/8	4 15/16	SAF 326	LER 136	LER 122	8 3/4	TER 136	TER 122	5 11/16	5 11/16	EP 16 R	EP 16 S
6 1/4	5 5/16	SAF 328	LER 144	LER 127	9 5/8	TER 144	TER 127	6 1/8	6 1/8	EP 17 R	EP 17 S
6 5/8	5 3/4	SAF 330	LER 151	LER 134	10"	TER 151	TER 134	6 1/4	6 5/16	EP 19 R	EP 19 S
7"	6 1/16	SAF 332	LER 156	LER 142	10 5/8	TER 156	TER 142	6 3/4	6 11/16	EP 20 R	EP 20 S
7 7/16	6 7/16	SAF 334	LER 161	LER 148	11 1/8	TER 161	TER 148	7 1/16	7"	EP 21 R	EP 21 S
7 13/16	6 7/8	SAF 336	LER 165	LER 154	11 3/8	TER 165	TER 154	6 15/16	6 15/16	EP 22 R	EP 22 S
8 3/8	7 1/4	SAF 338	LER 171	LER 160	11 7/8	TER 171	TER 160	7 7/16	7 7/16	EP 23 R	EP 23 S
8 3/4	7 5/8	SAF 340	LER 175	LER 164	12 1/16	TER 175	TER 164	7 7/16	7 7/16		EP 28 S

## Seals, Taconites, and End Plugs

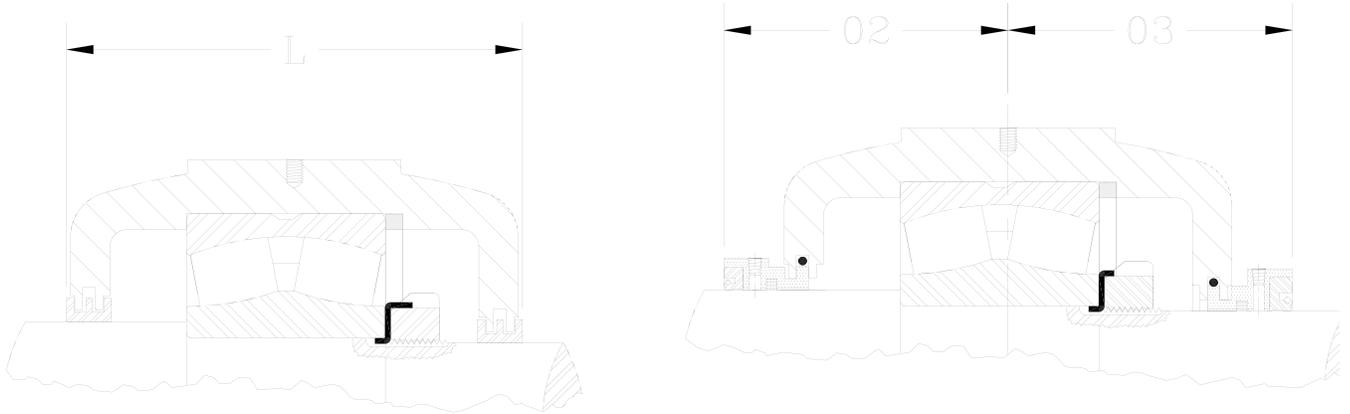


### SAF 500 - 600

SHAFT DIAMETER	HOUSING NUMBER	TRIPLE SEAL	L dim.	TACONITE SEAL	O1 dim.	END PLUGS	
						RUBBER	STEEL
2 3/16	SAF 513 02-03	LER 29	4 1/2	TER 29	7 1/16	EP 02 R	EP 02 S
2 7/16	SAF 515 02-07	LER 37	4 3/4	TER 37	7 9/16	EP 04 R	EP 04 S
2 11/16	SAF 516 02-11	LER 44	4 7/8	TER 44	7 3/4	EP 05 R	EP 05 S
2 15/16	SAF 517 02-15	LER 53	5"	TER 530	7 7/8	EP 06 R	EP 06 S
3 3/16	SAF 518 03-03	LER 188	5 3/4	TER 188	8 1/16	EP 09 R	EP 09 S
3 7/16	SAF 520 03-07	LER 102	6"	TER 102	8 13/16	EP 11 R	EP 11 S
3 15/16	SAF 522 03-15	LER 109	6 1/2	TER 109	9"	EP 13 R	EP 13 S
4 3/16	SAF 524 04-03	LER 113	7 3/8	TER 113	9 15/16	EP 14 R	EP 14 S
4 7/16	SAF 526 04-07	LER 117	8"	TER 117	10 9/16	EP 15 R	EP 15 S
4 15/16	SAF 528 04-15	LER 122	7 5/8	TER 122	10 3/16	EP 16 R	EP 16 S
5 3/16	SAF 530 05-03	LER 125	8 3/8	TER 125	11 1/16	EP 17 R	EP 17 S
5 7/16	SAF 532 05-07	LER 130	8 3/4	TER 130	11 7/16	EP 18 R	EP 18 S
5 15/16	SAF 534 05-15	LER 140	9 5/8	TER 140	12 7/16	EP 20 R	EP 20 S
6 7/16	SAF 536 06-07	LER 148	10"	TER 148	12 11/16	EP 21 R	EP 21 S
6 15/16	SAF 538 06-15	LER 155	10 5/8	TER 155	13 1/2	EP 22 R	EP 22 S
7 3/16	SAF 540 07-03	LER 159	11 1/8	TER 159	14 3/16	EP 23 R	EP 23 S
7 15/16	SAF 544 07-15	LER 167	11 7/8	TER 167	14 15/16	EP 25 R	EP 25 S
3 3/16	SAF 618 03-03	LER 188	6 7/8	TER 188	9 5/16	EP 09 R	EP 09 S
3 7/16	SAF 620 03-07	LER 102	7 3/8	TER 102	10 3/16	EP 11 R	EP 11 S
3 15/16	SAF 622 03-15	LER 109	8"	TER 109	10 3/8	EP 13 R	EP 13 S
4 3/16	SAF 624 04-03	LER 113	8 3/8	TER 113	10 15/16	EP 14 R	EP 14 S
4 7/16	SAF 626 04-07	LER 117	8 3/4	TER 117	11 5/16	EP 15 R	EP 15 S
4 15/16	SAF 628 04-15	LER 122	9 5/8	TER 122	12 3/16	EP 16 R	EP 16 S
5 3/16	SAF 630 05-03	LER 125	10"	TER 125	12 11/16	EP 17 R	EP 17 S
5 7/16	SAF 632 05-07	LER 130	10 5/8	TER 130	13 5/16	EP 18 R	EP 18 S
5 15/16	SAF 634 05-15	LER 140	11 1/8	TER 140	14 3/16	EP 20 R	EP 20 S
6 7/16	SAF 636 06-07	LER 148	11 3/8	TER 148	14 1/16	EP 21 R	EP 21 S
6 15/16	SAF 638 06-15	LER 155	11 7/8	TER 155	14 13/16	EP 22 R	EP 22 S
7 3/16	SAF 640 07-03	LER 159	12 1/16	TER 159	15 1/8	EP 23 R	EP 23 S

# SDAF 200, 300

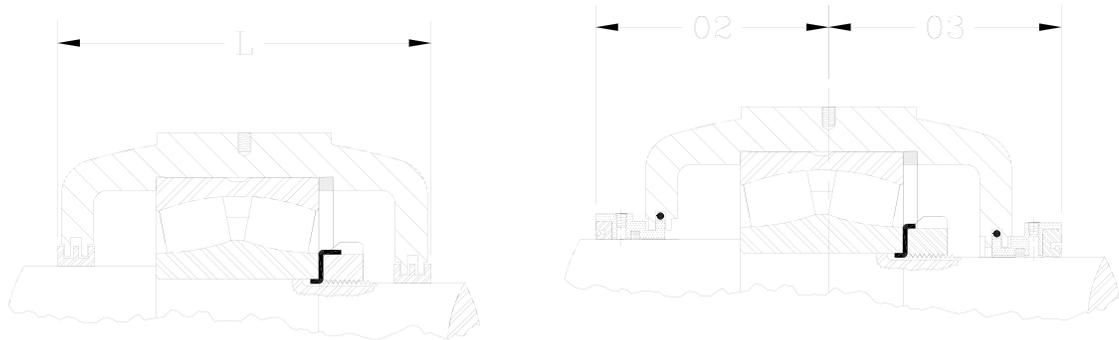
## Seals, Taconites, and End Plugs



### SDAF 200 - 300

SHAFT DIAMETER		HOUSING NUMBER	TRIPLE SEAL		L dim.	TACONITE SEAL		O2 dim.	O3 dim.	PLUGS	
S-2 IN.	S-3 IN.		S-2	S-3		S-2	S-3			RUBBER	STEEL
4 1/2	3 13/16	SDAF 220	LER 118	LER 106	6 3/4	TER 118	TER 106	4 3/4	4 3/4	EP 12 R	EP 12 S
4 7/8	4 3/16	SDAF 222	LER 121	LER 113	7 1/4	TER 121	TER 113	4 15/16	4 15/16	EP 14 R	EP 14 S
5 5/16	4 9/16	SDAF 224	LER 127	LER 119	7 3/8	TER 127	TER 119	5 1/16	5 1/16	EP 15 R	EP 15 S
5 7/8	4 15/16	SDAF 226	LER 136	LER 122	8"	TER 136	TER 122	5 5/16	5 5/16	EP 16 R	EP 16 S
6 1/4	5 5/16	SDAF 228	LER 144	LER 127	7 13/16	TER 144	TER 127	5 1/4	5 1/4	EP 17 R	EP 17 S
6 5/8	5 3/4	SDAF 230	LER 151	LER 134	8 3/8	TER 151	TER 134	5 7/16	5 9/16	EP 19 R	EP 19 S
7"	6 1/16	SDAF 232	LER 156	LER 142	8 3/4	TER 156	TER 142	5 7/8	5 3/4	EP 20 R	EP 20 S
7 7/16	6 7/16	SDAF 234	LER 161	LER 148	9 5/8	TER 161	TER 148	6 1/4	6 3/16	EP 21 R	EP 21 S
7 13/16	6 7/8	SDAF 236	LER 165	LER 154	10"	TER 165	TER 154	6 5/16	6 5/16	EP 22 R	EP 22 S
8 3/8	7 1/4	SDAF 238	LER 240	LER 229	10 5/8	TER 240	TER 229	6 11/16	6 11/16		EP 23-1 S
8 3/4	7 5/8	SDAF 240	LER 244	LER 233	11 1/8	TER 244	TER 233	7 3/8	7 3/8		EP 24-2 S
9 9/16	8 5/16	SDAF 244	LER 248	LER 239	12 3/16	TER 248	TER 239	7 7/8	7 7/8		EP 26-1 S
3 15/16	3 3/16	SDAF 317	LER 109	LER 188	6 3/4	TER 109	TER 188	4 11/16	4 11/16	EP 09 R	EP 09 S
4 1/8	3 3/8	SDAF 318	LER 112	LER 191	6 7/8	TER 112	TER 191	4 3/4	4 11/16	EP 10 R	EP 10 S
4 1/2	3 13/16	SDAF 320	LER 118	LER 106	7 3/8	TER 118	TER 106	5 1/16	5 1/16	EP 12 R	EP 12 S
4 7/8	4 3/16	SDAF 322	LER 121	LER 113	8"	TER 121	TER 113	5 5/16	5 5/16	EP 14 R	EP 14 S
5 5/16	4 9/16	SDAF 324	LER 127	LER 119	8 3/8	TER 127	TER 119	5 9/16	5 9/16	EP 15 R	EP 15 S
5 7/8	4 15/16	SDAF 326	LER 136	LER 122	8 3/4	TER 136	TER 122	5 11/16	5 11/16	EP 16 R	EP 16 S
6 1/4	5 5/16	SDAF 328	LER 144	LER 127	9 5/8	TER 144	TER 127	6 3/16	6 3/16	EP 17 R	EP 17 S
6 5/8	5 3/4	SDAF 330	LER 151	LER 134	9 3/4	TER 151	TER 134	6 1/8	6 1/4	EP 19 R	EP 19 S
7"	6 1/16	SDAF 332	LER 225	LER 217	10 5/8	TER 225	TER 217	6 1/2	6 1/2		EP 20-3 S
7 7/16	6 7/16	SDAF 334	LER 230	LER 220	11 1/8	TER 230	TER 220	6 13/16	6 3/4		EP 21-1 S
7 13/16	6 7/8	SDAF 336	LER 234	LER 223	11 3/8	TER 234	TER 223	6 7/8	6 7/8		EP 22-M S
8 3/8	7 1/4	SDAF 338	LER 240	LER 229	11 13/16	TER 240	TER 229	7 1/4	7 1/4		EP 23-1 S
8 3/4	7 5/8	SDAF 340	LER 244	LER 233	12 3/16	TER 244	TER 233	7 15/16	7 15/16		EP 24-2 S

## Seals, Taconites, and End Plugs

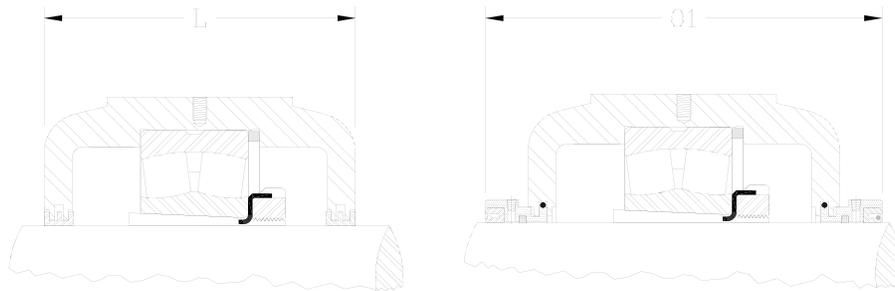


### SDAF 231 - 232

SHAFT DIAMETER		HOUSING NUMBER	TRIPLE SEAL		L dim.	TACONITE SEAL		O2 dim.	O3 dim.
S-2 IN.	S-3 IN.		S-2	S-3		S-2	S-3		
11 1/2	9 15/16	SDAF 3152	ER 832	ER 845	14 1/8	TER 832	TER 845	8 11/16	8 11/16
12 1/2	10 3/4	SDAF 3156	ER 866	ER 826	15 1/2	TER 866	TER 826	9 3/8	9 1/4
13"	11 1/2	SDAF 3160	ER 824	ER 832	16 1/2	TER 824	TER 832	9 7/8	9 7/8
14"	12 1/4	SDAF 3164	ER 876	ER 983	16 1/4	TER 876	TER 983	9 3/4	9 3/4
15"	13"	SDAF 3168	ER 847	ER 846	18"	TER 847	TER 846	10 5/8	10 1/2
16"	13 3/4	SDAF 3172	ER 809	ER 874	18"	TER 809	TER 874	10 9/16	10 7/16
17"	14 1/2	SDAF 3176	ER 811	ER 950	18"	TER 811	TER 950	10 7/16	10 7/16
17 1/2	15 1/4	SDAF 3180	ER 967	ER 895	19 3/8	TER 967	TER 895	11 7/8	11 5/16
18 1/2	15 3/4	SDAF 3184	ER 978	ER 907	21 3/4	TER 978	TER 907	12 7/16	12 7/16
19 1/2	17"	SDAF 3188	ER 926	ER 838	21 3/4	TER 926	TER 838	12 9/16	12 1/2
20"	17 3/4	SDAF 3192	ER 808	ER 906	22 3/4	TER 808	TER 906	13 1/16	12 15/16
10 1/2	9 3/16	SDAF 3248	ER 840	ER 923	14 1/8	TER 840	TER 923	8 11/16	8 11/16
11 1/2	9 15/16	SDAF 3252	ER 832	ER 845	16 1/2	TER 832	TER 845	9 7/8	9 7/8
12 1/2	10 3/4	SDAF 3256	ER 866	ER 826	16 1/2	TER 866	TER 826	9 7/8	9 3/4
13"	11 1/2	SDAF 3260	ER 846	ER 856	16 1/4	TER 846	TER 856	9 5/8	9 5/8
14"	12 1/4	SDAF 3264	ER 876	ER 983	18"	TER 876	TER 983	10 5/8	10 5/8
15"	13"	SDAF 3268	ER 847	ER 846	18"	TER 847	TER 846	10 9/16	10 7/16
16"	13 3/4	SDAF 3272	ER 965	ER 981	19 3/8	TER 965	TER 981	11 3/8	11 1/8
17"	14 1/2	SDAF 3276	ER 838	ER 984	19 3/8	TER 838	TER 984	11 5/16	11 1/8
17 1/2	15 1/4	SDAF 3280	ER 967	ER 895	21 3/4	TER 967	TER 895	13 1/16	12 1/2
18 1/2	15 3/4	SDAF 3284	ER 978	ER 907	22 3/4	TER 978	TER 907	12 15/16	12 15/16
19 1/2	17"	SDAF 3288	ER 926	ER 838	22 3/4	TER 926	TER 838	13 1/16	13"
20"	17 3/4	SDAF 3292	ER 808	ER 906	22 3/4	TER 808	TER 906	13 1/16	12 15/16

# SAF, SDAF 230K

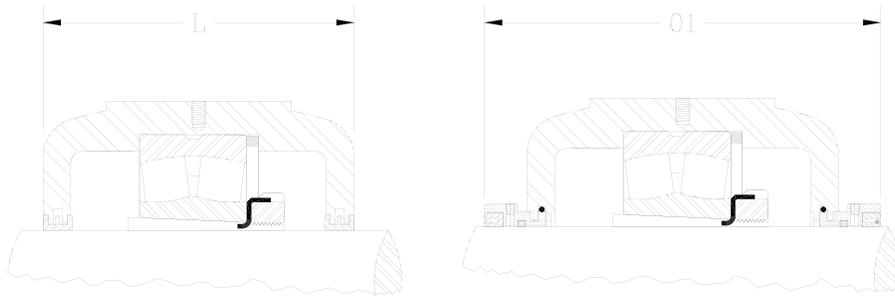
## Seals, Taconites, and End Plugs



### SAF, SDAF 230K

SHAFT DIAMETER	HOUSING NUMBER	TRIPLE SEAL	L dim.	TACONITE SEAL	O1 dim.	END PLUGS	
						RUBBER	STEEL
4 3/16	SAF 024 K 04-03	LER 113	6"	TER 113	8 9/16	EP 14 R	EP 14 S
4 7/16	SAF 026 K 04-07	LER 117	6 1/2	TER 117	9 1/16	EP 15 R	EP 15 S
4 15/16	SAF 028 K 04-15	LER 122	7 3/8	TER 122	9 15/16	EP 16 R	EP 16 S
5 3/16	SAF 030 K 05-03	LER 125	8"	TER 125	10 11/16	EP 17 R	EP 17 S
5 7/16	SAF 032 K 05-07	LER 130	8"	TER 130	10 11/16	EP 18 R	EP 18 S
5 15/16	SAF 034 K 05-15	LER 140	7 5/8	TER 140	10 7/16	EP 20 R	EP 20 S
6 7/16	SAF 036 K 06-07	LER 148	8 3/4	TER 148	11 7/16	EP 21 R	EP 21 S
6 15/16	SAF 038 K 06-15	LER 155	8 3/4	TER 155	11 11/16	EP 22 R	EP 22 S
7 3/16	SAF 040 K 07-03	LER 159	9 5/8	TER 159	12 11/16	EP 23 R	EP 23 S
7 15/16	SAF 044 K 07-15	LER 167	10 5/8	TER 167	13 5/8	EP 25 R	EP 25 S
8 7/16	SAF 048 K 08-07	LER 526	11 1/8	TER 526	13 15/16		EP 50 E S
8 1/2	SAF 048 K 08-08	LER 527	11 1/8	TER 527	14 11/16		EP 50 E S
8 15/16	SAF 048 K 08-15	LER 529	11 1/8	TER 529	14 11/16		EP 50 E S
9"	SAF 048 K 09-00	LER 530	11 1/8	TER 530	14 11/16		EP 50 E S
9 7/16	SAF 052 K 09-07	LER 178-1	11 7/8	TER 178-1	15 7/16		EP 51-1 S
9 1/2	SAF 052 K 09-08	LER 178	11 7/8	TER 178-1	15 7/16		EP 51-1 S
9 15/16	SAF 056 K 09-15	ER 751	12 1/16	TER 751	15"		EP 49 E S
10"	SAF 056 K 10-00	ER 705	12 1/16	TER 705	15 1/4		EP 49 E S
10 1/2	SAF 056 K 10-08	ER 710	12 1/16	TER 710	15 7/16		EP 51 S
10 15/16	SDAF 060 K 10-15	ER 858	15 1/2	TER 858	18 3/4		EP 15910 S
11"	SDAF 060 K 11-00	ER 825	15 1/2	TER 825	18 1/2		EP 15910 S
11 7/16	SDAF 064 K 11-07	ER 861	16 1/2	TER 861	19 3/4		EP 17822 S
11 1/2	SDAF 064 K 11-08	ER 832	16 1/2	TER 832	19 3/4		EP 17822 S
11 15/16	SDAF 064 K 11-15	ER 859	16 1/2	TER 859	19 3/4		EP 17291 S
12"	SDAF 064 K 12-00	ER 818	16 1/2	TER 818	19 3/4		EP 17291 S
12 1/2	SDAF 068 K 12-08	ER 866	15 3/4	TER 866	19"		EP 20164 S
12 15/16	SDAF 072 K 12-15	ER 869	16 1/4	TER 869	19 3/16		EP 11642 S
13"	SDAF 072 K 13-00	ER 846	16 1/4	TER 846	19 3/16		EP 11642 S
13 7/16	SDAF 072 K 13-07	ER 872	16 1/4	TER 872	19 3/16		EP 20826 S
13 1/2	SDAF 072 K 13-08	ER 823	16 1/4	TER 823	19 3/16		EP 20826 S
13 15/16	SDAF 076 K 13-15	ER 875	16 1/4	TER 875	19 7/16		EP 17646 S
14"	SDAF 076 K 14-00	ER 876	16 1/4	TER 876	19 7/16		EP 17646 S
15"	SDAF 080 K 15-00	ER 847	18"	TER 847	21 1/16		EP 20263 S
15 3/4	SDAF 084 K 15-12	ER 885	18"	TER 885	21 1/16		EP 18690 S
16 1/2	SDAF 088 K 16-08	ER 958	19 3/8	TER 958	22 3/4		EP 20825 S
17"	SDAF 092 K 17-00	ER 838	19 3/8	TER 838	22 5/8		EP 20262 S
18"	SDAF 096 K 18-00	ER 888	21 3/4	TER 888	24 5/8		EP 20821 S
18 1/2	SDAF 30/500 K 18-08	ER 978	21 3/4	TER 978	24 7/8		
19 1/2	SDAF 30/530 K 19-08	ER 926	22 3/4	TER 926	26 1/8		

## Seals, Taconites, and End Plugs

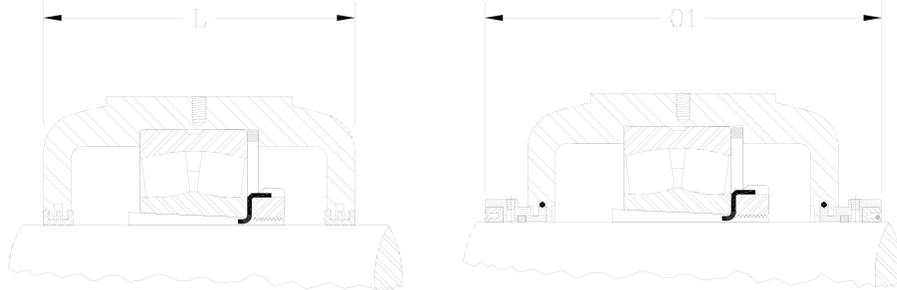


### SDAF 231K - 232 K

SHAFT DIAMETER	HOUSING NUMBER	TRIPLE SEAL	L dim.	TACONITE SEAL	O1 dim.
9 7/16	SDAF 3152 K 09-07	ER 891	14 1/8	TER 891	17 1/8
10 7/16	SDAF 3156 K 10-07	ER 973	15 1/2	TER 973	18 13/16
10 15/16	SDAF 3160 K 10-15	ER 858	16 1/2	TER 858	19 3/8
11 15/16	SDAF 3164 K 11-15	ER 900	16 1/4	TER 900	19 7/16
12 7/16	SDAF 3168 K 12-07	ER 975	18"	TER 975	21 3/16
13 7/16	SDAF 3172 K 13-07	ER 872	18"	TER 872	20 13/16
13 15/16	SDAF 3176 K 13-15	ER 875	18"	TER 875	21 1/16
15"	SDAF 3180 K 15-00	ER 976	19 3/8	TER 976	22 1/2
15 3/4	SDAF 3184 K 15-12	ER 907	21 3/4	TER 907	24 7/8
16 1/2	SDAF 3188 K 16-08	ER 958	21 3/4	TER 958	25 1/8
17"	SDAF 3192 K 17-00	ER 838	22 3/4	TER 838	26"
18"	SDAF 3196 K 18-00	ER 888	22 3/4	TER 888	25 5/8
18 1/2	SDAF 31/500 K 18-08	ER 978	22 3/4	TER 978	25 7/8
19 1/2	SDAF 31/530 K 19-08	ER 926	22 3/4	TER 926	26 1/8
8 15/16	SDAF 3248 K 08-15	ER 914	14 1/8	TER 914	17 1/8
9 7/16	SDAF 3252 K 09-07	ER 891	16 1/2	TER 891	19 1/2
10 7/16	SDAF 3256 K 10-07	ER 973	16 1/2	TER 973	19 13/16
10 15/16	SDAF 3260 K 10-15	ER 974	16 1/4	TER 974	19 3/16
11 15/16	SDAF 3264 K 11-15	ER 900	18"	TER 900	21 3/16
12 7/16	SDAF 3268 K 12-07	ER 975	18"	TER 975	21 1/16
13 7/16	SDAF 3272 K 13-07	ER 979	19 3/8	TER 979	22 1/2
13 15/16	SDAF 3276 K 13-15	ER 977	19 3/8	TER 977	22 1/4
15"	SDAF 3280 K 15-00	ER 976	21 3/4	TER 976	24 7/8
15 3/4	SDAF 3284 K 15-12	ER 907	22 3/4	TER 907	25 7/8
16 1/2	SDAF 3288 K 16-08	ER 958	22 3/4	TER 958	26 1/8
17"	SDAF 3292 K 17-00	ER 838	22 3/4	TER 838	26"
18"	SDAF 3296 K 18-00	ER 888	24 5/8	TER 888	27 1/2
18 1/2	SDAF 32/500 K 18-08	ER 978	24 5/8	TER 978	27 3/4

# SDAF 500, 600

## Seals, Taconites, and End Plugs



### SDAF 500 - 600

SHAFT DIAMETER	HOUSING NUMBER	TRIPLE SEAL	L dim.	TACONITE SEAL	O1 dim.	END PLUGS	
						RUBBER	STEEL
3 7/16	SDAF 520 03-07	LER 102	6 3/4	TER 102	9 5/8	EP 11 R	EP 11 S
3 15/16	SDAF 522 03-15	LER 109	7 1/4	TER 109	9 13/16	EP 13 R	EP 13 S
4 3/16	SDAF 524 04-03	LER 113	7 3/8	TER 113	10"	EP 14 R	EP 14 S
4 7/16	SDAF 526 04-07	LER 117	8"	TER 117	10 5/8	EP 15 R	EP 15 S
4 15/16	SDAF 528 04-15	LER 122	7 13/16	TER 122	10 7/16	EP 16 R	EP 16 S
5 3/16	SDAF 530 05-03	LER 125	8 3/8	TER 125	11 1/8	EP 17 R	EP 17 S
5 7/16	SDAF 532 05-07	LER 130	8 3/4	TER 130	11 1/2	EP 18 R	EP 18 S
5 15/16	SDAF 534 05-15	LER 140	9 5/8	TER 140	12 1/2	EP 20 R	EP 20 S
6 7/16	SDAF 536 06-07	LER 148	10"	TER 148	12 3/4	EP 21 R	EP 21 S
6 15/16	SDAF 538 06-15	LER 155	10 5/8	TER 155	13"		EP 22 M S
7 3/16	SDAF 540 07-03	LER 159	11 1/8	TER 159	13 1/2		EP 23-1 S
7 15/16	SDAF 544 07-15	LER 167	12 3/16	TER 167	14 11/16		EP 25-1 S
2 15/16	SDAF 617 02-15	LER 53	6 3/4	TER 53	9 5/8		EP 07 S
3 3/16	SDAF 618 03-03	LER 188	6 7/8	TER 188	9 3/8	EP 09 R	EP 09 S
3 7/16	SDAF 620 03-07	LER 102	7 3/8	TER 102	10 1/4	EP 11 R	EP 11 S
3 15/16	SDAF 622 03-15	LER 109	8"	TER 109	10 9/16	EP 13 R	EP 13 S
4 3/16	SDAF 624 04-03	LER 113	8 3/8	TER 113	11"	EP 14 R	EP 14 S
4 7/16	SDAF 626 04-07	LER 117	8 3/4	TER 117	11 3/8	EP 15 R	EP 15 S
4 15/16	SDAF 628 04-15	LER 122	9 5/8	TER 122	12 1/4	EP 16 R	EP 16 S
5 3/16	SDAF 630 05-03	LER 125	9 3/4	TER 125	12 1/2	EP 17 R	EP 17 S
5 7/16	SDAF 632 05-07	LER 130	10 5/8	TER 130	13"		EP 18-2 S
5 15/16	SDAF 634 05-15	LER 140	11 1/8	TER 140	13 1/2		EP 20-3 S
6 7/16	SDAF 636 06-07	LER 148	11 3/8	TER 148	13 3/4		EP 21-1 S
6 15/16	SDAF 638 06-15	LER 155	12 3/16	TER 155	14 1/4		EP 22 M S
7 3/16	SDAF 640 07-03	LER 159	12 3/16	TER 159	14 9/16		EP 23-1 S

# Standard Locknut Core Restore Program

## Save time and money by repurposing existing components

Want to save thousands of dollars on your bearing housing and endcap investments with the Standard Locknut Core Restore Program?

Send your old housing with endcaps to us and our team of experts will examine them to determine if they can be restored - potentially adding life to existing industrial components and saving you thousands of dollars.

Our exclusive **Core Restore Program** benefits the environment AND your bottom line. All Core Restore housings are precision engineered and machined in our Westfield, Indiana manufacturing facilities.



## How the Program Works:



### Contact us

Contact your Standard Locknut customer service representative at 1-800-783-6887 or email us at [corerestore@stdlocknut.com](mailto:corerestore@stdlocknut.com) for a quote request.



### Return used housing (with endcaps)

Ship your current housing product to Standard Locknut for inspection. An expert will review your product to determine if restoration is possible.



### Place order

Your Standard Locknut representative will apply your discount within 4 weeks of product inspection, if approved.

# Solid Pillow Blocks



**Solid pillow blocks are engineered assemblies that house an anti-friction bearing. The rolling element inside a pillow block bearing system can range from a ball, cylindrical roller, spherical roller or tapered roller.**

They are often made from a single piece, instead of two pieces, and feature a solid base and housing that is designed to be more rigid and durable than split pillow blocks. Solid pillow blocks provide greater rigidity and are typically used in applications that require infrequent bearing replacement.

The environment and load are key factors in determining which type of pillow block is best. Solid pillow blocks are usually the best choice in harsh environments where contaminants are a concern. High-capacity loads also usually require a solid pillow block.

Solid pillow blocks are used in conveyors, rolling mills, pulp and paper mills, mining, and power transmission systems, among other applications.

## The Standard Locknut Difference

Standard Locknut offers cylindrical and adapter-mounted solid pillow blocks designed for the most demanding applications. Our MMW series of solid pillow blocks is engineered to house a wide variety of spherical roller bearing series.

Standard Locknut solid pillow blocks are available in shaft (cylindrical and step) sizes ranging from 2-7/16" to 23" and larger.

Standard configurations for solid steel pillow blocks:

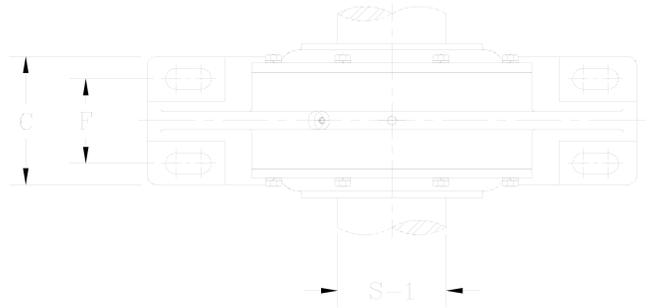
### Designate;

- NE Non-Expansion End
- CI Cast Iron Closed
- E Expansion End
- L Labyrinth Seals
- S Oil Seals

<b>MMW 225 and 226</b> .....	<b>54</b>
Adapter Mounted	
<b>MMW 230K</b> .....	<b>56</b>
Adapter Mounted	
<b>MMW 231K and 235</b> .....	<b>58</b>
Adapter Mounted	
<b>MMW 222 and 223</b> .....	<b>60</b>
Cylindrical Mounted	
<b>MMW 230 and 231</b> .....	<b>62</b>
Cylindrical Mounted	
<b>MMW 232</b> .....	<b>64</b>
Cylindrical Mounted	

# MMW 225 and 226

## Solid Pillow Blocks: How to order

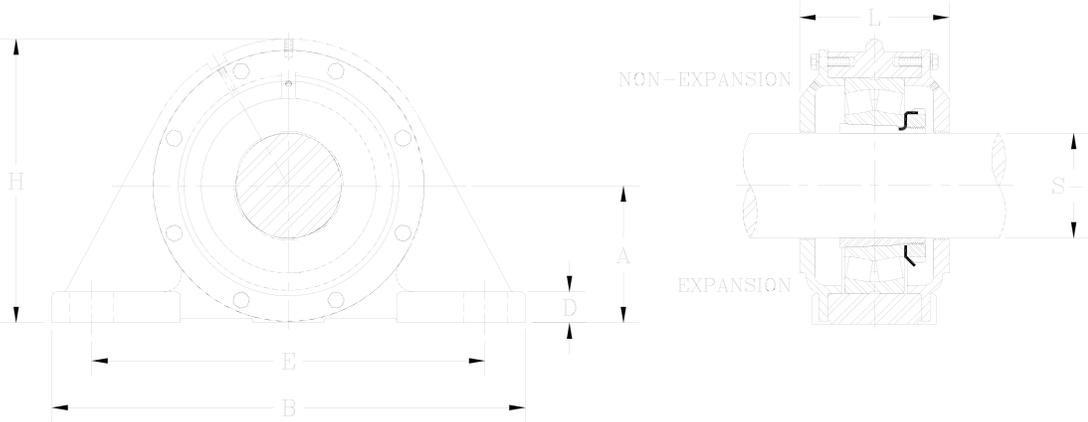


- When you order MMW 22518 NEL you receive;
  - 1 MMW 518 Housing with Labyrinth Seals, non expansion.
  - 1 No. 22218 K Bearing.
  - 1 No. SNW 18 Adapter (Sleeve, Locknut, and Lockwasher).
- These housing come either expansion for float applications) or non-expansion for fixed applications. Indicate by: E - For Expansion NE - For Non Expansion
- Always specify shaft size when ordering.
- Use only one NE - Non-Expansion housing per shaft.
- If you want Oil Seals substitute letter S for L. Oil seals are supplied at additional cost.
- If your order specifies "one end closed" you receive the necessary end plate.

<b>MMW 225</b>		<b>ADAPTER MOUNTED</b>			<b>PILLOW BLOCK PART NUMBERS</b>	
<b>SHAFT DIAMETER S-1 IN.</b>	<b>COMPLETE PILLOW BLOCK NUMBER</b>	<b>PILLOW BLOCK HOUSING ONLY</b>	<b>BEARING NUMBER</b>	<b>ADAPTER LOCKNUT AND LOCKWASHER</b>		
3 <sup>3/16</sup>	MMW 22518	MMW 518	22218 K	SNW 18		
3 <sup>7/16</sup>	MMW 22520	MMW 520	22220 K	SNW 20		
3 <sup>15/16</sup>	MMW 22522	MMW 522	22222 K	SNW 22		
4 <sup>3/16</sup>	MMW 22524	MMW 524	22224 K	SNW 24		
4 <sup>7/16</sup>	MMW 22526	MMW 526	22226 K	SNW 26		
4 <sup>15/16</sup>	MMW 22528	MMW 528	22228 K	SNW 28		
5 <sup>3/16</sup>	MMW 22530	MMW 530	22230 K	SNW 30		
5 <sup>7/16</sup>	MMW 22532	MMW 532	22232 K	SNW 32		
5 <sup>15/16</sup>	MMW 22534	MMW 534	22234 K	SNW 34		
6 <sup>7/16</sup>	MMW 22536	MMW 536	22236 K	SNW 36		
6 <sup>15/16</sup>	MMW 22538	MMW 538	22238 K	SNW 38		
7 <sup>3/16</sup>	MMW 22540	MMW 540	22240 K	SNW 40		
7 <sup>15/16</sup>	MMW 22544	MMW 544	22244 K	SNW 44		

<b>MMW 226</b>		<b>ADAPTER MOUNTED</b>			<b>PILLOW BLOCK PART NUMBERS</b>	
<b>SHAFT DIAMETER S-1 IN.</b>	<b>COMPLETE PILLOW BLOCK NUMBER</b>	<b>PILLOW BLOCK HOUSING ONLY</b>	<b>BEARING NUMBER</b>	<b>ADAPTER LOCKNUT AND LOCKWASHER</b>		
2 <sup>7/16</sup>	MMW 22615	MMW 615	22315 K	SNW 115		
2 <sup>11/16</sup>	MMW 22616	MMW 616	22316 K	SNW 116		
2 <sup>15/16</sup>	MMW 22617	MMW 617	22317 K	SNW 117		
3 <sup>3/16</sup>	MMW 22618	MMW 618	22318 K	SNW 118		
3 <sup>7/16</sup>	MMW 22620	MMW 620	22320 K	SNW 120		
3 <sup>15/16</sup>	MMW 22622	MMW 622	22322 K	SNW 122		
4 <sup>3/16</sup>	MMW 22624	MMW 624	22324 K	SNW 124		
4 <sup>7/16</sup>	MMW 22626	MMW 626	22326 K	SNW 126		
4 <sup>15/16</sup>	MMW 22628	MMW 628	22328 K	SNW 128		
5 <sup>3/16</sup>	MMW 22630	MMW 630	22330 K	SNW 130		
5 <sup>7/16</sup>	MMW 22632	MMW 632	22332 K	SNW 132		
5 <sup>15/16</sup>	MMW 22634	MMW 634	22334 K	SNW 134		
6 <sup>7/16</sup>	MMW 22636	MMW 636	22336 K	SNW 136		
6 <sup>15/16</sup>	MMW 22638	MMW 638	22338 K	SNW 138		
7 <sup>3/16</sup>	MMW 22640	MMW 640	22340 K	SNW 140		

## Solid Pillow Blocks

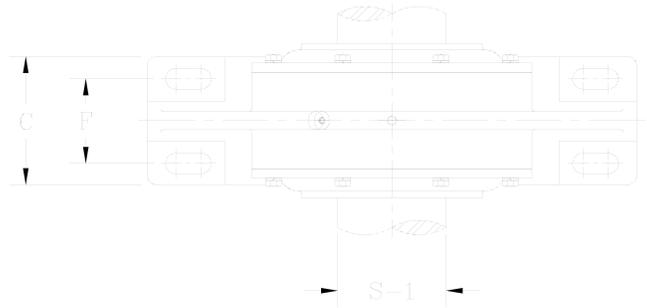


**MMW 225** PILLOW BLOCK DIMENSIONS

A	B	C	D	E		F	H	L	BOLTS (NO. REQ'D)	WEIGHT LBS. HOUSING LER, SR	COMPLETE PILLOW BLOCK NUMBER
				MAX IN.	MIN IN.						
IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.		
4 3/4	15 1/4	4 1/4	1	13 1/8	11 5/8	2 3/8	9 13/16	6	(4)- 3/4	76	MMW 22518
4 3/4	15 1/4	4 1/4	1	13 1/8	11 5/8	2 3/8	9 13/16	5 7/8	(4)- 3/4	72	MMW 22520
5 1/2	16 1/2	4 3/4	1	14 1/2	13 1/4	2 3/4	11 1/4	6 1/4	(4)- 3/4	96	MMW 22522
5 1/2	16 1/2	4 3/4	1	14 1/2	13 1/4	2 3/4	11 1/4	6 9/16	(4)- 3/4	97	MMW 22524
6 1/2	19 1/2	6 1/2	1 1/4	17 1/4	16	4	13 1/4	6 13/16	(4)- 1	167	MMW 22526
6 1/2	19 1/2	6 1/2	1 1/4	17 1/4	16	4	13 1/4	7 1/16	(4)- 1	138	MMW 22528
7 1/8	22	6 1/4	1 1/2	19 1/8	17 3/8	3 3/4	14 3/4	7 11/16	(4)- 1	213	MMW 22530
7 1/8	22	6 1/4	1 1/2	19 1/8	17 3/8	3 3/4	14 3/4	8 3/16	(4)- 1	205	MMW 22532
7 3/4	26 3/4	7	1 3/4	23 5/8	20 7/8	4 5/8	16 1/16	8 7/16	(4)- 1	259	MMW 22534
7 3/4	26 3/4	7	1 3/4	23 5/8	20 7/8	4 5/8	16 1/16	8 1/2	(4)- 1	263	MMW 22536
8 3/4	29 1/2	8	2	25	22 1/2	5	18 1/8	8 13/16	(4)- 1 1/4	368	MMW 22538
8 3/4	29 1/2	8	2	25	22 1/2	5	18 1/8	9 3/16	(4)- 1 1/4	373	MMW 22540
9 1/2	32 3/4	8 3/4	2 1/4	27 7/8	24 3/4	5 1/4	19 7/8	11 3/8	(4)- 1 1/2	487	MMW 22544

**MMW 226** PILLOW BLOCK DIMENSIONS

A	B	C	D	E		F	H	L	BOLTS (NO. REQ'D)	WEIGHT LBS. HOUSING LER, SR	COMPLETE PILLOW BLOCK NUMBER
				MAX IN.	MIN IN.						
IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.		
4 3/4	15 1/4	4 1/4	1	13 1/8	11 5/8	2 3/8	9 13/16	6	(4)- 3/4	76	MMW 22615
4 3/4	15 1/4	4 1/4	1	13 1/8	11 5/8	2 3/8	9 13/16	6	(4)- 3/4	75	MMW 22616
4 3/4	15 1/4	4 1/4	1	13 1/8	11 5/8	2 3/8	9 13/16	6 7/16	(4)- 3/4	72	MMW 22617
4 3/4	15 1/4	4 1/4	1	13 1/8	11 5/8	2 3/8	9 13/16	6 7/16	(4)- 3/4	72	MMW 22618
5 1/2	16 1/2	4 3/4	1	14 1/2	13 1/4	2 3/4	11 1/4	7 1/16	(4)- 3/4	99	MMW 22620
6 1/2	19 1/2	6 1/2	1 1/4	17 1/4	16	4	13 1/4	7 7/16	(4)- 1	170	MMW 22622
7 1/8	22	6 1/4	1 1/2	19 1/8	17 3/8	3 3/4	14 3/4	7 11/16	(4)- 1	221	MMW 22624
7 1/8	22	6 1/4	1 1/2	19 1/8	17 3/8	3 3/4	14 3/4	8	(4)- 1	209	MMW 22626
7 3/4	26 3/4	7	1 3/4	23 5/8	20 7/8	4 5/8	16 1/16	8 11/16	(4)- 1	268	MMW 22628
7 3/4	26 3/4	7	1 3/4	23 5/8	20 7/8	4 5/8	16	9 1/2	(4)- 1	264	MMW 22630
8 3/4	29 1/2	8	2	25	22 1/2	5	18 1/8	9 1/2	(4)- 1 1/4	363	MMW 22632
8 3/4	29 1/2	8	2	25	22 1/2	5	18 1/8	9 13/16	(4)- 1 1/4	377	MMW 22634
9 1/2	32 3/4	8 3/4	2 1/4	27 7/8	24 3/4	5 1/4	19 7/8	10 1/8	(4)- 1 1/2	489	MMW 22636
9 1/2	32 3/4	8 3/4	2 1/4	27 7/8	24 3/4	5 1/4	19 7/8	10 11/16	(4)- 1 1/2	487	MMW 22638
9 7/8	34 1/4	9	2 3/4	29 1/2	26 1/4	5 1/2	20 3/16	11 15/16	(4)- 1 1/2	513	MMW 22640



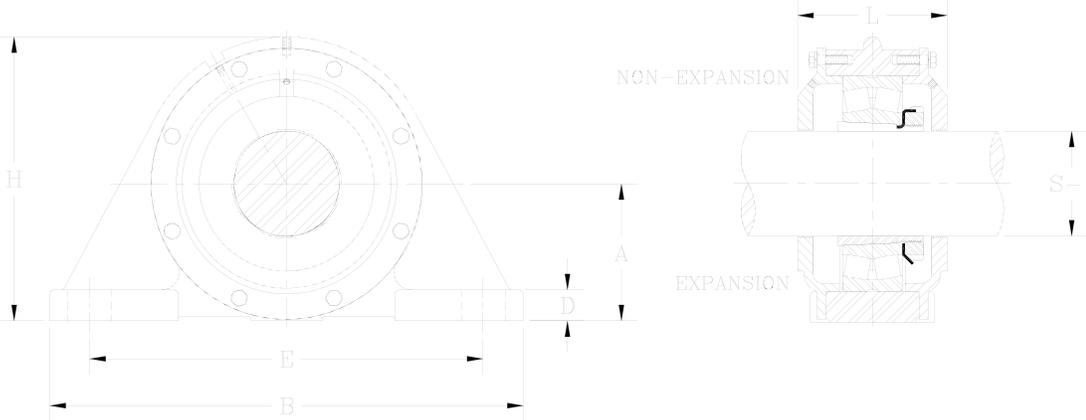
## Solid Pillow Blocks: How to order

- When you order MMW 23024 K NEL you receive;
  - 1 MMW 024 K Housing with Labyrinth Seals, non expansion.
  - 1 No. 23024 K Bearing.
  - 1 No. SNW 3024 Adapter (Sleeve, Locknut, and Lockwasher).
- These housing come either expansion for float applications or non-expansion for fixed applications. Indicate by: E - For Expansion NE - For Non Expansion
- Always specify shaft size when ordering.
- Use only one NE - Non-Expansion housing per shaft.
- If you want Oil Seals substitute letter S for L. Oil seals are supplied at additional cost.
- If your order specifies "one end closed" you receive the necessary end plate.

