

Gas and Odor Control Commercial and Municipal Submittal

Odor-Solve Gas and Odor Control

A proprietary filtration system engineered to capture and reduce 95% of unwanted odor causing gases generated by wastewater systems before they are vented to the outside air.

- Neutralizes and eliminates the active properties of odor causing gases
- Stops dangerous build-up of corrosive and flammable gases
- Prevents corrosion damage to sewer systems and equipment
- Limits health risks caused by exposure to hazardous gases
- Ends community odor complaints
- Utilizes a superior low cost replaceable filter material
- Operates on a standard 120V 60Hz power supply
- Requires limited maintenance

Gas Removal

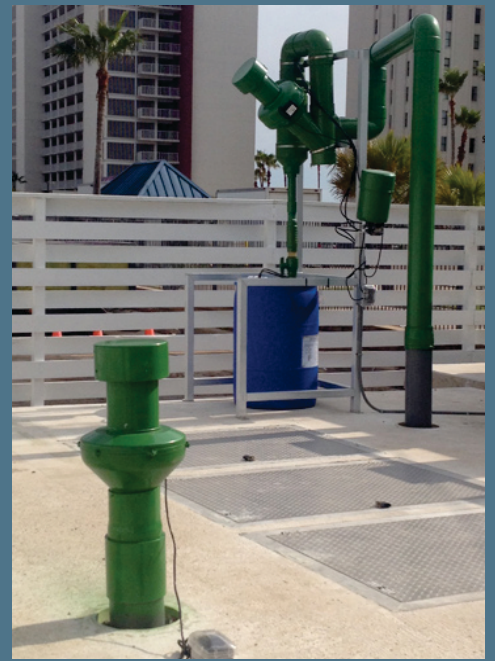
The Odor-Solve Gas and Odor Control Filtration System connects directly to the wastewater systems existing vents and forces problem gases that would normally be expelled into the outside air into the Odor-Solve filter element where the gases corrosive and odor producing properties are rendered inert and completely removed.

Hydrogen Sulfide Control

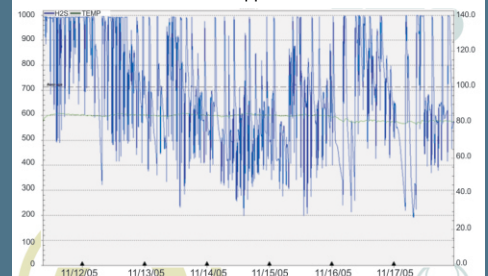
Accumulations of Hydrogen Sulfide gas (H₂S) in wastewater treatment systems are a primary cause of sewer corrosion, safety hazards and odor complaints from the public. The Odor-Solve Gas and Odor Control System has been proven to reduce levels of Hydrogen Sulfide as high as 2000 parts per million to less than 5 parts per million.

Suggested Specification

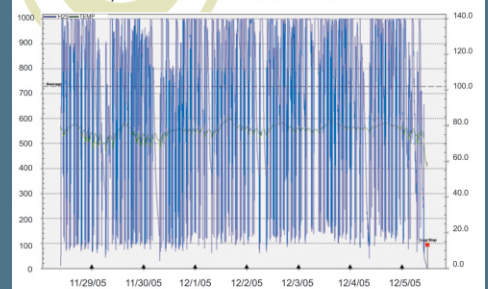
Odor-Solve Gas and Odor Control is recommended for use in commercial and municipal wastewater treatment plants, lift stations and collection lines equipped with air release valves and is designed to be easily incorporated into existing facilities as well as new constructions. An Odor-Solve filter unit works best when used with Micro-Solve®. Using Micro-Solve® upstream, at the root of the problem, to clean gas producing grease from the system will reduce the amount of Odor-Solve needed.



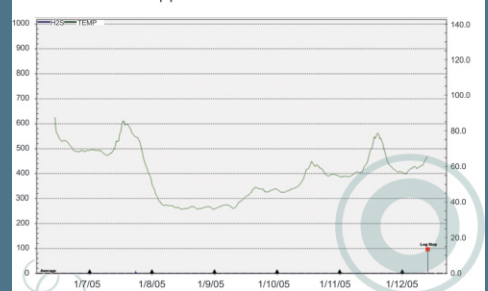
BROWNSVILLE TX before application



days 17 thru 24 with Micro-Solve®



Micro-Solve® application with ODOR-SOLVE filter unit





Gas and Odor Control Lift Station Application Technical Data Sheet

Odor-Solve Solution

A proprietary filtration system combining the power of a patently developed peroxide based deodorizing solution with a uniquely designed filter component to capture, neutralize and eliminate 95% of harmful odor causing gases in wastewater treatment lift stations before they are vented to the outside air.

