

RELIANT Water Technologies

Instructions for the Installation of the

WET WELL WIZARD®

PRIOR TO THE INSTALLATION: If the target wet well is aged and the bottom of the well has not been vacuumed or cleaned for a long period of time, there could be large wads of sunken trash on the bottom. This kind of trash can possibly be sucked inside of the Wet Well Wizard, once operational. While this will not harm the Wizard, it could cause it to be inefficient toward reaching its intended goal. Vacuuming or cleaning the bottom of such a well is suggested prior to installation.

ALSO: If your goal is to emulsify Fats, Oils and Grease (FOG) Caps, it is best to cleave or break-up the Cap with a cutting or separation device on a long pole, first. This will allow the Wizard's agitation action to work through the cuts to break up the Cap quickly. Keep the Wizard operational and the FOG will never form again.

Components: Blower assembly, reinforced 3-ply EPDM air-hose assembly with blower and Wizard connection Cam-Locs, and the Wet Well Wizard. Several blower sizes are available for the Wet Well Wizard system. The blower size for your system is based on the size of the wet well, the number of Wizards attached, the water depth, the hose length(s), and physical elevation of the wet well. **A qualified electrician should take necessary precautions to protect the blower motor.** The blower has been prewired to a magnetic starter, so the only electrical connections from the primary power panel will be made to the starter. **NOTE:** The Auto Restart switch shown on the drawings may not have been ordered. Electrical requirements for the various blower sizes are found in **Figure 1** for single phase and **Figure 2** for 3-phase blowers. See the motor nameplate on your blower for size information. **The correct rotation on all 3-phase blowers should be verified before connecting any Wizard assemblies. See the rotation arrow on the blower motor housing. Starting a 3-phase blower with the Wizard in the water, with an incorrect rotation will void the blower warranty.**

