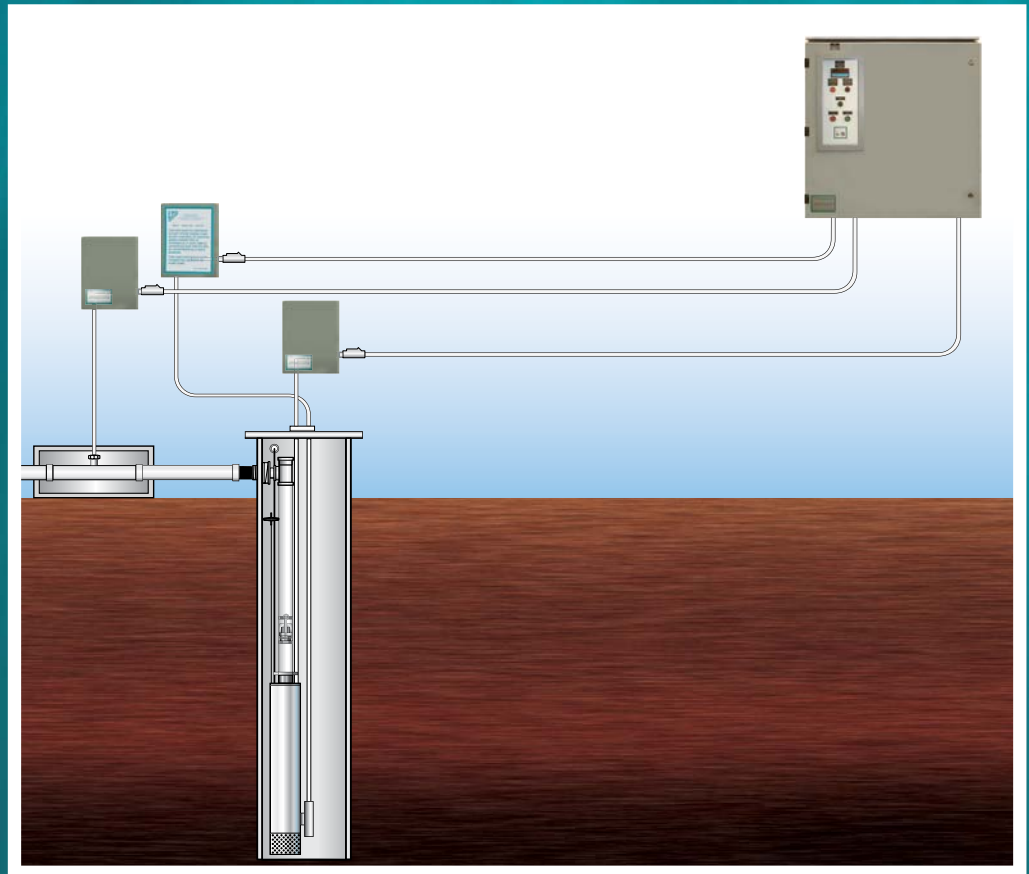




Vertical Pump Design Guide

Essentials for Landfill Vertical Sump Applications



www.epgco.com 1-800-443-7426

*Manufacturer of Environmental
and Industrial Solutions*



Essentials for Vertical Riser Applications

EPG Companies Inc. has provided landfill pumping systems and pollution control equipment for over 30 years.

Through our years of design, engineering and manufacturing expertise, field knowledge, and extensive partnering with thousands of professionals in the landfill industry, we have provided safe, cost-effective solutions that are now being recognized as essential system components for achieving optimum landfill operation.

In vertical riser applications, we recommend the use of the following time-tested, field-proven EPG components.

(The printed order of each component does not represent importance or priority. All components are designed to work together resulting in optimum safety and efficiency.)

1. EPG Breakout Junction Boxes
2. EPG Liquid Flow Sensors
3. EPG Control Panels
4. Seal-Off Fittings
5. Disconnect Adapters
6. SurePump Sump Drainers

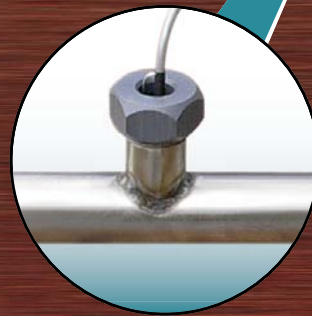
EPG manufactures equipment for Horizontal/Vertical Riser Systems, Telemetry & SCADA Systems, and Remediation Systems. We also provide continuing educational classes to support these applications. For more information, visit our web site at www.epgco.com.

