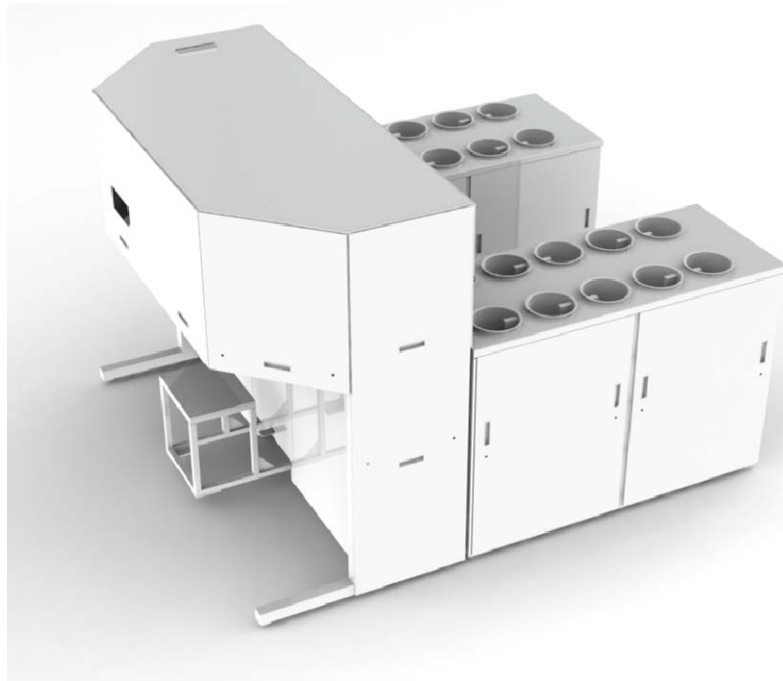


Volumetrix™

Multi-Ingredient, Multi-Formula Industrial Dispenser



Revolutionizing the Industrial Dispense Industry

Volumetrix is a Multi-Formula, Multi-Ingredient Dispenser for complex formulations which are typical of Paint Formulation, Paint Tinting, Ink Formulation, Dyes, Stains, Varnishes, Chemical Compounding, Flavorings and Lab Formula creation. These applications require the dispenser to support a wide range of ingredients, large amounts of formulas, and various feedstock options for the ingredient supply. The Volumetrix Dispenser can handle up to 60 ingredients with an unlimited amount of formulas. This dispenser includes a full function Graphic Interface with a Formula Editor and dispense database.

The Standard of *Accurate Speed*

Some dispensers are accurate and some dispense large volumes quickly. Speed, though, usually compromises accuracy. Not so with the Volumetrix, which competes with all other equipment in terms of speed but also greatly exceeds their accuracy. This speed with accuracy performance is revolutionizing the dispense industry.

Blend On Demand

If you run high production with many formulas, the Volumetrix can save you time and money by dispensing the formula needed, quickly and accurately, on a just-in-time basis.



Any Materials

Whether your blend components are aggressive solvents, aqueous solutions, highly viscous materials, or any other challenging media...the Volumetrix can handle them.

Any Size Batch

If you need a few ounces in a small container, 50 gallons in a drum, or 300 gallons in a tote....no problem for the Volumetrix.

Multi-Mode Dispense Capabilities

The Volumetrix can run batches in *Volumetric* simultaneous dispense (all ingredients dispensed at the same time), *Gravimetric* mode (ingredients dispensed one at a time), and *Priority* mode (dispensing a material in order of its "priority" setting in a batch). The Volumetrix also contains a *Ratio* (proportioning) mode in which all materials are dispensed simultaneously in the proper ratio.



Industrial Strength

We provide dispense systems for distribution. This is not retail or point-of-sale equipment; these are robust, reliable, fast, and accurate dispensers for industrial uses. Whether you process solvent-based or aqueous solutions, or a wide range of viscosities, our equipment can handle it.

Clean

All structural and surface materials are stainless steel. The wing tops are perimeter welded, leak-proof stainless steel design for easy clean up of spills and the prevention of cross contamination of materials.



Recirculation and Agitation

Automated, configurable fluid recirculation keeps materials "fresh" and prevents solids from settling. Optional mechanical agitation is available for supplied canisters.

Formula Editor and Import Utility

Complete Formula and Material Component Editor included with database. The Volumetrix can also directly link with corporate production servers for batching and reporting to create a paperless system.