Odor-Solve Filtration System

The Odor-Solve filtration system is composed of a 55 gallon drum of Odor-Solve deodorizing solution, two fans, two pumps, a support frame and the filter unit which is custom fitted to the existing lift station exhaust vent. The first fan, mounted externally, pushes clean air into the lift station creating a positive air pressure that forces the odor causing gases toward the exhaust vent. The second fan, internally mounted in a closed "Y" spur line of the filter unit, pulls the air to induce a suction which draws unwanted gases from the lift station into the filter while simultaneously venting cleaned air back into the environment. The first pump feeds Odor-Solve deodorizing solution from the 55 gallon drum to the filter, consistently spraying and wetting the replaceable filter material. As the gases are passed through the Odor-Solve saturated filter, corrosive and active odor producing properties are instantly neutralized and eliminated through a process of chemical oxidation. The cleaned air is then returned to the outside environment while excess Odor-Solve deodorizing solution and any now inactive gas residue particulates are drained back into the 55 gallon drum. When the drum of Odor-Solve becomes inactive, the second pump is connected to the drum and used to flush the remaining inert Odor-Solve solution and harmless odor residue into the lift station for safe disposal.

Installation Data

The Odor-Solve filter unit is mounted on a free-standing aluminum support frame featuring a protected mounting point for the chemical delivery pump and an open end bay with side rails for the 55 gallon drum. The support frame has a 3' by 3' footprint and should be situated as close as practicable, within a 10' radius, to the lift station exhaust vent. The filter unit intake line is custom fitted to the exhaust vent using a flange fitting and rubber gasket and the support frame is secured in place to the lift station pad with four concrete anchor bolts.

The external fan is mounted to a PVC sleeve of the appropriate diameter to fit over the lift station's existing air intake vent. For maximum performance, the intake vent should be located 15' to 25' from the exhaust vent. If a suitable intake vent is not present, one can be cored and installed.

System fans (two) and pumps (two) are wired for 120V 60Hz operation and are equipped with NEMA 5/15 plug ends.

Maintenance

A 55 gallon drum of Odor-Solve deodorizing solution will last from 1 to 4 months before needing to be replaced depending on the amount of gases present in the lift station. Filter material should be replaced every 12 months. The internal tube in both pump units should be replaced with a new tube coated with the supplied grease every 6 months.

Safety Precautions

See Odor-Solve MSDS before handling chemical solution or equipment, including replaceable filter material, which has been in contact with Odor-Solve chemical solution. Wear chemical resistant safety gloves and chemical splash proof safety glasses at all times. Use only with adequate ventilation. Avoid contact with eyes, skin or clothing. Thoroughly wash hands after handling. Remove contaminated clothing promptly and wash and rinse thoroughly before re-using.



Gas and Odor Control Lift Station Application

COMPONENT INFORMATION

External/Internal Fans

To capture the unwanted gases and propel them through the filtration system, Odor-Solve Gas and Odor Control System employs an iPower GLFANXINLINE6 6" inch High CFM Inline Ducting Fan for both the external and internal applications. The fans feature durable ceramic coated composite fan blades and center hub for reduced noise and vibration and a zero maintenance permanently lubricated bearing.

SPECIFICATIONS

Airflow 442 cfm speed 2380 rpm

Motor 95W amp draw (0.9)

Insulation Class F motor protection IP44

Dimensions: 11 x 14 x 14.5 inches

Weight: 13.4 pounds

Power Cord / Plug End: 120V 60Hz NEMA 5/5

1 Year Warranty

Odor-Solve Filter Unit

For durability under exposure to corrosive gases the Odor-Solve Filter Unit is constructed of Schedule 40 PVC with sealed permanent joints.

FILTER UNIT FEATURES

A custom fitted intake line delivering odor causing gases from the lift station directly to the filter element. An inverted "U" shaped duct with a suction inducing internal fan in "Y" spur engineered to pull gases into the filter while simultaneously venting clean air back into the environment. A retractable drain tube with a clear upper section allowing for visual inspection of the chemical flow. An integrated in-line valve for back flushing the filter element with chemical solution.

