



**EASYROOTS**  
ENGINEERED ENVIRONMENTS

# VRF Explained

## The Technology Behind the Easy Roots Climate System

### Variable Capacity. Precise Control

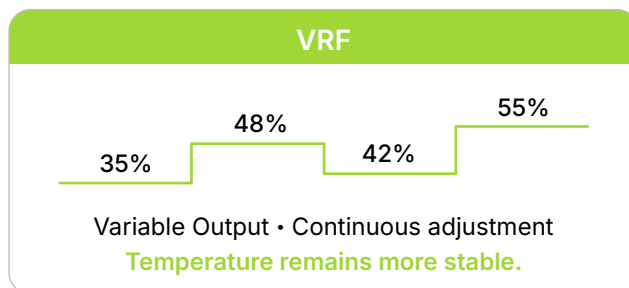
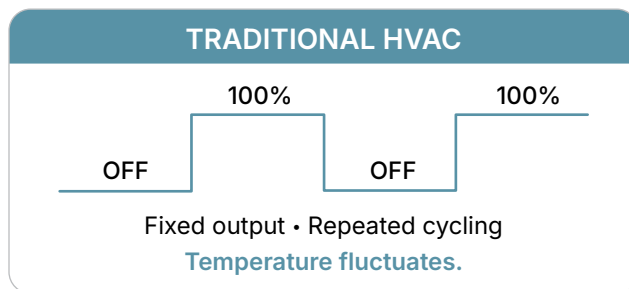
Variable Refrigerant Flow technology continuously adjusts heating and cooling output based on the real-time demands of the cultivation environment—delivering precise control without the constant on/off cycling of traditional HVAC systems.

Engineered Environments  
**Stronger Roots**  
**Better Growth**

### WHAT IS VRF?

#### HVAC That Adjusts to the Environment

VRF uses inverter-driven compressors to continuously adjust capacity based on demand, while ECM fans provide variable airflow. Together, they deliver only the conditioning the facility needs at a given moment.



OUTDOOR  
VRF UNIT

REFRIGERANT  
NETWORK

INDOOR  
UNITS

GROW  
ROOMS



### PROOF & PERFORMANCE



#### SINCE 2016

VRF deployed  
in cultivation  
environments



#### VARIABLE CAPACITY

Output adjusts  
to actual demand



#### MULTI-ZONE CONTROL

Independent  
environmental control



#### COMMERCIAL DUTY

Designed for  
year-round operation



### The EasyRoots Difference

VRF is the foundation. EasyRoots engineers the environmental systems around it—integrating humidity management, airflow, ventilation, purification, controls, and equipment protection into one coordinated cultivation climate strategy.

**Smarter Systems.**  
**Lower Costs.**  
**Better Growing Environments.**

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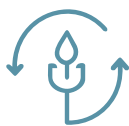


## WHY VRF FOR CULTIVATION?



### PRECISE CONTROL

Variable capacity responds as cultivation loads change.



### LOWER POWER DEMAND

High-efficiency operation helps reduce electrical requirements.



### DUCTLESS DESIGN

Compact indoor units preserve valuable cultivation space.



### ZONE CONTROL

Individual zones can be monitored, scheduled, and controlled independently.



### YEAR-ROUND OPERATION

Commercial equipment designed for continuous operation.

## WHY LOADS CHANGE

Cultivation environments are dynamic. VRF adjusts as conditions change.



### LIGHTING LOAD

Heat load changes with lighting schedules.



### PLANT LOAD

Crop growth changes environmental demand.



### ROOM ACTIVITY

Doors, people and operations affect conditions.



### OUTDOOR CONDITIONS

Weather changes heating and cooling needs.

## COMMON VRF MISCONCEPTIONS

### MYTH 01

"VRF can't handle cultivation environments."

#### REALITY

Successful performance depends on proper engineering, sizing, controls, installation, and environmental-system design.

### MYTH 02

"VRF is just a mini-split."

#### REALITY

VRF is commercial multi-zone technology engineered for substantially different system demands and continuous operation.

### MYTH 03

"VRF is only designed for comfort cooling."

#### REALITY

VRF uses inverter-driven compressors to continuously adjust output as loads change—not simply cycle equipment on and off.



