WATER & WASTEWATER

CHEMICAL & OIL

VISCOUS SLUDGE

SLURRIES & MUD

LOBEPRO

ROTARY PUMPS

Positive Displacement Rotary Lobe Pumps

SUGAR

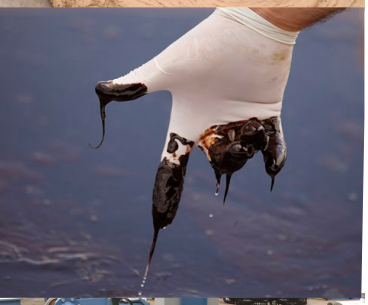
PULP & PAPER

MINING

BIOFUEL

*August 2018




Is a LobePro rotary lobe 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. This is not just our opinion. The Hydraulic Institute and most standard texts recommend positive displacement pumps like LobePro when any of the above circumstances apply. As a result, LobePro pumps are widely used at wastewater treatment, power, mining, and chemical plants plus oil exploration and refining and construction dewatering to name a few.

Benefits of LobePro Rotary Lobe Pumps

- **Superior for highly viscous fluids**
- **Excellent for fluids containing compressible solids, corrosives and fine abrasives**
- **Suited for variable flows and viscosities, and processes with entrained air or gas**
- **Provide a low shear, low pulsation, and measured flow (valuable as a feeder)**
- **Bi-directional / reversible (can do the job of two pumps)**
- **Can run dry for limited periods of time (forgiving to busy operators)**
- **Can self-prime wet and pull a suction lift up to 25 feet (low NPSH requirement)**
- **Space-saving compact design (frees up space for other activities)**
- **Energy efficient**
- **Long lifespan**

"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 world"

---Earle,
WWTP Supervisor

Model Speed	Max Capacity GPM (M^3/HR)*	Max Flow Per 100 Rev. Gal. (m^3x10^3)*	Max. Continuous Pressure PSI (BAR)	Rated RPM**
S8	72 (16)	8 (30)	175 (12.1)	0-900
S16	144 (32)	16 (60)	100 (6.9)	0-900
M34	204 (46)	34 (130)	145 (10)	0-600
M50	300 (68)	50 (190)	125 (8.6)	0-600
M68	408 (92)	68 (260)	100 (6.9)	0-600
M100	600 (136)	100 (380)	50 (3.4)	0-600
L133	665 (151)	133 (503)	125 (8.6)	0-500
L133h	665 (151)	133 (503)	175 (12.1)	0-500
L266	1,330 (302)	266 (1007)	75 (5.2)	0-500
L266h	1,330 (302)	266 (1007)	150 (10.3)	0-500
L399	1.995 (453)	399 (1510)	40 (2.8)	0-500
L399h	1.995 (453)	399 (1510)	85 (5.9)	0-500
L531h	2,655 (603)	531 (2010)	70 (4.8)	0-500

LobePro rotary pumps available as SS, SM, & SL standard pumps for sludge, slurry or general use, CS, CM & CL chemical/corrosive pumps and DS, DM & DL duplex corrosive/abrasive pumps.
**The flows shown above are for water at O psi at 70 F (21 C) prior to pressure-induced slip.*
*** The highest RPM rating is for clean fluids only.*

LobePro vs. Other Lobe Pumps

1. Rebuildable Cartridge Seal (LARS)

- Our Patented LARS seal 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 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 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.

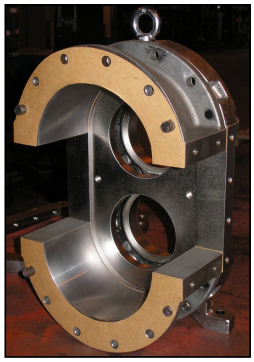
3. "Heart of Steel" Lobes to Prevent Lobe Delamination

Our competitors all bond their rubber lobe coatings to a smooth cast metal core. However, according to industry experts, "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 thereby increasing the surface area 35%. The increased surface area also strengthens the rubber bond.

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 Sc-, M-, and L-frame housing segments are two pieces which are both **adjustable** and **replaceable**. Our 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. Standard 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

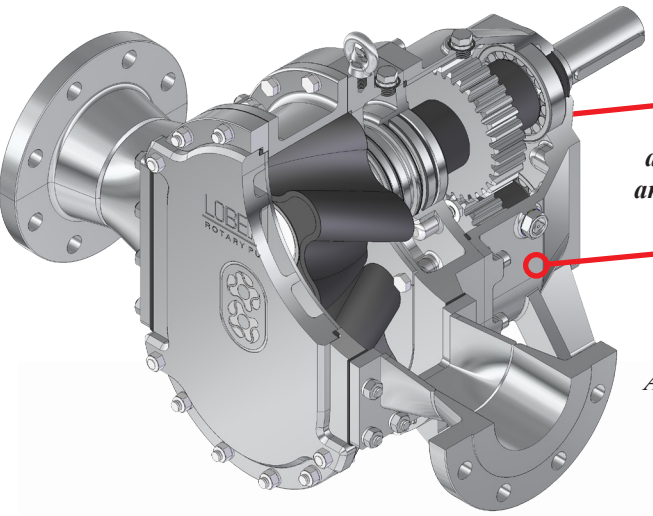
LobePro Pumps are 100% made in the USA which helps us maintain high quality, fast delivery, and good communications.

