



BIOFUEL & AGRICULTURE



MINING



SLUDGE & SLURRIES



OIL, GAS & CHEMICAL



WATER & WASTEWATER



ROTARY PUMPS

**POSITIVE DISPLACEMENT
ROTARY LOBE PUMPS**





Is LobePro Right for You?

Does the application...

1. Involve sludge, mud, or thick fluids?
2. Contain corrosives or fine abrasives?
3. Require a low-pulse or low-shear flow?
4. Require self-priming suction lift, strong vacuum, or have low NPSHA?
5. Involve froth, DAF, or another mixture of gas and fluid?
6. Require a measured flow or a constant pressure at various flow rates?

If you answered “yes” to even one of the above questions, you may benefit from a LobePro rotary lobe pump. This isn’t just our opinion; the Hydraulic Institute and most standard texts recommend positive displacement pumps like ours when any of the above circumstances apply. As a result, LobePro pumps are widely used in wastewater treatment, power, mining, and chemical plants, oil exploration and refining, and construction dewatering, and many more applications.

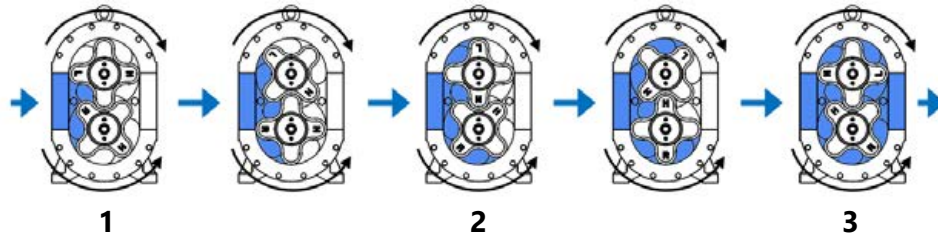
In addition to the above, we take pride in our highly experienced and responsive staff. We have engineers and mechanics in the United States and representatives around the world to help answer your problems or provide assistance troubleshooting any of your application challenges.

Better Pumps. Better Support.

- Better Selection:** Our staff works to understand the application and ensure proper selection and recommendations.
- Better Support:** Our engineers deliver quality drawings and documentation on-time.
- Better Parts:** Our pumps are manufactured in the USA, with most critical components machined at our factory in Brunswick, Georgia.
- Better Testing:** All equipment is factory tested, ensuring quality and compliance with customer requirements.
- Better Delivery:** Our staff will work to meet your deadlines and ensure a timely delivery. In addition, we guarantee shipment of standard wear parts within two business days.
- Better Service:** Our goal is your satisfaction; we work closely with our distributors and our staff will work tirelessly to resolve any challenges you encounter with your application.

We are a Customer Service-driven company, focusing on the customer’s needs to provide the support necessary to meet their application requirements quickly and correctly.

Operating Principle



1. Fluid enters from the suction nozzle of the pump and begins filling the lobe cavities.
2. The lobes rotate, moving fluid trapped in the cavities between lobe tips.
3. The lobes mesh, forcing fluid contained in the lobe cavities into the discharge nozzle of the pump.

Pump Ratings

Model	Std. Flange		Maximum Capacity		Maximum Capacity Per 100 Revolutions		Maximum Working Pressure (Differential)		Rated Speed rpm
	ANSI	DIN	gpm	m ³ /hr	gallons	cu. meters	psi	bar	
S8	2"	50	72	16.4	8	1.8	175	12.1	100 - 900
S16	3"	80	144	32.7	16	3.6	100	6.9	100 - 900
M34	3"	80	204	46.4	34	7.7	145	10.0	100 - 600
M50	4"	100	300	68.2	50	11.4	125	8.6	100 - 600
M68	4"	100	408	92.7	68	15.5	100	6.9	100 - 600
M100	6"	150	600	136.4	100	22.7	50	3.4	100 - 600
L133	6"	150	665	151.1	133	30.2	125	8.6	100 - 500
L133h	6"	150	665	151.1	133	30.2	175	12.0	100 - 500
L266	8"	200	1330	302.3	266	60.5	75	5.2	100 - 500
L266h	8"	200	1330	302.3	266	60.5	150	10.3	100 - 500
L399	10"	200	1995	453.4	399	90.7	40	2.8	100 - 500
L399h	10"	200	1995	453.4	399	90.7	85	5.9	100 - 500
L531h	10"	200	2660	605.5	531	120.9	70	4.8	100 - 500

Typical Flow Rates for Moderate Abrasive Sludges with 40 cP Viscosity

Model	rpm	Approximate Flow Rate (gpm)							
		1 psi	25 psi	50 psi	75 psi	100 psi	125 psi	150 psi	175 psi
S8	450	35	32	30	27	25	23	21	20
S16	450	70	67	63	59	55			
M34	300	100	90	85	80	75	70		
M50	300	145	135	120	110	90	80		
M68	300	200	190	175	165	155			
M100	300	295	285	275					
L133	250	325	315	310	305	295	290		
L133h	250	325	315	310	305	295	290	285	280
L266	250	650	635	620	605				
L266h	250	650	635	620	605	590	575		
L399	250	975	950						
L399h	250	975	950	935	910				
L531h	250	1300	1270	1245	1215				

Wear components and casing materials available in multiple materials to best suit the application.

