



Bearing Installation Instructions

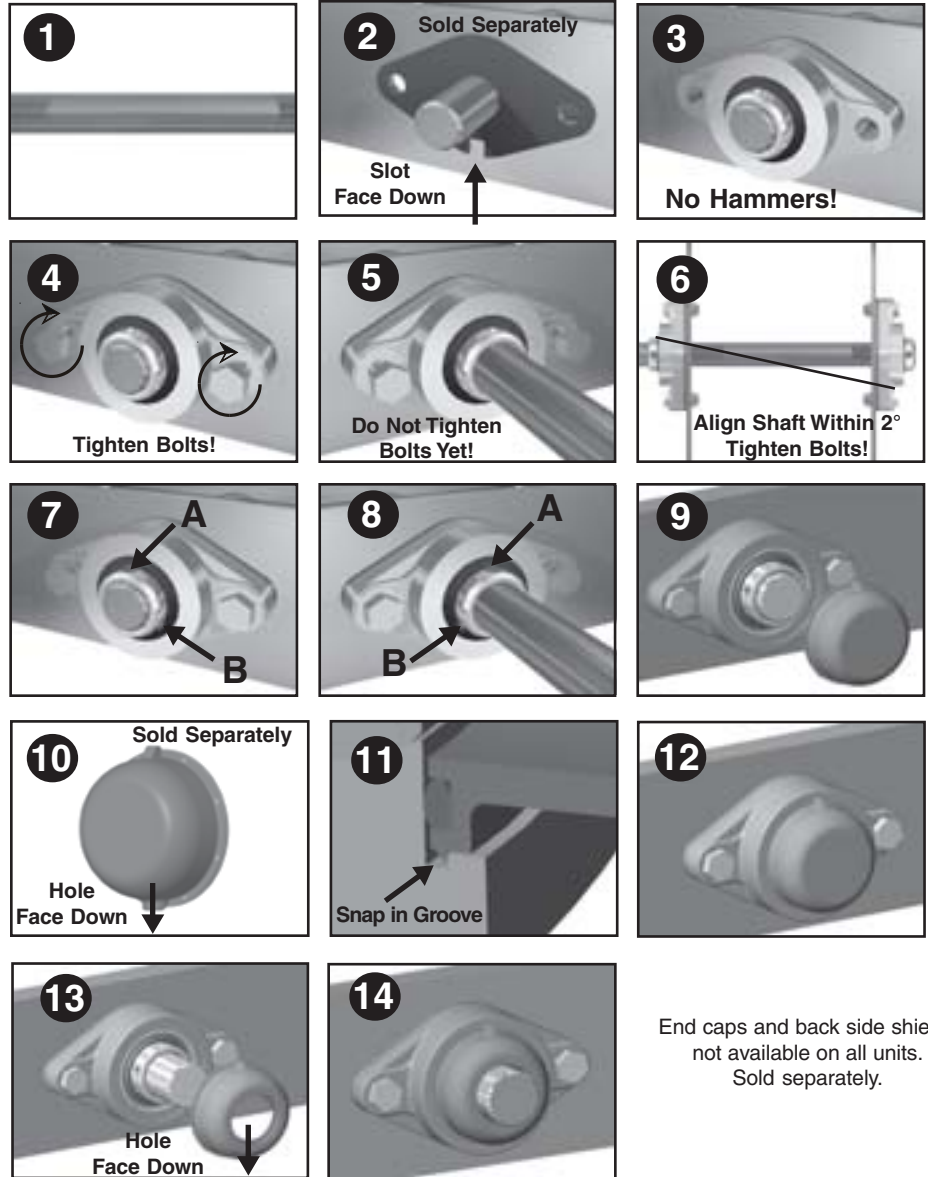
For CRES SS, CS, and CZ



- 1 Ensure shafting is clean and within spec. See Table below. Remove all burrs.
- 2 Place back-side shield on shaft, if used. Drain slot must be face down.
- 3 Place first bearing onto shaft. Do not hammer.
- 4 Install bolts and stainless steel washers (if used). **Tighten down housing mounting bolts.**
- 5 Repeat steps 2-4 for the second bearing but do not tighten down housing mounting bolts yet.
- 6 Align bearings and shaft. Shaft should be within ± 2 degrees. Set screws on both bearings should face the same direction. **Tighten mounting bolts.**
- 7 Bearing one set screw tightening directions:
Half - Tighten set screw "A" to 1/2 the recommended torque in Table below.
Full - Tighten set screw "B" to the full recommended torque in Table below.
Full - Tighten set screw "A" to the full recommended torque in Table.
- 8 Repeat tightening of the set screws in step 7 for the second bearing. Set screws on both bearings should face the same direction.
- 9 Optional closed end cap instructions: the polymer end cap snaps into the housing.
- 10 The drain hole should be placed so it is facing down when the cap is installed.
- 11 Press the cap into the housing until it snaps into the groove in the housing.
- 12 Closed end cap assembly completed.
- 13 Optional open end cap instructions: the polymer end cap snaps into the housing. The drain hole in the cap must face down.
- 14 Slide the cap over the shaft. Make sure there is no contact between the shaft and the end cap.
- 15 Rotate bearing several times. Look, feel and listen for anything unusual.
- 16 To remove cap, pry the cap off the housing using the pry tab on the top of the cap.

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FORM
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End caps and back side shields not available on all units. Sold separately.

Shaft Tolerances	
Shaft Diameter (in.)	Shaft Tolerance (in.)
1/2" to 1-15/16"	Plus .0000 to minus .0005
2" to 2-15/16"	Plus .0000 to minus .0010

Set Screw Tightening		
CRES CS: CPS-S, CTBS-S, CF4S-S, CF2S-S		
