Radical Odor Control Technology

with Advanced Oxidation Process

Proven Odor Control Technology

- Treats Odors, Fats, Oils, Grease & Corrosion
- Designed for enclosed or partially enclosed areas
- No chemicals or biosolutions required
- Minimal startup & operation costs
- Easy installation & low maintenance

VAPEX™ ENVIRONMENTAL TECHNOLOGIES

Vapex™ systems have been successfully installed in hundreds of locations

The Vapex™ odor control system with its patented air atomizing three-fluid nozzles enhance the Advanced Oxidation Process by creating hydroxyl radicals (•OH), the most potent oxidant used in odor treatment.

Vapex™ combines ozone, water and air to create a hydroxyl radical fog that is efficiently dispersed throughout enclosed or partially enclosed spaces, such as lift stations, wet wells, holding tanks, diversion boxes, and headwork channels.

Vapex™ odor control systems treat offensive odors in situ greatly reducing energy costs. Vapex™ units have a small footprint, require minimal water and electricity, and are extremely quiet.

Proven

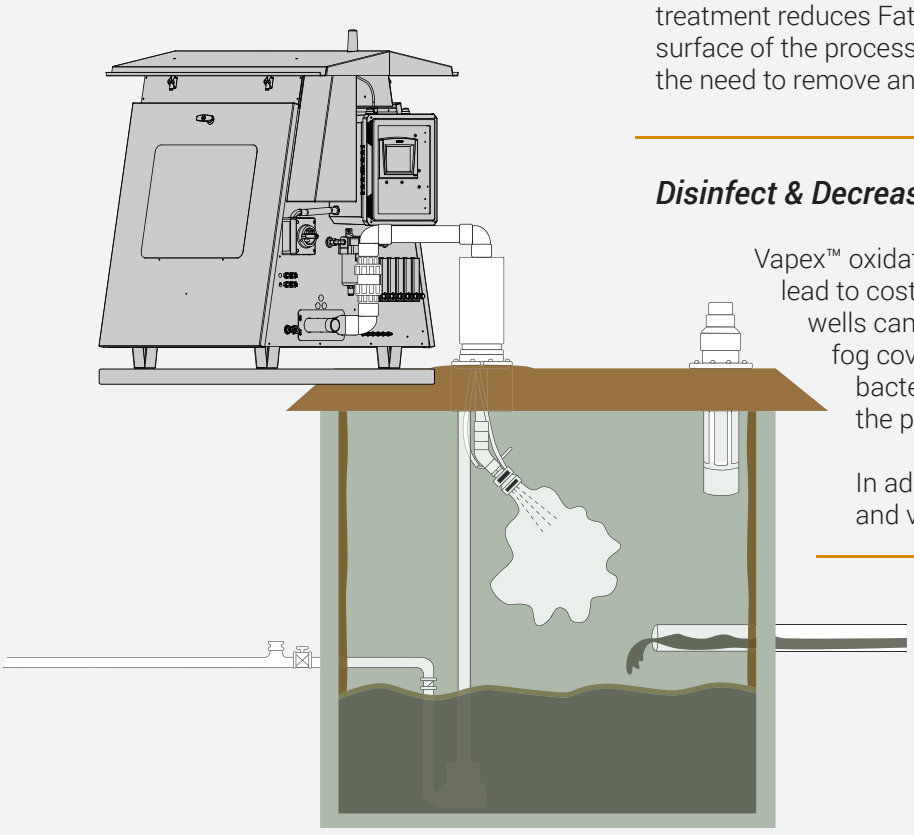
An independent university study found that hydroxyl radicals are being produced by combining the micron-sized water particles and ozone.

Accepted

Major engineering firms and a state EPA have determined that Vapex™ technology is an effective method to eliminate odors and remediate FOG.

Established

Over the past 10 years, a number of major municipalities have standardized on the Vapex™ technology.



Eliminate Odors

Vapex™ technology oxidizes odorous compounds where they are generated. Combining ozone and micron-sized water particles produces hydroxyl radicals that react quickly with odorous compounds such as reduced sulfur compounds, amines, and volatile fatty acids.

This technology is customizable to meet varying installation requirements and can be installed indoors or outdoors. The hydroxyl radical fog results in almost instantaneous odor reduction.

