



WATER & WASTEWATER



CHEMICAL & OIL



VISCOUS SLUDGE



SLURRIES & MUD



LOBEPRO

ROTARY PUMPS

Positive Displacement Rotary Lobe Pumps



SUGAR



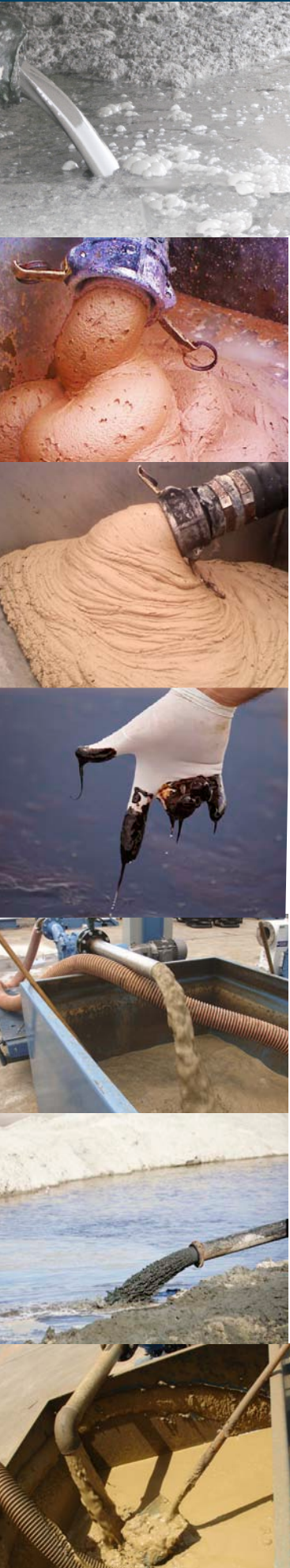
PULP & PAPER



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. 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.

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.

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
- Pump NPSHR is 3' (1 m) or less
- Easy access to wet end for "in place" wear part replacement
- Space-saving, compact design
- Excellent for abrasives, compressible solids & viscous fluids
- Low maintenance
- Run dry ability

"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.

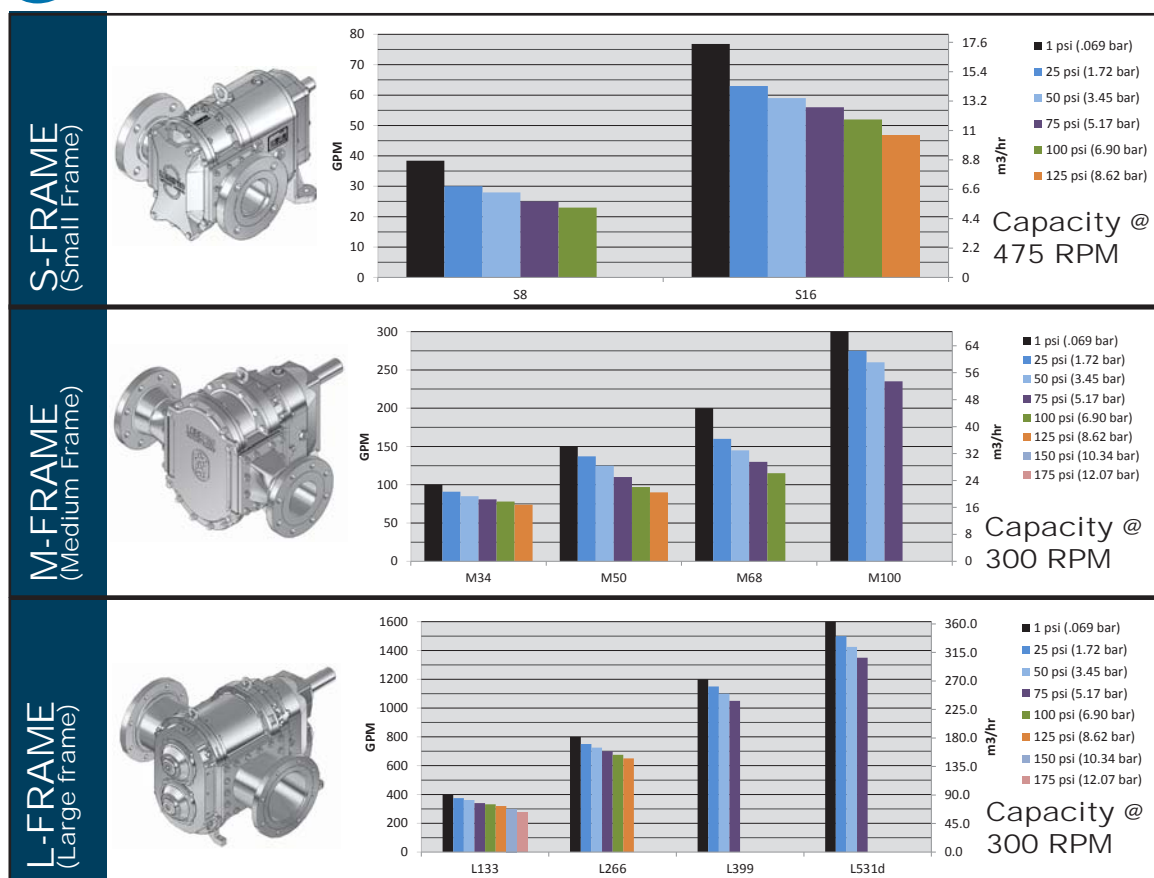
"The pumps are doing a great job, holding up well in the most demanding application in the municipal wastewater world"