CRES SS: SPS-S, SF4S-S, SF2S-S, VS-S (insert)		
CRES CZ: CPS-Z, CF4S-Z, CTBS-Z, CF2S-Z, VS-Z(insert)		
Set Screw Diameter	Hex size across flats	Torque
		in-lbs
1/4	1/8	35-40
5/16	5/32	75-100

⚠ WARNING

High voltage and rotating parts may cause serious or fatal injury.

Turn off power to install or service.

Operate with guards in place.

Read and follow all instructions.



Lubrication Instructions

1

STEP 1 - Select the proper lubrication, based on grease type.

See Table 1 for grease specifications.

CRES CZ: CPS-Z, CF4S-Z, CTBS-Z, CF2S-Z, VS-Z (insert)
 CRES CS: CPS-S, CTBS-S, CF4S-S, CF2S-S
 CRES SS: SPS-S, SF4S-S, SF2S-S, VS-S (insert)

Grease Type	Table #1
Thickener	Aluminium Complex
Oil	Mineral
Thickness	NLGI #2
Anti wear	Yes
Operating temperature	10°F to 200° F Intermittent to 250° F
Viscosity	2200 SUS @ 100°F
Food Grade Grease	

Read Carefully

Grease compatibility is critical. To ensure proper grease compatibility, choose a grease with the same properties shown in Table #1. For questions regarding grease compatibility, contact Browning Application Engineering or your grease manufacturer. Browning® bearings can be relubricated and are supplied with grease fittings for ease of lubrication with hand or automatic grease guns. Always wipe the fitting and grease nozzle clean.

CAUTION

For safety, stop rotating equipment. Add one half the recommended amount shown in Table #3. Start bearing and run for a few minutes. Stop bearing and add the second half of the recommended amount. A temperature rise, sometimes 30°F (17°C), after relubrication is normal. Bearing should operate at temperatures less than 200°F (94°C) and should not exceed 250°F (107°C) for intermittent operation. Follow steps below for lubrication schedule and amount. For any applications that are not in the ranges of the table, contact Browning Customer Service.

Note: The tables below state general lubrication recommendations based on our experience and are intended as suggested or starting points only. For best results, specific applications should be monitored regularly and lubrication intervals and amounts adjusted accordingly.