Replacable Filter Material

Odor-Solve utilizes a low cost, replaceable, fiberglass filter material designed for commercial use. The filter material is coated with a tackifier and features a progressively denser scrim-backed media (air entry to air exit). The filter material is pre-cut into 10" diameter disks and 8 to 14 disks are used to fill the filter chamber.

FILTER MEDIA SPECIFICATIONS

Nominal Thickness: 2"

Actual Thickness: 1-3/4",

ERV: Less Than 5

Initial Resistance: 0.08" WC

Final Resistance: 0.50" WC

Material Fiberglass with Tackifier

UL Class 900

Odor-Solve Deodorizing Solution

Odor-Solve Deodorizing Solution is a peroxide based liquid chemical solution designed to neutralize and eliminate the active odor and corrosion causing properties commonly found in problem gases associated with commercial and municipal wastewater treatment. (see Odor-Solve MSDS)

Storage: Store in a cool, dry, well ventilated area. Keep away from strong acids.

Packaging: 55 gallon drum 4 drums per pallet.

SAFETY PRECAUTIONS

Protective gloves and safety glasses should be worn when handling Odor-Solve or equipment, including replaceable filter material, which has been in contact with Odor-Solve chemical solution. Odor-Solve should be used only in a well ventilated area. If ventilation is inadequate, a properly fitted MSA or OSHA approved respirator should be worn. See product MSDS.

LIMITATIONS

Odor-Solve acts as an inherent part of a proven system and should only be applied using the methods and equipment recommended by EGSW. Odor-Solve is a professional, industrial grade product and should only be used by personnel who have read and understand the Odor-Solve MSDS. Training in the use of Odor-Solve is available. Contact EGSW for training information and instruction.

Odor-Solve Chemical Pump

A Stenner Model A170 Double Head Fixed Rate Chemical Injection Pump is used to continually supply Odor-Solve deodorizing solution from the drum to the filter material. The Stenner A170 Chemical Pump is equipped with dual suction and discharge ports and uses twin lines of 1/4" polyethylene tubing to transfer Odor-Solve deodorizing solution from the drum to the pump and then to the filter element.

MATERIALS OF CONSTRUCTION

All housings polycarbonate

Pump tube: Santoprene[®]*, FDA approved

Check Valve Duckbill: Santoprene[®]*, FDA approved

Pump Head Rollers: HDPE

Roller Bushings: Oil impregnated sintered bronze

Suction/Discharge Tubing: #5 Polyethylene, FDA approved Ferrules 1/4" & 6 mm

Tube Fittings, Check Valve Gray fittings: Type 1 Rigid PVC, NSF listed Fittings

Black fittings: PP, NSF listed

Connecting Nuts: PP or Type 1 Rigid PVC

3/8" Adapter: Type 1 Rigid PVC, NSF listed

Suction Line Strainer: PP or Type 1 Rigid PVC body w/ Type 1 Rigid

PVC cap, NSF listed, ceramic weight

All Fasteners: Stainless steel

Pump Head Latches: Polypropylene

UL Listed

1 Year Warranty

170 SERIES FIXED OUTPUT

44 rpm

170 gpd up to 25 psi (643.6 lpd up to

1.7 bar)

PUMP SPECIFICATIONS

Motor Type: 1/30 HP, shaded pole, class B

Duty Cycle: Continuous

Motor Voltage (Amp Draw): 120V 60Hz 1PH (1.7)

Power Cord Type: SJTOW

Power Cord Plug End: 120V 60Hz NEMA 5/5

Odor-Solve Disposal Pump

When the Odor-Solve deodorizing solution becomes inactive and is no longer effective, a Dayton Model 5UXL9 1/10 HP Utility Pump is used to flush the remaining Odor-Solve solution and any harmless odor residue from the drum into the lift station for safe disposal. The empty drum may then be removed and replaced with a new drum of Odor-Solve deodorizing solution.

