

# **Important:**

**These catalog pages should be used for product reference only.**

**The pricing in this publication reflects the current pricing at the time of printing  
(02/11).**

**For current pricing please contact your W.H. Milikowski  
sales representative or your local Customer Service Center.**

## We Heat It, We Water It, We Control It, We Flood It

TrueLeaf takes the **systems approach** to greenhouse projects. We make sure all the diverse systems in a greenhouse work effortlessly together in an **integrated way**.

**Projects.** If you think about it, it only makes sense to purchase your heating, water management and control systems from one source. That way it's planned and designed to be compatible from the blueprint stage on. It makes the best use of your budget and more importantly your time.



HDX Floor Heating

**Systems.** Buy specific systems from us if that's all you need. All of our systems are set up to work with each other, so, if you want, it's easy to add on in stages as your business and needs grow. We already know what the next steps are.



Benchwarmer

**Components.** We custom manufacture, buy-in, import and stock all the specialized materials and components for all systems. We're the source for help and advice on how things should be applied, repaired or installed. Our Technical Assistance staff is always there to answer your questions.

## We Heat It

### Greenhouse Heating Systems

TrueLeaf has been innovating greenhouse heating systems for over 20 years.

#### Benchwarmer™ Kits:

**Efficient** - Puts the heat where it is needed, at the crop level. Allows lower air temperatures and 20-40% less fuel use.

**Effective** - Heating the root zone and microclimate increases plant quality and shortens the production cycle.

**Simple** - Pre-packaged Benchwarmer Kit installs quickly and easily - no special tools needed. Up to 1,000 SF - install on top of benches, under benches or on the greenhouse floor.

**Safe** - Reliable heat without the shocking experience of electric mats.

**Supported** - 24/7 technical support.



Benchwarmer

#### Roll 'N Grow™

Heating a floor area or a bench has never been easier! We offer Roll 'N Grow mat systems in three styles, two are optimized for bench applications and one that's just right for heated floors.

If installed properly, our Roll 'N Grow Mat systems can be rolled up when not in use! Think about seasonal production areas, outside beds or any growing application where temporary bottom heat might be beneficial... your imagination is the only limiting factor.



Roll 'N Grow



Duofin Finned Heat

## Heat Systems

- BioTherm Microclimate Systems
- Benchwarmer Kits
- Duofin Systems
- Starfin Systems
- Stealth-Fin Systems
- Warm-Floor Heating - HDX and GreenPex
- MegaTube Systems
- Floor Warmer Kits
- I-Fin and Copper/Aluminum Finned Heat-Pipe Systems
- Welded Steel Heat-Pipe Systems
- Gas and Hydronic Unit Heaters
- Perfection/Schwank Infra-Red
- Ermaf Direct Fired Air Heat



HDX Floor Heating

## Heat Sources

- Copperfin Boilers
- BoilerSmith Steel Boilers
- Tank Type Water Heaters
- "EVO" Stainless Steel Boilers - 99.8% Efficient
- Heat Exchangers
- Pre-Assembled Boiler Room Systems
- CO2 Burners

# We Water It

## Water Management Systems

From water source through delivery to the plants, we provide engineered systems to manage the vital resource. Systems may include any number of the following TrueLeaf elements: fine or course filters, re-pressurization systems, TrueClear reverse osmosis, TrueFeed injectors of pH and/or EC control, irrigation pre-heating, tank aeration. Each water situation is unique and requires an integrated precision approach. Let us solve your water woes.



TrueClear



TrueFeed Fertigation System

## Heat Components/Accessories/Helpers

- Expansion Tank Systems
- Thermometers
- Zone Valves
- Pumps
- Air Purgers
- Air Vents
- Fill Valves
- Manual Valves
- Pressure Gauges
- Fittings - Special and Hard to Find
- Balancing Valves and Meters
- Mixing Valves
- Pipe Labeling and Signage
- Piping Packages
- Pipe Supports
- Variable Height Supports
- Pipe Painting Products
- Pipe Insulation
- Water Treatment
- Soil Thermometers
- Infra-Red Sensors
- Data Recorders
- Flow Meters
- Service Tools
- Steam Sterilization Systems
- Boiler and Heater Venting Materials



Stealthfin Finned Heat



Lennox Unit Heater Systems

## Water Management Systems

- Coarse Filtration
- Fine Filtration
- Fertigation
- pH Control
- Irrigation Pre-Heat
- Re-pressurization
- Tank Aeration Systems
- TrueClear Reverse Osmosis Systems
- Spin Top "Peristaltic Technique" Injection



Coarse & Fine Filtration Unit

## Water Management Components/Accessories Helpers

- TrueTransfer Safer Automated Acid Transfer Systems
- pH and EC Meters
- Agitation
- Poly Tanks
- Acid Injection Mixers

## Environmental Systems

Control Systems are vitally important in successfully operating your greenhouse enterprise. Our staff of experts will guide you through our wide variety of options to make the selection process painless. Whether a "stand-alone" system for each zone or a fully centralized Argus Control System, we'll help you select a system that is seamlessly integrated with your facility.