<b>MMW 230 K ADAPTER MOUNTED</b>		<b>PILLOW BLOCK PART NUMBERS</b>		
<b>SHAFT DIAMETER S-1 IN.</b>	<b>COMPLETE PILLOW BLOCK NUMBER</b>	<b>PILLOW BLOCK HOUSING ONLY</b>	<b>BEARING NUMBER</b>	<b>ADAPTER LOCKNUT AND LOCKWASHER</b>
4 <sup>3/16</sup>	MMW 23024 K	MMW 024 K	23024 K	SNW 3024
4 <sup>7/16</sup>	MMW 23026 K	MMW 026 K	23026 K	SNW 3026
4 <sup>15/16</sup>	MMW 23028 K	MMW 028 K	23028 K	SNW 3028
5 <sup>3/16</sup>	MMW 23030 K	MMW 030 K	23030 K	SNW 3030
5 <sup>7/16</sup>	MMW 23032 K	MMW 032 K	23032 K	SNW 3032
5 <sup>15/16</sup>	MMW 23034 K	MMW 034 K	23034 K	SNW 3034
6 <sup>7/16</sup>	MMW 23036 K	MMW 036 K	23036 K	SNW 3036
6 <sup>15/16</sup>	MMW 23038 K	MMW 038 K	23038 K	SNW 3038
7 <sup>3/16</sup>	MMW 23040 K	MMW 040 K	23040 K	SNW 3040
7 <sup>15/16</sup>	MMW 23044 K	MMW 044 K	23044 K	SNW 3044

<b>MMW 230 K ADAPTER MOUNTED</b>		<b>PILLOW BLOCK PART NUMBERS</b>		
<b>SHAFT DIAMETER S-1 IN.</b>	<b>COMPLETE PILLOW BLOCK NUMBER</b>	<b>PILLOW BLOCK HOUSING ONLY</b>	<b>BEARING NUMBER</b>	<b>ADAPTER LOCKNUT AND LOCKWASHER</b>
8 <sup>7/16</sup>	MMW 23048 K	MMW 048 K	23048 K	SNP 3048
8 <sup>1/2</sup>	MMW 23048 K	MMW 048 K	23048 K	SNP 3048
8 <sup>15/16</sup>	MMW 23048 K	MMW 048 K	23048 K	SNP 3048
9	MMW 23048 K	MMW 048 K	23048 K	SNP 3048
9 <sup>7/16</sup>	MMW 23052 K	MMW 052 K	23052 K	SNP 3052
9 <sup>1/2</sup>	MMW 23052 K	MMW 052 K	23052 K	SNP 3052
9 <sup>15/16</sup>	MMW 23056 K	MMW 056 K	23056 K	SNP 3056
10	MMW 23056 K	MMW 056 K	23056 K	SNP 3056
10 <sup>7/16</sup>	MMW 23056 K	MMW 056 K	23056 K	SNP 3056
10 <sup>1/2</sup>	MMW 23056 K	MMW 056 K	23056 K	SNP 3056
10 <sup>15/16</sup>	MMW 23060 K	MMW 060 K	23060 K	SNP 3060
11	MMW 23060 K	MMW 060 K	23060 K	SNP 3060
11 <sup>7/16</sup>	MMW 23064 K	MMW 064 K	23064 K	SNP 3064
11 <sup>1/2</sup>	MMW 23064 K	MMW 064 K	23064 K	SNP 3064
11 <sup>15/16</sup>	MMW 23064 K	MMW 064 K	23064 K	SNP 3064
12	MMW 23064 K	MMW 064 K	23064 K	SNP 3064
12 <sup>7/16</sup>	MMW 23068 K	MMW 068 K	23068 K	SNP 3068
12 <sup>1/2</sup>	MMW 23068 K	MMW 068 K	23068 K	SNP 3068
12 <sup>15/16</sup>	MMW 23072 K	MMW 072 K	23072 K	SNP 3072
13	MMW 23072 K	MMW 072 K	23072 K	SNP 3072
13 <sup>7/16</sup>	MMW 23072 K	MMW 072 K	23072 K	SNP 3072
13 <sup>1/2</sup>	MMW 23072 K	MMW 072 K	23072 K	SNP 3072
13 <sup>15/16</sup>	MMW 23076 K	MMW 076 K	23076 K	SNP 3076
14	MMW 23076 K	MMW 076 K	23076 K	SNP 3076
14 <sup>1/4</sup>	MMW 23076 K	MMW 076 K	23076 K	SNP 3076
14 <sup>15/16</sup>	MMW 23080 K	MMW 080 K	23080 K	SNP 3080
15	MMW 23080 K	MMW 080 K	23080 K	SNP 3080
15 <sup>1/2</sup>	MMW 23084 K	MMW 084 K	23084 K	SNP 3084
15 <sup>3/4</sup>	MMW 23084 K	MMW 084 K	23084 K	SNP 3084

## Solid Pillow Blocks



### MMW 230 K

### PILLOW BLOCK DIMENSIONS

A	B	C	D	E		F	H	L	BOLTS (NO. REQ'D)	WEIGHT LBS. HOUSING	COMPLETE PILLOW BLOCK NUMBER
				MAX IN.	MIN IN.						
4 3/4	15 1/4	4 1/4	1	13 1/8	11 5/8	2 3/8	9 13/16	6 1/16	(4)- 3/4	72	MMW 23024 K
5 1/2	16 1/2	4 3/4	1	14 1/2	13 1/4	2 3/4	11 1/4	6 7/16	(4)- 3/4	96	MMW 23026 K
5 1/2	16 1/2	4 3/4	1	14 1/2	13 1/4	2 3/4	11 1/4	6 9/16	(4)- 3/4	97	MMW 23028 K
5 1/2	16 1/2	4 3/4	1	14 1/2	13 1/4	2 3/4	11 1/4	6 7/8	(4)- 3/4	95	MMW 23030 K
6 1/2	19 1/2	6 1/2	1 1/4	17 1/4	16	4	13 1/4	7 5/16	(4)- 1	170	MMW 23032 K
7 1/8	22	6 1/4	1 1/2	19 1/8	17 3/8	3 3/4	14 3/4	7 3/4	(4)- 1	221	MMW 23034 K
7 1/8	22	6 1/4	1 1/2	19 1/8	17 3/8	3 3/4	14 3/4	8	(4)- 1	209	MMW 23036 K
7 1/8	22	6 1/4	1 1/2	19 1/8	17 3/8	3 3/4	14 3/4	8 3/16	(4)- 1	205	MMW 23038 K
7 3/4	26 3/4	7	1 3/4	23 5/8	20 7/8	4 5/8	16 1/16	8 7/16	(4)- 1	259	MMW 23040 K
8 3/4	29 1/2	8	2	25	22 1/2	5	18 1/8	8 13/16	(4)- 1 1/4	368	MMW 23044 K

### MMW 230 K

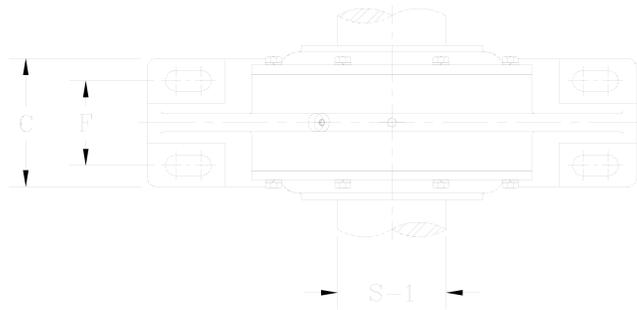
### PILLOW BLOCK DIMENSIONS

A	B	C	D	E		F	H	L	BOLTS (NO. REQ'D)	WEIGHT LBS. HOUSING	COMPLETE PILLOW BLOCK NUMBER
				MAX IN.	MIN IN.						
8 3/4	29 1/2	8	2	25	22 1/2	5	18 1/8	10 3/16	(4)- 1 1/4	373	MMW 23048 K
8 3/4	29 1/2	8	2	25	22 1/2	5	18 1/8	10 3/16	(4)- 1 1/4	373	MMW 23048 K
8 3/4	29 1/2	8	2	25	22 1/2	5	18 1/8	10 3/16	(4)- 1 1/4	373	MMW 23048 K
8 3/4	29 1/2	8	2	25	22 1/2	5	18 1/8	10 3/16	(4)- 1 1/4	373	MMW 23048 K
9 1/2	32 3/4	8 3/4	2 1/4	27 7/8	24 3/4	5 1/4	19 7/8	11 5/16	(4)- 1 1/2	487	MMW 23052 K
9 1/2	32 3/4	8 3/4	2 1/4	27 7/8	24 3/4	5 1/4	19 7/8	11 5/16	(4)- 1 1/2	487	MMW 23052 K
9 7/8	34 1/4	9	2 3/4	29 1/2	26 1/4	5 1/2	20 3/16	11 3/8	(4)- 1 1/2	513	MMW 23056 K
9 7/8	34 1/4	9	2 3/4	29 1/2	26 1/4	5 1/2	20 3/16	11 3/8	(4)- 1 1/2	513	MMW 23056 K
9 7/8	34 1/4	9	2 3/4	29 1/2	26 1/4	5 1/2	20 3/16	11 3/8	(4)- 1 1/2	513	MMW 23056 K
9 7/8	34 1/4	9	2 3/4	29 1/2	26 1/4	5 1/2	20 3/16	11 3/8	(4)- 1 1/2	513	MMW 23056 K
12	38 1/4	13	3 1/4	33 1/2	32	9	24 7/16	13 5/16	(4)- 1 5/8	945	MMW 23060 K
12	38 1/4	13	3 1/4	33 1/2	32	9	24 7/16	13 5/16	(4)- 1 5/8	945	MMW 23060 K
12	38 1/4	13	3 1/4	33 1/2	32	9	24 7/16	14 3/16	(4)- 1 5/8	932	MMW 23064 K
12	38 1/4	13	3 1/4	33 1/2	32	9	24 7/16	14 3/16	(4)- 1 5/8	932	MMW 23064 K
12	38 1/4	13	3 1/4	33 1/2	32	9	24 7/16	14 3/16	(4)- 1 5/8	932	MMW 23064 K
12	38 1/4	13	3 1/4	33 1/2	32	9	24 7/16	14 1/2	(4)- 1 5/8	918	MMW 23068 K
12	38 1/4	13	3 1/4	33 1/2	32	9	24 7/16	14 1/2	(4)- 1 5/8	918	MMW 23068 K
13 1/2	41 3/4	15	3 1/2	36 1/2	35	10 1/2	27	14 5/8	(4)- 1 3/4	1234	MMW 23072 K
13 1/2	41 3/4	15	3 1/2	36 1/2	35	10 1/2	27	14 5/8	(4)- 1 3/4	1234	MMW 23072 K
13 1/2	41 3/4	15	3 1/2	36 1/2	35	10 1/2	27	14 5/8	(4)- 1 3/4	1234	MMW 23072 K
13 1/2	41 3/4	15	3 1/2	36 1/2	35	10 1/2	27	14 5/8	(4)- 1 3/4	1234	MMW 23072 K
13 1/2	41 3/4	15	3 1/2	36 1/2	35	10 1/2	27	15 3/8	(4)- 1 3/4	1234	MMW 23076 K
13 1/2	41 3/4	15	3 1/2	36 1/2	35	10 1/2	27	15 3/8	(4)- 1 3/4	1234	MMW 23076 K
13 1/2	41 3/4	15	3 1/2	36 1/2	35	10 1/2	27	15 3/8	(4)- 1 3/4	1234	MMW 23076 K
15	47	16 1/2	3 3/4	39 1/2	38	11	30	16 7/16	(4)- 2	1762	MMW 23080 K
15	47	16 1/2	3 3/4	39 1/2	38	11	30	16 7/16	(4)- 2	1762	MMW 23080 K
15	47	16 1/2	3 3/4	39 1/2	38	11	30	16 3/4	(4)- 2	1742	MMW 23084 K
15	47	16 1/2	3 3/4	39 1/2	38	11	30	16 3/4	(4)- 2	1742	MMW 23084 K

# MMW 231K and 235

## Solid Pillow Blocks: How to order

- When you order MMW 23122 K NEL you receive;
  - 1 MMW 122 K Housing with Labyrinth Seals, non expansion.
  - 1 No. 23122 K Bearing.
  - 1 No. SNW 3122 Adapter (Sleeve, Locknut, and Lockwasher).
- These housing come either expansion for float applications or non-expansion for fixed applications. Indicate by: E - For Expansion NE - For Non Expansion
- Always specify shaft size when ordering.
- Use only one NE - Non-Expansion housing per shaft.
- If you want Oil Seals substitute letter S for L. Oil seals are supplied at additional cost.
- If your order specifies "one end closed" you receive the necessary end plate.



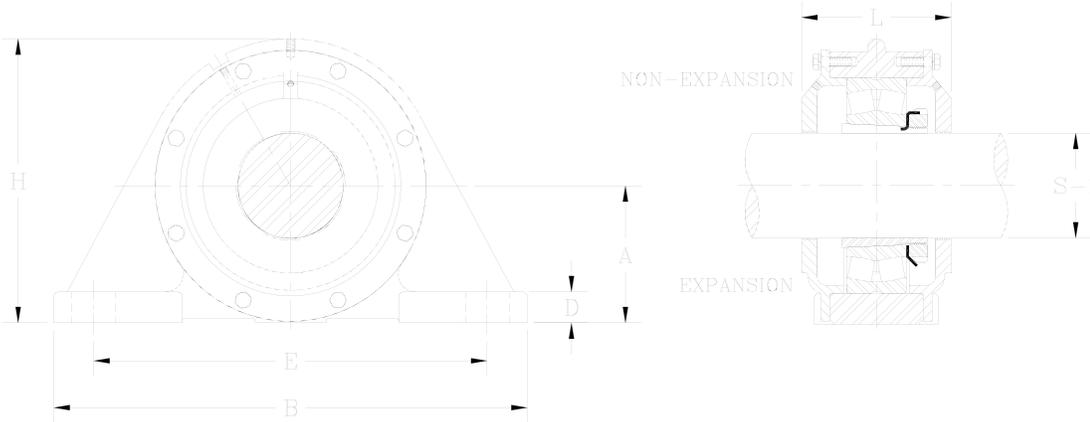
### MMW 231 K ADAPTER MOUNTED PILLOW BLOCK PART NUMBERS

SHAFT DIAMETER S-1 IN.	COMPLETE PILLOW BLOCK NUMBER	PILLOW BLOCK HOUSING ONLY	BEARING NUMBER	ADAPTER LOCKNUT AND LOCKWASHER
3 <sup>15</sup> / <sub>16</sub>	MMW 23122 K	MMW 122 K	23122 K	SNW 3122
4 <sup>3</sup> / <sub>16</sub>	MMW 23124 K	MMW 124 K	23124 K	SNW 3124
4 <sup>7</sup> / <sub>16</sub>	MMW 23126 K	MMW 126 K	23126 K	SNW 3126
4 <sup>15</sup> / <sub>16</sub>	MMW 23128 K	MMW 128 K	23128 K	SNW 3128
5 <sup>3</sup> / <sub>16</sub>	MMW 23130 K	MMW 130 K	23130 K	SNW 3130
5 <sup>7</sup> / <sub>16</sub>	MMW 23132 K	MMW 132 K	23132 K	SNW 3132
5 <sup>15</sup> / <sub>16</sub>	MMW 23134 K	MMW 134 K	23134 K	SNW 3134
6 <sup>7</sup> / <sub>16</sub>	MMW 23136 K	MMW 136 K	23136 K	SNW 3136
6 <sup>15</sup> / <sub>16</sub>	MMW 23138 K	MMW 138 K	23138 K	SNW 3138
7 <sup>3</sup> / <sub>16</sub>	MMW 23140 K	MMW 140 K	23140 K	SNW 3140
7 <sup>15</sup> / <sub>16</sub>	MMW 23144 K	MMW 144 K	23144 K	SNW 3144

### MMW 235 ADAPTER MOUNTED PILLOW BLOCK PART NUMBERS

SHAFT DIAMETER S-1 IN.	COMPLETE PILLOW BLOCK NUMBER	PILLOW BLOCK HOUSING ONLY	BEARING NUMBER	ADAPTER LOCKNUT AND LOCKWASHER
3 <sup>7</sup> / <sub>16</sub>	MMW 23520	MMW 3520	23220 K	SNW 120
3 <sup>15</sup> / <sub>16</sub>	MMW 23522	MMW 3522	23222 K	SNW 122
4 <sup>3</sup> / <sub>16</sub>	MMW 23524	MMW 3524	23224 K	SNW 124
4 <sup>7</sup> / <sub>16</sub>	MMW 23526	MMW 3526	23226 K	SNW 126
4 <sup>15</sup> / <sub>16</sub>	MMW 23528	MMW 3528	23228 K	SNW 128
5 <sup>3</sup> / <sub>16</sub>	MMW 23530	MMW 3530	23230 K	SNW 130
5 <sup>7</sup> / <sub>16</sub>	MMW 23532	MMW 3532	23232 K	SNW 132
5 <sup>15</sup> / <sub>16</sub>	MMW 23534	MMW 3534	23234 K	SNW 134
6 <sup>7</sup> / <sub>16</sub>	MMW 23536	MMW 3536	23236 K	SNW 136
6 <sup>15</sup> / <sub>16</sub>	MMW 23538	MMW 3538	23238 K	SNW 138
7 <sup>3</sup> / <sub>16</sub>	MMW 23540	MMW 3540	23240 K	SNW 140
7 <sup>15</sup> / <sub>16</sub>	MMW 23544	MMW 3544	23244 K	SNW 144

## Solid Pillow Blocks



### MMW 231 K

#### PILLOW BLOCK DIMENSIONS

A	B	C	D	E		F	H	L	BOLTS (NO. REQ'D) IN.	WEIGHT LBS. HOUSING	COMPLETE PILLOW BLOCK NUMBER
				MAX IN.	MIN IN.						
4 3/4	15 1/4	4 1/4	1	13 1/8	11 5/8	2 3/8	9 13/16	6 1/2	(4)- 3/4	72	MMW 23122 K
5 1/2	16 1/2	4 3/4	1	14 1/2	13 1/4	2 3/4	11 1/4	6 5/16	(4)- 3/4	96	MMW 23124 K
5 1/2	16 1/2	4 3/4	1	14 1/2	13 1/4	2 3/4	11 1/4	6 7/8	(4)- 3/4	97	MMW 23126 K
5 1/2	16 1/2	4 3/4	1	14 1/2	13 1/4	2 3/4	11 1/4	7 1/16	(4)- 3/4	95	MMW 23128 K
6 1/2	19 1/2	6 1/2	1 1/4	17 1/4	16	4	13 1/4	7 3/4	(4)- 1	167	MMW 23130 K
7 1/8	22	6 1/4	1 1/2	19 1/8	17 3/8	3 3/4	14 3/4	8 1/8	(4)- 1	213	MMW 23132 K
7 1/8	22	6 1/4	1 1/2	19 1/8	17 3/8	3 3/4	14 3/4	8 1/4	(4)- 1	209	MMW 23134 K
7 3/4	26 3/4	7	1 3/4	23 5/8	20 7/8	4 5/8	16 1/16	8 11/16	(4)- 1	268	MMW 23136 K
7 3/4	26 3/4	7	1 3/4	23 5/8	20 7/8	4 5/8	16 1/16	9	(4)- 1	264	MMW 23138 K
8 3/4	29 1/2	8	2	25	22 1/2	5	18 1/8	9 1/2	(4)- 1 1/4	363	MMW 23140 K
8 3/4	29 1/2	8	2	25	22 1/2	5	18 1/8	11	(4)- 1 1/4	388	MMW 23144 K

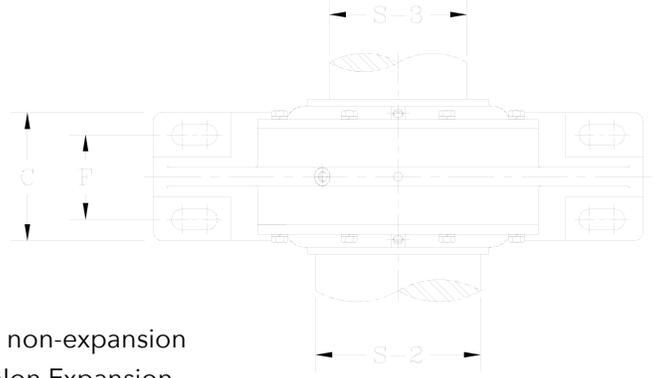
### MMW 235

#### PILLOW BLOCK DIMENSIONS

A	B	C	D	E		F	H	L	BOLTS (NO. REQ'D) IN.	WEIGHT LBS. HOUSING	COMPLETE PILLOW BLOCK NUMBER
				MAX IN.	MIN IN.						
4 3/4	15 1/4	4 1/4	1	13 1/8	11 5/8	2 3/8	9 13/16	6 7/16	(4)- 3/4	72	MMW 23520
5 1/2	16 1/2	4 3/4	1	14 1/2	13 1/4	2 3/4	11 1/4	6 15/16	(4)- 3/4	102	MMW 23522
5 1/2	16 1/2	4 3/4	1	14 1/2	13 1/4	2 3/4	11 1/4	7 1/4	(4)- 3/4	99	MMW 23524
6 1/2	19 1/2	6 1/2	1 1/4	17 1/4	16	4	13 1/4	7 1/16	(4)- 1	170	MMW 23526
6 1/2	19 1/2	6 1/2	1 1/4	17 1/4	16	4	13 1/4	7 7/8	(4)- 1	167	MMW 23528
7 1/8	22	6 1/4	1 1/2	19 1/8	17 3/8	3 3/4	14 3/4	8	(4)- 1	213	MMW 23530
7 1/8	22	6 1/4	1 1/2	19 1/8	17 3/8	3 3/4	14 3/4	9 1/8	(4)- 1	213	MMW 23532
7 3/4	26 3/4	7	1 3/4	23 5/8	20 7/8	4 5/8	16 1/16	9 7/16	(4)- 1	267	MMW 23534
7 3/4	26 3/4	7	1 3/4	23 5/8	20 7/8	4 5/8	16 1/16	9 9/16	(4)- 1	264	MMW 23536
8 3/4	29 1/2	8	2	25	22 1/2	5	18 1/8	9 1/2	(4)- 1 1/4	363	MMW 23538
8 3/4	29 1/2	8	2	25	22 1/2	5	18 1/8	10 3/8	(4)- 1 1/4	379	MMW 23540
9 1/2	32 3/4	8 3/4	2 1/4	27 7/8	24 3/4	5 1/4	19 7/8	11 3/8	(4)- 1 1/2	487	MMW 23544

## Solid Pillow Blocks: How to order

- When you order MMW 22218 NEL you receive;
  - 1 MMW 218 Housing with Labyrinth Seals, non expansion.
  - 1 No. 22218 Bearing.
  - 1 No. AN 18 Locknut, and 1 No. W 18 Lockwasher.
- These housing come either expansion for float applications or non-expansion for fixed applications. Indicate by: E - For Expansion NE - For Non Expansion
- Always specify shaft size when ordering.
- Use only one NE - Non-Expansion housing per shaft.
- If you want Oil Seals substitute letter S for L. Oil seals are supplied at additional cost.
- If your order specifies "one end closed" you receive the necessary end plate.



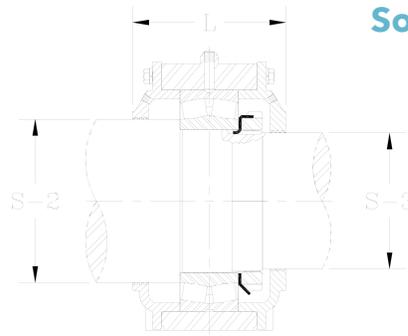
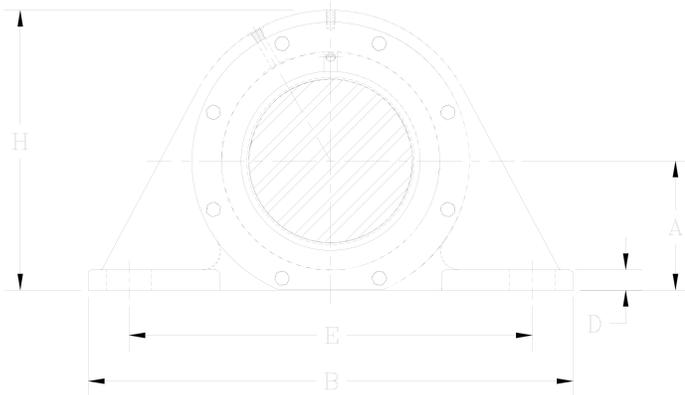
### MMW 222 CYLINDRICAL MOUNTED PILLOW BLOCK PART NUMBERS

SHAFT DIAMETER		COMPLETE PILLOW BLOCK NUMBER	PILLOW BLOCK HOUSING ONLY	BEARING NUMBER	LOCKNUT	LOCKWASHER
S-2 IN.	S-3 IN.					
4 1/8	3 3/8	MMW 22218	MMW 218	22218	AN 18	W 18
4 1/2	3 13/16	MMW 22220	MMW 220	22220	AN 20	W 20
4 7/8	4 3/16	MMW 22222	MMW 222	22222	AN 22	W 22
5 5/16	4 9/16	MMW 22224	MMW 224	22224	AN 24	W 24
5 7/8	4 15/16	MMW 22226	MMW 226	22226	AN 26	W 26
6 1/4	5 5/16	MMW 22228	MMW 228	22228	AN 28	W 28
6 5/8	5 3/4	MMW 22230	MMW 230	22230	AN 30	W 30
7	6 1/16	MMW 22232	MMW 232	22232	AN 32	W 32
7 7/16	6 7/16	MMW 22234	MMW 234	22234	AN 34	W 34
7 13/16	6 7/8	MMW 22236	MMW 236	22236	AN 36	W 36
8 3/8	7 1/4	MMW 22238	MMW 238	22238	AN 38	W 38
8 3/4	7 5/8	MMW 22240	MMW 240	22240	AN 40	W 40
9 9/16	8 5/16	MMW 22244	MMW 244	22244	N 44	W 44

### MMW 223 CYLINDRICAL MOUNTED PILLOW BLOCK PART NUMBERS

SHAFT DIAMETER		COMPLETE PILLOW BLOCK NUMBER	PILLOW BLOCK HOUSING ONLY	BEARING NUMBER	LOCKNUT	LOCKWASHER
S-2 IN.	S-3 IN.					
3 7/16	2 13/16	MMW 22315	MMW 315	22315	AN 15	W 15
3 5/8	3	MMW 22316	MMW 316	22316	AN 16	W 16
3 15/16	3 3/16	MMW 22317	MMW 317	22317	AN 17	W 17
4 1/8	3 3/8	MMW 22318	MMW 318	22318	AN 18	W 18
4 1/2	3 13/16	MMW 22320	MMW 320	22320	AN 20	W 20
4 7/8	4 3/16	MMW 22322	MMW 322	22322	AN 22	W 22
5 5/16	4 9/16	MMW 22324	MMW 324	22324	AN 24	W 24
5 7/8	4 15/16	MMW 22326	MMW 326	22326	AN 26	W 26
6 1/4	5 5/16	MMW 22328	MMW 328	22328	AN 28	W 28
6 5/8	5 3/4	MMW 22330	MMW 330	22330	AN 30	W 30
7	6 1/16	MMW 22332	MMW 332	22332	AN 32	W 32
7 7/16	6 7/16	MMW 22334	MMW 334	22334	AN 34	W 34
7 13/16	6 7/8	MMW 22336	MMW 336	22336	AN 36	W 36
8 3/8	7 1/4	MMW 22338	MMW 338	22338	AN 38	W 38
8 3/4	7 5/8	MMW 22340	MMW 340	22340	AN 40	W 40

## Solid Pillow Blocks



### MMW 222

### PILLOW BLOCK DIMENSIONS

A	B	C	D	E		F	H	L	BOLTS (NO. REQ'D)	WEIGHT LBS. HOUSING	COMPLETE PILLOW BLOCK NUMBER
				MAX IN.	MIN IN.						
IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.		
4 3/4	15 1/4	4 1/4	1	13 1/8	11 5/8	2 3/8	9 13/16	6	(4)- 3/4	76	MMW 22218
4 3/4	15 1/4	4 1/4	1	13 1/8	11 5/8	2 3/8	9 13/16	5 7/8	(4)- 3/4	72	MMW 22220
5 1/2	16 1/2	4 3/4	1	14 1/2	13 1/4	2 3/4	11 1/4	6 1/4	(4)- 3/4	96	MMW 22222
5 1/2	16 1/2	4 3/4	1	14 1/2	13 1/4	2 3/4	11 1/4	6 9/16	(4)- 3/4	97	MMW 22224
6 1/2	19 1/2	6 1/2	1 1/4	17 1/4	16	4	13 1/4	6 13/16	(4)- 1	167	MMW 22226
6 1/2	19 1/2	6 1/2	1 1/4	17 1/4	16	4	13 1/4	7 1/16	(4)- 1	138	MMW 22228
7 1/8	22	6 1/4	1 1/2	19 1/8	17 3/8	3 3/4	14 3/4	7 11/16	(4)- 1	213	MMW 22230
7 1/8	22	6 1/4	1 1/2	19 1/8	17 3/8	3 3/4	14 3/4	8 3/16	(4)- 1	205	MMW 22232
7 3/4	26 3/4	7	1 3/4	23 5/8	20 7/8	4 5/8	16 1/16	8 7/16	(4)- 1	259	MMW 22234
7 3/4	26 3/4	7	1 3/4	23 5/8	20 7/8	4 5/8	16 1/16	8 1/2	(4)- 1	257	MMW 22236
8 3/4	29 1/2	8	2	25	22 1/2	5	18 1/8	8 13/16	(4)- 1 1/4	368	MMW 22238
8 3/4	29 1/2	8	2	25	22 1/2	5	18 1/8	9 3/16	(4)- 1 1/4	373	MMW 22240
9 1/2	32 3/4	8 3/4	2 1/4	25 7/8	24 3/4	5 1/4	19 7/8	11 3/8	(4)- 1 1/2	487	MMW 22244

### MMW 223

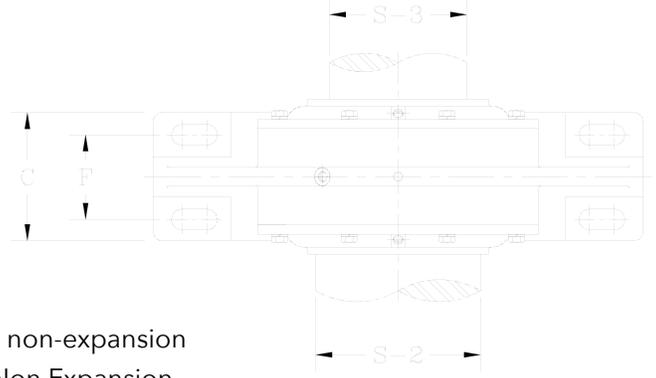
### PILLOW BLOCK DIMENSIONS

A	B	C	D	E		F	H	L	BOLTS (NO. REQ'D)	WEIGHT LBS. HOUSING	COMPLETE PILLOW BLOCK NUMBER
				MAX IN.	MIN IN.						
IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.		
4 3/4	15 1/4	4 1/4	1	13 1/8	11 5/8	2 3/8	9 13/16	6	(4)- 3/4	76	MMW 22315
4 3/4	15 1/4	4 1/4	1	13 1/8	11 5/8	2 3/8	9 13/16	6	(4)- 3/4	75	MMW 22316
4 3/4	15 1/4	4 1/4	1	13 1/8	11 5/8	2 3/8	9 13/16	6 7/16	(4)- 3/4	72	MMW 22317
4 3/4	15 1/4	4 1/4	1	13 1/8	11 5/8	2 3/8	9 13/16	6 7/16	(4)- 3/4	72	MMW 22318
5 1/2	16 1/2	4 3/4	1	14 1/2	13 1/4	2 3/4	11 1/4	7 1/16	(4)- 3/4	99	MMW 22320
6 1/2	19 1/2	6 1/2	1 1/4	17 1/4	16	4	13 1/4	7 7/16	(4)- 1	170	MMW 22322
7 1/8	22	6 1/4	1 1/2	19 1/8	17 3/8	3 3/4	14 3/4	7 11/16	(4)- 1	221	MMW 22324
7 1/8	22	6 1/4	1 1/2	19 1/8	17 3/8	3 3/4	14 3/4	8	(4)- 1	209	MMW 22326
7 3/4	26 3/4	7	1 3/4	23 5/8	20 7/8	4 5/8	16 1/16	8 11/16	(4)- 1	268	MMW 22328
7 3/4	26 3/4	7	1 3/4	23 5/8	20 7/8	4 5/8	16	9 1/2	(4)- 1	264	MMW 22330
8 3/4	29 1/2	8	2	25	22 1/2	5	18 1/8	9 1/2	(4)- 1 1/4	363	MMW 22332
8 3/4	29 1/2	8	2	25	22 1/2	5	18 1/8	9 13/16	(4)- 1 1/4	360	MMW 22334
9 1/2	32 3/4	8 3/4	2 1/4	27 7/8	24 3/4	5 1/4	19 7/8	10 1/8	(4)- 1 1/2	489	MMW 22336
9 1/2	32 3/4	8 3/4	2 1/4	27 7/8	24 3/4	5 1/4	19 7/8	10 11/16	(4)- 1 1/2	487	MMW 22338
9 7/8	34 1/4	9	2 3/4	29 1/2	26 1/4	5 1/2	20 3/16	11 15/16	(4)- 1 1/2	513	MMW 22340

# MMW 230 and 231

## Solid Pillow Blocks: How to order

- When you order MMW 23024 NEL you receive;
  - 1 MMW 024 Housing with Labyrinth Seals, non expansion.
  - 1 No. 23024 Bearing.
  - 1 No. N 024 Locknut, and 1 No. W 024 Lockwasher.
- These housing come either expansion for float applications or non-expansion for fixed applications. Indicate by: E - For Expansion NE - For Non Expansion
- Always specify shaft size when ordering.
- Use only one NE - Non-Expansion housing per shaft.
- If you want Oil Seals substitute letter S for L. Oil seals are supplied at additional cost.
- If your order specifies "one end closed" you receive the necessary end plate.



