

Wet Odor Control Scrubber Systems



EST

Severn Trent Services - EST WET ODOR CONTROL SCRUBBERS are engineered to treat malodorous gases emanating from municipal and industrial wastewater treatment facilities.

The Type "SOS" - **SideWinder Odor Scrubber™** - is a low-profile, multistage, packaged system capable of treating air rates from 250 to 20,000 CFM. Larger air flow rates up to 65,000 CFM will be accommodated by the Type "VPT" - **Vertical Packed Tower** scrubber systems. All systems are fabricated from industrial grade fiberglass reinforced plastic - FRP - with internal corrosion barriers and external UV inhibitors.

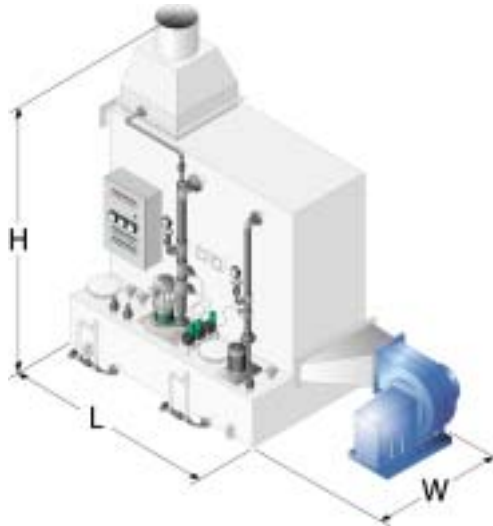


- Low Profile Design
- Low Installation Costs
- Efficient Co-Current and Counter-Current Flow
- No Gas Bypassing
- 99.9% H₂S Removal
- Low Chemical Fluid Pressure
- Fan-Driven
- Multiple Stages / Reduced Chemical Usage and Spent Chemical Treatment
- Low Cost Caustic and Bleach Scrubbing Solutions
- Unitized Construction with Automatic Controls

TYPE SOS AND TYPE VPT WET ODOR CONTROL SCRUBBER SYSTEMS

SOS

Type SOS
SideWinder Odor Scrubber



The Type SOS - **SideWinder Odor Scrubber™** - is a low profile multistage gas absorption system for capacities to 20,000 cfm. The system contains two or more sumps for use of two or more chemical solutions to treat odors emanating from wastewater treatment plants, composting sites, and other industrial sites that generate odors. Caustic and bleach solutions treat hydrogen sulfide (H₂S) and other sulfur bearing compounds, indoles, skatoles, and other organic compounds. Sulfuric acid solutions treat ammonia, amines, and other basic compounds.

The system is complete with multiple contact stages, integral sumps, preassembled internals, chemical recirculation and metering pumps, pH and ORP instrumentation, NEMA 4X control panel, system fan, inlet duct transition, and exhaust stack.

Model SOS Size CFM	Dimensions (feet)			Weight (lbs.)	Horsepower	
	L	W	H		Pump	Fan
250	5.50	2.50	8.00	1500	7.5	no fan
500	5.50	3.00	10.00	1500	3	2
750	5.50	3.00	10.00	1800	3	2
1000	6.00	4.00	10.00	2200	3	3
2000	7.50	5.00	10.00	3000	5	5
3000	9.00	6.00	10.00	4000	5	7.5
4000	10.50	6.00	11.00	5000	5	7.5
5000	12.00	7.00	11.00	6000	7.5	7.5
7500	13.50	7.50	11.00	7500	7.5	15
10000	15.00	8.00	12.00	9000	10	15
15000	16.50	8.00	12.00	10000	10	25
20000	21.00	9.50	12.50	12000	10	30

The model size numbers indicate the scrubber exhaust rate in CFM. Weight is based on an empty single fan system.

Footprint dimensions "L" & "W" do not include the fan dimension.

VPT

Type VPT
Vertical Packed Tower Odor Scrubber



The Type VPT - **Vertical Packed Tower** - is the standard vertical, counter-current packed tower scrubber system for large flows of gas, normally larger than 20,000 cfm capacity. Again, multiple stages in series can be provided to make possible the use of multiple scrubbing solutions. On-site bleach generation systems can also be provided to electrolytically produce the sodium hypochlorite (NaOCl) scrubbing solution.

Model VPT Size CFM	Dimensions (feet)				Weight (lbs.)	Horsepower	
	D	H	L	W		Pump	Fan
13000	6.00	22	8	10	5000	7.5	20
18000	7.00	25	9	11	6000	10	30
25000	8.00	27	10	12	7000	15	40
30000	9.00	28	12	14	8000	15	50
35000	10.00	28	12	15	10000	20	60
45000	11.00	28	13	16	12000	25	60
55000	12.00	28	15	16	14000	30	100
65000	13.00	28	15	17	15000	40	125

The model size numbers indicate the scrubber exhaust rate in CFM. Weight is based on an empty single fan system.

"L" & "W" are footprint dimensions and do not include the fan dimension.

