

NETLED



Most advanced
vertical farming system
in the world

Vera – the world leader in vertical farming technology



CONTACT NETLED NORTH AMERICA

Brent Parker
brent.parker@netled.fi
+1 403 807 3403

Johnnie Goldsmith
johnnie.goldsmith@netled.fi
+1 800 265 4769

More information:
netled.fi

Lighting System

- unique, patent pending LED lighting system designed to fit perfectly into the growing frame for optimal up and down light and maximum efficiency
- designed according to the needs of the specific plants
- installation and service require zero access to the cultivation space

Climate

- creates microclimates with integrated lighting, LED cooling, recovered heat, and automation
- closed system growing chamber exchanges energy between spaces plus a small amount of filtered air to prevent the accumulation of ethylene
- temperature and humidity are controlled by a centralized station for high-efficiency precision air conditioning, which is custom built to the scale of the system

Frame

- stronger, long lasting, and flexible aluminium body
- light weight, easy to assemble modules
- proven to withstand harsh weather conditions
- greater production density per square meter with growing layers than open field and traditional greenhouse growing

Nutrients and Irrigation

- precision irrigation creates absolute control – the growing cycle is divided into irrigation groups and fertilizers are injected into the irrigation water so that each section receives only as much water and nutrition as needed
- NFT (Nutrient Film Technique) growing system, developed from traditional hydroponic cultivation
- nutrients and CO2 are constantly fed to the system but not released into nature
- no massive water tanks, pipes or pumps. And no pools of water left to evaporate or stress the climate control

Air Circulation

- passive air flow and LED cooling between perfectly spaced gutters
- supports active air movers working together and not against each other
- limited air circulation units enhance air movement and ensure uniformity of climate conditions

Software

- proprietary Vera software controls the integration of all system components
- includes easy to use HMI with secure remote access
- scheduling, dosing, irrigation, climate, day cycles, growth cycles, lighting intensity are all controlled within the system
- data capture helps to improve grow recipes

Mechanics

- movement of the gutters through the layers of the growing unit is performed by simple but robust automation
- elevator system collects the gutter at the end of the unit and raises it to the next phase of growing

Gutters

- 40% greater production than static distance growing system
- processing, transplant and harvesting happens at the same location within the gutter
- allows for precision NFT irrigation and airflow

Packaging Solutions

- can be integrated with a packing method to create a fully automated process

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