



Superior Energy Systems

AUTOGAS INFRASTRUCTURE SOLUTIONS



Propane Autogas

Propane, referred to as autogas when used in internal combustion engines, is the leading alternative fuel in the nation and the third-most commonly used fuel across the globe, behind gasoline and diesel. Thanks in part to lower total cost of ownership, more and more fleet managers are choosing propane autogas to fuel their fleet. Even when conventional fuel prices are low, a vehicle's additional costs—like fuel, fluids, filters, and repairs—can drain your fleet's budget. Over your vehicle's lifetime, propane autogas is proven to help you save money and clean up the air with notable reductions in emissions. In addition, you'll pick from a wide range of certified OEM and aftermarket options and all vehicles deliver comparable, if not improved, horsepower, torque, and towing capacity when compared to gasoline or diesel fueled models.



Why Superior?

For more than 40 years, we've brought together engineering, manufacturing, construction and safety expertise to focus on operational excellence. We provide the best in turnkey LPG and NGL systems and infrastructure solutions as well as safety and compliance training. We have manufactured more bulk plants and trans-shipment terminals throughout the United States than any other company and have over 1,600 autogas dispensers located across North America.

Whether you are using propane autogas for your fleet vehicles or for retail sales, our certified and factory-tested dispensers and dispensing systems provide you with the infrastructure solutions you need for safe, secure and simple fueling. From a single fueling dispenser to a complete station installation, we can customize a package specifically for you, helping you choose the right refueling option based on fleet size, routes, budget, and facility space. And because propane autogas infrastructure is scalable, it can easily grow to meet your fleet's needs. We can also help coordinate the conversion or purchase of your vehicles, ensuring a seamless transition to autogas.



PRO-Vend 1000/1500

The PRO-Vend 1000/1500 is our best-selling dispenser and the foundation platform for all PRO-Vend propane autogas dispensers. The unit comes with everything you need to get started, including easy-to-read and use MID:COM display panel and electronics, and can connect to any external fuel management system available today. It meets the guidelines set forth in UL Standard 495 and the CSA Canadian Standard, making it the right choice for states and jurisdictions with those requirements.

Upgrades/Options:

- Additional tank and skid packages
- High-pressure pumping systems
- Hose retractor
- PRO-Vend 1500 (dual hose) shown at left
- Third-party fuel management system connections
- PRO-Vend 2000 upgrade kit
- Powder coated stainless finish (powder coated steel standard)

Unit Certifications:

- National Type Evaluation Program (NTEP) certified by the National Conference of Weights and Measures
- Measurement Canada approved to Weights and Measures Act, article 193
- Approved to UL Standard 495
- Approved to Canadian Standard CAN1-12.4





Benefits:

- Internal embedded Windows with Intel ATOM Dual Core Processor
- Internal memory allows tracking of unlimited number of proximity fobs or cards
- No on-site configuration required; system is shipped with current software and pre-programmed to customer needs
- Menu configurations and upgrades take place through the cloud
- No need for hardwired ethernet line due to pre-installed cell modem
- Transaction data is stored on the cloud in real time on **www.sesfleet.com** (in the event of a communication failure data is stored in the system PC; when communication is reestablished data is sent to the cloud automatically)

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Upgrades/Options:

- Transaction receipt printer
- Additional key fobs
- Credit card reader
- Additional tank and skid packages
- High-pressure pumping systems
- Hose retractor
- PRO-Vend 2500 (dual hose)
- Powder coated stainless finish (powder coated steel standard)



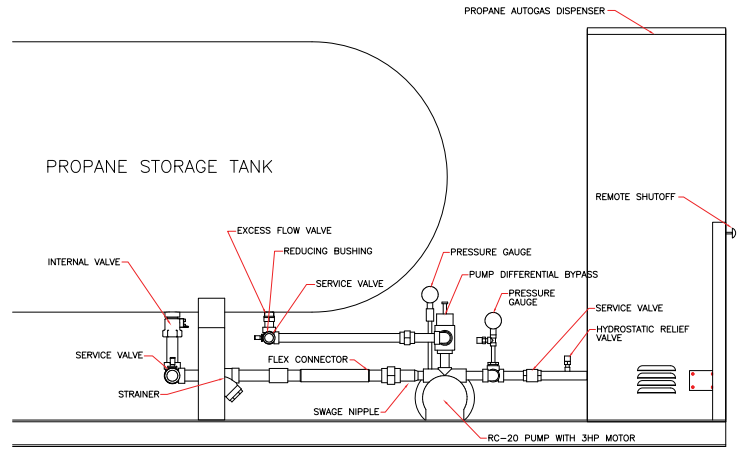
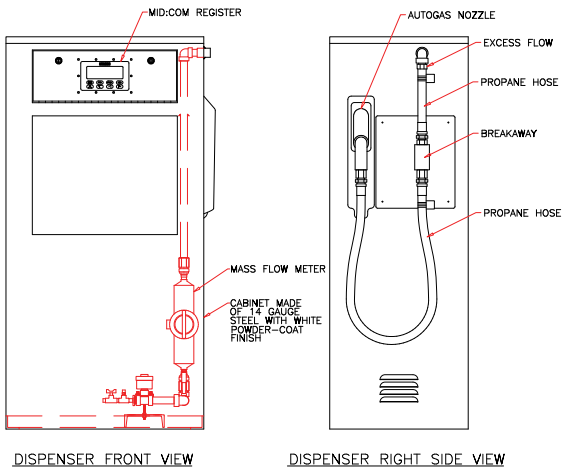
PRO-Vend 2000/2500

The PRO-Vend 2000/2500 is our most advanced dispenser. The state-of-the-art unit is a fully integrated, customizable web-based propane autogas fuel dispenser that operates from a built-in, Windows-based PC. The unit tracks key data like driver and vehicle identification, vehicle mileage, and gallons pumped for a virtually unlimited number of vehicles, drivers and customers.