---Earle,
WWTP Supervisor



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

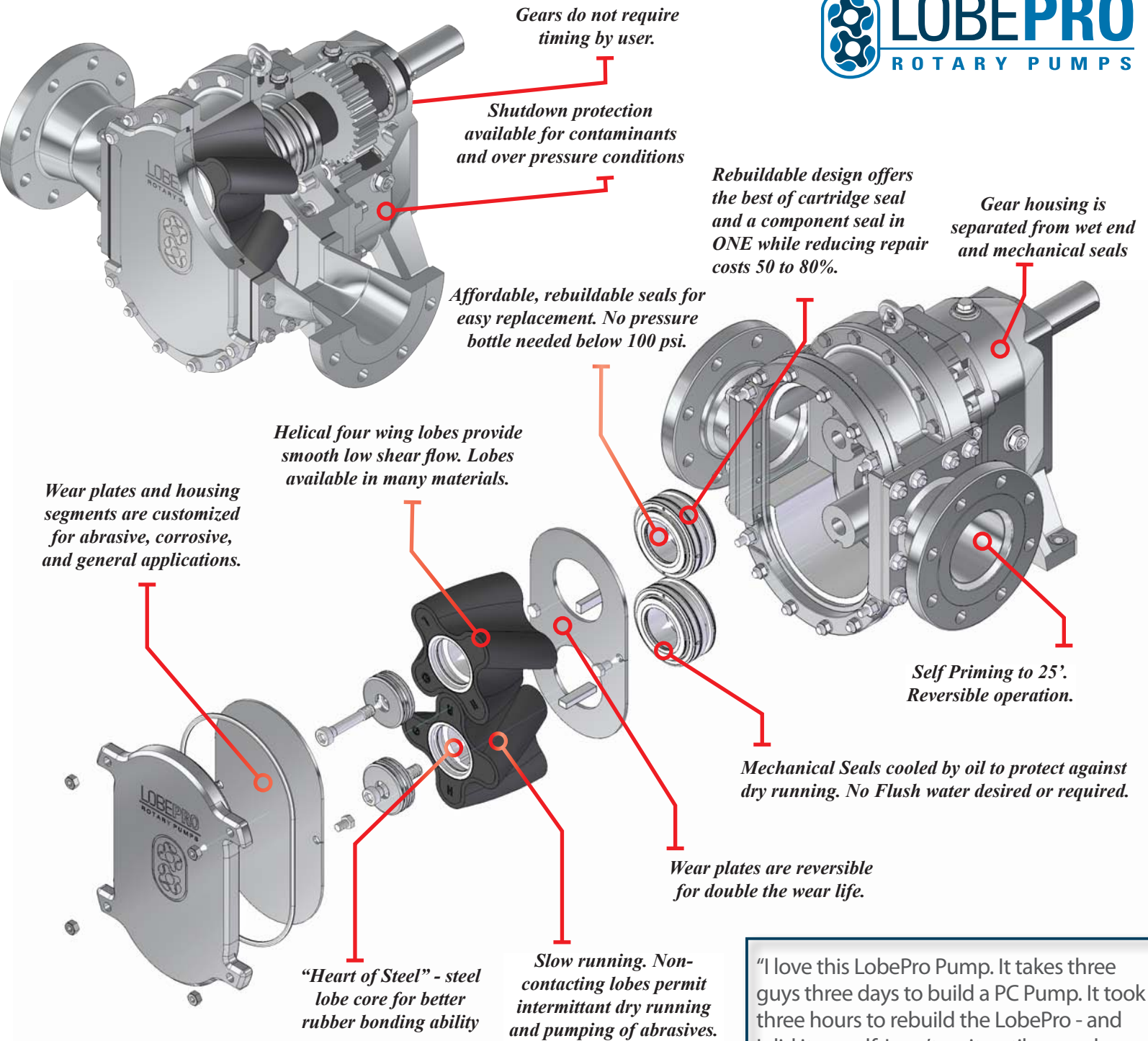
*Note: Slip decreases as viscosity of fluid pumped increases



