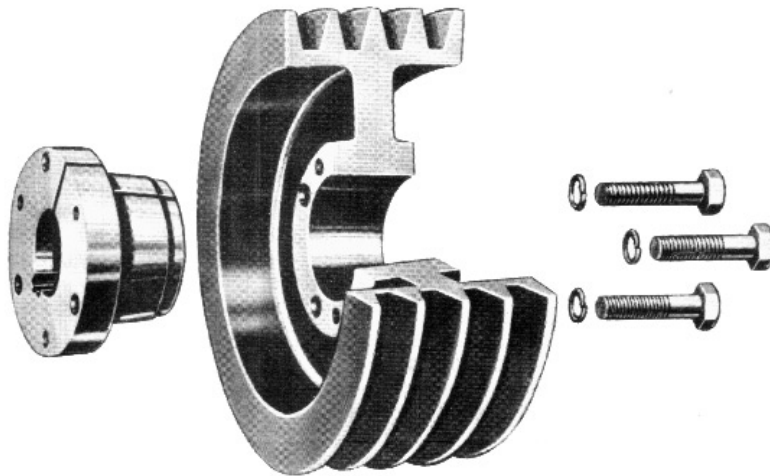




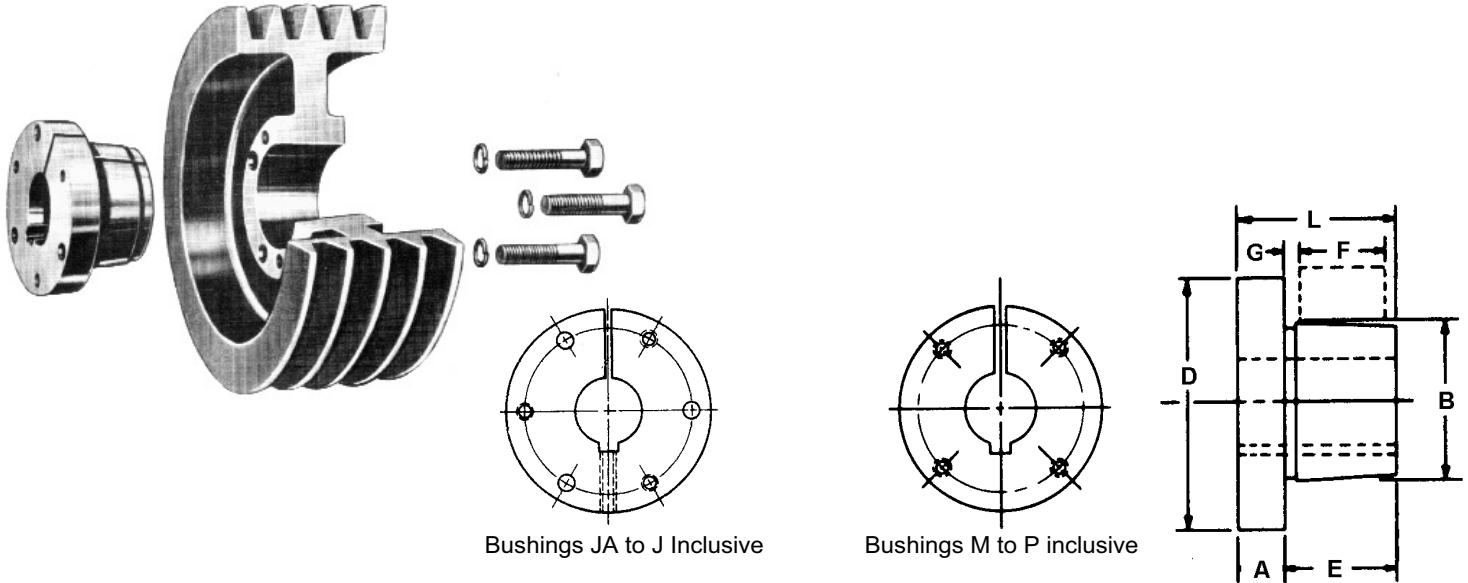
## **MULTI-V FUL-GRIP SHEAVES AND BUSHINGS**