Historical

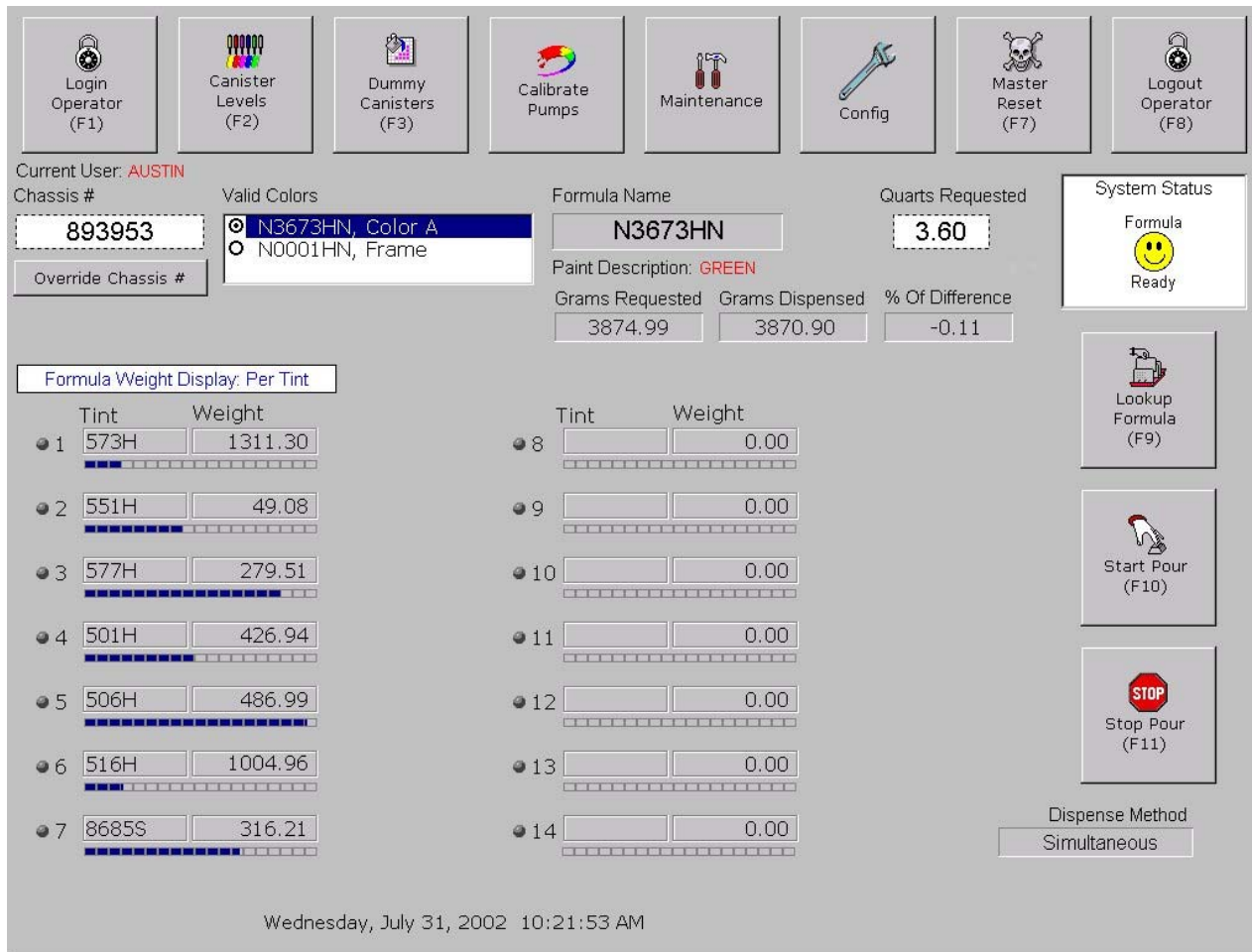
Volumetrix software logs all pertinent data. Batch reports, material usage reports, and even VOC reports are standard.

Smart

The Volumetrix software package does all the hard work under the hood, with features such as automatic calibration and automatic level tracking with a “point-and-click” multi-lingual interface for the operator.

Ease of Use and Maintenance

The Volumetrix was designed with ease of use for Operators with a simple “point-and-click” dispense method. The Graphics Interface contains automatic level tracking screens as well as automatic calibration. The Volumetrix is configurable via software screens to handle a wide variety of customer requirements. The machine requires typically no preventative maintenance; however, spacious design and easy off, tool-free covers are standard.