2

STEP 2 - Determine the proper lubrication frequency, based on the application environment, speed and temperature.

3

STEP 3 - Determine lubrication amount based on environment from Step 2.

**WITHOUT
END CAPS**

Table 2		Speed (RPM)		
Environment	Temperature	100 - 500	500 to 1/2 Max. Catalog	1/2 Maximum to Max. Catalog
Clean	-20° F to 150° F	4 - 10 Months	2 - 4 Months	1 - 2 Months
	150° F to 175° F	2 - 4 Months	2 - 4 Months	1 - 2 Months
	175° F to 200° F	1 - 2 Months	1 - 2 Months	1 - 2 Months
Dirty / Moist	-20° F to 150° F	Daily - 1 Week	Daily - 1 Week	Daily - 1 Week
	150° F to 175° F	Daily - 1 Week	Daily - 1 Week	Daily - 1 Week
	175° F to 200° F	Daily - 1 Week	Daily - 1 Week	Daily - 1 Week
Very Dirty / Wet	-20° F to 150° F	Daily	Daily	Daily
	150° F to 175° F	Daily	Daily	Daily
	175° F to 200° F	Daily	Daily	Daily
Severe Dry Contaminated / Frequent High Pressure Washdown	-20° F to 150° F	Daily	Daily	Daily
	150° F to 175° F	Daily	Daily	Daily
	175° F to 200° F	Daily	Daily	Daily

Table 3	Bore Size			
Environment	3/4", 1"	1 3/16", 1 1/4"	1 7/16"	1 1/2"
Clean	0.1 oz.	0.1 oz.	0.1 oz.	0.1 oz.
Dirty / Moist	Add sufficient grease to purge bearing / seals			
Very Dirty / Wet				
Severe Dry Contaminated / Frequent High Pressure Washdown				
Severe Dry Contaminated / Frequent High Pressure Washdown				

WITH END CAPS

Table 4		Speed (RPM)		
Environment	Temperature	100 - 500	500 to 1/2 Max. Catalog	1/2 Maximum to Max. Catalog
Clean	-20° F to 150° F	4 - 10 Months	2 - 4 Months	1 - 2 Months
	150° F to 175° F	2 - 4 Months	2 - 4 Months	1 - 2 Months
	175° F to 200° F	1 - 2 Months	1 - 2 Months	1 - 2 Months
Dirty / Moist	-20° F to 150° F	4 - 10 Months	2 - 4 Months	1 - 2 Months
	150° F to 175° F	2 - 4 Months	2 - 4 Months	1 - 2 Months
	175° F to 200° F	1 - 2 Months	1 - 2 Months	1 - 2 Months
Very Dirty / Wet	-20° F to 150° F	Daily - 1 Week	Daily - 1 Week	Daily - 1 Week
	150° F to 175° F	Daily - 1 Week	Daily - 1 Week	Daily - 1 Week
	175° F to 200° F	Daily - 1 Week	Daily - 1 Week	Daily - 1 Week
Severe Dry Contaminated / Frequent High Pressure Washdown	-20° F to 150° F	Daily	Daily	Daily
	150° F to 175° F	Daily	Daily	Daily
	175° F to 200° F	Daily	Daily	Daily

Table 5	Bore Size			
Environment	3/4", 1"	1 3/16", 1 1/4"	1 7/16"	1 1/2"
Clean	0.1 oz.	0.1 oz.	0.1 oz.	0.1 oz.
Dirty / Moist	0.1 oz.	0.1 oz.	0.2 oz.	0.3 oz.
Very Dirty / Wet	Add sufficient grease to purge bearing / seals			
Severe Dry Contaminated / Frequent High Pressure Washdown				
Severe Dry Contaminated / Frequent High Pressure Washdown				
Severe Dry Contaminated / Frequent High Pressure Washdown				

WARNING

Disconnect all power before installation and servicing.

Application Assistance:

Please contact Application Engineering at:

Phone: (219) 465-2211

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Email: browningbearing.eng@emerson-ept.com