With over 12,000 installations, EPG Companies Inc. is the specified equipment source and systems provider for more than 1200 landfills.

1. EPG Breakout Junction Boxes

One of the essential components to safe landfill operation are EPG Breakout Junction Boxes. When installed between your riser, well or sump and control panel, they offer benefits that might otherwise be overlooked. Running your motor and sensor cable to the control panel can be expensive and dangerous! The moisture and possibly explosive, corrosive gases that migrate through the conduit can cause control panel failure and expensive repairs. If you want to increase the safety and accuracy of your system, install an EPG Breakout Junction Box with a gas-tight seal-off fitting. This will eliminate migration of harmful gas and will help simplify maintenance and/or repair work by creating a new, easy to access connect/disconnect location.

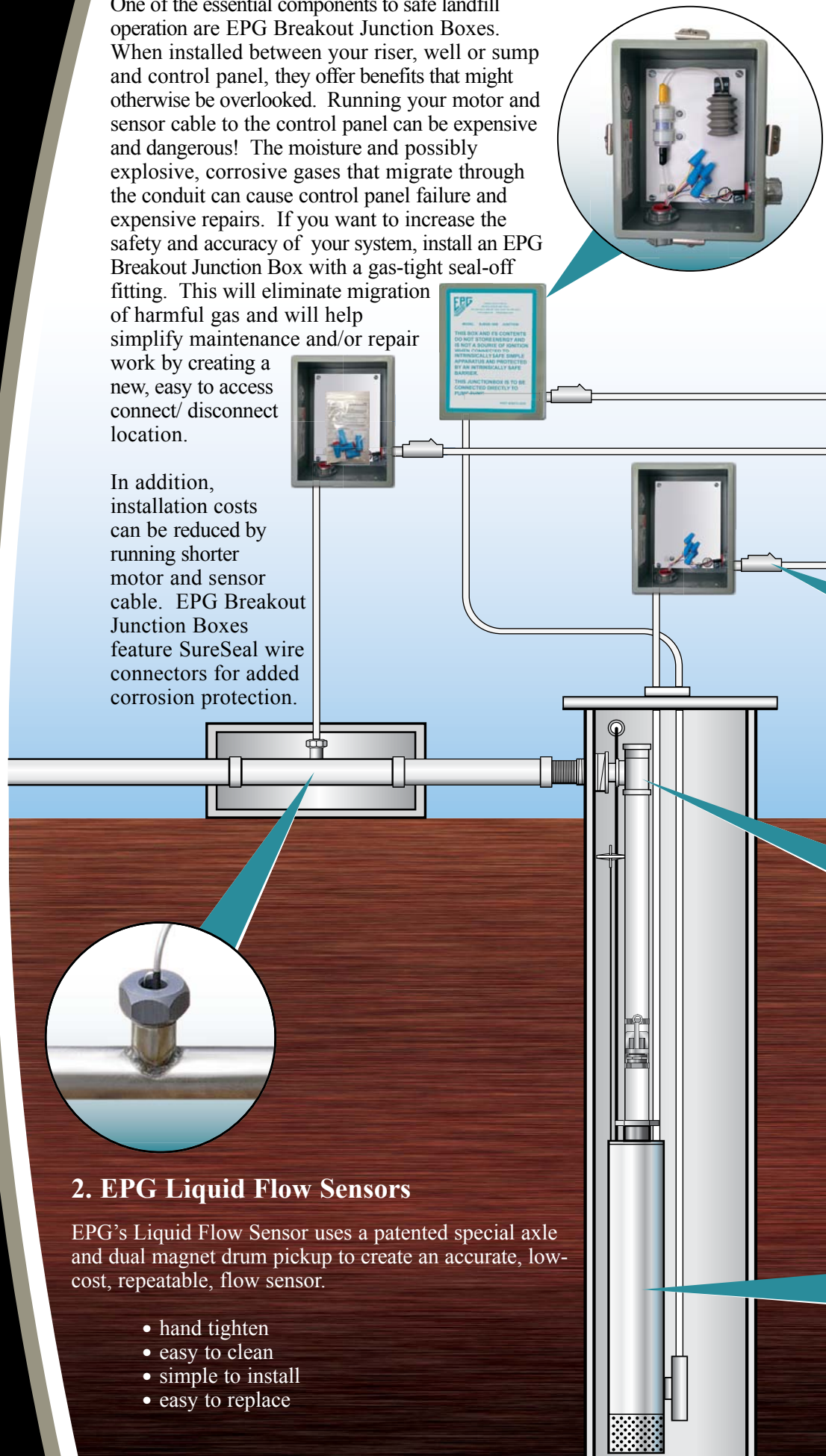
In addition, installation costs can be reduced by running shorter motor and sensor cable. EPG Breakout Junction Boxes feature SureSeal wire connectors for added corrosion protection.



