



MyGrowthRoom



Multi-purpose mobile research rooms
for Controlled Environment testing

Conduct your own high-level research

MyGrowthRoom enables you to carry out your own high-quality product research. Testing varieties, testing to optimize yield, nutritional density, texture and taste. Perform your own tests in an efficient, accurate and flexible way!

MyGrowthRoom provides you with a complete climate system to accurately control environmental variables.

MyGrowthRoom contains the accumulated knowledge and experience from numerous large-scale projects for renowned research institutes.

The multi-layer setup facilitates simultaneous tests in uniform conditions. With its flexible interior layout it can be used with a broad range of cultivation and lighting systems.

Our custom-made control system makes it easy to set up, monitor and log plant growth parameters. An efficient, accurate and flexible way to develop optimal growth recipes and light recipes for your crops!

The highly energy-efficient MyGrowthRoom is easily scalable to a production environment.

- Quick, efficient and accurate testing of growth recipes for any crop
- Fully controllable growing conditions in a clean environment, totally closed to natural light and air
- Highest precision in controlling lighting, temperature, humidity and airflow
- Customizable options include CO2 injection, irrigation and fertigation
- Suitable for any lighting system
- Signify hortipartner
- Fully customizable interior provides maximum flexibility
- Data logging guarantees reproducibility
- One-click definition of growth recipes
- Touch screen control with intuitive and easy to use interface
- Airtight and damp proof room
- Easily portable, it can be positioned anywhere
- Plug & play



Testing and defining recipes for your crops has never been so easy!

- What is the best light recipe for a specific crop?
- Which LED solution invokes the optimal plant response?
- How to maximize yield relative to energy used?
- How can I differentiate in taste, colour and texture with my light recipes?
- Does the light output meet manufacturers specifications?
- How do I compare test results for fluorescent and led lights?

Content with the results of your trial?

All settings have been logged and can be easily saved as a growth recipe, for any growth stage, for every variety.

LED systems: trial first

Specific combination of wavelengths and lighting strategies result in a particular plant response – different for each LED and for every crop.

MyGrowthRoom provides the ideal solution for setting up a small-scale trial of several luminaires and plants.

MyGrowthRoom also facilitates a gradual shift to LED. Simultaneous tests in uniform conditions provide you with reference values for both fluorescent and led light.



*Boost your
product research with
MyGrowthRoom*

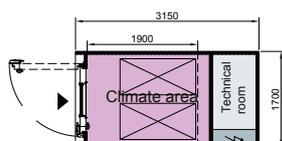


"We're testing varieties, we're testing to optimize yield, to optimize nutritional density, texture and taste."

MyGrowthRoom is available in various models, tailored to your requirements. All models are air tight and damp proof. Conditioned air is blown out through perforated side walls to guarantee a very uniform air distribution.

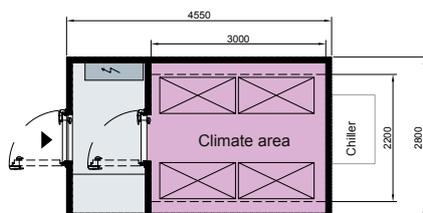
Small

- room for 2 Danish trolleys
- control panel on the outside



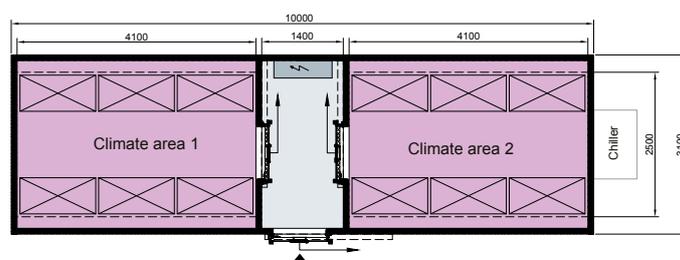
Medium

- room for 4 Danish trolleys
- control area in the middle



Large

- room for 6 Danish trolleys in 2 separate climate rooms
- control area in the middle



	Small	Medium	Large
Dimensions mm (LxWxH)	3150 x 1700 x 2750 1)	4550 x 2800 x 2750 1)	10000 x 3100 x 2975 1)
Growing area mm (LxWxH)	2000 x 1500 x 2000	3000 x 2200 x 2000	4100 x 2500 x 2350 (2x)
Temperature range	15-35 °C	15-35°C	15-35°C
RH range	60-90%	60-90%	60-90%
Flexibility in lighting	Yes	Yes	Yes

1) excluding chiller

1) excluding chiller

1) excluding chiller



Provisions needed on site:

- power supply
- tap water connection (for humidifier)
- drain water connection point

Tailored to you situation

Any other requirements? Please contact our engineering specialists to discuss your objectives, products and processes.

