

Soil-Water Samplers – Operation instructions

General- before activating the Sampler:

Location:

Locate a healthy plant or row, with a developed canopy, a typical plant to represent most of the monitored field.

The device should be inserted into the soil in an active root zone, the same as we do for Tensiometers.

Scheduling:

We generally recommend to activate the device after the watering, when the soil is in **field capacity**. In heavy soil the wetting time is longer than in light soils.

If the time is not convenient, it will not be a big mistake to activate the device close to the beginning of the irrigation shift.

Stage 1 - activating the device (Creating Vacuum)

1. Push the Syringe's piston to point B2.
2. Connect the syringe to the 3way valve in point C by a half turn.
3. Set the valve handle to position V1- there is a free connection between the syringe and the Sampler's body.
4. Draw back the piston to position B1. Now there is an initial vacuum inside the device.
5. While you keep holding the piston, change the 3way valve to V2 position. Now the vacuum is "trapped inside the Sampler's body.

Usually we will need to repeat this process to increase the vacuum power, in the following order:

Piston to B2>valve to V1>piston back to B1> valve back to V2>piston back to B2

Stage 2- Pumping out the sampled water:

We will do this procedure a few hours (normally: 4-8) after the end of irrigation, The time depends on soil type and also the user's convenience. Follow these steps in the right order:

1. Set the valve handle to V1

2. Draw the syringe's piston back firmly until you see the water running into the syringe.
3. While holding the piston, move the valve back to V2 position.
4. Now put a cup or a bottle near the valve's outlet (V1) and push the piston to B2. The water will run out to the cup.
5. Actually the procedure is finished and you can send the sample to a lab or test it by yourself with our testing kits.
6. Last important thing: in order to be sure there is no water left in the device. Repeat the pumping process one more time.