

# **WET WELL WIZARD™**

## **The Remedy for Collection System Problems**

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- **Dissolves FOG within hours**
- **Eliminates odor completely**
- **Eliminates the septicity of H<sub>2</sub>S in the wet well and downstream**
- **Transforms the microbial population 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 **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 patent-pending technology consists of a unique set of antipodal bubble cleaving disks inside a confined tube that cuts and shapes large air bubbles into high speed, spinning “FOG cutters.” For large wet wells (over 8’ in diameter) multiple Wizards operate with the use of a single air generation source. The only maintenance is cleaning an air filter occasionally.

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 can be supplied with stainless steel components if desired, as well as a weather cover or locking/silencing enclosure, although total blower noise level is rated at only 68dB to 75dB depending on blower HP.

# Why the **WET WELL WIZARD**?

Collection systems containing lift stations all have the same problems –

- The buildup of FOG (fats, oils and grease)
- Odor – both in the lift stations and down-line
- Increased pump maintenance due to short cycling and clogging
- Septicity in the collection system causing H<sub>2</sub>S gas corrosion
- 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. So, why is it so effective –

1. The injection of a continuous flow of cleaved 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.
2. All 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.
4. Without oxygen in wet wells, the formation and buildup of H<sub>2</sub>S is constant and the corrosive gas is pumped downstream to cause odors and corrosion to cement and steel components of the entire collection system.
5. Collection system crews no longer have to spend hours in lift stations cleaning FOG and debris. A simple screen scoop for small floating debris is all that is necessary.

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## Visual Proof of the **WET WELL WIZARD**'s Capability



A 5' diameter wet well with a 2.5 foot thick FOG cap. Note the float switch lying on top – causing pump short-cycling



Same wet well just 10 minutes following the start-up of the **WET WELL WIZARD**. Note that the float switch has already repositioned itself.



The same wet well 24 hours later.

# The **WET WELL WIZARD** is Customer Installable Standard Components are -



10 pound stainless steel base and support



The Wiz with HDPE body and internal bubble cleavers



Three ply reinforced EPDM air hose w/ Cam Loc connections



Brass and stainless steel Cam Loc hose connections



Blower with overpressure protection

Locking/Silencing Blower Cover



HDPE Blower Weather Cover

## Options Available

- HDPE non-corrosive blower cover
- Locking fiberglass full cover for noise reduction and/or long term freezing applications
- IP65 blower motor protection
- Stainless steel intake filter hood and filter element with stainless steel painted filter platform
- For wet wells larger than 8' dia, or 80sqft, use multiple Wizards with a multiple hose manifold on the blower
- Blowers up to 10HP for large wet wells

## Specifications

**Wiz body** – 3" (76mm) dia HDPE tube

**Cleavers** – ¼" (6.35mm) HDPE

**Hardware & base** – 316L stainless steel

**Hose** – Nylon reinforced polyurethane and PVC 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 pressure relief valve, inches of water gauge and complete intake filter system. Sound level at 68dB to 76dB total.

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

1 Wizard complete with stainless steel stand and base and hardware.

35 feet of 3-ply reinforced EPDM air hose with connection hardware.

1 1.5HP regenerative blower to meet your required source power, including pressure relief valve, inches of water gauge and complete intake filter system. Includes all necessary hardware for operation.

1 Installation manual.

## Necessary Information for a Firm Price Quote

Lift station ID \_\_\_\_\_ Town/State or Elevation \_\_\_\_\_

1. How deep is your lift station? \_\_\_\_\_
2. What is the diameter, or water surface dimensions, of the wet well for that lift station? \_\_\_\_\_ A single Wizard will handle wet wells up to 10 feet in diameter. Two Wizards will handle wet wells up to 15 feet in diameter. In this case the same blower will drive both Wizards. All that we supply extra is the extra Wizard, another length of hose, and the necessary blower fittings to connect both Wizards to the same blower. Larger wells are possible.
3. What is the minimum water level in the wet well (pump-off depth)? \_\_\_\_\_
4. What is the maximum water level in the wet well (pump-on depth)? \_\_\_\_\_
5. Is there a building at the lift station that houses the power panel? \_\_\_\_\_  
Is it possible to locate the blower inside a building? If not, it is suggested that a blower cover be considered.
6. Distance, in feet, from the power panel to the bottom of the wet well? \_\_\_\_\_  
Thirty five feet of air hose is supplied with each Wizard. This hose must reach from the bottom of the wet well to the location where the blower will be located. There should be at least one to two feet of slack in the air hose.
7. Voltage and phase, and Hz of the power for your lift station? \_\_\_\_\_ Single and three phase blowers, and any Hz are available.
8. Primary problem – H2S odor \_\_\_ FOG Cap \_\_\_ Wall scum \_\_\_ Other \_\_\_\_\_

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

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