

GS8 TECHNICAL DATASHEET

Mass-Scale Germination & Microgreens System

SYSTEM ARCHITECTURE

The GS8 is a high-density vertical germination engine designed to maximize seedling throughput within a minimal footprint. Engineered for modular integration, it serves as the foundational supply line for large-scale vertical and horizontal growing arrays.

TECHNICAL SPECIFICATIONS

Vertical Height	96 Inches (8 Feet)
System Footprint	28" Wide x 240" Long (20-Foot Run)
Rack Configuration	8 Vertical Racks
Flooding Trays	5 Trays per Rack (24"W x 48"L) 40 Total per Unit
Seeding Capacity	4 x 200-Cell Trays per Flooding Tray (32,000 positions per rotation)
Monthly Throughput	96,000 Plant Positions

LIGHTING & ENVIRONMENTAL CONTROL

LED Infrastructure	16 x 5' Horizontal LEDs per Rack (128 LEDs per GS8 unit)
Wiring Logic	Daisy-chained in sets of 4 for modular control
Target Spectrum	Early-stage optimized for root strength and hypocotyl regulation

OPERATIONAL SCALABILITY

IAS1200 Network Integration:

A single IAS1200 Controller (Raspberry Pi 5 Core) manages the nutrient and irrigation logic for up to **20 GS8 Units** simultaneously, supporting a total nursery capacity of **1,920,000 plant positions monthly**.

SYSTEM COMPATIBILITY

- **TS40 Support:** One GS8 provides germinated positions for up to 300 TS40 towers.
- **HGS8 Support:** One GS8 provides germinated positions for 2 HGS8 racks.

- **Secondary Use:** Optimized for high-margin commercial Microgreens production.