



Ecotron 4.0 „Platin Line“

Cosmos in a container

Datasheet 20 Container

Dimension Ecotron, 1m² Lysimeter with 20" Container:

Wide: 2,4m
Depth: 6,05m
Height: 2,6m
Weight: 4000kg (without soil)

Dimension Lysimeter, 1m² Cylinder:

Diameter: 1,13m
Depth: 1,5m
Surface: 1m²
Volume: 1,5m³

Dimension Atmosphere Space:

Diameter: 2,4m
Height: 2,5m
Surface: 4,5 m²
Volume: 9,0 m³

Other dimensions of the lysimeter cylinder are possible on request. Just contact us for further information.

Climatisation parameter atmosphere:

Temperature: Offset relative to outside conditions -2°C to +12°C. Accuracy ±1K.
Absolute limits 0°C and +42°C
Air humidity: >45%. Accuracy ±5%
CO₂ level: 380ppm – 1000ppm or higher if needed.
Gradient air temperature: max. ±5K/h
Gradient air humidity: max. ±5%/h
Special full space ventilation system to guarantee homogeneous conditions in the whole space.
Cooling machine is included.

Weighing system lysimeter:

Precise lysimeter balance 3000kg, three point measurement
Resolution lysimeter balance: 10g
Accuracy lysimeter balance: 100g

Lower boundary control:

Special high flow ceramic cups with 1bar air entry point
Lechate tank: 50 L
Resolution lechate balance: 0,5g
Accuracy lechate balance: 1,0g

Soil temperature control system:

Temperature at bottom of soil column: from +6°C to +20°C.
Cooling machine included.

Irrigation:

Irrigation by tripple irrigation or with spray nozzle.

Sensor equipment:

Matric potential, volumetric water content and temperature in four depth (10cm, 30cm, 50cm, 140cm).
Additionally sensors and other depth on request.

Camera:

4K webcam or different cam type optional.

Root cam:

Root cam tubes. Predesigned depth 25cm, 50cm, 100cm.

CO₂ or ozone enrichment

Range according customer order. Optional

Sap flow:

Sap flow sensors can be added to divide transpiration and evaporation of woody plants. Optional

Phenotyping (optional):

The Ecotron is the perfect platform, to do phenotyping. We can offer all type of phenotyping with our partner.

Single modules can be added easily later on.

You need an individual tailored solution? We design, plan and realise it with you in close cooperation. Diamond Design make dreams come true.