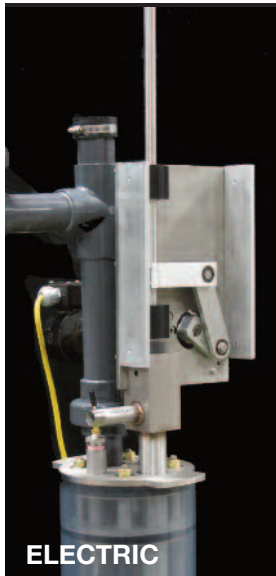


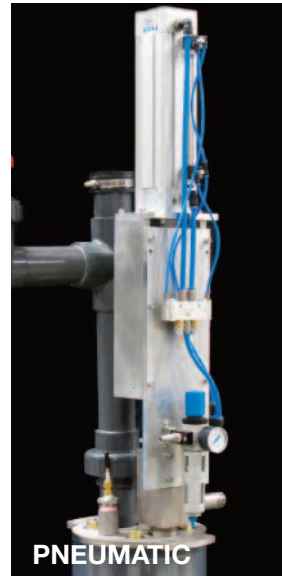
TopDrive™ Piston Pumps



SOLAR



ELECTRIC



PNEUMATIC

Flexible Options for Drive, Depth Setting and Flow

This versatile system offers the most flexible pumping setup for every landfill and cleanup pumping need. Designed for reliable, high-performance pumping of almost any fluid under the most difficult operating conditions, Top-Drive™ piston pumps allow for substantial flexibility in depth setting, drive and flow options.

There are no down-well pneumatic lines or electric motors, and the mechanism provides an optimal blend of power, reliability and efficiency. A compact cylinder stroke results in greater efficiency and lower air or power consumption. Unique bearing design and durable

seals deliver longer lifespan with simple installation and maintenance.

Key Advantages

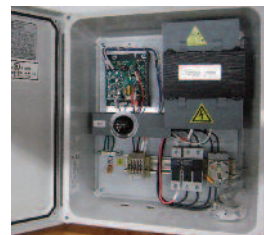
- 100% interchangeable drive assembly, switches from top drive solar or electric to pneumatic without removing the well seal.
- Pumps can be upgraded to a higher flow rate with only a change of the lower assembly.
- The intake design of the lower pump requires minimal liquid level to operate; pumps can run dry with nominal impact on long term performance.



Adjustable drop assembly has 5 and 10 foot sections, optimizing pump inlet depth.



Patented well seals provide unsurpassed rigidity; customizable port options meet site specific needs.



Custom control panels offer level alarms, on/off, timers, beacons and other key parameters.

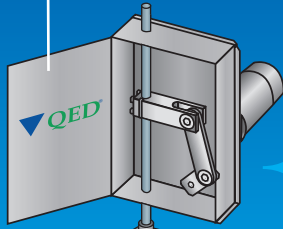


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Interchangeable Drive Heads

Electronic Drive Assembly Shown



3/4" NPT Discharge

Well seal

Drop assembly

5 ft.

10 ft.

Lower pump assembly

Solar Pump Head



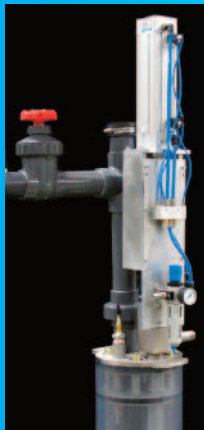
- **Easily Implemented** – Eliminates the infrastructure required for pneumatic or electric pumping systems.
- **Flexible** – System design allows flexibility in pump operation based on site specific environmental and operational conditions.
- **Environmentally friendly** – Pumping alternative reduces operational costs and improves green image.
- **Top quality** – Manufactured with industry standard, highest grade materials.
- **Easy service & installation** – Minimal tools and personnel required; most serviceable components are located above the well-head for easy access instead of pulling submerged pumps.

Electric Pump Head



- **Unsurpassed control options** - Explosion-proof, brushless motors available. Low power requirements.
- **Proven track record** – 24/7/365 operation with millions of uninterrupted operating hours in extreme climates.
- **Top quality** – Manufactured with industry standard, highest grade materials.
- **Easy service & installation** – Minimal tools and personnel required; most serviceable components are located above the well-head for easy access instead of pulling submerged pumps.