2. EPG Liquid Flow Sensors

EPG's Liquid Flow Sensor uses a patented special axle and dual magnet drum pickup to create an accurate, low-cost, repeatable, flow sensor.

- hand tighten
- easy to clean
- simple to install
- easy to replace



3. EPG Control Panels

Uncompromising control . . . that's what you get with an EPG, UL & CUL/CSA listed control panel! Whether you need a simple controller or a custom integrated system, all EPG Control Panels are designed and built by electrical and process engineers; seasoned professionals who understand the overall operational requirements of even the most complex systems.

In addition to our custom designed panels, EPG manufactures a broad line of standard controllers that can be equipped with a vast array of options required to meet your specific application. Our OCS unit (right) offers level & flow monitoring and more in one device. Each EPG Control Panel is tested as a complete system and then delivered installation-ready, helping to reduce integration problems and start-up costs and providing years of maintenance-free process system control.



(Note: We strongly recommend controller be mounted a minimum of 3 feet above grade and a minimum of 15 feet from riser.)



4. Seal-Off Fittings

Installing a Gas Seal-Off Fitting* between the breakout junction box and control panel keeps your control panel free from harmful migrating moisture and potentially explosive, corrosive gases.

* Can be used with any EPG Breakout Box model.



5. Disconnect Adapters

EPG's Disconnect Adapters are designed to fasten through a riser or sump wall allowing personnel to easily and safely make pump connections and/or disconnections without entering hazardous locations. Many sizes and configurations are available.



6. SurePump™ Vertical Sump Drainers

EPG's patented SurePump Vertical Sump Drainers provide superior performance and accurate liquid level reading for vertical riser applications. The SurePump is completely sealed, built of stainless steel for harsh environments and, unlike competitor models, draws liquid over or past the motor to maximize cooling and extend the life of the pump. Models are available in a wide range of flow rates, discharge heads, and motor voltages.

For more information, please visit our web site at www.epgco.com or call us today at 800-443-7426 and ask for an applications specialist.

What People In The Industry Are Saying About The EPG Approach

I first started working with EPG because of their pump design. Now, after installing systems using EPG hardware in other projects, I've come to rely on them. Not only is it convenient and efficient to use a single supplier, but I can be sure that everything matches and works together as a system instead of just a collection of individual components. Very professional and completely cooperative, both before and after the sale."

Consulting Engineer
California

"Our firm has several EPG systems working. I am responsible for two of them. One of the major reasons we chose EPG is that we could buy the entire package from one supplier. We didn't have to go to one supplier for pumps, another for flow meters, and still another for controls and other hardware. Everything matched. We've found them to be very convenient, hands-off systems that have proven completely reliable without requiring attention. We're very pleased with EPG, the equipment, and the people we've dealt with there."

Construction Engineer
Leachate Collection Site
Pennsylvania

"We recently installed a new system which included all EPG equipment. We particularly liked the fact that it was engineered and supplied as a complete package. When we found field modifications necessary to fine tune the system to the requirements of the site, the EPG people were very helpful and cooperative in working with us."

Regional Construction Manager
Michigan

"I first became acquainted with EPG equipment when it was specified by the customer. Later, when it was up to me, I recommended EPG as the supplier and am pleased that I did. I like the EPG approach. When problems arose, the people at EPG came up with ways to solve them. Several times, EPG made suggestions that saved both me and my customer money and time."

Manager
Construction Firm
Pennsylvania



With over 12,000 installations worldwide, EPG equipment has proven to have reliability, long life and trouble-free service. EPG's knowledgeable engineering and applications specialists provide the after-sale support that any system may need.

To speak with an EPG applications specialist or to find out who to contact in your area, please call us at 1-800-443-7426. We'll be happy to answer any questions you may have about SurePump™, PumpMaster™ or any other EPG products.



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