Argus Centralized Environmental Controls



Contacting Panel Box Environmental Controls

### Control Systems

- Stand-Alone Control Systems - "Island Automation"
- Mixing/Sequencing Controls
- One Zone Control
- Controllers for Flood Floors
- Argus Controls Centralized Control Systems
- TrueTouch Flood Floor Controllers

### Control Components/ Accessories / Helpers

- Small Sensors for Soil Temp
- Contactor Panels by TrueLeaf
- Agitation
- Zone Valve Controllers

## We Flood It

### Flood Floor & Bench Systems

TrueLeaf is the world leader in the development of Flood Floor and Flood Bench Systems. University research has proven these systems reduce labor, water and fertilizer use, while eliminating harmful run-off.

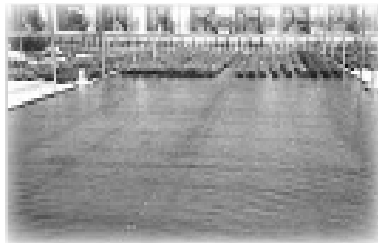
We design and provide the entire project, with full installation if needed. Hundreds of growers, small to mega-size are enjoying this powerful, proven technology.

### Flood Systems

- Flood Floor Systems
- Flood Bench Systems



Flood Bench System



Flood Floor System



Flood Floor Systems

### Flood Floor Components Accessories / Helpers

- |   |                                      |
|---|--------------------------------------|
| ■ Cascade Filters   | ■ Pipe Packages                      |
| ■ Fine Filtration   | ■ Air Compressors/Dryers             |
| ■ Valves - Solenoid, Pneumatic Check, and manually Actuated | ■ Floor Water Barrier Systems        |
| ■ Pumps   | ■ Sterilization Techniques for Water |
| ■ Level Controls  | ■ Aeration Systems                   |
| ■ Thoroseal Concrete Sealer                                 | ■ TrueSpacer - Pot Spacer for floors |



## Growmaster Series



### Full featured environmental computer control system

As a stand alone system, all features including programming and system reports are available.

- LCD display of input and output status
- Convenient programming switches on front panel
- One zone sensor included
- Additional sensors available
- Manual override switches



## Weathermaster

A stand alone greenhouse weather station; or can be incorporated at any time into the Growlink Software Program to create a complete greenhouse environmental control network.

- Monitors wind speed and direction
- Outdoor temperature features
- Protects crops against rain
- Connected to any ventilation or outdoor shade system

## Growlink



Couple your Growmaster and Weathermaster computer control systems to view and change your entire control parameters remotely.

- Easy to use PC program
- Operates with Microsoft Windows
- Ties in all your Growmaster tools for complete environmental control
- Remote monitoring and control
- Modem accessible



## Growmate Series

Computer accuracy at an affordable price

- Easy to use front panel programming
- Large and convenient digital display
- Separate day and night temperature settings
- 24 VAC low voltage operation



### "Smart" greenhouse thermostat

## Growstat

Will control two stages of heating or cooling. Also available w/humidity readout for control of fogging systems.

- Day and night settings with DIF capability
- Easy to use front panel programming
- Photocell (optional)
- Built in 24 hour clock
- Stores high and low temperature history

## Ventstat

Digital "Smart" thermostat for vent systems

Will stage vent systems, retractable roof systems, and roll up curtains without the need for any mercury position switches. A weather station is easily connected to close roof vents in extreme weather conditions.