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 below are for water at 0 psi at 70 F (21 C) prior to pressure-induced slip. 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	Max Capacity GPM (M³/HR)	Max Flow Per 100 Rev. Gal. (m³x10³)	Working Press. (Continuous) PSI (BAR)	Max Pressure (Intermittent) PSI (BAR)	Rated RPM
S8	72 (16)	8 (30)	175 (12.1)	200 (13.8)	0-900
S16	144 (32)	16 (60)	150 (10.3)	175 (12.1)	0-900
M34	204 (46)	34 (130)	145 (10)	175 (12.1)	0-600
M50	300 (68)	50 (190)	125 (8.6)	150 (10.3)	0-600
M68	408 (92)	68 (260)	100 (6.9)	125 (8.6)	0-600
M100	600 (136)	100 (23)	50 (3.5)	75 (5.2)	0-600
L133	665 (151)	133 (503)	125 (8.6)	140 (9.7)	0-500
L133e	665 (151)	133 (503)	175 (12.1)	200 (13.8)	0-500
L266	1,330 (302)	266 (1007)	75 (5.2)	100 (6.9)	0-500
L266e	1,330 (302)	266 (1007)	150 (10.3)	175 (12.1)	0-500
L399	1,995 (453)	399 (1510)	40 (2.8)	50 (3.5)	0-500
L399e	1,995 (453)	399 (1510)	85 (5.9)	105 (7.2)	0-500
L531e	2,655 (603)	531 (2010)	70 (4.8)	87 (6)	0-500

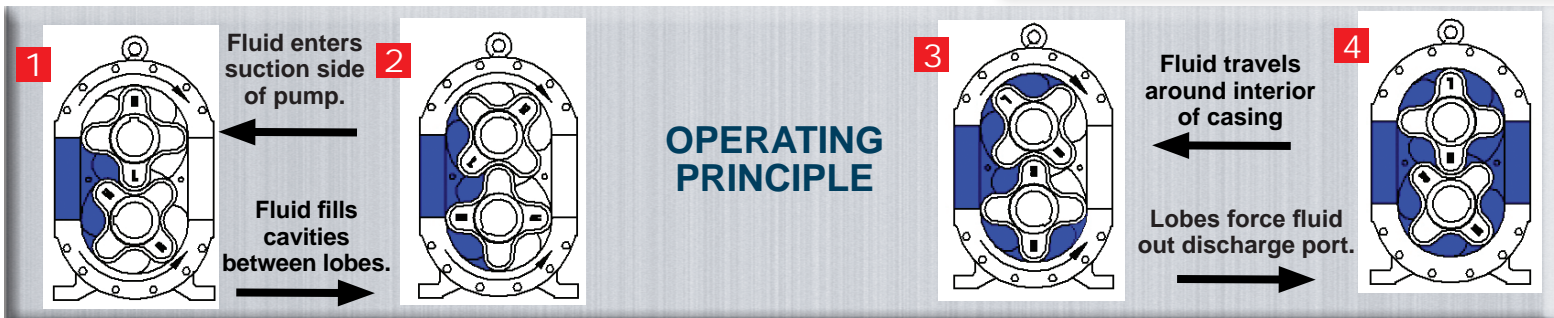




In Place wear part replacement at 1/3 the cost and time for equivalent screw (PC) pump.

"I love this LobePro Pump. It takes three guys three days to build a 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."

--- Paul, WWTP Lead Mechanic



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, stringy 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. 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 contaminants 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 contaminants 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'

Configurations

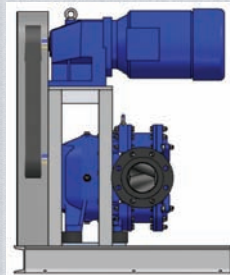


Trailer Mount Electric or Diesel Drive

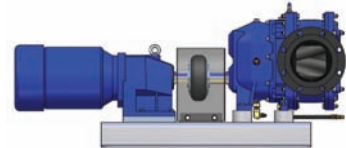
Vertical Gearbox



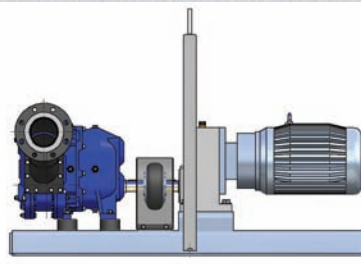
Space Saving "Piggyback" Overhead V-Belt Drive



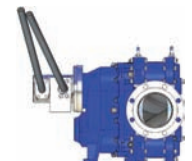
In-line Gear Motor



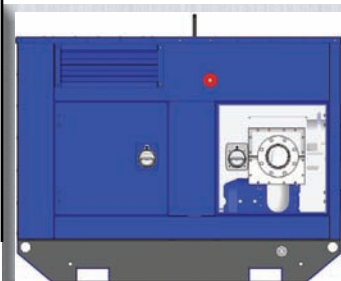
In-line with C-Face Gear Reducer



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
<i>Wetted Parts</i>			
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	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	ASTMA36 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
<i>Limited Exposure Parts</i>			
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	ASTMA48 Grey Iron rust primed	ASTMA48 Grey Iron, Opt. 316 SS	ASTMA48 Grey Iron, Opt: Duplex SS
<i>Non-Wetted Parts</i>			
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
<i>Painting Requirements</i>			
Standard Painting	SSPC-SP6 Sandblast/Paint, LobePro Blue	SSPC-SP6 Sandblast/Paint, LobePro Silver	SSPC-SP6 Sandblast/Paint, LobePro Silver
<i>Solids Handling</i>			
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



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