Pneumatic Pump Head



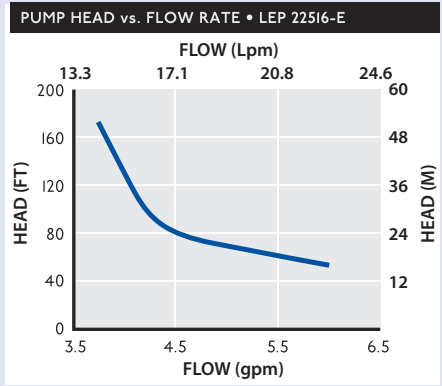
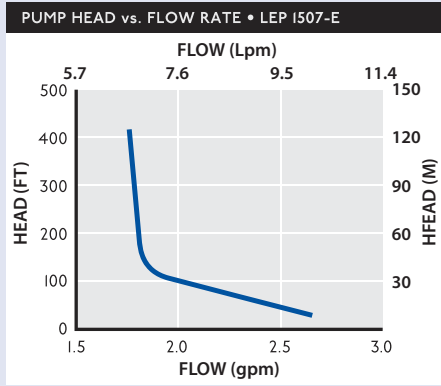
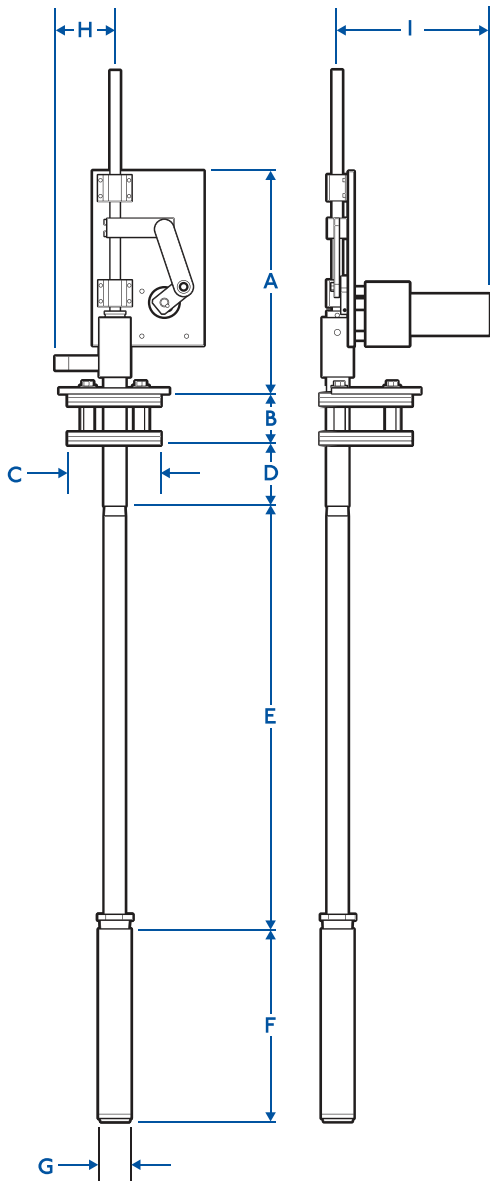
- **Dependable** – Designed for applications where airlift pumps fail: high pressure, high solids, and extreme weather conditions.
- **Flexible** – Easily adjustable built-in speed and stroke control with optional level controller allows for a wide range of pumping options.
- **No Air in Well** – Piston pump isolates air from pumped liquids to keep oxygen levels low.
- **Longer Lifespan** – Drive assembly life is maximized by incorporating a linear bearing in addition to the internal pneumatic drive cylinder bearing.
- **Low Air Consumption** – Efficient operation and flexible pump sizing result in significant savings for the owner/operator.
- **Easy service & installation** – Minimal tools and personnel required; most serviceable components are located above the well-head for easy access instead of pulling submerged pumps.

Down-Well Pump Choices



- **Low draw intake** – Intake design requires minimal liquid level to operate.
- **Two sizes** – Interchangeable Standard and High Flow models are available.

