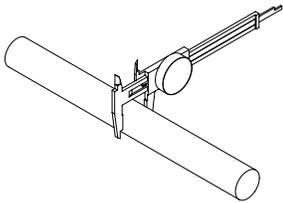
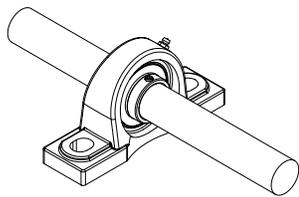


MOUNTED BALL BEARING INSTALLATION INSTRUCTIONS



STEP 1 - SHAFT PREPARATION

Wipe the shaft clean and remove any burrs that could cause the bearing race to deform when the setscrews are tightened down. Proper shaft diameter is **CRITICAL**. Check the shaft diameter against the specifications shown in Table 3. Undersized shafting is one of the leading causes of bearing failure. If the shaft is not within the tolerance shown in Table 3, its use may lead to premature bearing failure.

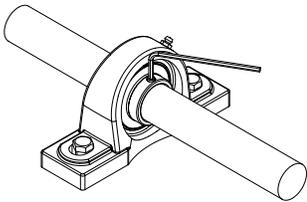


STEP 2 - MOUNTING OF HOUSING

Slide the bearing on the shaft to the desired position. **DO NOT** use anti-seize style lubricant on the shaft or bearing. Leave the setscrews loose. Secure housing in place with bolts.

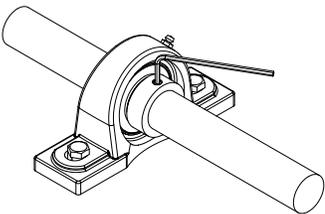
STEP 3 - SECURE BEARING TO SHAFT

Turner recommends applying an anaerobic locking compound to cap screws before tightening. A general purpose, medium strength option like Loctite 243 threadlocker is acceptable.



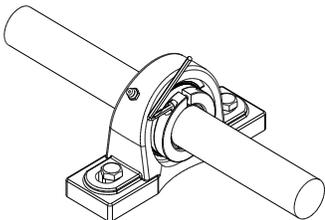
3.a Setscrew Style Bearings (UC, UCX, SB, CSB, SER)

Begin tightening both setscrews down alternately with the proper torque shown in Table 1 until both setscrews are locked to the shaft.



3.b Eccentric Style Bearings (HC, SA, CSA)

Place the eccentric collar on the bearing's inner ring and turn in the direction of rotation until the eccentric grooves engage, locking the collar to the bearing. Use a drift or punch in the hole of the collar and drive it with a hammer in the direction of the shaft's rotation. This will help to ensure the lock on the shaft. Tighten the collar's setscrew using the torque recommended in Table 1.



3.c Tru-Loc Style Bearings (UE AND UER)

Place the clamping collar over the inner ring of the bearing. Tighten clamping bolt to the torque value shown in Table 2.

If all the steps above have been followed, the bearing mounting is complete.

SETSCREW STYLE

Loosen the setscrews from the shaft. Then unbolt the housing from the support surface. Often the bearing will adhere to the shaft. In this situation use a bearing puller or hammer and drift to remove the bearing. Check for proper shaft fits (shown in Table 3) and damage prior to the next installation.

ECCENTRIC COLLAR STYLE

Loosen the setscrew in the collar. Use a drift or punch in the hole of the collar and drive it with a hammer in the opposite direction of the shaft’s rotation. Once the collar is loose, slide it away from the bearing. Remove any burrs from the setscrew before remounting the bearing. Unbolt the housing from the support surface. Often the bearing will adhere to the shaft. In this situation use a bearing puller or hammer and drift to remove the bearing. Check for proper shaft fits (shown in Table 3) and damage prior to the next installation.

TRU-LOC STYLE

Loosen the clamping collar bolt and remove it from the inner ring of the bearing. Then unbolt the housing from the support surface. Often the bearing will adhere to the shaft. In this situation, use a bearing puller or hammer and drift to remove the bearing. Check for proper shaft fits (shown in Table 3) and damage prior to the next installation.