PUMP SPECIFICATIONS

Type Compact Flexible Impeller	HP 1/10
Voltage 115V	Amp Draw (1.6)
Motor Enclosure Open	Duty Intermittent
Motor Type Universal AC/DC	Inlet/Outlet (In.) 3/8 ID; 3/4 OD
Body Stainless Steel	GPM of Water @ 5 FT. of Head 5.2
Max. Head (Ft.) 37.3	Max Suction Lift (Ft.)7
Max. Liquid Temp (F) 140	Impeller Buna-N
Max. Pressure (PSI) 20.9	Shaft Dia. (In.) 0.315
Pumps Up to (Ft.) 48.3	Self-Priming Yes
RPM 5000	Seals Buna N Radial Lip
Bearings Ball	Shaft Material Stainless Steel
Thermal Protection Automatic	Measurements 6-3/4" x 4" x 4-1/2"
UL listed	
1 Year Warranty	



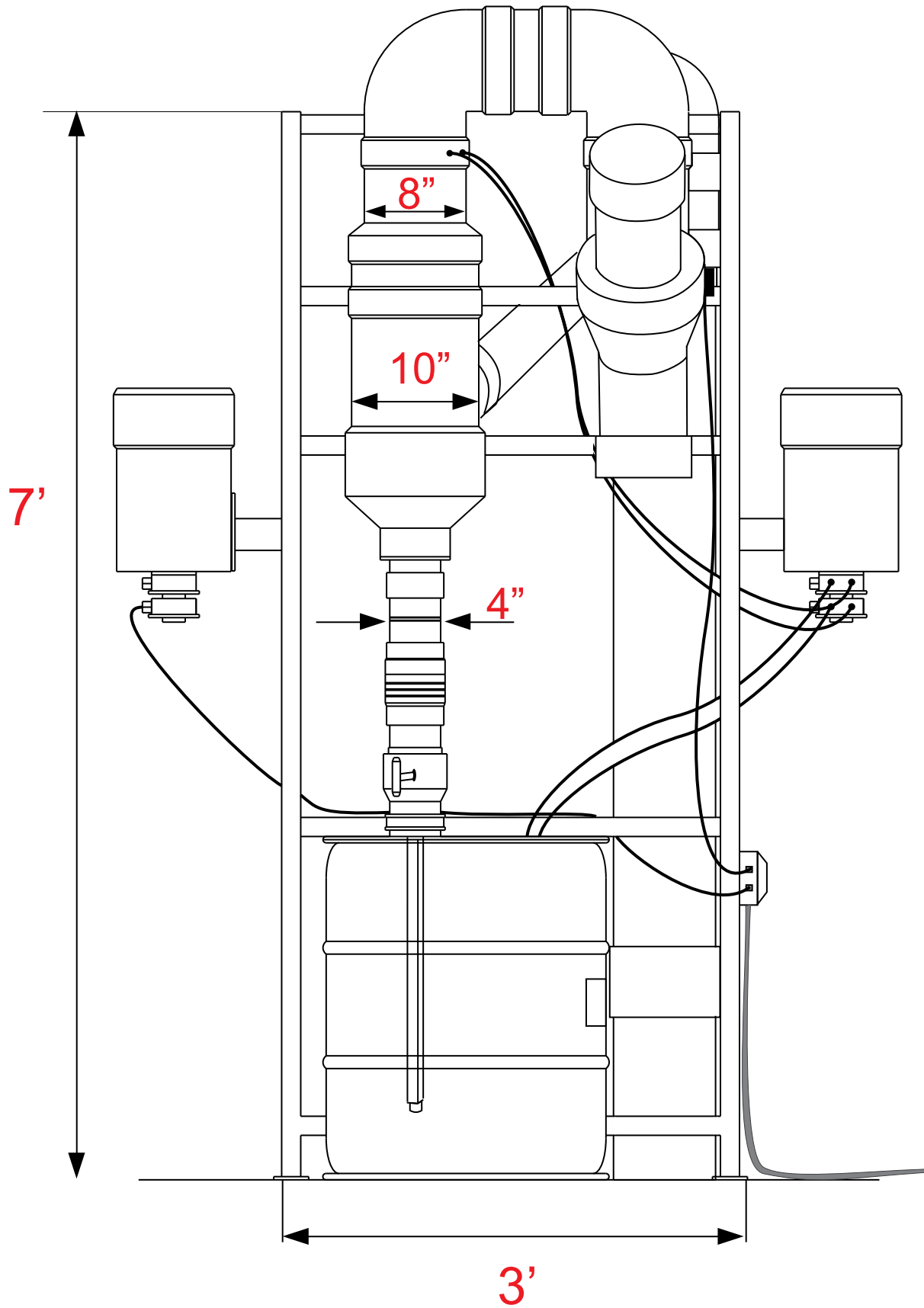
GREASE AND ODOR BIOREMEDIATION

P.O. Box 40843
Austin, Tx 78704
512 775 5358

BIO-TECH INDUSTRIES, INC.

