WATER & WASTEWATER

CHEMICAL & OIL

VISCOUS SLUDGE

SLURRIES & MUD

LOBEPRO

ROTARY PUMPS

Positive Displacement Rotary Lobe Pumps

SUGAR

PULP & PAPER

MINING

BIOFUEL







Is a LobePro rotary pump right for you?

1. *Are you pumping sludge, mud, or thick fluids?*
2. *Does the slurry contain corrosive or fine abrasives?*
3. *Does your application require a pulse free or low shear flow?*
4. *Does your application require self-priming suction lift, strong vacuum or low NPSHR?*
5. *Are you pumping froth, DAF or other mixture of air and fluid?*
6. *Do you need a measured flow or constant pressure at different flow rates?*

If you answered yes to just one of the questions, then you could possibly benefit from a LobePro pump.

LobePro Rotary Pumps

LobePro rotary lobe pumps are members of the positive displacement pump family and are ideal for agricultural, chemical, industrial and municipal applications.

Important Properties of LobePro Rotary Lobe Pumps

- Low shear
- Measured Flow
- Self priming to 25' wet
- Discharge pressure to 175 psi (12 bar)
- Capacities 0- 2, 656 GPM (0-604 m³/hr)
- Low pulsation
- Forward and reverse pumping operation
- Long lifespan
- Excellent for solids, abrasives and viscous fluids
- Easy access to wet end for "in place" wear part replacement
- Low maintenance
- Space-saving compact design
- Run dry ability

LobePro vs. Other Lobe Pumps

1. 1. Rebuildable Cartridge Seal (LARS)

- Our LARS seal (patent pending) can be easily rebuilt in place at just 20-50% of a new seal's cost and quickly installed correctly. In contrast, our competitors either supply cartridge seals that are usually thrown away after failure or component style seals that, with up to13 parts, are complicated to install correctly- especially if done only occasionally.
- Our seals do not require the dreaded **manual compensating pressure bottle** below 100 psi.
- We **do not use packing** which of course, is designed to leak.
- We use mechanical seals faces which are designed for extreme shock and vibration.

2. Helix Lobe Design

Our helix lobe design allows for constant flow even if system pressure varies. **4-wing helical lobe** is standard on our M and L frame pumps and **6-wing helical lobe** is standard on our S frame pumps.

3. "Heart of Steel" Lobes to Prevent Lobe Delamination

Our competitors all bond their rubber lobe coatings to a smooth cast metal core. "Bonding to castings presents difficulties not seen in bonding to steel- oil trapped in the casting; impurities within the metal surface, inability to 100% clean away oxidation due to surface structure".* In contrast, we machine all our lobe cores in steel. This also allows us to rough up the surface texture of the core for best bonding.

* Manville Rubber

4. Replaceable and Reversible Wear Plates

Our front and rear wear plates are reversible for extended use. They are customized for abrasive, corrosive and general applications.

5. Two piece Adjustable Housing Segment

No expensive one piece housing segments. Our housing segments are two pieces which are both **adjustable** and **replaceable**. Our austempered hardened housing segments are competitively priced to radial wear plates.

6. Highly experienced staff.

We have engineers and mechanics in the USA who are here to answer your questions or trouble shoot problems.

7. Wear parts shipped within 2 working days of order receipt or the parts are Free!

This guarantee applies for 5 years after the purchase of a LobePro pump.

8. Made in the USA

LobePro Pumps are 100% made in the USA which helps us maintain high quality, fast delivery, and good communications.

"Your engineers have gone the extra distance to provide a solid pump package. It was quite an opportunity to present your pump as a solution for the application"
---Chuck, PE Sr. Mech. Engr.

