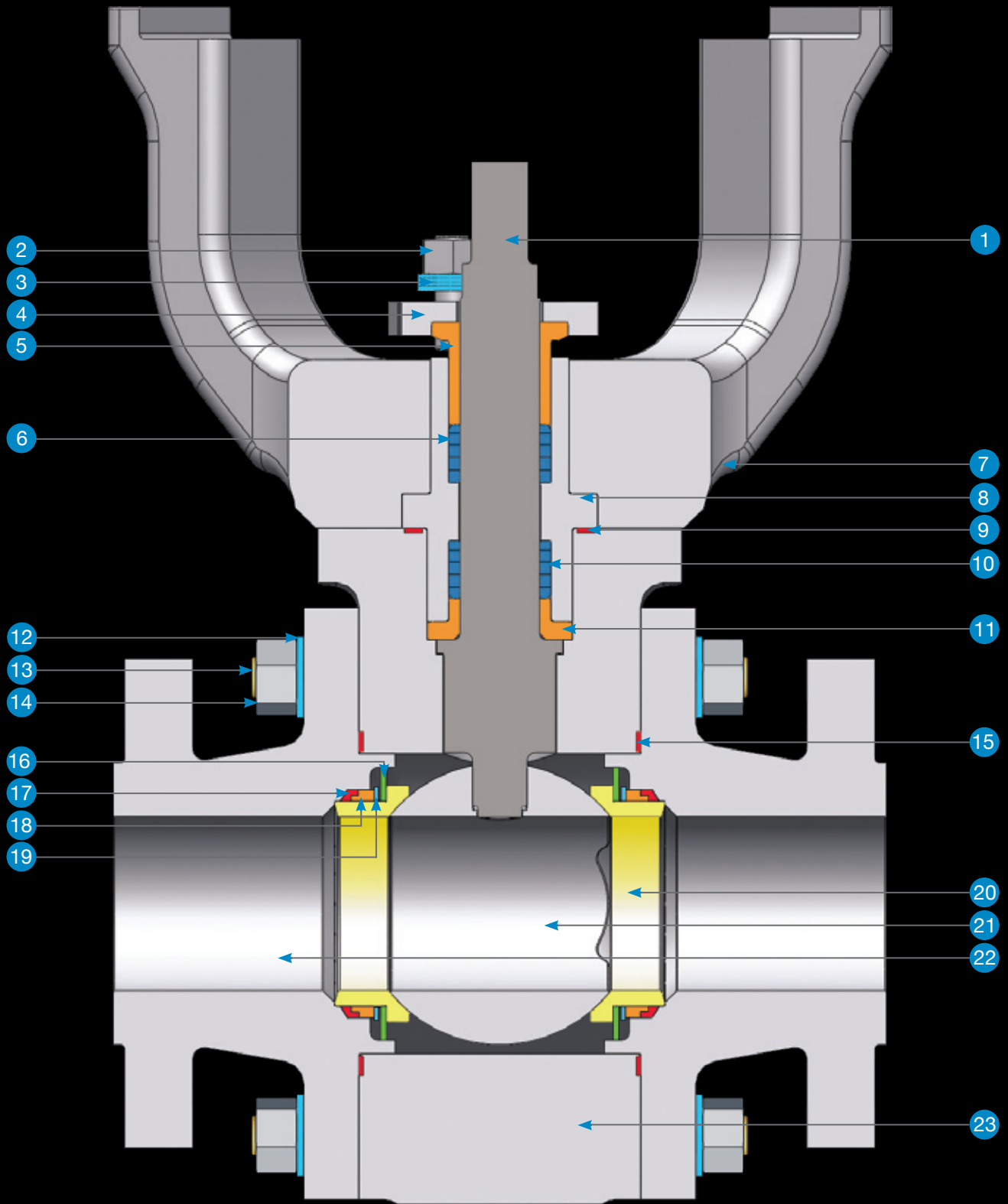


# Gosco M-Class Valves



Maintenance Manual





- |                           |                        |                      |                 |
|---------------------------|------------------------|----------------------|-----------------|
| 1) Stem                   | 7) Tripod Bracket      | 13) End Cap Stud     | 19) Seat Spring |
| 2) Packing Adjustment Nut | 8) Gland Insert        | 14) End Cap Nut      | 20) Seat        |
| 3) Belleville Washers     | 9) Gland Insert Gasket | 15) Body Gasket      | 21) Ball        |
| 4) Gland Plate*           | 10) Lower Stem Packing | 16) Scalloped Ring   | 22) End Cap     |
| 5) Upper Stem Guide*      | 11) Lower Stem Guide   | 17) Wedge Seal       | 23) Body        |
| 6) Upper Stem Packing     | 12) Belleville Washer  | 18) Compression Ring |                 |

\*items 4 and 5 are joined.

# Valve Component Adjustment and Replacement

## 1) Valve Removal

1. Ensure that the valve has been relieved of any residual pressure.
2. Remove the valve from the pipeline. Proper valve removal procedures should be followed.

## 2) Body Seal Replacement

1. Ensure that the valve is in the open position so that the ball will not fall out, and then remove the flanges from the body.
2. Ensure that the seat, scalloped ring, seat spring and compression ring stay in their correct order inside the flange.
3. Remove old body gasket, and replace with new one.
4. Once all components are aligned, attach flange to valve body.
5. Torque nuts according to the "Fastener Nut Torques" chart (rear cover).

## 3) Wedge Seal Replacement

1. Remove the flanges, as outlined in "2) Body Seal Replacement: Steps 1 & 2".
2. Remove seat along with scalloped ring, seat spring, and compression ring from inside the flange.
3. Using a flathead screwdriver, remove the wedge seal from inside the flange.
4. Clean the sealing face in the flange and put the new seal in place.
5. Once all components are aligned, attach the flange to the valve body.
6. Torque nuts according to the "Fastener Nut Torques" chart (rear cover).