### **FUL-GRIP (QD™) BUSHINGS FUL-GRIP (QD™) SHEAVES STANDARD MULTI-V SHEAVES SPECIAL MADE-TO-ORDER SHEAVES**

Industry puts Maurey sheaves on more drives every year simply because it pays to do so. Machined from close-grained, grey iron castings and statically balanced to MPTA standards, these sheaves will stand up to hard service and provide smooth, quiet-running, belt-saving performance. However, please note that cast iron sheaves cannot exceed 6500 feet per a minute rim speed. Also, special or dynamic balancing should be considered when rim speeds exceed 5000 feet per a minute. Maurey sheaves are available in stock sizes for B, C, D section belts. Maurey also offers special made-to-order items for B, C, D section belts as well. The Ful-Grip bushing system is Maurey's answer to the need for sheaves that are installed, removed, and interchanged with the ultimate in ease and speed. With tapered bores to slip easily over flanged and detachable bushings, tapered to match the rims, Ful-Grips are the adaptability champions. Installation instructions in this section show how easily Ful-Grips make it possible to retain the bushing and change the sheave to suit speed, or retain the sheave and change the bushing to fit a different shaft size.

# maurey ful-grip bushing data



Bushings JA to J Inclusive

Bushings M to P inclusive

**NOTE:** JA & SH bushings have no set screw over keyseat

## FUL-GRIP BUSHING DIMENSIONS

Bushing	Dimensions in Inches							Bolt Circle	Cap Screws Required
	A	B	D	E	F	G	L		
JA	5/16	1.375	2	11/16	5/8	1/8	1	1-21/32	3 - #10 x 1
SH	3/8	1.871	2-11/16	7/8	13/16	1/8	1-1/4	2-1/4	3 - 1/4 x 1-3/8
SDS	7/16	2.1875	3-3/16	7/8	3/4	1/8	1-5/16	2-11/16	3 - 1/4 x 1-3/8
SD	7/16	2.1875	3-3/16	1-3/8	1-1/4	1/8	1-13/16	2-11/16	3 - 1/4 x 2
SK	1/2	2.8125	3-7/8	1-3/8	1-1/4	1/8	1-7/8	3-5/16	3 - 5/16 x 2
SF	1/2	3.125	4-5/8	1-1/2	1-1/4	1/8	2	3-7/8	3 - 3/8 x 2
E	3/4	3.834	6	1-7/8	1-5/8	1/8	2-5/8	5	3 - 1/2 x 2-3/4
F	13/16	4.4375	6-5/8	2-13/16	2-1/2	3/16	3-5/8	5-5/8	3 - 9/16 x 3-1/2
J	1	5.1484	7-1/4	3-1/2	3-3/16	3/16	4-1/2	6-1/4	3 - 5/8 x 4-1/2
M	1-1/4	6.500	9	5-1/2	5-3/16	3/16	6-3/4	7-7/8	4 - 3/4 x 6-3/4
N	1-1/2	7.000	10	6-5/8	6-1/4	1/4	8-1/8	8-1/2	4 - 7/8 x 8
P	1-3/4	8.250	11-3/4	7-5/8	7-1/4	1/4	9-3/8	10	4 - 1 x 9-1/2

Certain bores in "Ful-Grip" bushings are of such a size that standard depth keyseats cannot be furnished. When a shallow keyseat is required, a rectangular key of the proper dimension is furnished with the bushing. The table to the right lists some keyseat specifications for all bushing bores. For more detail on specific bores and their corresponding keyseats please refer to the tables on the next pages.

Bushing	List Price	Stock Bore Range				Weight Lbs.
		Minimum	Maximum			
		Standard Keyseat	Standard Keyseat	Shallow Keyseat	No Keyseat	
JA	\$10.90	1/2	1	1-3/16	1-1/4	.8
SH	\$14.90	1/2	1-3/8	1-5/8	1-11/16	1.0
SDS	\$17.30	1/2	1-11/16	1-15/16	2	1.2
SD	\$20.80	1/2	1-11/16	1-15/16	2	1.5
SK	\$26.80	1/2	2-1/8	2-1/2	2-5/8	2.0
SF	\$33.00	1/2	2-1/4	2-3/4	2-15/16	3.5
E	\$69.20	7/8	2-3/4	3-7/16	3-1/2	9.0
F	\$124.00	1	3-1/4	3-15/16	*	14.0
J	\$154.00	1-7/16	3-3/4	4-7/16	*	22.0
M	\$308.00	2	4-11/16	5-1/2	*	51.0
N	\$540.00	2-1/2	5	5-7/8	*	66.0
P	\$810.00	2-15/16	5-11/16	7/8	*	122.0

