

# Viper™ Automatic Foam Generating System



**SMALL • AUTOMATIC • VARIABLE  
Foam Generator Systems for Lightweight  
Foamed Insulating Concrete**

**Viper 0-50cfm foam output**

**Lightweight (240 lbs.) • Cost Effective • Dependable  
Easy to Regulate • Adjustable Output**

**No premixing necessary • Continuous operation**

**Simple 240V single phase power supply**

**Timer and Radio Remote are Standard**

**30% lower compressed air requirement (than pressure tank units)**

**Works with all standard liquid foam concentrates**

**Best with VariMax™ HS:320 Variable Dilution Concentrate**



**Production Vipers Feature Diamond Plate Aluminum**

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The **Viper™ Foam Generator** System is ready to roll with you right onto the toughest jobsites. It sets up in minutes and is completely self contained

This system can use a smaller air compressor than a comparable pressure tank unit because it does not need air to drive the liquids in the system.

The **Viper™** units can be easily transported in a pickup truck. (Pictured is early Red Steel Box Prototype)



The job box contains the entire **Viper™ Foam Generator** System. Production **Viper™ Foam Generators** feature custom diamond plate heavy duty aluminum construction.

(Pictured is early green steel box prototype.)



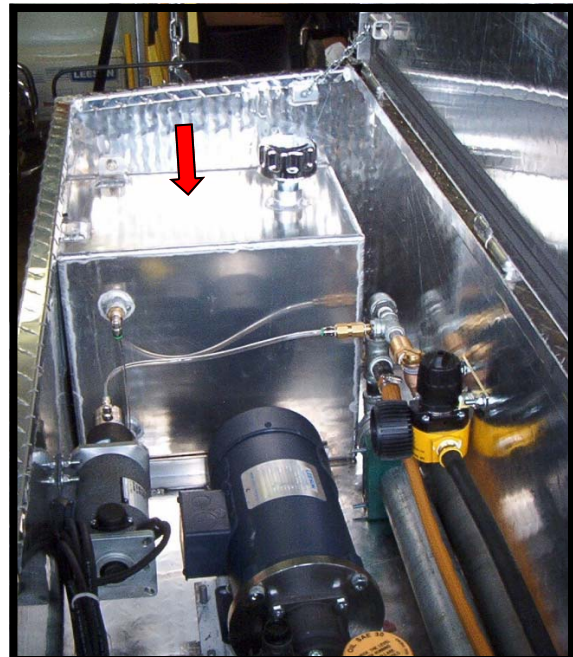
Inside the job box, are the hoses, electrical supply, pumps, and metering systems and timers that make the **Viper™** such a potent self contained foam generation system.

(Pictured is early green steel box prototype)

Production model **Vipers** feature a ten gallon concentrate reservoir. →

10 gallons of **VariMax™ HS:320** can make 4,320 cubic feet of 20 expansion 3.0 lb. foam .

This is enough foam to make 250 cubic yards of 40 lb./ ft<sup>3</sup> density cellular concrete.





## Connections

- Foam Output
- Water Intake Hose
- Concentrate (Tank)
- Air Hose
- Electrical

## VIPER™ FOAM GENERATORS

*Small, Lightweight, Powerful, Foam Generating Systems for the Future*

### Viper™ Operational Advantages:

- Variable Foam Output • Ideal for Volumetric and Batch Concrete Truck Operators
- Foam Injection Timer is Standard
- Continuous Operation • No Stopping Production to Refill Pressure Tanks
- No Waste • Turn it off, pack it up. No Wasted Concentrate by Draining Pressure Tanks
- No Pre-Mixing Necessary • Pour in Concentrate & Turn on the water and air.
- Micro-Bubble Foam Structure • Water and Air pressure system combined with advanced mixing chamber technology produces a ultra fine foam bubble structure.
- Ready from the factory for new advanced variable dilution rate foam concentrates—**VariMax™ HS:320** ; but, works great with standard pre-diluted foam concentrates.
- Requires one third less compressed free air • compared to pressure tank units.
- Radio Remote ON / OFF control is standard
- Available Options: Attached Aluminum Two Wheel Rolling Cart

### Electrical:

**Viper™ 050 Foam Generators** operate on 240V single phase current. The electric water and concentrate pumps provide the power. The compressed air requirement is reduced, offering considerable savings if the customer is also needing a new air compressor for the cellular concrete system.

### Water:

The system automatically draws water from a water container, refilled with a supply hose.

### Concentrate:

Factory set for **VariMax™ HS:320** but can be easily adjusted for standard pre-diluted liquid foam concentrates. Can be easily modified for continuous use of pre-diluted concentrates.

### **Air Supply:**

Remember, the **Vipers™** do not use air to move the water, concentrate or working solution. All the air we need is just to inflate the foam. A 50 cfm **Viper™** needs only 50 cfm of free air at 60 psi. This eliminates the need for about one third of the air compressor capacity common with older tank units.

### **Foam Concentrate:**

Some customers insist on premixing foam concentrate and water. Other customers want a foam generator system that will mix the water and concentrate automatically and generate foam continuously. Good news, The **Vipers™** work both ways.

### **To Premix:**

Simply premix your liquid foam concentrate and water in the recommended proportions recommended by your foam manufacturer, and place this working solution in large capacity water container and the built in concentrate tank. Allow the **Viper™** water pump and concentrate pump to draw from this working solution.

### **To Not Premix:**

Many customers appreciate the ability to eliminate the premixing of concentrate before making foam. The **Vipers** are designed to not need premixing and to run continuously without stopping to refill. Simply attach the water intake hose into a water container and fill the built in concentrate tank with your liquid foaming concentrate. Factory settings are calibrated for use with **VariMax™ HS:320**.

Should you wish to use the **Viper™** Foam Generating System with a pre-diluted concentrate give us a call.



## Regulation of Foam Density:

The air and water regulators can be adjusted to change the density of foam. Most commonly cellular concrete mix designs require a 3 lb. foam. See technical bulletin VA 940 [Calibrating a Foam Generator](#).



Your **Viper** will ship from the factory set to deliver 3 lb. foam utilizing your air compressor, automatically drawing and mixing concentrate and water.

### Checking Foam Output:

For ease in mix design compliance it is valuable to know the foam output of your foam generator. See technical bulletin VA 940 [Calibrating a Foam Generator](#).

### Boosting Foam Output to 50 ft<sup>3</sup>/min.

To boost the foam production rate you simply increase the water and concentrate delivery settings and use a 50cfm @ 60 psi air supply.

When boosting performance it will be often be necessary to recalibrate the foam density and rate of foam discharge. See technical bulletin VA 940 [Calibrating a Foam Generator](#).

**FOR BEST RESULTS**  
Use **VariMax™ HS:320**

What does the 1:320 maximum Dilution Ratio look like?

Photo illustrates mix ratio:

5 gallon pail of water mixes with up to  
2.0 liquid oz. of

**VariMax™ HS:320]**

[ 1:320 ratios for ideal conditions]

