

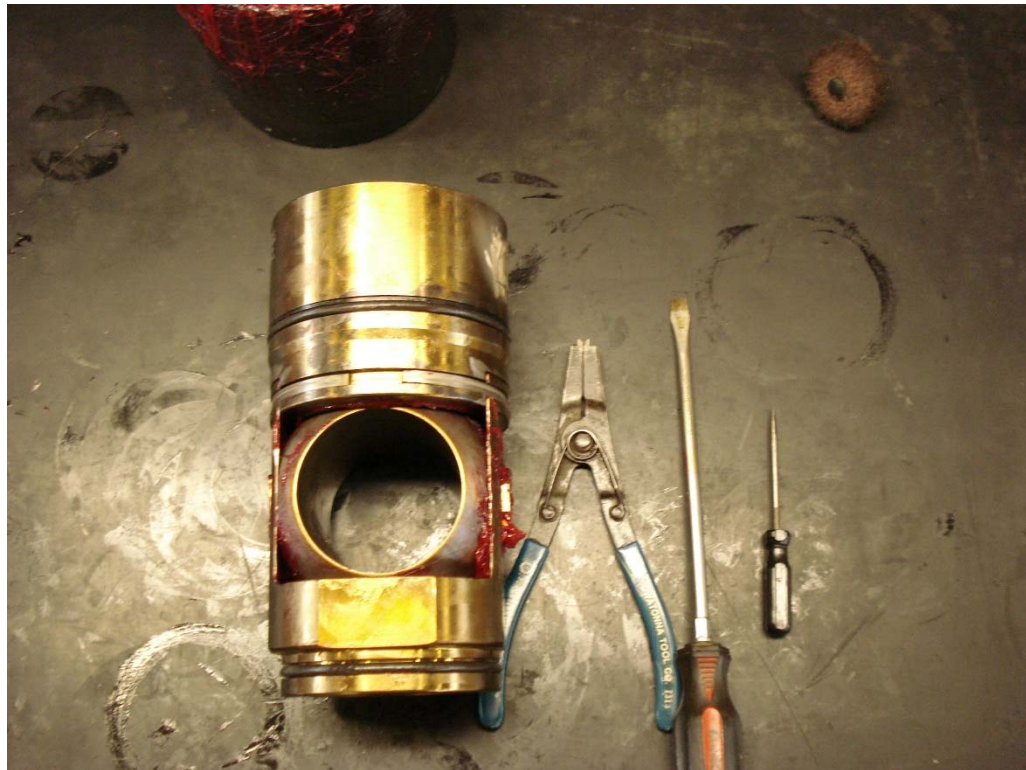


## ASSEMBLY AND DISASSEMBLY OF BOTTOM LOADING CANISTER

### 1. M&M BOTTOM LOADING CANISTER GUARD® DISSASSEMBLY

First the canister must be removed from the valve body. To do this, follow removal procedures for the particular valve in which the canister is located. Once the canister has been removed from the valve body, the canister may be disassembled. The following tools will be needed:

1. Snap- Ring Pliers
2. Pick
3. Screw Driver



1.1. To disassemble the canister the following steps must be taken.



## ASSEMBLY AND DISASSEMBLY OF BOTTOM LOADING CANISTER

1. With the canister in the closed position, use snap-ring pliers to open the cage/seat fastener at the gap located at the fastener.



2. Slide the cage/seat fastener out of the cage/seat grooves on the canister and remove the lower seat housing from the cage.



3. Remove the ball from the cage by pulling the ball upwards and away from the lower seat.



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4. Remove both stem links from the cage windows.



## ASSEMBLY AND DISASSEMBLY OF BOTTOM LOADING CANISTER



5. Remove the lower seat from the cage bore.



6. Remove the lower seat from the lower seat housing.





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7. Remove the spring from the lower seat housing.



8. Remove all O-Rings and Teflons, and discard. After cleaning, inspecting, and replacing any worn parts, the canister can be reassembled.

