

INSTALLATION GUIDE

EPG SurePump™ Pumping System

- ❑ 1. Verify that equipment and supply voltage match.
- ❑ 2. Inspect equipment, look for shipping damage, dirt, and rough handling.
- ❑ 3. Control panel should be mounted in a secure way at least 15' from riser or sump and 36" above grade to bottom of control panel.
- ❑ 4. When the control panel is mounted, make sure it is level front to back, side to side and top to bottom. Shim and adjust the mounts until it is level and square in all three plains. The door should close without sagging or binding.
- ❑ 5. Inspect inside of control panel. Look for items which might have come loose during shipping.
- ❑ 6. Install breakout junction boxes between the riser or sump and control panel. See instructions for location suggested for junction boxes which are packed with breakout junction boxes.
- ❑ 7. Test level sensor in bucket of water. Does it return back to zero? Control panel needs to be installed and have power to it.
- ❑ 8. Install vent valve and tubing. See Bulletin 0130c.
- ❑ 9. Install suspension cable. See Bulletin 6090a.
- ❑ 10. Fasten motor lead and sensor cable to discharge line every 5' to 7' with plastic wire ties. It's best if they are on separate sides of line; use padding between cables and any metal straps.
- ❑ 11. Run pump down riser slowly using stainless steel suspension cable as hold back. Make sure motor lead and sensor cable are slack as you lower pump.
- ❑ 12. Take ohm reading of each motor lead wire to wire and compare the values in Table 13 of the Franklin Electric motor manual for 1Ø and Table 22 or 24 for 3Ø. Be sure to add wire resistance value to value from table 13. See page 47 for wire resistance.
- ❑ 13. Check insulation resistance as pump is lowered down riser. Resistance may drop gradually as pump and cable enter the liquid, but any sudden drop indicates a problem.
- ❑ 14. Run sensor leads and power cables in separate conduits to control panel. It is a good idea to use breakout junction boxes. See Design Guide 05644 and Bulletin 8230.
- ❑ 15. If you have to remove dryer from end of transducer cable to pull cable through fittings or conduit. Seal end of the vent tube with a piece of tape. Reinstall dryer as soon as possible. See Bulletin 0550a.
- ❑ 16. Megger motor leads. Resistance must be 1 megohm or greater.
- ❑ 17. Connect pump to control panel complying with local and national codes. Controller terminal strips, motor leads, and sensor leads are all labeled and/or color coded to simplify connections.
- ❑ 18. Inspect wire connections. Are they the correct colors? Are they tight?
- ❑ 19. If color-coded wires were not continued from sump or riser you need to ohm out each circuit.

- 20. Measure resistance to ground. It must be less than 25 ohms. If greater stop work and report to owner. It should be 1 ohm or less to protect electronic equipment.
- 21. Measure voltage prior to control panel or at entrances to control panel. Measure and record voltage line to line.
- 22. Compare these reading to voltage listed on drawing and label in control panel.
- 23. Review equipment list and drawings for any accessory circuits. If present, run volt and ohm test.
- 24. Check and make sure all hand switches are in the off position. If you have a water level indicator verify leachate level in sump or riser.
- 25. Turn on power at panel main disconnect.
- 26. Level meters display should light up. Record displayed reading. How does this reading compare to your measured level reading?
- 27. If level and flow meter do not light up check GFCI, reset if necessary.
- 28. Are any indicator lights on?
- 29. Should they be on?
- 30. Make sure pump is turned off. Using built in or hand held simulator, verify level meter settings are correct for this site. See meter data sheet for factory settings and meter instructions.
- 31. Bump pump by turning switch to hand two or three times to make sure pump has reached its resting point. You should have minimum of 3' of slack in the cables.
- 32. To verify correct rotation place hand around discharge line. It will torque right if the rotation is correct when looking down at pump.
- 33. When pump is running measure and record amperage and voltage. Check 3Ø systems for current balance it should be within 5% of average.
- 34. Verify that starting, running and stopping causes no significant vibration or hydraulic shocks.
- 35. After 15 minutes of running time measure volts and amperage to see if they are stable. Are they as specified?
- 36. After pump and level sensor have been tested pot seal offs.
- 37. Complete Form 200. Note: If this form is not completed and returned to EPG it will impact system warranty.

Special Instructions: Because electrical fittings are not designed to be liquid or vapor tight, you must use a thread sealant such as Teflon tape on all threaded joints. All field installed openings must be sealed with gasket threaded fittings such as Myers hubs. When using thread tape on joints, the conduit can no longer be considered a ground path. You must pull separate ground wires to bond all the parts to the ground.