LOBELINE™ Rotary Lobe Pumps
LOBELINE™ is designed for superior pumping capabilities in a wide range of industrial applications. Choose from 8 models, each available in 12 sizes to suit a variety of operating conditions. Both bare pump and complete pump and drive packages are available. With interchangeable seal arrangements and a selection of wet end metallurgies and designs for your specific application, LOBELINE offers the perfect engineered pumping solution to meet your needs.

LOBELINE™ is a Positive Displacement Pump with the following operational features:

**Pump Runs Dry**
Non-contacting pumping elements allows periodic use without fluid. Excellent for fluid transfers from tank to tank. Requires no flow indication equipment as used on Screw (Progressive Cavity) pumps that would cease and malfunction if run dry.

**Low Shear Action**
Smooth tri-lobe geometry provides gentle rolling action enabling shear sensitive fluids to be pumped with minimal damage.

**Reversible Flow**
Ability to utilize pump in both directions excellent for purging lines or changing pumping system requirements enabling greater process control.

**Gas/Air Entrained Fluids**
Lobe design can easily handle fluid containing gas/air. Centrifugal pumps are low on efficiency and are prone to losing prime.

**Pump Jamming**
With LOBELINE simply remove the front cover plate to inspect or clear the pump blockage. Many other pump types such as Screw (Progressive Cavity), Flexible Member (Hose), Plunger, Diaphragm if jammed require substantial disassembly to simple inspect or clear blockages.

**Solids Handling**
Ability to handle incompressible solids up to 3½” (90mm) suspended within the fluid.

**Metering/Controlled Flow**
Provides smooth predictable flow with minimal pulsation or surging when faced with varying pressures. Does not require pulsation dampeners like Plunger, Diaphragm type pumps.

**Power Consumption Expense**
Lobe pumps require less power due to the non-contacting design. Screw (Progressive Cavity) due to their design require higher start up and running horsepower. Centrifugal pumps require increased power on viscosities greater than 300-500 cps.

**Pump Installation Space Problem**
Lobe pumps require substantially less floor space than traditional Screw (Progressive Cavity and Plunger type pumps).
LOBELINE™ Rotary Lobe Pump
Designed With Features That Provide Maximum Uptime

FRONT-LOADING SEAL AREA
Allows the hardened shaft sleeves or mechanical seals to be removed cartridge style through the front of the pump—without removal of the casing.

TAPER LOCKING ASSEMBLIES
Used on rotors and gears to simplify removal and refitting.

REVERSIBLE FRONT COVER
Enables the cover to be reversed when one side is worn, effectively doubling its life. Flush-mounted design has no fastener protrusions to cause premature rotor failure. Hinged on larger models.

OPTIONAL RADIAL WEARPLATES
Upper and lower wear plates patented design eliminate casing replacement. Retained via a series of externally-sealed fasteners which allow pump to be serviced in place.

OPTIONAL SEALED GEARBOX DESIGN
In addition to the front bearing isolator, the timing port plate can be fitted with a labyrinth seal along with sealed expansion caps in place of the traditional vents. These optional features (not shown) allow the gearbox to be fully immersed in flood conditions, or to function in extremely humid environments.

LABYRINTH BEARING ISOLATOR
Stainless steel construction eliminates ingress of liquid into the gearbox. Double-lip oil seal retains oil; grease nipple allows grease input to act as barrier within the labyrinth. Functions in static or running state.

HOOKED SHAFT SLEEVES
Hooked stainless-steel sleeves protect the tool-steel shaft, providing full corrosion protection. Sleeves are hardened for packing applications. O-ring seals keep liquid completely away from the shaft.

AXIALLY-SPLIT STUFFING BOX
Simplifies the removal and replacement of packing and lantern ring.

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LOBELINE™ ...State-of-the-art Rotary Lobe Pumps

For Use in a Wide Variety of Applications

Pulp and Paper
- Paper Coating
- TiO₂ Pigment
- Clay Slurry
- Calcium Carbonate Slurry
- Latex
- Starch Slurry
- Paper Pulp
- Bio Solids Waste Sludge
- Soap Scums
- Resins

Typical Processes
- Fluid Transfer/Handling
- Blending/Metering
- Dewatering Feed
- Thickening Feed/Discharge
- Tanker Loading/Unloading

Water & Wastewater Industry
- Grease & Scum
- Primary, Secondary, & Tertiary Sludge Transfer
- Waste Activated Sludge
- Alum Sludge
- Lime Sludge
- Polymer Solution
- Chemical Sludge
- Return Activated Sludge
- Digested Sludge

Chemical Industry
- Polymer Solutions
- Polymer Resins
- Caustic Solutions
- Lime Sludge
- Bio Waste Sludge
- Nylon Waste Sludge
- Gelatin Solution