### 2. M&M BOTTOM LOADING CANISTER GUARD® ASSEMBLY



## ASSEMBLY AND DISASSEMBLY OF BOTTOM LOADING CANISTER

First, gather all the components necessary to assemble the canister. To make sure all the proper parts for assembly have been acquired, check the parts list for the specific valve type into which the canister will be installed. To do this, go to [www.mmvalve.com](http://www.mmvalve.com) and enter the serial number of the valve being assembled into the product search feature. By doing this you should be provided with an option to view the parts list for the valve being assembled, which should include the parts for the canister that corresponds to the valve. The following is a general list of the components needed:

1. Cage
2. Spring
3. 2 Lower Seats
4. 2 Stem Links
5. Ball
6. Lower Seat Housing
7. Cage/ Seat Fastener
8. 2 Lower Seat Lip Seal
9. Upper and Lower seat Teflon Rings
10. Lower Seat Housing O-Ring
11. Lower Seat Housing Back-up O-Ring
12. Canister O-Ring



Once all components necessary to assemble the canister have been compiled, the following steps must be followed:



## ASSEMBLY AND DISASSEMBLY OF BOTTOM LOADING CANISTER

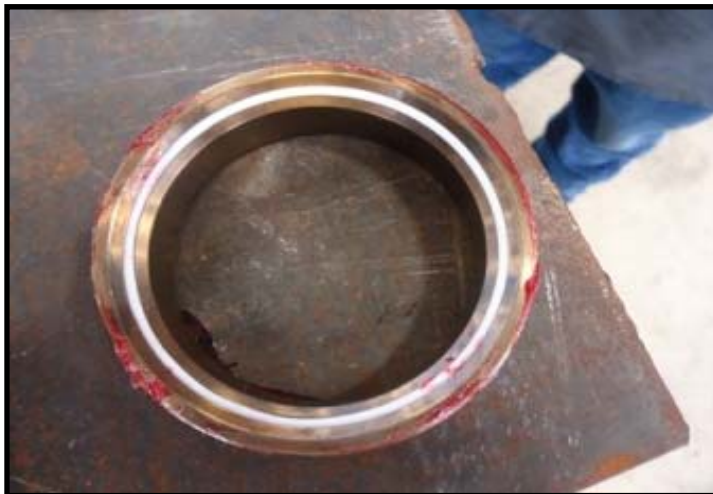
1. Visually inspect all components, insuring to replace any worn or damaged component(s). When reassembling a used canister, all seals/Teflons should be replaced regardless of wear or damage.
2. Roll the lower seat lip seal into the lower seat seal groove. Note: The seal should have lip facing towards the concave face. (2 Seats are done for a bottom loading canister).





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3. Insert the lower seat Teflon ring into the lower seat Teflon groove.



4. Roll the lower seat housing O-ring into the lower seat O-ring groove.





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5. Insert the lower seat housing back-up ring into the lower seat housing O-ring groove.  
**Note:** The lower seat back-up ring should be located above the lower seat O-ring in the same groove.  
**Note:** Ensure that the concave side of the lower seat back-up ring rests on top of/facing the top of the lower seat O-ring.





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6. With the lower seat on a flat surface and the Teflon groove facing upward, place the ball on the lower seat. Ensure that the internal diameter of the ball is perpendicular to the lower seat and that the Teflon ring is completely covered by the outside diameter of the ball. Using a rubber mallet, tap the ball with moderate force to ensure that the lower seat Teflon ring is seated.



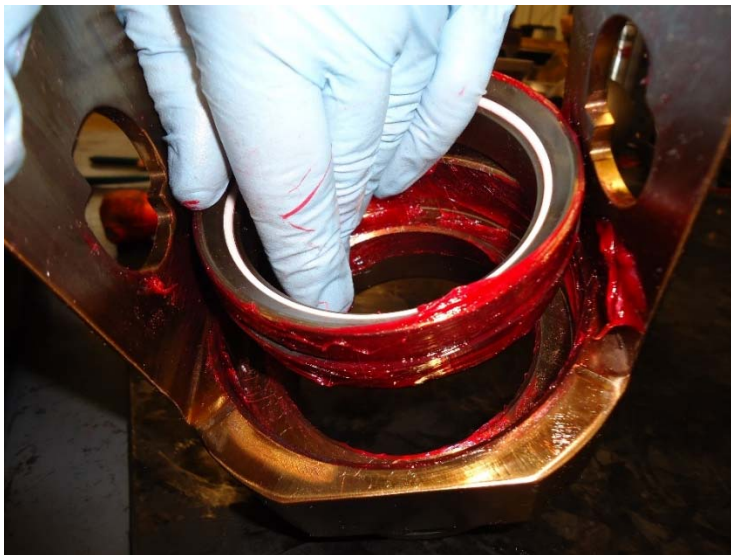
7. Insert the canister seal into the canister seal groove located on the nose of the cage.





