

AGA92.1

Product Description

The AGA92.1 manual kit precisely locks the position of any VKG... butterfly valve. The kit allows for precision position adjustment by rotating the turnbuckle; (14) revolutions make a 90° stroke. Hex nuts are tightened against the turnbuckle to prevent slippage.

Exclusive, patented technology*

Components Supplied

Figure 1 shows the components supplied with the AGA92.1 manual kit:

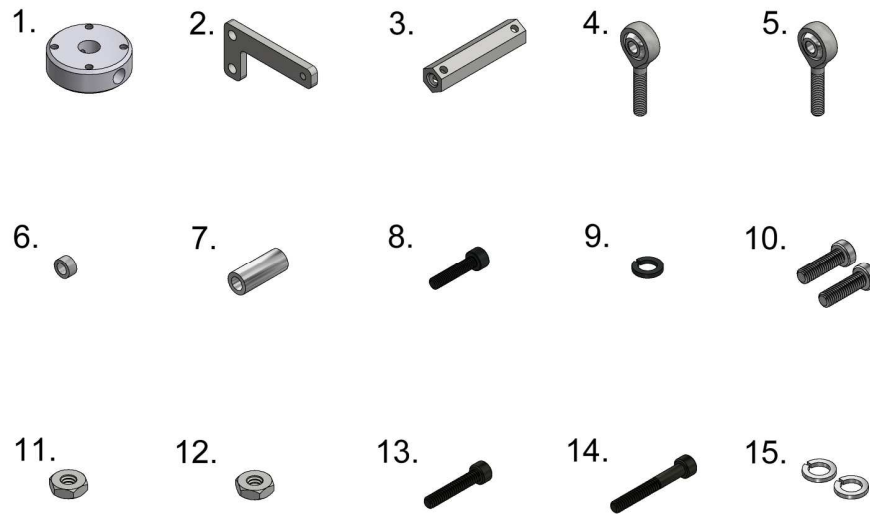


Figure 1: Pieces Supplied with the AGA92.1 Manual Kit

- | | |
|-------------------------------|--|
| 1. Crank hub | 9. M4 split lock washer |
| 2. Mounting bracket | 10. (2) M6 x 20mm low head socket cap screws |
| 3. Turnbuckle | 11. #10-32 right-hand hex nut |
| 4. #10-32 right-hand rod end | 12. #10-32 left-hand hex nut |
| 5. #10-32 left-hand rod end | 13. #10-24 x 1" socket cap screw |
| 6. 5/32" length #10 spacer | 14. #10-24 x 1-3/8" socket cap screw |
| 7. 3/4" length #10 spacer | 15. (2) #10 split lock washers |
| 8. M4 x 18mm socket cap screw | |

*Patented under US Patent No. 9,915,352

Recommended Installation Tools

The following tools are recommended for installing the AGA92.1 manual kit:

- 4mm hex key
- 3mm hex key
- 5/32" hex key
- (2) 3/8" open end wrenches (or crescent wrenches)

Installation Procedure

1. Using a 4mm hex key, remove the two M6 x 10mm screws shown in Figure 2a below. Save the two M6 split lock washers and discard the screws. Using these lock washers along with the two M6 x 20mm low head socket cap screws, install the mounting bracket in the orientation shown in Figure 2b below.

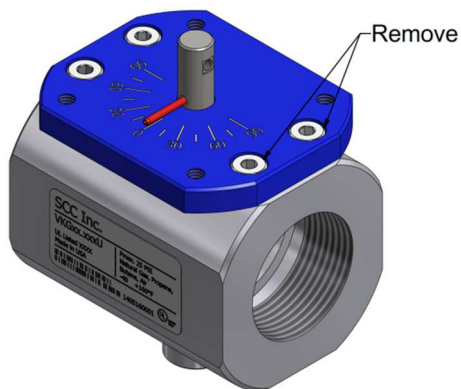


Figure 2a: Remove M6 Socket Cap Screws

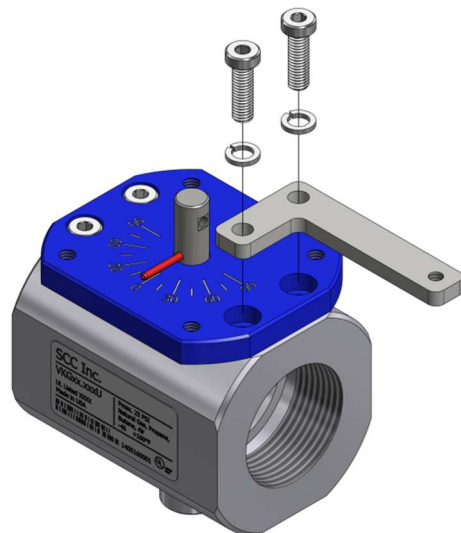


Figure 2b: Mounting Bracket Installation

Installation Procedure (continued)

- Slide the crank hub over the valve shaft in the orientation shown in Figure 3. Rotate it so that the threaded hole in the crank hub lines up with the threaded hole in the valve shaft. Using a 3mm hex key and the M4 x 18mm socket head cap screw with lock washer, fasten the crank hub to the valve shaft.

