

Gershun Tube

The Gershun Tube couples to the SMA 905 connector on a spectrometer (or to a fiber via a splice bushing) to aperture the field of view of the spectrometer or fiber. The Gershun Tube kit comes with user-replaceable aperture disks of 1, 3, 8, 10, and 14 degrees. It regulates field of view easily and without any moving parts.

Without the Gershun Tube, the field of view of a standard fiber is approximately 25 degrees. You can modify this field of view by inserting one of the disks into the barrel of the Gershun Tube. Once installed, you secure the disks in place with a retaining ring, which you screw into the barrel.

A ring removal tool is included with the Gershun Tube kit. Additionally, the Gershun Tube kit includes a customized splice bushing that allows you to connect the Gershun Tube directly to the SMA 905 termination on a fiber. The entire Gershun Tube kit is manufactured from machined aluminum. The interior surfaces are bead-blasted, which reduces off-axis reflections. Additionally, the entire assembly is black anodized.



Note: With the Gershun Tube, users can achieve a 1, 2, 3, 6, 8, 10, 14, 16, 20, or 28 degree field of view. However, when using the Gershun Tube attached directly to a fiber, the fiber limits the maximum field of view to approximately 25 degrees. See note in Step 2 below.

Operation

Follow the steps below to install and use the Gershun Tube:

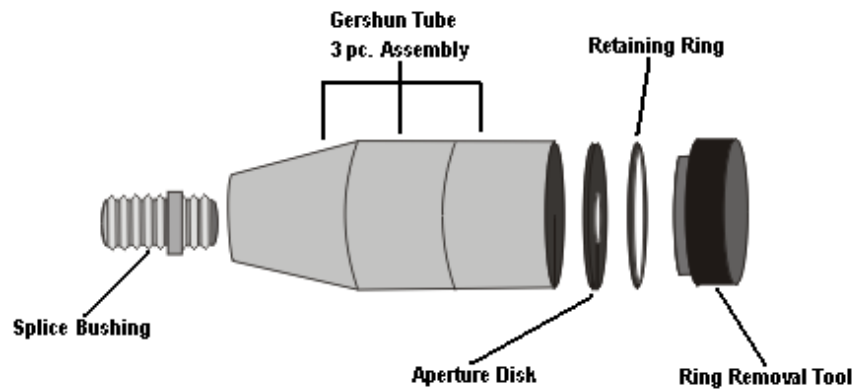
1. Thread the three components of the Gershun Tube (cone-shaped base, middle barrel, and end barrel) together to form the Gershun Tube (if assembling tube for the first time).
2. Select the aperture disk to use with the Gershun Tube. Each aperture disk is marked with a number indicating the field of view (in degrees) that each disk provides.

Note: Using the fully assembled Gershun Tube (all three components threaded together) and an aperture disk will result in a field of view (in degrees) equal to the number on the aperture disk. To achieve a field of view DOUBLE that which is printed on the disk, remove the middle component of the Gershun Tube and assemble the tube with only the cone base and the end barrel.

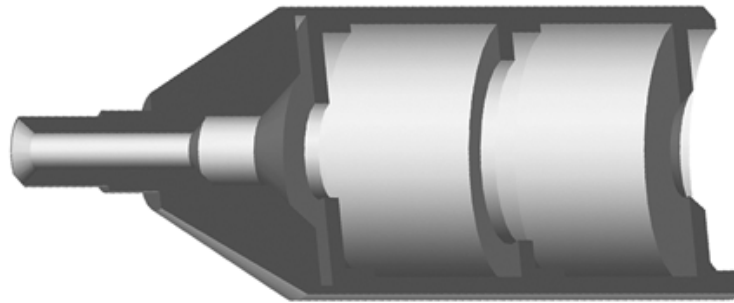
With this configuration, you will achieve a field of view of 2 degrees with the 1-degree aperture disk, a field of view of 6 degrees with the 3-degree aperture disk, etc.

3. Use the ring removal tool to remove the retaining ring from the inside of the Gershun Tube (if necessary). Place the threaded end of the tool into the open end of the Gershun Tube and thread the removal tool onto the ring. Remove the ring by rotating the removal tool out of the Gershun Tube.
4. Insert the aperture disk into the end of the Gershun Tube.
5. Replace the retaining ring by hand into the end of the Gershun Tube to secure the aperture disk.
6. Attach the Gershun Tube to the SMA 905 connector on the USB2000, or use the splice bushing to connect the Gershun Tube to the SMA 905 termination of a fiber.
7. Take your measurements as you typically would.
8. Repeat Steps 2-5 to change aperture disks in the Gershun Tube.

Gershun Tube



Gershun Tube – Expanded view of assembled product



Gershun Tube – Cutaway view of product interior