

MGS[®]/Servo Gear Units Double Bushing Output Installation (F, K, KL, KSS)



Be sure the inside of the bore is free of grease and oil before installing the tapered cones.

IMPORTANT:



The "U" distance (between the rings) determined by the spacer bolts (see Table 1) must be maintained throughout assembly of the bushing and mounting onto the shaft. Therefore DO NOT tighten the capscrews or remove the spacer bolts until the unit is mounted on the shaft.



Support Side Bushing Components



Support side bushing is Teflon coated and has only the part number written on it. Do NOT use cleaner on the coated cone.

Support Side Installation



Insert tapered cone, which may have single split or double slot. If you have the split cone insert so the thinnest portion is facing outward. If you have the double slot, insert so slots are facing outward. Insure the cone is seated against the internal quill shoulder. (Note: KL2/K1/K2/ KSS1/F1/F2 do not have a tapered cone.)



If you have single split taper and flange cone assembly, align slots so they are 180° opposite each other. If you have double slot taper and flange cone or mixture of single and double slots, align the parts so the slots/slits are offset 90°.



Hand tighten capscrews.

Clamp Side Bushing Components



Clamp side bushing is non-Teflon coated and is labeled as Not Plated.



Clamp Side Installation



Insert tapered cone, which may have single split or double slot. If you have the split cone insert so the thinnest portion is facing outward. If you have the double slot, insert so slots are facing outward. Insure the cone is seated against the internal quill shoulder. (Note: KL2/K1/K2/ KSS1/F1/F2 do not have a tapered cone.)



If you have single split taper and flange cone assembly, align slots so they are 180° opposite each other. If you have double slot taper and flange cone or mixture of single and double slots, align the parts so the slots/slits are offset 90°.



Hand tighten capscrews.

Mounting onto Shaft





1/32 x 45° chamfer on shaft end

Clean the shaft



Shaft does not protrude on clamp side



Remove the spacer bolts



Tighten clamp side first – use more than one rotating sequence hand tighten one to two revolutions before using wrench



Tighten support side capscrews use more than one rotating sequence



Use a torque wrench (See Table 1) for recommended torque



Install split and closed covers



Once installed, there should be no more than ¼" of rotating shaft exposed to comply with

OSHA standards for rotating parts

Table 2 Recommended Shaft Length (Inches)*

	Double Bushing				
Base Module	Without Cover	With Cover			
F1	7.04	-			
F2	8.18	_			
F3	8.89	_			
F4	10.03	_			
F6	11.30	_			
K1	7.73	7.97			
K2	8.99	9.23			
КЗ	9.50	9.76			
К4	11.11	11.42			
K5	11.61	11.89			
К6	12.75	12.99			
K7	14.33	14.83			
K8	17.29	17.60			
KL2	6.81	7.03			
KSS1	7.49	7.85			
KSS2	9.00	9.28			
KSS3	9.47	9.75			
KSS4	11.04	11.38			

* Important: A 1/32" x 45°chamfer minimum is recommended mipotanic A JJ22 A 3 cleaning imminution is recommended for the shaft end. The bushing will accept a shaft with a tolerance of +0.000/-0.005in. * If your equipment does not have an external flange bearing, contact STOBER for determining your recommended shaft length.



Guide support side bushing onto the shaft



Use a torque wrench (See Table 1) for recommended torque

Table 1 Recommended Tightening Torque

Daca	Capscrews		Tightening Torque		J	Crosser Dolto	
Module	Qty – Size x L (mm)	Nm	lb. in.	mm	in	(mm)	
F1	6 – M6×1×25	10	89	5	0.20	M6×1×20	
F2	8 – M6×1×30	10	89	5	0.20	M6×1×20	
F3	8 – M6×1×30	10	89	6	0.24	M6×1×20	
F4	8 – M8×1.25×30	25	221	6	0.24	M8×1.25×20	
F6	8 – M8×1.25×30	25	221	7	0.28	M8×1.25×25	
KL2	6 – M5×0.8×25	6	53	4	0.15	M5×0.8×20	
K1	6 – M6×1×25	10	89	5	0.20	M6×1×20	
К2	6 – M6×1×30	10	89	5	0.20	M6×1×20	
К3	8 – M6×1×30	10	89	5	0.20	M6×1×20	
К4	8 – M8×1.25×30	25	221	6	0.24	M8×1.25×20	
К5	8 – M8×1.25×30	25	221	7	0.28	M8×1.25×25	
К6	8 – M10×1.5×35	49	434	8.5	0.33	M10×1.5×25	
К7	8 – M10×1.5×40	49	434	5.5	0.22	M10×1.5×25	
К8	8 - M12×1.75×40	85	752	7	0.28	M12×1.75×45	
KSS1	6 – M6×1×25	10	89	5	0.20	M6×1×20	
KSS2	8 – M6×1×25	10	89	5	0.20	M6×1×20	
KSS3	8 – M6×1×25	10	89	5	0.20	M6×1×20	
KSS4	8 – M8×1.25×30	25	221	6	0.24	M8×1.25×20	

Using a torque wrench, tighten all capscrews to the torque shown in Table 1. The tightening should be done gradually in a rotating sequence and will require more than one rotation.

After two hours (minimum) running time, check capscrews and retighten, if necessary.



MGS[®]/ServoFit[®] Double Wobble Free Bushing Output Removal (K, KL, KSS)

LOCK OUT – TAG OUT Before beginning maintenance on your STOBER reducer, follow your company's procedures for lock out, tag out.

Step 1 Remove the solid cover from the Clamp Side bushing of the reducer. This should be the outside bushing.



Loosen and remove all the hex head bushing bolts.



Place 2 of the hex head bolts into the back out holes and tighten slightly to apply pressure to the bushing.

Caution: DO NOT try to use the bolts to break the bushing free. Excessive tightening can twist off the bolt head. DO NOT remove the bushing from the unit.

Step 2 Remove the split cover from the Support Side of the reducer. The inside bushing should be the Support Side, if the reducer was installed properly. This side has the Teflon coated cone and should break free easily.





Loosen and remove all of the hex head bushing bolts from the Support Side.



If there is room to do so, place two of the hex head bolts into the back out holes and tighten slightly to apply pressure to the bushing.

Step 3 Place a wedge between the two bushing rings and tap with a hammer. If the bushing does not break free, apply more pressure by tightening the bolts, and tap again. The bushing should break free.



Step 4 Remove the Clamp Side bushing.



Step 5 Remove the reducer from the shaft.

