

How to assemble Isolator Ring and Gauge Systems

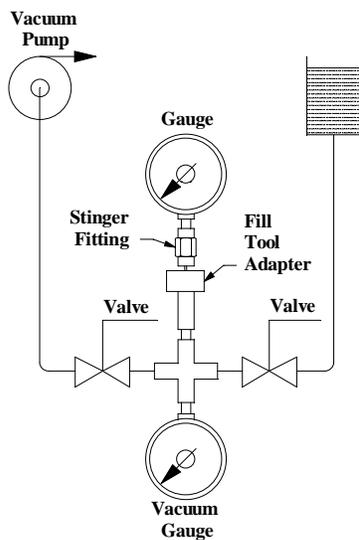


Figure 1

1. Assemble the vacuum filling kit as shown in figure 1. The vacuum pump can be either air powered or electric, which ever is convenient. If you are using an air-powered vacuum pump, make sure that you have a source of compressed air that can maintain 90-psi (6 bar) pressure continuously.
2. Connect the Onyx fill tool adapter to the vacuum-filling manifold. Your complete assembly should look like the picture in figure 2.
3. Fill the reservoir bottle with silicone instrument oil.
4. For best results, elevate the reservoir bottle at least 4 feet (1 meter) higher than the workbench. The photograph shows the bottle closer than actual for pictorial clarification.
5. Attach the gauge to the stinger fitting as shown in figure 3.