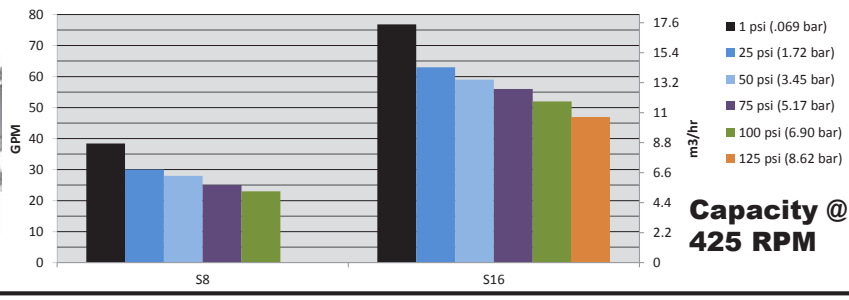
"The pumps are doing a great job, holding up well in the most demanding application in the municipal wastewater word"
---Earle, WWTP Supervisor

LOBEPRO ROTARY PUMPS

Pump Capacities: Typical Speeds for Moderate Abrasive Sludges/Fluids with 40 cP Viscosity*

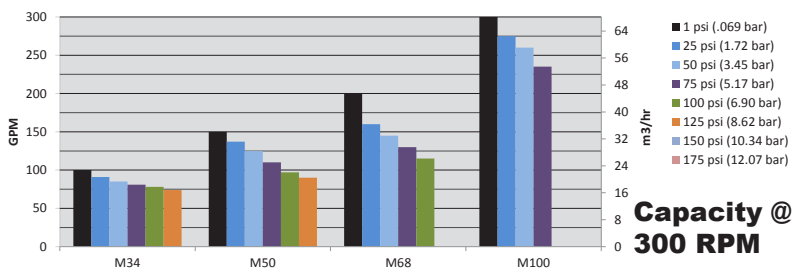
**Note: Slip decreases as viscosity of fluid pumped increases*

S-FRAME (Small Frame)



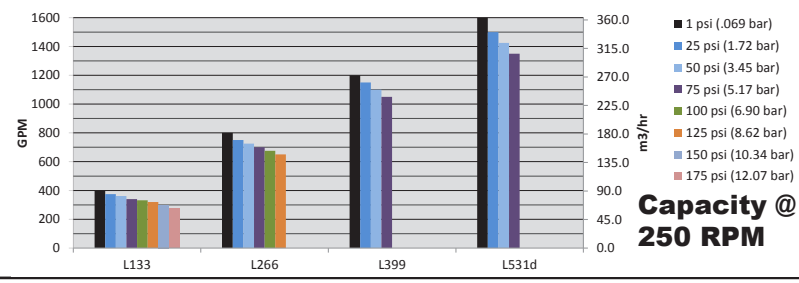
Capacity @ 425 RPM

M-FRAME (Medium Frame)



Capacity @ 300 RPM

L-FRAME (Large frame)



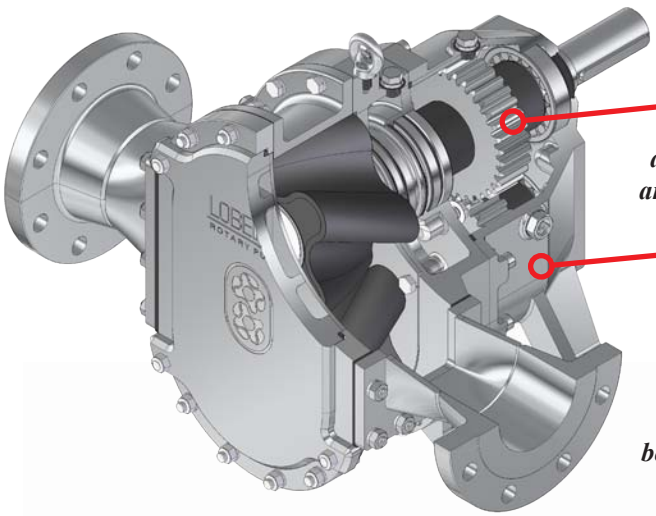
Capacity @ 250 RPM

Pump Models

LobePro rotary pumps available as GS, GM, &GL for general use, SS, SM, &SL standard pumps and CS, CM & CL chemical/ corrosive pumps. The flows shown below is with water at O psi at 70 F (21 C) prior to slip caused by pressure. Slip at different pressures is shown in the Graph above. The slip is the same at any pressure regardless of the pump RPMs. Slip decreases as viscosity of fluid pump increases.

