

Operating Instructions

Cole-Parmer® 03319-00, -10 Clear View™ Rain Gauges

Thank you for selecting the Cole-Parmer® Clear View Rain Gauge. Model 03319-00 reads in English units; range is 0.01 to 11.0 inches, and accuracy is ± 0.01 inches. Model 03319-10 reads in metric units; range is 0 to 280mm, and accuracy is ± 2 mm. They measure 14" L x 4 1/8" diameter. Each gauge includes an acrylic mounting bracket, 3 screws, and a data recording sheet.

To install:

Mount the gauge on a post that you walk past each day so that you'll remember to read and empty the gauge. Ideally, the post should be 4" x 4" or two 2" x 4" posts nailed together. If possible, do not mount near trees or buildings that would prevent rainfall from reaching the gauge. Mount the gauge so that the top is level and about 6" higher than the top of the post.

To operate:

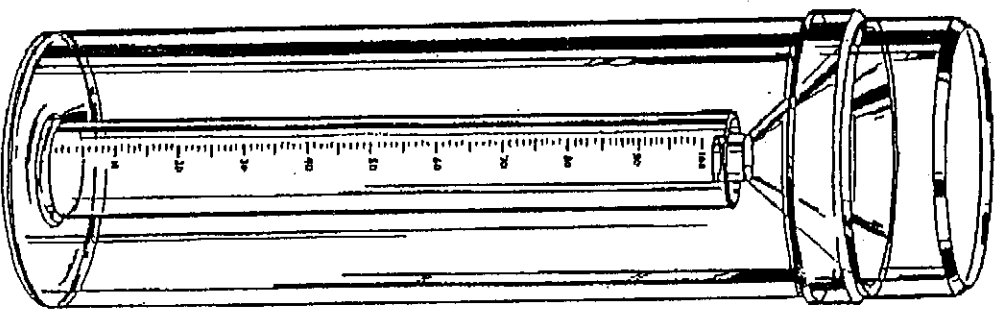
The gauge includes an outer cylinder, a graduated measuring tube placed inside the cylinder, and a top funnel. The top funnel catches the rain and delivers it to the measuring tube, which has a capacity of 1.00 inch, or 24mm.

If the rainfall is less than one inch, read directly from the measuring tube. Remove the funnel and tube from the cylinder, and stand the tube on a level surface. Read the amount to the nearest 1/100 inch, or 2mm. Record the rainfall in your log and discard the rain water.

If rainfall is more than 1" (or 24mm), the excess rain flows into the outer cylinder. To measure, first remove the funnel and measuring tube, and pour out the first 1" of rain water. Replace the funnel on top of the measuring tube, and pour carefully the excess rain water from the outer cylinder into the tube. Repeat these steps until the outer cylinder is empty.

Finally, record the measured amount in your log. Be sure to count the first inch of rain water that was in the measuring tube. Note: to ensure accuracy, measure heavy precipitation twice. Just use an empty can or pan to receive the measured rain water, and measure again.

In cold weather, use only the outer cylinder to catch hail, sleet, or snow. Melt the snow indoors. Then use the tube to measure the moisture accumulation from snow. Or, press the outer cylinder into a level area of snow, and then melt the captured snow. To speed up the melting process, add a known amount of hot water to the snow. Measure the total amount of resultant water and subtract the amount that you added to determine the moisture accumulation from the snow.



Keeping a daily log:

Whenever possible, take your readings at the same time each day. Record your readings on the daily log. Use the date on which you take the readings even though much or all of the rain may have fallen the preceding day after you took your daily reading. Enter your reading in 1/100 (for example 0.01, 0.31, 1.01, 3.01, etc., or in 2mm increments). If rainfall is less than 0.01 inch or 2mm, enter "T" for trace in your daily precipitation log.

Maintenance:

Avoid rough usage. Wash periodically with warm water, a mild soap or detergent, and a household bottle brush. Do not clean with solvents or abrasives. Do not wash it in a dishwasher. Do not allow accumulated water to freeze in the gauge.

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