



# EPG Connection

*Your Resource For Landfill, Environmental and Industrial Solutions!*

www.epgco.com

1-800-443-7426

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EPG Companies Inc. specializes in the manufacture of **landfill leachate pumps & controls, sump drainers, remediation equipment, telemetry hardware** and **SCADA** systems and other environmental and industrial products.

### Greetings!

In this months issue of the EPG Connection, we focus on the discharge process and the accessories available from EPG Companies, Inc. We also share some thoughts regarding Leachate Collection Sump Pump design.

In addition, we are pleased to announce Birmingham Equipment Company as the newest member of EPG's nationwide sales rep network. They will represent EPG across California, Arizona and Nevada. Join us in welcoming the Berminghams!

### Birmingham Equipment Company

*Serving CA, AZ, and NV*

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As always, EPG welcomes your feedback. If you have any comments or questions, feel free to contact us at [info1@epgco.com](mailto:info1@epgco.com).

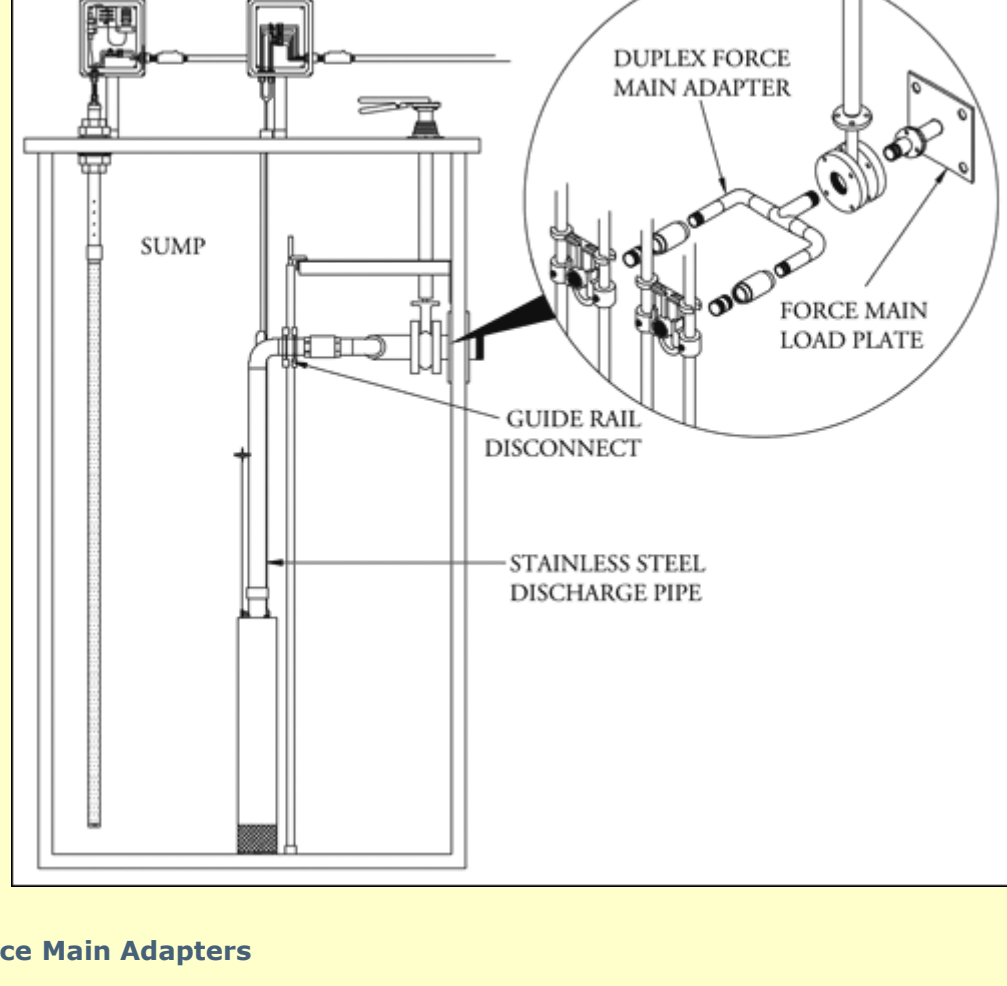
Sincerely,

EPG Companies Inc.