Model Speed	Max Capacity GPM (m3/hr)	Max Flow Per 100 RPM	Max. Working Pressure	Rated RPM
S8	72 gpm (16.3 m³/hr)	8 gal (1.8 m³)	175 psi (12 bar)	0-900 RPM
S16	144 gpm (32.6 m³/hr)	16 gal (3.6 m³)	150 psi (10.3 bar)	0-900 RPM
M34	204 gpm (46 m³/hr)	34 gal (8 m³)	145 psi (10 bar)	0-600 RPM
M50	300 gpm (68 m³/hr)	50 gal (11 m³)	125 psi (8.6 bar)	0-600 RPM
M68	408 gpm (92 m³/hr)	68 gal (15 m³)	100 psi (6.9 bar)	0-600 RPM
M100	600 gpm (136 m³/hr)	100 gal (23 m³)	70 psi (4.8 bar)	0-600 RPM
L133	665 gpm (151 m³/hr)	133 gal (30 m³)	125 psi (8.6 bar)	0-500 RPM
L133d	665 gpm (151 m³/hr)	133 gal (30 m³)	175 psi (12 bar)	0-500 RPM
L266	1,328 gpm (301 m³/hr)	266 gal (60 m³)	70 psi (4.8 bar)	0-500 RPM
L266d	1,328 gpm (301 m³/hr)	266 gal (60 m³)	125 psi (8.6 bar)	0-500 RPM
L399	1,995 gpm (453 m³/hr)	399 gal (91 m³)	50 psi (3.4 bar)	0-500 RPM
L399d	1,995 gpm (453 m³/hr)	399 gal (91 m³)	85 psi (5.8 bar)	0-500 RPM
L531d	2,656 gpm (603 m³/hr)	531 gal (121 m³)	70 psi (4.8 bar)	0-500 RPM

LOBEPRO
ROTARY PUMPS



Gears do not require timing by user.

