

Installation Instructions – Model 740946 Sample Tail Guide Kit for 7410 VSM

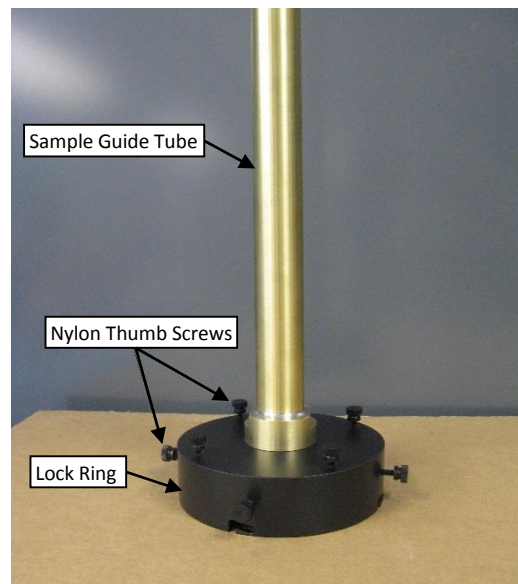
Introduction

When the user tries to measure hard magnetic materials with a large signal, especially under high field, the sample can be attracted towards the magnet pole thus make the VSM measurement impossible. This sample tail guide can be added to the 7410 VSM head to keep sample from moving towards magnet pole.

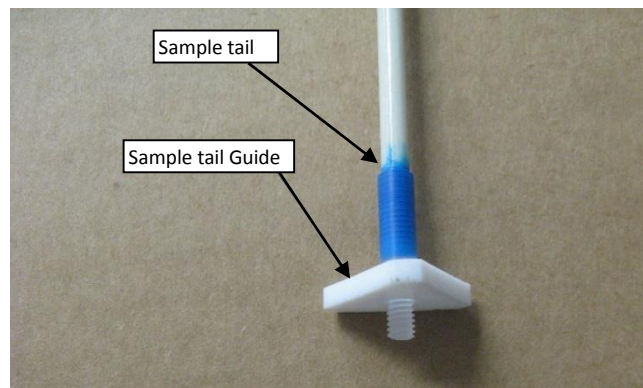
The instructions below assume the VSM system has the standard setup and is in good working order.

Sample tail guide assembly

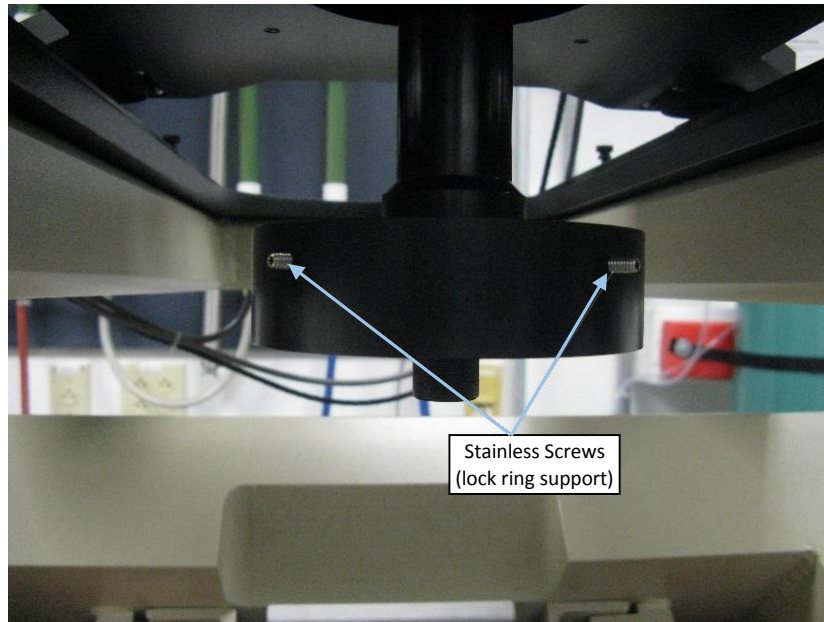
1. Assemble the sample guide assembly. All the tips of the Nylon thumb screws should be flush with the inner surface of the lock ring.



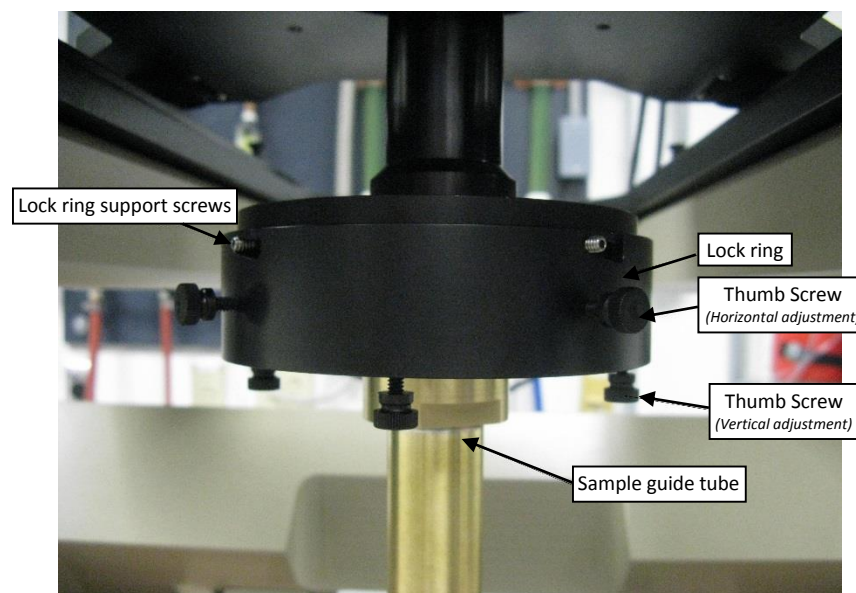
2. Remove the fiberglass sample tube from its packing tube. Install the sample tail guide (661-162) onto the rod adapter.