\* Please Consult Maurey's Engineering Department

# maurey **ful-grip bushings** bore and keyseat dimensions

<b>JA BUSHINGS</b>	
<b>BORE SIZES</b>	<b>KEY SEAT</b>
1/2, 9/16	1/8 X 1/16
5/8, 11/16, 3/4, 13/16, 7/8	3/16 X 3/32
15/16, 1	1/4 X 1/8
1-1/16, 1-1/8, 1-3/16	1/4 X 1/16
1-1/4,	NONE
<b>SH BUSHINGS</b>	
<b>BORE SIZES</b>	<b>KEY SEAT</b>
1/2, 9/16	1/8 X 1/16
5/8, 11/16, 3/4, 13/16, 7/8	3/16 X 3/32
15/16, 1, 1-1/16, 1-1/8	1/4 X 1/8
1-3/16, 1-1/4	1/4 X 1/8
1-5/16, 1-3/8	5/16 X 5/32
1-7/16, 1-1/2, 1-9/16, 1-5/8	3/8 X 1/16
1-11/16,	NONE
<b>SDS BUSHINGS</b>	
<b>BORE SIZES</b>	<b>KEY SEAT</b>
1/2, 9/16	1/8 X 1/16
5/8, 11/16, 3/4, 13/16, 7/8	3/16 X 3/32
15/16, 1, 1-1/16, 1-1/8	1/4 X 1/8
1-3/16, 1-1/4	1/4 X 1/8
1-5/16, 1-3/8	5/16 X 5/32
1-7/16, 1-1/2, 1-9/16, 1-5/8	3/8 X 3/16
1-11/16,	3/8 X 3/16
1-3/4,	3/8 X 1/8
1-13/16,	1/2 X 1/8
1-7/8, 1-15/16	1/2 X 1/16
2	NONE
<b>SD BUSHINGS</b>	
<b>BORE SIZES</b>	<b>KEY SEAT</b>
1/2, 9/16	1/8 X 1/16
5/8, 11/16, 3/4, 13/16, 7/8	3/16 X 3/32
15/16, 1, 1-1/16, 1-1/8	1/4 X 1/8
1-3/16, 1-1/4	1/4 X 1/8
1-5/16, 1-3/8	5/16 X 5/32
1-7/16, 1-1/2, 1-9/16, 1-5/8	3/8 X 3/16
1-11/16,	3/8 X 3/16
1-3/4,	3/8 X 1/8
1-13/16,	1/2 X 1/8
1-7/8, 1-15/16	1/2 X 1/16
2	NONE

<b>SK BUSHINGS</b>	
<b>BORE SIZES</b>	<b>KEY SEAT</b>
1/2, 9/16	1/8 X 1/16
5/8, 11/16, 3/4, 13/16, 7/8	3/16 X 3/32
15/16, 1, 1-1/16, 1-1/8	1/4 X 1/8
1-3/16, 1-1/4	1/4 X 1/8
1-5/16, 1-3/8	5/16 X 5/32
1-7/16, 1-1/2, 1-9/16, 1-5/8	3/8 X 3/16
1-11/16,	3/8 X 3/16
1-3/4,	3/8 X 3/16
1-13/16, 1-7/8, 1-15/16	1/2 X 1/4
2, 2-1/16, 2-1/8	1/2 X 1/4
2-3/16, 2-1/4	1/2 X 1/8
2-5/16, 2-3/8, 2-7/16, 2-1/2	5/8 X 1/16
2-9/16, 2-5/8	NONE
<b>SF BUSHINGS</b>	
<b>BORE SIZES</b>	<b>KEY SEAT</b>
1/2,	1/8 X 1/16
5/8, 3/4, 13/16, 7/8	3/16 X 3/32
15/16, 1, 1-1/16, 1-1/8	1/4 X 1/8
1-3/16, 1-1/4	1/4 X 1/8
1-5/16, 1-3/8	5/16 X 5/32
1-7/16, 1-1/2, 1-9/16, 1-5/8	3/8 X 3/16
1-11/16, 1-3/4	3/8 X 3/16
1-13/16, 1-7/8, 1-15/16	1/2 X 1/4
2, 2-1/16, 2-1/8, 2-3/16, 2-1/4	1/2 X 1/4
2-5/16, 2-3/8, 2-7/16, 2-1/2	5/8 X 3/16
2-9/16, 2-5/8, 2-11/16, 2-3/4	5/8 X 1/16
2-7/8, 2-15/16	NONE
<b>E BUSHINGS</b>	
<b>BORE SIZES</b>	<b>KEY SEAT</b>
7/8	3/16 X 3/32
15/16, 1, 1-1/8	1/4 X 1/8
1-3/16, 1-1/4	1/4 X 1/8
1-5/16, 1-3/8	5/16 X 5/32
1-7/16, 1-1/2, 1-9/16, 1-5/8	3/8 X 3/16
1-11/16, 1-3/4	3/8 X 3/16
1-13/16, 1-7/8, 1-15/16	1/2 X 1/4
2, 2-1/16, 2-1/8, 2-3/16, 2-1/4	1/2 X 1/4
2-5/16, 2-3/8, 2-7/16, 2-1/2	5/8 X 5/16
2-9/16, 2-5/8, 2-11/16, 2-3/4	5/8 X 5/16
2-13/16, 2-7/8, 2-15/16, 3	3/4 X 1/8
3-1/8, 3-3/16, 3-1/4	3/4 X 1/8
3-5/16, 3-3/8, 3-7/16	7/8 X 1/16
3-1/2,	NONE