Shutdown protection available for contaminants and over pressure conditions

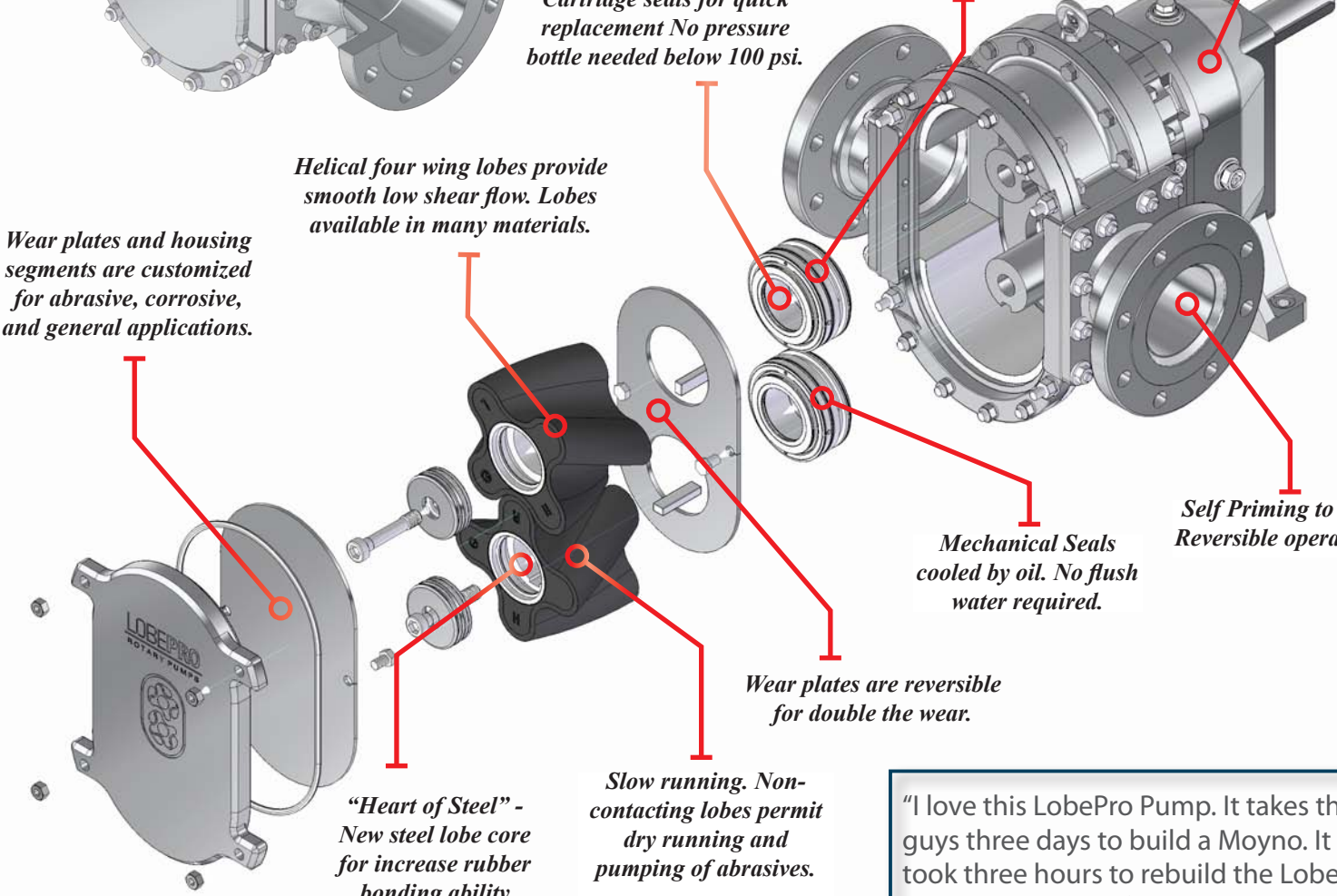
Rebuildable design offers the best of cartridge seal and a component seal in ONE while reducing repair costs 50 to 80%.

Gear housing is separated from wet end and mechanical seals

Cartridge seals for quick replacement No pressure bottle needed below 100 psi.

Helical four wing lobes provide smooth low shear flow. Lobes available in many materials.

Wear plates and housing segments are customized for abrasive, corrosive, and general applications.



Mechanical Seals cooled by oil. No flush water required.

Self Priming to 25'. Reversible operation.

Wear plates are reversible for double the wear.

"Heart of Steel" - New steel lobe core for increase rubber bonding ability

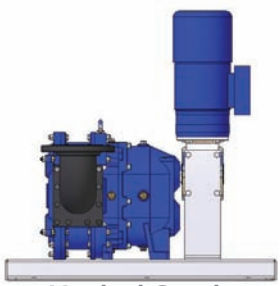
Slow running. Non-contacting lobes permit dry running and pumping of abrasives.

In Place wear part replacement at 1/3 the cost and time for equivalent screw (PC) pump.

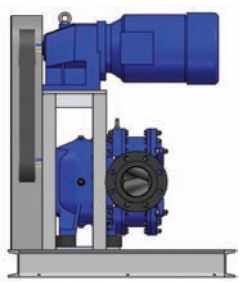
"I love this LobePro Pump. It takes three guys three days to build a Moyno. It took three hours to rebuild the LobePro - and I did it myself. I can't wait until we replace the other Moynos with LobePro."
---Paul, WWTP Lead Mechanic

