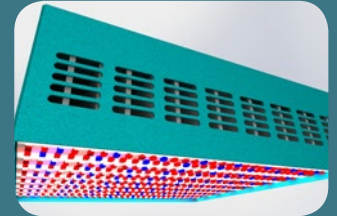
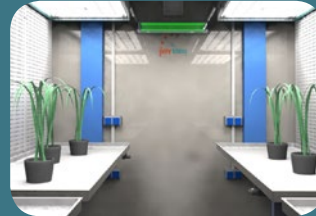


The light bench phytophoton LR



The flexible and energy-saving light bench with 2, 3, 4 or 5 illuminated tiers

We produce light benches according to our customers' wishes. Light intensities, growing height and growing area are variable and can be customized to your needs and structural conditions. All light benches are stable in temperature and therefore without fluctuations in light intensity. The special process by which we achieve this also provides massive energy saving because the lamps work exactly at their optimal thermal efficiency range.

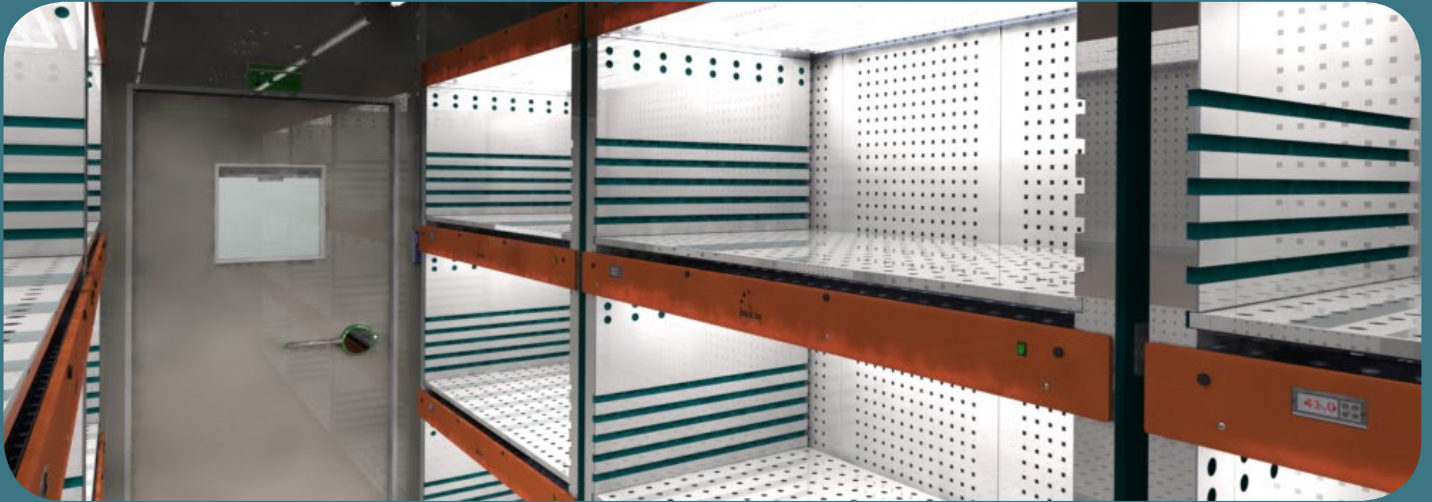
With the **phytophoton light bench** in a **poly klima room** and their **intuitive to operate** controller elements you can adjust light intensity, air humidity, temperature and CO₂-saturation whichever way you like and therefore port any environmental condition into a controllable surrounding.