# ful-grip bushings bore and keyseat dimensions

<b>F BUSHINGS</b>	
<b>BORE SIZES</b>	<b>KEY SEAT</b>
1, 1-1/8, 1-3/16, 1-1/4	1/4 X 1/8
1-3/8	5/16 X 5/32
1-7/16, 1-1/2, 1-9/16, 1-5/8	3/8 X 3/16
1-3/4	3/8 X 3/16
1-7/8, 1-15/16	1/2 X 1/4
2, 2-1/16, 2-1/8, 2-1/4	1/2 X 1/4
2-5/16, 2-3/8, 2-7/16, 2-1/2	5/8 X 5/16
2-9/16, 2-5/8, 2-11/16, 2-3/4	5/8 X 5/16
2-13/16, 2-7/8, 2-15/16, 3	3/4 X 3/8
3-1/8, 3-3/16, 3-1/4	3/4 X 3/8
3-5/16, 3-3/8, 3-7/16, 3-1/2	7/8 X 3/16
3-5/8, 3-11/16, 3-3/4	7/8 X 3/16
3-7/8, 3-15/16	1 X 1/8
4	NONE
<b>J BUSHINGS</b>	
<b>BORE SIZES</b>	<b>KEY SEAT</b>
1-7/16, 1-1/2, 1-9/16	3/8 X 3/16
1-11/16, 1-3/4	3/8 X 3/16
1-7/8, 1-15/16, 2, 2-1/8, 2-1/4	1/2 X 1/4
2-5/16, 2-3/8, 2-7/16, 2-1/2	5/8 X 5/16
2-5/8, 2-11/16, 2-3/4	5/8 X 5/16
2-7/8, 2-15/16, 3	3/4 X 3/8
3-1/8, 3-3/16, 3-1/4	3/4 X 3/8
3-5/16, 3-3/8, 3-7/16, 3-1/2	7/8 X 7/16
3-5/8, 3-11/16, 3-3/4	7/8 X 7/16
3-13/16,	1 X 1/2
3-7/8, 3-15/16	1 X 3/8
4, 4-1/8, 4-3/16, 4-1/4, 4-3/8	1 X 1/8
4-7/16, 4-1/2	1 X 1/8
<b>M BUSHINGS</b>	
<b>BORE SIZES</b>	<b>KEY SEAT</b>
1-15/16, 2, 2-3/16, 2-1/4	1/2 X 1/4
2-3/8, 2-7/16, 2-1/2	5/8 X 5/16
2-5/8, 2-11/16, 2-3/4	5/8 X 5/16
2-7/8, 2-15/16, 3	3/4 X 3/8
3-1/8, 3-3/16, 3-1/4	3/4 X 3/8
3-3/8, 3-7/16, 3-1/2	7/8 X 7/16
3-5/8, 3-11/16, 3-3/4	7/8 X 7/16
3-7/8, 3-15/16, 4	1 X 1/2
4-1/8, 4-3/16, 4-1/4, 4-3/8	1 X 1/2
4-7/16, 4-1/2	1 X 1/2
4-11/16	1-1/4 X 5/8
4-3/4, 4-7/8, 4-15/16, 5	1-1/4 X 1/4
5-3/16, 5-1/4, 5-7/16, 5-1/2	1-1/4 X 1/4