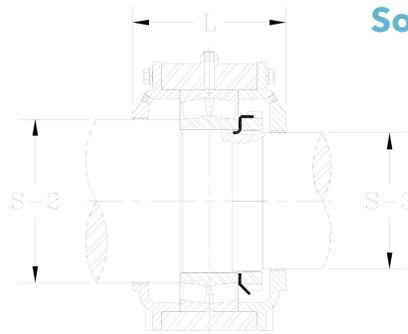
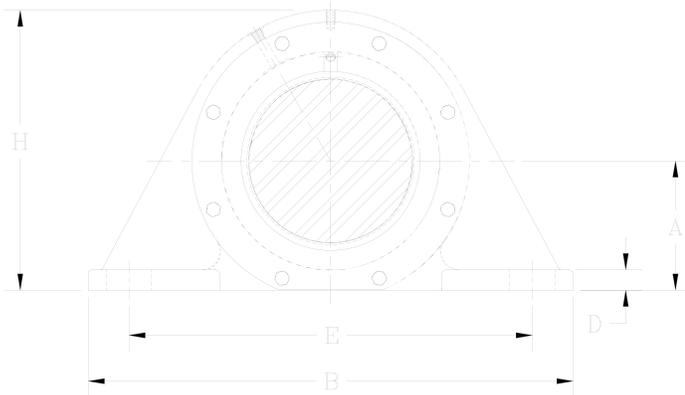
### MMW 230 CYLINDRICAL MOUNTED PILLOW BLOCK PART NUMBERS

SHAFT DIAMETER		COMPLETE PILLOW BLOCK NUMBER	PILLOW BLOCK HOUSING ONLY	BEARING NUMBER	LOCKNUT	LOCKWASHER
S-2 IN.	S-3 IN.					
5 5/16	4 9/16	MMW 23024	MMW 024	23024	N O24	W O24
5 7/8	4 15/16	MMW 23026	MMW 026	23026	N O26	W O26
6 1/4	5 5/16	MMW 23028	MMW 028	23028	N O28	W O28
6 5/8	5 3/4	MMW 23030	MMW 030	23030	N O30	W O30
7	6 1/16	MMW 23032	MMW 032	23032	N O32	W O32
7 7/16	6 7/16	MMW 23034	MMW 034	23034	N O34	W O34
7 13/16	6 7/8	MMW 23036	MMW 036	23036	N O36	W O36
8 3/8	7 1/4	MMW 23038	MMW 038	23038	N O38	W O38
8 3/4	7 5/8	MMW 23040	MMW 040	23040	N O40	W O40
9 9/16	8 5/16	MMW 23044	MMW 044	23044	N O44	W O44

### MMW 231 CYLINDRICAL MOUNTED PILLOW BLOCK PART NUMBERS

SHAFT DIAMETER		COMPLETE PILLOW BLOCK NUMBER	PILLOW BLOCK HOUSING ONLY	BEARING NUMBER	LOCKNUT	LOCKWASHER
S-2 IN.	S-3 IN.					
4 7/8	4 3/16	MMW 23122	MMW 122	23122	N O22	W O22
5 5/16	4 9/16	MMW 23124	MMW 124	23124	N O24	W O24
5 7/8	4 15/16	MMW 23126	MMW 126	23126	N O26	W O26
6 1/4	5 5/16	MMW 23128	MMW 128	23128	N O28	W O28
6 5/8	5 3/4	MMW 23130	MMW 130	23130	N O30	W O30
7	6 1/16	MMW 23132	MMW 132	23132	N O32	W O32
7 7/16	6 7/16	MMW 23134	MMW 134	23134	N O34	W O34
7 13/16	6 7/8	MMW 23136	MMW 136	23136	N O36	W O36
8 3/8	7 1/4	MMW 23138	MMW 138	23138	N O38	W O38
8 3/4	7 5/8	MMW 23140	MMW 140	23140	N O40	W O40
9 9/16	8 5/16	MMW 23144	MMW 144	23144	N O44	W O44

## Solid Pillow Blocks



### MMW 230

### PILLOW BLOCK DIMENSIONS

A	B	C	D	E		F	H	L	BOLTS (NO. REQ'D) IN.	WEIGHT LBS. HOUSING LER, SR	COMPLETE PILLOW BLOCK NUMBER
				MAX IN.	MIN IN.						
4 3/4	15 1/4	4 1/4	1	13 1/8	11 5/8	2 3/8	9 13/16	6 1/16	(4)- 3/4	72	MMW 23024
5 1/2	16 1/2	4 3/4	1	14 1/2	13 1/4	2 3/4	11 1/4	6 7/16	(4)- 3/4	96	MMW 23026
5 1/2	16 1/2	4 3/4	1	14 1/2	13 1/4	2 3/4	11 1/4	6 9/16	(4)- 3/4	97	MMW 23028
5 1/2	16 1/2	4 3/4	1	14 1/2	13 1/4	2 3/4	11 1/4	6 7/8	(4)- 3/4	95	MMW 23030
6 1/2	19 1/2	6 1/2	1 1/4	17 1/4	16	4	13 1/4	7 5/16	(4)- 1	170	MMW 23032
7 1/8	22	6 1/4	1 1/2	19 1/8	17 3/8	3 3/4	14 3/4	7 3/4	(4)- 1	221	MMW 23034
7 1/8	22	6 1/4	1 1/2	19 1/8	17 3/8	3 3/4	14 3/4	8	(4)- 1	209	MMW 23036
7 1/8	22	6 1/4	1 1/2	19 1/8	17 3/8	3 3/4	14 3/4	8 3/16	(4)- 1	205	MMW 23038
7 3/4	26 3/4	7	1 3/4	23 5/8	20 7/8	4 5/8	16 1/16	8 7/16	(4)- 1	259	MMW 23040
8 3/4	29 1/2	8	2	25	22 1/2	5	18 1/8	8 13/16	(4)- 1 1/4	368	MMW 23044

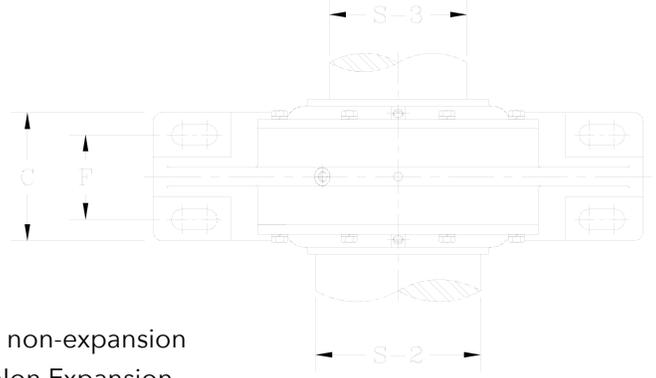
### MMW 231

### PILLOW BLOCK DIMENSIONS

A	B	C	D	E		F	H	L	BOLTS (NO. REQ'D) IN.	WEIGHT LBS. HOUSING LER, SR	COMPLETE PILLOW BLOCK NUMBER
				MAX IN.	MIN IN.						
4 3/4	15 1/4	4 1/4	1	13 1/8	11 5/8	2 3/8	9 13/16	6 1/2	(4)- 3/4	72	MMW 23122
5 1/2	16 1/2	4 3/4	1	14 1/2	13 1/4	2 3/4	11 1/4	6 5/16	(4)- 3/4	96	MMW 23124
5 1/2	16 1/2	4 3/4	1	14 1/2	13 1/4	2 3/4	11 1/4	6 7/8	(4)- 3/4	97	MMW 23126
5 1/2	16 1/2	4 3/4	1	14 1/2	13 1/4	2 3/4	11 1/4	7 1/16	(4)- 3/4	108	MMW 23128
6 1/2	19 1/2	6 1/2	1 1/4	17 1/4	16	4	13 1/4	7 3/4	(4)- 1	138	MMW 23130
7 1/8	22	6 1/4	1 1/2	19 1/8	17 3/8	3 3/4	14 3/4	8 1/8	(4)- 1	213	MMW 23132
7 1/8	22	6 1/4	1 1/2	19 1/8	17 3/8	3 3/4	14 3/4	8 1/4	(4)- 1	209	MMW 23134
7 3/4	26 3/4	7	1 3/4	23 5/8	20 7/8	4 5/8	16 1/16	8 11/16	(4)- 1	268	MMW 23136
7 3/4	26 3/4	7	1 3/4	23 5/8	20 7/8	4 5/8	16 1/16	9	(4)- 1	264	MMW 23138
8 3/4	29 1/2	8	2	25	22 1/2	5	18 1/8	9 1/2	(4)- 1 1/4	363	MMW 23140
8 3/4	29 1/2	8	2	25	22 1/2	5	18 1/8	11	(4)- 1 1/4	388	MMW 23144

## Solid Pillow Blocks: How to order

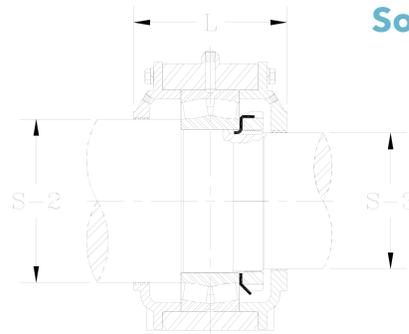
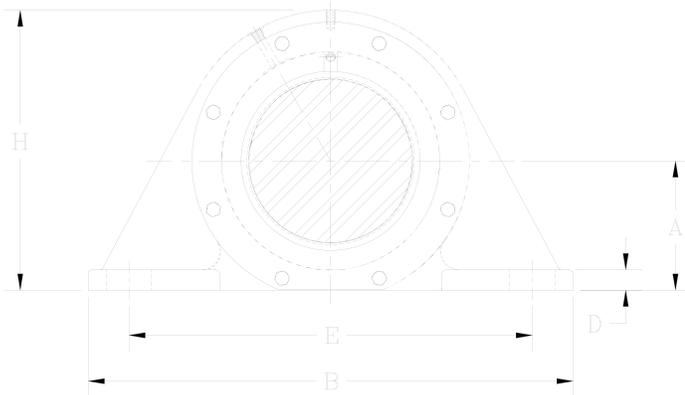
- When you order MMW 23220 NEL you receive;
  - 1 MMW 220 Housing with Labyrinth Seals, non expansion.
  - 1 No. 23220 Bearing.
  - 1 No. AN 20 Locknut, and 1 No. W 20 Lockwasher.
- These housing come either expansion for float applications or non-expansion for fixed applications. Indicate by: E - For Expansion NE - For Non Expansion
- Always specify shaft size when ordering.
- Use only one NE - Non-Expansion housing per shaft.
- If you want Oil Seals substitute letter S for L. Oil seals are supplied at additional cost.
- If your order specifies "one end closed" you receive the necessary end plate.



### MMW 232 CYLINDRICAL MOUNTED PILLOW BLOCK PART NUMBERS

SHAFT DIAMETER		COMPLETE PILLOW BLOCK NUMBER	PILLOW BLOCK HOUSING ONLY	BEARING NUMBER	LOCKNUT	LOCKWASHER
S-2 IN.	S-3 IN.					
4 1/2	3 13/16	MMW 23220	MMW 3220	23220	AN 20	W 20
4 7/8	4 3/16	MMW 23222	MMW 3222	23222	AN 22	W 22
5 5/16	4 9/16	MMW 23224	MMW 3224	23224	AN 24	W 24
5 7/8	4 15/16	MMW 23226	MMW 3226	23226	AN 26	W 26
6 1/4	5 5/16	MMW 23228	MMW 3228	23228	AN 28	W 28
6 5/8	5 3/4	MMW 23230	MMW 3230	23230	AN 30	W 30
7	6 1/16	MMW 23232	MMW 3232	23232	AN 32	W 32
7 7/16	6 7/16	MMW 23234	MMW 3234	23234	AN 34	W 34
7 13/16	6 7/8	MMW 23236	MMW 3236	23236	AN 36	W 36
8 3/8	7 1/4	MMW 23238	MMW 3238	23238	AN 38	W 38
8 3/4	7 5/8	MMW 23240	MMW 3240	23240	AN 40	W 40
9 9/16	8 5/16	MMW 23244	MMW 3244	23244	N 44	W 44

## Solid Pillow Blocks



### MMW 232

### PILLOW BLOCK DIMENSIONS

A	B	C	D	E		F	H	L	BOLTS (NO. REQ'D) IN.	WEIGHT LBS. HOUSING	COMPLETE PILLOW BLOCK NUMBER
				MAX IN.	MIN IN.						
4 3/4	15 1/4	4 1/4	1	13 1/8	11 5/8	2 3/8	9 13/16	6 7/16	(4)- 3/4	72	MMW 23220
5 1/2	16 1/2	4 3/4	1	14 1/2	13 1/4	2 3/4	11 1/4	6 15/16	(4)- 3/4	102	MMW 23222
5 1/2	16 1/2	4 3/4	1	14 1/2	13 1/4	2 3/4	11 1/4	7 1/4	(4)- 3/4	99	MMW 23224
6 1/2	19 1/2	6 1/2	1 1/4	17 1/4	16	4	13 1/4	7 1/16	(4)- 1	170	MMW 23226
6 1/2	19 1/2	6 1/2	1 1/4	17 1/4	16	4	13 1/4	7 7/8	(4)- 1	167	MMW 23228
7 1/8	22	6 1/4	1 1/2	19 1/8	17 3/8	3 3/4	14 3/4	8	(4)- 1	213	MMW 23230
7 1/8	22	6 1/4	1 1/2	19 1/8	17 3/8	3 3/4	14 3/4	9 1/8	(4)- 1	211	MMW 23232
7 3/4	26 3/4	7	1 3/4	23 5/8	20 7/8	4 5/8	16 1/16	9 7/16	(4)- 1	267	MMW 23234
7 3/4	26 3/4	7	1 3/4	23 5/8	20 7/8	4 5/8	16 1/16	9 9/16	(4)- 1	264	MMW 23236
8 3/4	29 1/2	8	2	25	22 1/2	5	18 1/8	9 1/2	(4)- 1 1/4	363	MMW 23238
8 3/4	29 1/2	8	2	25	22 1/2	5	18 1/8	10 3/8	(4)- 1 1/4	379	MMW 23240
9 1/2	32 3/4	8 3/4	2 1/4	27 7/8	24 3/4	5 1/4	19 7/8	11 3/8	(4)- 1 1/2	487	MMW 23244

# Flange Cartridge Blocks



**Flange cartridge blocks are cast-iron housings for spherical roller bearings designed for the most challenging, space-limited applications.**

Flange cartridge blocks are designed for applications where housings must be bolted to the side of a frame instead of on a flat surface. The cast-iron design simplifies assembly and service in these challenging applications.

## The Standard Locknut Difference

Standard Locknut flange cartridge blocks can accommodate the most challenging space-limited applications.

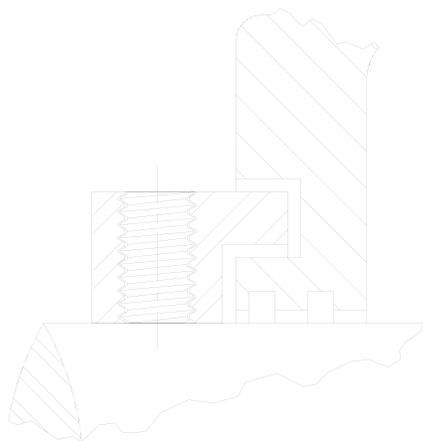
Flange cartridge blocks are designed to accommodate either an adapter mount or cylindrical mount in shaft size ranging from 2-15/16" to 9-9/16" diameters. The main flange is constructed of robust cast iron and the covers are available in either a labyrinth seal or contact seal configuration..



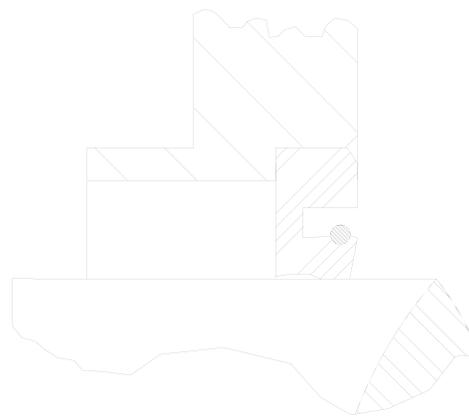
**Unless your order designates otherwise, all Miether flange cartridges are provided with labyrinth seals, designated by the standard prefix "FCL" in the complete flange unit.**

Optional equipment may be ordered simply by altering the prefixes as follows:

Labyrinth seal with flinger accessory      FCLF  
Friction seal      FCS



Labyrinth seal with optional flinger



Optional friction seal

**Features of the Flange Cartridge Block:**

- FCL    Cast Iron with standard labyrinth grooves.
- FCS    Cast Iron with friction seal.
- FCLF    Cast Iron with standard labyrinth groove and flinger accessory.

**FCL 222 and 225**..... 68

Cylindrical Mounted  
Adapter Mounted

## Flange Cartridge Blocks: How to order

### Cylindrical Mount

- When you order FCL 22217 you receive;
  - 1 FCL 217 Housing.
  - 1 No. 22217 Bearing.
  - 1 No. AN 17 Locknut, and 1 No. W 17 Lockplate.
- All housings include stabilizing ring, either use or discard.
- Always specify shaft size when ordering.
- Housing styles include;
  - FCL - Labyrinth Seals
  - FCLF - Labyrinth seals
  - FCS - Friction Seals with Flinger

## Flange Cartridge Blocks: How to order

### Adapter Mounted

- When you order FCL 22517 you receive;
  - 1 FCL 517 Housing.
  - 1 No. 22217-K Bearing.
  - 1 No. SNW 17 Adapter (Sleeve, Locknut, and Lockwasher).
- All housings include stabilizing ring, either use or discard.
- Always specify shaft size when ordering.
- Housing styles include;
  - FCL - Labyrinth Seals
  - FCLF - Labyrinth seals
  - FCS - Friction Seals with Flinger

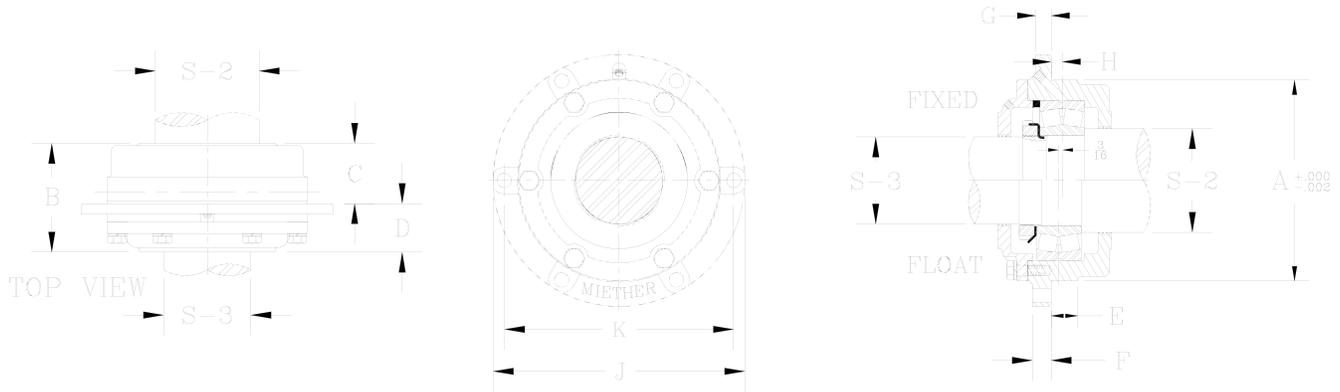
### FCL 222 CYLINDRICAL MOUNTED FLANGE CARTRIDGE PART NUMBERS

SHAFT DIAMETER		COMPLETE FLANGE UNIT NUMBER	FLANGE HOUSING ONLY	BEARING NUMBER	LOCKNUT	LOCK-WASHER	STABILIZING RING (1 REQUIRED)
S-2 IN.	S-3 IN.						
3 <sup>15</sup> / <sub>16</sub>	3 <sup>3</sup> / <sub>16</sub>	FCL 22217	FCL 217	22217	AN-17	W-17	SR- 17-14
4 <sup>1</sup> / <sub>8</sub>	3 <sup>3</sup> / <sub>8</sub>	FCL 22218	FCL 218	22218	AN-18	W-18	SR- 18-15
4 <sup>1</sup> / <sub>2</sub>	3 <sup>13</sup> / <sub>16</sub>	FCL 22220	FCL 220	22220	AN-20	W-20	SR- 20-17
4 <sup>7</sup> / <sub>8</sub>	4 <sup>3</sup> / <sub>16</sub>	FCL 22222	FCL 222	22222	AN-22	W-22	SR- 22-19
5 <sup>5</sup> / <sub>16</sub>	4 <sup>9</sup> / <sub>16</sub>	FCL 22224	FCL 224	22224	AN-24	W-24	SR- 24-20
5 <sup>7</sup> / <sub>8</sub>	4 <sup>15</sup> / <sub>16</sub>	FCL 22226	FCL 226	22226	AN-26	W-26	SR- 26-0
6 <sup>1</sup> / <sub>4</sub>	5 <sup>5</sup> / <sub>16</sub>	FCL 22228	FCL 228	22228	AN-28	W-28	SR- 28-0
6 <sup>5</sup> / <sub>8</sub>	5 <sup>3</sup> / <sub>4</sub>	FCL 22230	FCL 230	22230	AN-30	W-30	SR- 30-0
7	6 <sup>1</sup> / <sub>16</sub>	FCL 22232	FCL 232	22232	AN-32	W-32	SR- 32-0
7 <sup>7</sup> / <sub>16</sub>	6 <sup>7</sup> / <sub>16</sub>	FCL 22234	FCL 234	22234	AN-34	W-34	SR- 34-0
7 <sup>13</sup> / <sub>16</sub>	6 <sup>7</sup> / <sub>8</sub>	FCL 22236	FCL 236	22236	AN-36	W-36	SR- 36-30
8 <sup>3</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>4</sub>	FCL 22238	FCL 238	22238	AN-38	W-38	SR- 38-32
8 <sup>3</sup> / <sub>4</sub>	7 <sup>5</sup> / <sub>8</sub>	FCL 22240	FCL 240	22240	AN-40	W-40	SR- 40-34
9 <sup>9</sup> / <sub>16</sub>	8 <sup>5</sup> / <sub>16</sub>	FCL 22244	FCL 244	22244	AN-44	W-44	SR- 44-38

All housings come with stabilizing ring. Use for fixed, discard for float. Use only one "Fixed" bearing per shaft.

### FCL 225 ADAPTER MOUNTED FLANGE CARTRIDGE PART NUMBERS

SHAFT DIAMETER S-1 IN.	COMPLETE PILLOW BLOCK NUMBER	PILLOW BLOCK HOUSING ONLY	BEARING NUMBER	ADAPTER LOCKNUT AND LOCKWASHER	STABILIZING RING (1 REQUIRED)
2 <sup>15</sup> / <sub>16</sub>	FCL 22517	FCL 517	22217-K	SNW 17	SR- 17-14
3 <sup>3</sup> / <sub>16</sub>	FCL 22518	FCL 518	22218-K	SNW 18	SR- 18-15
3 <sup>7</sup> / <sub>16</sub>	FCL 22520	FCL 520	22220-K	SNW 20	SR- 20-17
3 <sup>15</sup> / <sub>16</sub>	FCL 22522	FCL 522	22222-K	SNW 22	SR- 22-19
4 <sup>3</sup> / <sub>16</sub>	FCL 22524	FCL 524	22224-K	SNW 24	SR- 24-20
4 <sup>7</sup> / <sub>16</sub>	FCL 22526	FCL 526	22226-K	SNW 26	SR- 26-0
4 <sup>15</sup> / <sub>16</sub>	FCL 22528	FCL 528	22228-K	SNW 28	SR- 28-0
5 <sup>3</sup> / <sub>16</sub>	FCL 22530	FCL 530	22230-K	SNW 30	SR- 30-0
5 <sup>7</sup> / <sub>16</sub>	FCL 22532	FCL 532	22232-K	SNW 32	SR- 32-0
5 <sup>15</sup> / <sub>16</sub>	FCL 22534	FCL 534	22234-K	SNW 34	SR- 34-0
6 <sup>7</sup> / <sub>16</sub>	FCL 22536	FCL 536	22236-K	SNW 36	SR- 36-30
6 <sup>15</sup> / <sub>16</sub>	FCL 22538	FCL 538	22238-K	SNW 38	SR- 38-32
7 <sup>3</sup> / <sub>16</sub>	FCL 22540	FCL 540	22240-K	SNW 40	SR- 40-34
7 <sup>15</sup> / <sub>16</sub>	FCL 22544	FCL 544	22244-K	SNW 44	SR- 44-38



## FCL 222

### FLANGE CARTRIDGE DIMENSIONS

A	B	C	D	E	F	G	H	J	K	BOLTS (NO. REQ'D)	WEIGHT LBS. HOUSING	COMPLETE PILLOW BLOCK NUMBER
IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	LER, SR	
7.875	4 5/8	2 1/2	2 1/8	1 1/4	3/4	5/8	1/2	10 5/8	9 3/8	(4)- 3/4	35	FCL 22217
8.312	4 15/16	2 19/32	2 11/32	1 1/4	7/8	11/16	1/2	11 1/8	9 7/8	(4)- 3/4	37	FCL 22218
9.250	5 5/16	2 25/32	2 17/32	1 1/4	15/16	3/4	1/2	12 1/8	10 7/8	(4)- 3/4	41	FCL 22220
10.125	5 7/8	3 1/8	2 3/4	1 3/8	1	13/16	5/8	13	11 3/4	(6)- 3/4	68	FCL 22222
10.750	6 1/8	3 5/16	2 13/16	1 3/8	1	13/16	5/8	13 5/8	12 3/8	(6)- 3/4	70	FCL 22224
11.375	6 7/16	3 7/16	3	1 1/2	1 1/16	7/8	5/8	14 1/4	13	(6)- 3/4	84	FCL 22226
12.000	6 5/8	3 1/2	3 1/8	1 1/2	1 1/8	15/16	5/8	14 7/8	13 5/8	(6)- 3/4	89	FCL 22228
13.000	7 3/16	3 7/8	3 5/16	1 3/4	1 3/16	1	3/4	15 7/8	14 5/8	(6)- 3/4	119	FCL 22230
13.875	7 1/2	4	3 1/2	2	1 1/4	1 1/16	3/4	16 7/8	15 1/2	(8)- 3/4	126	FCL 22232
15.000	7 13/16	4 1/4	3 9/16	2	1 5/16	1 1/8	7/8	18 1/8	16 5/8	(8)- 3/4	155	FCL 22234
15.375	7 13/16	4 1/4	3 9/16	2	1 5/16	1 1/8	7/8	18 5/8	17 1/8	(8)- 3/4	154	FCL 22236
16.250	8 1/8	4 3/8	3 3/4	2 1/4	1 3/8	1 3/16	7/8	20 1/8	18 1/4	(8)- 7/8	180	FCL 22238
17.250	8 1/2	4 5/8	3 7/8	2 1/4	1 7/16	1 1/4	1	21 1/8	19 1/4	(8)- 7/8	212	FCL 22240
18.750	8 7/8	4 27/32	4 1/32	2 1/2	1 1/2	1 5/16	1	22 3/4	20 7/8	(8)- 7/8	245	FCL 22244

All housings come with stabilizing ring. Use for fixed, discard for float. Use only one "Fixed" bearing per shaft.

## FCL 225

### FLANGE CARTRIDGE DIMENSIONS

A	B	C	D	E	F	G	H	J	K	BOLTS (NO. REQ'D)	WEIGHT LBS. HOUSING	COMPLETE PILLOW BLOCK NUMBER
IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	IN.	LER, SR	
7.875	4 5/8	2 1/2	2 1/8	1 1/4	3/4	5/8	1/2	10 5/8	9 3/8	(4)- 3/4	35	FCL 22517
8.312	4 15/16	2 19/32	2 11/32	1 1/4	7/8	11/16	1/2	11 1/8	9 7/8	(4)- 3/4	38	FCL 22518
9.250	5 5/16	2 25/32	2 17/32	1 1/4	15/16	3/4	1/2	12 1/8	10 7/8	(4)- 3/4	42	FCL 22520
10.125	5 7/8	3 1/8	2 3/4	1 3/8	1	13/16	5/8	13	11 3/4	(6)- 3/4	69	FCL 22522
10.750	6 1/8	3 5/16	2 13/16	1 3/8	1	13/16	5/8	13 5/8	12 3/8	(6)- 3/4	72	FCL 22524
11.375	6 7/16	3 7/16	3	1 1/2	1 1/16	7/8	5/8	14 1/4	13	(6)- 3/4	85	FCL 22526
12.000	6 5/8	3 1/2	3 1/8	1 1/2	1 1/8	15/16	5/8	14 7/8	13 5/8	(6)- 3/4	91	FCL 22528
13.000	7 3/16	3 7/8	3 5/16	1 3/4	1 3/16	1	3/4	15 7/8	14 5/8	(6)- 3/4	122	FCL 22530
13.875	7 1/2	4	3 1/2	2	1 1/4	1 1/16	3/4	16 7/8	15 1/2	(8)- 3/4	129	FCL 22532
15.000	7 13/16	4 1/4	3 9/16	2	1 5/16	1 1/8	7/8	18 1/8	16 5/8	(8)- 3/4	158	FCL 22534
15.375	7 13/16	4 1/4	3 9/16	2	1 5/16	1 1/8	7/8	18 5/8	17 1/8	(8)- 3/4	157	FCL 22536
16.250	8 1/8	4 3/8	3 3/4	2 1/4	1 3/8	1 3/16	7/8	20 1/8	18 1/4	(8)- 7/8	184	FCL 22538
17.250	8 1/2	4 5/8	3 7/8	2 1/4	1 7/16	1 1/4	1	21 1/8	19 1/4	(8)- 7/8	217	FCL 22540
18.750	8 7/8	4 27/32	4 1/32	2 1/2	1 1/2	1 5/16	1	22 3/4	20 7/8	(8)- 7/8	250	FCL 22544

# Adapter Assemblies



**Adapter assemblies are commonly used for installation of bearings with a tapered bore onto a cylindrical shaft. They can be installed on plain shafts or stepped shafts.**

Many shafts vary slightly in diameter so bearings must be located onto a cylindrical seat or shaft using the tapered bore of an adapter sleeve. Standard Locknut adapter sleeves and assemblies come in a range of sizes to fit a wide range of tapered bore roller bearings.

Our adapter sleeves and assemblies feature heavy duty positive locking for industrial applications. They can easily be installed at any position on a straight shaft and removed when it's time, with no additional locating devices required.

## The Standard Locknut Difference

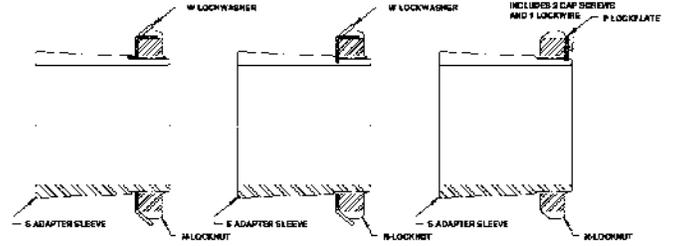
Standard Locknut adapter sleeves are our most popular series of adapter assemblies. They are designed for easy installation and removal with plain or stepped shafts. Our adapter sleeves and assemblies can accommodate tapered bore roller bearings in a wide range of sizes and are available in metric (SK and ASK) or U.S. inch (AH) measurements, which gives you greater flexibility.

<b>Adapter Series</b> .....	<b>72</b>
For Bearing Series 230, 231, 12, 222	
<b>Adapter Series</b> .....	<b>73</b>
For Bearing Series 232, 13, 223	
<b>Adapter Sleeve Series</b> .....	<b>74</b>
S00 Series for Bearing Series 12, 13, 222, 231	
S100 Series for Bearing Series 223, 232	
<b>Adapter Sleeve Series</b> .....	<b>75</b>
S3000 Series for Bearing Series 230	
S3100 Series for Bearing Series 231	
S3200 Series for Bearing Series 232	
<b>Metric Adapter Series</b> .....	<b>76</b>
Adapter Series H2, H3, H23, H30, H31, H32, H39	
<b>Metric Adapter Series</b> .....	<b>77</b>
Adapter Series H2, H3	
<b>Metric Sleeve Series</b> .....	<b>78</b>
Adapter Series H30	
<b>Metric Sleeve Series</b> .....	<b>79</b>
Adapter Series H31, H32	
<b>Metric Sleeve Series</b> .....	<b>80</b>
Adapter Series H23, H39	

# Adapter Series

## For Bearing Series 230, 231, 12, 222

For Tapered Bore Assembly

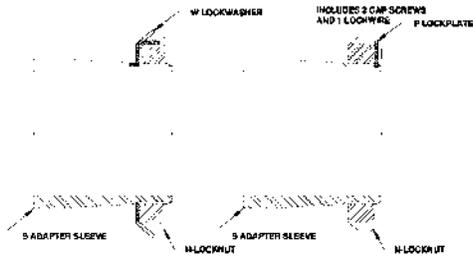


BEARING	230			231			230 & 231		12			222			12 & 222		
	NOMINAL BORE (mm)	ADAPTER UNIT ASSEMBLY NO.	ADAPTER UNIT ASSEMBLY WT. (LB.)	ADAPTER UNIT SLEEVE NO.	ADAPTER UNIT ASSEMBLY NO.	ADAPTER UNIT ASSEMBLY WT. (LB.)	ADAPTER UNIT SLEEVE NO.	ADAPTER UNIT LOCKNUT NO.	ADAPTER UNIT LOCKING DEVICE NO.	ADAPTER UNIT ASSEMBLY NO.	ADAPTER UNIT ASSEMBLY WT. (LB.)	ADAPTER UNIT SLEEVE NO.	ADAPTER UNIT ASSEMBLY NO.	ADAPTER UNIT ASSEMBLY WT. (LB.)	ADAPTER UNIT SLEEVE NO.	ADAPTER UNIT LOCKNUT NO.	ADAPTER UNIT LOCKING DEVICE NO.
20									SNW-04		S04						
25									SNW-05	0.17	S05						
30									SNW-06	0.24	S06						
35									SNW-07	0.32	S07	SNW-07	0.32	S07	N-07	W-07	
40									SNW-08	0.42	S08	SNW-08	0.42	S08	N-08	W-08	
45									SNW-09	0.55	S09	SNW-09	0.55	S09	N-09	W-09	
50									SNW-10	0.67	S10	SNW-10	0.67	S10	N-10	W-10	
55									SNW-11	0.77	S11	SNW-11	0.77	S11	N-11	W-11	
60									SNW-12	0.87	S12	SNW-12	0.87	S12	N-12	W-12	
65									SNW-13	1.01	S13	SNW-13	1.01	S13	N-13	W-13	
70									SNW-14	1.59	S14	SNW-14	1.59	S14	N-14	W-14	
75									SNW-15	1.83	S15	SNW-15	1.83	S15	N-15	W-15	
80									SNW-16	2.27	S16	SNW-16	2.27	S16	N-16	W-16	
85									SNW-17	2.60	S17	SNW-17	2.60	S17	N-17	W-17	
90									SNW-18	3.02	S18	SNW-18	3.02	S18	N-18	W-18	
95												SNW-19	3.44	S19	N-19	W-19	
100									SNW-20	3.37	S20	SNW-20	3.73	S20	N-20	W-20	
105																	
110					SNW-3122	4.25	S22	N-022	W-022	SNW-22	4.81	S22	SNW-22	4.81	S22	N-22	W-22
120	SNW-3024	6.16	S3024	SNW-3124	5.85	S24	N-024	W-024				SNW-24	6.65	S24	N-24	W-24	
130	SNW-3026	7.50	S3026	SNW-3126	8.35	S26	N-026	W-026				SNW-26	9.70	S26	N-26	W-26	
140	SNW-3028	8.45	S3028	SNW-3128	8.35	S28	N-028	W-028				SNW-28	10.50	S28	N-28	W-28	
150	SNW-3030	9.80	S3030	SNW-3130	13.50	S30	N-030	W-030				SNW-30	16.00	S30	N-30	W-30	
160	SNW-3032	12.00	S3032	SNW-3132	13.50	S32	N-032	W-032				SNW-32	15.50	S32	N-32	W-32	
170	SNW-3034	13.50	S3034	SNW-3134	16.00	S34	N-034	W-034				SNW-34	19.50	S34	N-34	W-34	
180	SNW-3036	15.00	S3036	SNW-3136	17.00	S36	N-036	W-036				SNW-36	20.50	S36	N-36	W-36	
190	SNW-3038	16.50	S3038	SNW-3138	19.50	S38	N-038	W-038				SNW-38	23.50	S38	N-38	W-38	
200	SNW-3040	19.50	S3040	SNW-3140	28.50	S40	N-040	W-040				SNW-40	30.50	S40	N-40	W-40	
220	SNW-3044	24.50	S3044	SNW-3144	32.00	S44	N-044	W-044				SNW-44	32.50	S44	N-044	W-44	
240	SNP-3048	32.00	S3048	SNP-3148	37.50	S48	N-048	P-48				SNP-48		S48	N-048	P-48	
260	SNP-3052	41.00	S3052	SNP-3152	44.00	S52	N-052	P-52				SNP-52		S52	N-052	P-52	
280	SNP-3056	45.50	S3056	SNP-3156	46.50	S3156	N-056	P-56									
300	SNP-3060	59.00	S3060	SNP-3160	59.50	S3160	N-060	P-60									
320	SNP-3064	65.00	S3064	SNP-3164	74.00	S3164	N-064	P-64									
340	SNP-3068	78.00	S3068	SNP-3168	93.50	S3168	N-068	P-68									
360	SNP-3072	86.00	S3072	SNP-3172	120.00	S3172	N-072	P-72									
380	SNP-3076	94.50	S3076	SNP-3176	125.00	S3176	N-076	P-76									
400	SNP-3080	100.00	S3080	SNP-3180	140.00	S3180	N-080	P-80									
420	SNP-3084	105.00	S3084	SNP-3184	145.00	S3184	N-084	P-84									
440	SNP-3088		S3088	SNP-3188		S3188	N-088	P-88									
460	SNP-3092		S3092	SNP-3192		S3192	N-092	P-92									
480	SNP-3096		S3096	SNP-3196		S3196	N-096	P-96									
500	SNP-30/500		S30/500	SNP-31/500		S31/500	N-500	P-500									
530	SNP-30/530		S30/530	SNP-31/530		S31/530	N-530	P-530									
560	SNP-30/560		S30/560	SNP-31/560		S31/560	N-560	P-560									
600	SNP-30/600		S30/600	SNP-31/600		S31/600	N-600	P-600									
630	SNP-30/630		S30/630	SNP-31/630		S31/630	N-630	P-630									
670	SNP-30/670		S30/670	SNP-31/670		S31/670	N-670	P-670									
710	SNP-30/710		S30/710	SNP-31/710		S31/710	N-710	P-710									
750	SNP-30/750		S30/750	SNP-31/750		S31/750	N-750	P-750									
800	SNP-30/800		S30/800	SNP-31/800		S31/800	N-800	P-800									
850	SNP-30/850		S30/850	SNP-31/850		S31/850	N-850	P-850									
900	SNP-30/900		S30/900				N-900	P-900									
950	SNP-30/950		S30/950				N-950	P-950									

# Adapter Series

For Bearing Series 232, 13, 223

For Tapered Bore Assembly

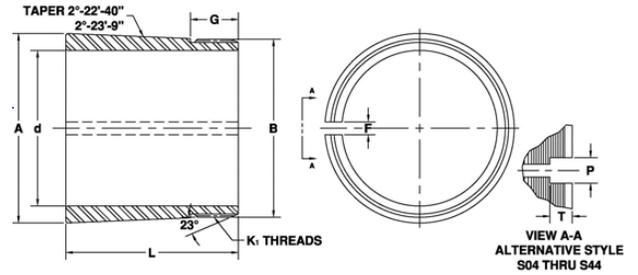


BEARING	232			13			223			232, 13 & 223		
	NOMINAL BORE (mm)	ASSEMBLY NO.	ADAPTER UNIT ASSEMBLY WT. (LB.)	SLEEVE NO.	ASSEMBLY NO.	ADAPTER UNIT ASSEMBLY WT. (LB.)	SLEEVE NO.	ASSEMBLY NO.	ADAPTER UNIT ASSEMBLY WT. (LB.)	SLEEVE NO.	LOCKNUT NO.	LOCKING DEVICE NO.
20				SNW-04			S04				N-04	W-04
25				SNW-05	0.17		S05				N-05	W-05
30				SNW-06	0.24		S06				N-06	W-06
35				SNW-07	0.32		S07				N-07	W-07
40				SNW-08	0.42		S08	SNW-108	0.50	S108	N-08	W-08
45				SNW-09	0.55		S09	SNW-109	0.62	S109	N-09	W-09
50				SNW-10	0.67		S10	SNW-110	0.80	S110	N-10	W-10
55				SNW-11	0.77		S11	SNW-111	0.93	S111	N-11	W-11
60				SNW-12	0.87		S12	SNW-112	1.06	S112	N-12	W-12
65				SNW-13	1.01		S13	SNW-113	1.23	S113	N-13	W-13
70				SNW-14	1.59		S14	SNW-114	1.59	S114	N-14	W-14
75				SNW-15	1.83		S15	SNW-115	2.32	S115	AN-15	W-15
80				SNW-16	2.27		S16	SNW-116	2.82	S116	AN-16	W-16
85				SNW-17	2.60		S17	SNW-117	3.20	S117	AN-17	W-17
90				SNW-18	3.02		S18	SNW-118	3.73	S118	AN-18	W-18
95				SNW-19	3.44		S19	SNW-119	4.23	S119	AN-19	W-19
100	SNW-120	4.75	S-120	SNW-20	3.73		S20	SNW-120	4.74	S120	AN-20	W-20
105				SNW-21	4.30		S21				AN-21	W-21
110	SNW-122	6.04	S-122	SNW-22	4.81		S22	SNW-122	6.04	S122	AN-22	W-22
120	SNW-124	7.03	S-124					SNW-124	7.03	S124	AN-24	W-24
130	SNW-126	10.10	S-126					SNW-126	10.10	S126	AN-26	W-26
140	SNW-128	12.20	S-128					SNW-128	12.20	S128	AN-28	W-28
150	SNW-130	14.60	S-130					SNW-130	14.60	S130	AN-30	W-30
160	SNW-132	20.20	S-132					SNW-132	20.20	S132	AN-32	W-32
170	SNW-134	22.50	S-134					SNW-134	22.50	S134	AN-34	W-34
180	SNW-136	24.90	S-136					SNW-136	24.90	S136	AN-36	W-36
190	SNW-138	27.80	S-138					SNW-138	27.80	S138	AN-38	W-38
200	SNW-140	30.60	S-140					SNW-140	30.60	S140	AN-40	W-40
220	SNW-144	36.80	S-144					SNW-144	36.80	S144	N-44	W-44
240	SNP-148	48.50	S-148					SNW-148	48.50	S148	N-048	P-48
260	SNP-152	54.50	S-152					SNW-152	54.50	S152	N-052	P-52
280	SNP-3256	59.00	S-3256								N-056	P-56
300	SNP-3260	68.50	S-3260								N-060	P-60
320	SNP-3264	98.00	S-3264								N-064	P-64
340	SNP-3268	105.00	S-3268								N-068	P-68
360	SNP-3272	135.00	S-3272								N-072	P-72
380	SNP-3276	145.00	S-3276								N-076	P-76
400	SNP-3280	165.00	S-3280								N-080	P-80
420	SNP-3284	195.00	S-3284								N-084	P-84
440	SNP-3288		S-3288								N-088	P-88
460	SNP-3292		S-3292								N-092	P-92
480	SNP-3296		S-3296								N-096	P-96
500	SNP-32/500		S-32/500								N-500	P-500
530	SNP-32/530		S-32/530								N-530	P-530
560	SNP-32/560		S-32/560								N-560	P-560
600	SNP-32/600		S-32/600								N-600	P-600
630	SNP-32/630		S-32/630								N-630	P-630
670	SNP-32/670		S-32/670								N-670	P-670
710	SNP-32/719		S-32/710								N-710	P-710
750	SNP-32/750		S-32/750								N-750	P-750

