SCC Inc.

Installation Instructions

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AGA94.3

Product Description

AGA94.3 is a bracket kit for mounting any VKF10/11… butterfly valve to a Barber-Colman EA57 actuator.

Components Supplied

Figure 1 shows the components supplied with the AGA94.3 bracket kit:

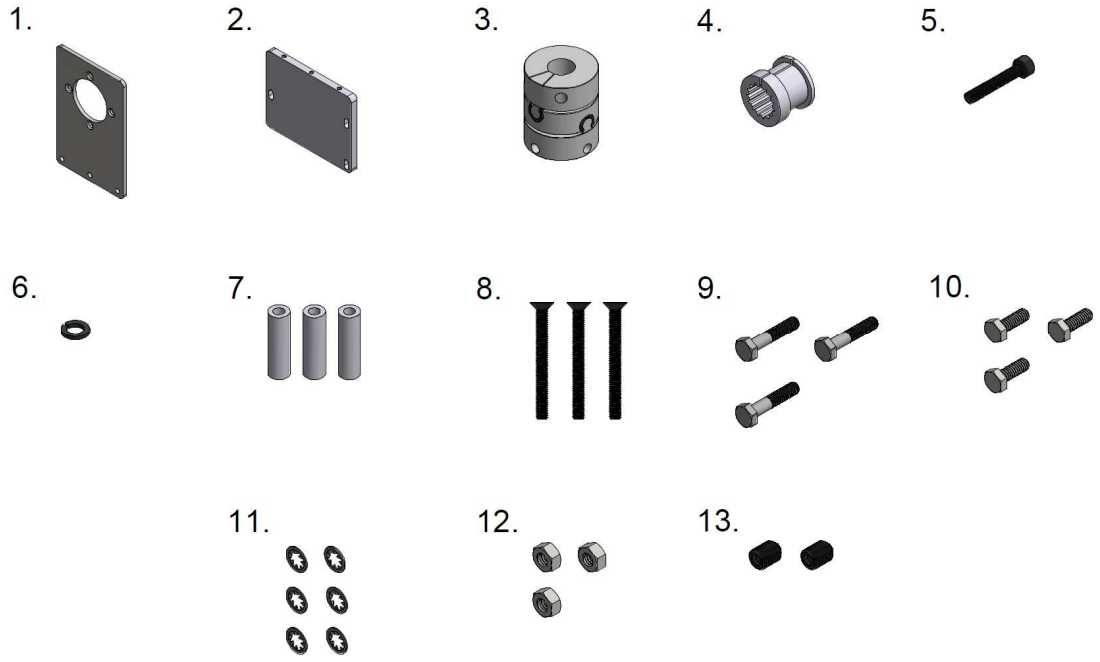

Figure 1: Pieces Supplied with the AGA94.3 Bracket Kit

1. Valve mounting bracket
2. Actuator mounting bracket
3. Coupling assembly
4. Coupling bushing
5. M4 x 25mm socket head cap screw
6. M4 split lock washer
7. (3) spacers
8. (3) M5 x 50mm flat socket head cap screws
9. (3) ¼”-20 x 1-1/4” hex head cap screws
10. (3) ¼”-20 x ¾” hex head cap screws
11. (6) ¼” internal-tooth lock washers
12. (3) ¼”-20 hex nuts
13. (2) 3/8”-24 x 1/2” socket set screws

Recommended Installation Tools

The following tools are recommended for installing the AGA94.3 bracket kit:

- 3mm hex key
- Purple Loctite
- (2) 7/16” open-end wrenches
- 3/16” hex key

Installation Procedure

1. Using the 3mm hex key, remove the M4 socket head cap screw that is holding the coupling to the VKF10/11 valve shaft. The screw and the coupling can be discarded. The bracket and hardware that are provided with the VKF10/11 can be discarded as well.

2. Slide the coupling assembly over the VKF10/11 valve shaft in the orientation shown on the left side of Figure 2. Line up the counterbored hole in the coupling with the threaded hole in the valve shaft. Using the 3mm hex key, the M4 split lock washer, and the M4 x 25mm socket head cap screw, fasten the coupling assembly to the valve. Note that the socket head cap screw will cut very minor threads into the back side of the coupling. This is intentional to ensure alignment between the valve and coupling. Then, place the coupling bushing into the bore in the top of the coupling. Ensure that the thicker end of the bushing is on top, and that the groove in the bushing is between the two lines on the top of the coupling.