Configurations

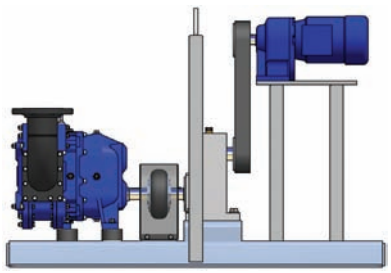
Trailer Mount Electric or Diesel Drive



Vertical Gearbox



Space Saving "Piggyback" Overhead V-Belt Drive



Belt Driven Gear Box

LobePro vs. Progressive Cavity (Screw) Pumps

LobePro pumps do the same jobs as well or better than screw pumps up to 150 psi of pressure. However, they have the following advantages over progressive cavity pumps also known as screw pumps:

- **Require approximately 1/3 their physical space**
  - **Because they are 1/3 the size:**
    - **Parts are typically 1/3 the cost**
    - **Maintenance labor time is 1/3 or less**
    - **Lifetime ownership cost is 1/3**
- **Ability to run dry for a period of time**
- **Maintenance in place. LobePro lobes, seals and wear plates can be replaced without removing attached piping or pumping.**
- **No Ragging. The PC Pump's screwing motion does an outstanding job of winding rags, stringly plastics, and hair around the rotor causing the pump to clog or "rag." This requires stopping the pump and cleaning out the "rags" frequently (shown in the picture on right.)**

(left): Before LobePro, rags were removed from their old PC Pump in Ohio every Friday. Not necessary after switching to LobePro.

LobePro vs. Sliding Vane Pumps

- **Sliding vane pumps rely on vanes that slide in and out as the shaft turns with an elliptical casing. Lobepro uses a simple arrangement of timing gears to rotate lobes that do not touch each other.**
- **Vane pumps require very clean fluid otherwise contaminates may cause the vanes to stop sliding resulting in possible pump failure. LobePro can handle hard solids to 1/8" (3mm) and soft solids up to 2.5" (63 mm).**
- **Large strainers must be placed at the inlet to prevent contaminates from clogging the sliding vanes. Failure to maintain these strainers results in pump failure.**
- **LobePro pumps can operate in forward or reverse. This permits the pump to be used for loading and unloading applications. Sliding Vane pumps have very limited capacity to operate in reverse.**
- **Run dry ability. Vane pumps rely on vanes that slide and requires the pumped fluid to lubricate and remove heat. LobePro uses a non-contact design that greatly increases its run-dry capability.**

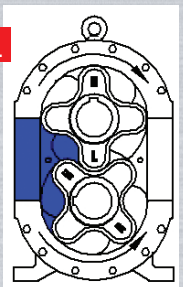
LobePro vs. Centrifugal Pumps

LobePro Pumps have the following advantages over centrifugal pumps in sludge and slurry applications:

- **Constant flow at different pressures or constant pressure at different flows**
- **Low fluid shear/low emulsion**
- **Easily pumps air/liquid mixtures**
- **Handles abrasives better because of low RPM's which greatly reduces wear. LobePros pump away all the fluids including solids and abrasives. Centrifugal pumps tend to pump the lighter fluid away and leave the heavy material. Hence they are not suitable for fluids containing 3% or more solids.**
- **Self-priming to 25'**

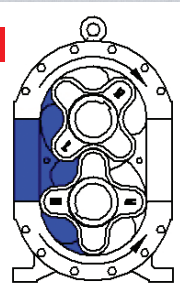
OPERATING PRINCIPLE

1



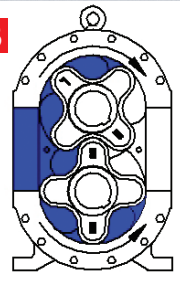
Fluid enters suction side of pump.

2



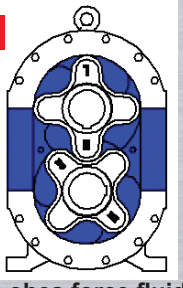
Fluid fills cavities between lobes.