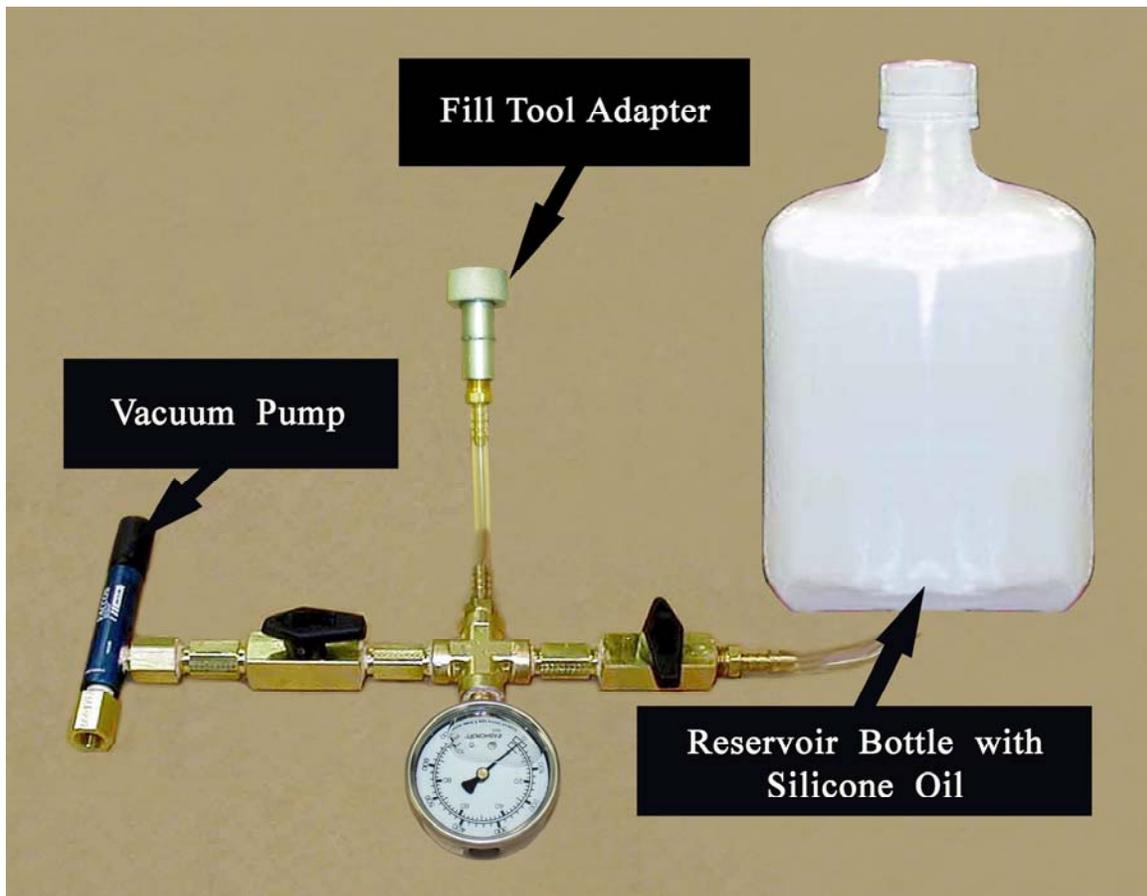


Figure 2

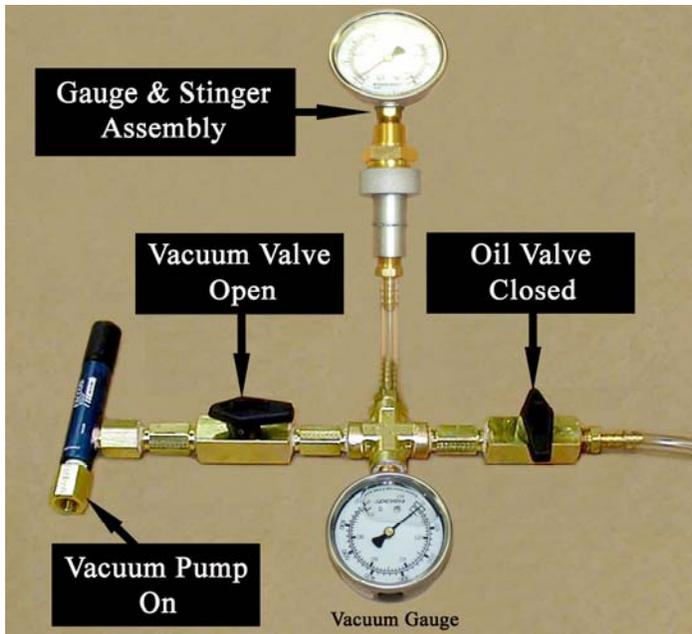


Figure 3

6. Attach the gauge and stinger assembly into the fill tool adapter as shown.
7. Turn on the vacuum pump.
8. Open the vacuum valve.
9. Allow the pump to evacuate the system for 5 minutes.
10. Close both valves.

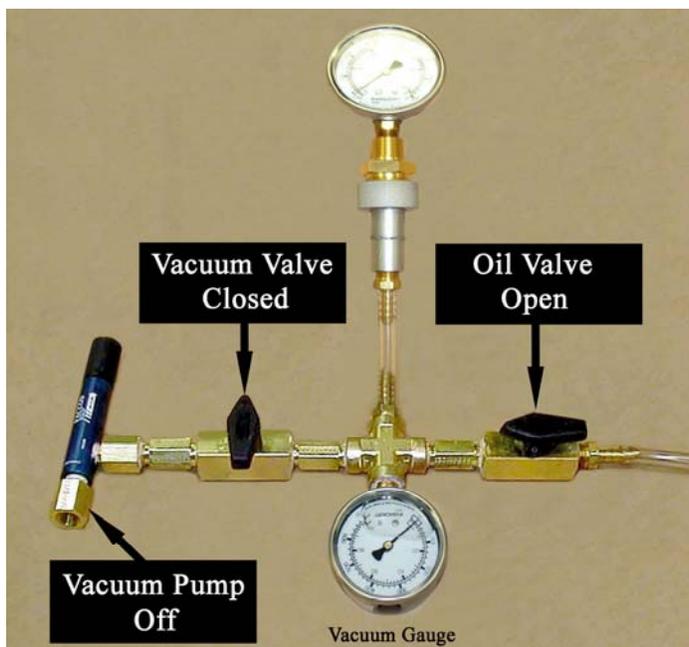


Figure 4

11. Close the vacuum valve.
12. Turn off the vacuum pump.
13. Allow the system to sit for 2 minutes. Check the vacuum gauge to make sure that there are no leaks in the system. If the system does not hold vacuum, check your fitting connections and start over. If the system holds vacuum, proceed to the next step.
14. Slowly open the oil feed valve. Allow the silicone oil to flow into the gauge assembly.
15. Let the system rest for at least 3 minutes to allow the silicone oil to flow into the gauge assembly.