# Adapter Sleeve Series

**S00 Series For Bearing Series 12, 13, 222, 231**  
**S100 Series For Bearing Series 223, 232**

For Tapered Bore Assembly



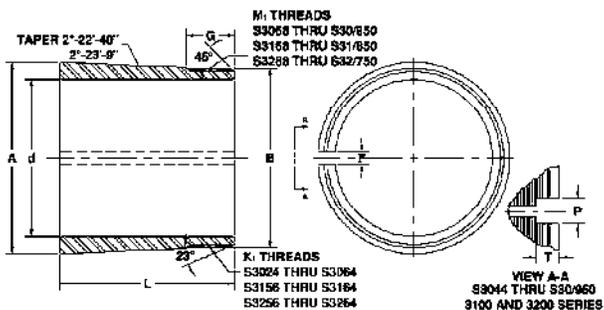
## ADAPTER SLEEVE DIMENSIONS

SLEEVE NO.		BORE DIA.	SHARP CORNER DIA. A		SLEEVE LENGTH L		MAJOR DIA. B	THREADS K <sub>1</sub>	THD. LENGTH G	WIDTH F	SLOT WIDTH P	DEPTH T
		d MAX.	MIN.	MIN.	MIN.	MIN.	MAX.		MAX.	MIN.	MIN.	MIN.
S00	S100		S00	S100	S00	S100						
S04	S104	0.692	0.855	0.875	1.224	1.460	0.781	32	0.531	0.07	0.240	0.691
S05	S105	0.754	1.052	1.082	1.259	1.617	0.969	32	0.570	0.07	0.240	0.741
S06	S106	0.942	1.256	1.292	1.343	1.779	1.173	18	0.632	0.07	0.240	0.822
S07	S107	1.192	1.459	1.499	1.449	1.922	1.376	18	0.664	0.07	0.240	0.863
S08	S108	1.317	1.659	1.702	1.494	2.005	1.563	18	0.672	0.08	0.365	0.874
S09	S109	1.442	1.863	1.909	1.574	2.123	1.767	18	0.672	0.08	0.365	0.874
S10	S110	1.692	2.070	2.122	1.755	2.384	1.967	18	0.734	0.08	0.365	0.954
S11	S111	1.942	2.273	2.329	1.835	2.506	2.157	18	0.739	0.08	0.365	0.961
S12	S112	2.067	2.480	2.535	1.979	2.649	2.360	18	0.770	0.08	0.365	1.001
S13	S113	2.192	2.683	2.739	2.090	2.761	2.548	18	0.802	0.08	0.365	1.043
S14	S114	2.317	2.894	2.950	2.264	2.935	2.751	18	0.802	0.08	0.365	1.043
S15	S115	2.442	3.090	3.155	2.286	3.074	2.933	12	0.905	0.12	0.365	1.177
S16	S116	2.692	3.293	3.362	2.366	3.194	3.137	12	0.905	0.12	0.428	1.177
S17	S117	2.942	3.497	3.566	2.476	3.302	3.340	12	0.936	0.12	0.428	1.217
S18	S118	3.192	3.700	3.776	2.636	3.543	3.527	12	1.020	0.12	0.428	1.326
S19	S119	3.317	3.904	3.982	2.750	3.692	3.730	12	1.051	0.12	0.428	1.367
S20	S120	3.442	4.107	4.199	2.859	3.961	3.918	12	1.083	0.12	0.428	1.408
S21	S121	3.692	4.314	4.412	2.977	4.157	4.122	12	1.083	0.12	0.428	1.408
S22	S122	3.942	4.524	4.619	3.196	4.338	4.325	12	1.145	0.15	0.428	1.488
S24	S124	4.192	4.937	5.035	3.456	4.638	4.716	12	1.176	0.15	0.428	1.529
S26	S126	4.442	5.350	5.452	3.752	4.972	5.106	12	1.239	0.15	0.552	1.611
S28	S128	4.942	5.757	5.869	3.971	5.313	5.497	12	1.301	0.15	0.740	1.692
S30	S130	5.192	6.167	6.282	4.231	5.611	5.888	12	1.364	0.15	0.740	1.774
S32	S132	5.442	6.584	6.696	4.568	5.910	6.284	8	1.520	0.15	0.740	1.976
S34	S134	5.942	6.997	7.109	4.837	6.178	6.659	8	1.551	0.24	0.865	2.017
S36	S136	6.442	7.404	7.522	5.028	6.446	7.066	8	1.583	0.24	0.865	2.058
S38	S138	6.942	7.814	7.939	5.251	6.748	7.472	8	1.614	0.24	0.865	2.098
S40	S140	7.192	8.221	8.355	5.474	7.085	7.847	8	1.676	0.24	0.990	2.179
S44	S144	7.942	9.041	9.153	5.891	7.277	8.628	8	1.708	0.24	0.990	2.220
S48	S148	8.942	9.878	9.994	6.628	8.099	9.422	6	1.989	0.30	1.125	0.500
S52	S152	9.442	10.734	10.832	7.583	8.764	10.192	6	2.135	0.30	1.188	0.500

# Adapter Sleeve Series

**S3000 Series For Bearing Series 230**  
**S3100 Series For Bearing Series 231**  
**S3200 Series For Bearing Series 232**

For Tapered Bore Assembly



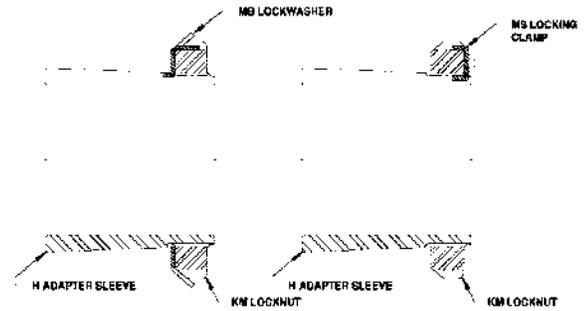
## ADAPTER SLEEVE DIMENSIONS

SLEEVE NO.			BORE DIA.			SHARP CORNER DIA.			SLEEVE LENGTH		THREADS			SLOT			
S3000	S3100	S3200	d			A			L		NO. PER INCH		G		P		T
			MAX.	MIN.	S3000	S3100	S3200	MIN.	S3100	S3200	MAX.	K <sub>1</sub>	M <sub>1</sub>	MAX.	MIN.	MIN.	
S3024			4.192	4.890				2.937			4.716	12	1.260	0.146	0.428	1.638	
S3026			4.442	5.304				3.227			5.106	12	1.323	0.146	0.552	1.720	
S3028			4.942	5.701				3.330			5.497	12	1.385	0.146	0.740	1.800	
S3030			5.192	6.105				3.482			5.888	12	1.416	0.146	0.740	1.892	
S3032			5.442	6.512				3.701			6.284	8	1.478	0.146	0.740	1.921	
S3034			5.942	6.929				4.009			6.659	8	1.510	0.240	0.865	1.963	
S3036			6.442	7.346				4.327			7.066	8	1.541	0.240	0.865	2.003	
S3038			6.942	7.744				4.402			7.472	8	1.604	0.240	0.865	2.085	
S3040			7.192	8.161				4.740			7.847	8	1.666	0.240	0.990	2.166	
S3044			7.942	8.976				5.120			8.628	8	1.760	0.240	0.990	2.288	
S3048			8.942	9.771				5.422			9.442	6	1.978	0.302	1.125	0.500	
S3052			9.444	10.600				6.009			10.192	6	2.135	0.302	1.188	0.500	
S3056	S3156	S3256	10.444	11.394	11.526	11.624	6.181	7.756	8.937	11.004	6	2.229	2.229	0.302	1.250	0.500	
S3060	S3160	S3260	10.944	12.221	12.359	12.464	6.717	8.370	9.630	11.785	6	2.291	2.291	0.302	1.375	0.500	
S3064	S3164	S3264	11.944	13.020	13.201	13.306	6.936	9.101	10.361	12.562	6	2.385	2.385	0.302	1.438	0.500	
S3068	S3168	S3268	12.444	13.847	14.034	14.146	7.533	9.777	11.116	13.303	5	2.541	2.541	0.302	1.500	0.500	
S3072	S3172	S3272	13.444	14.639	14.829	14.960	7.569	9.852	11.427	14.134	5	2.541	2.541	0.365	1.500	0.500	
S3076	S3176	S3276	13.944	15.430	15.623	15.774	7.733	10.056	11.867	14.921	5	2.666	2.666	0.365	1.500	0.500	
S3080	S3180	S3280	15.006	16.260	16.430	16.614	8.401	10.449	12.654	15.709	5	2.823	2.885	0.365	1.625	0.500	
S3084	S3184	S3284	15.756	17.056	17.298	17.456	8.488	11.402	13.292	16.496	5	2.823	2.948	0.365	1.625	0.500	
S3088	S3188	S3288	16.506	17.868	18.094	18.271	9.100	11.817	13.943	17.283	5	3.228	3.228	0.365	1.812	0.500	
S3092	S3192	S3292	17.006	18.675	18.928	19.111	9.336	12.368	14.573	18.071	5	3.228	3.323	0.365	1.812	0.500	
S3096	S3196	S3296	18.006	19.469	19.741	19.945	9.446	12.714	15.155	18.858	5	3.260	3.354	0.365	1.812	0.500	
S30/500	S31/500	S32/500	18.506	20.263	20.581	20.817	9.838	13.657	16.491	19.646	5	3.573	3.666	0.365	1.812	0.500	
S30/530	S31/530	S32/530	19.506	21.507	21.793	22.065	10.579	14.004	17.271	20.827	4	3.573	3.666	0.490	1.812	0.500	
S30/560	S31/560	S32/560	21.006	22.721	23.000	23.279	11.222	14.569	17.915	22.008	4	3.823	3.916	0.490	1.812	0.500	
S30/600	S31/600	S32/600	22.006	24.316	24.644	24.933	11.451	15.388	18.853	23.583	4	3.916	3.916	0.490	1.812	0.500	
S30/630	S31/630	S32/630	24.006	25.537	25.875	26.193	11.924	15.979	19.798	24.764	4	3.916	3.916	0.490	2.000	0.500	
S30/670	S31/670	S32/670	25.006	27.175	27.522	27.857	12.835	17.008	21.024	26.339	4	4.104	4.104	0.490	2.000	0.625	
S30/710	S31/710	S32/710	26.506	28.769	29.127	29.471	13.509	17.801	21.935	27.914	3	4.541	4.635	0.490	2.000	0.625	
S30/750	S31/750	S32/750	28.006	30.394	30.771	31.132	14.093	18.620	22.982	29.489	3	4.541	4.635	0.490	2.000	0.625	
S30/800	S31/800		29.506	32.389	32.772		14.408	19.014		31.457	3	4.541	4.635	0.490	2.000	0.625	
S30/850	S31/850		31.506	34.407	34.827		14.991	20.030		33.426	3	4.573	4.760	0.490	2.000	0.625	
S30/900			33.506	36.402			15.681			35.394	3	4.948		0.490	2.000	0.625	
S30/950			36.506	38.438			16.492			37.363	3	4.948		0.490	2.000	0.625	

# Metric Adapter Series

## Adapter Series H2, H3, H23, H30, H31, H32, H39

Adapter assemblies  
Metric Locknut Number  
For tapered bore assembly

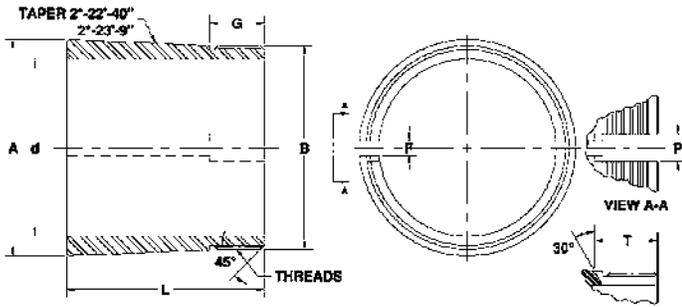


### ADAPTER DIMENSIONS

BEARING BORE DIA. (mm)	ADAPTER SERIES					LOCKNUT NO.	BEARING BORE DIA.	ADAPTER SERIES		LOCKNUT NO.	LOCKING DEVICE NO.	BEARING BORE DIA.	
	H2	H3	H23	H31	H32			H30	H39				
20	H204	H304	H2304			KM4	MB84	20				20	
25	H205	H305	H2305			KM5	MB85	25				25	
30	H206	H306	H2306			KM6	MB86	30				30	
35	H207	H307	H2307			KM7	MB87	35				35	
40	H208	H308	H2308			KM8	MB88	40				40	
45	H209	H309	H2309			KM9	MB9	45				45	
50	H210	H310	H2310			KM10	MB10	50				50	
55	H211	H311	H2311			KM11	MB11	55				55	
60	H212	H312	H2312			KM12	MB12	60				60	
65	H213	H313	H2313			KM13	MB13	65				65	
70	H214	H314	H2314			KM14	MB14	70				70	
75	H215	H315	H2315			KM15	MB15	75				75	
80	H216	H316	H2316			KM16	MB16	80				80	
85	H217	H317	H2317			KM17	MB17	85				85	
90	H218	H318	H2318			KM18	MB18	90				90	
95	H219	H319	H2319			KM19	MB19	95				95	
100	H220	H320	H2320	H3120		KM20	MB20	100				100	
105	H221	H321	H2321			KM21	MB21	105				105	
110	H222	H322	H2322	H3122		KM22	MB22	110				110	
120			H2324	H3124		KM24	MB24	120	H3024	H3924	KML24	MBL24	120
130			H2326	H3126		KM26	MB26	130	H3026	H3926	KML26	MBL26	130
140			H2328	H3128		KM28	MB28	140	H3028	H3928	KML28	MBL28	140
150			H2330	H3130		KM30	MB30	150	H3030	H3930	KML30	MBL30	150
160			H2332	H3132		KM32	MB32	160	H3032	H3932	KML32	MBL32	160
170			H2334	H3134		KM34	MB34	170	H3034	H3934	KML34	MBL34	170
180			H2336	H3136		KM36	MB36	180	H3036	H3936	KML36	MBL36	180
190			H2338	H3138		KM38	MB38	190	H3038	H3938	KML38	MBL38	190
200			H2340	H3140		KM40	MB40	200	H3040	H3940	KML40	MBL40	200
220			H2344	H3144		HM44T	MB44	220	H3044	H3944	HM3044	MS3044	220
240			H2348	H3148		HM48T	MB48	240	H3048	H3948	HM3048	MS3048	240
260			H2352	H3152		HM52T	MB52	260	H3052	H3952	HM3052	MS3052	260
280			H2356	H3156		HM56T	MB56	280	H3056	H3956	HM3056	MS3056	280
300				H3160	H3260	HM3160	MS3160	300	H3060	H3960	HM3060	MS3060	300
320				H3164	H3264	HM3164	MS3164	320	H3064	H3964	HM3064	MS3064	320
340				H3168	H3268	HM3168	MS3168	340	H3068	H3968	HM3068	MS3068	340
360				H3172	H3272	HM3172	MS3172	360	H3072	H3972	HM3072	MS3072	360
380				H3176	H3276	HM3176	MS3176	380	H3076	H3976	HM3076	MS3076	380
400				H3180	H3280	HM3180	MS3180	400	H3080	H3980	HM3080	MS3080	400
420				H3184	H3284	HM3184	MS3184	420	H3084	H3984	HM3084	MS3084	420
440				H3188	H3288	HM3188	MS3188	440	H3088	H3988	HM3088	MS3088	440
460				H3192	H3292	HM3192	MS3192	460	H3092	H3992	HM3092	MS3092	460
480				H3196	H3296	HM3196	MS3196	480	H3096	H3996	HM3096	MS3096	480
500				H31/500	H32/500	HM31/500	MS31/500	500	H30/500	H39/500	HM30/500	MS30/500	500

## Adapter Series H2, H3

For Tapered Bore Assembly



### SERIES H2 METRIC ADAPTER SLEEVE DIMENSIONS

SLEEVE NO.	BORE DIA. d NOM.	SHARP CORNER DIA. A		SLEEVE LENGTH L MAX.	THREADS METRIC THREADS	THREADS THD. LENGTH G		SLOT WIDTH P		DEPTH T MIN.
		MIN.	MAX.			MIN.	MAX.	MIN.	MAX.	
H204	0.669	0.843	0.945		M20 X 1	0.433	0.059	0.197	0.512	
H205	0.787	1.043	1.024		M25 X 1.5	0.512	0.079	0.236	0.630	
H206	0.984	1.240	1.063		M30 X 1.5	0.512	0.079	0.236	0.630	
H207	1.181	1.441	1.142		M35 X 1.5	0.551	0.079	0.276	0.669	
H208	1.378	1.642	1.220		M40 X 1.5	0.591	0.079	0.276	0.709	
H209	1.575	1.843	1.299		M45 X 1.5	0.630	0.079	0.276	0.748	
H210	1.772	2.043	1.378		M50 X 1.5	0.669	0.079	0.276	0.787	
H211	1.968	2.244	1.457		M55 X 2	0.709	0.098	0.354	0.827	
H212	2.165	2.445	1.496		M60 X 2	0.709	0.098	0.354	0.827	
H213	2.362	2.646	1.575		M65 X 2	0.748	0.098	0.354	0.866	
H214	2.362	2.846	1.614		M70 X 2	0.787	0.098	0.354	0.945	
H215	2.559	3.047	1.693		M75 X 2	0.827	0.118	0.354	0.984	
H216	2.756	3.244	1.811		M80 X 2	0.906	0.118	0.433	1.063	
H217	2.953	3.453	1.968		M85 X 2	0.984	0.118	0.433	1.142	
H218	3.150	3.654	2.047		M90 X 2	0.984	0.118	0.433	1.142	
H219	3.346	3.858	2.165		M95 X 2	1.024	0.118	0.433	1.181	
H220	3.543	4.063	2.283		M100 X 2	1.063	0.118	0.512	1.220	
H221	3.740	4.264	2.362		M105 X 2	1.063	0.118	0.512	1.220	
H222	3.937	4.468	2.480		M110 X 2	1.102	0.118	0.512	1.260	

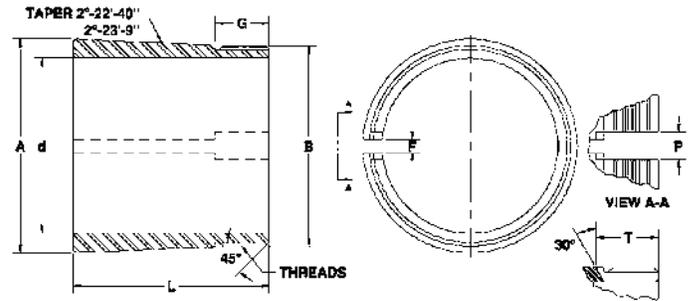
### SERIES H3 METRIC ADAPTER SLEEVE DIMENSIONS

SLEEVE NO.	BORE DIA. d NOM.	SHARP CORNER DIA. A		SLEEVE LENGTH L MAX.	THREADS METRIC THREADS	THREADS THD. LENGTH G		SLOT WIDTH P		DEPTH T MIN.
		MIN.	MAX.			MIN.	MAX.	MIN.	MAX.	
H304	0.669	0.858	1.102		M20 X 1	0.433	0.059	0.197	0.512	
H305	0.787	1.051	1.142		M25 X 1.5	0.512	0.079	0.236	0.630	
H306	0.984	1.256	1.220		M30 X 1.5	0.512	0.079	0.236	0.630	
H307	1.181	1.461	1.378		M35 X 1.5	0.551	0.079	0.276	0.669	
H308	1.378	1.657	1.417		M40 X 1.5	0.591	0.079	0.276	0.709	
H309	1.575	1.862	1.535		M45 X 1.5	0.630	0.079	0.276	0.748	
H310	1.772	2.067	1.654		M50 X 1.5	0.669	0.079	0.276	0.787	
H311	1.968	2.272	1.772		M55 X 2	0.709	0.098	0.354	0.827	
H312	2.165	2.476	1.850		M60 X 2	0.709	0.098	0.354	0.827	
H313	2.362	2.677	1.968		M65 X 2	0.748	0.098	0.354	0.866	
H314	2.362	2.882	2.047		M70 X 2	0.787	0.098	0.354	0.945	
H315	2.559	3.087	2.165		M75 X 2	0.827	0.118	0.354	0.984	
H316	2.756	3.287	2.323		M80 X 2	0.906	0.118	0.433	1.063	
H317	2.953	3.496	2.480		M85 X 2	0.984	0.118	0.433	1.142	
H318	3.150	3.697	2.559		M90 X 2	0.984	0.118	0.433	1.142	
H319	3.346	3.902	2.677		M95 X 2	1.024	0.118	0.433	1.181	
H320	3.543	4.102	2.795		M100 X 2	1.063	0.118	0.512	1.220	
H321	3.740	4.311	2.913		M105 X 2	1.063	0.118	0.512	1.220	
H322	3.937	4.516	3.031		M110 X 2	1.102	0.118	0.512	1.260	

# Metric Sleeve Series

## Adapter Series H30

For tapered bore assembly

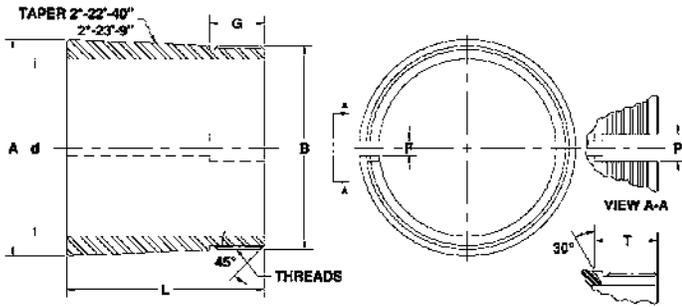


### SERIES H30 METRIC ADAPTER SLEEVE DIMENSIONS

SLEEVE NO.	BORE DIA. d NOM.	SHARP CORNER DIA. A		SLEEVE LENGTH L MAX.	THREADS METRIC THREADS	THD. LENGTH G		WIDTH F MIN.	SLOT	
		MIN.	MAX.			MIN.	MAX.		WIDTH P MIN.	DEPTH T MIN.
H3024	4.331	4.890	2.835	2.835	M120 X 2	1.142	0.197	0.591	1.339	
H3026	4.528	5.307	3.150	3.150	M130 X 2	1.220	0.197	0.591	1.417	
H3028	4.921	5.701	3.228	3.228	M140 X 2	1.260	0.197	0.669	1.457	
H3030	5.315	6.106	3.425	3.425	M150 X 2	1.339	0.197	0.669	1.535	
H3032	5.512	6.516	3.661	3.661	M160 X 3	1.417	0.236	0.748	1.654	
H3034	5.906	6.929	3.976	3.976	M170 X 3	1.457	0.236	0.748	1.693	
H3036	6.299	7.346	4.291	4.291	M180 X 3	1.496	0.236	0.827	1.732	
H3038	6.693	7.748	4.409	4.409	M190 X 3	1.575	0.236	0.827	1.811	
H3040	7.087	8.165	4.724	4.724	M200 X 3	1.614	0.236	0.827	1.850	
H3044	7.874	8.976	4.961	4.961	TR220 X 4	1.535	0.197	0.787	0.827	
H3048	8.661	9.772	5.236	5.236	TR240 X 4	1.693	0.315	0.787	0.827	
H3052	9.449	10.598	5.709	5.709	TR260 X 4	1.732	0.315	0.787	0.866	
H3056	10.236	11.398	5.984	5.984	TR280 X 4	1.890	0.315	0.945	0.866	
H3060	11.024	12.224	6.614	6.614	TR300 X 4	2.047	0.315	0.945	0.866	
H3064	11.811	13.024	6.732	6.732	TR320 X 5	2.037	0.315	0.945	0.984	
H3068	12.598	13.850	7.362	7.362	TR340 X 5	2.205	0.315	0.945	1.024	
H3072	13.386	14.642	7.402	7.402	TR360 X 5	2.205	0.394	1.102	1.024	
H3076	14.173	15.437	7.598	7.598	TR380 X 5	2.362	0.394	1.102	1.024	
H3080	14.961	16.268	8.268	8.268	TR400 X 5	2.520	0.394	1.102	1.063	
H3084	15.478	17.059	8.346	8.346	TR420 X 5	2.520	0.394	1.260	1.063	
H3088	16.142	17.874	8.976	8.976	TR440 X 5	2.874	0.394	1.260	1.063	
H3092	16.929	18.681	9.213	9.213	TR460 X 5	2.874	0.394	1.260	1.102	
H3096	17.717	19.480	9.331	9.331	TR480 X 5	2.874	0.394	1.417	1.102	
H30/500	18.504	20.272	9.724	9.724	TR500 X 5	3.189	0.394	1.417	1.102	

## Adapter Series H31, H32

For Tapered Bore Assembly



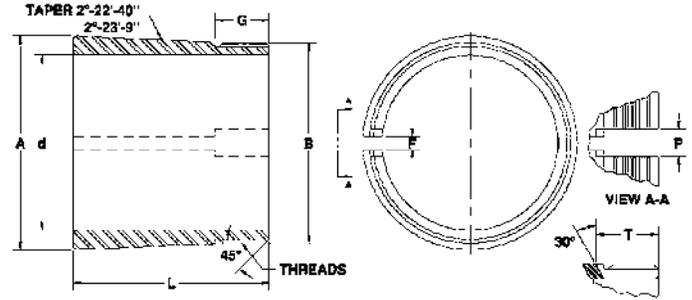
### SERIES H31 and H32 METRIC ADAPTER SLEEVE DIMENSIONS

SLEEVE NO.	BORE DIA. d	SHARP CORNER DIA. A		SLEEVE LENGTH L	METRIC THREADS	THREADS THD. LENGTH G		SLOT WIDTH P		DEPTH T
		MIN.	MAX.			MIN.	MAX.	MIN.	MAX.	
H3120	3.543	4.122	2.992		M100 X 2	1.063	0.118	0.512	1.220	
H3122	3.937	4.528	3.189		M110 X 2	1.102	0.118	0.512	1.260	
H3124	4.331	4.941	3.465		M120 X 2	1.142	0.197	0.591	1.339	
H3126	4.528	5.346	3.622		M130 X 2	1.220	0.197	0.591	1.417	
H3128	4.921	5.752	3.819		M140 X 2	1.260	0.197	0.669	1.457	
H3130	5.315	6.185	4.370		M150 X 2	1.339	0.197	0.669	1.535	
H3132	5.512	6.598	4.685		M160 X 3	1.417	0.236	0.748	1.654	
H3134	5.906	7.000	4.803		M170 X 3	1.457	0.236	0.748	1.693	
H3136	6.299	7.421	5.157		M180 X 3	1.496	0.236	0.827	1.732	
H3138	6.693	7.843	5.551		M190 X 3	1.575	0.236	0.827	1.811	
H3140	7.087	8.264	5.906		M200 X 3	1.614	0.236	0.827	1.850	
H3144	7.874	9.075	6.339		TR220 X 4	1.732	0.236	0.984	2.008	
H3148	8.661	9.890	6.772		TR240 X 4	1.811	0.236	0.984	2.087	
H3152	9.449	10.732	7.480		TR260 X 4	1.929	0.315	1.142	2.205	
H3156	10.236	11.528	7.677		TR280 X 4	2.008	0.315	1.142	2.283	
H3160	11.024	12.362	8.189		TR300 X 4	1.968	0.315	0.945	0.866	
H3164	11.811	13.201	8.898		TR320 X 5	2.087	0.315	0.945	0.984	
H3168	12.598	14.039	10.000		TR340 X 5	2.598	0.315	1.102	1.024	
H3172	13.386	14.831	10.197		TR360 X 5	2.717	0.394	1.102	1.024	
H3176	14.173	15.630	10.394		TR380 X 5	2.835	0.394	1.260	1.024	
H3180	14.961	16.437	10.709		TR400 X 5	2.913	0.394	1.260	1.063	
H3184	15.748	17.303	11.968		TR420 X 5	3.228	0.394	1.260	1.063	
H3188	16.142	18.098	12.087		TR440 X 5	3.268	0.394	1.417	1.063	
H3192	16.929	19.287	12.835		TR460 X 5	3.465	0.394	1.417	1.102	
H3196	17.717	19.752	13.189		TR480 X 5	3.465	0.394	1.417	1.102	
H31/500	18.504	20.591	14.016		TR500 X 5	3.661	0.394	1.575	1.102	
H3260	11.024	12.469	9.449		TR300 X 4	1.968	0.315	0.945	0.866	
H3264	11.811	13.307	10.157		TR320 X 5	2.087	0.315	0.945	0.984	
H3268	12.598	14.150	11.339		TR340 X 5	2.598	0.315	1.102	1.024	
H3272	13.386	14.965	11.772		TR360 X 5	2.717	0.394	1.102	1.024	
H3276	14.173	15.780	12.205		TR380 X 5	2.835	0.394	1.260	1.024	
H3280	14.961	16.622	12.913		TR400 X 5	2.913	0.394	1.260	1.063	
H3284	15.748	17.461	13.858		TR420 X 5	3.228	0.394	1.260	1.063	
H3288	16.142	18.280	14.213		TR440 X 5	3.268	0.394	1.417	1.063	
H3292	16.929	19.118	15.039		TR460 X 5	3.465	0.394	1.417	1.102	
H3296	17.717	19.953	15.630		TR480 X 5	3.465	0.394	1.417	1.102	
H32/500	18.504	20.472	16.850		TR500 X 5	3.661	0.394	1.575	1.102	

# Metric Sleeve Series

## Adapter Series H23, H39

For tapered bore assembly



### SERIES H23 METRIC ADAPTER SLEEVE DIMENSIONS

SLEEVE NO.	BORE DIA. d NOM.	SHARP CORNER DIA. A		SLEEVE LENGTH L MAX.	THREADS METRIC THREADS	THD. LENGTH G		WIDTH F MIN.	SLOT WIDTH P		DEPTH T MIN.
		MIN.	MAX.			MIN.	MAX.		MIN.	MAX.	
H2304	0.669	0.866	1.220	1.220	M20 X 1	0.433	0.059	0.197	0.197	0.512	
H2305	0.787	1.071	1.378	1.378	M25 X 1.5	0.512	0.079	0.236	0.236	0.630	
H2306	0.984	1.280	1.496	1.496	M30 X 1.5	0.512	0.079	0.236	0.236	0.630	
H2307	1.181	1.488	1.693	1.693	M35 X 1.5	0.551	0.079	0.276	0.276	0.669	
H2308	1.378	1.693	1.811	1.811	M40 X 1.5	0.591	0.079	0.276	0.276	0.709	
H2309	1.575	1.898	1.968	1.968	M45 X 1.5	0.630	0.079	0.276	0.276	0.748	
H2310	1.772	2.106	2.165	2.165	M50 X 1.5	0.669	0.079	0.276	0.276	0.787	
H2311	1.968	2.319	2.323	2.323	M55 X 2	0.709	0.098	0.354	0.354	0.827	
H2312	2.165	2.524	2.441	2.441	M60 X 2	0.709	0.098	0.354	0.354	0.827	
H2313	2.362	2.728	2.559	2.559	M65 X 2	0.748	0.098	0.354	0.354	0.866	
H2314	2.362	2.933	2.677	2.677	M70 X 2	0.787	0.098	0.354	0.354	0.945	
H2315	2.559	3.146	2.874	2.874	M75 X 2	0.827	0.118	0.354	0.354	0.984	
H2316	2.756	3.350	3.071	3.071	M80 X 2	0.906	0.118	0.433	0.433	1.063	
H2317	2.953	3.555	3.228	3.228	M85 X 2	0.984	0.118	0.433	0.433	1.142	
H2318	3.150	3.768	3.386	3.386	M90 X 2	0.984	0.118	0.433	0.433	1.142	
H2319	3.346	3.972	3.543	3.543	M95 X 2	1.024	0.118	0.433	0.433	1.181	
H2320	3.543	4.189	3.819	3.819	M100 X 2	1.063	0.118	0.512	0.512	1.220	
H2321	3.740	4.402	3.976	3.976	M105 X 2	1.063	0.118	0.512	0.512	1.220	
H2322	3.937	4.606	4.134	4.134	M110 X 2	1.102	0.118	0.512	0.512	1.260	
H2324	4.331	5.020	4.409	4.409	M120 X 2	1.142	0.197	0.591	0.591	1.339	
H2326	4.528	5.441	4.764	4.764	M130 X 2	1.220	0.197	0.591	0.591	1.417	
H2328	4.921	5.862	5.157	5.157	M140 X 2	1.260	0.197	0.669	0.669	1.457	
H2330	5.315	6.276	5.472	5.472	M150 X 2	1.339	0.197	0.669	0.669	1.535	
H2332	5.512	6.693	5.787	5.787	M160 X 3	1.417	0.236	0.748	0.748	1.654	
H2334	5.906	7.106	6.063	6.063	M170 X 3	1.457	0.236	0.748	0.748	1.693	
H2336	6.299	7.520	6.339	6.339	M180 X 3	1.496	0.236	0.827	0.827	1.732	
H2338	6.693	7.933	6.654	6.654	M190 X 3	1.575	0.236	0.827	0.827	1.811	
H2340	7.087	8.346	6.929	6.929	M200 X 3	1.614	0.236	0.827	0.827	1.850	
H2344	7.874	9.157	7.323	7.323	TR220 X 4	1.732	0.236	0.984	0.984	2.008	
H2348	8.661	9.980	7.835	7.835	TR240 X 4	1.811	0.236	0.984	0.984	2.087	
H2352	9.449	10.799	8.307	8.307	TR260 X 4	1.929	0.315	1.142	1.142	2.205	
H2356	10.236	11.626	8.819	8.819	TR280 X 4	2.008	0.315	1.142	1.142	2.283	

### SERIES H39 METRIC ADAPTER SLEEVE DIMENSIONS

SLEEVE NO.	BORE DIA. d NOM.	SHARP CORNER DIA. A		SLEEVE LENGTH L MAX.	THREADS METRIC THREADS	THD. LENGTH G		WIDTH F MIN.	SLOT WIDTH P		DEPTH T MIN.
		MIN.	MAX.			MIN.	MAX.		MIN.	MAX.	
H3924	4.331	4.850	2.362	2.362	M120 X 2	1.142	0.197	0.591	0.591	1.339	
H3926	4.528	5.256	2.559	2.559	M130 X 2	1.220	0.197	0.591	0.591	1.417	
H3928	4.921	5.650	2.598	2.598	M140 X 2	1.260	0.197	0.669	0.669	1.457	
H3930	5.315	6.071	2.992	2.992	M150 X 2	1.339	0.197	0.669	0.669	1.535	
H3932	5.512	6.465	3.071	3.071	M160 X 3	1.417	0.236	0.748	0.748	1.654	
H3934	5.906	6.858	3.110	3.110	M170 X 3	1.457	0.236	0.748	0.748	1.693	
H3936	6.299	7.276	3.425	3.425	M180 X 3	1.496	0.236	0.827	0.827	1.732	
H3938	6.693	7.673	3.504	3.504	M190 X 3	1.575	0.236	0.827	0.827	1.811	
H3940	7.087	8.091	3.858	3.858	M200 X 3	1.614	0.236	0.827	0.827	1.850	
H3944	7.874	8.878	3.780	3.780	TR220 X 4	1.535	0.197	0.787	0.787	0.827	
H3948	8.661	9.669	3.976	3.976	TR240 X 4	1.693	0.315	0.787	0.787	0.827	
H3952	9.449	10.504	4.567	4.567	TR260 X 4	1.732	0.315	0.787	0.787	0.866	
H3956	10.236	11.295	4.764	4.764	TR280 X 4	1.890	0.315	0.945	0.945	0.866	
H3960	11.024	12.134	5.515	5.515	TR300 X 4	2.047	0.315	0.945	0.945	0.866	
H3964	11.811	12.921	5.512	5.512	TR320 X 5	2.087	0.315	0.945	0.945	0.984	

# Standard Locknut has been a premier American manufacturer and supplier of mounted bearings, accessories, and pillow blocks for more than 80 years.

We offer a broad variety of mounted bearing and accessory products machined to precise tolerances and dimensions. Our Made-in-USA products are designed to meet the most demanding industrial tolerances, marketplace applications and design requirements. Our in-house engineering and machining capabilities allow us to help customers optimize the design, manufacturing, and quality of finished products.

**When performance and durability are critical...Standard Locknut sets the standard.**

Customers count on Standard Locknut for:

-  A wide selection of pillow blocks, housings, seals, and accessories
-  Track record of quality
-  Durability and performance in the most demanding applications
-  Custom design and engineering services
-  Highly responsive customer service/support
-  Highly competitive pricing
-  Short lead-times and accelerated delivery programs
-  Made-in USA products designed and manufactured in Westfield, IN

## Setting a new standard for precision engineered solutions

At Standard Locknut, we partner with our customers to simplify procurement of the highest-quality housings, bearings, and assemblies that will perform and endure under the most difficult operating conditions. Our focus is helping you maximize your bearing-related investment while minimize costly production downtime.

## High quality, precision industrial products...delivered!

At Standard Locknut, we manufacture only the highest quality bearing housings, seals, and accessories purposefully fabricated to maximize the life of your bearing.

Our Made in the USA products are maintenance-friendly with "best in class" construction to minimize downtime and perform as intended for years to come. Whether you need one of our core products or a more complex, custom engineered solution, we will meet and exceed your every expectation.

# Withdrawal Sleeves



**Withdrawal sleeves are critical to the mounting and dismounting of bearings onto shafts. They are often used to position a bearing onto stepped cylindrical shafts.**

Withdrawal sleeves simplify maintenance procedures and allow for easy replacement or repair of bearings without damaging the shaft. They are typically secured in place using a locknut.

The tapered often slotted sleeve is pressed into the bore of the bearing's inner ring to reach the required radial clearance reduction and then secured to the shaft using a locknut. This makes it easier to dismount bearings later since the bearing's press fit can be loosened using a removal locknut.

Unlike adapter sleeves, withdrawal sleeves must abut to a fixed component, such as a shaft shoulder. This allows installation only with shouldered shafts.

## The Standard Locknut Difference

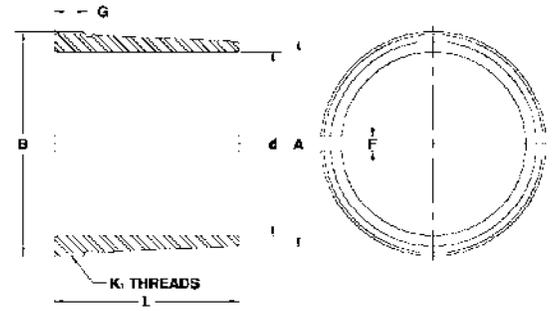
Standard Locknut withdrawal sleeves feature a standard design for various application purposes and are easy to install at any position on a straight shaft. The design allows for simple installation and removal. Our withdrawal sleeves are available in both inch and metric measurements to accommodate standard bearings.