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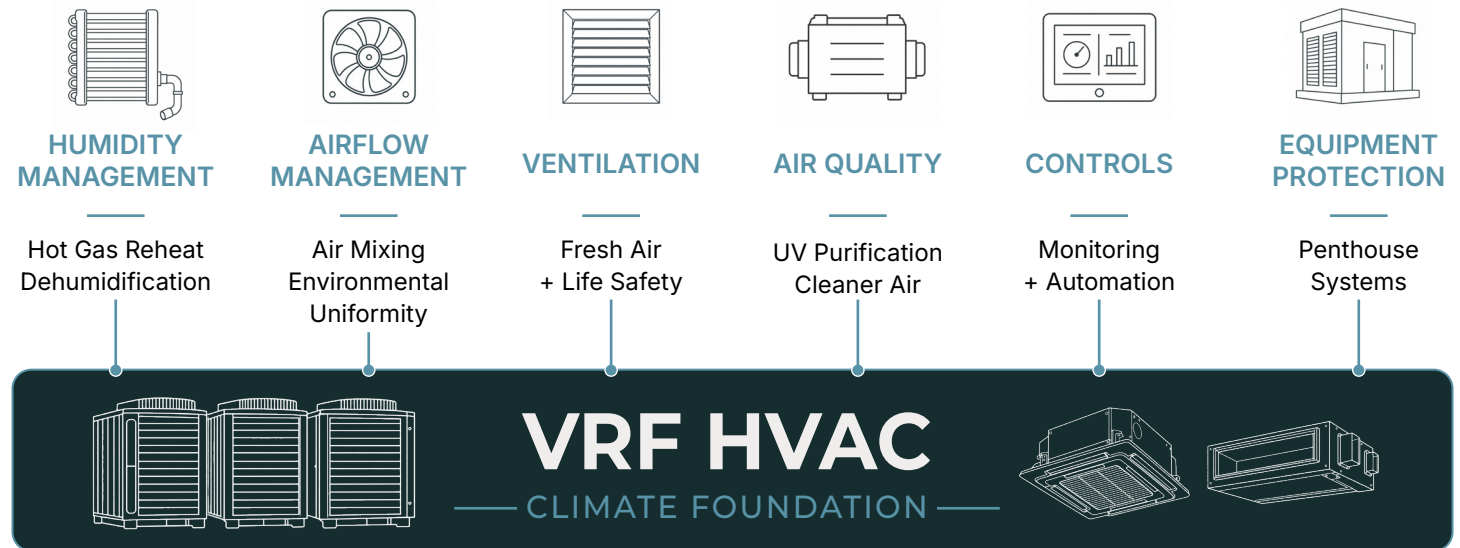
@easyroots

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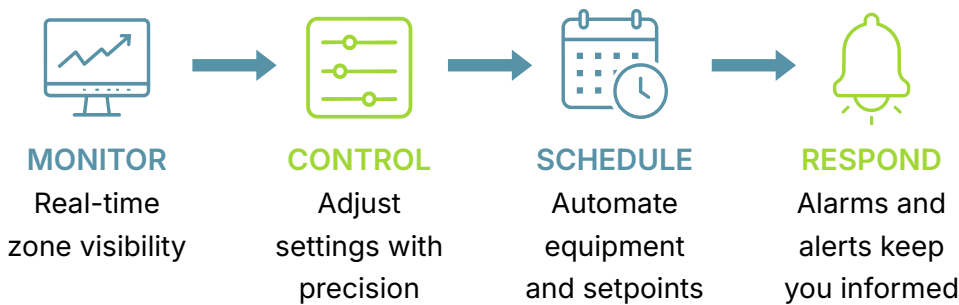
## MORE THAN TEMPERATURE CONTROL

VRF is the Foundation. EasyRoots Engineers the Complete Environment.



## INTELLIGENT CONTROL

Visibility Down to the Zone



Zone-level visibility helps operators monitor conditions, adjust operation, schedule equipment, and respond to changing environmental demands.

## WHY EASYROOTS + VRF?

VRF technology is only as effective as the system built around it. Easy Roots combines cultivation-specific engineering, equipment selection, humidity management, airflow, ventilation, controls, and commissioning into one coordinated climate strategy.