Smart control for optimal conditions

For MyGrowthRoom, Nijssen developed a special version of the Nijssen Control System, with the complete set of functionalities that is used in renowned large-scale research facilities.

MyGrowthRoom is controlled by touchscreen.

With our advanced in-house software, we provide maximum control and monitoring of all essential and critical processes. Easy to operate, thanks to the intuitive visualisation.

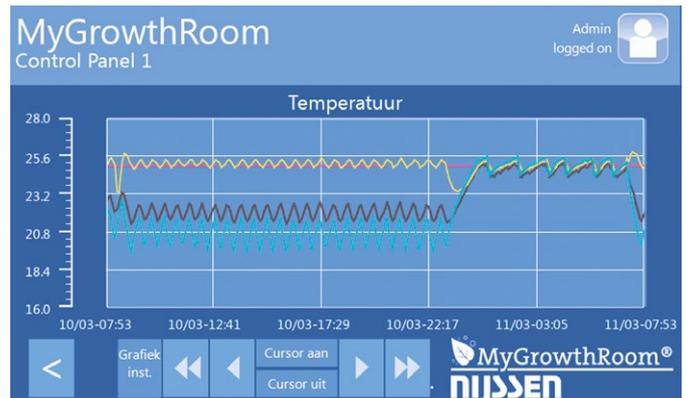
If required, our automation engineers customize the software to your specifications.

- Operated via touch screen with intuitive and easy to use interface
- Dashboard display with set-points and actual conditions
- Easy to expand with environmental variables e.g. CO₂, irrigation and fertilisation
- Group control of LED lighting available
- All set-points (including lighting) are logged during trial
- Setpoints and measured data are displayed in easy-to understand charts and tables
- Easy creation and management of growth recipes.
- Extensive data analysis available
- 24/7 monitoring and remote control



Any other requirements?

Our automation engineers will be pleased to find the best solution, in a joint effort with you.





AMONG OUR CLIENTS

Research Institutes, e.g.:

- Wageningen University
- Radboud University Nijmegen
- VU University Amsterdam
- University of Groningen
- Leuven University (B)
- Naktuinbouw
- IRS/Cosun

Private sector, e.g.:

- Syngenta (UK/NL/D)
- Bayer / Monsanto
- Enza Zaden (NL/ES)
- BASF / Nunhems Seeds
- Limagrain
- HZPC
- Vitro Plus
- BVB Substrates

Farma and others, e.g.:

- Janssen Biologics
- OctoPlus
- Novo Nordisk
- Life Technologies
- Yara

Foods, e.g.:

- Jumbo
- Hoogvliet
- Spar
- Friesland Campina
- Frigomundo
- Van Ravenswaaij
- Luiten Food
- Schmidt Zeevis
- Fix Fisch

Vegetables and Potatoes, e.g.:

- LIDL (NL/D)
- The Greenery
- Fruitmasters
- Van Gelder Experience Center
- Olympic Fruit
- Van Oers United
- Rosenbaum (D)
- Special Fruit (B)
- Mission Produce
- Kloosterboer
- VDH Logistics

Flowers, e.g.:

- Florensis
- Dekker Chrysanten
- Van der Deijl Roses
- C. Steenvoorden



The Nijssen family started in the refrigeration engineering business in 1948 and made its name developing state-of-the-art custom-built industrial refrigeration systems, ripening chambers and plant cultivation chambers. We expanded to become a prominent player in our industry, both at home and abroad.

Nijssen has always led the way in refrigeration technology development. As early as the 1960s, Nijssen marketed the world's best refrigeration system Filacell.

In 1986, Nijssen was the first Dutch supplier of patented LED plant growth lights. In joint research with Wageningen University we explored specific light recipes for different crops. The Nijssen Light Division was sold to a renowned lighting

manufacturer. With the rapid developments in LED technology we focus on offering our clients the LED solution that best meets their requirements. Nijssen is one of the few companies in the industry to develop its own control software. Our automation specialists translate their knowledge of refrigeration engineering and storage conditions into easy-to-use operating software, tailored to your system.

At Nijssen you will find specialists with a passion for refrigeration engineering. Our key concepts are strong commitment, short lines of communication, continuity and excellent business relationships. We look forward to discussing your situation and developing a solution specific to your unique requirements.

Contact us today!



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