<b>SK &amp; ASK Series</b> .....	<b>84</b>
Inch Design	
<b>AH Series</b> .....	<b>85</b>
Metric Design	

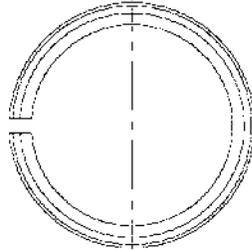
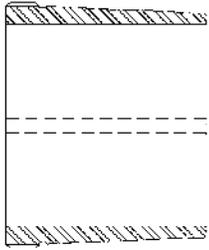
# SK and ASK Series

## Withdrawal Sleeve Dimensions

Inch design and corresponding removal nut or locknut



WITHDRAWAL SLEEVE		BEARING		SLEEVE BORE DIA.	SLEEVE SHARP CORNER DIA.		LENGTH		THREADS		SLOT WIDTH	LOCKNUT HER	LOCKWAS REMOVAL NUT				
NO.	APP. WT. (LB.)	BORE	BORE DIA.	d MAX.	A REF.	L MAX.	NO. PER INCH	MAJOR DIA. B MAX.	THD. LGTH. G NOM.	F MIN.							
-00	-000	-00	-000		-00	-000			-00	-000							
SK-8	SK-108	0.16	0.25	1.5748	1.3792	1.585	1.585	1.181	1.575	18	1.767	0.236	0.276	0.052	N07	W07	N09
SK-9	SK-109	0.22	0.31	1.7717	1.576	1.781	1.782	1.26	1.732	18	1.967	0.236	0.276	0.052	N08	W08	N10
SK-10	SK-110	0.25	0.47	1.9685	1.7729	1.978	1.978	1.378	1.968	18	2.204	0.276	0.315	0.052	N09	W09	RN10
SK-11	SK-111	0.31	0.56	2.1654	1.9697	2.175	2.175	1.457	2.126	18	2.407	0.276	0.354	0.052	N10	W10	RN11
SK-12	SK-112	0.41	0.69	2.3622	2.1669	2.372	2.372	1.575	2.244	18	2.626	0.295	0.394	0.052	N11	W11	RN12
ASK-13	ASK-113	0.50	0.84	2.5591	2.3637	2.569	2.569	1.654	2.402	12	2.933	0.295	0.433	0.084	N12	W12	AN15
ASK-14	ASK-114	0.94	1.55	2.7559	2.3637	2.769	2.769	1.732	2.559	12	3.137	0.295	0.472	0.084	N12	W12	AN16
ASK-15	ASK-115	1.25	1.80	2.9528	2.5605	2.966	2.966	1.85	2.717	12	3.34	0.315	0.472	0.084	N13	W13	AN17
ASK-16	ASK-116	1.25	2.00	3.1496	2.7574	3.163	3.163	1.969	2.835	12	3.527	0.354	0.472	0.084	N14	W14	AN18
ASK-17	ASK-117	1.45	2.25	3.3465	2.9543	3.359	3.359	2.047	2.953	12	3.73	0.354	0.512	0.084	AN15	W15	AN19
ASK-18	ASK-118	1.55	2.55	3.5433	3.1511	3.556	3.556	2.087	3.15	12	3.918	0.354	0.551	0.084	AN16	W16	AN20
ASK-19	ASK-119	1.80	2.95	3.7402	3.3482	3.753	3.753	2.244	3.346	12	4.122	0.399	0.591	0.084	AN17	W17	AN21
ASK-20	ASK-120	2.00	3.40	3.937	3.545	3.95	3.95	2.323	3.543	12	4.325	0.413	0.591	0.115	AN18	W18	AN22
ASK-22	ASK-122	2.45	4.25	4.3307	3.9387	4.344	4.344	2.559	3.858	12	4.778	0.433	0.63	0.115	AN20	W20	ARN22
ASK-24	ASK-124	3.15	5.00	4.7244	4.3324	4.737	4.738	2.835	4.134	12	5.185	0.472	0.669	0.115	AN22	W22	ARN24
ASK-26	ASK-126	5.00	8.00	5.1181	4.5293	5.131	5.131	3.071	4.528	12	5.622	0.472	0.748	0.115	AN22	W22	ARN26
SK-28	SK-128	5.90	9.50	5.5118	4.9233	5.528	5.528	3.228	4.921	8	6.097	0.512	0.787	0.115	AN24	W24	RN28
SK-30	SK-130	6.80	11.50	5.9055	5.317	5.922	5.922	3.465	5.315	8	6.503	0.551	0.945	0.115	AN26	W26	RN30
SK-32	SK-132	9.95	15.30	6.2992	5.5138	6.316	6.319	3.78	5.512	8	6.925	0.551	0.945	0.178	AN28	W28	RN32
SK-34	SK-134	11.50	17.50	6.6929	5.9075	6.704	6.713	4.094	5.748	8	7.331	0.63	0.945	0.178	AN30	W30	RN34
SK-36	SK-136	12.50	20.50	7.0866	6.3012	7.103	7.106	4.094	6.063	8	7.753	0.63	1.024	0.178	AN32	W32	RN36
SK-38	SK-138	14.50	22.00	7.4803	6.6949	7.497	7.503	4.409	6.299	8	8.191	0.709	1.024	0.178	AN34	W34	RN38
SK-40	SK-140	16.50	25.50	7.874	7.0886	7.89	7.897	4.646	6.693	8	8.628	0.709	1.181	0.178	AN36	W36	N44
SK-44	SK-144	19.50	29.50	8.6614	7.8762	8.681	8.688	5.118	7.126	6	9.442	0.709	1.181	0.178	AN40	W40	N048
SK-48	SK-148	24.50	34.00	9.4488	8.6636	9.469	9.475	5.669	7.441	6	10.192	0.787	1.181	0.178	N44	W44	N052
SK-52	SK-152	30.90	40.75	10.2362	9.451	10.256	10.262	6.102	7.874	6	11.004	0.787	1.181	0.178	N048	P48	N056
SK-56	SK-156	33.10	48.50	11.0236	10.2388	11.05	11.05	6.102	8.268	6	11.973	0.787	1.181	0.302	N052	P52	RN56
SK-60		39.20		11.811	11.0262	11.837		6.693		6	12.942	0.984		0.302	N056	P56	RN60
SK-64		46.30		12.5981	11.8136	12.631		7.087		6	13.723	0.984		0.302	N060	P60	RN64



## Metric Withdrawal Sleeves

Metric Design and corresponding removal nut or locknut

### WITHDRAWAL SLEEVE DIMENSIONS

BEARING SHAFT		AH2		AH3		AH23		AH31		AH32		AH30		AH22		AH39	
BORE DIA.	SHAFT DIA.	SLEEVE NO.	REMOVAL NUT														
40	35	AH208	KM9	AH308	KM9	AH2308	KM9										
45	40	AH209	KM10	AH309	KM10	AH2309	KM10										
50	45	AH210	KM11	AH310	KM11	AH2310	KM11										
55	50	AH211	KM12	AH311	KM12	AH2311	KM12										
60	55	AH212	KM13	AH312	KM13	AH2312	KM13										
65	60	AH213	KM15	AH313	KM15	AH2313	KM15										
70	65	AH214	KM16	AH314	KM16	AH2314	KM16										
75	70	AH215	KM17	AH315	KM17	AH2315	KM17										
80	75	AH216	KM18	AH316	KM18	AH2316	KM18										
85	80	AH217	KM19	AH317	KM19	AH2317	KM19										
90	85	AH218	KM20	AH318	KM20	AH2318	KM20			AH3218	KM20						
95	90	AH219	KM21	AH319	KM21	AH2319	KM21			AH3219	KM21						
100	95	AH220	KM22	AH320	KM22	AH2320	KM22	AH3120	KM22	AH3220	KM22						
110	105	AH222	KM24	AH322	KM24	AH2322	KM25	AH3122	KM24	AH3222	KM25						
120	115	AH224	KM26	AH324	KM26	AH2324	KM27	AH3124	KM26	AH3224	KM27	AH3024	KM26				
130	125	AH226	KM28	AH326	KM28	AH2326	KM29	AH3126	KM28	AH3226	KM29	AH3026	KM28				
140	135	AH228	KM30	AH328	KM30	AH2328	KM31	AH3128	KM30	AH3228	KM31	AH3028	KM30				
150	145	AH230	KM32	AH330	KM33	AH2330	KM33	AH3130	KM33	AH3230	KM33	AH3030	KM32				
160	150	AH232	KM34	AH332	KM36	AH2332	KM36	AH3132	KM36	AH3232	KM36	AH3032	KM34				
170	160	AH234	KM36	AH334	KM38	AH2334	KM39	AH3134	KM38	AH3234	KM38	AH3034	KM36			AH3934	HMLL36
180	170	AH236	KM38			AH2336	KM40	AH3136	KM40	AH3236	KM40	AH3036	KM38	AH2236	KM40	AH3936	HMLL38
190	180	AH238	HML41T			AH2338	HM42T	AH3138	HM42T	AH3238	HM42T	AH3038	HML41T	AH2238	HM42T	AH3938	HMLL40
200	190	AH240	HML43T			AH2340	HM44T	AH3140	HM44T	AH3240	HM44T	AH3040	HML43T	AH2240	HM44T	AH3940	HMLL42T
220	200	AH244	HML47T			AH2344	HM48T	AH3144	HM48T			AH3044	HML47T	AH2244	HM48T	AH3944	HMLL46T
240	220	AH248	HML52T			AH2348	HM52T	AH3148	HM52T			AH3048	HML52T	AH2248	HM52T	AH3948	HMLL50T
260	240	AH252	HML56T			AH2352	HM58T	AH3152	HM58T			AH3052	HML56T	AH2252	HM58T	AH3952	HMLL55T
280	260	AH256	HML60T			AH2356	HM62T	AH3156	HM62T			AH3056	HML60T	AH2256	HM62T	AH3956	HMLL59T
300	280							AH3160	HM66T	AH3260	HM66T	AH3060	HML64T	AH2260	HM66T	AH3960	HMLL63T
320	300							AH3164	HM70T	AH3264	HM70T	AH3064	HML69T	AH2264	HM70T	AH3964	HMLL67T
340	320							AH3168	HM74T	AH3268	HM74T	AH3068	HML73T			AH3968	HMLL71T
360	340							AH3172	HM80T	AH3272	HM80T	AH3072	HML77T			AH3972	HMLL75T
380	360							AH3176	HM84T	AH3276	HM84T	AH3076	HML82T			AH3976	HMLL79T
400	380							AH3180	HM88T	AH3280	HM88T	AH3080	HML86T			AH3980	HMLL83T
420	400							AH3184	HM92T	AH3284	HM92T	AH3084	HML90T			AH3984	HMLL87T
440	420							AH3188	HM96T	AH3288	HM96T	AH3088	HML94T			AH3988	HMLL92T
460	440							AH3192	HM102T	AH3292	HM102T	AH3092	HML98T			AH3992	HMLL96T
480	460							AH3196	HM106T	AH3296	HM106T	AH3096	HML104T			AH3996	HMLL100T
500	480							AH31/500	HM110T	AH32/500	HM110T	AH30/500	HML108T			AH39/500	HMLL104T

# Hydraulic Adapters, Locknuts and Withdrawal Sleeves



**Hydraulic adapters are used to assist in the removal of the bearing. Oil injection is an aid to mount and dismount bearings. Hydraulic removal sleeves are used to aid in the removal of the adapter sleeve from the bearing and shaft. Hydraulic nuts are designed to facilitate the mounting of bearings with tapered bores on tapered sleeves.**

When hydraulic adapters are paired with withdrawal sleeves, they are used to mount bearings with tapered bores on to the cylindrical seat of stepped shafts to facilitate easy removal of the bearing with a removal nut. They are a commonly used mounting form since they allow the use of both smooth and shouldered shafts.

Hydraulic adapters and withdrawal sleeves are easy to mount and do not have to be secured on the shaft by additional means. This allows bearings to be positioned at any point on smooth shafts.

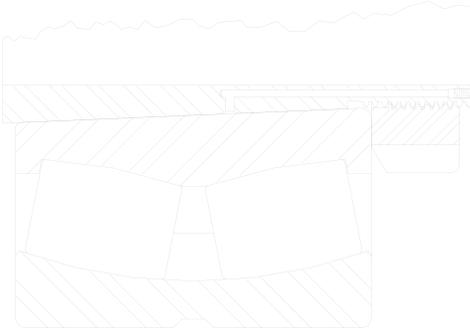
Adapter sleeve mounting sets consist of a steel sleeve, locknut and tab washer or retaining bracket, which is used with larger dimensions to keep the locknut from gradually loosening.

## The Standard Locknut Difference

Standard Locknut's high-quality hydraulic adapters and withdrawal sleeves make installing and removing bearings easier by virtue of the oil grooves in the tapered outside surface and pump connections for oil injections.

The hydraulic method can be used with designs that feature oil slots and a sleeve bore diameter of at least 150 mm. They are available in both the inch (SK and ASK) and metric unit (AH) series.

**Fig.1**

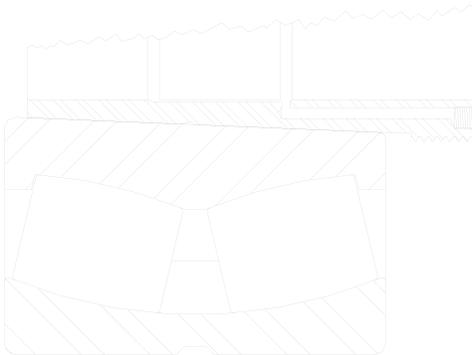


## Hydraulic Adapters

Fig. 1 shows a tapered adapter that has been modified for oil injection. Oil injection facilitates the dismounting of the bearing. The locknut is loosened, not completely removed, and oil is injected through the threaded connection. The pressurized oil travels through a circumferential groove machined into the sleeve's O.D. Oil distribution and pressure will overcome the frictional force between the bearing and sleeve allowing the bearing to slide off the adapter. American and Metric adapters can be ordered with hydraulic modification.

- For a hydraulic SNP 3176 x 14, order as a HSNP 3176 x 14
- For a hydraulic H 3176 x 360mm, order as H 3176 HG x 360

**Fig.2**



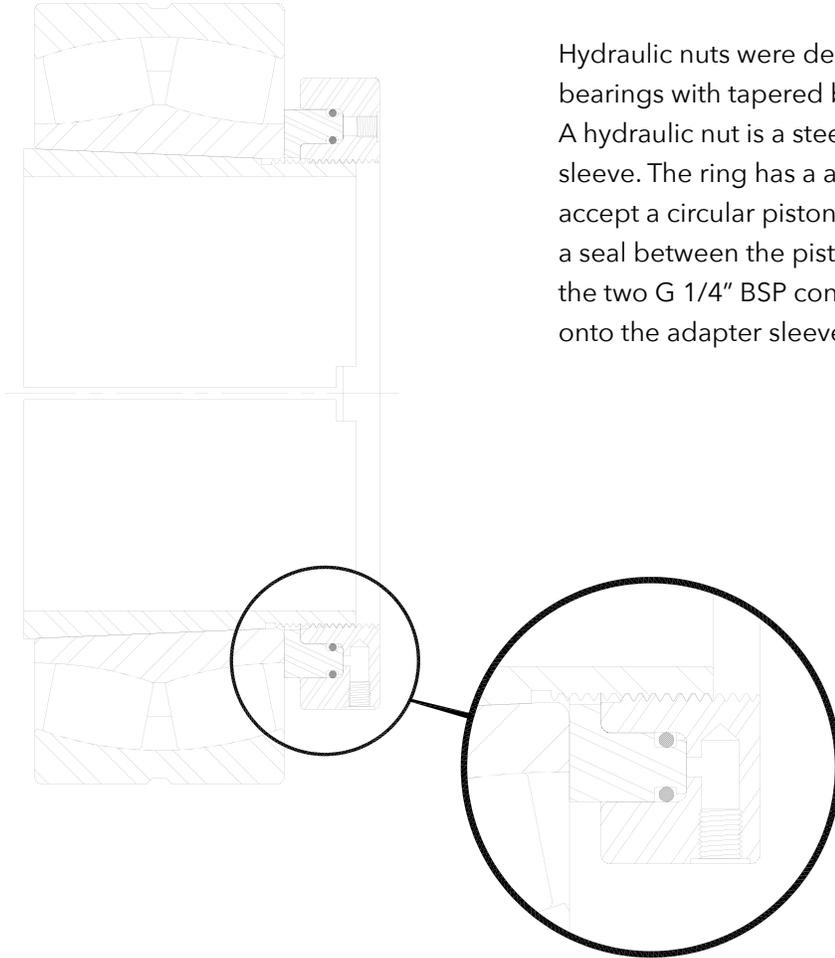
## Hydraulic Withdrawal Sleeves

Fig. 2 shows a withdrawal sleeve that has been modified for oil injection. The withdrawal sleeve has to overcome frictional forces between the bearing and tapered sleeve, and between the sleeve and shaft. To accommodate this, circumferential grooves are machined into the sleeve O.D. and I.D..

O.D. and I.D. grooves are accessed by separate threaded connections. American and metric sleeves can be modified for hydraulic withdrawal as follows:

- A hydraulic SK 156 x 260mm would be ordered as a SK 156 HG x 260
- An AH 3156 x 280 would be ordered as a AOH 3156 x 280mm

# Hydraulic Nuts



Hydraulic nuts were designed to facilitate the mounting of bearings with tapered bores on tapered adapter sleeves. A hydraulic nut is a steel ring that threads onto the adapter sleeve. The ring has an annular groove machined into one side to accept a circular piston. O-rings on the piston O.D. and I.D. form a seal between the piston and ring. As oil is injected into one of the two G 1/4" BSP connections, the piston drives the bearing onto the adapter sleeve to obtain the proper bearing clearance.

AMERICAN THREADS				METRIC THREADS		
Description	Major Diameter	Pitch T.P.I.	Locknut	Description	Thread Form	Locknut
HN 15	2.933	12	AN 15	HN 15 M	M 75 X 2	KM 15
HN 16	3.137	12	AN 16	HN 16 M	M 80 X 2	KM 16
HN 17	3.340	12	AN 17	HN 17 M	M 85 X 2	KM 17
HN 18	3.527	12	AN 18	HN 18 M	M 90 X 2	KM 18
HN 19	3.730	12	AN 19	HN 19 M	M 95 X 2	KM 19
HN 20	3.918	12	AN 20	HN 20 M	M 100 X 2	KM 20
HN 22	4.325	12	AN 22, N 022	HN 22 M	M 110 X 2	KM 22
HN 24	4.716	12	AN 24, N 024	HN 24 M	M 120 X 2	KM 24, KML 24
HN 26	5.106	12	AN 26, N 026	HN 26 M	M 130 X 2	KM 26, KML 26
HN 28	5.497	12	AN 28, N 028	HN 28 M	M 140 X 2	KM 28, KML 28
HN 30	5.888	12	AN 30, N 030	HN 30 M	M 150 X 2	KM 30, KML 30
HN 32	6.284	8	AN 32, N 032	HN 32 M	M 160 X 3	KM 32, KML 32
HN 34	6.659	8	AN 34, N 034	HN 34 M	M 170 X 3	KM 34, KML 34
HN 36	7.066	8	AN 36, N 036	HN 36 M	M 180 X 3	KM 36, KML 36
HN 38	7.472	8	AN 38, N 038	HN 38 M	M 190 X 3	KM 38, KML 38
HN 40	7.847	8	AN 40, N 040	HN 40 M	M 200 X 3	KM 40, KML 40
HN 44	8.628	8	N 44, N 044	HN 44 M	TR 220 X 4	HM 44 T, HM 3044
HN 048	9.442	6	N 048	HN 48 M	TR 240 X 4	HM 48 T, HM 3048
HN 052	10.192	6	N 052	HN 52 M	TR 260 X 4	HM 52 T, HM 3052
HN 056	11.004	6	N 056	HN 56 M	TR 280 X 4	HM 56 T, HM 3056
HN 060	11.785	6	N 060	HN 60 M	TR 300 X 4	HM 3160, HM 3060
HN 064	12.562	6	N 064	HN 64 M	TR 320 X 5	HM 3164, HM 3064
HN 068	13.339	5	N 068	HN 68 M	TR 340 X 5	HM 3168, HM 3068
HN 072	14.170	5	N 072	HN 72 M	TR 360 X 5	HM 3172, HM 3072
HN 076	14.957	5	N 076	HN 76 M	TR 380 X 5	HM 3176, HM 3076
HN 080	15.745	5	N 080	HN 80 M	TR 400 X 5	HM 3180, HM 3080
HN 084	16.532	5	N 084	HN 84 M	TR 420 X 5	HM 3184, HM 3084
HN 088	17.319	5	N 088	HN 88 M	TR 440 X 5	HM 3188, HM 3088
HN 092	18.107	5	N 092	HN 92 M	TR 460 X 5	HM 3192, HM 3092
HN 096	18.894	5	N 096	HN 96 M	TR 480 X 5	HM 3196, HM 3096
HN 500	19.682	5	N 500	HN 500 M	TR 500 X 5	HM 31/500, HM 30/500
HN 530	20.867	4	N 530	HN 530 M	TR 530 X 6	HM 31/530, HM 30/530
HN 560	22.048	4	N 560	HN 560 M	TR 560 X 6	HM 31/560, HM 30/560
HN 600	23.623	4	N 600	HN 600 M	TR 600 X 6	HM 31/600, HM 30/600
HN 630	24.804	4	N 630	HN 630 M	TR 630 X 6	HM 31/630, HM 30/630
HN 670	26.379	4	N 670	HN 670 M	TR 670 X 6	HM 31/670, HM 30/670
HN 710	27.961	3	N 710	HN 710 M	TR 710 X 7	HM 31/710, HM 30/710
HN 750	29.536	3	N 750	HN 750 M	TR 750 X 7	HM 31/750, HM 30/750
HN 800	31.504	3	N 800	HN 800 M	TR 800 X 7	HM 31/800, HM 30/800
HN 850	33.473	3	N 850	HN 850 M	TR 850 X 7	HM 31/850, HM 30/850
HN 900	35.441	3	N 900	HN 900 M	TR 900 X 7	HM 31/900, HM 30/900
HN 950	37.410	3	N 950	HN 950 M	TR 950 X 8	HM 31/950, HM 30/950

HN 15 - HN 64 AMERICAN NATIONAL THREADS  
 HN 68 - HN 950 ACME THREADS  
 PUMP CONNECTION - G 1/4" BSP

PUMP CONNECTION - G 1/4" BSP

# Locknuts



**Locknuts are internally threaded fasteners that possess locking capabilities.**

They are utilized in conjunction with a lockwasher or lockplate to prevent vibration and torque from loosening and compromising the bearing arrangement. Locknuts are engineered to resist loosening when subject to vibration, torque, and other operational factors. Locknuts are typically used to mount bearings onto shaft seats and adapter sleeves, or to secure gears, belt pulleys and other components.

## The Standard Locknut Difference

Standard Locknut offers a broad range of high quality, precision fabricated locknuts that provide positive locking in a wide variety of industrial applications, as well as applications requiring limited space.

Our locknuts are available in a wide range of sizes in both the inch and metric unit series to accommodate very heavy loads, vibration, shock and varying levels of precision requirements. They feature:

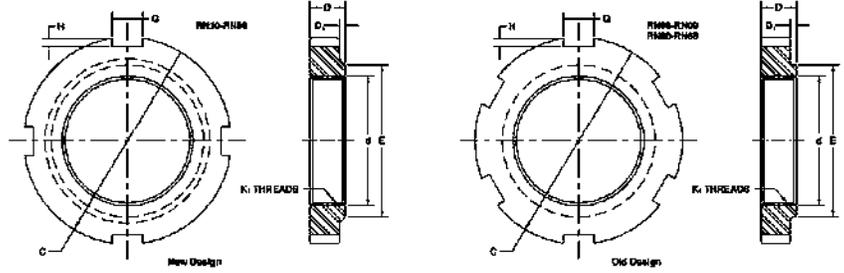
- A heavy duty fastener that shares the thread pitch with the standard series
- A size range that accommodates the most demanding applications
- Specific sizes to accommodate traditional inch or metric-based applications
- Easy installation and removal
- Simple and reliable fastening along with high positioning accuracy

<b>RN Removal Nut Series</b> .....	<b>92</b>
RN and ARN Series	
<b>N-00 Series</b> .....	<b>93</b>
Standard Locknut Series	
<b>N-000 Series</b> .....	<b>95</b>
Larger Bore Series	
<b>PRN/PRL-00 Series</b> .....	<b>97</b>
Tighter Face Runout Tolerance	
<b>PRT-00 Series</b> .....	<b>98</b>
Narrow Versions of N Series	
<b>NHE-00 Series</b> .....	<b>99</b>
Heavy Load	
<b>NIN-00 Series</b> .....	<b>100</b>
16 Threads per Inch	
<b>NTH-00 Series</b> .....	<b>101</b>
Thinner Design	
<b>KM-00 Series</b> .....	<b>102</b>
Metric Design	
<b>MS-1722 Series</b> .....	<b>103</b>
Military Standards	
<b>MS-19067 Series</b> .....	<b>104</b>
Military Standards	
<b>MS-19068 Series</b> .....	<b>105</b>
Military Standards	

# RN Removal Nut Series

## RN and ARN Series

Inch design/ball, cylindrical, spherical and tapered roller bearings



### REMOVAL NUT DIMENSIONS

LOCKNUT NO.	THREADS		OUTSIDE DIA. C	FACE DIA. E	NUT WIDTH D	SLOT		CHAMFER DEPTH D <sub>1</sub>
	MAJOR DIA. d	NO. PER INCH				WIDTH G	DEPTH H	
	NOM.	K <sub>1</sub>	MAX.	MAX.	MAX.	MIN.	MAX.	MAX.
RN08	1.767	18	2.827	2.072	0.385	0.490	0.151	0.070
RN09	1.967	18	2.984	2.291	0.448	0.490	0.151	0.070
RN10	2.204	18	3.062	2.562	0.594	0.240	0.135	0.078
RN11	2.407	18	3.281	2.812	0.594	0.240	0.135	0.078
RN12	2.626	18	3.500	3.062	0.656	0.240	0.135	0.078
ARN22	4.778	12	6.312	5.375	0.781	0.610	0.260	0.141
ARN24	5.185	12	6.938	5.625	0.844	0.610	0.291	0.141
ARN26	5.622	12	7.312	6.062	0.906	0.610	0.291	0.141
RN28	6.097	8	7.938	6.563	0.969	0.610	0.291	0.141
RN30	6.503	8	8.312	7.062	1.031	0.735	0.323	0.141
RN32	6.925	8	8.938	7.562	1.031	0.735	0.323	0.141
RN34	7.331	8	9.312	8.062	1.094	0.860	0.385	0.141
RN36	7.753	8	9.875	8.563	1.094	0.860	0.385	0.141
RN38	8.191	8	10.688	9.125	1.156	0.860	0.385	0.141
RN56	11.973	6	15.188	13.562	1.468	1.230	0.510	0.203
RN60	12.942	6	16.397	13.635	1.676	3.510	0.698	0.200
RN64	13.723	6	17.015	15.010	1.760	3.510	0.698	0.200
RN68	14.345	5-ACME	17.515	15.760	1.760	3.885	0.760	0.200
RN72	14.957	5-ACME	18.515	16.135	1.760	3.885	0.760	0.200
RN76	15.988	5-ACME	19.640	17.635	1.760	3.885	0.760	0.200
RN80	17.319	5-ACME	21.140	18.010	1.885	3.885	0.760	0.260
RN84	18.107	5-ACME	22.390	18.760	2.010	4.010	0.885	0.260
RN88	18.894	5-ACME	23.640	19.635	2.135	4.010	0.885	0.260
RN92	19.682	5-ACME	25.140	20.510	2.260	4.010	0.885	0.260
RN96	20.867	4-ACME	26.390	21.260	2.385	4.010	0.885	0.260

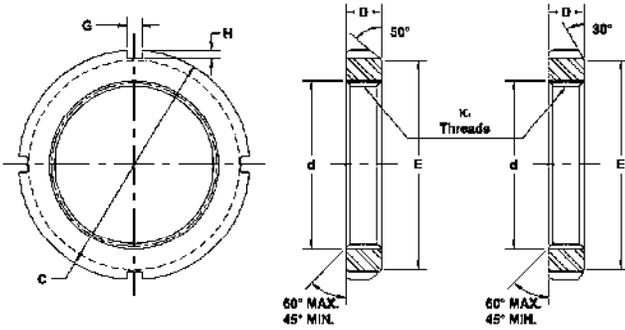
#### NOTES:

Metric HM-T, HML-T, and HMLL-T Series Removal Nuts are also available.

## Locknut Dimensions

Inch dimensions for ball, roller, spherical and tapered roller bearings

### Standard Locknut Series



#### LOCKNUT DIMENSIONS

LOCKNUT NO.	THREADS		OUTSIDE DIA. C	FACE DIA. E	NUT WIDTH D	SLOT WIDTH G	SLOT DEPTH H	FACE RUNOUT S <sub>i</sub>	APP. WT. (LB/ C)
	MAJORDIA. d	NO. PER INCH K <sub>1</sub>							
	MIN.		MAX.	MAX.	MAX.	MAX.	MAX.	MAX.	
N-00	0.391	32	0.755	0.625	0.229	0.120	0.073	0.002	2.0
N-01	0.469	32	0.880	0.719	0.323	0.120	0.073	0.002	3.3
N-02	0.586	32	1.005	0.813	0.323	0.120	0.104	0.002	3.5
N-03	0.664	32	1.130	0.938	0.354	0.120	0.104	0.002	5.3
N-04	0.781	32	1.380	1.125	0.385	0.178	0.104	0.002	9.0
N-05	0.969	32	1.568	1.281	0.416	0.178	0.104	0.002	11.5
N-06	1.173	18	1.755	1.500	0.416	0.178	0.104	0.002	13.0
N-07	1.376	18	2.068	1.813	0.448	0.178	0.104	0.004	21.0
N-08	1.563	18	2.255	2.000	0.448	0.240	0.104	0.004	22.5
N-09	1.767	18	2.536	2.281	0.448	0.240	0.104	0.004	29.0
N-10	1.967	18	2.693	2.438	0.510	0.240	0.104	0.004	34.0
N-11	2.175	18	2.974	2.656	0.510	0.240	0.135	0.004	42.0
N-12	2.360	18	3.161	2.844	0.541	0.240	0.135	0.004	47.0
N-13	2.548	18	3.380	3.063	0.573	0.240	0.135	0.004	55.0
N-14	2.751	18	3.630	3.313	0.573	0.240	0.135	0.004	63.8
AN-15	2.933	12	3.880	3.563	0.604	0.360	0.135	0.004	78.8
AN-16	3.137	12	4.161	3.844	0.604	0.360	0.135	0.004	92.5
AN-17	3.340	12	4.411	4.031	0.635	0.360	0.166	0.004	104.0
AN-18	3.527	12	4.661	4.281	0.698	0.360	0.166	0.004	130.0
AN-19	3.730	12	4.943	4.563	0.729	0.360	0.166	0.004	153.8
AN-20	3.918	12	5.193	4.813	0.760	0.360	0.166	0.004	178.8
AN-21	4.122	12	5.443	5.000	0.760	0.485	0.198	0.004	193.8
AN-22	4.325	12	5.724	5.281	0.791	0.485	0.198	0.004	223.0
AN-24	4.716	12	6.130	5.688	0.823	0.485	0.198	0.006	255.0
AN-26	5.106	12	6.755	6.188	0.885	0.610	0.260	0.006	317.0
AN-28	5.497	12	7.099	6.531	0.948	0.610	0.260	0.006	355.0
AN-30	5.888	12	7.693	7.063	0.979	0.610	0.291	0.006	475.0
AN-32	6.284	8	8.068	7.438	1.041	0.610	0.291	0.006	525.0
AN-34	6.659	8	8.661	8.031	1.073	0.610	0.291	0.006	662.5
AN-36	7.066	8	9.068	8.375	1.104	0.735	0.323	0.006	665.0
AN-38	7.472	8	9.474	8.781	1.135	0.735	0.323	0.006	775.0
AN-40	7.847	8	9.849	9.156	1.198	0.735	0.323	0.006	850.0
N-44	8.628	8	11.005	9.843	1.260	0.980	0.510	0.006	1050.0

#### NOTES:

Available in left hand thread (NL series), in stainless steel (NS series), or plated.

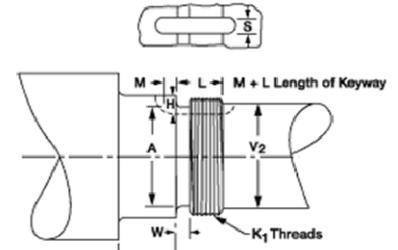
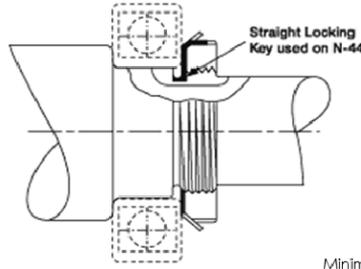
AN15-AN40 are available with 11 threads per in (N series).

K1 threads—American National Form NS Class 3.

# N-00 Series

## Shaft Dimensions

Inch dimensions for ball, roller, spherical and tapered roller bearings



Minimum bearing width minus 0.016" (0.41 mm)

### SHAFT DIMENSIONS

LOCKNUT NO.	BEARING BORE	V <sub>2</sub> MAX.	NO. PER INCH	K1	MAJOR DIA. MAX.	THREADS PITCH DIA. MAX.	MINOR DIA. MAX.	LENGTH L MAX.	RELIEF			KEYWAY	
									DIA. MAX.	WIDTH MAX.	DEPTH MIN.	WIDTH MIN.	M MIN.
N-00	0.394	0.312	32		0.391	0.371	0.353	0.297	0.342	0.078	0.062	0.125	0.094
N-01	0.472	0.406	32		0.469	0.449	0.431	0.391	0.420	0.078	0.062	0.125	0.094
N-02	0.591	0.500	32		0.586	0.566	0.548	0.391	0.537	0.078	0.078	0.125	0.094
N-03	0.669	0.562	32		0.664	0.644	0.626	0.422	0.615	0.078	0.078	0.125	0.094
N-04	0.787	0.719	32		0.781	0.761	0.743	0.453	0.732	0.078	0.078	0.188	0.094
N-05	0.984	0.875	32		0.969	0.949	0.931	0.484	0.920	0.078	0.094	0.188	0.125
N-06	1.181	1.062	18		1.173	1.137	1.105	0.484	1.094	0.109	0.094	0.188	0.125
N-07	1.378	1.250	18		1.376	1.340	1.308	0.516	1.297	0.109	0.094	0.188	0.125
N-08	1.575	1.469	18		1.563	1.527	1.495	0.547	1.484	0.109	0.094	0.312	0.125
N-09	1.772	1.688	18		1.767	1.731	1.699	0.547	1.688	0.141	0.094	0.312	0.156
N-10	1.969	1.875	18		1.967	1.931	1.899	0.609	1.888	0.141	0.094	0.312	0.156
N-11	2.165	2.062	18		2.157	2.121	2.089	0.609	2.078	0.141	0.125	0.312	0.156
N-12	2.362	2.250	18		2.360	2.324	2.292	0.641	2.281	0.141	0.125	0.312	0.156
N-13	2.559	2.438	18		2.548	2.512	2.480	0.672	2.469	0.141	0.125	0.312	0.156
N-14	2.756	2.625	18		2.751	2.715	2.683	0.672	2.672	0.141	0.125	0.312	0.250
AN-15	2.953	2.781	12		2.933	2.879	2.831	0.703	2.810	0.172	0.125	0.312	0.250
AN-16	3.150	3.000	12		3.137	3.083	3.035	0.703	3.014	0.172	0.125	0.375	0.250
AN-17	3.347	3.188	12		3.340	3.286	3.238	0.734	3.217	0.172	0.125	0.375	0.250
AN-18	3.543	3.375	12		3.527	3.473	3.425	0.828	3.404	0.172	0.156	0.375	0.250
AN-19	3.740	3.562	12		3.730	3.676	3.628	0.859	3.607	0.172	0.156	0.375	0.250
AN-20	3.937	3.781	12		3.918	3.864	3.816	0.891	3.795	0.172	0.156	0.375	0.312
AN-21	4.134	3.938	12		4.122	4.068	4.020	0.891	3.999	0.172	0.156	0.375	0.312
AN-22	4.331	4.188	12		4.325	4.271	4.223	0.922	4.202	0.172	0.188	0.375	0.312
AN-24	4.724	4.562	12		4.716	4.662	4.614	0.953	4.593	0.172	0.188	0.375	0.312
AN-26	5.118	4.938	12		5.106	5.052	5.004	1.016	4.983	0.172	0.188	0.500	0.312
AN-28	5.512	5.312	12		5.497	5.443	5.395	1.078	5.374	0.172	0.188	0.625	0.312
AN-30	5.906	5.719	12		5.888	5.834	5.786	1.141	5.765	0.172	0.219	0.625	0.375
AN-32	6.299	6.125	8		6.284	6.203	6.131	1.203	6.109	0.266	0.234	0.625	0.375
AN-34	6.693	6.500	8		6.659	6.578	6.506	1.234	6.484	0.266	0.234	0.750	0.375
AN-36	7.087	6.906	8		7.066	6.985	6.913	1.266	6.891	0.266	0.234	0.750	0.375
AN-38	7.480	7.312	8		7.472	7.391	7.319	1.297	7.297	0.266	0.234	0.750	0.375
AN-40	7.874	7.688	8		7.847	7.766	7.694	1.359	7.672	0.266	0.234	0.875	0.375
N-44	8.661	8.312	8		8.628	8.547	8.475	1.391	8.453	0.266	0.375	1.062	0.188

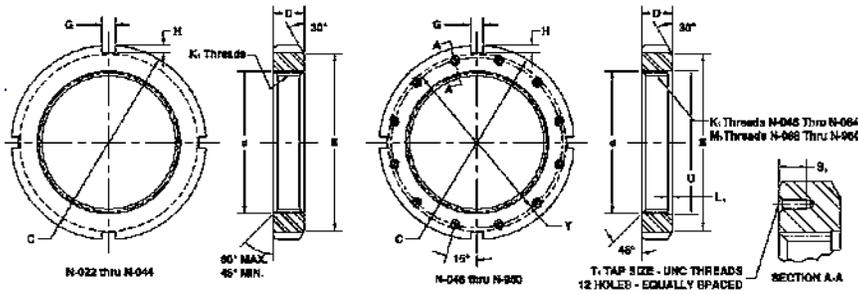
#### NOTES:

K1 threads—American National Form NS Class 3.

## Locknut Dimensions

Inch dimensions for ball, roller, spherical and tapered roller bearings

### Larger Bore Series



#### LOCKNUT DIMENSIONS

LOCKNUT NO.	THREADS			OUTSIDE DIA. C	FACE DIA. E	NUT WIDTH D	SLOT WIDTH G	SLOT DEPTH H	FACE RUNOUT S <sub>i</sub>	COUNTERBORE		TAPPED HOLES FOR MOUNTING		
	MAJORDIA. d	NO. PER INCH	NO. PER INCH							DIA. U	DEPTH L <sub>i</sub>	B.C. DIA. Y	TAP SIZE T <sub>i</sub>	DEPTH S <sub>i</sub>
N-022	4.325	12		5.318	4.901	0.791	0.485	0.198	0.006					
N-024	4.716	12		5.693	5.313	0.823	0.485	0.198	0.006					
N-026	5.106	12		6.130	5.703	0.885	0.485	0.198	0.006					
N-028	5.497	12		6.505	6.109	0.948	0.485	0.198	0.006					
N-030	5.888	12		7.130	6.688	0.979	0.610	0.229	0.006					
N-032	6.284	8		7.505	7.094	1.041	0.610	0.229	0.006					
N-034	6.659	8		7.880	7.484	1.073	0.610	0.229	0.006					
N-036	7.066	8		8.255	7.875	1.104	0.610	0.229	0.006					
N-038	7.472	8		8.693	8.266	1.135	0.610	0.229	0.006					
N-040	7.847	8		9.443	8.750	1.198	0.735	0.323	0.006					
N-044	8.628	8		10.255	9.531	1.260	0.860	0.385	0.006					
N-048	9.442	6		11.443	10.625	1.354	0.860	0.385	0.008			10.423	5/16—18	0.625
N-052	10.192	6		12.193	11.406	1.416	0.860	0.385	0.008			11.298	5/16—18	0.625
N-056	11.004	6		13.005	12.219	1.510	0.980	0.385	0.008			12.110	5/16—18	0.625
N-060	11.785	6		14.193	13.219	1.573	0.980	0.510	0.008			13.110	3/8—16	0.750
N-064	12.562	6		15.005	14.031	1.666	0.980	0.510	0.008			13.860	3/8—16	0.750
N-068	13.339		5	15.755	14.813	1.791	0.980	0.510	0.008	13.355	0.375	14.735	3/8—16	0.750
N-072	14.170		5	16.505	15.500	1.791	1.230	0.510	0.008	14.186	0.375	15.485	3/8—16	0.750
N-076	14.957		5	17.755	16.625	1.916	1.230	0.604	0.008	14.973	0.375	16.485	1/2—13	0.875
N-080	15.745		5	18.505	17.438	2.073	1.230	0.604	0.008	15.761	0.375	17.235	1/2—13	0.875
N-084	16.532		5	19.318	18.188	2.073	1.355	0.604	0.008	16.548	0.375	18.110	1/2—13	0.875
N-088	17.319		5	20.505	19.250	2.385	1.355	0.604	0.008	17.335	0.375	19.110	5/8—11	1.250
N-092	18.107		5	21.255	20.688	2.385	1.355	0.604	0.008	18.123	0.375	19.985	5/8—11	1.250
N-096	18.894		5	22.068	20.750	2.385	1.480	0.604	0.010	18.910	0.375	20.673	5/8—11	1.250
N-500	19.682		5	22.818	21.688	2.703	1.480	0.604	0.010	19.698	0.375	21.610	5/8—11	1.250
N-530	20.867		4	24.818	23.250	2.703	1.605	0.823	0.010	20.887	0.500	23.360	5/8—11	1.250
N-560	22.048		4	25.568	24.000	2.953	1.605	0.823	0.010	22.068	0.500	24.110	5/8—11	1.250
N-600	23.623		4	27.568	26.000	2.953	1.605	0.823	0.010	23.643	0.500	25.923	5/8—11	1.250
N-630	24.804		4	28.755	27.125	2.953	1.855	0.823	0.010	24.824	0.500	27.235	5/8—11	1.250
N-670	26.379		4	30.693	29.125	3.140	1.855	0.823	0.010	26.399	0.500	28.985	5/8—11	1.250
N-710	27.961		3	32.693	30.688	3.578	1.980	1.010	0.012	27.988	0.688	30.610	5/8—11	1.250
N-750	29.536		3	34.255	32.313	3.578	2.230	1.010	0.012	29.563	0.688	32.235	5/8—11	1.250
N-800	31.504		3	36.255	34.250	3.578	2.230	1.010	0.012	31.531	0.688	34.610	5/8—11	1.250
N-850	33.473		3	38.568	36.375	3.578	2.480	1.010	0.012	33.500	0.688	36.485	3/4—10	1.500
N-900	35.441		3	40.568	38.375	3.953	2.480	1.010	0.012	35.468	0.688	38.610	3/4—10	1.500
N-950	37.410		3	43.005	40.500	3.953	2.480	1.010	0.012	37.437	0.688	40.610	3/4—10	1.500

#### NOTES:

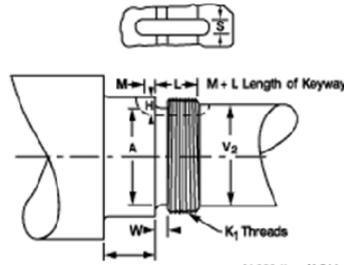
K1 threads—American National Form NS Class 3.