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

Working (Continuous) PSI	Approximate Gallons per Minute (GPM)									
	Small @ 450 RPM		Medium @ 300 RPM				Large @ 250 RPM			
	S8	S16	M34	M50	M68	M100	L133	L266	L399	L531h
1	35	70	100	145	200	295	325	650	975	1300
25	32	67	90	135	190	285	315	635	950	1270
50	30	63	85	120	175	275	310	620	935*	1245
75	27	59	80	110	165		305	605	910*	1215
100	25	55	75	90	155		295	590*		
125	23		70	80			290	575*		
150	21						285*			
175	20						280*			

The GPM shown above is net of slip caused by pressure. Slip is the same at any pressure regardless of the pump RPMs. Slip decreases as viscosity of the fluid pumped increases.
**Pump requires Lh-door assembly to operate at this pressure.*

LOBEPRO
ROTARY PUMPS



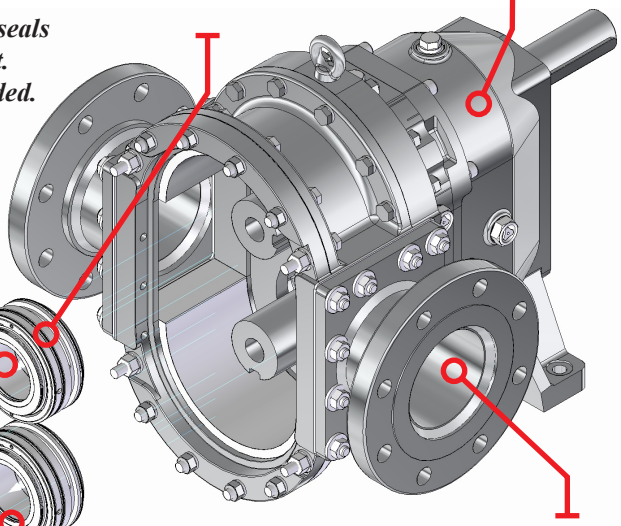
Gears do not require timing by user.

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%.

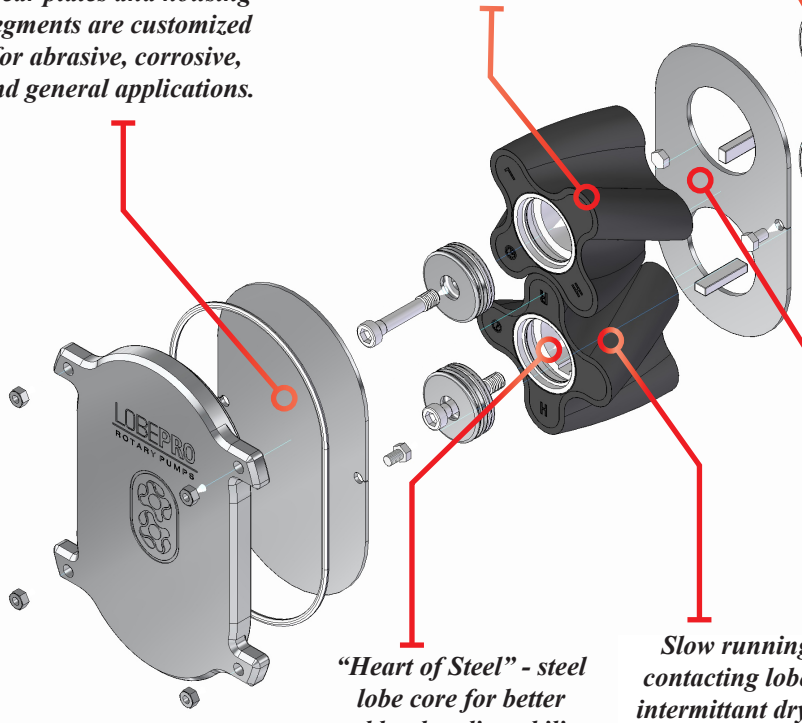
Gear housing is separated from wet end and mechanical seals

Affordable, rebuildable seals for easy replacement. No pressure bottle needed.



