

HGS SERIES DATASHEET

Horizontal Growing Systems | High-Density "Ready-to-Eat" Production

SYSTEM OVERVIEW

The HGS Series is a high-velocity production assembly designed specifically for baby leaf greens and salad mixes. Engineered for rapid 10-day turnover cycles, the HGS units maximize horizontal footprint efficiency through tiered vertical stacking.

TECHNICAL SPECIFICATIONS

Configuration	HGS4 (Container Model)	HGS8 (High-Ceiling Model)
Vertical Height	8 Feet (4 Tiers)	12 Feet (8 Tiers)
System Length	20 Feet (to accommodate 20' channels)	
Plant Positions	540 per Rack	540 per Rack
Lighting Infrastructure	10 x 5' Vertical LEDs	20 x 5' Vertical LEDs (Daisy-chained)
Harvest Cycle	10 Days (Optimized for RTE Market)	

AUTOMATION & CONTROL LOGIC

IAS1200 Network Integration:

A single IAS1200 Controller (Raspberry Pi 5 Core) manages up to **four HGS8 units** simultaneously. This provides 17,280 active plant positions under one centralized "brain" for real-time monitoring of N, P, K, Ca, Fe, pH, and Temperature.

ENGINEERING FEATURES

- **Precision Valving:** Individual 12" gate valves allow for specific channel isolation.
- **Uniform DLI:** 5 rows of daisy-chained LEDs ensure zero light drop-off across 20-foot spans.
- **Circular Integration:** Designed to receive hyper-mineralized water from the IAS1200 with 30-minute refresh cycles.