



SATURO

Field Saturated Hydraulic Conductivity

SET IT UP, AND LEAVE

The SATURO dual-head infiltrometer does almost everything for you. It's fully automated and doesn't require post-processing of data. Install the ring, connect the hoses, and push start. It's that simple.

The infiltrometer automatically measures infiltration rates, and the control unit calculates field saturated hydraulic conductivity ($K_{\rm fs}$) on the fly. That means if you need a value right away, it's there. If you want to dig deeper, you can always download the raw data.

ELIMINATE GUESSING

Single and double ring infiltrometers require you to know—or guess—the "alpha factor" (soil macroscopic capillary length) to manually correct for three-dimensional flow. The SATURO infiltrometer changes everything. It automates the well-established dual head method which measures infiltration at two different pressure heads to estimate sorptivity. This simplifies the three-dimensional flow analysis, allowing you to determine field saturated hydraulic conductivity without making any dubious assumptions. And the best part is—it does all the calculations for you, saving you hours of tedium.

FEATURES

- Fully automated infiltrometer
- Capable of unattended measurement
- The Soil Health Institute recommends SATURO as a standard method for measuring $K_{\rm fs}$: a Tier 1 soil health indicator
- Compliant with ASTM standard test method D8550-25
- K_{fs} values calculated and graphed in real time, no data post-processing is necessary
- Portable
- Includes self-contained water reservoir

SPECS

Pressure Head Ranges	0 to 40 cm
Water Level	Maintained at 5 cm
K_fs	The range of $K_{\rm fs}$ values that can be effectively measured by the SATURO infiltrometer are limited by the minimum and maximum infiltration rates listed above. These depend on the pressure heads applied to the water during infiltration and to the three-dimensional flow characteristics of the soil, so the measurement range of $K_{\rm fs}$ cannot be specified explicitly. SATURO will generally be able to make measurements on poorly to moderately structured soils as coarse as medium sand, but the maximum infiltration rate can be exceeded by soils with excessive structure and especially by soils with significant macropores.
Infiltration Rate	Range: 0.0038 cm/hr to 115 cm/hr Resolution: 0.0038 cm/hr Accuracy: ±5 % of reading
Charging Adapter	18 V 2.2 Amps; Range 18 to 24 V DC Output: USB
Operating Temperature Range	0 to 50 °C
GSA	View GSA details
Other Compatible Software	Download the measurement data stored in the SATURO to your Windows computer with the free downloader software linked below in the support section.