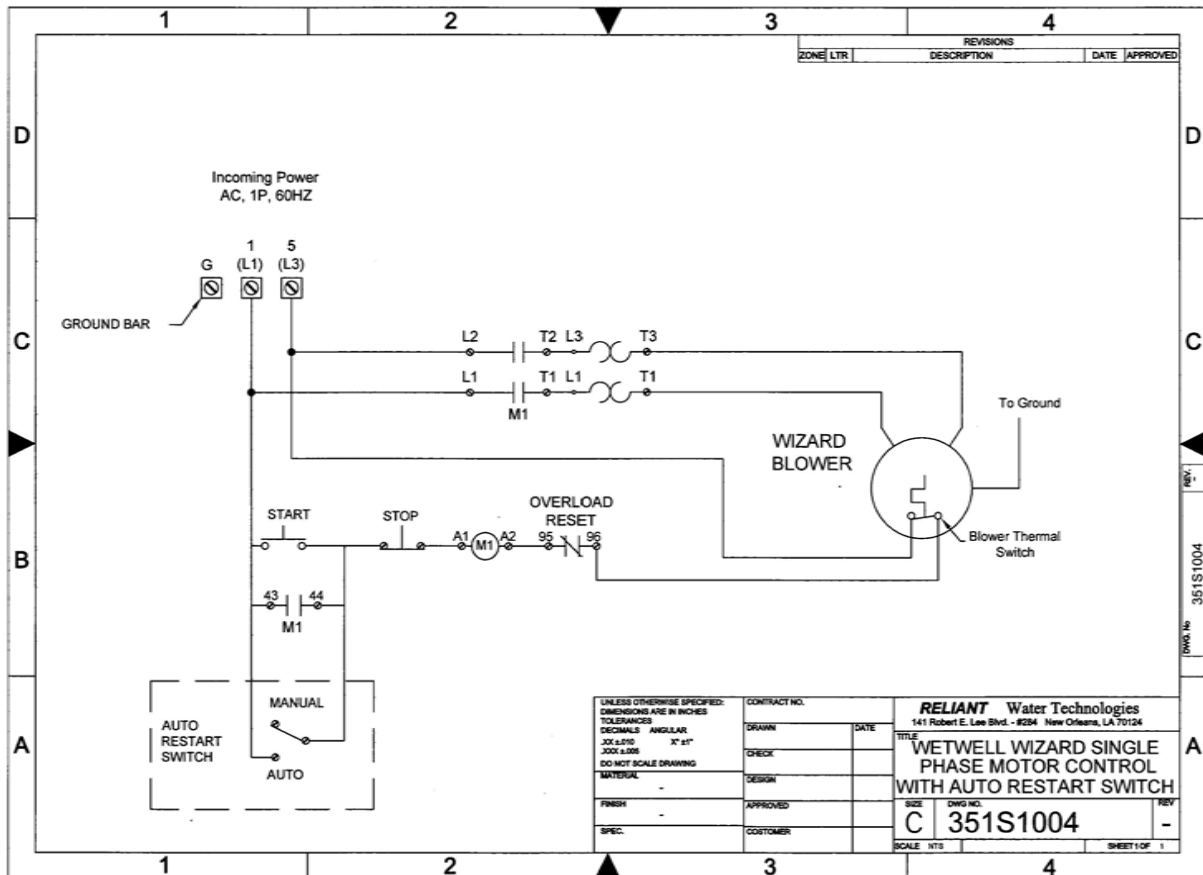


Figure 1

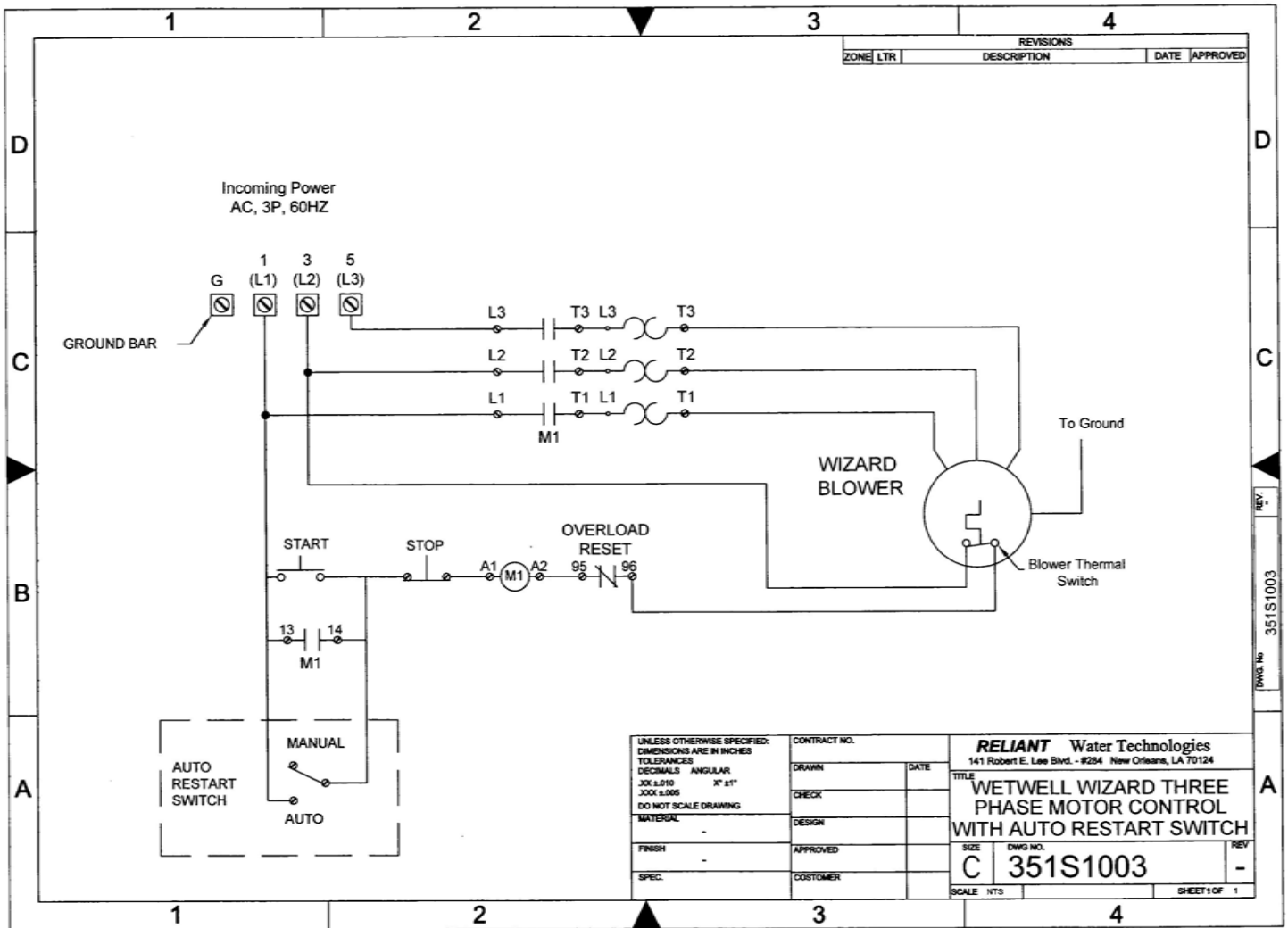


Figure 2

1. Prior to installing the Wet Well Wizard it is not mandatory to vacuum FOG from the surface of the well, but vacuuming the bottom of the well of any legacy saturated trash will ensure that the Wizard will not become clogged. The Wizard will lift sand and sludge into the well water for pump extraction.
2. Locate a conduit pipe or other entry perpendicular to the shaft of the wet well. If there is no conduit pipe, a 3 to 6 inch diameter hole will need to be made into the top of the well, a vent wall or the well's concrete cap. One end of the air-hose will be inserted into that conduit or other entry into the wet well.



