60 Series Ball Valves

Mounting Instructions for 4-bolt 62 and 63 Series and 8-bolt S62 and S63 Series Valves to 140 Series Actuators

These instructions do not apply to steel 8-bolt assemblies.

**Mounting Bracket Kit Contents**

- Lock-tab washer
- Mounting bracket 62 Series
- Mounting bracket 63 Series
- Coupling
- Roll pin
- Not used with this instruction.
- Coupling screws (2)
- 316 SS hex nut (2)
- Grade 8 carbon steel bolts (2)
- 316 SS bolts (2)
- 316 SS bolts (4)
- 316 SS hex nut (2)
- Coupling screws (2)
- Grade 8 carbon steel bolts (2)
- 316 SS bolts (2)
- 316 SS bolts (4)

**Actuator Kit Contents**

- Electric actuator
- Actuator Kit Contents

**Tools Required**

<table>
<thead>
<tr>
<th>Tool</th>
<th>Size</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pliers</td>
<td>–</td>
<td>Lock tab washer</td>
</tr>
<tr>
<td>Hex adapter</td>
<td>9/64 in.</td>
<td>Coupling screws</td>
</tr>
<tr>
<td>Hex Key</td>
<td>5/32 in.</td>
<td>62 series carbon steel bolts</td>
</tr>
<tr>
<td>Wrench</td>
<td>5/16 in.</td>
<td>62 series stainless steel bolts</td>
</tr>
<tr>
<td></td>
<td>7/16 in.</td>
<td>63 series bolts</td>
</tr>
<tr>
<td>Socket</td>
<td>5/16 in.</td>
<td>62 series body bolts</td>
</tr>
<tr>
<td></td>
<td>3/8 in.</td>
<td></td>
</tr>
<tr>
<td>Crow’s foot</td>
<td>7/16 in.</td>
<td>62 series stem nut</td>
</tr>
<tr>
<td></td>
<td>9/16 in.</td>
<td>63 series body bolts</td>
</tr>
<tr>
<td>Torque wrench</td>
<td>Capable of 50 in·lb (5.7 N·m)</td>
<td>Stem nut</td>
</tr>
<tr>
<td></td>
<td>Capable of 150 in·lb (17.0 N·m)</td>
<td>Body bolts</td>
</tr>
</tbody>
</table>

Symbol: Discard
WARNING
Before removing a valve from the system for service, you must
• depressurize system
• cycle the valve
• purge the valve.

WARNING
Residual system media may be left in the valve.

CAUTION
Actuated assemblies must be properly aligned and supported. Improper alignment or inadequate support of the actuated assembly may result in shorter valve life.

Do not use these actuators on vented ball valves. The drive shaft of these actuators rotates in one direction.

Not CE marked.

Actuator Preparation
1. 3-way only: Verify the position of the paint dot on the actuator shaft. It should be located toward the conduit connection.
2. Remove the four mounting bracket screws from the actuator.

Valve Preparation
4. Turn the handle to orient the valve in the fully open or fully closed position.
5. Remove the parts from the valve as shown. Set aside the grounding spring.
6. Remove the lower stem nut and place the lock-tab washer on the valve stem, tabs facing up.
7. Replace the lower stem nut and tighten to 62, S62 series: 25 in.-lb (2.8 N·m)
63, S63 series: 50 in.-lb (5.7 N·m)
Note: It may be necessary to hold the stem stationary with a wrench.
8. Bend the tabs of the lock-tab washer around the flats of the lower stem nut. If the tabs and flats do not line up, tighten the stem nut until they do (1/6 turn maximum).
9. Thread the grounding spring over the stem nut until it contacts the valve body.
Mounting Instructions

10. For 4-bolt assemblies, loosen all of the **body bolts** and remove the top two.

![4-bolt assembly](image)

For 8-bolt assemblies, loosen all of the **body bolts** and remove the top four.

Note: Be careful to maintain **flange-to-body** contact in the 8-bolt assemblies. If seal is broken, the Grafoil® flange seal must be replaced.

