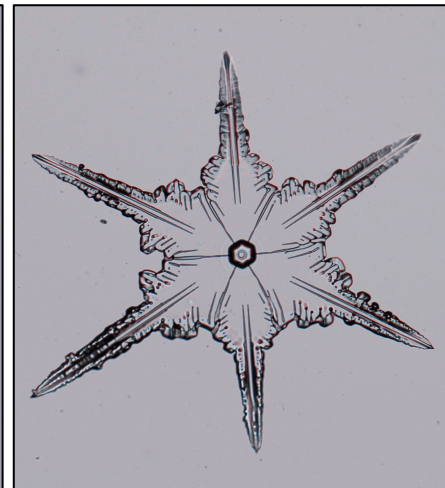


# Low-Budget Case for Macroscope 25A

Protect your investment. The padded case supplied with the Macroscope is disappointing and will not protect your Macroscope for field use. The simplest and cheapest fix is to buy a cardboard poster tube, 3" diameter and shorten it to the right length. Cover it with duct tape to waterproof it and make it last longer. Cut a piece of closed cell foam to fit in the end to pad it, and another to roll into the tube to reduce the tube diameter and pad the optical part. See the pictures below for more detail.

Alternatively you can get a plastic tube with similar dimensions, but plastic may be heavier (PVC) and break more easily (thin polycarb) in the cold.



# Parts and tools



## Parts:

½ in closed cell foam

3" poster tube with end caps

Duct tape

## Tools:

Sharp knife or razor blade

Sharpie

Square

Tape measure

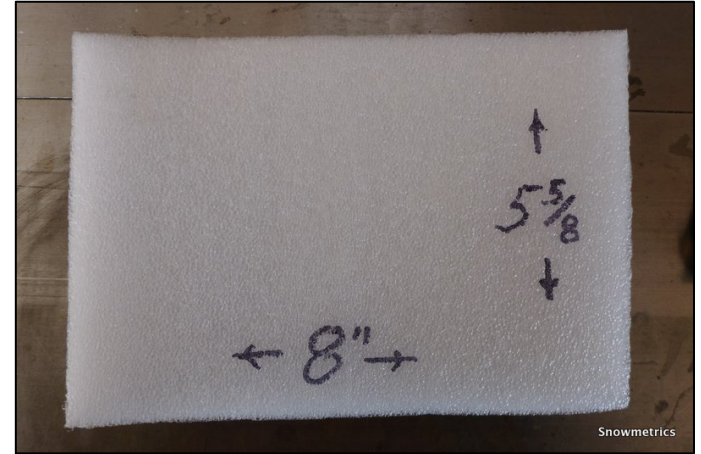
Notes: Cardboard tubing is measured by inside diameter (I.D.), so any 3" tube should work regardless of type or wall thickness. Any closed cell foam should work. Closed cell is preferable as it won't absorb water and hold moisture.

Dimensions listed below will depend on the foam thickness you use.

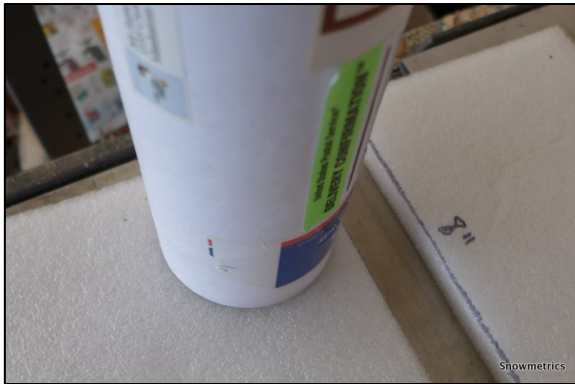
# Cutting Pieces



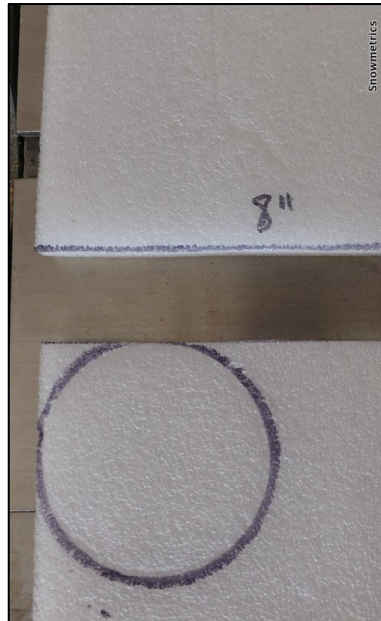
You can cut the tube to 9 1/2 " with a chop saw or razor blade.



Cut the foam to 8" x 5 5/8" with a razor blade or scissors.



Trace the tube on the outside diameter. Bigger is better so it will fit snugly in the end.



Cut the end piece out with a sharp blade.

# Assembly



Cut a rectangular piece of foam, roll it, and insert it into the tube. Push it in a short distance so the end piece and cap will fit too.



Insert the round foam in the end that will not be opened. Push one cap in for a tight fit.



Tape or glue cap in place so it will not open.



Macroscopic should fit in the tube with room for end cap to fit snugly.



Final assembly with Macroscopic inside.



I covered my tube with white duct tape to make it last longer and protect it from water. I used white duct tape so it would not absorb solar radiation and get warm before use. A cool Macroscopic will allow you to look at unaltered snow crystals longer. I put one piece of black tape on the tube so it would be easy to see in the snow.

Remember to take your Macroscopic out of the tube when you return from the field to let both the Macroscopic and your tube dry thoroughly between uses.

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