

TECHNICAL SPECIFICATION / STANDARD CONFIGURATION

Box4Grow — 40ft Single-Tier Flower Container Technical Specification

A sealed modular cultivation unit for a **12/12 flower cycle** and dense bloom production, with integrated environmental, electrical, life-safety, irrigation, and cultivation infrastructure.

MODULE FOOTPRINT

40 ft × 8 ft

INSULATED ENVELOPE

R21 panels

ELECTRICAL SERVICE

150A / 208-240V

GROW LIGHTING

1,000W LED

SCOPE STATUS

All systems and equipment listed in this document are categorized as **Included in standard configuration**. Final equipment selection, quantities, interfaces, and layout remain subject to engineering review and approved submittals.

Base Enclosure & Access

SYSTEM	STANDARD CONFIGURATION
Modular unit	40 ft 0 in × 8 ft 0 in (12.19 m × 2.44 m) modular cultivation unit.
Room condition	Sealed flower room with insulated construction and controlled environmental operating conditions.
Wall / ceiling assembly	R21 insulated panels throughout the room envelope.
Door & egress	36 in (914 mm) out-swing steel door.

Environmental Systems

SYSTEM	STANDARD CONFIGURATION
HVAC	3-ton GMV-36WL outdoor unit with 18,000 BTU/h GMV-ND18G indoor unit for heating and cooling.
Environmental automation	Automation for temperature, humidity, CO2, and lighting control.
Grow lighting	High-intensity full-spectrum 1,000W LED grow lighting; final fixture selection and count to be confirmed through approved submittals.
CO2 delivery	Integrated CO2 delivery with regulator, supply tubing, and tank rack.
CO2 safety	Carbon X CO2 alarm system with visual and audio alerts, emergency CO2 shutoff, and air exchange.
Air movement	12 in (305 mm) ceiling-mounted HAF fans plus six floor blowers.
Dehumidification	One 320-pint dehumidifier.

INCLUDED IN STANDARD CONFIGURATION

Safety, Electrical & Utilities

Life Safety & Egress

- Green exit sign.
- Two-head emergency lights.
- Smoke / CO detector.
- Fire extinguisher.
- Carbon X visual and audio CO2 alerting, emergency shutoff, and air exchange.

Electrical Package

- 150A, 208–240V electrical package with service panel.
- Receptacles, work light, and dedicated fan circuit.
- Grow-light circuits.
- Green LED work lights in vapor-proof enclosures.

Plumbing, Irrigation & Cultivation

SYSTEM	STANDARD CONFIGURATION
Utility sink	18 in (457 mm) stainless utility sink with on-demand hot water and hose connection.
Irrigation delivery	Drip emitters, drip stakes, drip tubing, flexible supply line, pumps, and associated distribution components.
Reservoirs	Low-profile reservoir tanks with lids and a dedicated reservoir.
Cultivation surface	One single-tier rolling cultivation table / bench configuration with flood-drain tray. Final table dimensions and count to be confirmed per room layout.

Operating Intent

DESIGN BASIS

The room is intended to operate as a sealed **12 hours light / 12 hours dark flower environment** supporting dense bloom production. Environmental, lighting, CO2, irrigation, and safety systems are coordinated as a single controlled-room package.

ENGINEERING COORDINATION

Configuration Notes

01 / EQUIPMENT**Final equipment selection**

Final model selection, fixture count, controls hardware, and equipment clearances are confirmed through the approved equipment schedule and submittal package.

02 / UTILITIES**Utility connections**

Incoming electrical service, HVAC clearances, water supply, hot-water source, CO2 supply, and other utility connections require site coordination before installation.

03 / DRAINAGE**Drainage & discharge**

Final drain points, slopes, cleanouts, condensate routing, irrigation overflow, and discharge requirements are established by the room layout and site drainage design.

04 / CONTROLS**Controls integration**

Environmental automation requires coordinated points lists, sensor locations, alarm logic, lighting interfaces, and commissioning of temperature, humidity, CO2, and lighting sequences.

05 / COMPLIANCE**Code compliance**

Electrical, mechanical, plumbing, fire/life-safety, egress, CO2, and accessibility provisions are subject to the applicable adopted codes and the authority having jurisdiction.

06 / ENGINEERING**Site-specific engineering**

Structural support, anchorage, weather exposure, service access, lifting / placement, clearances, and final room layout are verified for the installation site.

Technical Boundary

ITEM	CLARIFICATION
Information type	Equipment information sheet describing the standard 40 ft single-tier flower-room configuration.
Layout dependency	Bench dimensions, quantity, service clearances, equipment locations, and utility routing are finalized from the approved room layout.
Submittal dependency	Final configuration is subject to coordinated engineering, site conditions, code review, controls integration, and approved submittals.

SPECIFICATION STATUS

Included in standard configuration identifies the systems intended as part of the standard room basis. It does not replace final engineering documents, equipment schedules, installation drawings, or authority approvals.