## 4) Bonnet Gasket Replacement

1. Remove the bonnet by unscrewing the nuts from the studs at the base of the bonnet, and removing the two nuts holding down the gland plate. Pull off the gland plate.
2. Lift the bonnet from the body.
3. Pull stem along with the gland insert out of the valve body.
4. Remove old bonnet gasket and replace with a new one.
5. Put stem and gland insert back into the valve body.
6. Place the bonnet back onto the valve body and torque down the nuts according to "Fastener Nut Torques" chart.

## 5) Upper and Lower Packing Replacement

1. Remove the bonnet by unscrewing the nuts from the studs at the base of the bonnet, and removing the two nuts holding down the gland plate. Pull off the gland plate, the lift the bonnet off of the body.
3. Pull stem along with the gland insert out of the valve body.
4. Remove stem and lower stem guide from the gland insert.
5. Using a flathead screwdriver, remove the lower and upper graphoil packing set from the gland insert.
6. Clean any residue from the old packing sets inside the gland insert.
7. Carefully place the new gland packing set into the lower end of the gland insert.
8. Push stem along with the lower stem guide into the lower end of the gland insert and up all the way through the gland insert.
9. Place the tongue of the stem into a vice to secure the stem and gland insert sub-assembly.
10. Carefully place the new gland packing set into the upper location of the gland insert.
11. Place the stem and gland insert sub-assembly back into the valve, making sure that the bonnet seal is in place.
12. Place the bonnet back onto the valve body, and torque down the nuts accordingly.
13. Replace the gland plate and torque down the gland plate nuts accordingly.

Fastener Nut Torques		
Fastener	Torque	
	in/lb	ft/lb
5/16"-18	145	12
3/8"-16	293	24
7/16"-14	416	35
1/2"-13	710	59
9/16"-12	925	77
5/8"-11	1413	118
3/4"-10	2505	209
7/8"-9	4043	337
1"-8	6060	505

**Replacement Parts**

To order replacement parts for your M-Class Valve, please contact Gosco Valves. Please have the valve's serial number ready, so we are able to provide you with the correct parts for your model.

