

HIGH PRESSURE FOGGING

HORTICULTURE

PRODUCT HIGHLIGHTS

FEATURES:

- COOLING / HUMIDITY Control
- No Cooling Pads to replace
- Little to no Temperature Differenzials
- Provides even coverage throughout the Greenhouse (Natural or Mechanical Ventilated Structures).
- No Structural Modifications required
- Tissue Culture
- Seed Germination
- Plug Production
- Winter Crop Production.
- Vegetable Production
- Flower Production
- Garden Centers
- Reduce Watering of Crop
- Chemical applications
- Insect Control
- Application of Fungicides.
- Suppression of air-borne contaminates like dust, ammonia, exhaust, pollutants



VES Environmental Solutions, LLC is North America's most innovative environmental solution company. Our High Pressure Fogging System can be a critical component of a complete system or a stand-alone product to enhance your cooling system.

Our engineers have been involved with the design of High Pressure Fogging Systems for over 30 years and during this time we have developed the highest quality, most durable, easiest installation and low maintenance fogging system in the world. Our team uses customized psych metric software for designing cooling/humidification for your specific location. This means that for each project we review where you are located in the world and we research local airports and/or cities to determine your weather history including temperatures and humidity levels. The data collected is then used to determine the best possible environmental system for you.

When creating cooling in a Greenhouse we use air velocity created by our innovative fans, and we use ambient temperature drop with our High Pressure Fogging System. In high humidity areas we focus more on air velocity and less on temperature drop. In low humidity areas we focus more on ambient temperature drop. In areas where extreme cooling is required, we use both. Our engineers understand how to maintain the balance required for air exchange to create the maximum temperature drop without allowing humidity levels to rise to a critical level. The higher velocity required usually means a faster air exchange. Changing the air too quickly means you need to increase the amount of cooling. If you are using cool cell pads for your cooling you are usually limited to a minimum velocity based on the available wall space. Our Fogging Systems don't have that limitation.

When you are installing the hybrid ventilation system from VES with the High Pressure Fogging we have unlimited options to increase the velocity with the exhaust and re-circulating fans by not restricting the inlet opening. Cool cell pads put added pressure on fans and in-turn they must work harder at a higher electricity cost under the heavier static pressure. With an open side wall using our patented Lock Drive curtain system, fans run under low static pressure, and therefore run far more efficiently. VES delivers an environmental system that will remove harmful heat stress conditions from your facility.



**Environmental
Solutions, LLC.**
vesenviro.com

8296 Commerce Pkwy,
Chippewa Falls, WI 54729 USA
Toll Free Tel.: (888) 622-2999
Tel.: (715) 720-0800
info@vesenviro.com



Environmental Solutions, LLC.

HIGH PRESSURE FOGGING

High Pressure Fog Nozzle.

The unique Fog Nozzle is machined from stainless steel and includes the anti-drip nozzle check valve which prevents dripping and weeping from the nozzle during pressurization and de-pressurization of the system.



The fog nozzle has an internal atomization pin, which is lubricated by the water. Atomization of the water is done inside the nozzle with the orifice providing a consistent fog pattern for years of service.

Nozzle Specifications:

- All Stainless Steel
- Anti-drip check valve included
- Flow rates: 0.019 - 0.036 GPM @ 1000-PSI
- 5-year warranty against orifice enlargement

Anti-Drip Check Valve.

Exclusive to the High Pressure Fog Nozzle is the Anti-Drip Check Valve. The anti-drip check valve prevents weeping from the nozzle during pressurization and de-pressurization of the system. The anti-drip valve allows for nozzle installation in any orientation. The micron-sized droplets of water (produced by our fog nozzle) flash evaporate, cooling the air, without wetting any surfaces. With a working pressure of 1000-PSI, the VES system produces a 10-17 micron fog droplet, much smaller than conventional mist systems, which have drops of 250 to 450 microns. The VES System is designed as a complete integrated system, that installs quickly - with little or no structural modifications!



Panels

The VES High Pressure Pump Sequence Panel is used to regulate the pump to protect it in case of incoming water supply failure and coordinate signals for pump start-up and shut-down. A Fogging Controller can signal the Pump Sequence Panel in relationship to temperature and humidity sensor inputs.

High Pressure Pump System.

The High Pressure Pump System is a fully integrated pump package complete with:

- Positive displacement pumps, with flows from 0.5 GPM to 36 GPM
- Pump manifolds are available in forged brass, stainless steel or nickel coated
- Pump manifolds have an exclusive 5-year warranty
- Pumps are easy to maintain and service
- Operating pressure of 1000-PSI
- Filtration assembly purifying the incoming water supply down to 5 microns.
- Direct or belt driven pumps
- Single or three phase totally enclosed fan-cooled premium efficient motors.



Lines

All atomization nozzle line used in the VES High Pressure System is made from 316 grade stainless steel. Connection of the lines is done with instrument grade compression fittings, available in either brass or stainless steel.