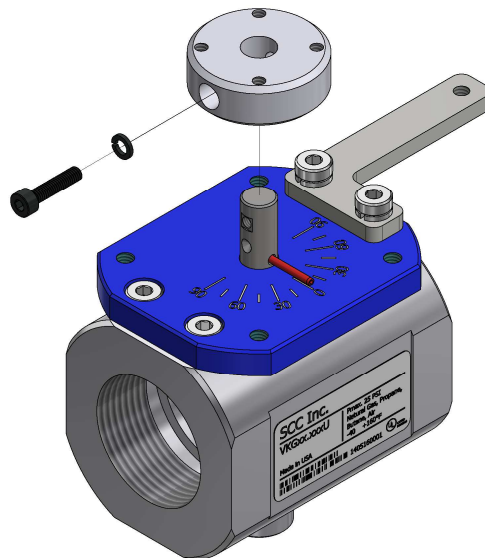


Figure 3: Crank Hub Installation

- Thread the #10-32 right-hand hex nut as far as possible onto the #10-32 right-hand rod end by hand. Do the same with the #10-32 left-hand hex nut and rod end. Next, thread each rod end into the turnbuckle approximately 19 full turns by hand. One of the holes in the turnbuckle has right-hand threads while the other hole has left-hand threads. When complete, the turnbuckle assembly should look like Figure 4 below.

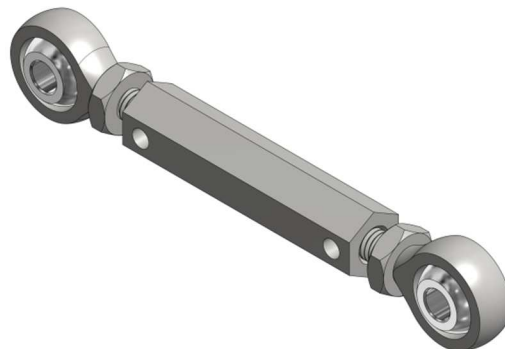


Figure 4: Turnbuckle Assembly

Installation Procedure (continued)

4. Install the turnbuckle assembly onto the valve using a $5/32$ " hex key, the #10-24 x 1" socket cap screw, the #10-24 x $1-3/8$ " socket cap screw, the (2) #10 spacers, and the (2) #10 split lock washers as shown below in Figure 5. The 1" length socket cap screw threads into the crank hub and uses the shorter #10 spacer. The $1-3/8$ " length socket cap screw threads into the mounting bracket and uses the longer #10 spacer. The valve shaft may need to be turned slightly so that the hole in the crank hub lines up with the hole in one of the rod ends on the turnbuckle assembly.

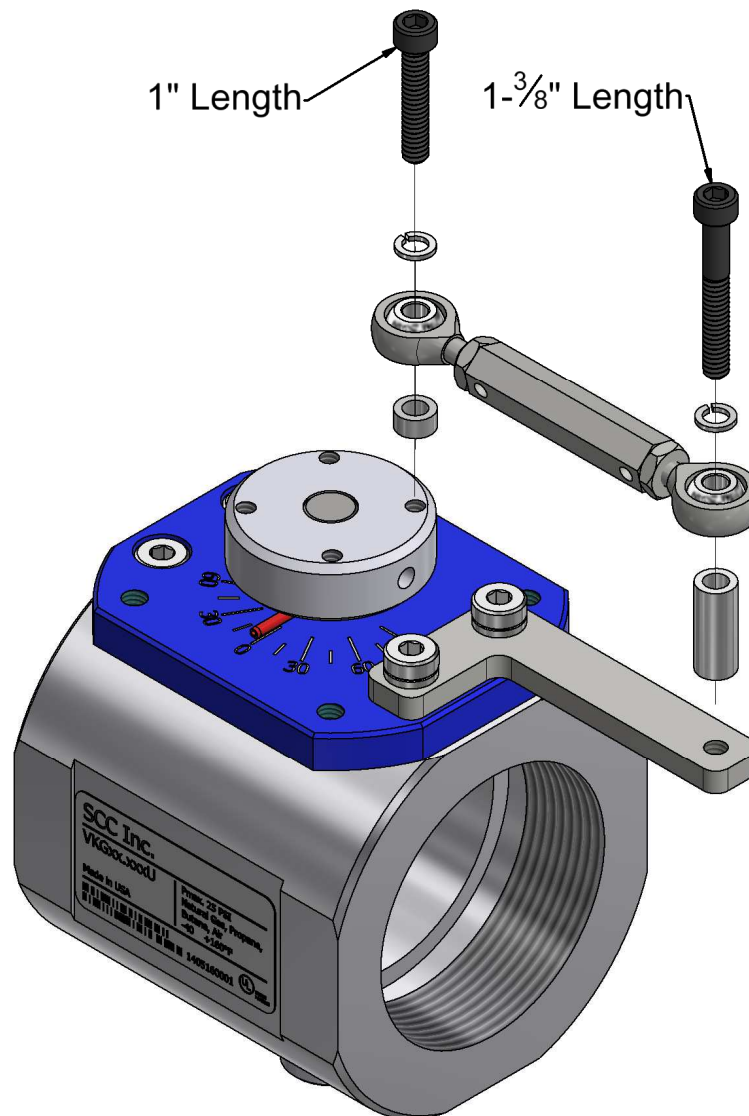


Figure 5: Turnbuckle Assembly Installation

Installation Procedure (continued)

5. At this point, the installation of the AGA92.1 manual kit is complete. The valve position can be precisely adjusted by rotating the turnbuckle by hand. Once the desired valve position is reached, use (2) 3/8" open end wrenches (or crescent wrenches) to tighten the hex nuts against the turnbuckle.

NOTE: There are two holes in the side of the turnbuckle that can be used to view the threads of the rod ends. The turnbuckle should never be turned so far such that the end of the threads can be seen through these holes. If the end of the threads can be seen, there is insufficient thread engagement between the rod end and the turnbuckle. As long as the above installation steps were followed correctly, any valve position from 0-90° can be reached without the end of the threads being visible through the holes in the side of the turnbuckle.

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