**www.epgco.com**

## Product Highlight - Pump Discharge Accessories

EPG can help you complete your design with reliable and proven accessories to interface with your force main installation. Leveraging a single source simplifies the process for both engineers and contractors and ensures your system will perform as planned.



### Force Main Adapters

- Shop fabricated from high quality 304 stainless steel SCH 40 pipe
- Designs to connect single or duplex pump systems to force main
- Simplifies field installation
- Pressure tested to two times maximum pump pressure
- All welded construction

### Discharge Force Main Load Plate

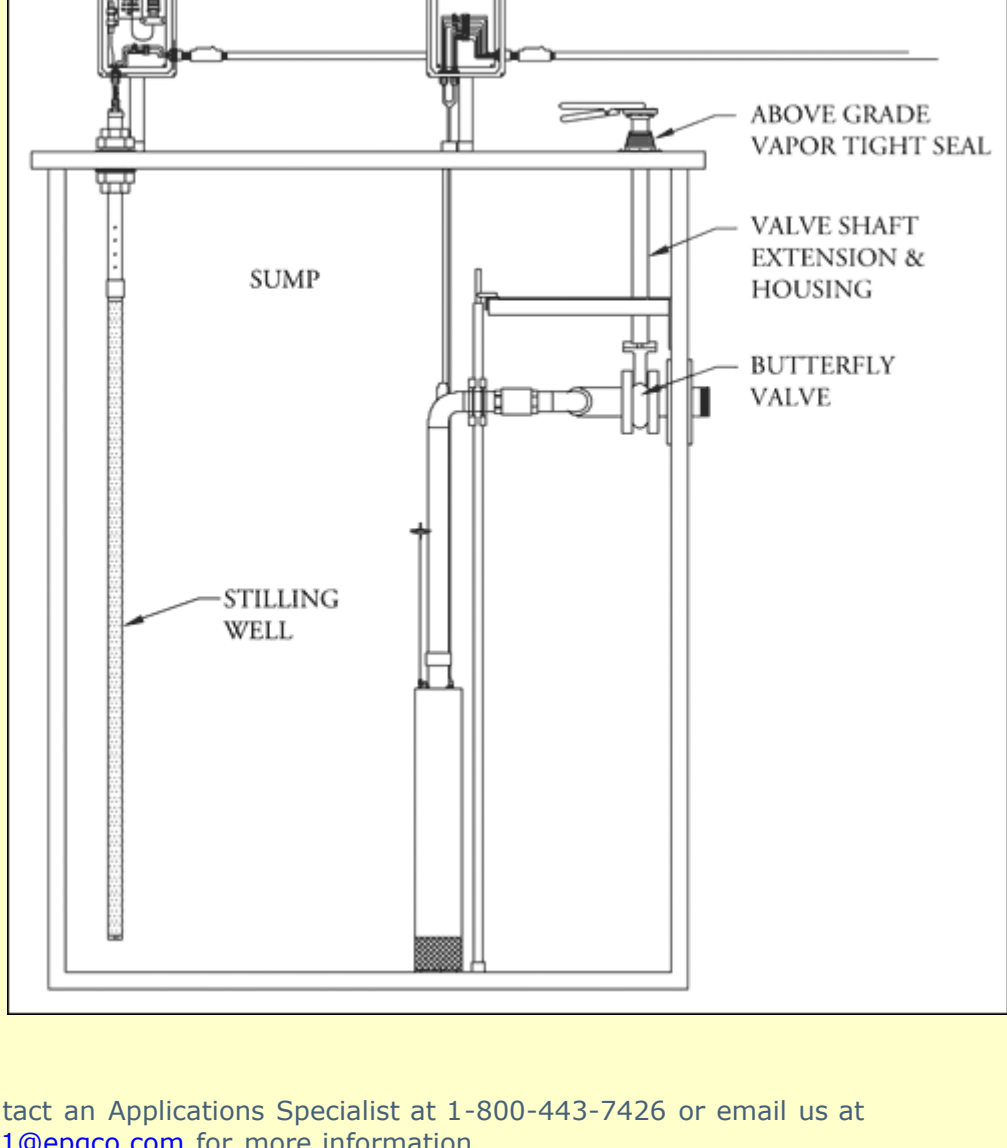
- Simplifies installing force main in sumps of any material
- Reduces point loading on sump wall
- Increases piping stability
- Eliminates misalignment of pump and valve connections
- Stainless steel construction
- Curved to match sump inside diameter
- Welded to stainless steel SCH 40 pipe