You can create customizable reports without the need to purchase and install separate technology. The self-contained touch screen system features a built-in, high resolution fueling video monitor, ideal for driver training and friendly fueling reminders. Fueling is as easy as swiping a key fob or entering a credit card or access number into the touch screen and picking up the zero-emission fuel nozzle.

Software Features:

- User selectable predefined prompts up to 32 digits in length or create customized—up to four (4) messages—such as driver ID, vehicle ID, odometer
- HID proximity key-fob reader
- Adjustable programming parameters through cloud based system in real time
- View pump transactions in real time
- User four (4) digit pins are generated by the system for secure access to only authorized users
- Software updates are provided automatically to all pumps in the system through cloud based or directly to your VPN



Complete Dispensing Systems

In addition to dispensers, we custom design and manufacture complete propane autogas dispensing systems which include one or multiple dispensers, skid mounted tanks of various sizes and all of the necessary components needed to begin fueling.

Tanks

Tanks manufactured for its intended purpose

- All connections close to the cabinet
- Cuts down on distances and potential leak points
- Container filling connections purposely located on opposite end of the container away from the point of transfer

Internal valve

- Threaded directly into the container
- Provides means for mechanical, thermal and remote emergency closure
- Incorporates excess flow technology
- Fusible element not to exceed 250°F
- Pneumatic or cable operated

Service valve

- Located in several places within the piping system to isolate or provide backup containment of the product

MID:COM Register

- Boot incorporates a switch that automatically shuts off pump and completes the transaction when nozzle is hung up
- Lockout timer will shut off pump if no fuel flow in 30 seconds

Piping and Strainer

- Schedule 80 (A106 piping)
- Forged carbon steel fittings (2000 WOG)
- Strainer—Keeps foreign material out of the product going to the pump

Flex Connector

- Protects the piping system from the effects of vibration and possible settling
- Stainless steel braided

Pump Differential Bypass

- Protects the pump from effects of overpressure
- Allows adjustment to create differential pressure
- The heart of the pumping system

Excess Flow Valve

- Protects container from unintentional release should downstream line break
- Slugs by differential pressure or GPM flowing
- Even if valve shears off, the operator would remain in the container
- Note—additional positive shutoff valve

Hoses

- Manufactured for intended service
- 350 psig WP; 1750 psig burst
- Perforated (will not burst)
- Pressure tested by manufacturer at 120% of WP
- Tagged by manufacturer
- Must be marked appropriately
- NFPA 58 requirement
- Available length of up to 18 feet
- Breakaway valve separates at approximately 80 pounds force





Above ground horizontal tank installation

Remote Shutoff Locations

- Remote emergency shutoff required at least 3 feet from point of transfer
- Provides mechanical means of closure
- Additional electrical disconnect required at building not less than 25' nor more than 100' from the cabinet
- Both propane and electrical shutoff locations required to be readily visible from point of transfer by appropriate signage
- Provides protection for cabinet and piping system should vehicle pull away

Hydrostatic relief valve

- Protects liquid system and piping from the effects of overpressure due to liquid expansion
- Installed anywhere in piping where liquid may be trapped between two positive shutoff valves



Above ground vertical tank installation



Nozzles

Gas Guard—Low emission

- Less than 4cc
- 1 $\frac{3}{4}$ " ACME

Elaflex ZVG 2—Ultra low emission

- Less than 1cc
- Euro connection

Staubli—Ultra low emission

- Less than 1cc
- Euro connection

Upgrades and Options

Filters:

Donaldson particulate or carbon filters (upgrade) SES now recommends the Donaldson Clean LPG Filter be added to every dispensing system we sell. Propane (LPG) can become contaminated as it travels from the refinery, through pipelines, to bulk storage and finally to your on-site storage tank. The Donaldson filter is highly efficient and removes 99% of harmful particulates 0.5 micron and larger.



Upgrades:

- High differential pumps/motor
- Hose retractor
- Hose protector
- Station canopy
- Station awning
- Pneumatic solenoid valve for emergency shutdown
- Programable logics controller which customizes pumping system controls



Service and Training

Preventative maintenance is the key to keeping your autogas dispensers and station equipment operating efficiently. To avoid costly downtime and repairs, we offer service plans which include annual on-site visits and thorough inspection of your refueling equipment. We are also available, by phone and email, to help diagnose and resolve any problems you may be experiencing. We offer various training programs, including onsite start up and training for your fleet.



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