16. Close both valves.
17. Disconnect the stinger fitting from the fill tool adapter.
18. Cap the stinger fitting with a rubber 'tip protector' so the oil doesn't drip out of the needle.

19. The gauge assembly is now ready to connect to an isolator ring. Remove the tip protector prior to connecting stinger fitting to isolator ring.

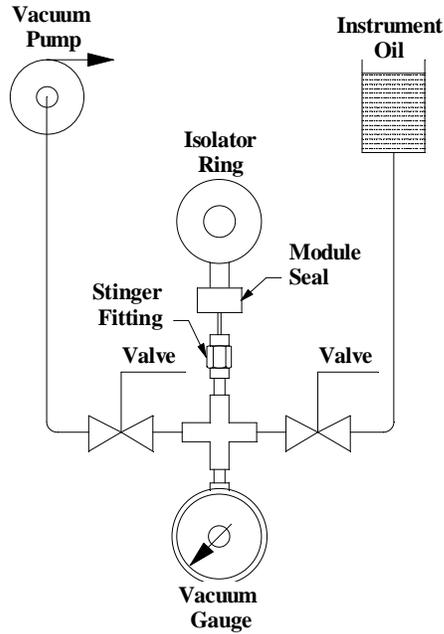


Figure 5

To Fill an Isolator Ring:

1. Assemble the vacuum filling kit as shown in figure 5. The vacuum pump can be either air powered or electric. If you are using an air-powered vacuum pump, make sure that you have a source of compressed air that can maintain 90-psi (6 bar) pressure continuously.
2. Connect an Onyx stinger fitting to the vacuum-filling manifold. Your complete assembly should look like the picture in figure 6.
3. Fill the reservoir bottle with silicone instrument oil.

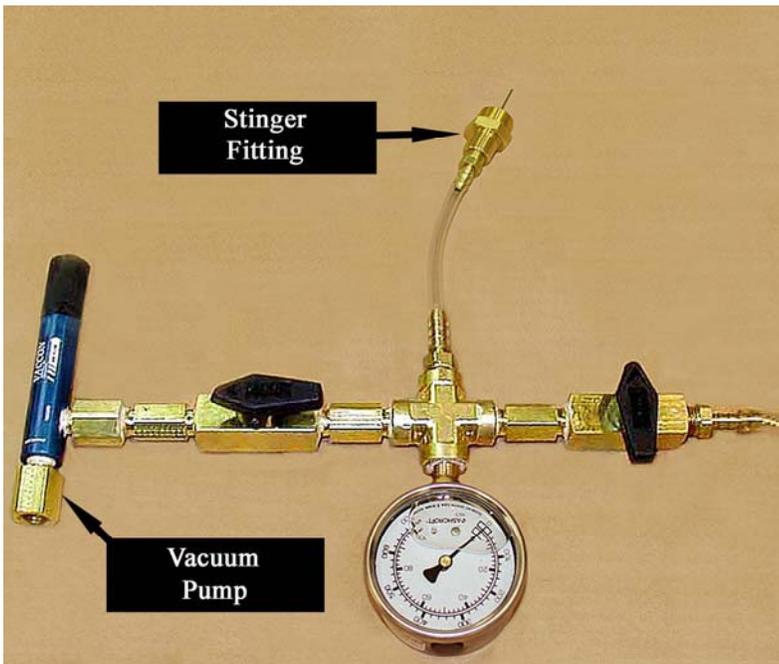
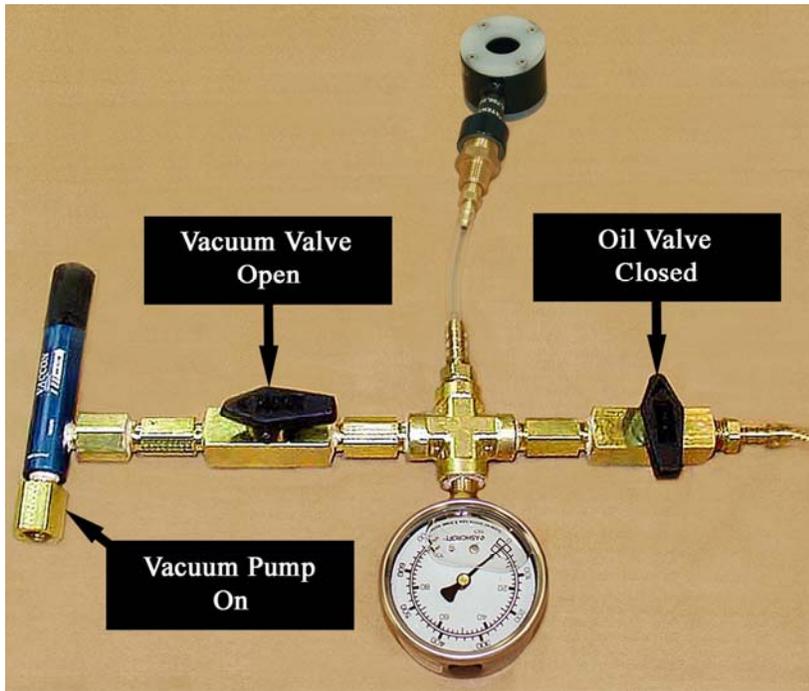