Fats, Oils, & Grease Prevention

Vapex™ technology remediates Fats, Oils, & Grease (FOG) by breaking the double carbon bonds that form the fatty acid chain. By breaking the bonds, FOG does not reform downstream. Odors from volatile fatty acids are decreased significantly.

FOG clogs pumps and decreases pump efficiency. Continuous treatment reduces Fats, Oils, and Grease from collecting on the surface of the process water and walls, reducing or eliminating the need to remove and dispose surface FOG & debris.

Disinfect & Decrease Rate of Corrosion

Vapex™ oxidation process eliminates biofilm on surfaces that lead to costly infrastructure destruction. Surface pH in wet wells can be as low as 1, however, the powerful oxidant fog covers the entire surface killing Thiobacillus, the bacterium that metabolizes H_2S to sulfuric acid, raising the pH to above 6 and preserving the infrastructure.

In addition, hydroxyl radicals essentially kill bacteria and viruses virtually disinfecting the treatment area.

HV NOZZLE

LV NOZZLE

RXN VENT

Base Model Features

- Powder Coated Aluminum Cabinet
- Insulated Cabinet
- Patented Nozzles
- HMI/PLC (excluding PICO model)
- Individual Oxidant Control for each nozzle
- SCADA Connection (excluding PICO model)
- Timer Based Oxidant Control
- Auto-Draining Moisture Removal System
- Pressure & Flow Based Oxidant Shut Off
- Small Footprint
- Low Power Usage
- 1-Year Mechanical Warranty
- Modem & Communication Services

Benefits

- Treats High Concentrations of Hydrogen Sulfide, Mercaptans, and Amines
- Eliminates Odor Complaints
- Reduces Rate of Corrosion in the Infrastructure
- Remediates Fats, Oils, and Greases
- No Chemical Storage or Handling
- Quiet Operation
- Easy Installation
- Straightforward to Operate
- Environmentally Friendly
  - Reacted chemistry condenses safely back into influent stream
  - Small Carbon Footprint
- Low Installation, Maintenance, and Operational Costs

Applications

- Pump Stations/Wet Wells/Lift Stations
- Junction Boxes & Siphons
- Interceptors
- Manholes
- Sludge Holding Tanks
- Grease and Scum Pits
- Grit Chambers
- Covered Primary Clarifiers
- Holding, Retention & Equalization Tanks
- Headworks Channels
- Rotary Screens

Options

- Stainless Steel Enclosure
- Remote Monitoring
- Extended Mechanical Warranty
- Ergonomically Designed Pedestal Mount
- Quarterly Maintenance Program
- AOP Vent
- RXN Vent

PICO

NANO

MICRO

MILLI

Specifications	*PICO*	*NANO*	*MICRO*	*MILLI*
Maximum Treatment Volume, ft^3 (m^3)	750 (21)	10,000 (283)	26,000 (736)	42,000 (1,189)
Maximum Number of Nozzles	1	2	4	6
Oxidant Output, g/hr	≤ 10	≤ 20	≤ 50	≤ 60
Average H_2O Usage, gal/h/nozzle (l/h/nozzle)	1.5 (5.7)	8 (30.3)	8 (30.3)	8 (30.3)
Air Output, cfm/nozzle (m^3/hr/nozzle)	1 (1.8)	30 (54)	30 (54)	30 (54)
Material of Construction*	Aluminum	Aluminum	Aluminum	Aluminum
Noise Level, dB	<65	<70	<70	<70
System Dimensions, L in (cm) x W in (cm) x H in (cm)	20 (51) x 17 (43) x 31 (79)	41 (104) x 17 (43) x 47 (119)	54 (138) x 35 (89) x 44 (112)	54 (138) x 35 (89) x 44 (112)
Average System Weight, lbs (kg)	62 (28)	160 (73)	250 (113)	355 (161)
Power Requirements				
Volts, VAC	110	110 or 220	220	220
Average Current Draw, A, 50 Hz	3.5	10	18	20
Average Current Draw, A, 60 Hz	6	17 or 11	19	23

**All units are TGIC Polyester Powder Coated, Stainless Steel Available*

Vapex™ ENVIRONMENTAL TECHNOLOGIES

Contact your Vapex™ Sales Representative or call 1-888-907-0004 to determine which Vapex™ unit is best suited to eliminate odors, remediate FOG, and decrease corrosion for your application.