TABLE 1

Set Screw Size		Bearing Number						Torque	
Metric	Inch							in-lbs	N-m
M6 x 0.75	1/4-28 UNF	UC201-206	UCX05	HC201-205	SA/CSA201-206	SB/CSB201-206	SER201-206	35	4.0
M8 x 1.0	5/16-24 UNF	UC207-209	UCX06-X08	HC206-210	SA/CSA207-211	SB/CSB207-211	SER207-209	78	8.8
M10 x 1.25	3/8-24 UNF	UC210-213	UCX09-X12	HC211-215	SA/CSA212	SB/CSB212	SER210-212	156	17.6
M12 x 1.5	7/16-20 UNF	UC214-215	UCX12-X17	—	—	—	—	243	27.5
M16 x 1.5	5/8-18 UNF	—	UCX20	—	—	—	—	521	58.9

TABLE 3

Shaft Diameter				Shaft Tolerance	
Over		Including			
mm	in	mm	in	h7	
10	0.394	18	0.709	0	-18
				0	(-7)
18	0.709	30	1.181	0	-21
				0	(-8)
30	1.181	50	1.969	0	-25
				0	(-10)
50	1.969	80	3.150	0	-30
				0	(-12)
80	3.150	120	4.724	0	-35
				0	(-14)
120	4.724	140	5.512	0	-40
				0	(-16)

TABLE 2

Unit Size		Torque	
		in-lbs	N-m
UE204-206	UER204-206	70	7.9
UE207-209	UER207-209	90	10.2
UE210-211	UER210-211	180	20.3
UE212	UER212	400	45.2

UK PILLOW BLOCK INSTALLATION INSTRUCTIONS

STEP 1

Clean all surfaces. Remove contaminants from the shaft, sleeve, washer, nut, and bearing.

STEP 2

Consider if nut and washer need to be slid on before or after bearing. Consider direction of nut and washer if slid on first.

STEP 3

Use a light oil to lubricate the outside of the bearing sleeve, including the threads. **Do not apply anti-sieze lubricant to tapered surfaces.**

STEP 4

Slide the mounted bearing unit onto the shaft and sleeve. Tap the sleeve into the bearing and check the alignment of the mounting holes.

STEP 5

Slip the washer over the threaded portion of the adapter sleeve. Align the washer key with the sleeve split.

STEP 6

Lightly oil the chamfered side of the nut. Slide the nut over the sleeve (chamfered side first) and begin to thread the nut to the adapter sleeve. Do not tighten the nut.

Ensure that the face of the nut is lubricated where it will make contact with the washer. Failure to lubricate these surfaces can cause friction during tightening and shear the washer key.

EXPLODED TAPERED ADAPER SLEEVE PARTS ILLUSTRATION 1

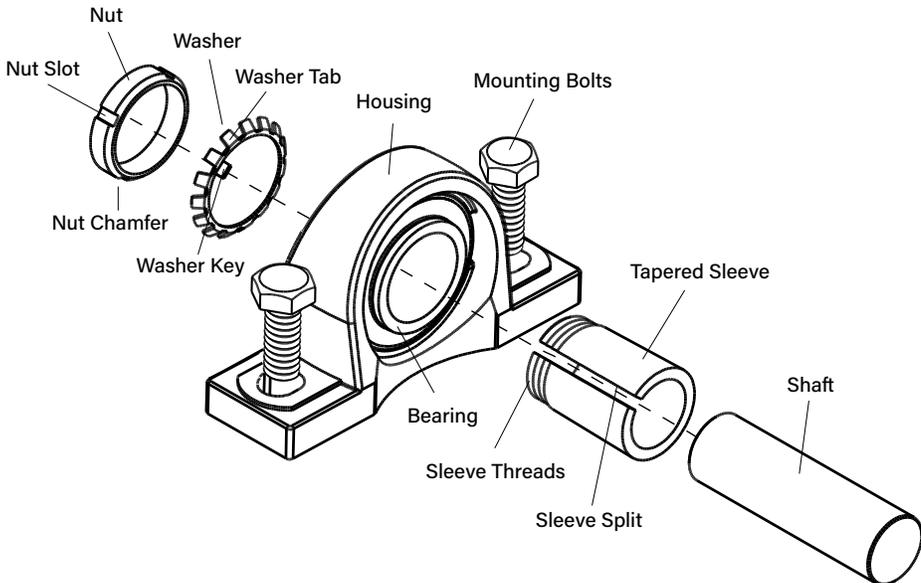


TABLE 4

Bearing Number	Torque (ft-lb)
UK 205	22
UK 206	29
UK 207	43
UK 208	58
UK 209	58
UK 210	73
UK 211	102
UK 212	145
UK 213	159
UK 215	183
UK 216	232
UK 217	297
UK 218	354
UK 305	29
UK 306	43
UK 307	58
UK 308	79
UK 309	108
UK 310	145
UK 311	181
UK 312	224
UK 313	260
UK 315	369
UK 316	434
UK 317	513
UK 318	593
UK 319	694
UK 320	853
UK 322	1193
UK 324	1439
UK 326	1779
UK 328	2119

STEP 7

Loosely mount the housing to the mounting surface. The bolts should only be tight enough to hold the housing down, but loose enough to allow some axial movement. Over-tightening will not allow the bearing to move when clamping the sleeve onto the shaft.

