METER

HYPROP2
UNSATURATED HYDRAULIC CONDUCTIVITY OF SOIL IN LAB

The expert on moisture release curves

The HYPROP2 generates the best data on the wet end of the soil water characteristic curve, with more details than any instrument on the market. Plus, you can combine the HYPROP2 with any LABROS instrument for a complete soil analysis; the PARIO for soil particle size analysis, the WP4C for a complete moisture release curve, or the KSAT for a hydraulic conductivity curve. All are powerful tools for understanding data and predicting a soil's behavior over time. Unparalleled accuracy. Automation. Far faster speeds. The HYPROP2 meets the highest lab instrumentation standards, giving you results you can trust with far less work and hassle.

Features

- More precise and robust
- Low time, cost, and effort
- Easy to handle and flexible
- Simultaneous measurement of water retention function and hydraulic conductivity
- High validity of the water retention function, especially in the area close to saturation
- The hydraulic functions are consistently verified by a large number of measuring values
- Reliable determination of unsaturated conductivity in the medium water potential range independent of model assumptions
- Tensiometers measure beyond typical cavitation point down to -240 kPa
- Tensiometers are positioned upside down in the soil sample (undisturbed evaporation and no impact on the tensiometer shafts)
- Reduced tensiometer water loss after reaching the cavitation phase

Simply accurate. Simply fast. Simply automated.

As soil scientists who have made hundreds of moisture release curves, we wanted an instrument that delivered greater accuracy. And we demanded an instrument that was automated. The HYPROP2 takes only days vs. months to generate a soil water characteristic curve in the wet range, and it does this automatically.

METER

HYPROP2
UNSATURATED HYDRAULIC CONDUCTIVITY OF SOIL IN LAB

Use the HYPROP2 together with the WP4C (which measures the dry range), and you can create full, high resolution moisture release curves across the entire range of soil moisture. Nothing else is capable of doing that - not at this level of detail. On top of all that, we designed the HYPROP2 to automatically determine unsaturated hydraulic conductivity on undisturbed soil samples placed inside a standard 250ml sampling ring. Used in tandem with the KSAT, it can a generate a hydraulic conductivity curve for any soil type. The resulting instrument winds up saving you time, hassle and worry.

Unrivaled accuracy

When it comes to soil water potential, measurements don't get any more accurate or precise. That's because the HYPROP2 produces more data points (over 100 data points in the 0 to -100 kPa range), higher resolution data, more detail, and better information in its moisture release curves information that is missed when using the traditional pressure plates or hanging water column methods. The HYPROP2 uses two precision mini tensiometers to measure water potential at different levels within a saturated soil sample while the sample rests on a laboratory balance. Over time, the sample dries, and the instrument measures the changing water potential and the changing sample weight simultaneously. It calculates the moisture content from the weight measurements and plots changes in water potential correlated to changes in moisture content.

Automated everything

The HYPROP2 is a complex instrument, but it makes moisture release curves much simpler. While other methods require weeks of tedious drying and weighing, the HYPROP2 can be set up to run automatically. Its software calculates values for dry range and saturation according to a selected model, and it even allows you to input data from other water potential instruments such as the WP4C to automatically fit the soil moisture release curves.

The faster, the better

After setup, the HYPROP 2 is capable of generating a moisture characteristic curve and determining the unsaturated hydraulic conductivity of soil samples in only days versus months. To save you even more time, it can operate while being left unattended.