Rebuildable mechanical seals can save 50% or more on replacement costs.

Helical-wing lobes provide low-shear flow. Alternate styles and materials available.

Reversible wear plates for improved wear life.

Non-contacting lobes permit limited dry-running and abrasives handling.

Maintenance in-place design permits replacement of wear parts without removing the pump.

Timing gears pre-set by the factory. No adjustment required.

Seal cooling chamber for limited dry-run protection. No flushing required.

Interchangeable nozzles; customizable for the application.

Separate oil chamber for timing gears and bearings.

Reversible Flow

The symmetric design of LobePro pumps allows for rotation in either direction. Always ensure there are no direction-dependent accessories (such as a check valve) before reversing flow direction.

Maintenance in Place

LobePro pumps are designed for easy maintenance without the need to disconnect the suction and discharge nozzles, or remove the pump from the installation.

Adjustable Housing

LobePro's two-part "component"-style housing segments allow for adjustment to offset the effects of wear, enabling users to prolong the life of their wear parts before replacement.

Self-priming Up to 25 ft

LobePro pumps have a low net positive suction head requirement (NPSHR) and can self-prime from 15 to 25 ft, depending on site elevation, and the specific gravity and viscosity of the fluid.

Low Shear and Pulsation

The helical, multi-cavity, multi-lobe design of LobePro pumps provides a smooth, steady pumping action which delivers significantly less pulsation than other positive displacement pumps, also avoiding the shearing of sensitive fluids and emulsification of hydrocarbons.

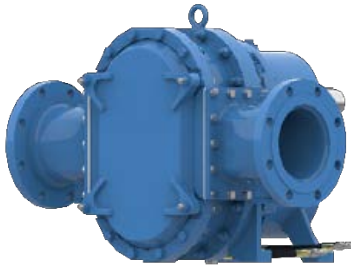
Mixture Handling

LobePro rotary lobe pumps can handle mixtures of liquids, solids, and gases or entrained air with little difficulty, including wellpoint dewatering applications, where entrained air concentrations can reach 90% or more.

Abrasive Performance

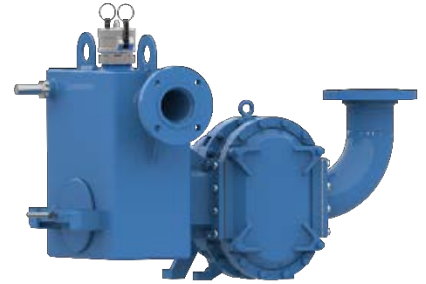
The low-speed operating range reduces the impact of abrasives. Optional material upgrades can also help mitigate the impact of fine abrasives.

Typical Configurations



Standard Bareshaft

Pump only. Also available with customized nozzles, such as a vacuum / sediment tank for applications with greater lift or those with large solids.



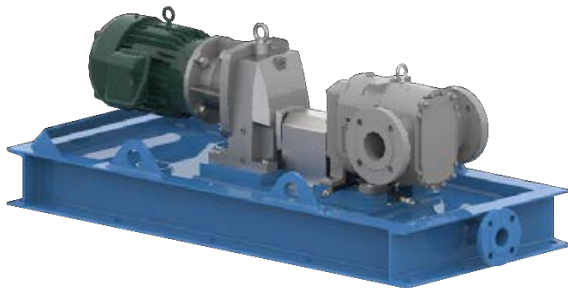
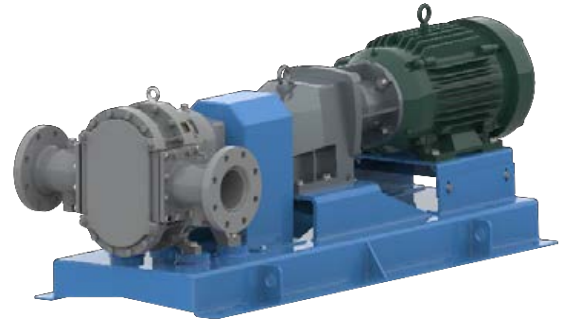
Overhead Motor "Piggyback"

Vertical, belt-driven assembly with a structural frame for applications with limited space.