Solar and Electric TopDrive™ Pumps



Solar Pumps

Pump Model	Standard Solar Pump	Max. Head ft (m)	Flow Range gpm (Lpm)	Motor Ratings (HP)	Power Requirements
LEP 1507-S	Solar	200 (61)	1.8 - 2.5 (6.81 - 9.46)	0.2	12-24v DC
LEP 22516-S	Solar	160 (49)	4.0 - 6.0 (15.14 - 22.71)	0.33	12-24v DC

Electric Pumps

LEP 1507-E	Single	400 (122)	1.8 - 2.5 (6.81 - 9.46)	0.33	120/208/240 1ø - 50/60 Hz
	3-Phase	400 (122)	1.8 - 2.5 (6.81 - 9.46)	0.33	208/230/440/600 1ø or 3ø - 50/60 Hz
LEP 22516-E	Single	160 (49)	4.0 - 6.0 (15.14 - 22.71)	0.33	120/208/240 1ø - 50/60 Hz
	3-Phase	160 (49)	4.0 - 6.0 (15.14 - 22.71)	0.33	208/230/440/600 1ø or 3ø - 50/60 Hz

Components

LP-EB-ASSBLY_120V	Electric Drive Assembly
LP-EB-ASSBLY_12V	Solar Drive Assembly
LP-PH-ASSBLY	Pump Head Assembly
LP-DA-ASSBLY_5FT	Drop Assembly 5'
LP-DA-ASSBLY_10FT	Drop Assembly 10'
LP-LP150-ASSBLY	Standard Lower Pump
LP-LP225-ASSBLY	High Flow Lower Pump
xxx-x-WCA	Well Seal Assembly

The 150 and 225 series pump have a discharge pipe size of 3/4" (1.9 cm) NPT, a **minimum** nominal pipe size for well casing (inches) of 4" without gas extraction, and 6" with gas extraction; 8" (20.3 cm) and other custom sizes are available. Max temperature for both are 212°F/100°C, and includes a speed stroke control.

Controls Standard

Nema 4x enclosure with cover interlocked disconnect switch, overload contactor. All panels are SCA/UL approved and manufactured in an ISO 9001 certified facility.

Control Options

- On-off cycle timers, wireless interface (operation and status), GFI protected heat trace circuit.
- Variable speed can be provided with custom motor selection.
- Step down transformers and control circuits as required.

Other Options

Solar system sizing is done to meet site specific environmental and run time conditions.

Materials

In-well components are fabricated from stainless steel or PVC, and feature Buna-N seals. These materials provide the best corrosion resistance possible. Above-ground components are fabricated from stainless steel, 6061-T6 aluminum and PVC. All fasteners are stainless steel for maximum corrosion resistance. High temperature and chemical resistant options are available.

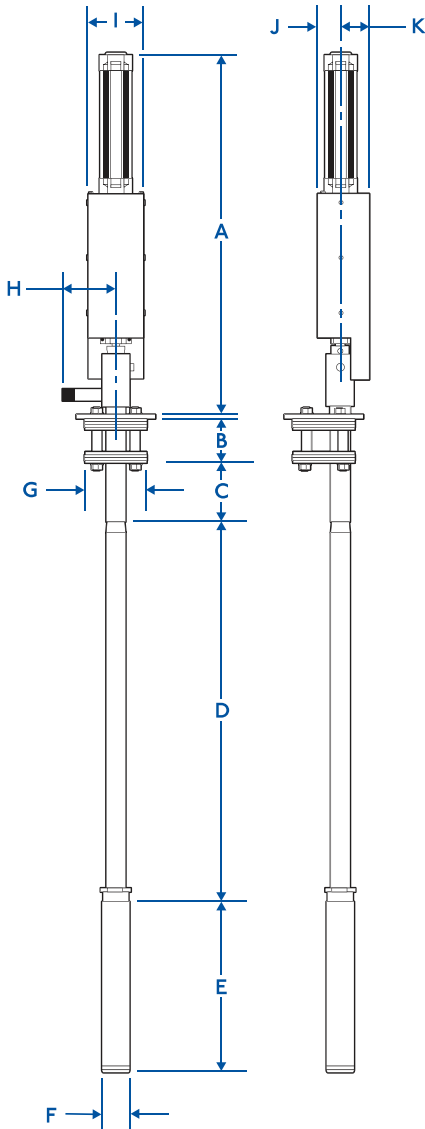
Warranty

Each leachate pump comes with a no-hassle 2-year warranty against manufacturers' defects.