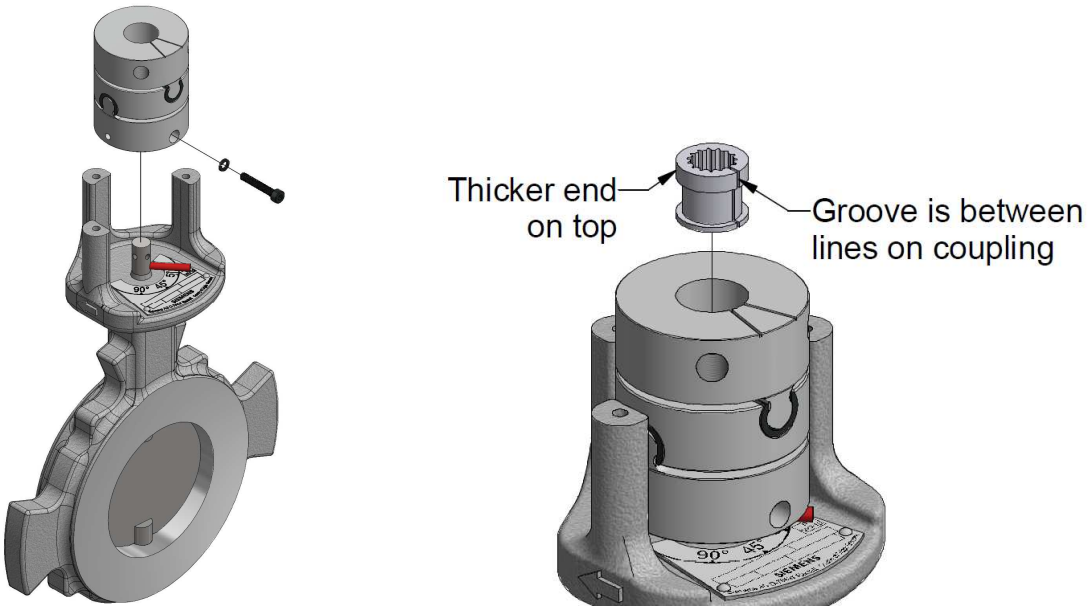

Figure 2: Coupling Installation

3. Set a spacer on top of each of the three raised mounting fingers of the VKF10/11 valve. Place the valve mounting bracket on top of the three spacers so that three of the four countersunk holes align with the holes in the spacers. There are four possible mounting orientations for the bracket. Take care to select the desired orientation in order to alleviate space considerations or make for easier actuator conduit installation. Place a small amount of purple low-strength Loctite onto the tip of the (3) M5 x 50mm flat socket head cap screws. Using the 3mm hex key and the (3) M5 x 50mm flat socket head cap screws, secure the valve mounting bracket to the VKF10/11 valve as shown in Figure 3 below.

Figure 3: Valve Mounting Bracket Installation

4. Using a 7/16” open-end wrench, the (3) ¼”-20 x ¾” hex head cap screws, and (3) ¼” internal-tooth lock washers, fasten the actuator mounting bracket to the valve mounting bracket as shown below in Figure 4.

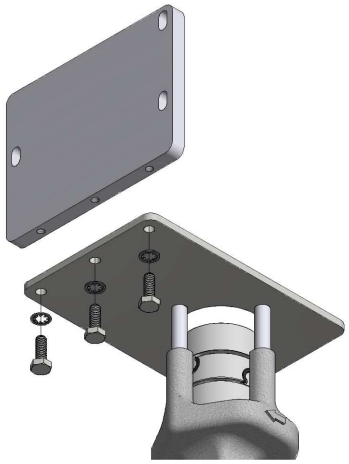

Figure 4: Actuator Mounting Bracket Installation

5. Set the actuator on top of the actuator mounting bracket. The splined shaft should slide into the coupling bushing. If it does not, slightly rotate the coupling bushing one way or the other so that the shaft slides in while keeping the groove in the bushing between the two lines on the top of the coupling. Using the (2) 7/16" open-end wrenches, the (3) ¼"-20 x 1-1/4" hex head cap screws, (3) ¼" internal-tooth lock washers, and the (3) ¼"-20 hex nuts, secure the actuator to the actuator mounting bracket as shown in Figure 5 below.

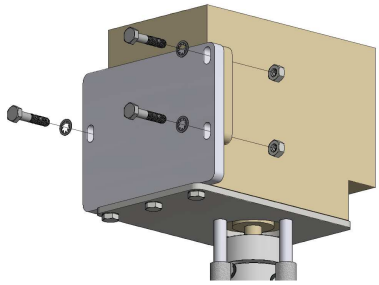

Figure 5: Actuator Installation

6. Finally, thread the (2) 3/8"-24 x 1/2" socket set screws into the two threaded holes in the top piece of the coupling as shown in Figure 6 below. Using the 3/16" hex key, tighten these set screws to securely clamp the coupling bushing around the splined actuator shaft. Ensure that the actuator shaft to valve shaft orientation is correct before tightening the set screws.

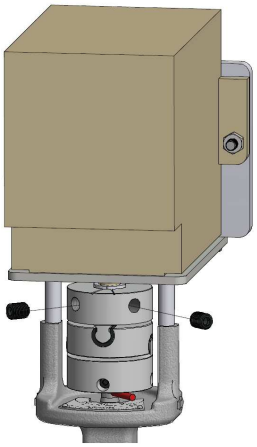

Figure 6: Clamp the Coupling Bushing