In-line Motor

Standard baseplate design featuring an in-line motor with helical gear reducer. Right angle drives may be available depending on the application.



API 676

Structural drain-rim-style baseplate, in compliance with the requirements of the API code.



Custom Assembly

A customized assembly per the requirements of your application, from side- or vertically-mounted pumps to trailers and other special skid designs.

LobePro vs. Other Pumps

LobePro pumps are often installed in existing applications, replacing alternatives due to:

- Unsatisfactory pump performance
- Improper pump/sizing selection
- Long lead times for wear parts
- High maintenance costs / labor

LobePro engineers and staff will work with you to resolve these issues and more to show you what we mean by "Better Pumps. Better Support."



Vs. Progressive Cavity Pumps

- Requires approximately one-third the physical space.
 - Parts are typically one-third the cost.
 - Maintenance time is one-third or less.
 - Lifetime cost of ownership is one-third.
- Ability to run dry for a limited period of time.
- Maintenance in-place: lobes, seals, and wear plates can be removed without removing the pump or attached piping.
- No ragging.

Vs. Double Disc Pumps

- Can operate in either direction, making them ideal for loading/unloading applications.
- Can produce higher flow rates for the same input power.
- Maintenance in-place; double disc pumps require removal of parts from beneath the pump.
- Low pulsation; double disc pumps require pulse dampeners, adding more maintenance requirements for the user.
- Better handling of mixtures of fluids, gases, and solids, as well as thicker or more viscous applications.

Vs. Centrifugal Pumps

- Constant flow rates at different pressures or constant pressure at different flow rates.
- Low shear and emulsification.
- Handles air/liquid mixtures.
- Low speed operation reduces abrasive wear and better handles higher solids concentrations (above 3%).
- Self-priming up to 25 ft.

Vs. Other Displacement-type Pumps

- Sludge-handling capability.
- Ability to pump low- to high-viscosity fluids, including applications with varying viscosity.
- Ability to handle larger compressible solid sizes (3/4 to 2-1/2").
- Low speed operation reduces abrasive wear and better handles higher solids concentrations (above 3%).
- Ability to run dry for a limited period of time.

	S-series Sludge, Mud, and Slurries	C-series Chemicals and Corrosives	D-series Oil & Gas and Abrasives
Lobes			
Elastomer	NBR or HNBR (Opt. FKM, EPDM)	HNBR or FKM (opt. NBR, EPDM)	HNBR or FKM (opt. NBR, EPDM)
Profile	Helical, 4- or 6-wing	Helical, 4- or 6-wing	Helical, 4- or 6-wing
Elastomers			
O-rings	FKM (Opt. EPDM or as required)	FKM (Opt. EPDM or as required)	FKM (Opt. EPDM or as required)
Lip Seals	FKM	FKM	FKM
Mechanical Seals			
Seal Face	Duronit (Opt. Tungsten or Silicon Carbide)	Silicon carbide (Opt. Tungsten Carbide)	Tungsten Carbide (Opt. Silicon Carbide)
Seal Holder	Carbon Steel, Corrosion-resistant Coating	Stainless Steel	Duplex Stainless Steel
Frame Components			
Wear Plates	AR500 Steel (Brinell 500)	Stainless Steel	Duplex Stainless Steel
Wear Plate Bolts	Stainless Steel	Stainless Steel	Duplex Stainless Steel
Strain Bolts	Carbon Steel, Geomet Coating	Stainless Steel	Duplex Stainless Steel
Casing / Frame	Gray Iron / Carbon Steel	Stainless Steel	Duplex Stainless Steel
Pump Cover	A48 Gray Iron	Stainless Steel	Duplex Stainless Steel
Timing Gears	1045 Steel, AGMA Class 9	1045 Steel, AGMA Class 9	1045 Steel, AGMA Class 9
Shafts	AISI A4140 Steel	AISI A4140 Steel	AISI A4140 Steel
Gear Housing	A48 Gray Iron	A48 Gray Iron	A48 Gray Iron
Standard Prep. and Paint			
Surface Preparation	SSPC-SP1 (Solvent) / SSPC-SP6 (Comm. Blast)	SSPC-SP1 (Solvent) / SSPC-SP6 (Comm. Blast)	SSPC-SP1 (Solvent) / SSPC-SP6 (Comm. Blast)
Standard Painting	Polyurethane, Blue	Polyurethane, Silver	Polyurethane, Silver

* Alternative materials may be specified based upon the needs of the application.

Maximum Solid Sizes	S-frame	M-frame	L-frame
Compressible	0.75 in (19 mm)	1.50 in (38 mm)	2.50 in (63 mm)
Incompressible	0.13 in (3 mm)	0.13 in (3 mm)	0.13 in (3 mm)



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