

BREEZE™ VOC Removal and Air Stripping System



The BREEZE™ VOC Removal and Air Stripping System is a highly efficient system capable of removing nearly 100% of all volatile organic compounds (VOC) and other gases dissolved in water. The BREEZE also serves as part of systems for the removal of iron, H₂S and ammonia.

How it Works

Contaminated water flows into the unit and is forced to flow in a serpentine pattern into uniquely designed multiple aerated chambers. A blower provides the required air through proprietary fine or coarse bubble diffusers. The water then cascades into the last quiescent chamber and out of the system. Air stripping of the contaminant is achieved in the aerated chambers without media or moving parts.

Low Profile, Compact Design

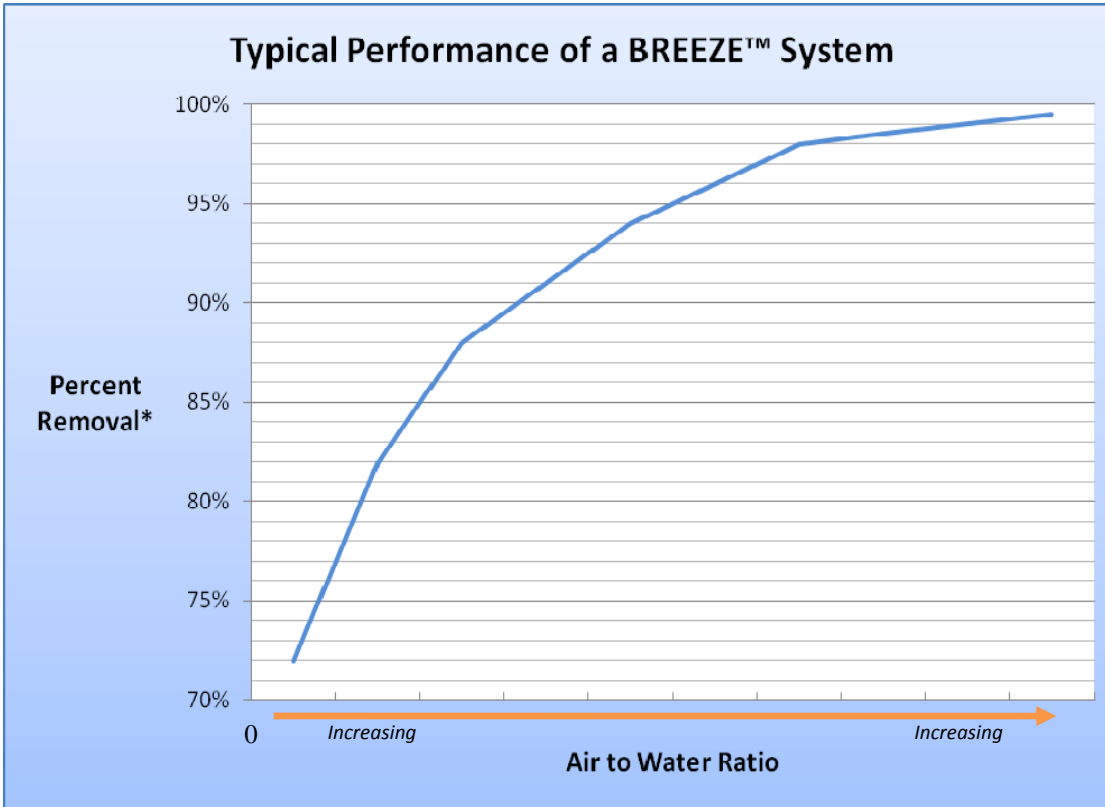
The BREEZE is a compact, low maintenance, and low cost alternative to filters, packed towers, and mechanical aerators for the fast and efficient removal of dissolved gases and volatile organic compounds (VOC's) from water. (See **Table 1**). The BREEZE can also be used to remove ammonia, hydrogen sulfide, and iron when used in conjunction with an entire treatment system.

Sample of Contaminants the BREEZE® System Removes:

Benzene	Toluene
Ethylbenzene	p-Xylene
BTEX	Trichloroethylene (TCE)
Tetrachloroethylene (PCE)	Naphthalene
Vinyl Chloride	Methylene chloride
Chloroform	1,1-dichloroethylene
c-1,2-dichloroethylene	t-1,2-dichloroethylene
1,1,1-trichloroethane	1,2-dichloroethane
Methane	Carbon Tetrachloride
Radon	Carbon Dioxide

Table 1

Designed and Built for Optimal Performance



*Actual performance depends on flow rate, water temperature, concentration, and the VOC or gas in question. Please contact AEROMIX for sizing your specific application.

Figure 1

Modular Design and Rugged Construction

The BREEZE System works well as a stand-alone system or with other treatment technologies. Single units handle flow rates up to 200 GPM [45.4 m³/hour]. Multiple units can be stacked or placed in series or in parallel to handle virtually any flow rate and achieve any performance requirement. The system is constructed entirely of high strength polypropylene and stainless steel. Gaskets are constructed of chemically-resistant EPDM. The



Figure 2



Figure 3

entire tank is welded and molded without the use of adhesives. Unlike other air strippers, the BREEZE uses AEROMIX fine bubble (Figure 2) or coarse bubble (Figure 3) diffusers that resist fouling caused by iron, calcium, and biological activity.