![8-bolt assembly](image)

11. Place the **coupling** on the valve stem with the **cutaway slots** away from the valve. Install the two **coupling screws** into the coupling and tighten finger-tight.

Note: It will be necessary to hold the coupling in place until the valve assembly is positioned on the actuator.

![Coupling setup](image)

12. Position the valve in the mounting bracket, aligning the valve body **bolt holes** with those in the mounting bracket, enclosing the actuator roll pin with the coupling cutaway slots.

Note: It may be necessary to spread the **bracket arms** slightly to position the valve.

![Valve positioning](image)

13. 4-bolt assemblies: if the valve is assembled with Studs - use the 316 SS bolts and hex nuts supplied.

   - Grade 8 carbon steel bolts (marked on head with six evenly spaced lines) - use the two longer Grade 8 bolts supplied.
   - 304/316 SS bolts (marked on head with B8 or B8M) - use the 316 SS bolts supplied.

   Tighten the bolts finger-tight.

![4-bolt assembly](image)

8-bolt assemblies:

   - S62 series - use the 316 SS bolts supplied.
   - S63 series - reinstall the original bolts.

   Tighten the bolts finger-tight.

![8-bolt assembly](image)

14. Verify the grounding spring contacts both the valve body and the coupling after assembly and that the actuator roll pin is enclosed by the coupling cutaway slots.

![Verify assembly](image)
15. Torque the body bolts in the alphabetical sequence shown, to the value listed in the “1st” column of the table below. Repeat the sequence for the 2nd, 3rd, 4th, and 5th torques.

<table>
<thead>
<tr>
<th>Series</th>
<th>Body Material</th>
<th>Fastener Material</th>
<th>1st pass</th>
<th>2nd pass</th>
<th>3rd pass</th>
<th>4th pass</th>
<th>5th pass</th>
</tr>
</thead>
<tbody>
<tr>
<td>62</td>
<td>Carbon steel or stainless steel</td>
<td>Carbon steel or stainless steel</td>
<td>5 (0.57)</td>
<td>10 (1.1)</td>
<td>20 (2.3)</td>
<td>40 (4.5)</td>
<td>40 (4.5)</td>
</tr>
<tr>
<td>S62</td>
<td>Stainless steel</td>
<td>Stainless steel</td>
<td>5 (0.57)</td>
<td>10 (1.1)</td>
<td>20 (2.3)</td>
<td>40 (4.5)</td>
<td>40 (4.5)</td>
</tr>
<tr>
<td>62</td>
<td>Brass</td>
<td>Carbon steel</td>
<td>5 (0.57)</td>
<td>10 (1.1)</td>
<td>20 (2.3)</td>
<td>30 (3.4)</td>
<td>30 (3.4)</td>
</tr>
<tr>
<td>63</td>
<td>Carbon steel or stainless steel</td>
<td>Carbon steel or stainless steel</td>
<td>10 (1.1)</td>
<td>20 (2.3)</td>
<td>40 (4.5)</td>
<td>100 (11.3)</td>
<td>100 (11.3)</td>
</tr>
<tr>
<td>S63</td>
<td>Stainless steel</td>
<td>Stainless steel</td>
<td>10 (1.1)</td>
<td>20 (2.3)</td>
<td>40 (4.5)</td>
<td>100 (11.3)</td>
<td>100 (11.3)</td>
</tr>
<tr>
<td>63</td>
<td>Brass</td>
<td>Carbon steel</td>
<td>10 (1.1)</td>
<td>20 (2.3)</td>
<td>40 (4.5)</td>
<td>60 (6.8)</td>
<td>60 (6.8)</td>
</tr>
</tbody>
</table>

16. Position the coupling against the roll pin and tighten the cap screws to 40 in.-lbs (4.5 N·m).
Note: Keep the coupling as level as possible without it touching the stem nut.

17. Test the product prior to reinstallation in system.