These instructions cover the following 4-bolt 60 and 60X series ball valves:

### Service Valve Series
- Standard
- Sour Gas
- Low Temperature

### Body Bolt/ Stud Torque Chart

<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>Stainless Steel, Alloy 276 or Alloy 20</td>
<td>Stainless Steel or Alloy K-500 or B7 CS</td>
<td>25 (2.8)</td>
<td>50 (5.7)</td>
<td>100 (11.3)</td>
<td>180 (20.3)</td>
<td>180 (20.3)</td>
</tr>
<tr>
<td>63</td>
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<td>Stainless Steel or Alloy K-500 or B7 CS</td>
<td>25 (2.8)</td>
<td>50 (5.7)</td>
<td>100 (11.3)</td>
<td>200 (22.6)</td>
<td>500 (56.5)</td>
</tr>
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</tbody>
</table>

### Tools Required

<table>
<thead>
<tr>
<th>Part</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stem nut</td>
<td>5/16 (7.9 mm)</td>
</tr>
<tr>
<td>Head bolt</td>
<td>1/2-13 (12.7 mm)</td>
</tr>
<tr>
<td>Body bolt</td>
<td>5/16 (7.9 mm)</td>
</tr>
<tr>
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</tr>
<tr>
<td>Head bolt</td>
<td>1/2-13 (12.7 mm)</td>
</tr>
</tbody>
</table>

**Lubricant(s)**

1. 62 and 62X series kits do not contain stem springs.
2. Valves with a PEEK or Halar stem bearing contain (1) stem bearing.
### Valve Series Lubricant

- 60T, 60XT, 60V, 60XV, 60C, 60XC, N60T, N60XT, 60P, 60XP
- MS-LT-1
- MS-LT-WL8-1
- MS-LT-3

### Stem Shank Lubricant

- 60T, 60XT, 60V, 60XV, 60C, 60XC, N60T, N60XT, 60P, 60XP
- MS-LT-WL8-1
- MS-LT-3

### Flange Seal Lubricant

- 60T, 60XT, 60V, 60XV, 60C, 60XC, N60T, N60XT, 60P, 60XP
- MS-LT-1
- MS-LT-WL8-1
- MS-LT-3

### Seat Face Lubricant

- 60T, 60XT, 60V, 60XV, 60C, 60XC, N60T, N60XT, 60P, 60XP
- MS-LT-1
- MS-LT-WL8-1
- MS-LT-3

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### Maintenance Instructions

#### WARNING

Before servicing any installed valve, you must:
- Depressurize system
- Cycle valve

#### CAUTION

Residual material may be left in the valve and system.

Do not scratch any sealing surfaces while following these instructions. Valve performance could be affected.

#### Note:

For seat and flange seal replacement only, go to step 4.

1. Put valve in the open position and loosen the stem nut.

2. 2-way

   - Loosen body bolts.
   - Use handle to rotate the stem.

3. 3-way

   - Remove bolt.
   - Remove all body bolts.
   - Keep stem flats parallel to flange sealing surface.

4. Note: For seat and flange seal replacement only, go to step 4. Handle will still be on body.

5. Use handle to rotate the stem while loosening stem nut. 3-2-way

6. Valve Series

   - OD, ODX, 60D, 60DX, 60C, 60CX, N60D, N60DX, N60C, N60CX
   - OD, ODX

7. Use handle to retain stem while loosening stem nut.

8. Discard Clean Lubricate


10. Valve Series

    - OD, ODX, 60D, 60DX, 60C, 60CX, N60D, N60DX, N60C, N60CX

11. Seat spring

12. Use handle to retain stem.

13. Hold ball until stem is rotated. Use handle to rotate stem.

14. Body is shown up for easier assembly.

15. Body is shown up for easier assembly.

16. Use handle to retain stem.

17. Body is shown up for easier assembly.

18. Torque according to Body Bolt/Stud Torque Chart.

19. Seat

20. Seat spring

21. Press seat spring to back of seat if necessary.

22. Test the product prior to reinstallation in system.