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.



Self Priming to 25'. Reversible operation.

Mechanical Seals cooled by oil to protect against dry running. No Flush water desired or required.

Wear plates are reversible for double the wear life.

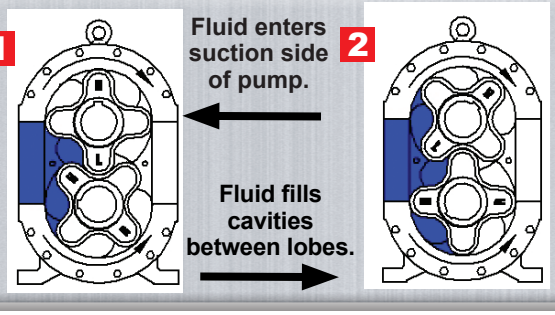
"Heart of Steel" - steel lobe core for better rubber bonding ability

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

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

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

OPERATING PRINCIPLE



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.)**

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

LobePro vs. Double Disc Pumps

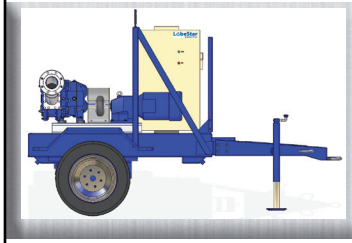
- **LobePro pumps can operate in forward or reverse. This permits the pump to be used for loading and unloading applications. Double Disc Pumps can not operate in reverse.**
- **In many applications, the LobePro pump can offer more flow for the same power as the double disc pump.**
- **Pressure limitations. LobePro pumps can operate up to 150 psi on some models. By comparision most Double Disc pumps are limited to 60 psi working pressure.**
- **Ease of maintenance. LobePro pumps can be repaired in place through the front cover. Double Disc pumps require the user to change parts from under the pump. This can be problematic due to tight space requirements and heavy parts.**
- **Low Pulsation. LobePro pump uses helical lobes to provide a nearly pulse free flow. Double Disc pumps require pulsation dampeners to reduce the pulsation, which adds additional maintenance for the user.**
- **Fluid handling. LobePro pumps can handle mixtures of fluid, gas and solids. Double Disc pumps can not handle highly viscous or thicker sludge applications.**

LobePro vs. Centrifugal Pumps

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

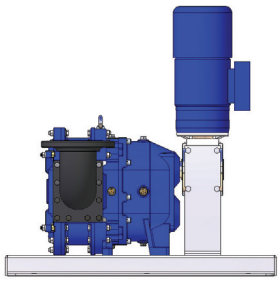
- **Constant flow at different pressures or constant pressure at different flows**
- **Low fluid shear/low emulsion**
- **Easily pumps air/liquid mixtures**
- **Handles abrasives better because of low RPM's which greatly reduces wear. LobePros pump away all the fluids including solids and abrasives. 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'**