<b>N BUSHINGS</b>	
<b>BORE SIZES</b>	<b>KEY SEAT</b>
2-15/16, 3	3/4 X 3/8
3-3/8, 3-7/16, 3-1/2	7/8 X 7/16
3-5/8, 3-3/4	7/8 X 7/16
3-7/8, 3-15/16, 4, 4-3/16	1 X 1/2
4-1/4, 4-3/8, 4-7/16, 4-1/2	1 X 1/2
4-5/8, 4-3/4, 4-7/8, 4-15/16	1-1/4 X 5/8
5	1-1/4 X 5/8
5-3/16, 5-7/16, 5-1/2,	1-1/4 X 1/4
5-7/8,	1-1/2 X 1/4
5-15/16,	1-1/2 X 1/8
<b>P BUSHINGS</b>	
<b>BORE SIZES</b>	<b>KEYSEAT</b>
2-15/16, 3-1/4	3/4 X 3/8
3-7/16, 3-1/2, 3-5/8, 3-3/4	7/8 X 7/16
3-7/8, 3-15/16, 4, 4-1/4	1 X 1/2
4-3/8, 4-7/16, 4-1/2	1 X 1/2
4-5/8, 4-11/16, 4-3/4, 4-7/8,	1-1/4 X 5/8
4-15/16, 5, 5-3/16, 5-1/4,	1-1/4 X 5/8
5-5/16, 5-3/8, 5-7/16, 5-1/2	1-1/4 X 5/8
5-3/4,	1-1/2 X 3/4
5-7/8, 5-15/16, 6, 6-1/16	1-1/2 X 1/4
6-1/4, 6-7/16, 6-1/2	1-1/2 X 1/4
6-3/4, 7	1-3/4 X 1/8

# maurey ful-grip bushings

## bore and keyseat dimensions

### METRIC STOCK BORE INFORMATION

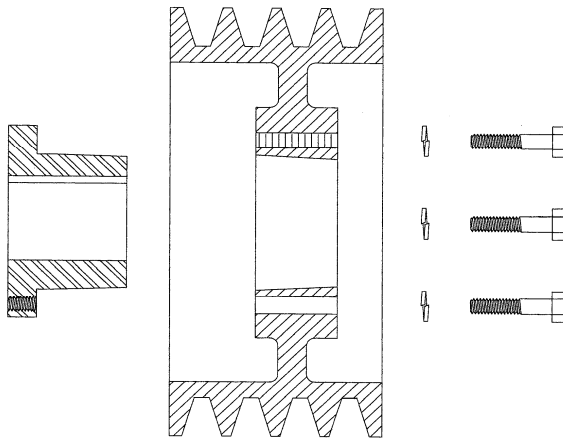
<b>JA BUSHINGS</b>	
<b>BORE (MM)</b>	<b>KEYWAY</b>
12	NONE
15, 17	5 X 5
19, 20, 22	6 X 6
24	8 X 6
28	8 X 5
<b>SH BUSHINGS</b>	
<b>BORE (MM)</b>	<b>KEYWAY</b>
19	6 X 6
24, 25, 28, 30	8 X 7
32, 35	10 X 8
<b>SDS BUSHINGS</b>	
<b>BORE (MM)</b>	<b>KEYWAY</b>
24, 25, 28,	8 X 7
30, 32	8 X 7
35, 38	10 X 8
40, 42	12 X 8
<b>SD BUSHINGS</b>	
<b>BORE (MM)</b>	<b>KEYWAY</b>
24, 25, 28, 30	8 X 7
35, 38	10 X 8
40, 42	12 X 8

<b>SK BUSHINGS</b>	
<b>BORE (MM)</b>	<b>KEYWAY</b>
24, 25, 28, 30	8 X 7
32, 35, 38	10 X 8
40, 42	12 X 8
45, 48, 50	14 X 9
55	16 X 10
<b>SF BUSHINGS</b>	
<b>BORE (MM)</b>	<b>KEYWAY</b>
28, 30	8 X 7
32, 35, 38	10 X 8
40, 42	12 X 8
45, 48, 50	14 X 9
55	16 X 10
60	18 X 11
65	18 X 8 *
<b>E BUSHINGS</b>	
<b>BORE (MM)</b>	<b>KEYWAY</b>
35, 38	10 X 8
40, 42	12 X 8
45, 48, 50	14 X 9
55	16 X 10
60, 65	18 X 11
70, 75	20 X 12
80	22 X 11