- 8 stages of opening
- Independent day and night settings
- Built in 24 hour clock
- DIF capabilities
- Photocell (optional)

WHM #	Description	Price
3415-1010	Procom	\$ 1,995.00
3415-1015	24 Output Expansion Module	\$ 895.00
3415-1000	Growcom	\$ 1,595.00
3415-1020	Weathermaster	\$ 2,895.00
3415-1025	Growlink for Windows Software	\$ 1,795.00
3415-1030	Growmate	\$ 995.00
3415-1035	Growmate Plus	\$ 1,295.00
3415-1040	Ventmate Plus System	\$ 1,395.00
3415-1045	Humidity Sensor Upgrade	\$ 260.00
3415-1050	Growstat Control	\$ 550.00
3415-1055	Ventstat Control	\$ 595.00

F.O.B. CA

## HI 10,000 Series Fertigation System

### TAKE CONTROL:

Irrigation Control      pH Control  
Fertilization Control    EC Control

#### FEATURES

- Precise control via continuous EC and pH monitoring
- 8 to 300 GPM
- 65 to 75 PSI operating range
- Bypass System - unit does not interfere with main line flow
- 3 fertilizer injectors and 1 minors or (mild) acid
- Controls over 32 valves



## HI 5000 Mini Fertigation System

The HI 5000 is an all-in-one, ready to use control system. Compact and versatile, the Mini Fertigator brings precision nutrient and acid control to the professional grower and advanced home grower alike.

The Mini Fertigator is easy to install and comes completely pre-assembled. To install the unit, simply attach two pipes and plug in the power cord. No wiring and no assembly!

## HI 98130

### Combo pH/EC/TDS/Temperature Tester with High Range EC

The HI 98130 Combo waterproof tester offers high accuracy pH, EC/TDS and temperature measurements in a single tester! The waterproof Combo has a large easy-to-read, dual-level LCD and automatic shut-off. pH and EC/TDS readings are automatically compensated for the effects of temperature (ATC).



## HI 98127 (pHep 4)

### Waterproof pH Tester with Replaceable Electrode w/accuracy ±0.1 pH

The pHep 4 includes features such as a dual-level LCD, battery level indicator, replaceable pH electrode cartridge, stability indicator, automatic shut-off and automatic calibration all in a floating, waterproof case.

## HI 98331

### Soil Test™ Direct Soil Conductivity and Temperature Tester

The HI 98331 Soil Test™ is a pocket tester designed to directly measure soil conductivity and temperature. With an incorporated sensor in the penetration probe, readings are automatically temperature compensated. Conductivity range can be calibrated at one point and is designed to be calibrated in liquid.



**Call 1-800-243-7170 To Request A Complete  
Hanna Instruments Catalog And For Competitive Pricing**

**Published Pricing is Subject to Change Without Notice.**

# SENSAPHONE® Environmental Monitoring System

The ALL NEW Sensaphone offers an easy, inexpensive way to monitor a remote facility. It has the built-in ability to monitor for power failures and to listen to and respond to the sound of a smoke detector. There are external inputs that can be connected to a variety of sensors to monitor temperature, water on the floor, humidity, and much more. When an alarm is detected, the Sensaphone will continue to make voice phone calls until someone responds to the call. The phone interface includes a line seizure feature so extension phones are automatically disconnected when it needs to make an alarm phone call.

## Sensaphone 400

- 4 User Selectable Inputs
- Contacts up to 4 locations
- Line Seizure Feature



## Sensaphone 2800

### Remote Monitoring w/wireless sensors

- 4 Wireless Sensors
- 4 Hardwire Sensor Inputs
- Contacts up to 8 locations
- Line Seizure Feature

## Sensaphone 800

- 8 User Selectable Inputs
- Contacts up to 8 locations
- Line Seizure Feature



WHM #	Description	Price
S400	Sensaphone 400	\$ 395.00
S800	Sensaphone 800	\$ 595.00
S2800	Sensaphone 2800 w/ wireless capability	\$ 1,195.00

BATROW  
SINGLE STATION  
MIST CONTROLLER

### MPC-S CONTROLLER FEATURES

Features:

- ▶ Solid State Microprocessor Controlled
- ▶ Waterproof
- ▶ 24 VAC Output from Transformer
- ▶ Watering times from 2 seconds to 10 minutes
- ▶ Watering cycle times from 1 minute to 1 hour
- ▶ Watering cycle durations from 30 minutes to continuous
- ▶ Power input "ON" LED
- ▶ Power output "ON" LED

Adjustable Settings:

- ▶ Watering time (time to water)
- ▶ Cycle time (time between watering periods)
- ▶ Duration (daily # of hours that watering cycle is repeated)
- ▶ Clock Adjustment enables watering cycles to be started at

any time of day

- ▶ Manual "ON" override
- ▶ Manual "OFF" override

PRIMARY APPLICATIONS  
Propagation - Greenhouse & Nursery

SECONDARY APPLICATIONS

Livestock misting, restaurants, residential misting and home pest control



WHM #	Description	Price
MPCS	Batrow Mist Controller	\$ 190.00

*There are many choices among controllers and watering systems to fit your specific needs. Please call our irrigation specialists for expert advice and current pricing.*