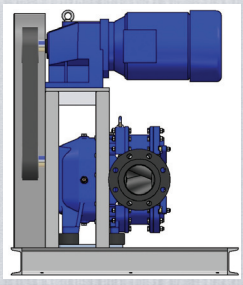
Configurations



Trailer Mount Electric or Diesel Drive

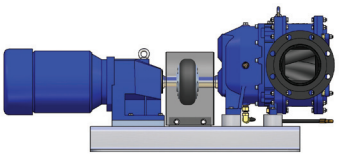
Vertical Gearbox

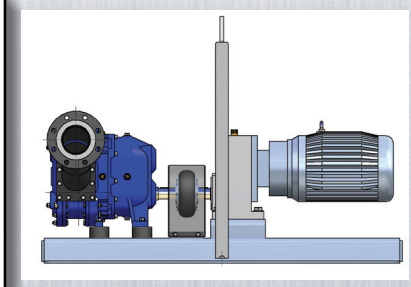




Space Saving "Piggyback" Overhead V-Belt Drive

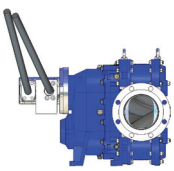
In-line Gear Motor

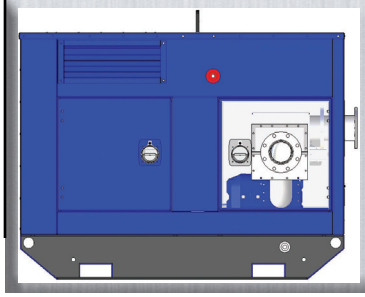




In-line with C-Face Gear Reducer

Hydraulic Motor Drive





Sound Attenuated Diesel Drive Unit

	SSp, SSc, SM, SL	CSp, CSc, CM, CL	DSp, DM, DL
Service	**Sludge, Mud and Slurries***	**Chemical/Corrosive**	**Oil, Gas & Abrasives**
		Wetted Parts	
Rotary Lobes			
Elastomer	NBR Opt. HNBR, FKM, EPDM or Eng. Rec.	FKM or HNBR Opt. NBR, EPDM or Eng. Rec.	FKM or HNBR Opt. NBR, EPDM or Eng. Rec.
Lobe Profile	Helix	Helix	Helix
# of Lobe Wings	Sp/Sc: 6; M/L: 4	Sp/Sc: 6; M/L: 4	Sp/Sc: 6; M/L: 4
Core	Carbon Steel (Cast available for L-frame only)	Carbon Steel	Carbon Steel
Sealing Elastomers			
Orings	FKM or Eng. Rec.	FKM or Eng. Rec.	FKM or Eng. Rec.
Lip Seals	FKM or Eng. Rec.	FKM or Eng. Rec.	FKM or Eng. Rec.
Mechanical Seals			
Mechanical Seal	Duronit Opt. Tungsten Carbide, Silicon Carbide, or Eng. Rec	Silicon Carbide Opt. Tungsten Carbide or Eng. Rec	Silicon Carbide Opt. Tungsten Carbide or Eng. Rec
Seal Holder	Carbon Steel w/ Corrosion resistant coating	Stainless Steel Type 316	Duplex Stainless Steel
Wear Plates	AR500 Steel (Brinell 500)	Stainless Steel Type 316	Duplex Stainless Steel
Housing Segments**	Sc: Carbon Steel Sp/M/L: ASTM A48 Grey Iron rust primed	Duplex Stainless Steel	Duplex Stainless Steel
Flange Ring	ASTM A36 Carbon Steel	Stainless Steel Type 316L	Duplex Stainless Steel
Bolts	Carbon Steel ISO 898-1	Stainless Steel A2-A4	Duplex Stainless Steel
Pressure Disc	Stainless Steel Type 316	Stainless Steel Type 316	Duplex Stainless Steel
		Limited Exposure Parts	
Quench/Seal Cooling Chamber	Sp/Sc: Carbon Steel M/L: ASTM A48 Grey Iron rust primed	Sp/Sc: Carbon Steel M/L: ASTM A48 Grey Iron, PTFE / Ceramic Teflon on wetted faces	Sp/Sc: Carbon Steel M/L: ASTM A48 Grey Iron, PTFE / Ceramic Teflon on wetted faces
Pump Cover	ASTM A48 Grey Iron rust primed	ASTM A48 Grey Iron, Opt. 316 SS	ASTM A48 Grey Iron, Opt: Duplex SS
		Non-Wetted Parts	
Gears	GMA Class 9 AISI 1045 steel	GMA Class 9 AISI 1045 steel	GMA Class 9 AISI 1045 steel
Gear Housing	Sp/Sc: Carbon Steel or ASTM A48 Grey Iron rust primed M/L: ASTM A48 Grey Iron rust primed	Sp/Sc: Carbon Steel or ASTM A48 Grey Iron M/L: ASTM A48 Grey Iron Paint: SSPC-SP6 Sandblast/Paint	Sp/Sc: Carbon Steel or ASTM A48 Grey Iron, M/L: ASTM A48 Grey Iron Paint: SSPC-SP6 Sandblast/Paint
Shafts	AISI 4140 Alloy Steel	AISI 4140 Alloy Steel	AISI 4140 Alloy Steel
		Painting Requirements	
Standard Painting	SSPC-SP6 Sandblast/Paint, LobePro Blue	SSPC-SP6 Sandblast/Paint, LobePro Silver	SSPC-SP6 Sandblast/Paint, LobePro Silver
		Solids Handing	
Max. Soft Solids	Sp/Sc: 0.75" (19 mm) M: 1.5" (38 mm), L: 2.5" (63 mm)	Sp/Sc: 0.75" (19 mm) M: 1.5" (38 mm), L: 2.5" (63 mm)	Sp/Sc: 0.75" (19 mm) M: 1.5" (38 mm), L: 2.5" (63 mm)
Max. Hard Solids	1/8" (3 mm)	1/8" (3 mm)	1/8" (3 mm)

NOTE: Listed above are standard pump assemblies; lobe styles and materials subject to recommendation by LobePro Engineering. A wide range of optional materials are available for each model. Consult LobePro for further information. *Consult factory for application temperature above 80°C (175°F) ** ProForm housing segment for Sp-frame pumps incorporates housing segment, flange ring, barrier plate and integral suction and discharge flange fittings in one piece.

CE and Atex approved

LOBEPRO
ROTARY PUMPS

LobePro Product Partner

LobePro, Inc. UL REGISTERED FIRM ISO 9001-2015 - 10005463 QM15

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