M1 threads—ACME Class 3G General Purpose.

# N-000 Series

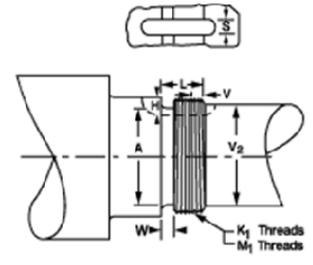
## Shaft Dimensions

Inch dimensions for ball, roller, spherical and tapered roller bearings



Minimum bearing width minus 0.016" (0.41 mm)

N022 thru N044



N-048 thru N-950

### SHAFT DIMENSIONS

LOCKNUT NO.	BEARING BORE	NO. PER INCH		MAJOR DIA.	THREADS		LENGTH	RELIEF			KEYWAY		
		K <sub>1</sub>	M <sub>1</sub>		PITCH DIA.	MINOR DIA.		DIA.	WIDTH	DEPTH	WIDTH	M	V
		V <sub>2</sub> MAX.			MAX.	MAX.	L MAX.	A MAX.	W MAX.	H MIN.	S MIN.	M MIN.	V MIN.
N-022	4.331	4.188	12		4.325	4.271	0.922	4.202	0.172	0.188	0.375	0.312	
N-024	4.724	4.562	12		4.716	4.662	0.953	4.593	0.172	0.188	0.375	0.312	
N-026	5.118	4.938	12		5.106	5.052	1.016	4.983	0.172	0.188	0.500	0.312	
N-028	5.512	5.312	12		5.497	5.443	1.078	5.374	0.172	0.188	0.625	0.312	
N-030	5.906	5.719	12		5.888	5.834	1.141	5.765	0.172	0.219	0.625	0.375	
N-032	6.299	6.125	8		6.284	6.203	1.203	6.109	0.266	0.234	0.625	0.375	
N-034	6.693	6.500	8		6.659	6.578	1.234	6.484	0.266	0.234	0.750	0.375	
N-036	7.087	6.906	8		7.066	6.985	1.266	6.891	0.266	0.234	0.750	0.375	
N-038	7.480	7.312	8		7.472	7.391	1.297	7.297	0.266	0.234	0.750	0.375	
N-040	7.874	7.688	8		7.847	7.766	1.359	7.672	0.266	0.234	0.875	0.375	
N-044	8.661	8.312	8		8.628	8.547	1.391	8.453	0.266	0.375	1.062	0.188	
N-048	9.449	9.188	6		9.442	9.334	1.734	9.201	0.266	0.438	1.125		0.500
N-052	10.236	9.938	6		10.192	10.084	1.797	9.951	0.266	0.438	1.188		0.500
N-056	11.024	10.750	6		11.004	10.896	1.891	10.763	0.266	0.438	1.250		0.500
N-060	11.811	11.500	6		11.785	11.677	1.953	11.544	0.266	0.438	1.375		0.500
N-064	12.598	12.312	6		12.562	12.454	2.047	12.321	0.266	0.438	1.438		0.500
N-068	13.386	13.062	5		13.303	13.203	2.172	13.046	0.266	0.438	1.500		0.500
N-072	14.173	13.812	5		14.134	14.034	2.172	13.877	0.266	0.500	1.500		0.500
N-076	14.961	14.625	5		14.921	14.821	2.297	14.664	0.266	0.500	1.500		0.500
N-080	15.748	15.375	5		15.709	15.609	2.453	15.452	0.266	0.500	1.625		0.500
N-084	16.535	16.188	5		16.496	16.396	2.453	16.239	0.266	0.500	1.625		0.500
N-088	17.323	17.000	5		17.283	17.183	2.766	17.026	0.266	0.500	1.812		0.500
N-092	18.110	17.750	5		18.071	17.971	2.766	17.814	0.266	0.500	1.812		0.500
N-096	18.898	18.500	5		18.858	18.758	2.766	18.601	0.266	0.500	1.812		0.500
N-500	19.685	19.250	5		19.646	19.546	3.141	19.389	0.266	0.500	1.812		0.500
N-530	20.866	20.250	4		20.827	20.702	3.141	20.504	0.266	0.500	1.812		0.500
N-560	22.047	21.500	4		22.008	21.883	3.391	21.685	0.266	0.500	1.812		0.500
N-600	23.622	23.000	4		23.583	23.458	3.391	23.260	0.266	0.500	1.812		0.500
N-630	24.803	24.250	4		24.764	24.639	3.391	24.441	0.266	0.500	2.000		0.500
N-670	26.378	25.750	4		26.339	26.214	3.578	26.016	0.266	0.500	2.000		0.500
N-710	27.953	27.250	3		27.914	27.747	4.109	27.507	0.391	0.625	2.000		0.500
N-750	29.528	28.750	3		29.489	29.322	4.141	29.082	0.391	0.625	2.000		0.500
N-800	31.496	30.750	3		31.457	31.290	4.141	31.050	0.391	0.625	2.000		0.500
N-850	33.465	32.750	3		33.426	33.259	4.141	33.019	0.391	0.625	2.000		0.500
N-900	35.433	34.750	3		35.394	35.227	4.516	34.987	0.391	0.625	2.000		0.500
N-950	37.402	36.750	3		37.363	37.196	4.516	36.956	0.391	0.750	2.000		0.500

#### NOTES:

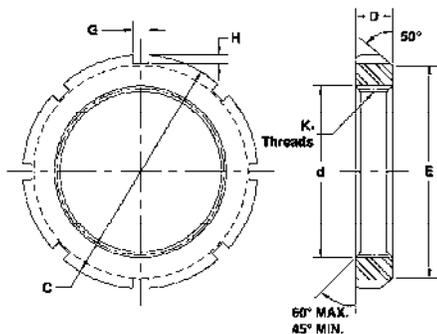
K1 threads—American National Form NS Class 3.

M1 threads—ACME Class 3G General Purpose.

## Locknut Dimensions

Inch dimensions for ball, roller, spherical and tapered roller bearings

**Tighter Face Runout Tolerance**



### LOCKNUT DIMENSIONS

LOCKNUT NO.	MAJORDIA. d MIN.	THREADS NO. PER INCH K <sub>1</sub>	OUTSIDE DIA. C MAX.	FACE DIA. E MAX.	NUT WIDTH D MAX.	SLOT WIDTH G MAX.	SLOT DEPTH H MAX.	FACE RUNOUT S <sub>1</sub> MAX.	APP. WT. (LB./C)
PRN-00	0.391	32	0.755	0.625	0.229	0.120	0.073	0.001	2.0
PRN-01	0.469	32	0.880	0.719	0.323	0.120	0.073	0.001	3.3
PRN-02	0.586	32	1.005	0.813	0.323	0.120	0.104	0.001	3.5
PRN-03	0.664	32	1.130	0.938	0.354	0.120	0.104	0.001	5.3
PRN-04	0.781	32	1.380	1.125	0.385	0.178	0.104	0.001	9.0
PRN-05	0.969	32	1.568	1.281	0.416	0.178	0.104	0.001	11.5
PRN-06	1.173	18	1.755	1.500	0.416	0.178	0.104	0.001	13.0
PRN-07	1.376	18	2.068	1.813	0.448	0.178	0.104	0.001	21.0
PRN-08	1.563	18	2.255	2.000	0.448	0.240	0.104	0.001	22.5
PRN-09	1.767	18	2.536	2.281	0.448	0.240	0.104	0.001	29.0
PRN-10	1.967	18	2.693	2.438	0.510	0.240	0.104	0.001	34.0
PRN-11	2.157	18	2.974	2.656	0.510	0.240	0.135	0.001	42.0
PRN-12	2.360	18	3.161	2.844	0.541	0.240	0.135	0.001	47.0
PRN-13	2.548	18	3.380	3.063	0.573	0.240	0.135	0.001	55.0
PRN-14	2.751	18	3.630	3.313	0.573	0.240	0.135	0.001	63.8
PRN-15	2.933	12	3.880	3.563	0.604	0.360	0.135	0.001	78.8
PRN-16	3.137	12	4.161	3.844	0.604	0.360	0.135	0.001	92.5
PRN-17	3.340	12	4.411	4.031	0.635	0.360	0.166	0.001	104.0
PRN-18	3.527	12	4.661	4.281	0.698	0.360	0.166	0.001	130.0
PRN-19	3.730	12	4.943	4.563	0.729	0.360	0.166	0.001	153.8
PRN-20	3.918	12	5.193	4.813	0.760	0.360	0.166	0.001	178.8
PRN-21	4.122	12	5.443	5.000	0.760	0.485	0.198	0.001	193.8
PRN-22	4.325	12	5.724	5.281	0.791	0.485	0.198	0.001	223.0
PRN-24	4.716	12	6.130	5.688	0.823	0.485	0.198	0.002	255.0
PRN-26	5.106	12	6.755	6.188	0.885	0.610	0.260	0.002	317.0
PRN-28	5.497	12	7.099	6.531	0.948	0.610	0.260	0.002	355.0
PRN-30	5.888	12	7.693	7.063	0.979	0.610	0.291	0.002	475.0
PRN-32	6.284	8	8.068	7.438	1.041	0.610	0.291	0.002	525.0
PRN-34	6.659	8	8.661	8.031	1.073	0.610	0.291	0.002	662.5
PRN-36	7.066	8	9.068	8.375	1.104	0.735	0.323	0.002	665.0
PRN-38	7.472	8	9.474	8.781	1.135	0.735	0.323	0.002	775.0
PRN-40	7.847	8	9.849	9.156	1.198	0.735	0.323	0.002	850.0

#### NOTES:

This series has a tighter face runout tolerance than the standard N/AN series.

Also available in left hand thread, specify "PRL" series.

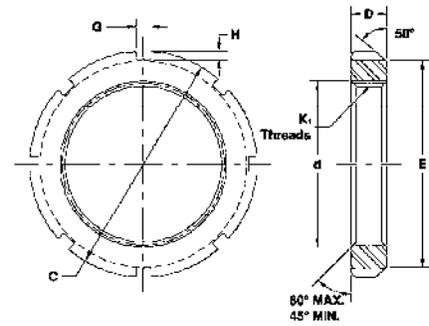
K1 Threads—American National Form NS Class 3.

# PRT-00 Series

## Locknut Dimensions

Inch dimensions for ball, roller, spherical and tapered roller bearings

### Narrow Versions of N Series



## LOCKNUT DIMENSIONS

LOCKNUT NO.	THREADS		OUTSIDE DIA. C	FACE DIA. E	NUT WIDTH D	SLOT WIDTH G	SLOT DEPTH H	FACE RUNOUT S <sub>z</sub>	APP. WT. (LB/ C)
	MAJORDIA. d	NO. PER INCH							
	MIN.	K <sub>1</sub>	MAX.	MAX.	MAX.	MAX.	MAX.	MAX.	
PRT-00	0.391	32	0.724	0.531	0.198	0.120	0.065	0.001	1.7
PRT-01	0.469	32	0.818	0.625	0.198	0.120	0.065	0.001	2.1
PRT-02	0.586	32	0.943	0.750	0.229	0.120	0.065	0.001	3.0
PRT-03	0.664	32	1.067	0.875	0.229	0.120	0.065	0.001	3.8
PRT-04	0.781	32	1.193	1.000	0.260	0.178	0.080	0.001	5.0
PRT-05	0.969	32	1.380	1.188	0.260	0.178	0.065	0.001	6.0
PRT-06	1.173	18	1.693	1.438	0.260	0.178	0.096	0.001	9.4
PRT-07	1.376	18	1.911	1.656	0.291	0.178	0.096	0.001	12.4
PRT-08	1.563	18	2.099	1.844	0.291	0.240	0.096	0.001	13.9
PRT-09	1.767	18	2.317	2.062	0.291	0.240	0.096	0.001	15.9
PRT-10	1.967	18	2.505	2.250	0.322	0.240	0.096	0.001	18.9
PRT-11	2.157	18	2.755	2.500	0.322	0.240	0.096	0.001	22.8
PRT-12	2.360	18	2.942	2.688	0.322	0.240	0.096	0.001	24.1
PRT-13	2.548	18	3.130	2.875	0.354	0.240	0.096	0.001	28.4
PRT-14	2.751	18	3.349	3.094	0.354	0.240	0.096	0.001	31.3
PRT-15	2.933	12	3.693	3.375	0.354	0.360	0.128	0.001	43.7
PRT-16	3.137	12	3.911	3.594	0.385	0.360	0.128	0.001	51.5
PRT-17	3.340	12	4.130	3.812	0.385	0.360	0.128	0.001	55.6
PRT-18	3.527	12	4.317	4.000	0.385	0.360	0.128	0.001	58.4

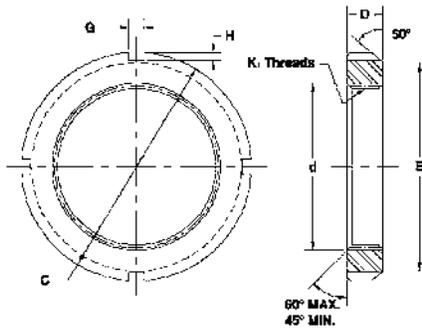
### NOTES:

This series is designed to accommodate limited space applications where high precision is required.

## Locknut Dimensions

Inch dimensions for ball, roller, spherical and tapered roller bearings

**Heavy Load**



### LOCKNUT DIMENSIONS

LOCKNUT NO.	MAJORDIA. d	THREADS NO. PER INCH K <sub>1</sub>	OUTSIDE DIA. C	FACE DIA. E	NUT WIDTH D	SLOT WIDTH G	SLOT DEPTH H	FACE RUNOUT S <sub>i</sub>	APP. WT. (LB/C)
	MIN.		MAX.	MAX.	MAX.	MAX.	MAX.	MAX.	
NHE-08	1.563	18	2.255	2.000	0.572	0.240	0.104	0.002	35.7
NHE-09	1.767	18	2.536	2.281	0.572	0.240	0.104	0.002	44.4
NHE-10	1.967	18	2.693	2.438	0.635	0.240	0.104	0.002	50.7
NHE-11	2.157	18	2.974	2.656	0.635	0.240	0.135	0.002	62.4
NHE-12	2.360	18	3.161	2.844	0.666	0.240	0.135	0.002	69.3
NHE-13	2.548	18	3.380	3.063	0.729	0.240	0.135	0.002	84.4
NHE-14	2.751	18	3.630	3.313	0.729	0.240	0.135	0.002	95.7
NHE-15	2.933	12	3.880	3.563	0.760	0.360	0.135	0.002	117.9
NHE-16	3.137	12	4.161	3.844	0.760	0.360	0.135	0.002	135.9
NHE-17	3.340	12	4.411	4.031	0.791	0.360	0.166	0.002	156.5
NHE-18	3.527	12	4.661	4.281	0.885	0.360	0.166	0.002	195.2
NHE-19	3.730	12	4.943	4.563	0.916	0.360	0.166	0.002	227.9
NHE-20	3.918	12	5.193	4.813	0.948	0.360	0.166	0.002	259.7
NHE-21	4.122	12	5.443	5.000	0.948	0.485	0.198	0.002	282.0
NHE-22	4.325	12	5.724	5.281	0.979	0.485	0.198	0.002	323.0
NHE-24	4.716	12	6.130	5.688	1.041	0.485	0.198	0.002	374.7
NHE-26	5.106	12	6.755	6.188	1.104	0.610	0.260	0.002	502.8
NHE-28	5.497	12	7.099	6.531	1.198	0.610	0.260	0.002	564.0
NHE-30	5.888	12	7.693	7.063	1.260	0.610	0.291	0.002	716.7
NHE-32	6.284	8	8.068	7.438	1.291	0.610	0.291	0.002	783.7
NHE-34	6.659	8	8.661	8.031	1.354	0.610	0.291	0.002	977.6
NHE-36	7.066	8	9.068	8.375	1.416	0.735	0.323	0.002	1077.2
NHE-38	7.472	8	9.474	8.781	1.416	0.735	0.323	0.002	1131.8
NHE-40	7.847	8	9.849	9.156	1.510	0.735	0.323	0.002	1260.8

#### NOTES:

This series is designed with a wider nut width (D) to accommodate heavier loads.

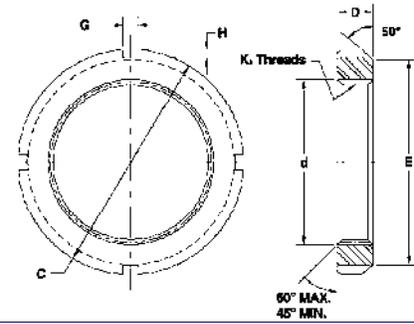
K1 Threads—American National Form NS Class 3.

# NIN-00 Series

## Locknut Dimensions

Inch dimensions for ball, roller, spherical and tapered roller bearings

### 16 Threads per Inch



### LOCKNUT DIMENSIONS

LOCKNUT NO.	MAJORDIA. d	THREADS NO. PER INCH	OUTSIDE DIA. C	FACE DIA. E	NUT WIDTH D	SLOT WIDTH G	SLOT DEPTH H	FACE RUNOUT S <sub>t</sub>	APP. WT. (LB./C)
	MIN.	K <sub>1</sub>	MAX.	MAX.	MAX.	MAX.	MAX.	MAX.	
NIN-01	0.750	16	1.505	1.188	0.385	0.240	0.138	0.002	14.5
NIN-02	0.875	16	1.630	1.313	0.385	0.240	0.138	0.002	16.1
NIN-03	1.000	16	1.755	1.438	0.385	0.240	0.138	0.002	17.7
NIN-04	1.125	16	1.880	1.563	0.385	0.240	0.138	0.002	19.3
NIN-05	1.250	16	2.005	1.688	0.510	0.240	0.138	0.004	27.7
NIN-06	1.375	16	2.255	1.938	0.510	0.240	0.138	0.004	36.0
NIN-07	1.500	16	2.255	1.938	0.510	0.240	0.138	0.004	32.0
NIN-08	1.625	16	2.505	2.188	0.510	0.302	0.138	0.004	41.0
NIN-09	1.750	16	2.630	2.313	0.510	0.302	0.138	0.004	43.4
NIN-10	1.875	16	2.755	2.438	0.510	0.302	0.138	0.004	45.9
NIN-11	2.000	16	3.005	2.688	0.510	0.302	0.138	0.004	56.7
NIN-12	2.250	16	3.255	2.875	0.635	0.302	0.169	0.004	77.7
NIN-13	2.500	16	3.505	3.125	0.635	0.302	0.169	0.004	84.8
NIN-14	2.750	16	3.755	3.375	0.635	0.302	0.169	0.004	91.8

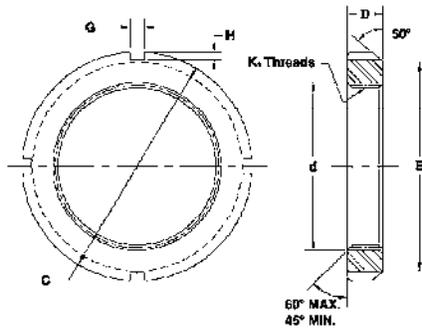
#### NOTES:

K1 Threads—American National Form Class 3.

## Locknut Dimensions

Inch dimensions for ball, roller, spherical and tapered roller bearings

### Thinner Design



### LOCKNUT DIMENSIONS

LOCKNUT NO.	MAJORDIA. d	THREADS NO. PER INCH K <sub>1</sub>	OUTSIDE DIA. C	FACE DIA. E	NUT WIDTH D	SLOT WIDTH G	SLOT DEPTH H	FACE RUNOUT S <sub>i</sub>	APP. WT. (LB./C)
	MIN.		MAX.	MAX.	MAX.	MAX.	MAX.	MAX.	
NTH-00	0.391	32	0.724	0.531	0.198	0.120	0.065	0.002	1.7
NTH-01	0.469	32	0.818	0.625	0.198	0.120	0.065	0.002	2.1
NTH-02	0.586	32	0.943	0.750	0.229	0.120	0.065	0.002	3.0
NTH-03	0.664	32	1.068	0.875	0.229	0.120	0.065	0.002	3.8
NTH-04	0.781	32	1.193	1.000	0.260	0.178	0.080	0.002	5.0
NTH-05	0.969	32	1.380	1.188	0.260	0.178	0.065	0.002	6.0
NTH-06	1.173	18	1.693	1.438	0.260	0.178	0.096	0.002	9.4
NTH-07	1.376	18	1.911	1.656	0.291	0.178	0.096	0.004	12.4
NTH-08	1.563	18	2.099	1.844	0.291	0.240	0.096	0.004	13.9
NTH-09	1.767	18	2.318	2.062	0.291	0.240	0.096	0.004	15.9
NTH-10	1.967	18	2.505	2.250	0.322	0.240	0.096	0.004	18.9
NTH-11	2.157	18	2.755	2.500	0.322	0.240	0.096	0.004	22.8
NTH-12	2.360	18	2.943	2.688	0.322	0.240	0.096	0.004	24.1
NTH-13	2.548	18	3.130	2.875	0.354	0.240	0.096	0.004	28.4
NTH-14	2.751	18	3.349	3.094	0.354	0.240	0.096	0.004	31.3
NTH-15	2.933	12	3.693	3.375	0.354	0.360	0.128	0.004	43.7
NTH-16	3.137	12	3.911	3.594	0.385	0.360	0.128	0.004	51.5
NTH-17	3.340	12	4.130	3.812	0.385	0.360	0.128	0.004	55.6
NTH-18	3.527	12	4.318	4.000	0.385	0.360	0.128	0.004	58.4

#### NOTES:

This series is designed with a thinner width (D) to accommodate narrow spaces.

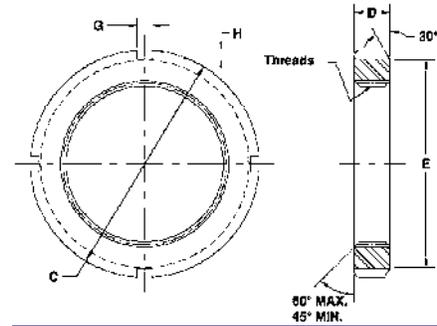
K1 Threads—American National Form NS Class 3.

# KM-00 Series

## Locknut Dimensions

Metric dimensions for ball, roller, spherical and tapered roller bearings

### Metric Design



### LOCKNUT DIMENSIONS

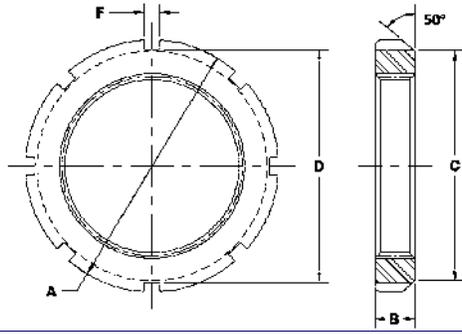
LOCKNUT NO.	METRIC THREADS	OUTSIDE DIA. C MAX.	FACE DIA. E MAX.	NUT WIDTH D MAX.	SLOT WIDTH G MAX.	SLOT DEPTH H MAX.	FACE RUNOUT S <sub>r</sub> MAX.
KM 0	M 10x0.75	0.709	0.531	0.157	0.118	0.079	0.002
KM 1	M 12x1	0.866	0.669	0.157	0.118	0.079	0.002
KM 2	M 15x1	0.984	0.827	0.197	0.157	0.079	0.002
KM 3	M 17x1	1.102	0.945	0.197	0.157	0.079	0.002
KM 4	M 20x1	1.260	1.024	0.236	0.157	0.079	0.002
KM 4.4	M 22x1	1.339	1.102	0.236	0.157	0.079	0.002
KM 5	M 25x1.5	1.496	1.206	0.276	0.197	0.079	0.002
KM 5.6	M 28x1.5	1.654	1.417	0.276	0.197	0.079	0.002
KM 6	M 30x1.5	1.772	1.496	0.276	0.197	0.079	0.002
KM 6.4	M 32x1.5	1.890	1.575	0.315	0.197	0.079	0.002
KM 7	M 35x1.5	2.047	1.732	0.315	0.197	0.079	0.002
KM 8	M 40x1.5	2.283	1.969	0.354	0.236	0.098	0.002
KM 9	M 45x1.5	2.559	2.205	0.394	0.236	0.098	0.002
KM 10	M 50x1.5	2.756	2.402	0.433	0.236	0.098	0.002
KM 11	M 55x2	2.953	2.638	0.433	0.276	0.118	0.002
KM 12	M 60x2	3.150	2.874	0.433	0.276	0.118	0.002
KM 13	M 65x2	3.346	3.110	0.472	0.276	0.118	0.002
KM 14	M 70x2	3.622	3.346	0.472	0.315	0.138	0.002
KM 15	M 75x2	3.858	3.543	0.512	0.315	0.138	0.002
KM 16	M 80x2	4.134	3.740	0.591	0.315	0.138	0.002
KM 17	M 85x2	4.331	4.016	0.630	0.315	0.138	0.002
KM 18	M 90x2	4.724	4.252	0.630	0.394	0.157	0.002
KM 19	M 95x2	4.921	4.449	0.669	0.394	0.157	0.002
KM 20	M100x2	5.118	4.724	0.709	0.394	0.157	0.002
KM 21	M105x2	5.512	4.961	0.709	0.472	0.197	0.002
KM 22	M110x2	5.709	5.236	0.748	0.472	0.197	0.002
KM 23	M115x2	5.906	5.394	0.748	0.472	0.197	0.002
KM 24	M120x2	6.102	5.433	0.787	0.472	0.197	0.002
KM 25	M125x2	6.299	5.827	0.827	0.472	0.197	0.002
KM 26	M130x2	6.496	5.866	0.827	0.472	0.197	0.002
KM 27	M135x2	6.890	6.299	0.866	0.551	0.236	0.002
KM 28	M140x2	7.087	6.299	0.866	0.551	0.236	0.002
KM 29	M145x2	7.480	6.732	0.945	0.551	0.236	0.002
KM 30	M150x2	7.677	6.732	0.945	0.551	0.236	0.002
KM 31	M155x3	7.874	7.165	0.984	0.630	0.276	0.002
KM 32	M160x3	8.268	7.165	0.984	0.630	0.276	0.002
KM 33	M165x3	8.268	7.598	1.024	0.630	0.276	0.002
KM 34	M170x3	8.661	7.598	1.024	0.630	0.276	0.002
KM 36	M180x3	9.055	7.992	1.063	0.709	0.315	0.002
KM 38	M190x3	9.449	8.425	1.102	0.709	0.315	0.002
KM 40	M200x3	9.843	8.898	1.142	0.709	0.315	0.002
KM 44	T220x3	11.024	9.843	1.260	0.787	0.394	0.002
KM 48	T240x4	11.811	10.630	1.339	0.787	0.394	0.002
KM 52	T260x4	12.992	11.811	1.417	0.945	0.472	0.003
KM 56	T280x4	13.780	12.598	1.496	0.945	0.472	0.003

### NOTES:

KM0–KM34 are available with 360° insert. Also available in stainless steel. HM-Series Locknuts are also available.

## Locknut Dimensions

### Military Standards



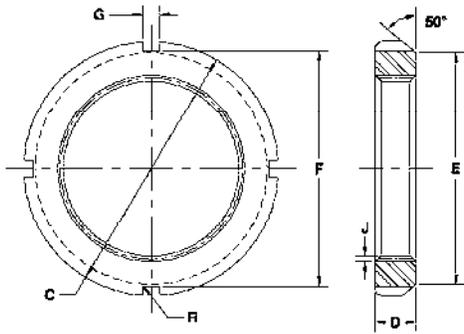
#### MILITARY STANDARD LOCKNUT DIMENSIONS

LOCKNUT NO.	THREADS		OUTSIDE DIA.		NUT WIDTH		FACE DIA.		SLOT DEPTH		SLOT WIDTH		APP. WT. (LB.)
	MAJORDIA.	NO. PER INCH	A		B		C		D		F		
			MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	
MSI72236	0.391	32	0.704	0.724	0.173	0.193	0.511	0.531	0.584	0.604	0.115	0.135	0.010
MSI72237	0.469	32	0.797	0.817	0.173	0.193	0.605	0.625	0.678	0.698	0.115	0.135	0.014
MSI72238	0.586	32	0.923	0.943	0.209	0.229	0.730	0.750	0.802	0.822	0.115	0.135	0.021
MSI72239	0.664	32	1.407	1.067	0.209	0.229	0.855	0.875	0.928	0.948	0.115	0.135	0.028
MSI72259	0.781	32	1.173	1.193	0.240	0.260	0.980	1.000	1.052	1.072	0.178	0.198	0.036
MSI72241	0.969	32	1.360	1.380	0.240	0.260	1.168	1.188	1.240	1.260	0.178	0.198	0.045
MSI72242	1.173	18	1.673	1.693	0.271	0.291	1.418	1.438	1.490	1.510	0.178	0.198	0.055
MSI72243	1.376	18	1.891	1.911	0.271	0.291	1.636	1.656	1.709	1.729	0.178	0.198	0.067
MSI72244	1.563	18	2.079	2.099	0.271	0.291	1.824	1.844	1.896	1.916	0.240	0.260	0.074
MSI72245	1.767	18	2.297	2.317	0.302	0.322	2.042	2.062	2.115	2.135	0.240	0.260	0.134
MSI72246	1.967	18	2.485	2.505	0.302	0.322	2.230	2.250	2.302	2.322	0.240	0.260	0.144
MSI72247	2.157	18	2.735	2.755	0.302	0.322	2.480	2.500	2.552	2.572	0.240	0.260	0.180
MSI72248	2.360	18	2.923	2.943	0.334	0.354	2.668	2.688	2.740	2.760	0.240	0.260	0.211
MSI72249	2.548	18	3.110	3.130	0.334	0.354	2.855	2.875	2.928	2.948	0.240	0.260	0.224
MSI72250	2.751	18	3.329	3.349	0.334	0.354	3.074	3.094	3.146	3.166	0.240	0.260	0.232
MSI72251	2.933	12	3.673	3.693	0.365	0.385	3.355	3.375	3.428	3.448	0.365	0.385	0.371
MSI72252	3.137	12	3.891	3.911	0.365	0.385	3.574	3.594	3.646	3.666	0.365	0.385	0.405
MSI72253	3.340	12	4.110	4.130	0.365	0.385	3.792	3.812	3.865	3.885	0.365	0.385	0.440
MSI72254	3.527	12	4.297	4.317	0.365	0.385	3.980	4.000	4.052	4.072	0.365	0.385	0.464
MSI72255	3.730	12	4.516	4.536	0.396	0.416	4.199	4.219	4.271	4.291	0.365	0.385	0.546
MSI72256	3.918	12	4.704	4.724	0.396	0.416	4.386	4.406	4.459	4.479	0.365	0.385	0.572
MSI72257	4.122	12	4.891	4.911	0.396	0.416	4.574	4.594	4.646	4.666	0.490	0.510	0.577
MSI72258	4.325	12	5.110	5.130	0.396	0.416	4.792	4.812	4.865	4.885	0.490	0.510	0.620



## Locknut Dimensions

### Military Standards



#### MILITARY STANDARD LOCKNUT DIMENSIONS

LOCKNUT NO.	THICKNESS		OUTSIDE DIA. C	FACE DIA. E		INSIDE CHAMFER J	SLOT DIA. F	SLOT WIDTH G		SLOT RADIUS R	NO. PER INCH	THREAD DATA				APP. WT. (LB/C)	
	D	MAX.		MIN.	MAX.			MIN.	MAX.			MIN.	MAX.	MIN.	MAX.		MIN.
			+0.005/-0.015			+0.010/-0.020	MINOR DIA.			PITCH DIA.	MAJORDIA.						
MS19068-00	0.209	0.229	0.750	0.605	0.625	0.031	0.625	0.120	0.130	0.010	32	0.357	0.361	0.371	0.373	0.391	2.0
MS19068-01	0.303	0.323	0.875	0.699	0.719	0.031	0.750	0.120	0.130	0.010	32	0.435	0.439	0.449	0.451	0.469	3.3
MS19068-02	0.303	0.323	1.000	0.793	0.813	0.031	0.812	0.120	0.130	0.010	32	0.552	0.556	0.566	0.569	0.586	3.5
MS19068-03	0.334	0.354	1.125	0.918	0.938	0.031	0.937	0.120	0.130	0.010	32	0.630	0.634	0.644	0.647	0.664	5.3
MS19068-04	0.365	0.385	1.375	1.105	1.125	0.031	1.187	0.178	0.198	0.015	32	0.747	0.751	0.761	0.764	0.781	9.0
MS19068-05	0.396	0.416	1.562	1.261	1.281	0.031	1.375	0.178	0.198	0.015	32	0.935	0.939	0.949	0.952	0.969	11.5
MS19068-06	0.396	0.416	1.750	1.480	1.500	0.047	1.562	0.178	0.198	0.015	18	1.113	1.119	1.137	1.141	1.173	13.0
MS19068-065	0.428	0.448	2.062	1.793	1.813	0.047	1.875	0.178	0.198	0.015	18	1.252	1.258	1.276	1.280	1.313	21.0
MS19068-07	0.428	0.448	2.062	1.793	1.813	0.047	1.875	0.178	0.198	0.015	18	1.316	1.322	1.340	1.344	1.376	22.5
MS19068-08	0.428	0.448	2.250	1.980	2.000	0.047	2.062	0.240	0.260	0.020	18	1.503	1.509	1.527	1.531	1.563	29.0
MS19068-09	0.428	0.448	2.531	2.261	2.281	0.047	2.343	0.240	0.260	0.020	18	1.707	1.713	1.731	1.735	1.767	34.0
MS19068-10	0.490	0.510	2.687	2.418	2.438	0.047	2.500	0.240	0.260	0.020	18	1.907	1.913	1.931	1.935	1.967	42.0
MS19068-11	0.490	0.510	2.968	2.636	2.656	0.047	2.718	0.240	0.260	0.020	18	2.097	2.103	2.121	2.126	2.157	47.0
MS19068-12	0.521	0.541	3.156	2.824	2.844	0.047	2.906	0.240	0.260	0.020	18	2.300	2.306	2.324	2.329	2.360	55.0
MS19068-13	0.553	0.573	3.375	3.043	3.063	0.047	3.125	0.240	0.260	0.020	18	2.488	2.494	2.512	2.517	2.548	63.8
MS19068-14	0.553	0.573	3.625	3.283	3.313	0.047	3.375	0.240	0.260	0.020	18	2.691	2.697	2.715	2.720	2.751	78.8
MS19068-15	0.584	0.604	3.875	3.533	3.563	0.078	3.625	0.360	0.385	0.025	12	2.843	2.852	2.879	2.884	2.933	92.5
MS19068-16	0.584	0.604	4.156	3.814	3.844	0.078	3.906	0.360	0.385	0.025	12	3.047	3.056	3.083	3.089	3.137	104.0
MS19068-17	0.615	0.635	4.406	4.001	4.031	0.078	4.093	0.360	0.385	0.025	12	3.250	3.259	3.286	3.292	3.340	130.0
MS19068-18	0.678	0.698	4.656	4.251	4.281	0.078	4.343	0.360	0.385	0.025	12	3.437	3.446	3.473	3.480	3.527	153.8
MS19068-19	0.709	0.729	4.937	4.533	4.563	0.078	4.625	0.360	0.385	0.025	12	3.640	3.649	3.676	3.683	3.730	178.8
MS19068-20	0.735	0.760	5.187	4.783	4.813	0.078	4.875	0.360	0.385	0.025	12	3.828	3.837	3.864	3.871	3.918	193.8
MS19068-21	0.735	0.760	5.437	4.970	5.000	0.078	5.062	0.485	0.510	0.030	12	4.032	4.041	4.068	4.076	4.122	223.0
MS19068-22	0.766	0.791	5.718	5.251	5.281	0.078	5.343	0.485	0.510	0.030	12	4.235	4.244	4.271	4.279	4.325	255.0
MS19068-24	0.798	0.823	6.125	5.658	5.688	0.078	5.750	0.485	0.510	0.030	12	4.626	4.635	4.662	4.670	4.716	317.0
MS19068-26	0.860	0.885	6.750	6.158	6.188	0.078	6.250	0.610	0.635	0.030	12	5.016	5.025	5.052	5.060	5.106	355.0
MS19068-28	0.923	0.948	7.093	6.501	6.531	0.078	6.593	0.610	0.635	0.030	12	5.407	5.416	5.443	5.451	5.497	475.0
MS19068-30	0.954	0.979	7.687	7.033	7.063	0.078	7.125	0.610	0.635	0.030	12	5.798	5.807	5.834	5.842	5.888	525.0
MS19068-32	1.016	1.041	8.062	7.398	7.438	0.094	7.500	0.610	0.635	0.030	8	6.149	6.162	6.203	6.212	6.284	662.5
MS19068-34	1.048	1.073	8.656	7.991	8.031	0.094	8.093	0.610	0.635	0.030	8	6.524	6.537	6.578	6.587	6.659	665.0
MS19068-36	1.079	1.104	9.062	8.335	8.375	0.094	8.437	0.735	0.760	0.030	8	6.931	6.944	6.985	6.994	7.066	775.0
MS19068-38	1.110	1.135	9.468	8.741	8.781	0.094	8.843	0.735	0.760	0.030	8	7.337	7.350	7.391	7.400	7.472	850.0
MS19068-40	1.173	1.198	9.843	9.116	9.156	0.094	9.218	0.735	0.760	0.030	8	7.712	7.725	7.766	7.777	7.847	1,050.0

# Lockwashers



**Lockwashers are hardware components that are used to prevent loosening of fasteners due to vibration and other external forces. They are commonly used in mechanical and engineering situations in machinery, automobiles, and aerospace industry applications.**

Lockwashers are utilized in almost every industry as mechanical fasteners to help secure bearing arrangements in place when there are heavy vibrations or dynamic loads. Lockwashers feature tangs on the outer diameter which are utilized to be bent over into a slot on the outer diameter of a locknut. The inner diameter features a tang to engage into either the slot of an adapter sleeve or keyway in a shaft. These features act to secure the locknut into position and provide a positive lock.