The environmental friendly simulation of climatic zones

The light bench phytophoton LR provides (in conjunction with the tailor-made poly klima walk-in-rooms):

- High grade, durable components and materials
- Access to every parameter via PC or touch screen monitor
- All light tubes are dimmable in 255 steps, each tier separately.
- There is additional, consistent, separate dimmable red and infra-red with 240 LEDs on each level (optional) with the use of T5 lamps.
- Light intensities up to 650 μmol (measured at 30 cm distance)
- Consistent temperature and very low wind-speed
- Computer-aided support with fast, comprehensive and competent service

Due to thorough engineering and the use of first-class materials we significantly lower the energy consumption of our systems in comparison to our competitors' products. We look upon climatic research also as environmental protection.



poly klima Raum mit phytophoton Lichtregalen LR-A

Technical details

- Non-corrosive; all materials are made of powder-coated aluminum
- All parts and components are made in Germany, Switzerland and Austria
- Ideal for plant cell culture, seed germination and plant biology research. Of course there are more application thinkable.
- You can choose from 3 different light intensities (2 – 200 μmol , 4 – 400 μmol , 7 – 750 μmol). Individual light configuration is possible as well.
- Each tier is equipped with up to 20 high-efficiency T5-fluorescent tubes optionally with 240 additional red (660nm) and far-red (730nm) LEDs.
- All light-channels are dimmable with up to 255 steps from 1% to 100% of their max. light intensity in a day-/night-program.
- All or single tiers can be equipped exclusively with LEDs-modules (optional).
- The shelves can be vertically adjusted easily and without any tools.

Of course individual customer-specific configuration of the light-bench is possible and we are keen to visit you or discuss over the phone.

Configurations

| Model | Growing height per tier | Growing area per light bench |
|--------|-------------------------|------------------------------|
| LR-2-A | 83 cm | 2,2 m ² |
| LR-3-A | 52 cm | 3,3 m ² |
| LR-4-A | 33 cm | 4,4 m ² |
| LR-5-A | 27 cm | 5,5 m ² |
| LR-2-B | 83 cm | 3,2 m ² |
| LR-3-B | 52 cm | 4,8 m ² |
| LR-4-B | 33 cm | 6,4 m ² |
| LR-5-B | 27 cm | 8,0 m ² |

Dimensions and weight

| Model | Dimension in cm (H x B x T) | Weight in kg |
|--------|-----------------------------|--------------|
| LR-2-A | 206 x 170 x 70 | 130 |
| LR-3-A | 206 x 170 x 70 | 150 |
| LR-4-A | 206 x 170 x 70 | 170 |
| LR-5-A | 226 x 170 x 70 | 195 |
| LR-2-B | 206 x 205 x 85 | 160 |
| LR-3-B | 206 x 205 x 85 | 190 |
| LR-4-B | 206 x 205 x 85 | 220 |
| LR-5-B | 226 x 205 x 85 | 255 |



Technology:

| | |
|--------------------|---|
| Compressor: | Bitzer, rpm-regulated with frequency power inverter |
| Control valves: | Siemens, Belimo |
| Expansion valves: | electronic with emergency shutdown in case of power-out |
| Air cooler: | Güntner or Termofin, with energy-saving EC-ventilators |
| Air drying: | Cotes, absorption-dryer (manufactured in Denmark) |
| Humidification: | Stulz ultrasonic humidifier |
| Automatic Control: | Wago SPS |

The poly klima room

With the help of our experienced developer-team you get to visualize your wishes with technical precision even in the planning stages: then you will get your system exactly the way it has been planned – tailor made for your science and scalable individually.

The sustainability of our systems is setting standards, indeed, we are exceptionally proud of the positive energy balance of the poly klima rooms and chambers, as you will be if you decide to use it, because you not only lower your operational cost but also help save the environment.

With our poly klima rooms all parameters can be adjusted with any remote PC connected or directly at the touch screen-monitor at the room.

poly klima is a young and innovative subsidiary company of Heinz Hofmann & Sohn GmbH, which for four generations has stood for sustainable solutions in terms of construction and installation of refrigeration plants and customized climatic chambers.

