

WET WELL WIZARD™

The Remedy for Collection System Problems



- **Dissolves FOG within hours and eliminates it totally after 8 days**
- **Eliminates odor completely**
- **Eliminates the septicity of H₂S in the wet well and downstream**
- **Transforms the microbes in the wet well to a completely aerobic population**
- **Improves the water quality of the collection system to the point of pre-processing the water, which can improve wastewater plant operations**

The *WIZARD* Ejector

The ***WET WELL WIZARD™*** is the only 'one-size-fits-all' wet well aeration system that has no moving parts, is completely non-corrosive, is simple to install, requires no lifting chains, and utilizes no electricity underwater. It can be installed in 30 minutes and requires almost no maintenance. This technology holds 3 patents and does not produce fine bubbles that can cavitate pumps, but is based around the law of vaporous cavitation – where the entire bubble population explodes upon contact with the water. For large wet wells (over 10' in diameter) multiple Wizards operate with the use of a single air generation source. The only maintenance is bi-monthly cleaning of the blower's air filter.

The ***WET WELL WIZARD™*** is designed in such a manner that it will not cause air entrainment in pumps and it will not become clogged with floating well debris. The air source is an industrial grade regenerative blower that incorporates many stainless steel components. Total blower noise level is as low as 68dB to 75dB depending on blower HP. A Reliant HDPE blower weather cover or fiberglass locking weather enclosure are available. Watch this short 3 minute video <https://youtu.be/Yb7v4jiiZck> to view the ***WIZARD*** system's capabilities.

Why the **WET WELL WIZARD**?

Collection system lift stations all have the same problems –

- The buildup of FOG (fats, oils and grease)
- Septicity odor – both in the lift stations and down-line
- Increased pump maintenance due to short cycling and clogging
- Air Release Valve (ARV) cleaning requirements in force mains due to grease buildup
- Costly cleaning and maintenance – often reoccurring vacuum disposal and/or chemical use

The Reliant Water **WET WELL WIZARD** is the answer to all of these problems. Here is why –

1. The ejection of a continuous flow of cleaved spinning bubbles into the wet well water breaks up and liquefies FOG and other viscous semi-solids. Solid, non-dissolvable waste items will be freed of their FOG coatings for easy dip screen collection and disposal. **No more vac trucks required.**
2. All indigenous microbial activity in the wet well becomes aerobic, so bio-degradation of organic matter, and odors, is continuous. **Odor-masking chemicals are no longer required.**
3. When FOG and trash buildup becomes thick in the wet well, float switches have a tendency to lie on top of, or get trapped below, the FOG and debris. This allows the waste to collect closer to pump intakes and cause premature damage to the pumps. Short cycling and premature pump failure is also common under these conditions. With a **WIZARD** system these problems disappear.
4. Due to the high levels of dissolved oxygen in the wet well, the formation and buildup of H₂S and corrosive gas is eliminated and will no longer cause odors and corrosion to concrete and steel components throughout the entire lift station. **Thiobacillus sp. is eliminated.**
5. Collection system crews no longer have to spend hours in lift stations cleaning FOG and debris. A simple screen scoop for collecting small floating debris is all that is necessary.

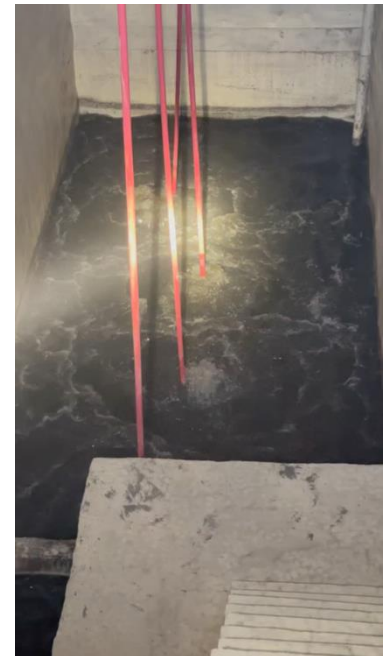
Visual Proof of the **WET WELL WIZARD'S** Capability



A large +250sqft wet well with a 2.5 foot thick FOG cap. Four Wizards required. Corroded concrete throughout the well.



