

VITAPONIX / ENGINEERING DIVISION

Capability Statement

Precision controlled-environment agriculture engineering

DUTCH HORTICULTURAL PRECISION • GLOBAL DELIVERY

±0.5°C

CLIMATE PRECISION

95%

WATER EFFICIENCY

+30%

YIELD UPLIFT

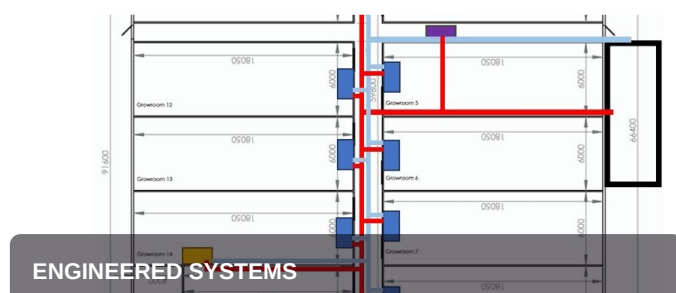
24/7

REMOTE MONITORING

WHO WE ARE

The technical division of a Dutch nutrients company.

Vitaponix Engineering designs, builds, and optimises controlled-environment cultivation facilities — from compact SmartKart product lines to multi-hectare shared cultivation hubs.

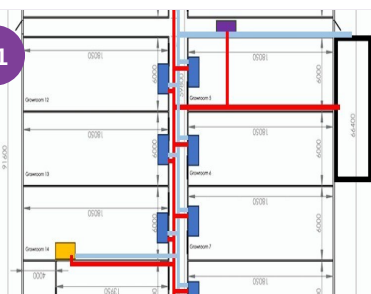


Core Engineering Capabilities

Six integrated disciplines under one engineering team.

VITAPONIX ENGINEERING
Capability Statement / 02

01



HVAC Design

Precision climate control delivering $\pm 0.5^\circ\text{C}$ uniformity year-round.

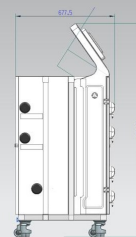
02



Irrigation & Fertigation

Automated nutrient delivery with real-time monitoring.

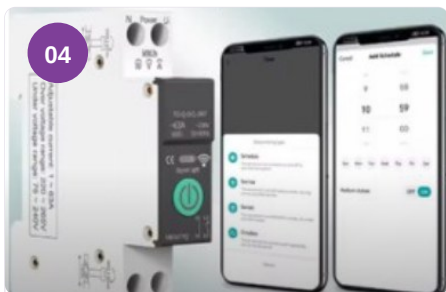
03



Electrical & Solar

Complete power design with solar integration and backup load management.

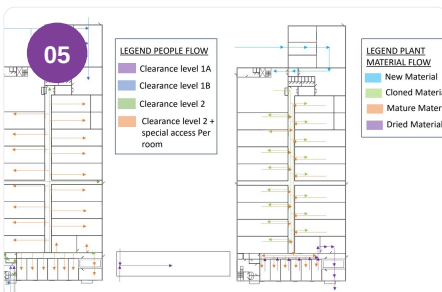
04



Software & Automation

Integrated control with remote access and AI-driven optimisation.

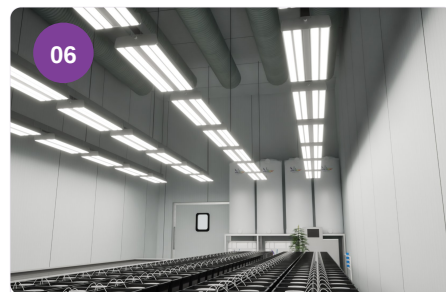
05



Regulatory Expertise

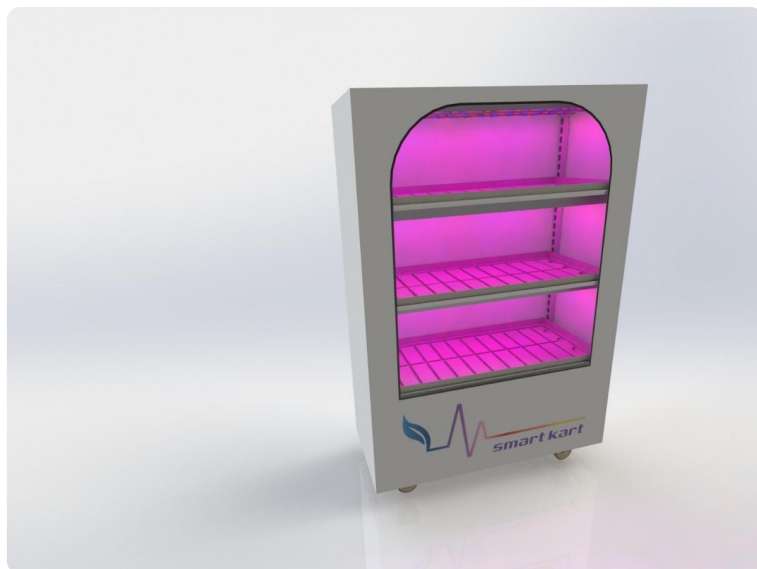
Navigating frameworks across multiple international jurisdictions.

06



Performance Optimisation

Continuous data-driven tuning for maximum yield and efficiency.



FLAGSHIP PRODUCT

SmartKart

Modular vertical cultivation systems with integrated ebb-and-flood irrigation, multi-layer LED canopies, and app-based control.

Available in 3 and 4-layer configurations, designed for rapid deployment in any space.

Ebb-and-flood

App control

LED canopies

Modular



Mobile Grow Units

MH-series modular containers for rapid deployment.



Shared Cultivation Hub

Multi-tenant facilities with shared infrastructure.



Turnkey Facilities

Full-scale design-build for commercial cultivation.

Engineering Process

A disciplined five-step methodology, end-to-end.

Capability Statement / 04

01

Discovery

Site visit, requirements, regulatory scan.

02

Design

Engineering drawings, BOM, simulations.

03

Build

Fabrication, install, commissioning.

04

Optimise

Tuning, training, performance baseline.

05

Support

Remote monitoring and continuous improvement.

READY TO BUILD?

Let's engineer your facility.

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