Figure 6

4. For best results, elevate the reservoir bottle at least 4 feet (1 meter) higher than the workbench.
5. Attach a complete isolator ring to the stinger fitting as shown in figure 7.



6. Close the oil feed valve.
7. Turn on the vacuum pump.
8. Open the vacuum Valve.
9. Allow the pump to evacuate the isolator ring for 2 minutes.
10. Close both valves.

Figure 7

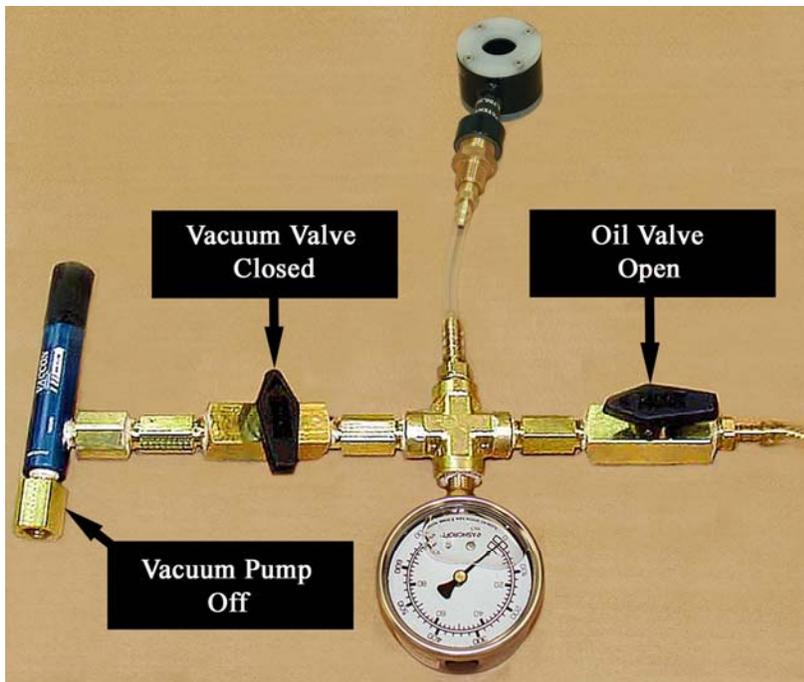


Figure 8

11. Close the vacuum valve.
12. Turn off the vacuum pump.
13. Allow the system to sit for 2 minutes. Check the vacuum gauge to make sure that there are no leaks in the system. If the system does not hold vacuum, check your fitting connections and start over. If the system holds vacuum, proceed to the next step.
14. Slowly open the oil feed valve.
15. Let the system rest for at least 3 minutes to allow the silicone oil to flow into the isolator ring.

16. Close both valves.
17. Disconnect the Isolator Ring from the vacuum fill manifold.
18. Connect the Iso Ring to a vacuum filled pressure element.