

# TERRAELUTE 20

## Percolation automated

# The solution i.e. for the new substitute building materials ordinance in Germany:

Our TerraElute 20 is a fully automatic laboratory instrument for the elution of solids in upward flow, according to DIN 19528. Saves time, saves costs!

With the TerraElute 20 you can elute 20-40 different samples with a dry weight of up to 3 kg at the same time. Depending on the settings 1 or 4 eluate fractions are obtained.

#### Features

- ✓ Automatic and efficient execution of both the extensive column test as well as the column short test according to DIN 19528
- ✓ High sample turnover: 40 sample columns in 20 sample racks can be operated simultaneously and controlled individually be
- Reliable precision: flow-controlled valves regulate the flow rates to the nearest decimal point; switching to the next switching to the next fraction takes place automatically and precise
- ✓ Color touch display provides optimum overview of the the status of all sample columns and bottles

# Also in our laboratory assortment:

# SoilMeistur=

- Sets for pF determination: Pressure pots, Sandbox, Tension Tables, Hanging Water Column
- San Andreas kit for sieve analysis
- Chameleon and PR16 permeameter for Ksat determination



FOGL laboratory calcimeter



- Processed sample columns and bottles can be exchanged during operation
- ✓ No wearing parts, no noise, completely maintenance-free
- Seamless integration into your Laboratory Information Management System (LIMS), complete documentation for the test report
- ✓ Simple and network-independent data transfer by means of barcode scanner: import of sample characteristics assignment of the fractions to the sample columns, "checking out" of the finished eluate bottles

# Your project. Our solution.

Just get in touch with us if you have an idea, a research project. Together we will find a suitable solution for you!

We look forward to your call or e-mail.

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# LABORATORY AUTOMATION

We have the equipment

Automated implementation of many standard measurements

Innovative new developments on customer request



# Challenges in

# LABORATORY AUTOMATION

Discover the future of soil science with our modern laboratory equipment and innovative laboratory automation solutions!

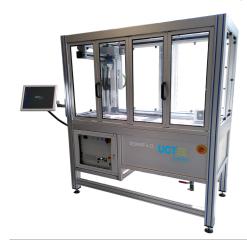
In soil science, it is crucial to obtain accurate and reliable results.

With laboratory measurements you determine various parameters under defined boundary conditions, which gives you a high repetition rate of the tests and thus a well-founded statistical evaluation.

Our automation solutions allow you to analyze more samples in less time while improving the quality of your results.

We work closely with scientists and research institutes to provide you with high quality products. Do you have special requirements or wishes for laboratory equipment? Contact us - together we will develop a suitable, customized solution!

# Our solutions and products



### SEDIMAT 4-12

Laboratory instrument for automated determination of particle size distribution in mineral soils (Köhn analysis)



- ✓ Reduced workload, high accuracy
- ✓ Complete analysis for 12 samples in 4 fractions per day.
- ✓ Exact realization of DIN ISO 12377



## PERMEAMETER according to Ketelsen

Laboratory automat for the determination of the saturated hydraulic conductivity on undisturbed soil samples according to DIN 19783-9



- ✓ Fully automatic throughput of up to 24 samples / 24 h
- ✓ Continuous calculation of Ksat
- Automatic differentiation of samples with high and low hydraulic conductivity



### ku-pF MP10

Laboratory instrument for the automated determination of the unsaturated hydraulic conductivity ku and the pF curve (water tension curve) according to the evaporation method

- ✓ Sampling of up to 10 samples simultaneously
- ✓ Continuous data acquisition with minimal support effort



# PERISTALTIC PUMP SYSTEM PPS-5









#### **OVERHEAD SHAKER**

For homogenization of soil or liquid samples



- ✓ Infinitely variable up to 50 revolutions/min.
- ✓ Freely selectable number and size of samples (standard: 60 sample bottles à 100 ml / 72 sample bottles à 250 ml)



# AIR/GAS PYCNOMETER

Pycnometer according to Langer, for direct measurement of volume and density of solid substances



- ✓ Application in soil science and industry for determination of pore volume and storage density, as well as the volume of irregular bodies
- ✓ Measuring chamber volume 2100 cm³



#### PERKOLATOR 32

Laboratory instrument for the automated extraction of percolate and determination of the cation exchange capacity according to DIN EN ISO 11260:2018-11



- ✓ Up to 32 soil samples simultaneously
- ✓ For more accurate results with minimized workload
- ✓ Percolation cycles and volumes freely selectable
- ✓ Automatic rinsing included



#### LABORATORY LYSIMETER

Measuring soil processes on a laboratory scale



- ✓ For infiltration and percolation experiments, rewetting experiments, transport of pollutants or nutrients
- Options: Weighing, lower boundary condition, sprinkler irrigation, leachate extraction, soil moisture / tension measurement, pH value, redox, conductivity



