



# The ! Voice

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## The Company

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## Environmentally Sustainable Style Products

Ground-level ozone is a well-known greenhouse gas that is a primary component of smog. Smog has been a problem for the world's cities for decades and continues to be an area that environmental protection agencies around the world monitor closely. The United States has a network of sensors across the nation that monitor ground-level ozone, measuring on the scale of parts per billion (ppb). Currently in the United States, the limit for ground-level ozone concentration is 70 ppb (0.070 ppm). Any county or group of counties with an ozone concentration higher than this 70 ppb limit is considered a non-attainment area. The local, state, and regional environmental protection agencies of these non-attainment areas are charged with implementing strategies to combat this ground-level ozone. In urban areas, ground-level ozone is most effectively controlled by reducing the amount of volatile organic compounds (VOC) in the air. This is because VOCs are a primary component of ozone, and VOCs are relatively easy to control compared to other gases.

One of the most cost-effective ways to control VOC is through reduction in emissions from gas stations. The conventional way to talk about emissions from gas stations is to consider the "emission factor", which is the rate at which VOCs are emitted to atmosphere related to station throughput. Refer to the table of the five emission sources from gas stations, along with their uncontrolled emission factors.

Source	Uncontrolled Emission Factor (lb/1000 gal)	Controlled Emission Factor (lb/1000 gal)	Solution
Phase 1 Bulk Transfer Filling	7.7	0.15	Industry
Refueling	8.4	0.42	Industry
Pressure Driven Breathing	0.76	0.024	VST
Hose Permeation	0.062	0.009	VST
Nozzle Liquid Spillage	0.7	0.003	VST

The first two items in the above table have been addressed by the industry at large in the US for decades now, with Stage 1 vapor hoses on fuel deliveries and ORVR systems in cars, respectively. The final three items in the table had been left largely unaddressed, in part because of the magnitude of the impact made. However, VST has developed solutions that reduce the emissions from these sources by 98%.

- Pressure Driven Breathing – GREEN MACHINE™ vapor processor
- Hose Permeation – Low Permeation hoses
- Nozzle Liquid Spillage – ENVIRO-LOC™ ECO style nozzles

This level of emission reduction has a potential impact on the order of 3,500 tons per year in our home state of Ohio. Applied on a national scale, this would mean nearly 90,000 tons per year of VOC emission reduction. VST firmly believes that this amount of emission reduction cannot and should not be ignored.

### VST Mission

To design and manufacture innovative products for retail refueling systems that are specifically engineered to protect the environment and consumers with safety and reliability.

### VST Values

- R:** Respect Employees, Customers, Vendors, and Environment
- O:** Operational Excellence, Quality, Delivery, Safety & Cost
- I:** Innovative Passion, Unique, Industry Leader, and Committed to Excellence

### VST Vision

VST strives to become the most trusted company in the global gasoline dispensing industry by manufacturing environmentally sustainable products and solutions that reduce harmful vapor emissions to create a future that protects the communities in which people live and work every day.