3. Check fit of the sample tail guide against the ID of the brass Sample guide tube. It should slide freely against the ID the tube, but snug. There should no play when moving the sample tail from side to side. The triangle guide was intentionally made slightly oversized. Use 300 – 400 grid sand paper to reduce the points of the guide to fit the tube ID.
4. Replace the thumb screws in the lower VSM head with nylon tipped stainless steel set screws. Replace them one at a time. Stop when the screw tip hits the surface. **Do not apply a force great enough to change the driving rod position in the head.**

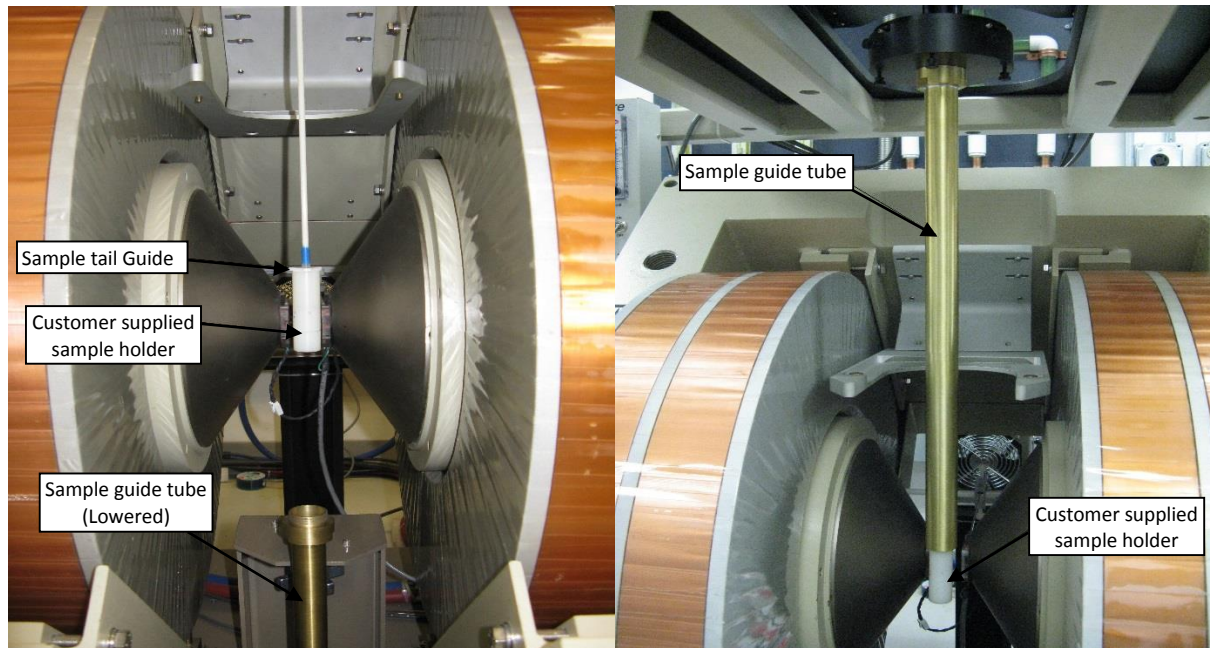


5. Attach the sample tail guide assembly you made in step 1 to the stainless steel set screws. You should feel no binding during the installation.



6. Visually center the ring and tight the horizontal positioning thumb screws.

7. Put a level on the guide tube and use the vertical adjustment screws to position the tube in vertical.
8. Slide the head to a forward position such that the guide tube can be unscrewed and dropped off.
9. Attach the sample tail with the guide to the head drive.
10. Slide the guide tube over the sample guide and rod. Take care that you do not bend the sample tail. Again attach the guide tube to the lock ring.
11. Screw the special sample holder to the sample tail adaptor. Now the installation is complete.
12. The VSM system can be run as normal.



Helpful notes:

1. It is preferred to remove the sample holder only during sample exchange.
2. One should identify the lock ring orientation with respect to the bottom of the VSM head when removing the guide tube assembly for ease of re-installation. Always loosen the 4 horizontal position screw before twisting off the lock ring.
3. The user will likely have a custom made sample holder for large sample. It is important to note that the sample holder diameter must be less than 0.75" (19mm). Also, the sample holder needs a #8-32 x 0.4" deep internal thread to attach to the sample tail.
4. If needed, the standard sample holder (730931) top can be added to lengthen the sample holder 0.56" (14.3mm).