### Pump Discharge Piping

- Shop fabricated from high quality 304 stainless steel SCH 40 pipe
- Female pipe thread at pump end connects directly to sump discharge
- Top male thread attaches directly into guide rail disconnect
- Pressure tested to two times maximum pump pressure
- Available in two or three piece construction
- All welded joints

### Valve Shaft Extension

- Extends a butterfly valve operating handle up out of a sump
- Available "Above Grade Vapor Tight Seal" to prevent gas migration
- Limits the need to enter the sump



Contact an Applications Specialist at 1-800-443-7426 or email us at [info1@epgco.com](mailto:info1@epgco.com) for more information.

## FYI - Leachate Collection Sump Pumps

### SOME DESIGN IDEAS

by John Hasslen

Over sizing pumps tends to be the most common cause of premature failure. A centrifugal pump and motor are happiest if they run all the time.

- Less heat is generated
- Less precipitation and build-up of scale
- Fewer solids will settle out

One obstacle in sizing leachate pumps close to generation rate is the 100-year storm event requirement of many regulators. This very often leads to over sized pumps.

I would like to offer these suggestions as possible solutions to this sizing dilemma:

- Use 100-year generation to size pump with pump running 24 hours per day (with no service factor).
- Design in more than one sump with lower flow rate pumps.
- Design sump with two or more pumps installed in one or two risers into a common sump area. These pumps could alternate running at low generation and both run at high generation. The control scheme would be lead, lag, alternating.
- Design system using variable frequency drive to change flow rate of pump. If you double the pump's speed, you will get twice the flow rate and four times the discharge pressure. For example, a pump designed for 25 GPM at 50 TDH at 1,800 RPM will produce 83 GPM at 550 TDH at 6,000 RPM. This pump would require 1 HP at 1,800 RPM and 25 HP at 6,000 RPM.
- Design system with pump for 100-year generation flow capacity and a flow control valve on its discharge line. This pump is used when the cell is first opened and then replaced with a lower flow pump as the cell fills with trash and the generation rate falls. Large pumps can be moved to a new cell as the site expands.
- Design system at permitting time for recirculation; pumping leachate from new cell to old cell to help promote biodegradation.

The reality of sizing pumps based on 100-year storm generation rate quite possibly will not meet regulator intent of minimum head on liner if pump and/or sump are out of service caused by over sized pumps.

Over sized pumps (high flow rate) create problems.

- High velocity
  - This pulls in fine particulate matter and increases incrustation and fouling.
- Rapid start/stop cycles
  - Increases motor and pump life.
  - Decreases motor surface temperature, which increases plating out on motor surface.

The goal should be to size leachate collection pumps at just above average leachate generation rate. From the pumps point of view, the closer the better.

### SOURCE

Company's Experience - 25 years and over 10,000 pumps in the field.  
Personal Experience - More than 35 years in the pump business.

## Upcoming Events

EPG will have representation at the following SWANA and industry related events:

4/18-19 [NW Regional Solid Waste Symposium](#) - Troutdale, OR

4/25-27 [LSWA Environmental Conference](#) - Lafayette, LA

5/20-23 [Federation of NY Solid Waste Assoc](#) - Lake George, NY

**2012 Service School** will take place March 12-16. This years classes are near capacity so contact ASAP if interested in attending. If you would like to be placed on the waiting list for the 2013 classes send us an email at [info1@epgco.com](mailto:info1@epgco.com) or call us at 1-800-443-7426 with questions.



**Solid Waste Association of North America**