<b>F BUSHINGS</b>	
<b>BORE (MM)</b>	<b>KEYWAY</b>
45, 48, 50	14 X 9
55	16 X 10
60, 65	18 X 11
70, 75	20 X 12
80, 85	22 X 14
90	25 X 14
<b>J BUSHINGS</b>	
<b>BORE (MM)</b>	<b>KEYWAY</b>
50	14 X 9
55	16 X 10
60, 65	18 X 11
70, 75	20 X 12
80, 85	22 X 14
90, 95	25 X 14
100	28 X 16
<b>M BUSHINGS</b>	
<b>BORE (MM)</b>	<b>KEYWAY</b>
80	22 X 14
90	25 X 14
100	28 X 16
120	32 X 18

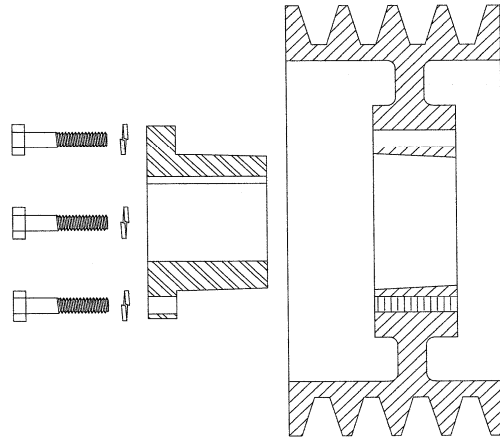
\*- SHALLOW KEYSTOCK REQUIRED

The "Keyway" dimensions shown refer to the dimensions of the keystone not the keyway. The keyway is manufactured to accommodate this keystone size. This nomenclature is in accordance with metric standards.



**STANDARD MOUNTING ASSEMBLY**

**Fig. 1**



**REVERSE MOUNTING ASSEMBLY**

**Fig. 2**

# INSTALLATION AND REMOVAL OF QD SHEAVES

## INSTALLATION

1. Make sure the bore of the sheave and the tapered cone surface of the bushing are free of all the foreign substances such as paint, dirt, lubricants, etc. Do not use lubricants on installation.
2. Assemble bushings and sheave as shown above in Figures 1 and 2, whichever applies. With cap screws loosely inserted, the bushing remains fully expanded to assume a sliding fit on the shaft. Note: When installing bushings M thru P, locate the extra holes in the hub as far as possible from the bushing's saw cut in order to reduce the possibility of bushing flange breakage. CAUTION: Do not use lubricants on screw threads or tapered surfaces
3. With key on shaft, slide sheave assembly to its desired position with cap screw heads on outside. (Exception: Some shaft lengths may require the sheaves to be reversed with the cap screw heads to the inside - see Figure 2.)
4. Line up the sheave assembly and tighten cap screws evenly and progressively to the torque value listed in the table. Never allow the sheave to be drawn in contact with the bushing flange. There should be a gap of 1/8" to 1/4" between the sheave hub and the bushing flange. If the gap is closed, the shaft is seriously undersize.
5. Tighten the set screw to hold the key securely on the shaft during operation.

CAUTION: When mounting a "FUL-GRIP" bushing, the tightening force of the screws is multiplied many times by the wedging action of the tapered surface. This action compresses the bushing for a snug fit on the shaft. If extreme screw tightening force or lubricants are applied in mounting the "FUL-GRIP" bushing, bursting pressures will be created in the hub of the mounted sheave which may cause it to crack.

Refer to the recommended torque ratings

## REMOVAL

1. Loosen and remove cap screws.
2. Insert cap screws in tapered removal holes and starting with bolt farthest from sawcut on bushing, tighten evenly and progressively until sheave is loose on bushing. If sheaves in Figure 2 are installed with cap screw heads next to motor, loosen cap screws and use a wedge between the bushing and the sheave.
3. Remove sheave and bushing

CAUTION: Excessive or unequal pressure on the jack screws can break the bushing flange

Bushing	Wrench Torque (In.-Lbs)	Wrench Length (Inches)	Wrench Pull (Pounds)
JA	60	4	15
SH	108	4	27
SDS	108	4	27
SDS	108	4	27
SK	180	6	30
SF	360	6	60
E	720	12	60
F	900	12	75
J	1620	12	135
M	2700	15	180
N	3600	15	240
P	5400	18	300