Same wet well at Wizard startup. 255ppm of H₂S at the time of startup



Same wet well 90 days later. No FOG and odor eliminated. Customer pressure washed concrete.

The **WET WELL WIZARD** is Customer Installable

Standard Components are -



The Wiz with HDPE body and internal bubble cleavers

10 pound stainless steel base and support



Three ply reinforced EPDM air hose w/ Cam Loc connections

Brass and stainless steel Cam Loc hose connections



Locking Weather Blower Cover



Blower, SS manifold with over-pressure protection, manual starter, auto-restart



HDPE Blower Weather Cover

Options Available

- HDPE non-corrosive blower cover
- Locking fiberglass blower enclosure for weather protection from long-term freezing applications
- Stainless steel filter element
- For wet wells larger than 10' dia, or 80sqft, use multiple Wizards with a multiple hose manifold on the blower
- Blowers up to 10HP for large wet wells
- Stainless steel air balancing valves
- Stainless steel hose/cable grips
- Extended hose lengths are available, but depend on elevation and blower HP

Specifications

- Wiz body** – 3" (76mm) dia. HDPE tube
- Bubble cleaving disks** – ¼" (6.35mm) HDPE
- Hardware & base** – all 316L stainless steel
- Hose** – 1" ID 3-ply EPDM high pressure hose
- Blower** – 1.5 HP (1.1 kW) to 10HP (7.5kW); two stage, low volume, high pressure regenerative blower; any desired voltage, phase, and Hz; includes stainless steel manifold, pressure relief valve, inches of water gauge, magnetic manual starter, polyester intake filter, and complete SS intake filter system. Sound level at 68dB to 76dB.

Supplied Standard for a Single Wiz Installation (for <80sqft wet wells)

- 1 Wizard complete with stainless steel base and Camlock hardware.
- 35 feet of 3-ply reinforced EPDM air hose with Camlock connection hardware
- 1 1.5HP Reliant Special regenerative blower to meet your required source power, including IP65 motor protection, manual starter, pressure relief valve, inches of water gauge and complete stainless steel manifold, intake filter plumbing, polyester filter with a stainless steel filter hood. Automatic restart switch.
- 1 Installation manual.

Necessary Information for a Firm Price Quote

Lift station ID _____ Town/State or Elevation _____

1. How deep is your lift station wet well? _____
2. What is the diameter, or surface dimensions, of the wet well for that lift station? _____
A single Wizard ejector will handle wet wells up to 10 feet in diameter. Two Wizards will handle wet wells up to 15 feet in diameter or 180 sqft of surface area. In this case the same blower will drive both Wizard ejectors. Larger round, square or rectangular wells are possible. Larger blowers can always drive more than 2 Wizard ejectors
3. What is the average daily flow through this wet well? _____
4. What is the minimum water level in the wet well (pump-off depth)? _____
5. What is the maximum water level in the wet well (pump-on depth)? _____
6. Are pumps located in the absolute center of the wet well? _____
Most pumps are located close to the wall of a wet well. If they are in the center, away from the wall (circular or square wells under 80sq feet of surface area) two Wizards will be required.
7. Distance, in feet, from the bottom of the wet well to the preferred location of the blower? _____
Air hose must reach from the bottom of the wet well to the location where the blower will be located. Blower location is your choice.
8. Voltage and phase, and Hz of the power for your lift station? _____
Single and three phase blowers, and any Hz are available.
9. Primary problem – H2S odor ___ FOG Cap ___ Wall scum ___ Other _____

**WELCOME TO THE WORLD OF
MINIMAL MAINTENANCE WET WELLS**

RELIANT

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