Technical Data and Specifications

Technical Data

- Water inlet and Outlet: 4 in [10.16 cm] NPT,
- Air Port Inlet: 4 in [10.16 cm] NPT; Air Port Outlet: 6 in [15 cm]
- Maximum Water Flow: 200 GPM [756 lpm]
- Blower (not included) will be sized depending on application.

BREEZE Specifications

<i>Model</i>	<i>Length (in)</i>	<i>Length (cm)</i>	<i>Width (in)</i>	<i>Width (cm)</i>	<i>Height (in)</i>	<i>Height (cm)</i>	<i>Range of Air Flow (CFM)</i>	<i>Range of Air Flow (m3/Hr)</i>	<i>Weight* (lbs)</i>	<i>Weight* (kg)</i>
SERIES 3	45	114	34	86	30	76	30-300	51-510	250	99
SERIES 4	57	145	34	86	30	76	40-400	680	300	136
SERIES 5	69	175	34	86	30	76	50-500	85-850	350	159
SERIES 6	81	206	34	86	30	76	60-600	102-1020	400	182
SERIES 7	93	236	34	86	30	76	70-700	119-1190	450	205
SERIES 8	105	267	34	86	30	76	80-800	136-1360	500	227
SERIES 9	117	297	34	86	30	76	90-900	153-1530	550	250

Table 2

*Indicates weight (lbs and kg) of empty BREEZE tank.

Complete Flexibility

Units are available in 7 sizes with 3 to 9 aeration chambers. Each tank is portable and equipped with handles for easy transportation. The patented quiescent chamber and adjustable weir plate maintain proper water level and performance without complicated electrical controls. The blast gate throttle allows the user to ramp up air flow rates and provides a factor of safety. The system can be operated with an induced draft or positive displacement blower and either coarse or fine bubble diffusers.

Five-Minute Maintenance

The BREEZE tank design and a completely removable cover allow for easy inspection and easy access to all the internal parts of the unit, including its diffusers.

Technical Data and Specifications

Basic BREEZE™ Installation

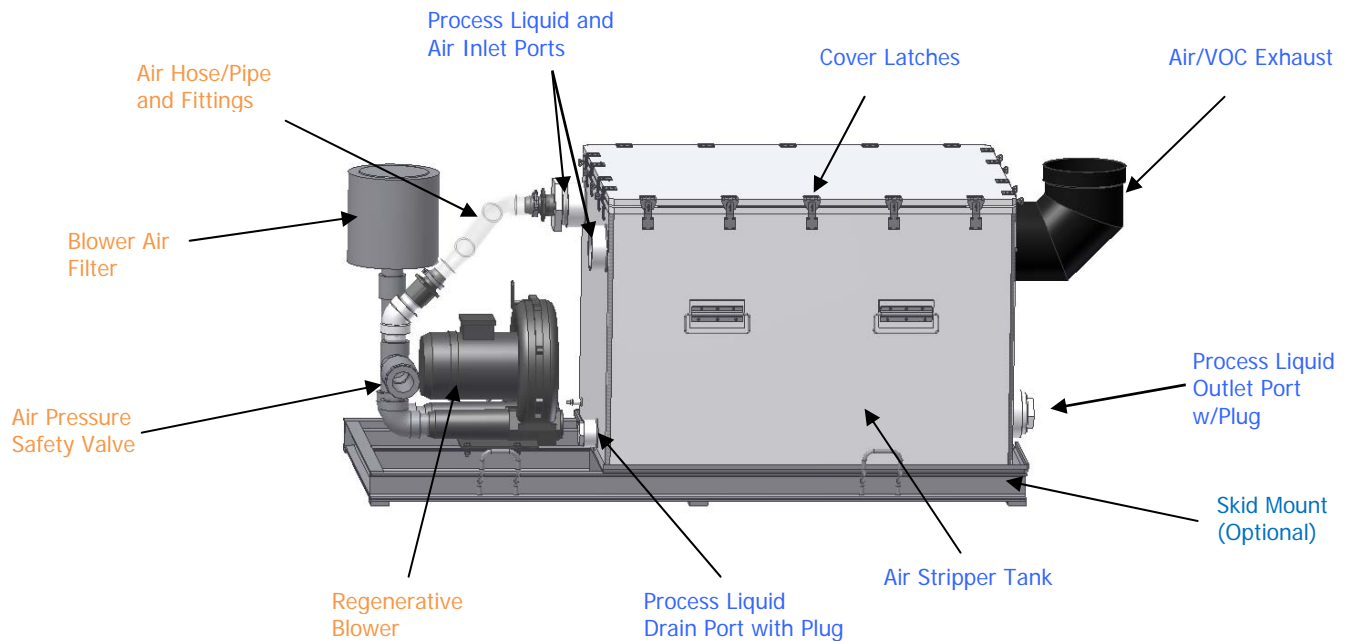


Figure 4

Optional Accessories Available:

- Blower Kit (See components labeled in **ORANGE**)
- Skid Mount
- Potable Water Storage Tank
- Transfer Pump
- Instrumentation Devices
- Control Panel
- Mist Eliminator

Each BREEZE System is different and configured for your specific application. Let our application engineers assist you in proper sizing, layout and operation of your next BREEZE VOC Removal and Air Stripping System.

Made in the U.S.A. Rental units are available.

The BREEZE is covered by United States Patent No. 654, 7855.

AEROMIX manufactures a complete line of specialized aeration and mixing equipment for treating water and wastewater in industrial, municipal and freshwater markets. Call today to learn more about the AEROMIX aeration solutions best for your application.