



ViperTM

Ready Mix Color System

EAGLE ENGINEERING
ALPENA, MICHIGAN

eaglecompanies.com



The **Viper™** combines simple, effective operation with accuracy and versatility. It is designed to meet the growing needs of the colored concrete industry.

For years the primary way to add color in a ready mix truck was by the driver hauling powder to the top of the truck and dumping it in. This has the potential for operator error and injury & requires you to stock hundreds of different pre-blended powder colors.

Gone are the days of having to order blended powder in advance of the job. **By stocking only 4 primary colors**, the **Viper™** provides the ability to supply your customers with the vast variety of color blends that they demand, on **the same day**. The **Viper™** can lower color inventory costs because it blends-to-order. No longer will there be those unused bags of a blended powder leftover, but more importantly, you will never be short of blended color.



EDIT FORMULA SCREEN

Color formulas are operator defined as well as all of the system wide parameters. The formulas and the parameters are stored on a PCMCIA card in the touch screen. This allows the system to be backed up to any laptop or desktop PC that has a PCMCIA slot. This information can then be viewed or modified using spreadsheet software such as Microsoft Excel or Lotus 123. This unique ability of the **Viper™** allows you to backup your formulas without the need to purchase proprietary software or a computer to run it on. Backing up the Viper is as simple as it is to make a batch of color. Simply follow the instructions by touching the buttons on the screen. The Viper is 100% PLC controlled, a PLC or *programmable logic controller* is the most robust and stable type of machine control used in industry today. When a batch is created, information for that batch is copied from the PCMCIA card to the PLC. All of the calculations are done by the PLC.

Accuracy is attained by having all the base calculations of the color formulas done using 1/100th pound increments per 100 pounds of cement.



MAIN MENU SCREEN

The **Viper™** automatically weighs the user-defined formulation of color, which has been programmed by touching buttons on the infrared touch screen. This simple operator interface allows an untrained operator to begin producing in minutes. The operator creates a batch of color based on one of the 500 stored formulations. Information on the screen walks them through it step by step. Based on your batch design, they enter in the amount of cement, and yards of concrete. As they enter the parameters via the pop-up keypad, the buttons on the touch screen are enabled or disabled as required for the batch that is being created.



DISCHARGE INTO TRUCK

The preferred method of discharge of color into the mixer or truck is by gravity feed. This is the fastest and most reliable method. It eliminates the additional water and time required per batch to get the color into the truck. The **Viper™** has the ability to pump the color batch into a truck if gravity feed discharge is not possible. This is used primarily in freezing climates.



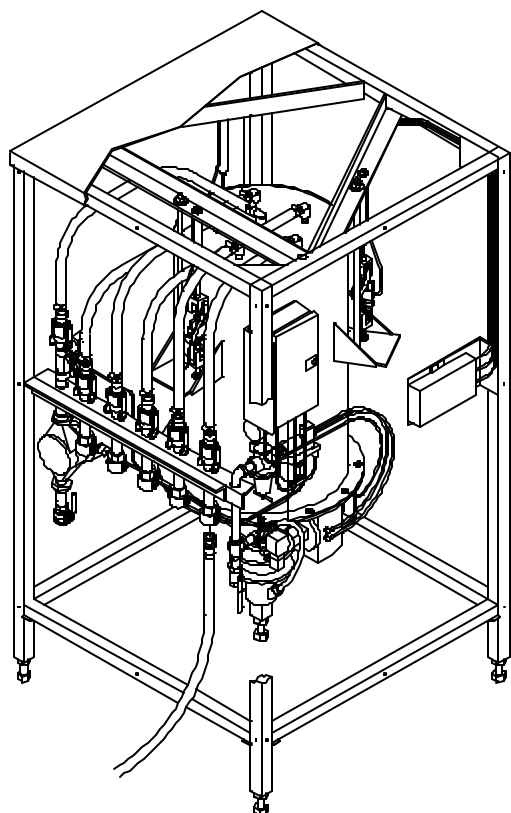
AUTO MODE SCREEN

Information on the screen is constantly being updated as the cycle continues. The operator always knows exactly where in the cycle the **Viper™** is, by reading the messages on the screen.

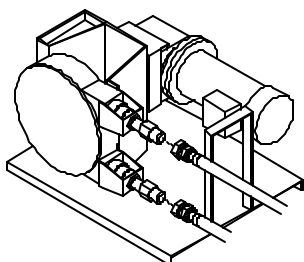
Full reporting capabilities are standard with the **Viper™**. Reports are generated after each batch is discharged. The operator can, at the touch of a button on the screen, print out: inventories, lifetime histories, system settings, and formulas



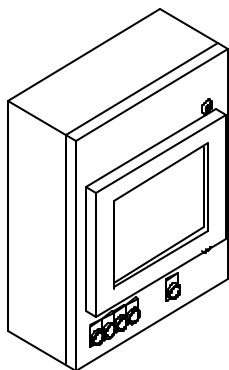
**EAGLE ENGINEERING
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Weigh Vessel Frame Assembly



2-GPM Pump Assembly



Touch Screen User Interface

Viper™ Characteristics

Accuracy	+/- 0.1 lb. or +/- 0.1 kg
Number of stored formulas	500
Number of base colors	Up to 5
Formula names	User Defined
Pump names	User Defined
Inventory control	User Controlled
Control system	Programmable Logic Controller
Operator interface	10.4" Color Touch Screen
Control	Automatic or Manual
Weigh chamber	Teflon Coated Steel
Chamber capacity*	450 or 600 lbs. (204 or 272 kg.)
Pumps	Peristaltic Reversing
Pump flow rate	2 GPM or 7 GPM.
Discharge to truck	Gravity or Pumped
Operating voltage	120V 1-Phase Standard 240V 3-Phase with 7-GPM pumps
Alarms	Local, Remote
Serial Printer	Included
Weigh vessel size	36 X 36 X 68 inches
Interface enclosure size	20 x 16 x 8 inches
*Based upon 15 pounds per gallon of liquid color	

Application Support & Training

Eagle Engineering provides application & technical assistance as well as on-site startup & training, worldwide for our complete line of dispensing equipment.

For information on how you can get the **Viper™** installed in your production facility, call: **800.824.1085**

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