- Pull that end of the air hose out of wet well through the main entry opening (hatch). Connect the Wizard to that hose leaving the wet well using the Cam-Locs supplied. Set the Wizard on top of the lift station pad until the blower is connected, power is connected to the blower and rotation of the blower (3 phase) is checked.
- Locate the blower where desired. Wire the blower to the source power using the desired connection hardware. **Once power is connected to the blower, verify the correct blower motor rotation (3 phase blowers) per the arrow sticker on the blower motor.**



- Connect the end of the hose that is still outside of the hatch to the male Cam-Loc fitting that is attached to the blower. Lower the Wizard into the center of the wet well. You may have to break through a grease (FOG) cap in order for the Wizard to reach the wet well floor. Once the Wizard base makes contact with the well floor (including sloped well bottoms) **it must be in the center of the well and oriented vertically, with the air hose taut, having no slack**. At the surface of the well the hose must be made to remain straight above the Wizard using tie-wraps or some other hose anchoring method. **The water level must be at least 26 inches deep at LWL.**



- Start the blower.
- When the water level is at its lowest level ('pump off' position) the top of the Wizard should be underwater at least 2" below the surface of the water. This will insure that the Wizard will have aeration action on the surface of the water and the Inches of Water gauge on the blower should read at least 60 inches. As the water level increases over the Wizard, the gauge reading will increase.
- The Inches of Water gauge is measuring the amount of backpressure on the system. The backpressure on the system is affected by -

- A. The number of Wizards attached to the blower - the more Wizards attached to the blower, the lower the backpressure.
- B. The change in diameter of the blower manifold (1¼") to the diameter of the hose(s) (1").
- C. The length of hose between the blower and the Wizard - the longer the hose, the higher the backpressure.
- D. The depth of the water on top of the Wizard - the more water on top of the Wizard, the higher the backpressure.
- E. The elevation of the lift station.

Every Wizard blower pressure relief valve (PRV) is calibrated at the factory for the specific lift station conditions noted on the quotation's questionnaire. The Inches of Water Gauge on the blower is specifically a 'trouble shooting device' for factory technicians if an Operator should call Technical Support with concerns over any specific operational change in the system.

- 9. If the Wet Well Wizard is operated continuously, odor from the Wizard installed lift station and from vents/drains immediately downstream should be almost eliminated within a number of days. If there is any residual odor after that time it will be coming from upstream of the lift station with the Wizard installation.
- 10. A Wizard installation in a wet well that contains a FOG cap can be expected to have no FOG cap within 1 to 3 days, depending on the thickness of the cap at the time of startup. As long as the Wizard is operated continuously, the FOG cap will never form again as long as the Wizard system is allowed to operate 24 hours per day. Note that a single Wizard will keep FOG from forming in a 10 foot diameter (80 sqft) wet well. If a small block of FOG is trapped behind a well fixture (such as a pump effluent pipe) just use a long stick or bar to un-wedge the trapped FOG, and it will quickly emulsify. The only floatables that will ever remain on the surface of the wet well will be un-dissolvable debris such as plastic bags, tampon sleeves, etc. This debris will require occasional scooping from the well.
- 11. Blower maintenance comprises the occasional cleaning of the air intake filter, once per month minimal. Note that the pressure relief valve on the side of the blower will open if something has clogged the water intake of the Wizard (bottom of the Wizard tube). In such a case, the Wizard must be pulled from the well and the intake cleaned of debris.
- 12. The Reliant blower is designed to provide years of service if #10 above is heeded. Should a blower issue is encountered it is recommended **not** to attempt a repair. Please call your sales representative or the factory number below for a Return Authorization (RA) number and an address to send the blower for factory repair.

Warranty - Reliant Water Technologies warrants the quality of materials and workmanship of the *Wet Well Wizard* for a period of 12 months following installation. Blowers are warranted by the blower manufacturer and Reliant Water Technologies for a period of 12 months against faulty materials and workmanship. The following cases will nullify the blower warranties:

- Debris or water inside the motor or fly-wheel housings will nullify the blower warranty. Such debris is caused by not checking the motor rotation as noted in red in paragraph #3 above.
- Proper electrical precautions were not taken to protect the blower from thermal overload.

If there are questions or problems contact the Reliant Water Technologies factory or any of the contact options noted below.

RELIANT

Water Technologies

5670 Haynes Blvd.
New Orleans, LA 70126
504-400-1239
FAX 504-242-8887

Email: sales@reliantwater.us.com