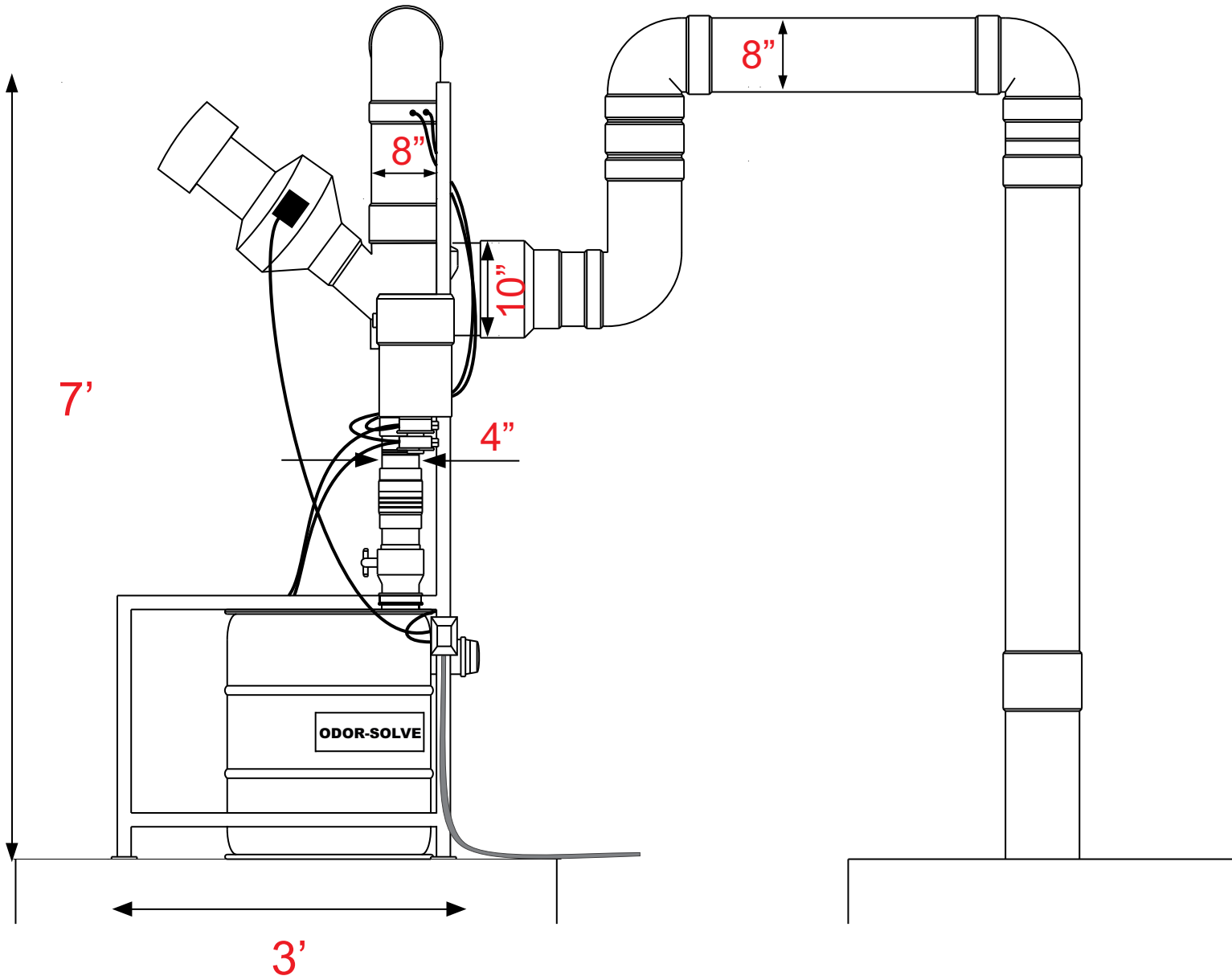
1027 Blanding Blvd Ste 606
Orange Park, FL 32065
(904) 272-6446