Always, it is our goal to adjust our products to the needs of our customers and thus to reach best-possible efficiency

If you are convinced that it is worth exploring further and have questions relating to your specific needs, then we appreciate your interest and would be pleased to personally discuss further at any time.

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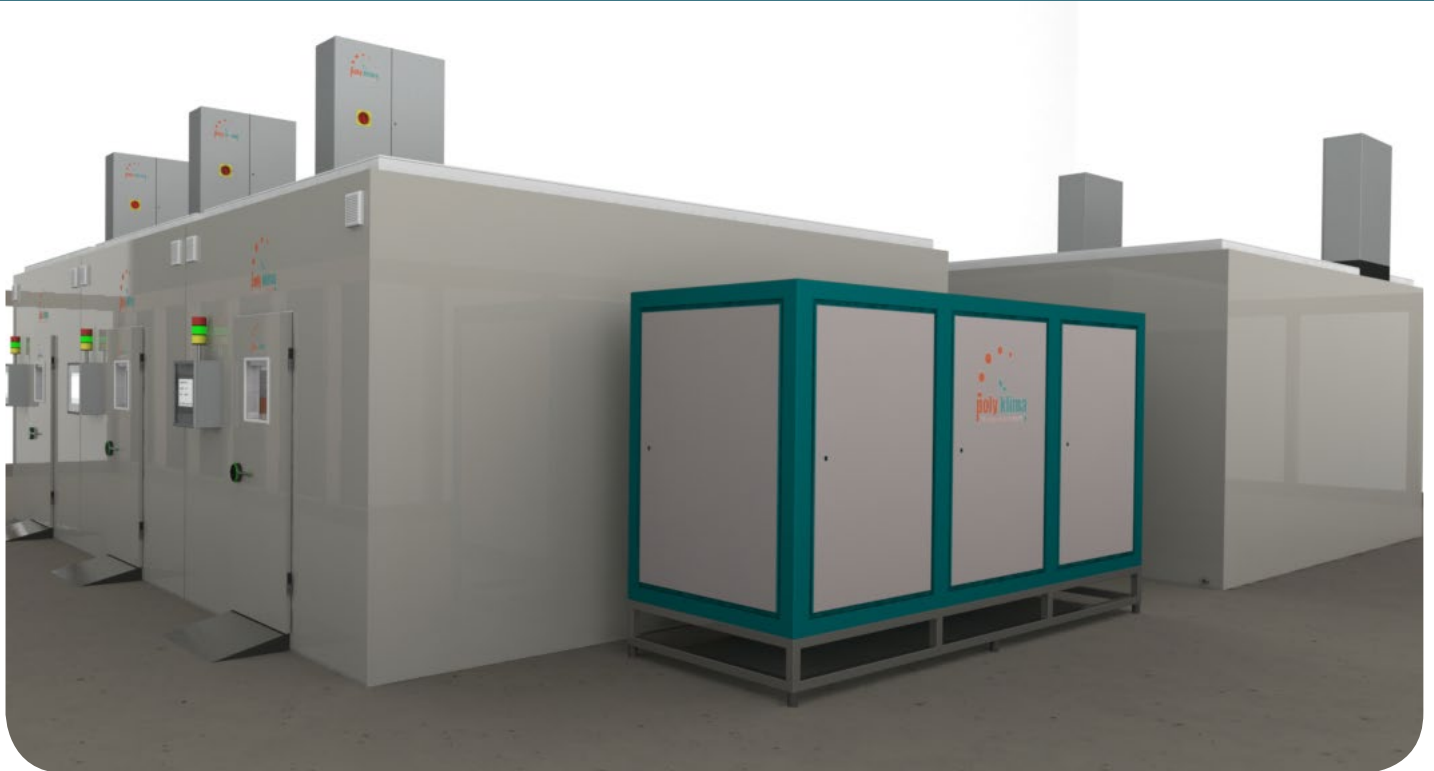
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poly klima rooms with an energy-saving assembled refrigeration system

