



# Ecotron 4.0 „Platin Line“

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Cosmos in a container

## Datasheet 20 Container

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### Dimension Ecotron, 1m<sup>2</sup> Lysimeter with 20" Container:

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

### Dimension Lysimeter, 1m<sup>2</sup> Cylinder:

Diameter: 1,13m  
Depth: 1,5m  
Surface: 1m<sup>2</sup>  
Volume: 1,5m<sup>3</sup>

### Dimension Atmosphere Space:

Diameter: 2,4m  
Height: 2,5m  
Surface: 4,5 m<sup>2</sup>  
Volume: 9,0 m<sup>3</sup>

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%

CO<sub>2</sub> 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.

**CO<sub>2</sub> 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.