## ASSEMBLY AND DISASSEMBLY OF BOTTOM LOADING CANISTER

8. Lubricate the cage bore and insert lower seat into the canister bore.







## ASSEMBLY AND DISASSEMBLY OF BOTTOM LOADING CANISTER

9. Insert the spring into the lower seat housing bore.  
**\*Note: SPRING MUST GO INTO THE LOWER SEAT HOUSING\***







## ASSEMBLY AND DISASSEMBLY OF BOTTOM LOADING CANISTER

10. Install the lower seat housing fastener. **Note:** Ensure that the gap on the seat housing fastener is perpendicular to the flats on the lower seat housing.



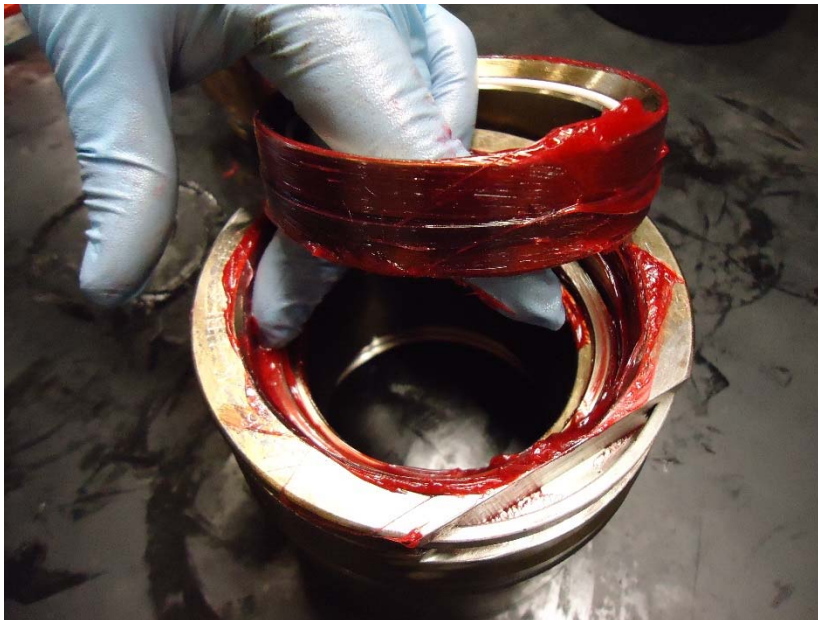


## ASSEMBLY AND DISASSEMBLY OF BOTTOM LOADING CANISTER

11. Inset the lower seat into the lower seat housing bore.

**Note:** The lower seat Teflon ring should be facing upward.

**Note:** Ensure that the spring is in the lower seat housing bore prior to inserting the lower seat.



12. Insert one stem link vertically into each of the cage windows.





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- Slide the ball in between the cage legs ensuring that the ball slot aligns with and engages the back portion of the stem link(s).



- Place the lower seat housing on top of the cage legs. Align the lower seat housing flats with the cage legs.

**Note:** the cage legs should make contact with the lower seating housing flats and the bottom face of the cage/seat fastener.





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15. With a screwdriver, pry the cage/seat fastener away from the lower seat housing allowing the cage/seat fastener to engage the cage leg groove.

**Note:** This may require tapping the top of the lower seat housing.







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16. Lubricate the entire canister. The canister is now ready to be placed into its corresponding valve.