## The Standard Locknut Difference

At Standard Locknut, our precision-engineered lockwashers are designed for applications that require installation accuracy. Our lockwashers are built to accommodate high-precision locking components for high-speed applications and feature:

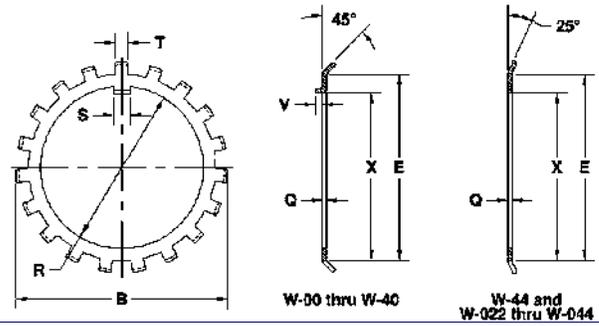
- Specific sizes for traditional inch or metric-based applications
- Easy installation and removal
- A wide variety of sizes

<b>W-00 and W-000 Series</b> .....	<b>108</b>
For use with N and AN Locknut Series	
<b>PRW-00 and PRWT-00 Series</b> .....	<b>109</b>
PRW for use with PRN and PRL Precision Locknut Series	
PRWT for use with PRT Precision Locknut Series	
<b>TW-000 Series</b> .....	<b>110</b>
Heavy Duty	
<b>WTH-00 and WIN-00 Series</b> .....	<b>111</b>
WTH for use with NTH Locknut Series	
WIN for use with NIN Locknut Series	
<b>MB-00 Series</b> .....	<b>112</b>
Metric	
<b>Lockplate: P-000 Series</b> .....	<b>113</b>
For use with SNP-00 and SNP-3100 series adapters	
<b>MS-1722 Series</b> .....	<b>114</b>
Military Standards	
<b>MS-19069 Series</b> .....	<b>115</b>
Military Standards	
<b>MS-19070 Series</b> .....	<b>116</b>
Military Standards	
<b>X-Washers</b> .....	<b>117</b>
<b>X-Washer Retainer</b> .....	<b>118</b>

# W-00 and W-000 Series

## Lockwasher Dimensions

For use with N and AN Locknut Series



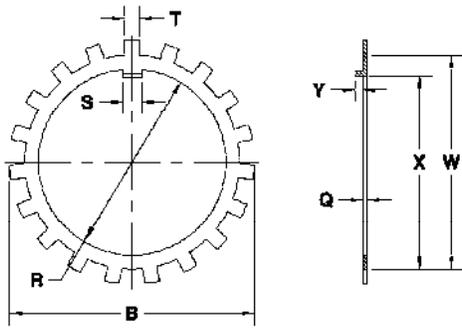
### LOCKWASHER DIMENSIONS

LOCKWASHER NO.		BORE		FACE DIAMETER		DIA. OVER TANGS		KEY WIDTH		INSIDE DIMENSION		NO. OF PROJECTION TANGS		TANG WIDTH		TANG THICKNESS		APP. WT. (LB/ C)
		R	E	E		B		S	S	X	V	T		Q		MIN.		
		MIN.	MIN.	MIN.		MAX.		MAX.	MIN.	MIN.	MIN.	MAX.		MIN.				
W-00	W-000	W-00	W-000	W-00	W-000	W-00	W-000	W-00	W-000	W-00	W-00	W-00	W-000	W-00	W-000	W-00	W-000	
W-00		0.406		0.625		0.875		0.120		0.334		9	0.063	0.120	0.032			0.50
W-01		0.484		0.719		1.016		0.120		0.412		9	0.063	0.120	0.032			0.50
W-02		0.601		0.813		1.156		0.120		0.529		11	0.063	0.120	0.032			0.50
W-03		0.679		0.938		1.328		0.120		0.607		11	0.063	0.120	0.032			0.80
W-04		0.801		1.125		1.531		0.176		0.729		11	0.063	0.166	0.032			1.30
W-05		0.989		1.281		1.719		0.176		0.909		13	0.094	0.166	0.040			1.50
W-06		1.193		1.500		1.922		0.176		1.093		13	0.094	0.166	0.040			1.50
W-07		1.396		1.813		2.250		0.176		1.296		15	0.094	0.166	0.040			2.30
W-08		1.583		2.000		2.496		0.290		1.475		15	0.094	0.234	0.048			3.30
W-09		1.792		2.281		2.734		0.290		1.684		17	0.125	0.234	0.048			4.30
W-10		1.992		2.438		2.922		0.290		1.884		17	0.125	0.234	0.048			4.50
W-11		2.182		2.656		3.109		0.290		2.069		17	0.125	0.234	0.053			4.80
W-12		2.400		2.844		3.344		0.290		2.267		17	0.125	0.234	0.053			4.80
W-13		2.588		3.063		3.578		0.290		2.455		19	0.125	0.234	0.053			6.00
W-14		2.791		3.313		3.828		0.290		2.658		19	0.188	0.234	0.053			6.50
W-15		2.973		3.563		4.109		0.290		2.831		19	0.188	0.328	0.062			10.00
W-16		3.177		3.844		4.375		0.353		3.035		19	0.188	0.328	0.062			11.50
W-17		3.395		4.031		4.625		0.353		3.253		19	0.188	0.328	0.062			12.00
W-18		3.582		4.281		4.938		0.353		3.418		19	0.188	0.328	0.084			16.80
W-19		3.800		4.563		5.219		0.353		3.636		19	0.188	0.328	0.084			19.50
W-20		3.988		4.813		5.500		0.353		3.809		19	0.250	0.328	0.084			20.50
W-21		4.192		5.000		5.703		0.353		4.013		19	0.250	0.390	0.084			23.80
W-22	W-022	4.395	5.281	4.921	6.063	5.688	6.063	0.353	0.350	4.185	0.250	19	0.250	0.390	0.115	0.115	34.50	
W-24	W-024	4.801	5.688	5.333	6.469	6.188	6.469	0.353	0.350	4.591	0.250	19	0.250	0.390	0.115	0.115	39.00	
W-26	W-026	5.191	6.188	5.723	7.031	6.625	7.031	0.435	0.469	4.961	0.250	19	0.250	0.390	0.115	0.115	43.00	
W-28	W-028	5.582	6.531	6.129	7.438	7.094	7.438	0.590	0.594	5.352	0.250	19	0.250	0.390	0.115	0.115	46.50	
W-30	W-030	5.983	7.063	6.708	8.063	7.719	8.063	0.590	0.594	5.722	0.312	19	0.312	0.520	0.146	0.115	71.00	
W-32	W-032	6.389	7.438	7.114	8.438	8.156	8.438	0.590	0.594	6.128	0.312	19	0.312	0.520	0.146	0.115	73.50	
W-34	W-034	6.764	8.031	7.508	9.063	8.594	9.063	0.715	0.719	6.503	0.312	19	0.312	0.520	0.146	0.115	90.50	
W-36	W-036	7.171	8.375	7.899	9.438	9.000	9.438	0.715	0.719	6.910	0.312	19	0.312	0.645	0.146	0.115	93.50	
W-38	W-038	7.577	8.781	8.290	9.875	9.438	9.875	0.715	0.719	7.316	0.312	19	0.312	0.645	0.146	0.115	105.00	
W-40	W-040	7.982	9.156	8.774	10.313	9.969	10.313	0.840	0.844	7.721	0.312	19	0.312	0.645	0.146	0.115	111.00	
W-44	W-044	8.701	9.875	9.570	11.438	10.406	11.438	0.940	0.945	8.327	0.312	19	0.312	0.878	0.146	0.115	118.00	

# PRW-00 and PRWT-00 Series

## Lockwasher Dimensions

PRW for use with PRN and PRL Precision Locknut Series.  
PRWT for use with PRT Precision Locknut Series.



### LOCKWASHER DIMENSIONS

LOCKWASHER NO.	THICKNESS		BORE		FACE DIAMETER		DIAMETER OVER TANGS NO.	TANGS WIDTH		PROJECTION		KEY BENT WIDTH		CLEARANCE		RADIUS	
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.		MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.		
PRW-00	0.034	0.042	0.406	0.421	0.625	0.640	+1/16 - 0	9	0.110	0.120	0.062	0.094	0.110	0.120	0.334	0.359	1/64
PRW-01	0.034	0.042	0.484	0.499	0.719	0.734	1 7/64	9	0.110	0.120	0.062	0.094	0.110	0.120	0.412	0.437	1/64
PRW-02	0.047	0.055	0.601	0.616	0.813	0.827	1 1/4	11	0.110	0.120	0.062	0.094	0.110	0.120	0.529	0.554	1/64
PRW-03	0.047	0.055	0.679	0.694	0.938	0.953	1 13/32	11	0.110	0.120	0.062	0.094	0.110	0.120	0.607	0.632	1/64
PRW-04	0.047	0.055	0.801	0.816	1.125	1.140	1 21/32	11	0.146	0.166	0.062	0.094	0.156	0.176	0.729	0.754	1/64
PRW-05	0.050	0.058	0.989	1.009	1.281	1.296	1 51/64	13	0.146	0.166	0.093	0.125	0.156	0.176	0.909	0.939	1/64
PRW-06	0.050	0.058	1.193	1.213	1.500	1.515	2 1/16	13	0.146	0.166	0.093	0.125	0.156	0.176	1.093	1.128	1/32
PRW-065	0.050	0.058	1.333	1.353	1.813	1.827	2 21/64	15	0.146	0.166	0.093	0.125	0.156	0.176	1.221	1.256	1/32
PRW-07	0.050	0.058	1.396	1.416	1.813	1.827	2 11/32	15	0.146	0.166	0.093	0.125	0.156	0.176	1.296	1.331	1/32
PRW-08	0.059	0.067	1.583	1.603	2.000	2.030	2 37/64	15	0.204	0.234	0.093	0.125	0.250	0.290	1.475	1.510	1/32
PRW-09	0.059	0.067	1.792	1.817	2.281	2.311	2 13/16	17	0.204	0.234	0.125	0.156	0.250	0.290	1.684	1.724	1/32
PRW-10	0.059	0.067	1.992	2.017	2.438	2.468	3 1/32	17	0.204	0.234	0.125	0.156	0.250	0.290	1.884	1.924	1/32
PRW-11	0.059	0.067	2.182	2.207	2.656	2.686	3 3/16	17	0.204	0.234	0.125	0.156	0.250	0.290	2.069	2.109	1/32
PRW-12	0.070	0.078	2.400	2.425	2.844	2.874	3 7/16	17	0.204	0.234	0.125	0.156	0.250	0.290	2.267	2.307	3/64
PRW-13	0.070	0.078	2.588	2.613	3.063	3.093	3 43/64	19	0.204	0.234	0.125	0.156	0.250	0.290	2.455	2.495	3/64
PRW-14	0.070	0.078	2.791	2.816	3.313	3.343	3 29/32	19	0.204	0.234	0.187	0.250	0.250	0.290	2.658	2.698	3/64
PRW-15	0.083	0.091	2.973	3.003	3.563	3.593	4 5/32	19	0.298	0.328	0.187	0.250	0.250	0.290	2.831	2.867	3/64
PRW-16	0.083	0.091	3.177	3.207	3.844	3.874	4 1/2	19	0.298	0.328	0.187	0.250	0.313	0.353	3.035	3.080	3/64
PRW-17	0.083	0.091	3.395	3.425	4.031	4.061	4 25/32	19	0.298	0.328	0.187	0.250	0.313	0.353	3.253	3.298	3/64
PRW-18	0.111	0.119	3.582	3.612	4.281	4.326	5 5/64	19	0.298	0.328	0.187	0.250	0.313	0.353	3.418	3.463	3/64
PRW-19	0.111	0.119	3.800	3.830	4.563	4.607	5 23/64	19	0.298	0.328	0.187	0.250	0.313	0.353	3.636	3.681	3/64
PRW-20	0.111	0.119	3.988	4.018	4.813	4.858	5 5/8	19	0.298	0.328	0.250	0.313	0.313	0.353	3.809	3.859	3/64
PRW-21	0.111	0.119	4.192	4.222	5.000	5.045	5 27/32	19	0.360	0.390	0.250	0.313	0.313	0.353	4.013	4.063	3/64
PRW-22	0.125	0.135	4.395	4.425	5.281	5.326	6 9/64	19	0.360	0.390	0.250	0.313	0.313	0.353	4.185	4.235	3/64
PRW-24	0.145	0.155	4.801	4.831	5.688	5.733	6 45/64	19	0.360	0.390	0.250	0.313	0.313	0.353	4.591	4.641	3/64
PRW-26	0.145	0.155	5.191	5.226	6.188	6.233	7 5/16	19	0.480	0.520	0.250	0.313	0.375	0.435	4.961	5.016	1/16
PRW-28	0.145	0.155	5.582	5.617	6.531	6.576	7 5/8	19	0.480	0.520	0.250	0.313	0.500	0.590	5.352	5.407	1/16
PRW-30	0.180	0.195	5.983	6.018	7.063	7.123	8 9/32	19	0.480	0.520	0.312	0.375	0.500	0.590	5.722	5.777	1/16
PRW-32	0.180	0.195	6.389	6.424	7.438	7.498	8 43/64	19	0.480	0.520	0.312	0.375	0.500	0.590	6.128	6.183	1/16
PRW-34	0.180	0.195	6.764	6.799	8.031	8.091	9 19/64	19	0.480	0.520	0.312	0.375	0.625	0.715	6.503	6.558	1/16
PRW-36	0.180	0.195	7.171	7.206	8.375	8.435	9 21/32	19	0.605	0.645	0.312	0.375	0.625	0.715	6.910	6.965	1/16
PRW-38	0.180	0.195	7.577	7.612	8.781	8.841	10 3/32	19	0.605	0.645	0.312	0.375	0.625	0.715	7.316	7.371	1/16
PRW-40	0.180	0.195	7.982	8.017	9.156	9.216	10 11/16	19	0.605	0.645	0.312	0.375	0.750	0.840	7.721	7.776	1/16

### LOCKWASHER DIMENSIONS

LOCKWASHER NO.	THICKNESS		BORE		FACE DIAMETER		DIAMETER OVER TANGS NO.	TANGS WIDTH		PROJECTION		KEY BENT WIDTH		CLEARANCE		RADIUS	
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.		MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.		
PRWT00	0.034	0.042	0.406	0.421	0.531	0.551	57/64	9	0.084	0.104	0.062	0.094	0.110	0.120	0.333	0.353	1/64
PRWT01	0.034	0.042	0.484	0.499	0.625	0.645	63/64	9	0.084	0.104	0.062	0.094	0.110	0.120	0.411	0.431	1/64
PRWT02	0.034	0.042	0.601	0.616	0.750	0.770	1 11/64	11	0.084	0.104	0.062	0.094	0.110	0.120	0.513	0.533	1/64
PRWT03	0.034	0.042	0.679	0.694	0.875	0.895	1 9/32	11	0.084	0.104	0.062	0.094	0.110	0.120	0.591	0.611	1/64
PRWT04	0.034	0.042	0.801	0.816	1.000	1.020	1 7/16	11	0.146	0.166	0.062	0.094	0.156	0.176	0.724	0.744	1/64
PRWT05	0.042	0.050	0.989	1.009	1.188	1.208	1 41/64	13	0.146	0.166	0.093	0.125	0.156	0.176	0.880	0.900	1/64
PRWT06	0.042	0.050	1.193	1.213	1.438	1.458	1 61/64	13	0.146	0.166	0.093	0.125	0.156	0.176	1.084	1.104	1/32
PRWT07	0.042	0.050	1.396	1.416	1.656	1.676	2 11/64	15	0.146	0.166	0.093	0.125	0.156	0.176	1.287	1.307	1/32
PRWT08	0.054	0.064	1.583	1.603	1.844	1.864	2 21/64	15	0.204	0.234	0.093	0.125	0.280	0.300	1.474	1.494	1/32
PRWT09	0.054	0.064	1.792	1.817	2.062	2.082	2 19/32	17	0.204	0.234	0.125	0.156	0.280	0.300	1.693	1.713	1/32
PRWT10	0.054	0.064	1.992	2.017	2.250	2.270	2 25/32	17	0.204	0.234	0.125	0.156	0.280	0.300	1.880	1.900	1/32
PRWT11	0.054	0.064	2.182	2.207	2.500	2.520	3 1/16	17	0.204	0.234	0.125	0.156	0.280	0.300	2.067	2.087	1/32
PRWT12	0.054	0.064	2.400	2.425	2.688	2.708	3 9/32	17	0.204	0.234	0.125	0.156	0.280	0.300	2.255	2.275	3/64
PRWT13	0.054	0.064	2.588	2.613	2.875	2.895	3 15/32	19	0.204	0.234	0.125	0.156	0.280	0.300	2.443	2.463	3/64
PRWT14	0.054	0.064	2.791	2.816	3.094	3.114	3 11/16	19	0.204	0.234	0.187	0.250	0.280	0.300	2.631	2.651	3/64
PRWT15	0.054	0.064	2.973	3.003	3.375	3.395	4 1/32	19	0.297	0.327	0.187	0.250	0.280	0.300	2.813	2.833	3/64
PRWT16	0.054	0.064	3.177	3.207	3.594	3.614	4 1/4	19	0.297	0.327	0.187	0.250	0.340	0.360	3.017	3.037	3/64
PRWT17	0.054	0.064	3.395	3.425	3.812	3.832	4 15/32	19	0.297	0.327	0.187	0.250	0.340	0.360	3.220	3.240	3/64
PRWT18	0.054	0.064	3.582	3.612	4.000	4.020	4 21/32	19	0.297	0.327	0.187	0.250	0.340	0.360	3.380	3.400	3/64

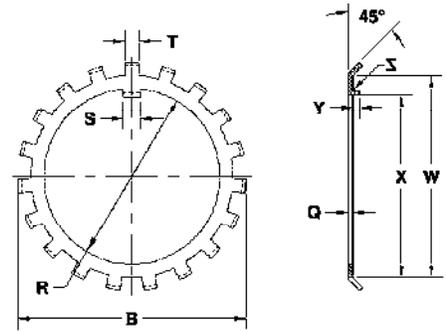
# TW-000 Series

## Lockwasher Dimensions

For use with tapered roller bearings

Opposite tab bend

### Heavy Duty



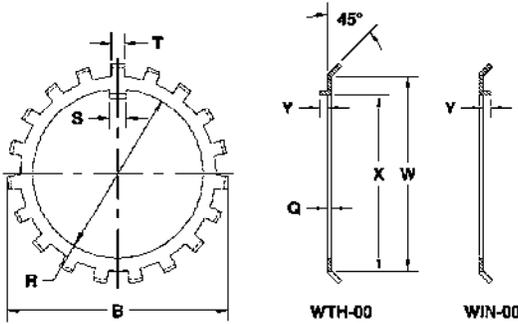
LOCKWASHER NO.	THICKNESS		BORE		FACE DIAMETER		DIAMETER OVER TANGS		TANGS WIDTH		PROJECTION		KEY BENT		CLEARANCE		RADIUS Z
	Q		R		W		B		T		Y		S		X		
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	+1/16 - 0	NO.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	
TW-100	0.032	0.038	0.406	0.421	0.625	0.640	57/64	9	0.110	0.120	0.062	0.094	0.110	0.120	0.334	0.359	1/64
TW-101	0.032	0.038	0.484	0.499	0.719	0.734	1 1/32	9	0.110	0.120	0.062	0.094	0.110	0.120	0.412	0.437	1/64
TW-102	0.048	0.054	0.601	0.616	0.813	0.828	1 5/32	11	0.110	0.120	0.062	0.094	0.110	0.120	0.513	0.538	1/64
TW-103	0.048	0.054	0.679	0.694	0.938	0.953	1 11/32	11	0.110	0.120	0.062	0.094	0.110	0.120	0.591	0.616	1/64
TW-104	0.048	0.054	0.801	0.816	1.125	1.140	1 9/16	11	0.146	0.166	0.062	0.094	0.156	0.176	0.713	0.738	1/64
TW-105	0.052	0.058	0.989	1.009	1.281	1.296	1 45/64	13	0.146	0.166	0.093	0.125	0.156	0.176	0.897	0.927	1/64
TW-106	0.052	0.058	1.193	1.213	1.500	1.515	1 61/64	13	0.146	0.166	0.093	0.125	0.156	0.176	1.081	1.116	1/32
TW-065	0.052	0.058	1.333	1.353	1.813	1.828	2 15/64	15	0.146	0.166	0.093	0.125	0.156	0.176	1.221	1.256	1/32
TW-107	0.052	0.058	1.396	1.416	1.813	1.828	2 1/4	15	0.146	0.166	0.093	0.125	0.156	0.176	1.284	1.319	1/32
TW-108	0.062	0.070	1.583	1.603	2.000	2.030	2 31/64	15	0.204	0.234	0.093	0.125	0.250	0.290	1.461	1.196	1/32
TW-109	0.062	0.070	1.792	1.817	2.281	2.311	2 23/32	17	0.204	0.234	0.125	0.156	0.250	0.290	1.670	1.710	1/32
TW-110	0.062	0.070	1.992	2.017	2.438	2.468	2 59/64	17	0.204	0.234	0.125	0.156	0.250	0.290	1.870	1.910	1/32
TW-111	0.062	0.070	2.182	2.207	2.656	2.686	3 3/32	17	0.204	0.234	0.125	0.156	0.250	0.290	2.060	2.100	1/32
TW-112	0.072	0.080	2.400	2.425	2.844	2.874	3 21/64	17	0.204	0.234	0.125	0.156	0.250	0.290	2.248	2.288	3/64
TW-113	0.072	0.080	2.588	2.613	3.063	3.093	3 9/16	19	0.204	0.234	0.125	0.156	0.250	0.290	2.436	2.476	3/64
TW-114	0.072	0.080	2.791	2.816	3.313	3.343	3 13/16	19	0.204	0.234	0.187	0.250	0.250	0.290	2.639	2.679	3/64
TW-115	0.085	0.095	2.973	3.003	3.563	3.593	4 3/64	19	0.298	0.328	0.187	0.250	0.250	0.290	2.808	2.853	3/64
TW-116	0.085	0.095	3.177	3.207	3.844	3.874	4 25/64	19	0.298	0.328	0.187	0.250	0.313	0.353	3.012	3.057	3/64
TW-117	0.085	0.095	3.395	3.425	4.031	4.061	4 5/8	19	0.298	0.328	0.187	0.250	0.313	0.353	3.230	3.275	3/64
TW-118	0.115	0.125	3.582	3.612	4.281	4.326	4 61/64	19	0.298	0.328	0.187	0.250	0.313	0.353	3.387	3.432	3/64
TW-119	0.115	0.125	3.800	3.830	4.563	4.608	5 15/64	19	0.298	0.328	0.187	0.250	0.313	0.353	3.605	3.650	3/64
TW-120	0.115	0.125	3.988	4.018	4.813	4.858	5 31/64	19	0.298	0.328	0.250	0.313	0.313	0.353	3.778	3.828	3/64
TW-121	0.115	0.125	4.192	4.222	5.000	5.045	5 45/64	19	0.360	0.390	0.250	0.313	0.313	0.353	3.982	4.032	3/64
TW-122	0.130	0.140	4.395	4.425	5.281	5.326	6	19	0.360	0.390	0.250	0.313	0.313	0.353	4.170	4.220	3/64
TW-124	0.155	0.165	4.801	4.831	5.688	5.733	6 17/32	19	0.360	0.390	0.250	0.313	0.313	0.353	4.551	4.601	3/64
TW-126	0.155	0.165	5.191	5.226	6.188	6.233	7 3/64	19	0.480	0.520	0.250	0.313	0.375	0.435	4.921	4.976	1/16
TW-128	0.155	0.165	5.582	5.617	6.531	6.576	7 7/16	19	0.480	0.520	0.250	0.313	0.500	0.590	5.312	5.367	1/16
TW-130	0.193	0.205	5.983	6.018	7.063	7.123	8 1/16	19	0.480	0.520	0.312	0.375	0.500	0.590	5.675	5.730	1/16
TW-132	0.193	0.205	6.389	6.424	7.438	7.498	8 29/64	19	0.480	0.520	0.312	0.375	0.500	0.590	6.081	6.136	1/16
TW-134	0.193	0.205	6.764	6.799	8.031	8.091	9 5/64	19	0.480	0.520	0.312	0.375	0.625	0.715	6.456	6.511	1/16
TW-136	0.193	0.205	7.171	7.206	8.375	8.435	9 7/16	19	0.605	0.645	0.312	0.375	0.625	0.715	6.863	6.918	1/16
TW-138	0.193	0.205	7.577	7.612	8.781	8.841	9 55/64	19	0.605	0.645	0.312	0.375	0.625	0.715	7.269	7.324	1/16
TW-140	0.193	0.205	7.982	8.017	9.156	9.216	10 13/32	19	0.605	0.645	0.312	0.375	0.750	0.840	7.674	7.729	1/16

# WTH-00 and WIN-00 Series

## Lockwasher Dimensions

WTH for use with NTH Locknut Series

WIN for use with NIN Locknut Series



### WTH-00 LOCKWASHER DIMENSIONS

LOCKWASHER NO.	THICKNESS Q		BORE R		FACE DIAMETER W		DIAMETER OVER TANGS NO. B	TANGS WIDTH T	PROJECTION Y		KEY BENT S		CLEARANCE X		RADIUS Z		
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.			MIN.	MAX.	MIN.	MAX.	MIN.	MAX.			
WTH-00	0.036	0.044	0.406	0.421	0.531	0.551	53/64	9	0.084	0.104	0.062	0.094	0.110	0.120	0.333	0.353	1/64
WTH-01	0.036	0.044	0.484	0.499	0.625	0.645	59/64	9	0.084	0.104	0.062	0.094	0.110	0.120	0.411	0.431	1/64
WTH-02	0.036	0.044	0.601	0.616	0.750	0.770	1 3/32	11	0.084	0.104	0.062	0.094	0.110	0.120	0.513	0.533	1/64
WTH-03	0.036	0.044	0.679	0.694	0.875	0.895	1 13/64	11	0.084	0.104	0.062	0.094	0.110	0.120	0.591	0.611	1/64
WTH-04	0.036	0.044	0.801	0.816	1.000	1.020	1 3/8	11	0.146	0.166	0.062	0.094	0.156	0.176	0.724	0.744	1/64
WTH-05	0.046	0.054	0.989	1.009	1.188	1.208	1 9/16	13	0.146	0.166	0.093	0.125	0.156	0.176	0.880	0.900	1/64
WTH-06	0.046	0.054	1.193	1.213	1.438	1.458	1 55/64	13	0.146	0.166	0.093	0.125	0.156	0.176	1.084	1.104	1/32
WTH-07	0.046	0.054	1.396	1.416	1.656	1.676	2 5/64	15	0.146	0.166	0.093	0.125	0.156	0.176	1.287	1.307	1/32
WTH-08	0.058	0.068	1.583	1.603	1.844	1.864	2 1/4	15	0.204	0.234	0.093	0.125	0.280	0.300	1.474	1.494	1/32
WTH-09	0.058	0.068	1.792	1.817	2.062	2.082	2 1/2	17	0.204	0.234	0.125	0.156	0.280	0.300	1.693	1.713	1/32
WTH-10	0.058	0.068	1.992	2.017	2.250	2.270	2 11/16	17	0.204	0.234	0.125	0.156	0.280	0.300	1.880	1.900	1/32
WTH-11	0.058	0.068	2.182	2.207	2.500	2.520	2 61/64	17	0.204	0.234	0.125	0.156	0.280	0.300	2.067	2.087	1/32
WTH-12	0.058	0.068	2.400	2.425	2.688	2.708	3 3/16	17	0.204	0.234	0.125	0.156	0.280	0.300	2.255	2.275	3/64
WTH-13	0.058	0.068	2.588	2.613	2.875	2.895	3 3/8	19	0.204	0.234	0.125	0.156	0.280	0.300	2.443	2.463	3/64
WTH-14	0.058	0.068	2.791	2.816	3.094	3.114	3 19/32	19	0.204	0.234	0.187	0.250	0.280	0.300	2.631	2.651	3/64
WTH-15	0.058	0.068	2.973	3.003	3.375	3.395	3 59/64	19	0.297	0.327	0.187	0.250	0.280	0.300	2.813	2.833	3/64
WTH-16	0.058	0.068	3.177	3.207	3.594	3.614	4 9/64	19	0.297	0.327	0.187	0.250	0.340	0.360	3.017	3.037	3/64
WTH-17	0.058	0.068	3.395	3.425	3.812	3.832	4 23/64	19	0.297	0.327	0.187	0.250	0.340	0.360	3.220	3.240	3/64
WTH-18	0.058	0.068	3.582	3.612	4.000	4.020	4 35/64	19	0.297	0.327	0.187	0.250	0.340	0.360	3.380	3.400	3/64

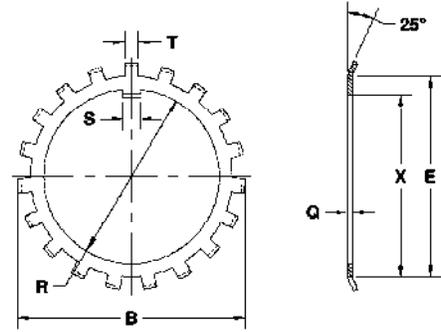
### WIN-00 LOCKWASHER DIMENSIONS

LOCKWASHER NO.	THICKNESS Q		BORE R		FACE DIAMETER W		DIAMETER OVER TANGS NO. B	TANGS WIDTH T	PROJECTION Y		KEY BENT S		CLEARANCE X		RADIUS Z		
	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.			MIN.	MAX.	MIN.	MAX.	MIN.	MAX.			
WIN-01	0.046	0.054	0.797	0.828	1.188	1.203	1 9/16	9	0.178	0.198	0.125	0.156	0.168	0.188	0.687	0.712	1/64
WIN-02	0.046	0.054	0.922	0.953	1.313	1.328	1 11/16	9	0.178	0.198	0.125	0.156	0.168	0.188	0.812	0.837	1/64
WIN-03	0.046	0.054	1.047	1.078	1.438	1.453	1 13/16	11	0.178	0.198	0.125	0.156	0.168	0.188	0.937	0.962	1/64
WIN-04	0.046	0.054	1.172	1.203	1.563	1.578	2	11	0.178	0.198	0.125	0.156	0.168	0.188	1.062	1.087	1/32
WIN-05	0.046	0.054	1.297	1.328	1.688	1.703	2 1/8	11	0.178	0.198	0.125	0.156	0.168	0.188	1.187	1.212	1/32
WIN-06	0.046	0.054	1.422	1.453	1.938	1.953	2 3/8	13	0.178	0.198	0.125	0.156	0.168	0.188	1.312	1.337	1/32
WIN-07	0.046	0.054	1.547	1.578	1.938	1.953	2 3/8	13	0.178	0.198	0.125	0.156	0.168	0.188	1.437	1.462	1/32
WIN-08	0.058	0.068	1.672	1.703	2.188	2.203	2 5/8	13	0.240	0.260	0.125	0.156	0.240	0.260	1.562	1.587	1/32
WIN-09	0.058	0.068	1.797	1.828	2.313	2.328	2 3/4	15	0.240	0.260	0.125	0.156	0.240	0.260	1.687	1.712	1/32
WIN-10	0.058	0.068	1.922	1.953	2.438	2.453	2 7/8	15	0.240	0.260	0.125	0.156	0.240	0.260	1.812	1.837	1/32
WIN-11	0.058	0.068	2.047	2.078	2.688	2.703	3 1/8	15	0.240	0.260	0.125	0.156	0.240	0.260	1.937	1.962	1/32
WIN-12	0.058	0.068	2.297	2.328	2.875	2.890	3 7/16	17	0.240	0.260	0.187	0.218	0.240	0.260	2.187	2.212	3/64
WIN-13	0.058	0.068	2.547	2.578	3.125	3.140	3 11/16	17	0.240	0.260	0.187	0.218	0.240	0.260	2.437	2.462	3/64
WIN-14	0.058	0.068	2.797	2.828	3.375	3.390	3 15/16	17	0.240	0.260	0.187	0.218	0.240	0.260	2.687	2.712	3/64

# MB-00 Series

## Lockwasher Dimensions

### Metric

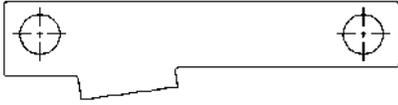


### MB-00 LOCKWASHER DIMENSIONS

LOCKWASHER NO.	BORE		FACE DIAMETER		DIAMETER OVER TANGS		KEY WIDTH S	INSIDE DIMENSION X	MATERIAL THICKNESS Q	TANG WIDTH		NO. OF TANGS
	R	E	MIN.	MAX.	B	MAX.				T	MAX.	
	NOM.	MIN.	MIN.	MAX.	MAX.	MAX.	MAX.	NOM.	NOM.	MAX.	MAX.	
MB-0	0.394	0.532	0.532	0.827	0.118	0.335	0.039	0.118	0.039	0.118	0.118	9
MB-1	0.472	0.669	0.669	0.984	0.118	0.413	0.039	0.118	0.039	0.118	0.118	11
MB-2	0.591	0.827	0.827	1.102	0.157	0.532	0.039	0.157	0.039	0.157	0.157	11
MB-3	0.669	0.945	0.945	1.260	0.157	0.610	0.039	0.157	0.039	0.157	0.157	11
MB-4	0.787	1.024	1.024	1.417	0.157	0.728	0.039	0.157	0.039	0.157	0.157	11
MB-4.4	0.866	1.102	1.102	1.496	0.157	0.807	0.039	0.157	0.039	0.157	0.157	11
MB-5	0.984	1.260	1.260	1.654	0.197	0.906	0.049	0.197	0.049	0.197	0.197	13
MB-5.6	1.102	1.417	1.417	1.811	0.197	1.024	0.049	0.197	0.049	0.197	0.197	13
MB-6	1.181	1.496	1.496	1.929	0.197	1.083	0.049	0.197	0.049	0.197	0.197	13
MB-6.4	1.260	1.575	1.575	2.047	0.197	1.161	0.049	0.197	0.049	0.197	0.197	15
MB-7	1.378	1.732	1.732	2.244	0.236	1.280	0.049	0.197	0.049	0.197	0.197	13
MB-8	1.575	1.968	1.968	2.241	0.236	1.476	0.049	0.236	0.049	0.236	0.236	13
MB-9	1.772	2.205	2.205	2.717	0.236	1.673	0.049	0.236	0.049	0.236	0.236	13
MB-10	1.968	2.402	2.402	2.913	0.236	1.870	0.049	0.236	0.049	0.236	0.236	13
MB-11	2.165	2.638	2.638	3.189	0.315	2.067	0.059	0.276	0.059	0.276	0.276	17
MB-12	2.362	2.874	2.874	3.386	0.315	2.264	0.059	0.276	0.059	0.276	0.276	17
MB-13	2.559	3.110	3.110	3.622	0.315	2.461	0.059	0.276	0.059	0.276	0.276	17
MB-14	2.756	3.346	3.346	3.858	0.315	2.618	0.059	0.315	0.059	0.315	0.315	17
MB-15	2.953	3.543	3.543	4.094	0.315	2.815	0.059	0.315	0.059	0.315	0.315	17
MB-16	3.150	3.740	3.740	4.409	0.394	3.012	0.071	0.315	0.071	0.315	0.315	17
MB-17	3.346	4.016	4.016	4.685	0.394	3.209	0.071	0.315	0.071	0.315	0.315	17
MB-18	3.543	4.252	4.252	4.961	0.394	3.406	0.071	0.394	0.071	0.394	0.394	17
MB-19	3.740	4.449	4.449	5.236	0.394	3.602	0.071	0.394	0.071	0.394	0.394	17
MB-20	3.937	4.724	4.724	5.591	0.472	3.799	0.071	0.394	0.071	0.394	0.394	17
MB-21	4.134	4.961	4.961	5.709	0.472	3.957	0.071	0.472	0.071	0.472	0.472	17
MB-22	4.331	5.236	5.236	6.063	0.472	4.154	0.071	0.472	0.071	0.472	0.472	17
MB-23	4.528	5.394	5.394	6.260	0.472	4.350	0.079	0.472	0.079	0.472	0.472	17
MB-24	4.724	5.433	5.433	6.457	0.551	4.528	0.079	0.472	0.079	0.472	0.472	17
MB-25	4.921	5.827	5.827	6.693	0.551	4.724	0.079	0.472	0.079	0.472	0.472	17
MB-26	5.118	5.866	5.866	6.890	0.551	4.921	0.079	0.472	0.079	0.472	0.472	17
MB-27	5.315	6.299	6.299	7.283	0.551	5.118	0.079	0.551	0.079	0.551	0.551	17
MB-28	5.512	6.299	6.299	7.559	0.630	5.315	0.079	0.551	0.079	0.551	0.551	17
MB-29	5.709	6.732	6.732	7.953	0.630	5.512	0.079	0.551	0.079	0.551	0.551	17
MB-30	5.906	6.732	6.732	8.071	0.630	5.709	0.079	0.551	0.079	0.551	0.551	17
MB-31	6.102	7.165	7.165	8.346	0.630	5.807	0.098	0.630	0.098	0.630	0.630	19
MB-32	6.299	7.165	7.165	8.543	0.709	6.063	0.098	0.630	0.098	0.630	0.630	19
MB-33	6.496	7.598	7.598	8.740	0.709	6.201	0.098	0.630	0.098	0.630	0.630	19
MB-34	6.693	7.598	7.598	9.134	0.709	6.457	0.098	0.630	0.098	0.630	0.630	19
MB-36	7.087	7.992	7.992	9.528	0.787	6.850	0.098	0.709	0.098	0.709	0.709	19
MB-38	7.480	8.425	8.425	9.921	0.787	7.244	0.098	0.709	0.098	0.709	0.709	19
MB-40	7.874	8.898	8.898	10.315	0.787	7.638	0.098	0.709	0.098	0.709	0.709	19
MB-44	8.661	9.843	9.843	11.496	0.945	8.368	0.118	0.787	0.118	0.787	0.787	19
MB-48	9.449	10.630	10.630	12.283	0.945	9.173	0.118	0.787	0.118	0.787	0.787	19
MB-52	10.236	11.811	11.811	13.465	1.102	9.961	0.118	0.945	0.118	0.945	0.945	19
MB-56	11.024	12.598	12.598	14.252	1.102	10.748	0.118	0.945	0.118	0.945	0.945	19

## Lockplate Dimensions

For use with SNP-00 and SNP-3100 series adapters



INCLUDES 2 CAP SCREWS  
AND 1 LOCKWIRE



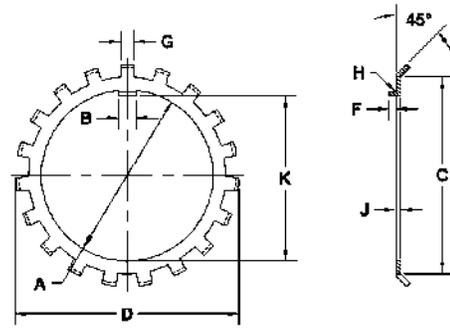
### LOCKPLATE DIMENSIONS

LOCKPLATE NO.	CAPSCREW SIZE	LOCKNUT NO.
P-48	5/16 -- 18 x 5/8	N-048
P-52	5/16 -- 18 x 5/8	N-052
P-56	5/16 -- 18 x 5/8	N-056
P-60	3/8 -- 16 x 3/4	N-060
P-64	3/8 -- 16 x 3/4	N-064
P-68	3/8 -- 16 x 3/4	N-068
P-72	3/8 -- 16 x 3/4	N-072
P-76	1/2 -- 13 x 7/8	N-076
P-80	1/2 -- 13 x 7/8	N-080
P-84	1/2 -- 13 x 7/8	N-084
P-88	5/8 -- 11 x 1	N-088
P-92	5/8 -- 11 x 1	N-092
P-96	5/8 -- 11 x 1 1/4	N-096
P-500	5/8 -- 11 x 1 1/4	N-500
P-530	5/8 -- 11 x 1 1/4	N-530
P-560	5/8 -- 11 x 1 1/4	N-560
P-600	5/8 -- 11 x 1 1/4	N-600
P-630	5/8 -- 11 x 1 1/4	N-630
P-670	5/8 -- 11 x 1 1/4	N-670
P-710	5/8 -- 11 x 1 1/4	N-710
P-750	5/8 -- 11 x 1 1/4	N-750
P-800	5/8 -- 11 x 1 1/4	N-800
P-850	3/4 -- 10 x 1 1/2	N-850
P-900	3/4 -- 10 x 1 1/2	N-900
P-950	3/4 -- 10 x 1 1/2	N-950

# MS-1722 Series

## Lockwasher Dimensions

### Military Standards

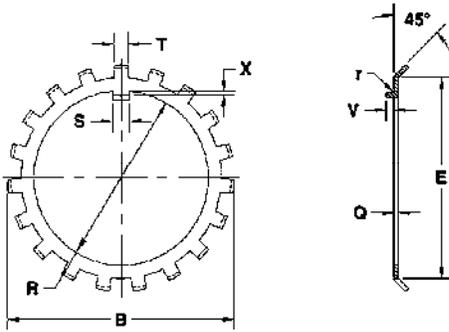


### MILITARY STANDARD LOCKWASHER DIMENSIONS

LOCKWASHER NO.	BORE		KEY WIDTH		FACE DIA.	DIA. OVER TANGS		KEY PROJECTION		TANG WIDTH		RADIUS		THICKNESS		INSIDE DIMENSION	NO. OF TANGS	APP. WT. (LB.)
	A		B		C	D	F		G		H	J		K	L			
	MIN.	MAX.	MIN.	MAX.	+020/-000	+000/-030	MIN.	MAX.	MIN.	MAX.		MIN.	MAX.	+020/-000				
MS172201	0.406	0.421	0.110	0.120	0.531	0.828	0.062	0.094	0.084	0.104	0.016	0.036	0.044	0.333	9	0.003		
MS172202	0.484	0.499	0.110	0.120	0.625	0.922	0.062	0.094	0.084	0.104	0.016	0.036	0.044	0.411	9	0.004		
MS172203	0.601	0.616	0.110	0.120	0.750	1.094	0.062	0.094	0.084	0.104	0.016	0.036	0.044	0.513	11	0.005		
MS172204	0.679	0.694	0.110	0.120	0.875	1.203	0.062	0.094	0.084	0.104	0.016	0.036	0.044	0.591	11	0.006		
MS172205	0.801	0.816	0.156	0.176	0.969	1.344	0.062	0.094	0.146	0.166	0.016	0.036	0.044	0.724	11	0.008		
MS172206	0.989	1.009	0.156	0.176	1.188	1.562	0.094	0.125	0.146	0.166	0.016	0.046	0.054	0.880	13	0.013		
MS172207	1.193	1.213	0.156	0.176	1.438	1.859	0.094	0.125	0.146	0.166	0.031	0.046	0.054	1.084	13	0.016		
MS172208	1.396	1.416	0.156	0.176	1.656	2.078	0.094	0.125	0.146	0.166	0.031	0.046	0.054	1.287	15	0.019		
MS172209	1.583	1.603	0.280	0.300	1.844	2.250	0.094	0.125	0.204	0.234	0.031	0.058	0.068	1.474	15	0.030		
MS172210	1.792	1.817	0.280	0.300	2.062	2.500	0.125	0.156	0.204	0.234	0.031	0.058	0.068	1.693	17	0.037		
MS172211	1.992	2.017	0.280	0.300	2.250	2.688	0.125	0.156	0.204	0.234	0.031	0.058	0.068	1.880	17	0.037		
MS172212	2.182	2.207	0.280	0.300	2.500	2.953	0.125	0.156	0.204	0.234	0.031	0.058	0.068	2.067	17	0.042		
MS172213	2.400	2.425	0.280	0.300	2.688	3.188	0.125	0.156	0.204	0.234	0.047	0.058	0.068	2.255	17	0.044		
MS172214	2.588	2.613	0.280	0.300	2.875	3.375	0.125	0.156	0.204	0.234	0.047	0.058	0.068	2.443	19	0.048		
MS172215	2.791	2.816	0.280	0.300	3.094	3.594	0.188	0.250	0.204	0.234	0.047	0.058	0.068	2.631	19	0.052		
MS172216	2.973	3.003	0.280	0.300	3.375	3.922	0.188	0.250	0.297	0.327	0.047	0.058	0.068	2.813	19	0.077		
MS172217	3.177	3.207	0.340	0.360	3.594	4.141	0.188	0.250	0.297	0.327	0.047	0.058	0.068	3.017	19	0.081		
MS172218	3.395	3.425	0.340	0.360	3.812	4.359	0.188	0.250	0.297	0.327	0.047	0.058	0.068	3.220	19	0.084		
MS172219	3.582	3.612	0.340	0.360	4.000	4.547	0.188	0.250	0.297	0.327	0.047	0.058	0.068	3.380	19	0.086		
MS172220	3.800	3.830	0.340	0.360	4.219	4.812	0.188	0.250	0.297	0.327	0.047	0.058	0.068	3.579	19	0.092		
MS172221	3.988	4.018	0.340	0.360	4.406	5.000	0.250	0.312	0.297	0.327	0.047	0.058	0.068	3.786	19	0.094		
MS172222	4.192	4.222	0.340	0.360	4.594	5.188	0.250	0.312	0.360	0.390	0.047	0.058	0.068	4.071	19	0.104		
MS172223	4.395	4.425	0.340	0.360	4.812	5.406	0.250	0.312	0.360	0.390	0.047	0.058	0.068	4.193	19	0.108		
MS172224	0.801	0.816	0.156	0.176	1.000	1.375	0.062	0.094	0.146	0.166	0.016	0.036	0.044	0.724	11	0.009		