For applications where a wet scrubber is not desired, refer to Bulletin B900-D for "Dry Odor Control Scrubbers" available from STS/EST.

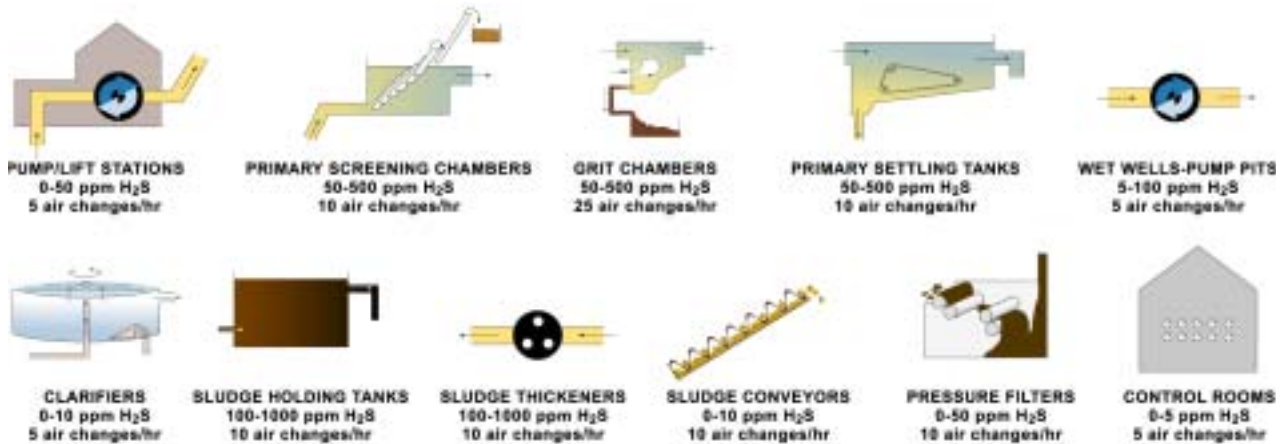
WET ODOR SCRUBBER SYSTEMS APPLICATION DATA SHEET

Make a copy of this form and submit as much information as possible about your application. This will enable Severn Trent Services to provide the best evaluation and recommendation to fulfill your requirements. This is an inquiry only - not an order - and involves no obligation. Please fax this form to: (215) 997-3734 or e-mail to: info@estcorporation.com.

Contact Information

Company _____ Phone () _____ Fax () _____
 Address _____ E-mail _____
 Customer Contact _____ Reference No. _____ Date _____

Inlet Gas Source, Typical Concentrations and Air Changes per Hour



Specify Gas Composition and Flow Rate

Source	Component Odorous Gas	% Vol. or Inlet ppm	Removal Efficiency % or Outlet ppm

Inlet Gas Characteristics

Overall air exhaust rate _____ CFM; Temperature _____ °F
 Combined inlet and outlet ducting losses _____ inches H₂O
 Solid particulates present ☐ Yes ☐ No; If yes _____ type; Inlet loading _____ grains/ft³

Optional Equipment and Design Features

☐ Indoor installation - room size restrictions _____ Height; _____ Width; _____ Length
☐ Outdoor installation - size restrictions, if any _____ Height; _____ Width; _____ Length
☐ Stand-by fan required ☐ Exhaust stack required ☐ Sensor required in exhaust stack
☐ Level gauge w. switches ☐ Double wall ☐ Heater ☐ Thermal insulation ☐ On-site bleach generator
 Materials of construction ☐ FRP (standard) ☐ Other (specify) _____
☐ Ductwork ☐ Chemical storage tanks ☐ Other _____

Ask for other EST products available from Severn Trent Services



Bulletin 200

Solids Conveyors

- Transport solids with gases or liquids
- Mix solids and liquids
- Handle slurries



Bulletin 300

Emergency Scrubber Systems

- Protection against accidental gas releases
- Scrub Chlorine, Ammonia and Sulfur Dioxide



Bulletin 400

Eductors, Syphons & Mixers

- Liquid pumping, heating and mixing applications
- Liquid and gas motive source
- Specialized designs for erosive or corrosive applications



Bulletin 500

Heaters

- Inline steam heating
- Tank steam heating
- Direct contact heaters
- Shell & tube heaters



Bulletin 600

Exhaustors & Compressors

- Liquid jet exhaustors handle gases with liquid motive sources
- Gas jet compressors handle gases with gas motive sources



Bulletin 700

Vacuum Systems

- Handle gases under vacuum using steam
- Multi-stage ejectors
- Non-condensing and condensing systems
- Shell & tube and direct contact condensers



Bulletin 800

Desuperheaters

- Desuperheating steam
- Gas cooling
- Waste heat recovery



Bulletin 900

Wet Scrubber Systems

- Ejector venturi scrubbers
- Packed tower scrubbers
- High energy scrubbers
- Packaged systems

For more information on our EST products, contact us for our product bulletins and case studies or visit our web site.

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Design improvements may be made without notice.

Represented by:



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