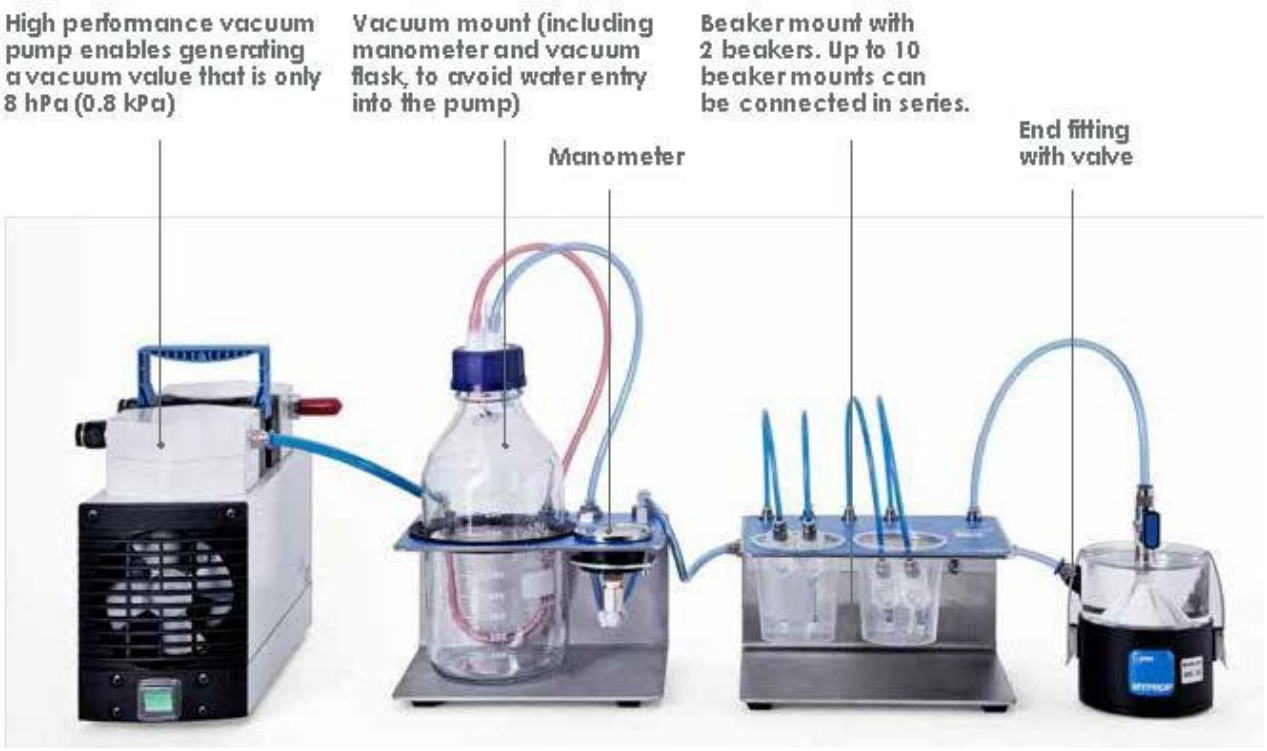
Specifications

Accuracy	1.5 hPa (0 hPa to 820 hPa)
Resolution	0.01 hPa
Measurement range for tensiometers	+20 hPa to -1200 hPa / -2400 hPa
Material/Dimensions without sample ring	POM, h = 63 mm, Ø = 80 mm

METER

HYPROP2
UNSATURATED HYDRAULIC CONDUCTIVITY OF SOIL IN LAB

Configuration of Vacuum Refilling System (Optional)



HYPROP-VIEW Software

The new HYPROP-VIEW data logging software simplifies sample-based measurements with one or several HYPROP balances. Start or stop a new HYPROP measurement or refill a HYPROP sensor unit at any time even if another HYPROP measurement is running. Both functions are supported, regardless of whether you have only one HYPROP balance with several HYPROP units or one individual balance for each HYPROP unit. The last option is recommended for up to ten balance and HYPROP sets.
HYPROP-VIEW now automatically recognizes HYPROP balances as well as any KERN EG 2200 balance. It used to be a laborious and inaccurate process to correct the offset in HYPROP-FIT. Now the offset is conveniently determined during the refilling process.
The new HYPROP-VIEW software also creates a HYPROP-FIT data file. This eliminates the elaborate data conversion.

HYPROP-FIT Software

The new HYPROP-FIT is an excellent software program for evaluating evaporation experiments and fitting hydraulic functions to data. We've updated it to be faster, more accurate, more reliable, and more comprehensive. Use it also with the WP4C to create full soil moisture release curves.

For more information and resources about UNSATURATED HYDRAULIC CONDUCTIVITY OF SOIL & SOIL MOISTURE RELEASE CURVES , please look at the below link:
https://www.metergroup.com/en/meter-environment/products/hyprop-2-soil-moisture-release-curves

bilmar

BİLMAR BİLİMSEL ARAŞTIRMA VE MÜHENDİSLİK ANONİM ŞİRKETİ

Web page : www.bilmar.com.tr **E-mail : bilkim@bilmar.com.tr**