## Lockwasher Dimensions

Military Standards



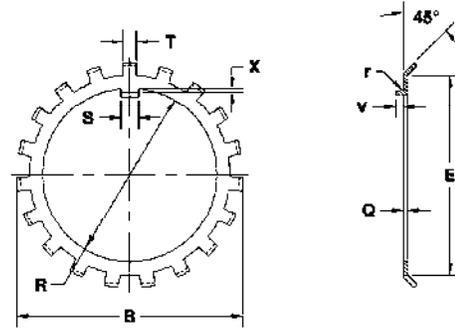
### MILITARY STANDARD LOCKWASHER DIMENSIONS

LOCKWASHER NO.	THICKNESS		BORE		FACE DIA. E	DIA. OVER TANGS B		KEY WIDTH S		KEY DEPTH X		KEY PROJECTION V		NO. OF TANGS	TANG WIDTH T		
	Q	NOM.	TOL +/-	MAX.		R	MIN.	MAX.	MIN.	MAX.	MIN.	NOM.	TOL +/-		r	MAX.	MIN.
					+									-			
MS 19069-A00	0.042	0.004	0.004	0.421	0.406	0.531	0.828	0.120	0.110	0.030	0.020	0.062	0.031	0.016	9	0.104	0.084
MS 19069-A01	0.042	0.004	0.004	0.499	0.484	0.625	0.922	0.120	0.110	0.030	0.020	0.062	0.031	0.016	9	0.104	0.084
MS 19069-A02	0.042	0.004	0.004	0.616	0.601	0.750	1.094	0.120	0.110	0.030	0.020	0.062	0.031	0.016	11	0.104	0.084
MS 19069-A03	0.042	0.004	0.004	0.694	0.679	0.875	1.203	0.120	0.110	0.030	0.020	0.062	0.031	0.016	11	0.104	0.084
MS 19069-A04	0.042	0.004	0.004	0.816	0.801	0.969	1.344	0.176	0.156	0.030	0.020	0.062	0.031	0.016	11	0.166	0.146
MS 19069-A23	0.042	0.004	0.004	0.816	0.801	1.000	1.375	0.120	0.110	0.030	0.020	0.062	0.031	0.016	11	0.166	0.146
MS 19069-A05	0.050	0.004	0.004	1.009	0.989	1.188	1.562	0.176	0.156	0.030	0.020	0.094	0.031	0.016	13	0.166	0.146
MS 19069-A06	0.050	0.004	0.004	1.213	1.193	1.438	1.859	0.176	0.156	0.050	0.035	0.094	0.031	0.031	13	0.166	0.146
MS 19069-A07	0.050	0.004	0.004	1.416	1.396	1.656	2.078	0.176	0.156	0.050	0.035	0.094	0.031	0.031	15	0.166	0.146
MS 19069-A08	0.058	0.005	0.005	1.603	1.583	1.844	2.250	0.300	0.280	0.050	0.035	0.094	0.031	0.031	15	0.234	0.204
MS 19069-A09	0.058	0.005	0.005	1.817	1.792	2.062	2.500	0.300	0.280	0.050	0.035	0.125	0.031	0.031	17	0.234	0.204
MS 19069-A10	0.058	0.005	0.005	2.017	1.992	2.250	2.688	0.300	0.280	0.050	0.035	0.125	0.031	0.031	17	0.234	0.204
MS 19069-A11	0.063	0.005	0.005	2.207	2.182	2.500	2.953	0.300	0.280	0.050	0.035	0.125	0.031	0.031	17	0.234	0.204
MS 19069-A12	0.063	0.005	0.005	2.425	2.400	2.688	3.188	0.300	0.280	0.070	0.055	0.125	0.031	0.047	17	0.234	0.204
MS 19069-A13	0.063	0.005	0.005	2.613	2.588	2.875	3.375	0.300	0.280	0.070	0.055	0.125	0.031	0.047	19	0.234	0.204
MS 19069-A14	0.063	0.005	0.005	2.816	2.791	3.094	3.594	0.300	0.280	0.070	0.055	0.188	0.062	0.047	19	0.234	0.204
MS 19069-A15	0.063	0.005	0.005	3.003	2.973	3.375	3.922	0.300	0.280	0.070	0.055	0.188	0.062	0.047	19	0.327	0.297
MS 19069-A16	0.063	0.005	0.005	3.207	3.177	3.594	4.141	0.360	0.340	0.070	0.055	0.188	0.062	0.047	19	0.327	0.297
MS 19069-A17	0.063	0.005	0.005	3.425	3.395	3.812	4.359	0.360	0.340	0.070	0.055	0.188	0.062	0.047	19	0.327	0.297
MS 19069-A18	0.063	0.005	0.005	3.612	3.582	4.000	4.547	0.360	0.340	0.070	0.055	0.188	0.062	0.047	19	0.327	0.297
MS 19069-A19	0.063	0.005	0.005	3.830	3.800	4.219	4.812	0.360	0.340	0.070	0.055	0.188	0.062	0.047	19	0.327	0.297
MS 19069-A20	0.063	0.005	0.005	4.018	3.988	4.405	5.000	0.360	0.340	0.085	0.065	0.250	0.062	0.047	19	0.327	0.297
MS 19069-A21	0.063	0.005	0.005	4.222	4.192	4.594	5.185	0.360	0.340	0.085	0.065	0.250	0.062	0.047	19	0.390	0.360
MS 19069-A22	0.063	0.005	0.005	4.425	4.395	4.812	5.406	0.360	0.340	0.085	0.065	0.250	0.062	0.047	19	0.390	0.360

# MS-19070 Series

## Lockwasher Dimensions

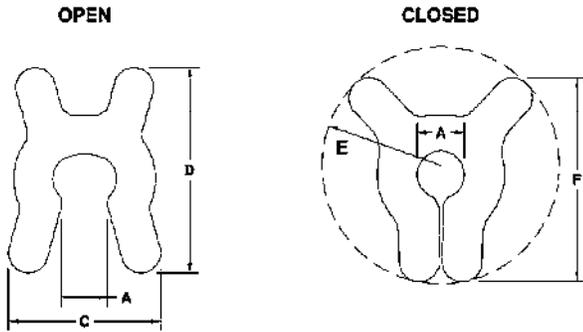
### Military Standards



### MILITARY STANDARD LOCKWASHER DIMENSIONS

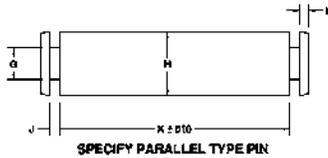
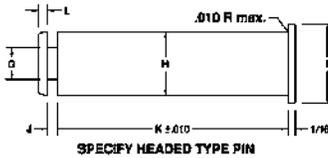
LOCKWASHER NO.	THICKNESS		BORE		FACE DIA.		DIA. OVER TANGS		KEY WIDTH		KEY DEPTH		KEY PROJECTION		SLOT RADIUS r	NO. OF TANGS	TANG WIDTH	
	Q		R		E		B		S		X		V				T	
	NOM.	TOL +/-	MAX.	MIN.	MIN.	TOL+	MAX.	MAX.	MIN.	MAX.	MIN.	MIN.	TOL+	NOM.			TOL +/-	
MS19070-00	0.042	0.004	0.421	0.406	0.625	0.015	0.875	0.120	0.110	0.030	0.020	0.062	0.031	0.016	9	0.115	0.005	
MS19070-01	0.042	0.004	0.499	0.484	0.719	0.015	1.016	0.120	0.110	0.030	0.020	0.062	0.031	0.016	9	0.115	0.005	
MS19070-02	0.042	0.004	0.616	0.601	0.812	0.015	1.156	0.120	0.110	0.030	0.020	0.062	0.031	0.016	11	0.115	0.005	
MS19070-03	0.042	0.004	0.694	0.679	0.938	0.015	1.328	0.120	0.110	0.030	0.020	0.062	0.031	0.016	11	0.115	0.005	
MS19070-04	0.042	0.004	0.816	0.801	1.125	0.015	1.531	0.176	0.156	0.030	0.020	0.062	0.031	0.016	11	0.156	0.010	
MS19070-05	0.050	0.004	1.009	0.989	1.281	0.015	1.719	0.176	0.156	0.030	0.020	0.094	0.031	0.016	13	0.156	0.010	
MS19070-06	0.050	0.004	1.213	1.193	1.500	0.015	1.922	0.176	0.156	0.050	0.035	0.094	0.031	0.031	13	0.156	0.010	
MS19070-065	0.050	0.004	1.353	1.333	1.812	0.015	2.250	0.176	0.156	0.050	0.035	0.094	0.031	0.031	15	0.156	0.010	
MS19070-07	0.050	0.004	1.416	1.396	1.812	0.015	2.250	0.176	0.156	0.050	0.035	0.094	0.031	0.031	15	0.156	0.010	
MS19070-08	0.058	0.005	1.603	1.583	2.000	0.030	2.469	0.290	0.250	0.050	0.035	0.094	0.031	0.031	15	0.219	0.015	
MS19070-09	0.058	0.005	1.817	1.792	2.281	0.030	2.734	0.290	0.250	0.050	0.035	0.125	0.031	0.031	17	0.219	0.015	
MS19070-10	0.058	0.005	2.017	1.992	2.438	0.030	2.922	0.290	0.250	0.050	0.035	0.125	0.031	0.031	17	0.219	0.015	
MS19070-11	0.063	0.005	2.207	2.182	2.656	0.030	3.109	0.290	0.250	0.050	0.035	0.125	0.031	0.031	17	0.219	0.015	
MS19070-12	0.063	0.005	2.425	2.400	2.844	0.030	3.344	0.290	0.250	0.070	0.055	0.125	0.031	0.047	17	0.219	0.015	
MS19070-13	0.063	0.005	2.613	2.588	3.062	0.030	3.578	0.290	0.250	0.070	0.055	0.125	0.031	0.047	19	0.219	0.015	
MS19070-14	0.063	0.005	2.816	2.791	3.312	0.030	3.828	0.290	0.250	0.070	0.055	0.188	0.062	0.047	19	0.219	0.015	
MS19070-15	0.072	0.005	3.003	2.973	3.562	0.030	4.109	0.290	0.250	0.070	0.055	0.188	0.062	0.047	19	0.313	0.015	
MS19070-16	0.072	0.005	3.207	3.177	3.844	0.030	4.375	0.353	0.313	0.070	0.055	0.188	0.062	0.047	19	0.313	0.015	
MS19070-17	0.072	0.005	3.425	3.395	4.031	0.030	4.625	0.353	0.313	0.070	0.055	0.188	0.062	0.047	19	0.313	0.015	
MS19070-18	0.094	0.006	3.612	3.582	4.281	0.045	4.938	0.353	0.313	0.070	0.055	0.188	0.062	0.047	19	0.313	0.015	
MS19070-19	0.094	0.006	3.830	3.800	4.562	0.045	5.219	0.353	0.313	0.070	0.055	0.188	0.062	0.047	19	0.313	0.015	
MS19070-20	0.094	0.006	4.018	3.988	4.812	0.045	5.500	0.353	0.313	0.085	0.065	0.250	0.062	0.047	19	0.313	0.015	
MS19070-21	0.094	0.006	4.222	4.192	5.000	0.045	5.703	0.353	0.313	0.085	0.065	0.250	0.062	0.047	19	0.375	0.015	
MS19070-22	0.125	0.007	4.425	4.395	5.281	0.045	6.062	0.353	0.313	0.085	0.065	0.250	0.062	0.047	19	0.375	0.015	
MS19070-24	0.125	0.007	4.831	4.801	5.688	0.045	6.469	0.353	0.313	0.085	0.065	0.250	0.062	0.047	19	0.375	0.015	
MS19070-26	0.125	0.007	5.226	5.191	6.188	0.045	7.031	0.435	0.375	0.105	0.085	0.250	0.062	0.062	19	0.500	0.020	
MS19070-28	0.125	0.007	5.617	5.582	6.531	0.045	7.438	0.590	0.500	0.105	0.085	0.250	0.062	0.062	19	0.500	0.020	
MS19070-30	0.156	0.008	6.018	5.983	7.062	0.060	8.062	0.590	0.500	0.105	0.085	0.312	0.062	0.062	19	0.500	0.020	
MS19070-32	0.156	0.008	6.424	6.389	7.438	0.060	8.438	0.590	0.500	0.105	0.085	0.312	0.062	0.062	19	0.500	0.020	
MS19070-34	0.156	0.008	6.799	6.764	8.031	0.060	9.062	0.715	0.625	0.105	0.085	0.312	0.062	0.062	19	0.500	0.020	
MS19070-36	0.156	0.008	7.206	7.171	8.375	0.060	9.438	0.715	0.625	0.105	0.085	0.312	0.062	0.062	19	0.625	0.020	
MS19070-38	0.156	0.008	7.612	7.577	8.781	0.060	9.875	0.715	0.625	0.105	0.085	0.312	0.062	0.062	19	0.625	0.020	
MS19070-40	0.156	0.008	8.017	7.982	9.156	0.060	10.312	0.840	0.750	0.105	0.085	0.312	0.062	0.062	19	0.625	0.020	

## X-Washers and Pins Dimensions



### X WASHER DIMENSIONS

X WASHER NO.	ID		THICKNESS		C	D	E	F
	A	B						
9000 5-4	0.086	0.025	0.320	0.406	0.210	0.406		
9000 6	0.098	0.055	0.364	0.490	0.297	0.475		
9000 8	0.130	0.055	0.430	0.575	0.359	0.556		
9000 10	0.164	0.065	0.523	0.687	0.422	0.665		
9000 12	0.190	0.065	0.593	0.745	0.437	0.730		
9000 14	0.222	0.075	0.622	0.776	0.469	0.775		
9000 16	0.256	0.075	0.698	0.905	0.500	0.890		
9000 18	0.285	0.075	0.822	0.986	0.563	0.984		
9000 20	0.317	0.089	0.872	1.100	0.609	1.078		
9000 22	0.347	0.089	0.948	1.190	0.688	1.188		
9000 24	0.381	0.089	1.060	1.297	0.797	1.281		



### PIN DIMENSIONS

SIZE	+0.00/- .005		+0.00/- .004		+0.005/- .000	
	G	H	I	J	L	
H-5	0.086	0.156	0.250	0.031	0.062	
H-6	0.093	0.187	0.312	0.062	0.062	
H-7	0.093	0.218	0.343	0.062	0.062	
H-8	0.125	0.250	0.375	0.062	0.062	
H-9	0.125	0.281	0.406	0.062	0.062	
H-10	0.156	0.312	0.437	0.075	0.062	
H-11	0.156	0.343	0.468	0.075	0.062	
H-12	0.187	0.375	0.500	0.075	0.062	
H-13	0.187	0.406	0.531	0.075	0.062	
H-14	0.218	0.437	0.562	0.083	0.062	
H-15	0.218	0.468	0.593	0.083	0.062	
H-16	0.250	0.500	0.625	0.083	0.062	
H-17	0.250	0.531	0.656	0.083	0.062	
H-18	0.279	0.562	0.687	0.083	0.093	
H-19	0.279	0.593	0.718	0.083	0.093	
H-20	0.311	0.625	0.750	0.097	0.093	
H-21	0.311	0.656	0.781	0.097	0.093	
H-22	0.341	0.687	0.812	0.097	0.093	
H-23	0.341	0.718	0.843	0.097	0.093	
H-24	0.375	0.750	0.875	0.097	0.093	
H-25	0.375	0.781	0.906	0.097	0.093	

#### NOTES:

##### X-WASHERS

Commercial tolerances

All X-Washers are zinc plated or plated to your specifications

##### PINS

When ordering, specify pin part number and effective length "K".

Pins plated to your specifications.

Special pin designs quoted at your request.

# X-Washer Retainer



Standard Locknut's **X-Washer** provides manufacturing industries with a simple, efficient, economical fastener/retainer assembly. The **X-Washer** functions as both a fastener and a washer; by virtue of its positive clinching operation, the **X-Washer** is a versatile and strong fastener -in many cases providing sufficient axial strength to replace a nut and washer. The shear-resistant **X-Washer** is stamped from cold rolled steel\* (Spec. SAE 1010 or equiv.) and then cadmium or zinc plated.\*

Standard Locknut **X-Washers** hold production costs to a minimum by eliminating the two- and three-item assembly required by traditional fasteners. Easily applied and quickly clamped to a positive 360° closure, the **X-Washer** saves hours of assembly time; simple "one-two" installation, combined with Standard Locknut's positive clinching action eliminate costly production failures. The **X-Washer** is applied to the grooved pin by hand and quickly clamped with pliers or automatic equipment.

Removal lugs facilitate any necessary service or repairs. **X-Washer** sizes are readily available for pin diameters from 5/64 to 25/32 inch.



## An industry leading full-service offering

Standard Locknut in-house engineering and precision machining provides the product quality our customers demand... on time and in spec!

We work collaboratively with our customers to engineer and optimize the design, manufacturing, and quality of every finished component we deliver. Our quick turnaround and accelerated delivery programs are designed to get you the components you need...when you need them.

At Standard Locknut, we strive to be easy to work with to earn our customers' trust and develop longstanding partnerships.

Our experienced engineering and precision manufacturing teams stand ready to provide you with a wide variety of durable, reliable mounted bearings, housings, seals and accessories.

# Tools

<b>Spanner Wrenches</b> .....	<b>121</b>
Adjustable and Fixed	



# Spanner Wrenches

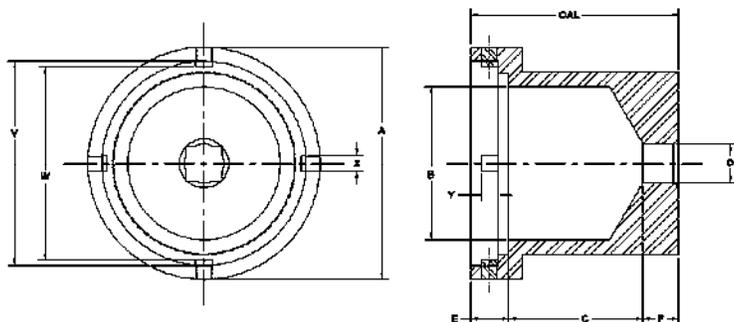


## Adjustable Spanner Wrenches

For standard locknut series

### ADJUSTABLE SPANNER WRENCH SIZES

WRENCH NUMBER	FITS LOCKNUT SIZE	FOR DIAMETER	WRENCH OAL
ASW00-06	N00-N06	0.750-2.000	6.375
ASW04-11	N04-N11	1.250-3.000	8.125
ASW08-18	N08-AN18	2.000-4.750	11.375
ASW18-24	AN18-AN24	4.500-6.250	12.125
ASW26-34	AN26-AN34	6.125-8.750	13.750



## Fixed Spanner Wrenches

For standard locknut series

### SPANNER WRENCH DIMENSIONS

PART NO.	OUTSIDE	SHAFT	SHAFT EXT.	DRIVE SQ.	RECESS	DRIVE	OAL	ID	DRIVER	DRIVER	DRIVER
	DIA. NOM.	EXT.	LENGTH	D	E	DEPTH	V	SPAN	HEIGHT	WIDTH	
	A +/- .015	B MIN.	C MIN.	+ .005/ +.020	MIN.	F	+/- .003	W + .010/ -.000	Y + .015/ -.005	Z	
SW-00	1 1/4	3/8	2 1/16	3/8	3/16	3/8	2 3/4	.760-.790	0.670	1/8	.107-.117
SW-01	1 3/8	7/16	2 1/8	3/8	1/4	3/8	2 7/8	.885-.915	0.795	3/16	.107-.117
SW-02	1 1/2	9/16	2 1/8	3/8	1/4	3/8	2 7/8	1.010-1.040	0.860	3/16	.107-.117
SW-03	1 5/8	5/8	2 1/8	3/8	5/16	3/8	3	1.135-1.165	0.983	5/32	.107-.117
SW-04	1 7/8	3/4	2 1/16	3/8	5/16	3/8	3	1.385-1.415	1.252	1/4	.165-.175
SW-05	2 1/16	15/16	2 1/16	3/8	3/8	3/8	3	1.572-1.602	1.440	1/4	.165-.175
SW-06	2 3/8	13/16	2 1/4	1/2	3/8	1/2	3 1/4	1.760-1.790	1.627	1/4	.165-.175
SW-07	2 11/16	13/8	2 1/4	1/2	13/32	1/2	3 1/4	2.072-2.102	1.940	1/4	.165-.175
SW-08	2 7/8	19/16	2 1/4	1/2	13/32	1/2	3 1/4	2.260-2.290	2.137	1/4	.227-.237
SW-09	3 3/16	13/4	2 1/4	1/2	13/32	1/2	3 1/4	2.541-2.571	2.419	1/4	.227-.237
SW-10	3 3/8	115/16	2 5/8	1/2	15/32	1/2	3 3/4	2.698-2.728	2.575	3/8	.227-.237
SW-11	3 5/8	21/8	2 5/8	1/2	15/32	1/2	3 3/4	2.979-3.009	2.794	3/8	.227-.237
SW-12	3 13/16	25/16	2 5/8	1/2	1/2	1/2	3 3/4	3.166-3.196	2.981	3/8	.227-.237
SW-13	4	21/2	2 5/8	1/2	1/2	1/2	3 3/4	3.385-3.415	3.200	3/8	.227-.237
SW-14	4 1/4	23/4	2 5/8	1/2	1/2	1/2	3 3/4	3.635-3.665	3.450	3/8	.227-.237
SW-15	4 1/2	27/8	2 3/4	3/4	9/16	3/4	4 1/4	3.885-3.915	3.640	7/16	.347-.357

Metric Spanner Wrenches are also available (SWM and ASWM).

# Terms and Conditions of Sale

**1. Applicability.** These Terms and Conditions (“**T&Cs**”) apply to all sales of goods, equipment, parts, and components, including any custom and non-stock products (the “**Products**”) and performance of services (“**Services**”) by Standard Locknut LLC, a Delaware limited liability company (“**Seller**”), to any customer (“**Customer**”). These T&Cs, together with terms contained in any quotation or purchase order acknowledgment of Seller, and solely the identification and quantity of products and services ordered in Customer’s order to the extent not in conflict with these T&C (“**Order**”), constitute the entire agreement (“**Agreement**”) applicable to the sale of Products and Services ordered by Customer from Seller. Customer agrees that Customer has received and agrees to this Agreement, including based on Seller posting these T&C on Seller’s website or other receipt of these T&C unless written rejection is received by Seller in other than a purchase order or other form document. Contrary, different and additional terms in any purchase order or other Customer document are expressly rejected by Seller unless expressly agreed to by an authorized representative of Seller in writing separate from such Customer document or individually initialed by such Seller representative in a Customer document. Neither Seller’s delivery of the Products or Services, nor any other action at any time on the part of Seller, constitutes acceptance by Seller of additional or different terms. Customer’s commencement of performance, including Customer’s use of any Products provided by Seller, constitute acceptance of this Agreement.

## **2. Purchase Price and Payment Terms.**

a. Purchase Price. Except as otherwise stated in a Seller quotation, a quotation issued by Seller is valid only for immediate acceptance and, prior to acceptance, is subject to change without notice and prices are subject to adjustment to reflect cost increases experienced prior to shipment. Customer will pay to Seller the fees and purchase price set forth in the Order. Quantities of custom or non-stock order Products delivered are subject to a +/-10% variance per individual Product with the amount payable by Customer adjusted accordingly. Prices are exclusive of all sales, use and excise taxes, and any other similar taxes, and duties and tariffs, and other charges of any kind imposed by any governmental authority, all of which are the obligation of Customer and may be invoiced by Seller and are payable by Customer. Clerical errors are subject to correction without liability to Seller. All prices are in US currency. If Seller ships items on behalf of Customer, shipping, handling and insurance charges are in addition to the charges set forth in the Order and will be charged to Customer as separate items on the invoices. All Products held by Seller beyond the scheduled delivery date (due to the inability of Customer to receive the Products for any reason) will be subject to storage charges in addition to the charges set forth in the Order and will be charged to Customer as separate items on the invoices. Unless otherwise agreed in writing, Customer is responsible for receiving, storing, installing, and maintaining the Products.

b. Payment Terms. Payment of the price of Products and Services, and any other amounts incurred by Seller on behalf of Customer, is due in full within 30 days from the invoice date. Partial shipments are allowed and permitted to be invoiced separately. Customer waives the right to assert offsets with respect to invoices unless the disputed amount has been validated in a final and unappealable legal proceeding. Customer must promptly notify Seller’s customer service personnel of any disputed invoice. Customer disputes for which written notice has not been received by Seller within six months after the invoice date are waived. A monthly service charge of the lesser of 2% or the maximum permitted by law may be added to all amounts not paid when due. In addition, Customer will be liable to Seller for all costs incurred by Seller to enforce this Agreement and to collect amounts owing by Customer which are not paid when due, including collection agency fees and expenses and attorneys’ fees and expenses, regardless of whether an actual lawsuit is commenced.

c. Customer's Financial Condition; Insecurity. If, in Seller's sole judgment, Customer's financial condition or any other circumstance causes Seller to be insecure with respect to Customer's performance of any obligation owed to Seller under this Agreement or otherwise, Seller may accelerate and demand immediate payment of any amounts owed Seller, suspend performance or cancel any outstanding Order, or require cash payment or satisfactory security before shipment.

**3. Custom Products.** Customer must provide complete, timely information to meet the requirements of the Order, including all specifications needed for custom or non-stock Products. All requested dimensions must be limited by a specific tolerance and if not specified by Customer, Seller's standard tolerances will apply. When dimensions can be accurately measured through standard gaging methods (as determined by Seller's quality planning procedures) and special gaging is required, such gages may be furnished by Customer or will be supplied by Seller at an extra charge. In the case of threads, the inspection gages shall conform to the limits specified by the latest national bureau of standards handbook H28, as supplemented by "Screw Thread Standards for Federal Services For Inspection Gages." Customer is responsible for providing proper authorizations, legality, and intellectual property rights with respect to custom Products and Services requested by Customer. Seller will rely on the accuracy and completeness of information supplied by Customer. Seller is not liable or responsible in any way for the accuracy or completeness of information provided by Customer or for any work performed by Customer. Final inspection of custom Products by Seller is based on a "C equals zero" sampling plan. If 100% inspection is required it shall be at Customer's expense. Acceptable quality levels including the designation of sampling plans other than those specified in the Seller's quality assurance manual shall be established by Customer and subject to agreement in a writing by Seller prior to quotation by Seller.

**4. Change and Cancellation.** No Order may be changed or canceled without written approval of Seller, which may be withheld in Seller's sole discretion. Seller reserves the right to charge change and cancellation fees which may include, without limitation, material, labor and engineering costs incurred by Seller and Seller's lost profits.

### **5. Delivery.**

a. Title to Products, Risk of Loss. Unless otherwise agreed in writing by Seller, all deliveries will be FOB Seller's facility. Title to and all risk of loss for the Products passes to Customer at the time the Products leaves the dock at Seller's facility. Customer assumes responsibility for any loss or damage in transit from the Seller facility. Seller may select the carrier but will not be deemed thereby to assume any liability in connection with the shipment nor will the carrier be construed to be an agent of Seller. Customer is responsible for all storage and transportation costs. Customer must make all claims with respect to damage in transit, lost Products, or any delay attributable to shipment against the responsible carrier. Absent written instructions from Customer, Seller may, but is not required to, obtain insurance on the Products shipped. Claims for shortages or incorrect Products must be made to Seller within 15 days from shipment of the Products and must include a detailed description of the issue, including packing slip number and method of determination.

b. Delivery Schedule. Unless otherwise agreed in writing, orders are for delivery when Product is produced/assembled. The schedule for completion of the Services and delivery of the Products set forth in an Order is a good faith estimate of Seller and is not guaranteed by Seller. The time actually required to complete the Services and deliver the Products will be subject to Customer availability, Customer's timely delivery of information and approvals described in the Order or otherwise requested by Seller, the accuracy of such information, and other matters that generally affect product choice and engineering services. Seller assumes no responsibility for damage or losses due to late delivery.

c. Force Majeure. Seller is not be liable to Customer for any delay or failure of delivery of any of the Products or Service caused in whole or part by any contingency or event beyond Seller's reasonable control, including, without limitation, acts of any government or any agency or subdivision thereof, war, riots, acts of God, pandemic or epidemic, machinery breakage, or any shortage of or inability to secure labor, transportation facilities, fuel, energy, raw materials, supplies, or machinery at reasonable prices or from regular sources. In the event of the occurrence of any of the foregoing, the time for performance or delivery will be extended by a period of time reasonably necessary to overcome the effect of the delay and Seller may distribute its available Products and Services among its customers on such a basis as Seller deems fair and equitable, without liability to Customer.

d. Inspection and Acceptance. Customer must inspect all shipments upon receipt and notify Seller in writing within 5 days after arrival of the Products at the original shipping destination of any shortages or other failures to conform to this Agreement which are reasonably discoverable upon arrival, including, without limitation, any claim that the Products fails to conform to the specifications described in the Order. Customer must allow Seller a reasonable opportunity to inspect such Products to enable Seller to verify the alleged nonconformity. Customer's failure to timely notify Seller in writing of any alleged nonconformity of the Products constitutes irrevocable acceptance of the Products. Customer's rejection of any Products does not shift such risk until the Products are returned to Seller, freight prepaid, pursuant to Seller's written authorization. Seller will not accept return of the Products unless otherwise agreed in writing. No rejection or claim is permitted with respect to Products that have been processed or modified after delivery by Seller.

## **6. Limited Warranty.**

a. Warranty. Seller warrants to the original Customer that: (i) Services provided by Seller will be performed in a professional and workmanlike manner, consistent with applicable industry standards; (ii) the Products will be free from defects in materials and workmanship for a period of 6 months from the date of shipment under the use and service quoted; provided, Seller makes no warranty with respect to any parts manufactured by others. Seller agrees to assign any assignable third-party warranties on parts in the Products to Customer. This limited warranty does not cover Products that have been (A) abused, neglected, or damaged other than due to a failure of Seller to perform in a commercially reasonable manner employing customary practices; (B) repaired, altered, modified, or otherwise disassembled or reworked without Seller's written consent; (C) not installed, maintained or operated in strict compliance with instructions furnished by Seller; or (D) used in nuclear applications.

b. Notice and Claims. Any alleged breach of this limited warranty will be forever waived if not reported to Seller in writing within 7 months from the date of shipment or 10 days from the date of discovery of the defect, whichever is earlier. Customer must cease from using the Products from the time of discovery of such defect until Seller has had a reasonable time to inspect the same. Seller may require Customer to return the alleged defective component of the Products to Seller, freight prepaid, pursuant to Seller's written authorization, before remedying a breach of the limited warranty. No returns are allowed without until a return material authorization is issued by Seller.

c. Limited Remedy. Seller's sole obligation and Customer's sole remedy in the event of a breach of the above limited warranty with respect to Products will be, at Seller's option, to repair or replace such nonconforming component of the Products, grant of a reasonable allowance (as Seller may elect) or if Seller determines that such remedies are not commercially feasible, to a refund of the purchase price of the component of Products upon return of the component to Seller. Repair and replacement items are provided FOB point of shipment. For non-conforming Services, Seller's sole obligation and Customer's sole remedy for warranty claims will be, at Seller's sole discretion, to re-perform the Services, furnish Services to remedy any default or refund of the purchase price. Claims for repair or inspection without Seller's written approval will be rejected.

d. **DISCLAIMER.** THE WARRANTIES AND REMEDIES STATED IN THIS SECTION ARE EXCLUSIVE. THERE ARE NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE AND ALL SUCH OTHER WARRANTIES ARE HEREBY EXPRESSLY DISCLAIMED. NO PROMISE OR AFFIRMATION OF FACT MADE BY ANY AGENT OR REPRESENTATIVE OF SELLER CONSTITUTES A WARRANTY BY SELLER OR GIVE RISE TO ANY LIABILITY OR OBLIGATION.

**7. Limitation of Liability.** UNDER NO CIRCUMSTANCES WILL SELLER BE LIABLE FOR INCIDENTAL, PUNITIVE, SPECIAL, CONSEQUENTIAL, INDIRECT OR EXEMPLARY DAMAGES OF ANY KIND, OR LOST PROFITS OR REVENUE, HOWEVER CAUSED, WHETHER FOR BREACH OR REPUDIATION OF CONTRACT, TORT, BREACH OF WARRANTY, NEGLIGENCE, INDEMNITY OR OTHERWISE, WHETHER OR NOT SELLER WAS ADVISED OF THE POSSIBILITY OF SUCH LOSS OR DAMAGES. SELLER'S LIABILITY FOR ANY AND ALL LOSSES OR DAMAGES FROM ANY CAUSE WHATSOEVER WILL IN NO EVENT EXCEED THE INVOICE PRICE PAID TO SELLER FOR THE SPECIFIC PRODUCTS OR SERVICES PROVIDED BY SELLER GIVING RISE TO THE CLAIM OR CAUSE OF ACTION. No action may be brought by Customer against Seller after 12 months from the date of delivery of the Products and/or Services, and Customer acknowledges and agrees that this provision will be grounds for dismissal of any suit or claim asserted by Customer after such time.

**8. Indemnification.** Customer agrees to indemnify (and at Seller's option, defend) and hold Seller, its affiliates and their respective officers, directors, members, managers, representatives, agents and employees harmless from and against all loss, liabilities, penalties, damages, costs and expenses arising out of third party claims that may be asserted against Seller arising in connection with the use of the Products by Customer and persons acquiring the Products directly or indirectly through Customer, including without limitation, injury to person or damage to property caused by or resulting from: (i) Customer's alteration, change, improper maintenance, disassembly, reworking or other modification of the Products; (ii) design information, processes or other information or representation supplied or made by Customer; (iv) Customer's failure to use or install the Products as instructed by Seller in writing or Customer's negligent operation of the Products and for any use of the Products in nuclear applications; (iv) the absence of any safety device which has been recommended or supplied to Customer but not accepted or used: or (v) the failure of Customer to comply with and observe all present and future laws, orders, codes, regulations, ordinances, rules and decrees of each governmental agency or instrumentality which may be applicable to the Products or Customer's business. Customer is responsible for compliance with all local ordinances and state laws with respect to the use and installation of the Products.

**9. Seller's Property.** Unless otherwise agreed in writing, all personal property used to manufacture, assemble or otherwise make or process any Products and perform the Services delivered to Customer, including, but not limited to, tools, jigs, fixtures, gauges, and dies will remain Seller's sole property regardless of any charges to Customer to cover part or all of the cost of the same.

## **10. General Provisions.**

a. **Confidentiality.** All non-public, confidential or proprietary information of Seller and Customer is confidential, solely for the use in performing hereunder and may not be disclosed, used or copied unless authorized in advance by the disclosing party in writing. Without limiting the foregoing, proposals and drawings are the sole property of and are disseminated by Seller to Customer only for the express use of Customer's consideration of the Order and the Services provided by Seller described herein, and are not to be disclosed by Customer to, or used by, any third party for any purpose unless authorized by Seller. Confidential information does not include information which: (a) is or becomes publicly known through no wrongful act on the receiving party's part, (b) is known to the receiving party prior to receiving such information from the disclosing party, (c) becomes known to the receiving party from a source other than the disclosing party and, to the receiving party's knowledge, without restriction and not in violation

of the disclosing party's rights, or (d) is independently developed by the receiving party without reference to or use of the confidential information. Notwithstanding anything to the contrary, nothing herein prohibits either party from disclosing confidential information pursuant to an order of a governmental or judicial authority, provided such party must (where legally permitted) provide prior notice to the disclosing party to afford the disclosing party reasonable opportunity to object to the disclosure or obtain a protective order, and the receiving party must reasonably cooperate in such effort at the disclosing party's expense. This Section does not supersede any previous confidentiality agreements of Seller and Customer, but instead supplements any such prior agreements with the intent of providing each party with the maximum protection possible.

b. Assignment. Customer may not assign its rights or obligations under this Agreement to any third party, by operation of law or otherwise, without Seller's prior written consent. For purposes of this provision, a merger, stock sale or other transfer by operation of law will be deemed an "assignment" for which consent is required hereunder. There are no third-party beneficiaries.

c. Independent Contractor. Seller is and will provide the Products and Services as an independent contractor and not as partners or joint venturers.

d. Modification and Waiver. No addition to, or modification or waiver of, any provision of this Agreement will be binding upon Seller unless set forth in a written document signed by Seller. Any waiver will be limited to the circumstance or event specifically referenced in the written waiver document and will not be deemed a waiver of any other term of this Agreement or of the same circumstance or event upon any recurrence thereof. No delay or omission in the exercise of any right, power, or remedy hereunder will impair such right, power, or remedy or be considered to be a waiver of any default or acquiescence therein.

e. Severability. In the event that any provision of this Agreement is held to be illegal, invalid or unenforceable under any present or future law, rule or regulation, such provision will be deemed stricken from this Agreement, but such illegality, invalidity or unenforceability will not invalidate any of the other provisions of this Agreement.

f. Governing Law and Forum; Notice; WAIVER OF JURY TRIAL. This Agreement shall be governed, construed and enforced by and under the internal laws of the State of Indiana, without regard to principles of conflicts of laws. The United Nations Convention on Contracts for the International Sale of Goods will not apply to this Agreement. The state or federal courts located in the State of Indiana shall be the proper and exclusive jurisdiction for any dispute regarding this Agreement or otherwise relating to this transaction or the Products or Services furnished hereunder. Each party agrees unconditionally that it is personally subject to the jurisdiction of such courts. Any notices required or permitted to be given hereunder must be in writing and effective when received by a party at the address that each party has last notified the other by written notice. EACH PARTY WAIVES ANY RIGHT TO TRIAL BY JURY IN CONNECTION WITH THIS AGREEMENT OR OTHERWISE RELATING TO THIS TRANSACTION OR THE PRODUCTS OR SERVICES FURNISHED HEREUNDER.

g. Survival. Provisions which by their nature should survive will remain in force after any termination or expiration of this Agreement or any other written instrument delivered in connection herewith.

83345437 (rev 08/2024)

# New Standard Locknut warehouse speeds delivery for West Coast customers

## Central California location cuts transit time to customers by up to three days

There's exciting news for Standard Locknut customers in the West. On October 1, 2024, we will open a new warehouse in the Fresno, CA area. Fulfilling our Made in America mantra, all Standard Locknut mounted bearings and accessories will still be made in our Westfield, IN manufacturing and Midwest inventory warehousing facility.

### The new Fresno warehouse will provide numerous benefits to our customers including:

- 10,000 square feet of product storage, logistics, and shipping space
- Full line inventory of Standard Locknut mounted bearings and accessories
- Accelerated delivery timing
- Reduced shipping/freight costs





Contact us today:

Sales: [sales@stdlocknut.com](mailto:sales@stdlocknut.com) Quotes: [rfq@stdlocknut.com](mailto:rfq@stdlocknut.com)

1-800-783-6887 | [stdlocknut.com](http://stdlocknut.com)