LIS
Laboratory Infrastructure Solutions

Rapid Labs
Custom Deployment Laboratories

MPC Modular Plant Chamber

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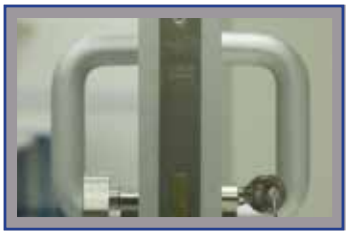

Laboratory Infrastructure Solutions specializes in the development, manufacturing and deployment of portable custom laboratory infrastructure solutions.

Following the acclaim received by our containerized laboratory units, with their ease of operation, LIS has developed the Modular Plant Chamber.

The advanced design and manufacturing approach employed by LIS makes the Modular Plant Chamber an efficient and cost effective alternative to conventional constructed facilities.

The Modular Plant Chamber is a portable environmental control facility with the following possible control features:

- High PAR value LED lights, with adjustable growth and flowering spectra.
- Temperature control.
- Humidity control.
- Carbon dioxide control.
- Irrigation control.

Modular Plant Chamber benefits:

- The Modular Plant Chamber offers a sophisticated environmental control facility with integrated environmental controls, making experiment configuration and monitoring thereof easy.
- The Modular Plant Chamber's wide range of environmental performance parameters means that it can be used for a range of seed, plant and soil research experiments.
- The Plant Chamber is a cost efficient alternative to conventional infrastructure, as design parameters are closely integrated with space configuration.

Typical performance parameters:

- LED Growth lights:
  Output > 1000 µmol.m-2.s-1
  Wavelengths Blue, White, Red
- Temperature, adjustable, 18°C to 40°C
- CO2: 400 to 800 PPM
- Humidity: 30% RH to 90% RH
- Air quality: HEPA filtration with a final efficiency of 99,97%.
- Air pressure cascading to design.
- Irrigation frequency and duration.

These parameters may be set according to end-user adjustable day and night cycles, each with dawn and dusk ranges.
Remote system access and configuration can be done, with data logging and automated reporting. System alarms may be configured for users. This helps to reduce the risk of experiment failure.
Irrigation systems are integrated into the design, enhancing control for optimal growth and drought studies.

The Modular Plant Chamber is manufactured to specific environmental control requirements and tested at LIS's factory. Remote test feature are activated, to allow remote access to the end-user, making participation in testing possible.
Following testing, the Modular Plant Chamber is freighted to the deployment site. Operating and maintenance training is provided.

LIS offers both remote maintenance support and routine preventative maintenance.
For more Information:
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