General Industry
- Paint Industry
  - Waste Sludges
  - Bulk Pigment Transfer
- Cosmetics Industry
  - Raw Materials Handling
- Soap, Shampoo Waste Sludges
- Metals Industry
  - Coal Tar
  - Waste Sludge
- Mining Industry
  - Concentrate Thickener Underflows
- Food Processing Industry
  - Raw Material Handling
  - Tomato Pastes
  - Concentrated Fruit Juices
  - Meat Processing
  - Waste Products

Process Maintenance Alternative To
- Conventional Lobe Pumps
- Gear Pumps
- Progressive Cavity Pumps
- Plunger Pumps
- Centrifugal Pumps
- Diaphragm Pumps
- Hose (Peristaltic) Pumps

Sugar Industry
- Calcium Carbonate Slurry
- Massecuits
- Magmas
- Thick Juices
- Molasses
- Crystalline Sugar Syrup
- Sugar Syrups
- Waste Sludge

Petroleum/Oil Industry
- Oily Water
- Waste Oil Sludge
- Heavy Crude Oil
- Refinery Waste
- Waste Lube Oil Sludges
LOBELINE™ the Maintenance Friendly Pump

Optional upper and lower rear wearplates

Optional upper and lower radial wearplates

Simple rotor replacement
Split stuffing box
Easy access to retime pump
Friction locked spur gear design (non-keyed)
Split gland followers
Front loading hardened sleeves
Front loading cartridge mechanical seals
Split clamp method
Replaceable restriction bushings
Standard grease filled labyrinth bearing isolators
Easy access to retime pump
Friction locked spur gear design (non-keyed)
Construction and Materials to Suit Your Application

For Pumping Viscous Fluids with:
Shear Sensitivity • Low Lubricating Properties • Require Dry Running, Non-contacting Pumping Action

None – Low Abrasive Applications

Model M
Non-corrosive Services
Rotorcase: Ductile Iron
Rotors: Elastomer Covered, Solid Ductile Iron
Front Cover: Carbon Steel

Model A
Corrosive Services
Rotorcase: 316 Stainless Steel
Rotors: Elastomer Covered, Solid 316 Stainless Steel
Front Cover: 316 Stainless Steel

Moderate Abrasive Applications

Model MH
Non-corrosive Services
Rotorcase: Ductile Iron
Rotors: Elastomer Covered, Solid Ductile Iron
Front Cover: Reversible Hardened Carbon Steel
Rear Wearplates: Hardened Carbon Steel

Model AH
Corrosive Services
Rotorcase: 316 Stainless Steel
Rotors: Elastomer Covered, Solid 316 Stainless Steel
Front Cover: Reversible Duplex Stainless Steel
Rear Wearplates: Duplex Stainless Steel

Severe Abrasive Applications

Model MR
Non-corrosive Services
Rotorcase: Ductile Iron
Rotors: Elastomer Covered, Solid Ductile Iron
Front Cover: Reversible Hardened Carbon Steel
Rear Wearplates: Hardened Carbon Steel
Radial Wearplates: Hardened Carbon Steel

Model AR
Corrosive Services
Rotorcase: 316 Stainless Steel
Rotors: Elastomer Covered, Solid 316 Stainless Steel
Front Cover: Reversible Duplex Stainless Steel
Rear Wearplates: Duplex Stainless Steel
Radial Wearplates: Duplex Stainless Steel

Extreme Abrasive Applications

Model MX
Non-corrosive Services
Rotorcase: Consult Factory
Rotors: Consult Factory
Front Cover: Consult Factory
Rear Wearplates: Consult Factory
Radial Wearplates: Consult Factory

Model AX
Corrosive Services
Rotorcase: Consult Factory
Rotors: Consult Factory
Front Cover: Consult Factory
Rear Wearplates: Consult Factory
Radial Wearplates: Consult Factory
Drive Arrangement Possibilities

- **Horizontal Inline Integral Gearmotor**

- **Horizontal Inline Separate Gear Reducer and Electric Motor**

- **Horizontal Inline Mechanical Variable Speed**

- **Horizontal Overhead**

- **Vertical Feed Arrangement**

- **Horizontal Side by Side**

- **Self Priming Arrangement (For Suction Lift Applications)**
LOBELINE™ Industrial Pumps offer:

- Flow rates up to 2310 GPM (524 m³/hr)
- Differential pressures up to 150 psi (10 bar)
- Fluid viscosities up to 1,000,000 cps
- Fluid temperatures up to 212°F (100°C)
- 8 models with a selection of wet end metallurgies and designs
- 12 sizes to suit a wide range of operating conditions
- Interchangeable seal arrangements
- Bare pump or complete pump-and-drive packages available
- Options and accessories

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### Selection Chart

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Visit our website at www.swabypump.com

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LOBELINE™

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