The screenshot displays the Main Dispense Operation Screen with the following elements:

- Navigation Buttons:** Login Operator (F1), Canister Levels (F2), Dummy Canisters (F3), Calibrate Pumps, Maintenance, Config, Master Reset (F7), Logout Operator (F8).
- User Information:** Current User: AUSTIN, Chassis #: 893953, Formula Name: N3673HN, Quarts Requested: 3.60.
- System Status:** Formula Ready (Yellow smiley icon).
- Color Selection:** Valid Colors: N3673HN, Color A (selected), N0001HN, Frame.
- Paint Description:** GREEN
- Performance Metrics:** Grams Requested: 3874.99, Grams Dispensed: 3870.90, % Of Difference: -0.11.
- Formula Weight Display:** Per Tint
- Dispense Tint Table:**

Tint	Weight
1 573H	1311.30
2 551H	49.08
3 577H	279.51
4 501H	426.94
5 506H	486.99
6 516H	1004.96
7 8685S	316.21
8	0.00
9	0.00
10	0.00
11	0.00
12	0.00
13	0.00
14	0.00
- Control Buttons:** Lookup Formula (F9), Start Pour (F10), Stop Pour (F11).
- Dispense Method:** Simultaneous
- Timestamp:** Wednesday, July 31, 2002 10:21:53 AM

Main Dispense Operation Screen

Minimum Floor Space

Considering the large volume and speed that the Volumetrix can dispense, its' 500 square feet minimum floor space (for a typical 40 circuit unit), makes the greatest use of your floor space compared to competitors' machines.



40 Ingredient Volumetrix

Specifications

Dispense size range1/10 Quart to 300 Gallons
 Dispense speed: 1 gallon (typical formula).....20 seconds
 Dispense repeatable minimum shot size.....1/10 gram

Fluid Requirements

Viscosity range for supply materials0 cp - 7,000 cp
 Materials supported.....Solvent-borne or aqueous

Machine Design Specs

Supply of materials (internal).....3 gallon or 6 gallon canisters
 Supply of materials (external).....unlimited via Remote Bulk Supply
 Fluid circuit capacity1 to 60 circuits (can be configured with 128)
 Operating environment.....from unclassified up to Class 1/ Division 1
 Machine composition materialsStainless Steel
 Footprint (40 circuit machine).....approximately 500 sq ft
 Weight (40 circuit machine empty).....approximately 5,200 lb

Utility Specs

Electric480 - 560 V 3phase
 Pneumatic.....120 psi @ 2 cfm

Time spent on color-match issues has gone from “60% with the old machine to [approximately] 5% percent with Volumetrix. Increased productivity is due in part to color accuracy problems that are a fraction of what was encountered with the [mix] system that preceded the Volumetrix system.” Matt Stratton, Freightliner Manufacturing



Standard Features

- PLC-based industrial controls platform. Robust and reliable.
- PC-based Graphics User Interface. Multi-lingual operator interface.
- Microsoft SQL server-based data collection and acquisition.
- All stainless-steel construction.
- All covers removable without tools; stainless steel appliance-style sheet metal cover panels.
- Integrated laboratory-grade certified scale.
- Designed with easy access and plenty of room for maintenance.
- Dispense head opening can accommodate cans as small as one quart.
- Proprietary high-speed, bubble-tight dispense valves.
- Class 1/Division 1. No purged components.

Options

- Bulk or remote feed systems direct to Volumetrix.
- Canister wing assemblies containing 3- or 6-gallon ingredient storage.
- Active Mixer assembly with cip nozzle (for Ratio Dispense Method).
- Integrated secondary Floor Scale for certification of drum based dispenses.
- Conveyors shuttle can shakers.
- Direct paperless tie-ins to production databases.
- Dispense label printer.
- Service contracts.
- Robotic-based handling systems.

Applications

- Paint manufacturing or tinting.
- Ink manufacturing or tinting.
- Textile dyes manufacturing or tinting.
- Adhesive manufacturing.
- Wood stains and varnishes.
- Beverage blending or composition.
- Chemical blending and custom formulation.
- Liquid vitamins and food products.



Pricing Guide

The prices below are provided for estimation purposes. Generic Fluid Systems will provide a firm quotation following an engineering site visit to determine your exact specifications and options needed for a complete Volumetrix system. The table contains two variables: size and environment.

Size

Refers to number of ingredients you wish to load into the Volumetrix. The table provides for four common size selections: 10, 20, 40 and 60. Note that any size of ingredients can be specified, for example 12, 34, etc.

Environment

Refers to NEC Classification for the environment where the Volumetrix will be installed. Typically, solvent-based ingredients require NEC Class 1/Division 1 (explosive environment) or NEC Class 1/Division 2 (flammable environment). Aqueous (water-based) ingredients will typically be in an unclassified or non-hazardous area.

Typical Volumetrix Price Ranges (Dollars USD)		
Volumetrix Size	Non-Hazardous Environment	Hazardous Environment
10 Ingredients	\$90,000 - \$115,000	\$115,000 - \$130,000
20 Ingredients	\$165,000 - \$185,000	\$185,000 - \$235,000
40 Ingredients	\$430,000 - \$525,000	\$475,000 - \$565,000
60 Ingredients	\$615,000 - \$675,000	\$655,000 - \$725,000



Generic Fluid Systems Inc.
3315 N. Centennial Rd., Bldg H
Sylvania, OH 43560