Dimensions

Pump Head Height	A	17.9" (45.5 cm)
Well Seal Insertion	B	4.0" (10.2 cm)
Well Seal Diameter	C	7.5" (19.0 cm)
Drop Tube Connector	D	5.0" (12.7 cm)
Drop Tube Length	E	5 or 10 ft. (1.5 or 3 m) sections up to maximum pump head
Lower Pump Length	F	15.5" (39.4 cm)
Piston Cylinder Diameter	G	
LEP 1507-E		1.75" (4.45 cm)
LEP 22516-E		2.5" (6.35 cm)
Width at Discharge	H	4.8" (12.2 cm)
Standard Motor Depth (Optional Models Vary)	I	12.3" (31.2 cm)

Pneumatic TopDrive™ Pumps



Dimensions

Pump Head Height	A	32.6" (82.8 cm)
Well Seal Insertion	B	4.0" (10.2 cm)
Drop Tube Connector	C	5.37" (13.7 cm)
Drop Tube Length	D	5 or 10 ft. (1.5 or 3 m)
		sections up to maximum pump head
Lower Pump Length	E	15.5" (39.4 cm)
Piston Cylinder Diameter	F	
150 Series		1.75" (4.4 cm)
225 Series		2.5" (6.4 cm)
Well Seal Diameter	G	5.36" (13.6 cm)
(6"/15 cm Nominal Well)		
Width at Discharge	H	4.8" (12.2 cm)
Cover Width	I	5.1" (13.0 cm)
Cover Depth (Front)	J	2.1" (5.3 cm)
Cover Depth (Rear)	K	2.6" (6.6 cm)

Pneumatic Pumps

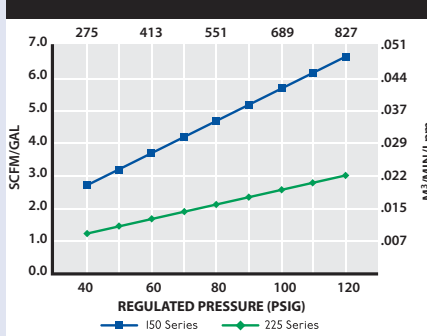
Pump Model	Max. Flow Rate gpm (Lpm)	Pump Vol. Cycle gal. (l)	Max. Depth ft. (m)	Max. Air Pressure psi (kg/cm ²)
150 Series	2.4 (9.1)	0.06 (0.23)	350 (107)	120 (8.4)
225 Series	5.4 (20.4)	0.23 (0.51)	150 (46)	120 (8.4)

Components

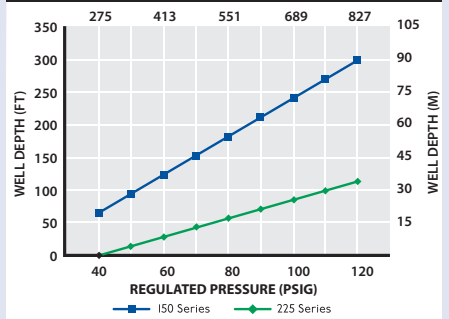
LP-PB-ASSBLY	Pneumatic Drive Assembly
LP-PH-ASSBLY	Pump Head Assembly
LP-DA-ASSBLY_5FT	Drop Assembly 5'
LP-DA-ASSBLY_10FT	Drop Assembly 10'
LP-LP150-ASSBLY	Standard Lower Pump
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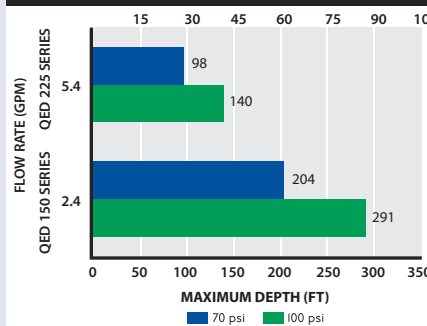
SCFM/GPM BY REGULATED PRESSURE



DEPTH BY REGULATED PRESSURE WITH 25PSI DISCHARGE HEAD



FLOW RATE VS. MAXIMUM DEPTH (M)



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