3

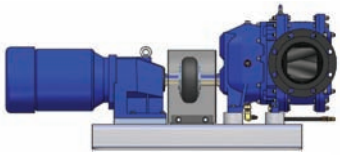


Fluid travels around interior of casing

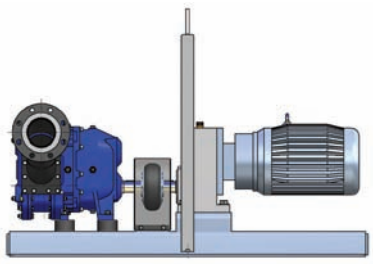
4



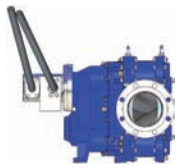
Lobes force fluid out discharge port.



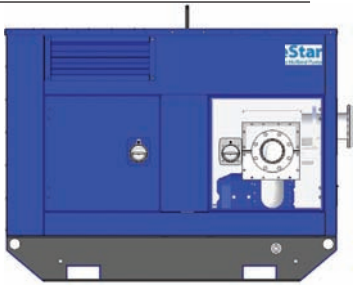
In-line Gear Motor



In-line with C-Face Gear Reducer



Hydraulic Motor Drive



Sound Attenuated Diesel Drive Unit

	GL, GM & GS General Use	SL, SM & SS Sludge/Slurries	CL, CM & CS Chemical/Corrosive
Service			
Rotary Lobe Elastomer	NBR	NBR	FKM/Viton
Lobe Profile	Helix	Helix	Helix
Number of lobe wings	GL & GM: 4 wings GS: 6 wings	SL & SM: 4 wings SS: 6 wings	CL & CM: 4 wings CS: 6 wings
Core	ASTM A48	ASTM A48	ASTM A48
Sealing O-rings	NBR	NBR	FKM/Viton
Lip seals	NBR	NBR	FKM/Viton
Mechanical seals	Duronit vs Duronit	Duronit vs. Duronit	Silicon Carbide
Seal holders	Mild Steel coated with Electroless Nickel	Mild Steel coated with Electroless Nickel	Stainless Steel 316
Housing Segments	Grey Iron Class 30	Austempered AGI-600	Stainless Steel 316
Wear plates	A36 Steel	AR500 Steel Brinell hardness 500	Stainless Steel 316
Shaft	AISI 4140 Steel	AISI 4140 Steel	AISI 4140 Steel coated
Quench chamber	ASTM A48 Rust primed	ASTM A48 Grey Iron Rust primed	ASTM A48 Grey Iron coated with Electroless Nickel
Gear Housing Casting	ASTM A48	ASTM A48	ASTM A48
Bolts	ASTM F568/ISO 898/I	ASTM F568/ISO 898/I	Stainless Steel DIN 931 A2-A4
Bolts - Strain Bolt	ASTM A574M-12.9 Zinc plated	ASTM A574M-12.9 Zinc plated	ASTM A574M-12.9 Electroless Nickel coated
Gears	AGMA Class 9 SAE 1045	AGMA Class 9 SAE 1045	AGMA Class 9 SAE 1045
Pressure Disc	A36 Steel	A36 Steel	Stainless Steel 316
Max. Soft Solid	GL: 2.5” (63 mm) GM: 1.5” (38 mm) GS: 0.75” (19 mm)	SL: 2.5” (63 mm) SM: 1.5” (38 mm) SS: 0.75” (19 mm)	CL: 2.5” (63 mm) CM: 1.5” (38 mm) CS: 0.75” (19 mm)
Max. Hard Solid	1/8” (3mm)	1/8” (3 mm)	1/8” (3mm)

Notes: A wide range of optional materials are available for each model. Above specs are for standard builds. Consult Factory for other variations.

LOBEPRO
ROTARY PUMPS

LobePro Product Partner

CE and Atex approved

LobePro Inc. dba
Holland Pump Manufacturing
of Georgia Inc.
Certified to ISO 9001-2008
Certificate No. 10005463 QM08

2610 Sidney Lanier Drive • Brunswick, Georgia 31525
(888) 997-PUMP (7867) Toll Free • (912) 466-0304 Phone • (912) 466-0086 Fax
www.LobePro.com