Odor-Solve System



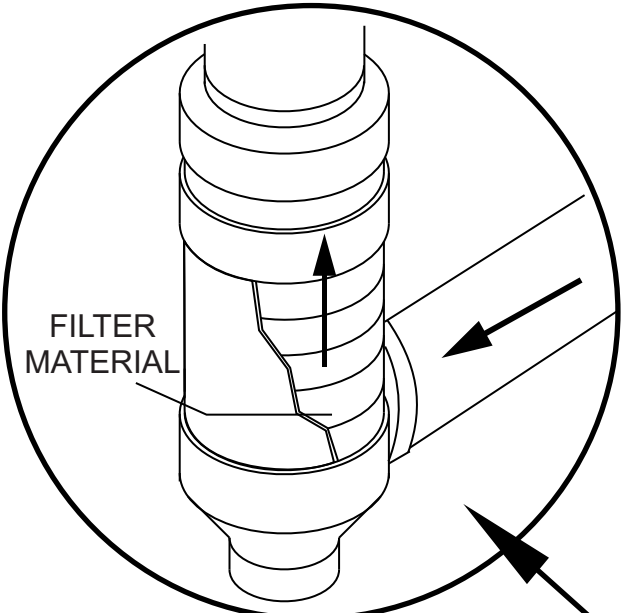
FRONT VIEW

Odor-Solve System



SIDE VIEW

Odor-Solve System



FILTER CHAMBER

FILTER CHAMBER

FILTER MATERIAL

ODOR-SOLVE PUMP

CLEAR CHEMICAL FLOW CHECK SITE

FILTER BACK FLUSH VALVE

CLEANED AIR RETURN VENT

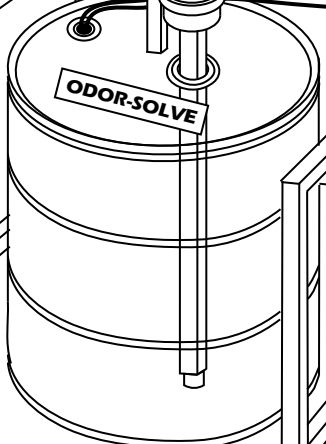
INTAKE LINE

POSITIVE SIPHON FAN

DISPOSAL PUMP

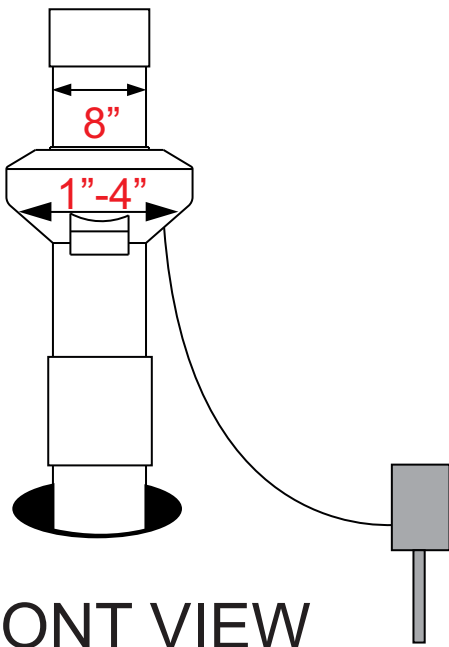
EXISTING EXHAUST VENT

ALUMINUM FRAME

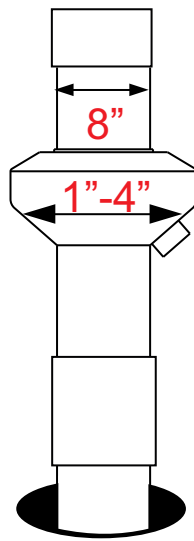


ISO VIEW

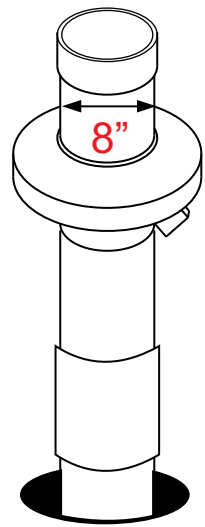
Odor-Solve System



FRONT VIEW



SIDE VIEW



ISO VIEW