STEP 8

While ensuring the shaft can not rotate, tighten the nut to the torque listed in Table 4.

STEP 9

Lock the nut in place on the bearing by bending a washer tab down into one of the nut slots. If needed, slightly tighten the nut to align it with the tab.

STEP 10

After ensuring that the bearing is not bound or axially pre-loaded, tighten the mounting bolts.

NOTE: If you are installing a second pillow block, repeat steps above.

UK FLANGE BLOCK INSTALLATION INSTRUCTIONS

NOTE: The steps below are for installing two flange blocks (on one shaft), with no other bearings currently installed. If you are only installing or replacing one unit, skip to step 10.

STEP 1

Clean all surfaces. Remove contaminants from the shaft, sleeve, washer, nut, and bearing. Make sure shaft is free to move in either direction.

STEP 2

Slide the tapered sleeve onto the shaft. Position the sleeve where you want the bearing to be installed.

STEP 3

Use a light oil to lubricate the outside of the bearing sleeve, including the threads.

Do not apply anti-sieze lubricant to tapered surfaces.

STEP 4

Slide the flange block onto the shaft and sleeve. Tap the sleeve into the bearing.

STEP 5

Slip the washer on to the shaft. Align the washer key with the sleeve keyway.

STEP 6

Lightly oil the chamfered side of the nut. Slide the nut over the sleeve (chamfered side first) and begin to thread the nut to the adapter sleeve. Do not tighten the nut.

Ensure that the face of the nut is lubricated where it will make contact with the washer. Failure to lubricate these surfaces can cause friction during tightening and shear the washer key.

STEP 7

Mount the flange block to the mounting surface. Tighten the bolts.

STEP 8

Prevent the shaft from rotating, then tighten the nut of the mounted bearing to the torque listed in Table 4.

STEP 9

Lock the nut in place on the bearing by bending a tab from the washer down into one of the slots in the nut. If needed, slightly tighten the bolt to align it with a tab.

STEP 10

See steps 1-3 for installation instructions.

STEP 11

To mount a second bearing to a shaft, you will need a shim stock. The thickness of the shim depends of the size of the bearing. See Table 5 to identify your shim thickness.

STEP 12

Place the shim between the flange block and the mounting surface, at each bolt location, then tighten the mounting bolts.

STEP 13

See steps 4-6.

STEP 14

Slowly tighten the nut until the nut, bearing, and shaft turn as one unit.

STEP 15

Remove the shims. This will make mounting bolts looser, but this is intended. Do not retighten mounting bolts at this time.

STEP 16

Ensure the shaft can not spin then begin tightening the nut to the torque value listed in Table 4. You should reach at least 50% of this torque value before the foot of the flange block makes contact with the mounting surface. Failure to do this will pre-load your bearing. Continue tightening until the torque is reached.

STEP 17

Lock the nut in place by bending a washer tab into the slot of the nut.

STEP 18

Prevent the shaft from rotating, then tighten the nut of the mounted bearing to the torque listed in Table 4.

STEP 19

Tighten the mounting bolts.

STEP 20

Rotate the shaft by hand to ensure that it turns smoothly and freely.

TABLE 5

Bearing Number	Shim Stock Size (in)
UK 205	0.009
UK 206	0.009
UK 207	0.012
UK 208	0.012
UK 209	0.012
UK 210	0.012
UK 211	0.016
UK 212	0.016
UK 213	0.016
UK 215	0.018
UK 216	0.018
UK 217	0.023
UK 218	0.023
UK 305	0.009
UK 306	0.009
UK 307	0.012
UK 308	0.012
UK 309	0.014
UK 310	0.014
UK 311	0.016
UK 312	0.016
UK 313	0.016
UK 315	0.019
UK 316	0.019
UK 317	0.024
UK 318	0.024
UK 319	0.024
UK 320	0.024