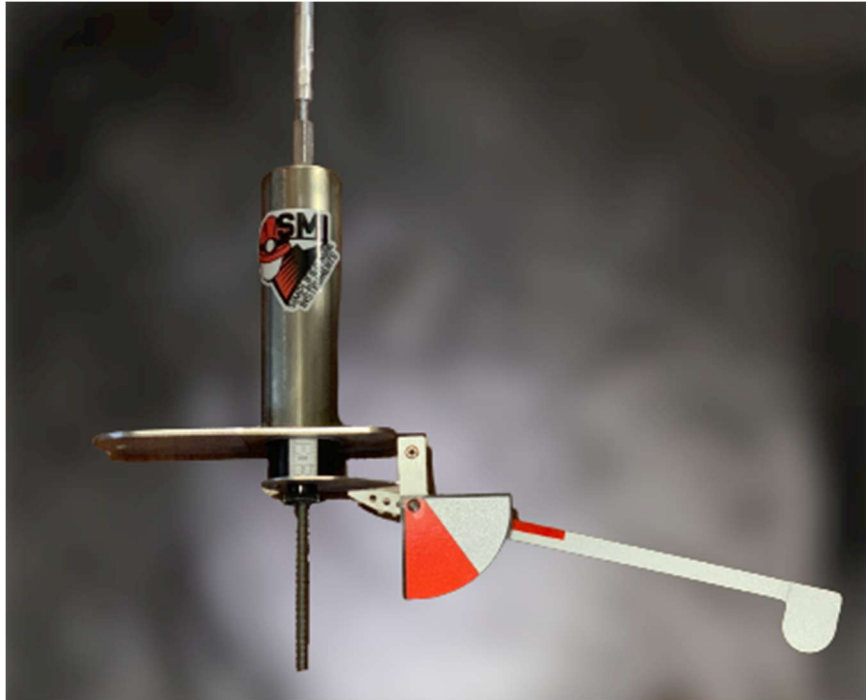


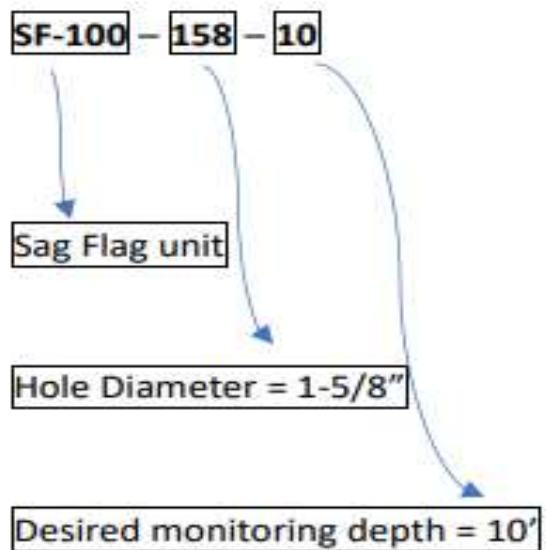


## SAG FLAG Specifications and Installation

*Simplified Mine Instruments*



### Part Number explanation





### SAG FLAG Specifications

- Made in America
- Single-point rock movement monitor with a 9" flag that is visible from great distances.
- .5mm measurements retrievable at the instrument.
- Non corrosive materials
- Designed to install quickly and is easy to use by all.
- 1-5/8" diameter hole minimum.
- Unlimited monitoring depth.
- 25mm of detectable movement at initial setup. Resettable.
- 1mm movement resolution

### SAG FLAG INSTALLATION

1. Determine the required depth from the mine roof to your anchor point.
2. Layout the sag flag collar device and the rods on a flat surface and cut the fiberglass rod to achieve the depth if different from the ordered length.
3. Make sure the length of the Flat anchor is ¼" longer than the drill hole diameter.  
(For example...a 1- 5/8" diameter hole should have a 1-7/8" long flat anchor. Etc.)
4. Crimp the rods together and attach to the collar device.
5. Insert into the borehole anchor first.  
(Continue to push the unit up the hole until the collar device is against the roof.)

6. Rotate the collar device to the position you want it to be set at.
7. Mark where the rock needs to be drilled for the rock anchor and drill it about 2-1/2" deep. (3/8" bit)
8. Install rock anchor
9. Install the collar device onto the rock anchor stud and tighten it down.
10. Adjust the flag to a horizontal position by turning the black nut on the threaded stud, up or down.

### Best Practices:

1. If Flag passes the red portion of the scale, the unit should be readjusted so the flag is horizontal again. When the flag reaches the red there is only ¼" to go before the unit will be maxed out and stop reading movement. To adjust the unit, back off the thumb nut until the flag is horizontal again. Any readjustment should be noted so the lifetime movement of the instrument is recorded.
2. Drill 1 to 2 feet past your desired monitoring distance. This prevents clay packing or other possible issues from interfering with the monitoring rod insertion
3. Make sure you are anchoring in solid Rock. If anchoring in a clay seam or loose shale, contact SMI for possible solutions
4. If the monitoring rod becomes difficult to push up the borehole, lightly tap the end of the rod with a dead blow hammer or similar device.